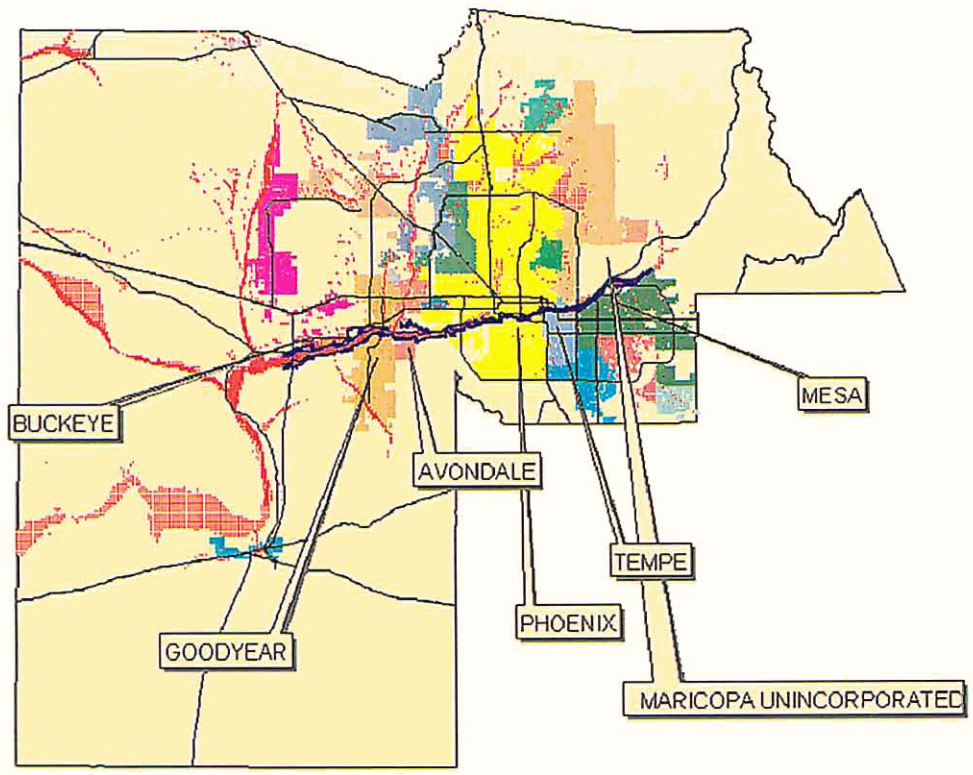
VOLUME 5 OF 5

19538-APA

May 1999

SALT-GILA RIVER
Floodplain Delineation Restudy



Submitted to

Flood Control District of Maricopa County
2801 West Durango Street
Phoenix, Arizona 85009
(602) 506-1501

Submitted by
Michael Baker, Jr., Inc.
1313 East Osborn Road, Suite 150
Phoenix, Arizona 85014
Phone (602) 279-1234
Fax (602) 279-1411

HEC-RAS Version 2.1 October 1997
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

Property of
Flood Control District of MC Library
Please Return to
2801 W. Durango
Phoenix, AZ 85009

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X      X   X     X  X    X
X     X  X        X           X   X    X    X   X
XXXXXXX  XXXX     X       XXX XXXX     XXXXXX    XXXX
X     X  X        X           X  X     X    X        X
X     X  X        X    X      X   X    X    X        X
X     X  XXXXXX    XXXX       X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Salt Gila Reach 3 - Floodway
Project File : reach3.prj
Run Date and Time: 1/5/99 12:23:42 PM

Project in English units

PLAN DATA

Plan Title: Reach 3 - Method 1 Floodway
Plan File : c:\saltgila\diskette\revision 1\disk 1\unzipped\reach3.p01

Geometry Title: with landfill
Geometry File : c:\saltgila\diskette\revision 1\disk 1\unzipped\reach3.g02

Flow Title : Reach 3 - Floodway
Flow File : c:\saltgila\diskette\revision 1\disk 1\unzipped\reach3.f01

Plan Summary Information:

Number of:	Cross Sections	= 161	Mulitple Openings	=	0
	Culverts	= 0	Inline Weirs	=	0
	Bridges	= 6			

Computational Information

Water surface calculation tolerance	=	0.01
Critical depth calculaton tolerance	=	0.01
Maximum number of interations	=	20
Maximum difference tolerance	=	0.3
Flow tolerance factor	=	0.001

Computational Flow Regime: Subcritical Flow

Encroachment Data
Equal Conveyance = True
Left Offset = 0
Right Offset = 0

River = 1 Reach = 1

RS	Profile	Method	Value1	Value2
214.14	PF#2		119654.9	720381.83
214.04	PF#2		119637.8	820371.77
213.95	PF#2		119586.5	420331.73
213.85	PF#2		119618.3	320320.92
213.75	PF#2	1	1964120	297.35
213.74	PF#2		119641.87	20296.6
213.66	PF#2		119687.5	720253.56
213.57	PF#2	1	19484.5	20336.66
213.47	PF#2	1	19243.3	20266.42
213.38	PF#2	1	19346.1	20447.85
213.33	PF#2	1	19328.9	20514.52
213.26	PF#2		119497.1	820378.39
213.255	PF#2		119497.3	720378.09
213.25	PF#2		119497.5	520377.79
213.21	PF#2	1	19490.3	20418.5

213.11	PF#2	119616.8820544.67
213.03	PF#2	1 1967220591.83
212.93	PF#2	119690.7620489.75
212.84	PF#2	1 19711.520347.25
212.74	PF#2	119690.61 20367.2
212.68	PF#2	119501.07 20130.1
212.675	PF#2	119492.8920137.19
212.67	PF#2	119502.3320128.84
212.56	PF#2	119731.0520252.14
212.46	PF#2	119743.34 20301
212.37	PF#2	119744.0620320.69
212.27	PF#2	119715.2520330.35
212.18	PF#2	119706.8520334.57
212.08	PF#2	119681.09 20270.9
211.99	PF#2	119699.7720249.64
211.89	PF#2	119685.7520250.74
211.79	PF#2	119649.87 20217.7
211.71	PF#2	119628.4320197.84
211.64	PF#2	1 19657.7 20219.8
211.54	PF#2	119603.6520129.64
211.51	PF#2	119615.1920137.39
211.41	PF#2	1 19638.120206.06
211.31	PF#2	119531.2120356.09
211.21	PF#2	119528.7520521.25
211.12	PF#2	119498.47 20610
211.02	PF#2	119487.12 20550
210.93	PF#2	119479.13 20530
210.83	PF#2	119450.42 20530
210.74	PF#2	119426.13 20560
210.64	PF#2	1 19388.6 20800
210.55	PF#2	119322.17 21110
210.46	PF#2	1 19377 21284
210.36	PF#2	119375.1721291.16
210.26	PF#2	119377.08 21331.8
210.17	PF#2	1 19354.621334.72
210.07	PF#2	1 19210 21225
209.98	PF#2	119338.5921207.12
209.88	PF#2	1 19513 21220
209.79	PF#2	119483.04 21290
209.69	PF#2	119460.1721335.01
209.6	PF#2	1 19341.4 21003.8
209.54	PF#2	1 19130 20521
209.535	PF#2	1 19130 20521
209.53	PF#2	1 19130 20521
209.42	PF#2	1 1900020652.63
209.33	PF#2	119122.27 20715.2
209.24	PF#2	119212.28 20850
209.14	PF#2	119200.21 21100
209.04	PF#2	1 19220 21200
208.95	PF#2	119141.04 21200
208.85	PF#2	1 19199.7 21150
208.75	PF#2	1 19192.9 20799.2
208.67	PF#2	119118.2220908.11
208.57	PF#2	119087.13 20640
208.48	PF#2	118510.5620680.86
208.39	PF#2	118462.9420748.79
208.29	PF#2	1 18562.620944.07
208.19	PF#2	118679.18 21343.2
208.1	PF#2	118822.3721767.18
207.99	PF#2	119093.0321934.42
207.9	PF#2	1 19104.722137.55
207.8	PF#2	1 19249.521871.22
207.71	PF#2	1 1936021704.11
207.62	PF#2	1 19510.121472.33
207.53	PF#2	1 19502.9 21175
207.49	PF#2	119473.7821053.15
207.48	PF#2	119474.1421053.01
207.43	PF#2	119253.23 20940
207.34	PF#2	1 1923020798.77
207.27	PF#2	1 18980 20597.9
207.16	PF#2	1 19000 20734.5
207.07	PF#2	118857.5720748.18
206.97	PF#2	1 18850 20800
206.88	PF#2	118838.93 20800
206.79	PF#2	118806.0120895.15
206.7	PF#2	118784.84 21138.8

206.6	PF#2	118675.5821066.25
206.51	PF#2	118561.35 20622.1
206.41	PF#2	118494.7120685.21
206.32	PF#2	118476.9420854.87
206.22	PF#2	1 1843520977.29
206.13	PF#2	1 1837020914.89
206.03	PF#2	1 18320 20772.6
205.94	PF#2	1 18200 20767
205.84	PF#2	1 18100 20535.7
205.75	PF#2	1 18048 20450.3
205.62	PF#2	1 18216 20450.1
205.52	PF#2	1 18591.6 20611.5
205.43	PF#2	1 18917.5 20770.4
205.4	PF#2	1 19020 20767.8
205.34	PF#2	1 1918020742.96
205.25	PF#2	1 19300 20782.3
205.15	PF#2	1 19385 20830
205.06	PF#2	1 19470 20905.3
204.97	PF#2	1 19445 20961.3
204.87	PF#2	1 19410 20952.2
204.78	PF#2	1 1921020830.43
204.68	PF#2	1 1896020546.37
204.61	PF#2	1 18880 20482.9
204.53	PF#2	1 18885 20495.9
204.42	PF#2	1 19025.420679.03
204.34	PF#2	1 1910020814.38
204.25	PF#2	1 1930020817.18
204.15	PF#2	1 1920021031.89
204.05	PF#2	118963.7821080.54
203.96	PF#2	118736.54 20787.3
203.86	PF#2	118542.4920734.27
203.77	PF#2	118232.4120743.68
203.67	PF#2	1 1813020697.43
203.58	PF#2	1 1802520701.39
203.48	PF#2	1 17932.620844.31
203.39	PF#2	1 17970.821036.47
203.29	PF#2	1 18065.621074.86
203.19	PF#2	1 18262.120951.24
203.09	PF#2	1 1843020905.85
202.99	PF#2	1 18469.4 20926.9
202.9	PF#2	1 18455.620967.31
202.8	PF#2	1 18390.821011.58
202.69	PF#2	1 18377.821080.23
202.59	PF#2	1 18416.7 21190.4
202.48	PF#2	1 18360 21302.7
202.37	PF#2	1 1827021577.77
202.29	PF#2	1 18197.4 21803
202.18	PF#2	1 18139.721936.54
202.09	PF#2	1 18212.921936.96
201.99	PF#2	1 18235.121861.56
201.9	PF#2	117992.63 21823.6
201.81	PF#2	117952.4821801.08
201.71	PF#2	118112.81 21528.5
201.62	PF#2	118235.69 21477.5
201.52	PF#2	118008.55 21391.4
201.43	PF#2	118053.86 21342.1
201.33	PF#2	118074.35 21381.8
201.24	PF#2	118069.92 21570
201.14	PF#2	118040.42 21721
201.05	PF#2	117950.48 21849
200.95	PF#2	117952.91 21954
200.86	PF#2	1 18000 22032
200.77	PF#2	1 17828.8 21951
200.67	PF#2	1 17640 21649.3
200.58	PF#2	1 17510 21450
200.49	PF#2	1 17380 21171
200.39	PF#2	1 17300 21041
200.3	PF#2	1 17205 20896
200.2	PF#2	1 17115 20744
200.1	PF#2	1 17030 20800
200	PF#2	1 16950 21050
199.91	PF#2	1 16800 21330
199.82	PF#2	1 16870 21650

FLOW DATA

Flow Title: Reach 3 - Floodway
Flow File : c:\saltgila\diskette\revision 1\disk 1\unzipped\reach3.f01

Flow Data (cfs)

River	Reach	RS	PF#1	PF#2
1	1	214.14	169000	169000
1	1	213.21	166000	166000
1	1	205.4	164000	164000
1	1	200.3	179750	179750

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
1	1	PF#1		Known WS = 948.9
1	1	PF#2		Known WS = 949.9

GEOMETRY DATA

Geometry Title: with landfill
Geometry File : c:\saltgila\diskette\revision 1\disk 1\unzipped\reach3.g02

CROSS SECTION RIVER: 1
REACH: 1 RS: 214.14

INPUT
Description: 214.14
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18555.4	1082.6	18577.7	1082.5	18586.5	1082.5	18650.6	1082	18678.8	1082.1
18707.4	1081.7	18729.5	1082	18771.6	1082.1	18793.7	1081.8	18836	1080.9
18859.7	1080.3	18935.6	1078.9	19050.6	1077.2	19056.7	1077.2	19059.9	1077.1
19062.9	1076.9	19063.3	1077	19067.8	1077.1	19071.9	1077.1	19078.2	1077.1
19188.3	1078.1	19249.7	1079.4	19290.2	1080.1	19298.1	1080.2	19313.1	1080.4
19327.5	1080.7	19358.6	1080.6	19391.6	1080.5	19412.8	1080.3	19520.8	1077.9
19554.8	1077.5	19580.2	1077.3	19610.8	1076.5	19651.9	1076.7	19697.7	1058.7
19715.9	1051.7	19732.8	1050.2	19750.7	1048.7	20032.7	1049	20292.3	1049.2
20350.9	1065.9	20388.3	1077.5	20405.5	1075.6	20406	1075.6	20439.7	1075.6
20637.3	1075.5	20899.6	1075.4	20920.6	1075.5	20941.8	1075.4	20947.4	1075.5
20962	1075.5	20980	1075.4	20989.9	1075.4	21074.1	1075.4	21119.6	1075.7
21168.7	1076.8	21222	1076.6	21326.8	1076.2	21327.4	1076.2	21342.2	1075
21390.6	1075	21428.8	1075	21455.3	1075.3	21502.1	1076.4	21502.4	1076.2
21505.4	1076.4	21551.9	1077.5	21591.8	1077.6	21726.3	1078.4	21759.2	1078.5
21766.3	1078.3	21792.4	1078.4	21884.6	1078.9	22013	1079.1	22034.3	1079.5
22101.6	1079.7	22156.1	1080.1	22201.4	1080	22204.6	1079.9	22217.3	1080.5
22235	1081.3	22238.1	1081.3	22264.5	1081	22267.7	1080.9	22269.4	1080.7
22269.9	1080.6	22272.4	1080.4	22280.3	1079.8	22341.9	1080.2	22431	1080.6
22501.3	1081.2	22591.2	1081.8	22602.9	1082	22619.7	1083	22686.6	1082.9
22710.3	1082.5								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18555.4	.04	19651.9	.035	20388.3	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19651.9	20388.3	475	510.51	570	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18555.4	19651.9	1082	20388.3	22710.3	1082

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1075.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.50	Wt. n-Val.		0.035	
E.G. Elev (ft)	1077.00	Reach Len. (ft)	475.00	510.51	570.00
Crit W.S. (ft)	1062.65	Flow Area (sq ft)		17174.59	
E.G. Slope (ft/ft)	0.000805	Area (sq ft)		17174.59	78.22
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1271.14	Top Width (ft)		726.87	544.28

Vel Total (ft/s)	9.84	Avg. Vel. (ft/s)		9.84	
Max Chl Dpth (ft)	26.79	Hydr. Depth (ft)		23.63	
Conv. Total (cfs)	5958120.5	Conv. (cfs)		5958120.5	
Length Wtd. (ft)	510.51	Wetted Per. (ft)		735.26	
Min Ch El (ft)	1048.70	Shear (lb/sq ft)		1.17	
Alpha	1.00	Stream Power (lb/ft s)		11.54	
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	9378.94	35014.75	3555.29
C & E Loss (ft)	0.00	Cum SA (acres)	2203.15	3226.54	1051.06

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1075.50	Element			
Vel Head (ft)	1.50	Wt. n-Val.		0.035	
E.G. Elev (ft)	1077.00	Reach Len. (ft)	475.00	510.51	570.00
Crit W.S. (ft)	1062.65	Flow Area (sq ft)		17178.85	
E.G. Slope (ft/ft)	0.000804	Area (sq ft)		17178.85	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	726.86	Top Width (ft)		726.86	
Vel Total (ft/s)	9.84	Avg. Vel. (ft/s)		9.84	
Max Chl Dpth (ft)	26.80	Hydr. Depth (ft)		23.63	
Conv. Total (cfs)	5960545.0	Conv. (cfs)		5960545.0	
Length Wtd. (ft)	510.51	Wetted Per. (ft)		735.27	
Min Ch El (ft)	1048.70	Shear (lb/sq ft)		1.17	
Alpha	1.00	Stream Power (lb/ft s)		11.54	
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	1332.55	35990.16	879.42
C & E Loss (ft)	0.00	Cum SA (acres)	219.56	3231.46	101.73

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19651.90 LB	19799.18	24991.55	2906.87	148.82	14.79	20.16	8.60
19799.18	19946.46	41548.26	3927.13	147.28	24.58	26.66	10.58
19946.46	20093.74	41151.21	3904.54	147.28	24.35	26.51	10.54
20093.74	20241.02	40839.63	3886.80	147.28	24.17	26.39	10.51
20241.02	20388.30 RB	20469.34	2549.25	144.60	12.11	18.10	8.03

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19651.90 LB	19799.18	24993.11	2907.72	148.83	14.79	20.16	8.60
19799.18	19946.46	41546.79	3927.99	147.28	24.58	26.67	10.58
19946.46	20093.74	41149.85	3905.41	147.28	24.35	26.52	10.54
20093.74	20241.02	40838.34	3887.66	147.28	24.16	26.40	10.50
20241.02	20388.30 RB	20471.90	2550.08	144.60	12.11	18.11	8.03

CROSS SECTION RIVER: 1
REACH: 1 RS: 214.04

INPUT
Description: 214.04
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19072.9	1079.7	19093.4	1080.3	19132.2	1080.8	19189.9	1082.5	19193.8	1082.6
19198.4	1082.5	19239.2	1081	19288.1	1081.2	19324.4	1080.7	19371.7	1079.1
19395.9	1078.4	19428.8	1078	19449.6	1077.2	19490.6	1077.5	19513.1	1077.7
19544.1	1077.9	19555.9	1077.7	19588.8	1076.5	19610.7	1075.7	19613.2	1075.7
19632.1	1075.8	19635.6	1075.8	19636.8	1075.4	19702.8	1053	19711.2	1052.5
19718.8	1052.3	19726.8	1051.2	19735.4	1048.8	20175.7	1049	20286.6	1049
20298.5	1052.8	20376.6	1076.5	20387.2	1075.5	20390.3	1075.2	20574.2	1076
20667.2	1076.1	20825.6	1075.6	20839.5	1075.5	20839.8	1075.5	20855.8	1073
20864.2	1073.4	20909.3	1072.6	20914.5	1072.6	20915.6	1072.9	20928.6	1077
20951.8	1077	20990.8	1076.9	20996.8	1076.9	21016.8	1077.3	21040.9	1077.5
21130.4	1077.3	21234.3	1076.9	21246.3	1076.9	21256.8	1076.2	21294.9	1076.5
21366.4	1076.6	21461.4	1076.5	21539.2	1076.3	21557.9	1076.3	21565.1	1076.3
21586.9	1076.6	21607.7	1076.8	21639.2	1077.1	21662.1	1077.5	21690.5	1078.1
21711.2	1078.3	21774.8	1078.5	21799.9	1079.2	21800.4	1079.3	21942.9	1079.4

21971	1079.3	22001.7	1079.3	22020.7	1079.3	22177.7	1078.3	22203.1	1078.1
22217.2	1078.1	22226.8	1078	22231.1	1078	22238.5	1078	22248	1077.8
22357.9	1076.9	22384.7	1077.9	22394.1	1078.2	22399.6	1078.1	22400.9	1078.1
22428.8	1077.9	22430.1	1077.9	22450.6	1078.2	22542.8	1078.3	22554	1078.5
22667.1	1079.2	22667.7	1079.3	22717.7	1081.1	22725.6	1081.1	22727.3	1081.2
22747.1	1084								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19072.9	.04	19636.8	.035	20376.6	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19636.8	20376.6	495	493.12	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19072.9	19636.8	1083	20376.6	22747.1	1083

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1075.03	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.54	Wt. n-Val.		0.035	
E.G. Elev (ft)	1076.57	Reach Len. (ft)	495.00	493.12	480.00
Crit W.S. (ft)	1062.61	Flow Area (sq ft)		16971.35	
E.G. Slope (ft/ft)	0.000847	Area (sq ft)		16971.35	142.73
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	813.47	Top Width (ft)		733.89	79.58
Vel Total (ft/s)	9.96	Avg. Vel. (ft/s)		9.96	
Max Chl Dpth (ft)	26.23	Hydr. Depth (ft)		23.13	
Conv. Total (cfs)	5806517.5	Conv. (cfs)		5806517.5	
Length Wtd. (ft)	493.12	Wetted Per. (ft)		741.84	
Min Ch El (ft)	1048.80	Shear (lb/sq ft)		1.21	
Alpha	1.00	Stream Power (lb/ft s)		12.05	
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	9378.94	34814.66	3553.85
C & E Loss (ft)	0.04	Cum SA (acres)	2203.15	3217.98	1046.98

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1075.04	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.54	Wt. n-Val.		0.035	
E.G. Elev (ft)	1076.58	Reach Len. (ft)	495.00	493.12	480.00
Crit W.S. (ft)	1062.61	Flow Area (sq ft)		16976.01	
E.G. Slope (ft/ft)	0.000846	Area (sq ft)		16976.01	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	733.89	Top Width (ft)		733.89	
Vel Total (ft/s)	9.96	Avg. Vel. (ft/s)		9.96	
Max Chl Dpth (ft)	26.24	Hydr. Depth (ft)		23.13	
Conv. Total (cfs)	5809100.0	Conv. (cfs)		5809100.0	
Length Wtd. (ft)	493.12	Wetted Per. (ft)		741.85	
Min Ch El (ft)	1048.80	Shear (lb/sq ft)		1.21	
Alpha	1.00	Stream Power (lb/ft s)		12.04	
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	1332.55	35790.02	879.42
C & E Loss (ft)	0.04	Cum SA (acres)	219.56	3222.90	101.73

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19636.80 LB	19784.76	23425.97	2770.27	150.94	13.86	18.86	8.46
19784.76	19932.72	41500.32	3873.25	147.96	24.56	26.18	10.71
19932.72	20080.68	41322.37	3863.25	147.96	24.45	26.11	10.70
20080.68	20228.64	41157.18	3854.00	147.96	24.35	26.05	10.68
20228.64	20376.60 RB	21594.17	2610.57	147.02	12.78	18.24	8.27

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19636.80 LB	19784.76	23428.12	2771.21	150.94	13.86	18.87	8.45
19784.76	19932.72	41498.80	3874.19	147.96	24.56	26.18	10.71

19932.72	20080.68	41320.90	3864.19	147.96	24.45	26.12	10.69
20080.68	20228.64	41155.75	3854.94	147.96	24.35	26.05	10.68
20228.64	20376.60 RB	21596.41	2611.48	147.03	12.78	18.25	8.27

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.95

INPUT
Description: 213.95
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19012.2	1082.3	19071.8	1081.2	19072.8	1081.2	19073.5	1081.2	19172.6	1080
19176.1	1079.9	19177	1079.9	19191.6	1079.8	19233.8	1079.1	19245.6	1079.2
19283.7	1079.1	19366	1078.5	19459.9	1077.8	19508.7	1075.2	19510	1075.1
19510.4	1075.2	19511.8	1075.3	19534.7	1076.7	19583.1	1074.4	19622.2	1071.5
19627.4	1072.4	19631.4	1072.9	19699.3	1056.7	19729	1049.4	19783.8	1049.5
20255.4	1049.3	20277.7	1056.5	20337.1	1075.9	20360.3	1074.9	20361.6	1074.8
20403.2	1074.5	20653.5	1075.3	20691.9	1075.3	20740	1075.5	20772	1075.4
20775.5	1075.1	20784.4	1073.9	20808.5	1074.1	20840.9	1074.4	20844.2	1074.5
20853.7	1075.1	20870	1074.8	20875	1074.6	20914.9	1075.6	20922.3	1075.7
20949.7	1076.5	20960.6	1076.8	20964.2	1076.9	20966.3	1078.4	20973	1080.1
21108.8	1079.4	21171.4	1079.5	21176.1	1079.5	21183	1079.7	21200.9	1076.8
21203.1	1076.6	21232.6	1076.3	21271.1	1076	21272.6	1076	21274.1	1076
21377.7	1076.7	21386.9	1076.7	21400.8	1076.7	21470.9	1077.6	21502.4	1077.7
21528	1077.6	21534	1077.9	21534.2	1077.9	21537	1078	21542.7	1077.4
21542.9	1077.8	21554.1	1077.4	21695.2	1077.7	21731.7	1077.2	21736.1	1076.3
21743.3	1075.1	21752	1076.3	21753.2	1076.5	21753.7	1076.6	21759.1	1078.6
21760.3	1079.1	21763.3	1079.6	21764.1	1079.5	21772.7	1079.3	21784.7	1079.3
21791.6	1079.5	21806.1	1079.6	21832.6	1079.8	21918.1	1079.8	21918.4	1080.2
22000.8	1079.8	22342	1078.4	22351.4	1078.4	22362.3	1078.4	22373.8	1078.7
22391.3	1078.7								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19012.2	.04	19534.7	.035	20337.1	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19534.7	20337.1	500	504.25	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19012.2	19534.7	1082.3	20337.1	22391.3	1082.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1074.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.89	Wt. n-Val.		0.035	
E.G. Elev (ft)	1076.04	Reach Len. (ft)	500.00	504.25	500.00
Crit W.S. (ft)	1063.64	Flow Area (sq ft)		15299.30	
E.G. Slope (ft/ft)	0.001219	Area (sq ft)		15299.30	3.84
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	776.02	Top Width (ft)		745.19	30.82
Vel Total (ft/s)	11.05	Avg. Vel. (ft/s)		11.05	
Max Chl Dpth (ft)	24.85	Hydr. Depth (ft)		20.53	
Conv. Total (cfs)	4840055.5	Conv. (cfs)		4840055.5	
Length Wtd. (ft)	504.21	Wetted Per. (ft)		752.13	
Min Ch El (ft)	1049.30	Shear (lb/sq ft)		1.55	
Alpha	1.00	Stream Power (lb/ft s)		17.10	
Frctn Loss (ft)	0.81	Cum Volume (acre-ft)	9378.94	34632.00	3553.04
C & E Loss (ft)	0.15	Cum SA (acres)	2203.15	3209.61	1046.37

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1074.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.89	Wt. n-Val.		0.035	
E.G. Elev (ft)	1076.05	Reach Len. (ft)	500.00	504.25	500.00
Crit W.S. (ft)	1063.64	Flow Area (sq ft)		15304.93	
E.G. Slope (ft/ft)	0.001218	Area (sq ft)		15304.93	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	745.19	Top Width (ft)		745.19	
Vel Total (ft/s)	11.04	Avg. Vel. (ft/s)		11.04	

Max Chl Dpth (ft)	24.85	Hydr. Depth (ft)		20.54		
Conv. Total (cfs)	4842973.5	Conv. (cfs)		4842973.5		
Length Wtd. (ft)	504.21	Wetted Per. (ft)		752.14		
Min Ch El (ft)	1049.30	Shear (lb/sq ft)		1.55		
Alpha	1.00	Stream Power (lb/ft s)		17.08		
Frctn Loss (ft)	0.81	Cum Volume (acre-ft)	1332.55	35607.30	879.42	
C & E Loss (ft)	0.15	Cum SA (acres)	219.56	3214.53	101.73	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19534.70 LB	19695.18	2797.75	629.26	110.64	1.66	5.79	4.45
19695.18	19855.66	43961.71	3821.81	161.48	26.01	23.81	11.50
19855.66	20016.14	46943.38	3965.41	160.48	27.78	24.71	11.84
20016.14	20176.62	47159.44	3976.37	160.48	27.90	24.78	11.86
20176.62	20337.10 RB	28137.73	2906.45	159.05	16.65	18.74	9.68

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19534.70 LB	19695.18	2802.24	630.08	110.65	1.66	5.80	4.45
19695.18	19855.66	43960.30	3823.02	161.48	26.01	23.82	11.50
19855.66	20016.14	46940.96	3966.62	160.48	27.78	24.72	11.83
20016.14	20176.62	47156.94	3977.58	160.48	27.90	24.79	11.86
20176.62	20337.10 RB	28139.57	2907.62	159.06	16.65	18.75	9.68

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.85

INPUT
Description: 213.85
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17827.8	1078.7	17849.3	1078.5	17962.5	1078	17983.6	1077.8	18087.6	1077.7
18117.7	1077.6	18209	1077.4	18245.6	1077.6	18313.2	1077.9	18389.3	1078.8
18415.4	1078.8	18437.5	1078.2	18449	1078.3	18463.7	1078.2	18513.6	1077.6
18548.9	1077.6	18753.1	1077.6	18798.9	1077.6	18834.2	1077.6	18917.4	1077
19257.5	1075.3	19264.9	1075.1	19293.5	1075.6	19308	1069.8	19333.3	1060.1
19342.5	1063.1	19360.7	1068.8	19366.6	1068.9	19391	1069.1	19423.4	1069.4
19453.2	1068.8	19469.5	1068.4	19505	1067.4	19506.5	1067.3	19507.3	1067.3
19507.8	1067.3	19547.4	1067.3	19584.5	1067.6	19698.5	1068	19698.6	1068
19700.1	1067.8	19706.3	1067	19707.5	1066.9	19732.9	1066.7	19742.3	1067
19770.4	1067.6	19785.4	1067.6	19789.2	1066.5	19853.9	1048.1	19906.4	1048.1
20083.9	1048.2	20249.9	1048.3	20313.2	1069.1	20328.7	1074.2	20334.9	1074.2
20586	1074.1	20640.3	1074.2	20781.1	1074.5	20824.2	1074.1	20842	1073.7
20852.3	1073.7	20870.3	1073.9	20934.9	1073.8	20979.5	1074.4	21111.7	1075.1
21125.5	1075	21144.4	1074.8	21152.1	1075.1	21185.5	1076.2	21224.6	1075.6
21230.8	1075.4	21246.8	1077.2	21248.3	1077.3	21269	1076.4	21270.4	1076.3
21272.5	1076.3	21337.9	1076.3	21381.5	1076.2	21384.6	1076.3	21498.8	1077.1
21503.7	1077.1	21545.5	1077.1	21557.5	1077.1	21587	1077.2	21625.9	1077.3
21671.9	1077.5	21707.6	1077.4	21723.9	1077.4	21767.4	1077.3	21770.2	1077.3
21773.6	1077.4	21774.6	1077.4	21801.1	1079.6	21831.2	1078.8	21907.4	1079.1
21970.5	1078.8								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17827.8	.04	19785.4	.035	20328.7	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19785.4	20328.7	521	520.04	541	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17827.8	19618.33	1078	20328.7	21970.5	1078

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1071.64	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.43	Wt. n-Val.	0.040	0.035	
E.G. Elev (ft)	1075.07	Reach Len. (ft)	521.00	520.04	541.00
Crit W.S. (ft)	1065.13	Flow Area (sq ft)	691.24	11061.37	
E.G. Slope (ft/ft)	0.002237	Area (sq ft)	1950.54	11061.37	
Q Total (cfs)	169000.00	Flow (cfs)	3128.91	165871.08	
Top Width (ft)	1017.51	Top Width (ft)	482.00	535.51	
Vel Total (ft/s)	14.38	Avg. Vel. (ft/s)	4.53	15.00	
Max Chl Dpth (ft)	23.54	Hydr. Depth (ft)	4.14	20.66	
Conv. Total (cfs)	3573334.5	Conv. (cfs)	66157.6	3507176.8	
Length Wtd. (ft)	520.05	Wetted Per. (ft)	167.15	541.97	
Min Ch El (ft)	1048.10	Shear (lb/sq ft)	0.58	2.85	
Alpha	1.07	Stream Power (lb/ft s)	2.61	42.74	
Frctn Loss (ft)	0.71	Cum Volume (acre-ft)	9367.74	34479.43	3553.02
C & E Loss (ft)	0.44	Cum SA (acres)	2200.38	3202.19	1046.19

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1071.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.43	Wt. n-Val.	0.040	0.035	
E.G. Elev (ft)	1075.08	Reach Len. (ft)	521.00	520.04	541.00
Crit W.S. (ft)	1065.13	Flow Area (sq ft)	692.39	11065.03	
E.G. Slope (ft/ft)	0.002235	Area (sq ft)	692.39	11065.03	
Q Total (cfs)	169000.00	Flow (cfs)	3088.43	165911.56	
Top Width (ft)	702.59	Top Width (ft)	167.07	535.52	
Vel Total (ft/s)	14.37	Avg. Vel. (ft/s)	4.46	14.99	
Max Chl Dpth (ft)	23.55	Hydr. Depth (ft)	4.14	20.66	
Conv. Total (cfs)	3574384.3	Conv. (cfs)	65320.9	3509063.3	
Length Wtd. (ft)	520.05	Wetted Per. (ft)	171.08	541.98	
Min Ch El (ft)	1048.10	Shear (lb/sq ft)	0.56	2.85	
Alpha	1.07	Stream Power (lb/ft s)	2.52	42.72	
Frctn Loss (ft)	0.71	Cum Volume (acre-ft)	1328.58	35454.67	879.42
C & E Loss (ft)	0.44	Cum SA (acres)	218.60	3207.12	101.73

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19524.39	19654.89	608.57	140.98	36.56	0.36	3.86	4.32
19654.89	19785.40	2520.31	550.26	130.59	1.49	4.22	4.58
19785.40 LB	19894.06	24586.11	1890.45	111.38	14.55	17.40	13.01
19894.06	20002.72	41296.86	2555.08	108.66	24.44	23.51	16.16
20002.72	20111.38	41117.87	2548.41	108.66	24.33	23.45	16.13
20111.38	20220.04	40930.84	2541.47	108.66	24.22	23.39	16.11
20220.04	20328.70 RB	17939.45	1525.96	104.61	10.62	15.13	11.76

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross

section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19524.39	19654.89	568.59	141.23	40.49	0.34	3.86	4.03
19654.89	19785.40	2519.81	551.15	130.59	1.49	4.22	4.57
19785.40 LB	19894.06	24595.12	1891.20	111.38	14.55	17.40	13.01
19894.06	20002.72	41304.97	2555.82	108.66	24.44	23.52	16.16
20002.72	20111.38	41125.99	2549.16	108.66	24.33	23.46	16.13
20111.38	20220.04	40938.99	2542.21	108.66	24.22	23.40	16.10
20220.04	20328.70 RB	17946.53	1526.65	104.62	10.62	15.13	11.76

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.75

INPUT
Description: 213.75
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18435	1076	19470	1076	19600	1080	19633.4	1080.84	19633.5	1074.13
19633.6	1073.5	19636.5	1073.5	19709	1048.55	19764	1047	19769.5	1047
19834.5	1047.15	19899	1046.6	19904	1046.6	19959	1047	20034	1044.61
20039	1044.6	20104	1045	20169	1045.5	20174	1045.5	20240.5	1049.35
20302	1073.8	20305	1073.8	20305.1	1074.8	20305.2	1081.5	20340	1080
20490	1076	20925	1075	21465	1076				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18435	.037	19633.5	.032	20305.1	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19633.5	20305.1	125	115.36	120	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18435	19633.5	1074.13	20305.1	21465	1074.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1071.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.97	Wt. n-Val.		0.032	
E.G. Elev (ft)	1073.92	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1060.87	Flow Area (sq ft)		15011.57	
E.G. Slope (ft/ft)	0.000921	Area (sq ft)		15011.57	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	656.36	Top Width (ft)		656.36	
Vel Total (ft/s)	11.26	Avg. Vel. (ft/s)		11.26	
Max Chl Dpth (ft)	27.35	Hydr. Depth (ft)		22.87	
Conv. Total (cfs)	5568933.0	Conv. (cfs)		5568933.0	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		664.78	
Min Ch El (ft)	1044.60	Shear (lb/sq ft)		1.30	
Alpha	1.00	Stream Power (lb/ft s)		14.62	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	9356.08	34323.79	3553.02
C & E Loss (ft)	0.02	Cum SA (acres)	2197.50	3195.08	1046.19

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1071.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.97	Wt. n-Val.		0.032	
E.G. Elev (ft)	1073.93	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1060.87	Flow Area (sq ft)		15017.17	
E.G. Slope (ft/ft)	0.000920	Area (sq ft)		15017.17	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	656.35	Top Width (ft)		656.35	
Vel Total (ft/s)	11.25	Avg. Vel. (ft/s)		11.25	

Max Chl Dpth (ft)	27.36	Hydr. Depth (ft)		22.88	
Conv. Total (cfs)	5572321.5	Conv. (cfs)		5572321.5	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		664.79	
Min Ch El (ft)	1044.60	Shear (lb/sq ft)		1.30	
Alpha	1.00	Stream Power (lb/ft s)		14.60	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	1324.44	35298.98	879.42
C & E Loss (ft)	0.02	Cum SA (acres)	217.60	3200.00	101.73

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19633.50 LB	19767.82	20291.24	2220.81	130.76	12.01	17.51	9.14
19767.82	19902.14	39663.39	3356.06	134.32	23.47	24.99	11.82
19902.14	20036.46	41700.86	3458.82	134.36	24.68	25.75	12.06
20036.46	20170.78	44937.85	3617.12	134.32	26.59	26.93	12.42
20170.78	20305.10 RB	22406.64	2358.77	131.01	13.26	18.64	9.50

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19633.50 LB	19767.82	20294.80	2221.88	130.77	12.01	17.52	9.13
19767.82	19902.14	39662.19	3357.20	134.32	23.47	24.99	11.81
19902.14	20036.46	41698.89	3459.97	134.36	24.67	25.76	12.05
20036.46	20170.78	44934.64	3618.27	134.32	26.59	26.94	12.42
20170.78	20305.10 RB	22409.48	2359.85	131.02	13.26	18.64	9.50

BRIDGE RIVER: 1
REACH: 1 RS: 213.745

INPUT
Description: 7th Street Bridge
Distance from Upstream XS = 0
Deck/Roadway Width = 115.36
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19633.5	1080.84	1074.13	19764	1084.56	1077.81	19899	1085.96	1079.23
20039	1085.95	1079.2	20174	1084.45	1077.7	20305	1081.53	1074.82

Upstream Bridge Cross Section Data
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18435	1076	19470	1076	19600	1080	19633.4	1080.84	19633.5	1074.13
19633.6	1073.5	19636.5	1073.5	19709	1048.55	19764	1047	19769.5	1047
19834.5	1047.15	19899	1046.6	19904	1046.6	19959	1047	20034	1044.61
20039	1044.6	20104	1045	20169	1045.5	20174	1045.5	20240.5	1049.35
20302	1073.8	20305	1073.8	20305.1	1074.8	20305.2	1081.5	20340	1080
20490	1076	20925	1075	21465	1076				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18435	.037	19633.5	.032	20305.1	.037

Bank Sta: Left	Right	Coeff Contr.	Expan.
19633.5	20305.1	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18435	19633.5	1074.13	20305.1	21465	1074.8

Downstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19633.5	1080.84	1074.13	19764	1084.56	1077.81	19899	1085.96	1079.23
20039	1085.95	1079.2	20174	1084.45	1077.7	20305	1081.53	1074.82

Downstream Bridge Cross Section Data
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18435	1076	19470	1076	19600	1080	19633.4	1080.84	19633.5	1074.13

```
 19633.6  1073.5 19636.5  1073.5   19709 1048.55   19764    1047 19769.5    1047
 19834.5 1047.15   19899  1046.6   19904  1046.6   19959    1047   20034 1044.61
   20039  1044.6   20104    1045   20169  1045.5   20174  1045.5 20240.5 1049.35
   20302  1073.8   20305  1073.8 20305.1  1074.8 20305.2  1081.5   20340    1080
   20490    1076   20925    1075   21465    1076

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   18435    .037 19633.5    .032 20305.1    .037

Bank Sta: Left   Right    Coeff Contr.   Expan.
       19633.5 20305.1             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   18435 19633.5 1074.13 20305.1   21465  1074.8

Upstream Embankment side slope              =         horiz. to 1.0 vertical
Downstream Embankment side slope            =         horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  4

Pier Data
Pier Station     Upstream= 19766.5    Downstream= 19766.5
Upstream     num=       2
    Width   Elev    Width   Elev
      5    1047       5 1077.88
Downstream     num=       2
    Width   Elev    Width   Elev
      5    1047       5 1077.88

Pier Data
Pier Station     Upstream= 19901.5    Downstream= 19901.5
Upstream     num=       2
    Width   Elev    Width   Elev
      5  1046.6       5  1079.2
Downstream     num=       2
    Width   Elev    Width   Elev
      5  1046.6       5  1079.2

Pier Data
Pier Station     Upstream= 20036.5    Downstream= 20036.5
Upstream     num=       2
    Width   Elev    Width   Elev
      5  1044.6       5  1079.2
Downstream     num=       2
    Width   Elev    Width   Elev
      5  1044.6       5  1079.2

Pier Data
Pier Station     Upstream= 20171.5    Downstream= 20171.5
Upstream     num=       2
    Width   Elev    Width   Elev
      5  1045.5       5  1077.7
Downstream     num=       2
    Width   Elev    Width   Elev
      5  1045.5       5  1077.7

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
      Energy
      Momentum              Cd   =     1.2
      Yarnell               KVal =    1.05
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
      Energy Only

Additional Bridge Parameters
      Add Friction component to Momentum
      Add Weight component to Momentum
```

Class B flow critical depth computations use critical depth
inside the bridge at the downstream end
Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT Profile #PF#1
Opening : Bridge #1

E.G. US. (ft)	1073.92	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1071.95	E.G. Elev (ft)	1073.90	1073.72
Q Total (cfs)	169000.00	W.S. Elev (ft)	1071.75	1071.53
Q Bridge (cfs)	169000.00	Crit W.S. (ft)	1061.25	1061.24
Q Weir (cfs)		Max Chl Dpth (ft)	27.15	26.93
Weir Sta Lft (ft)		Vel Total (ft/s)	11.77	11.88
Weir Sta Rgt (ft)		Flow Area (sq ft)	14364.15	14224.61
Weir Submerg		Froude # Chl	0.44	0.44
Weir Max Depth (ft)		Specif Force (cu ft)	236783.64	234246.75
Min Top Rd (ft)	1073.80	Hydr Depth (ft)	22.61	22.43
Min El Prs (ft)	1079.23	W.P. Total (ft)	850.24	847.20
Delta EG (ft)	0.25	Conv. Total (cfs)	4391563.5	4330989.0
Delta WS (ft)	0.30	Top Width (ft)	635.27	634.08
BR Open Area (sq ft)	18211.57	Frctn Loss (ft)	0.17	0.00
BR Open Vel (ft/s)	11.88	C & E Loss (ft)	0.00	0.05
Coef of Q		Shear Total (lb/sq ft)	1.56	1.60
Br Sel Mthd	Energy only	Power Total (lb/ft s)	18.38	18.96

Note - Yarnell answer is not valid if the water surface is above the low chord or if there is weir flow.
The Yarnell answer has been disregarded.
Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir
flow. The momentum answer has been disregarded.

BRIDGE OUTPUT Profile #PF#2
Opening : Bridge #1

E.G. US. (ft)	1073.93	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1071.96	E.G. Elev (ft)	1073.91	1073.73
Q Total (cfs)	169000.00	W.S. Elev (ft)	1071.76	1071.54
Q Bridge (cfs)	169000.00	Crit W.S. (ft)	1061.25	1061.24
Q Weir (cfs)		Max Chl Dpth (ft)	27.16	26.94
Weir Sta Lft (ft)		Vel Total (ft/s)	11.76	11.88
Weir Sta Rgt (ft)		Flow Area (sq ft)	14369.74	14230.34
Weir Submerg		Froude # Chl	0.44	0.44
Weir Max Depth (ft)		Specif Force (cu ft)	236885.94	234350.17
Min Top Rd (ft)	1073.80	Hydr Depth (ft)	22.62	22.44
Min El Prs (ft)	1079.23	W.P. Total (ft)	850.36	847.33
Delta EG (ft)	0.25	Conv. Total (cfs)	4393987.0	4333465.5
Delta WS (ft)	0.30	Top Width (ft)	635.32	634.13
BR Open Area (sq ft)	18211.57	Frctn Loss (ft)	0.17	0.00
BR Open Vel (ft/s)	11.88	C & E Loss (ft)	0.00	0.05
Coef of Q		Shear Total (lb/sq ft)	1.56	1.59
Br Sel Mthd	Energy only	Power Total (lb/ft s)	18.35	18.94

Note - Yarnell answer is not valid if the water surface is above the low chord or if there is weir flow.
The Yarnell answer has been disregarded.
Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir
flow. The momentum answer has been disregarded.

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.74

INPUT
Description: 213.74
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18435	1076	19470	1076	19600	1080	19633.4	1080.84	19633.5	1074.13
19633.6	1073.5	19636.5	1073.5	19709	1048.55	19764	1047	19769.5	1047
19834.5	1047.15	19899	1046.6	19904	1046.6	19959	1047	20034	1044.61
20039	1044.6	20104	1045	20169	1045.5	20174	1045.5	20240.5	1049.35
20302	1073.8	20305	1073.8	20305.1	1074.8	20305.2	1081.5	20340	1080
20490	1076	20925	1075	21465	1076				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18435	.037	19633.5	.032	20305.1	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19633.5	20305.1	391	373.47	361	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18435	19633.5	1074.13	20305.1	21465	1074.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1071.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.02	Wt. n-Val.		0.032	
E.G. Elev (ft)	1073.67	Reach Len. (ft)	391.00	373.47	361.00
Crit W.S. (ft)	1060.88	Flow Area (sq ft)		14815.19	
E.G. Slope (ft/ft)	0.000959	Area (sq ft)		14815.19	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	654.73	Top Width (ft)		654.73	
Vel Total (ft/s)	11.41	Avg. Vel. (ft/s)		11.41	
Max Chl Dpth (ft)	27.05	Hydr. Depth (ft)		22.63	
Conv. Total (cfs)	5457516.0	Conv. (cfs)		5457516.0	
Length Wtd. (ft)	373.47	Wetted Per. (ft)		663.05	
Min Ch El (ft)	1044.60	Shear (lb/sq ft)		1.34	
Alpha	1.00	Stream Power (lb/ft s)		15.26	
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)	9356.08	34285.94	3553.02
C & E Loss (ft)	0.17	Cum SA (acres)	2197.50	3193.40	1046.19

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1071.66	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.02	Wt. n-Val.		0.032	
E.G. Elev (ft)	1073.68	Reach Len. (ft)	391.00	373.47	361.00
Crit W.S. (ft)	1060.88	Flow Area (sq ft)		14821.02	
E.G. Slope (ft/ft)	0.000958	Area (sq ft)		14821.02	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	654.73	Top Width (ft)		654.73	
Vel Total (ft/s)	11.40	Avg. Vel. (ft/s)		11.40	
Max Chl Dpth (ft)	27.06	Hydr. Depth (ft)		22.64	
Conv. Total (cfs)	5461008.5	Conv. (cfs)		5461008.5	
Length Wtd. (ft)	373.47	Wetted Per. (ft)		663.06	
Min Ch El (ft)	1044.60	Shear (lb/sq ft)		1.34	
Alpha	1.00	Stream Power (lb/ft s)		15.24	
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)	1324.44	35261.11	879.42
C & E Loss (ft)	0.17	Cum SA (acres)	217.60	3198.32	101.73

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19633.50 LB	19767.82	20219.00	2182.94	129.84	11.96	17.33	9.26
19767.82	19902.14	39674.55	3315.82	134.32	23.48	24.69	11.97
19902.14	20036.46	41737.68	3418.58	134.36	24.70	25.45	12.21
20036.46	20170.78	45016.13	3576.89	134.32	26.64	26.63	12.59
20170.78	20305.10 RB	22352.64	2320.97	130.20	13.23	18.45	9.63

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19633.50 LB	19767.82	20222.73	2184.06	129.85	11.97	17.34	9.26
19767.82	19902.14	39673.34	3317.02	134.32	23.48	24.69	11.96
19902.14	20036.46	41735.64	3419.78	134.36	24.70	25.46	12.20
20036.46	20170.78	45012.77	3578.08	134.32	26.63	26.64	12.58
20170.78	20305.10 RB	22355.51	2322.09	130.21	13.23	18.46	9.63

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.66

INPUT
Description: 213.66
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17026.7	1076.4	17035.9	1076.4	17047	1076.4	17057.3	1076.5	17212.3	1077.3
17306.5	1077.8	17311.3	1077.7	17325.2	1077.3	17326.2	1077.3	17343.4	1077.3
17442.9	1076.7	17474.5	1076.6	17571	1076	17573.6	1076	17595.6	1076.1
17610	1076.1	17705.1	1075	17741.5	1075.1	17947.8	1075.4	17953.1	1075.5
18038.8	1075.4	18185.8	1075.6	18234.4	1076.1	18300.9	1076.4	18318.8	1076.5
18414	1075.5	18414.6	1075.5	18415.1	1075.5	18415.7	1075.5	18448.6	1075.8
18455.1	1075.4	18472.5	1073.3	18527.9	1073.3	18683	1073	18718.7	1073
18832.1	1073.3	18873.8	1073.2	18878.4	1072.9	18881.8	1072.9	18892.6	1074.2
18901.3	1075.2	19033.1	1075.2	19131.6	1074.9	19140.9	1074.8	19157.1	1074.8
19235.1	1073.7	19291.4	1073.4	19291.9	1073.4	19292.2	1073.4	19391.8	1069.9
19418.5	1069.7	19442.4	1069.3	19496.9	1070	19532.6	1070.6	19537.6	1070.2
19543	1070.6	19572.3	1071.8	19605.3	1068.7	19616.1	1068.2	19621.3	1069.8
19633.2	1073.3	19663.1	1073.7	19675.2	1073.6	19689.7	1068.5	19748.8	1047.6
19750.4	1047.6	20010.7	1047.7	20194.9	1047.9	20235	1062.5	20260.3	1071.7
20270.2	1073.7	20288.3	1076.6	20297.7	1078.3	20387.2	1078.5	20416.3	1078.5
20457.1	1078.5	20464.9	1076.1	20469.4	1075.3	20825.5	1074.4	20828.5	1074.4
20828.8	1074.4	20830.9	1074.4	20837.2	1074.9	20839.2	1074.9	20870.3	1074.9
20871.4	1074.9	20872.6	1074.6	20872.8	1074.7	20900.8	1074.1	20901.5	1074
20908.4	1073.9	20912.4	1073.9	20915.4	1074	20927	1075.1	20951.2	1077.5
20999.4	1077.6								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17026.7	.037	19675.2	.032	20297.7	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19675.2	20297.7	490	491.08	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17026.7	19675.2	1078.5	20297.7	20999.4	1078.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1069.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.74	Wt. n-Val.		0.032	
E.G. Elev (ft)	1072.98	Reach Len. (ft)	490.00	491.08	495.00
Crit W.S. (ft)	1063.58	Flow Area (sq ft)		10895.83	
E.G. Slope (ft/ft)	0.002201	Area (sq ft)	12.00	10895.83	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	586.02	Top Width (ft)	20.04	565.98	
Vel Total (ft/s)	15.51	Avg. Vel. (ft/s)		15.51	
Max Chl Dpth (ft)	21.65	Hydr. Depth (ft)		19.25	
Conv. Total (cfs)	3602538.0	Conv. (cfs)		3602538.0	
Length Wtd. (ft)	491.08	Wetted Per. (ft)		573.46	
Min Ch El (ft)	1047.60	Shear (lb/sq ft)		2.61	
Alpha	1.00	Stream Power (lb/ft s)		40.49	
Frctn Loss (ft)	0.98	Cum Volume (acre-ft)	9356.02	34175.72	3553.02
C & E Loss (ft)	0.39	Cum SA (acres)	2197.41	3188.17	1046.19

Warning - Divided flow computed for this cross-section.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1069.26	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.73	Wt. n-Val.		0.032	
E.G. Elev (ft)	1072.99	Reach Len. (ft)	490.00	491.08	495.00
Crit W.S. (ft)	1063.58	Flow Area (sq ft)		10902.25	
E.G. Slope (ft/ft)	0.002196	Area (sq ft)		10902.25	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	565.99	Top Width (ft)		565.99	
Vel Total (ft/s)	15.50	Avg. Vel. (ft/s)		15.50	
Max Chl Dpth (ft)	21.66	Hydr. Depth (ft)		19.26	
Conv. Total (cfs)	3605967.8	Conv. (cfs)		3605967.8	
Length Wtd. (ft)	491.08	Wetted Per. (ft)		573.49	
Min Ch El (ft)	1047.60	Shear (lb/sq ft)		2.61	
Alpha	1.00	Stream Power (lb/ft s)		40.41	
Frctn Loss (ft)	0.98	Cum Volume (acre-ft)	1324.44	35150.84	879.42
C & E Loss (ft)	0.39	Cum SA (acres)	217.60	3193.09	101.73

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19675.20 LB	19799.70	23156.46	1763.99	115.84	13.70	15.73	13.13
19799.70	19924.20	44584.45	2689.84	124.50	26.38	21.61	16.58
19924.20	20048.70	44406.11	2683.37	124.50	26.28	21.55	16.55
20048.70	20173.20	44014.91	2669.17	124.50	26.04	21.44	16.49
20173.20	20297.70 RB	12838.07	1089.46	84.12	7.60	13.56	11.78

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19675.20 LB	19799.70	23160.77	1765.26	115.85	13.70	15.74	13.12
19799.70	19924.20	44581.41	2691.25	124.50	26.38	21.62	16.57
19924.20	20048.70	44403.19	2684.79	124.50	26.27	21.56	16.54
20048.70	20173.20	44012.21	2670.58	124.50	26.04	21.45	16.48
20173.20	20297.70 RB	12842.42	1090.37	84.14	7.60	13.57	11.78

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.57

INPUT
Description: 213.57
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17508.1	1075.8	17669.7	1076	17677.2	1076	17679.4	1076	17681.9	1075.9
17685.3	1075.9	17879.1	1077.7	17883.6	1077.7	17891.2	1077.7	17899.7	1077.7
17907.2	1077.7	18293.4	1077.1	18302.2	1077.1	18305.6	1077.2	18335	1077.2
18409.4	1076.8	18482.1	1076	18487.1	1075.3	18493.2	1074.6	18496.9	1074.6
18674	1073.2	18717	1073	18743.5	1072.8	18755.4	1072.8	18802	1072.6
18832.6	1072.6	18934.4	1072.7	18941.7	1072.7	18977	1069	18979.3	1068.7
18979.7	1068.7	18981.1	1068.6	19032.8	1069.7	19078.3	1069.3	19123.5	1069

19190.3	1068.3	19211.6	1068.4	19212.3	1068.4	19245	1068.5	19287.9	1069
19318.4	1068.9	19384.7	1069.1	19398.3	1068.6	19484.5	1068.5	19514.1	1067.2
19542.6	1063.6	19548	1062.9	19575	1062.8	19586.3	1062.5	19595.5	1063.8
19603.2	1064.4	19612.3	1065.2	19617.4	1064.5	19668.9	1061.9	19672.3	1061.7
19674.3	1061.7	19711.7	1060.1	19720	1057.4	19743.1	1047.9	20035.4	1047
20123.9	1046.7	20135.8	1048.3	20147.5	1050.1	20202.7	1051.3	20261.3	1052.3
20286.6	1053	20301.2	1052.6	20302.5	1052.5	20345.5	1073.5	20347.7	1074.6
20347.8	1074.6	20348.2	1074.6	20373.8	1075.7	20384.8	1075.5	20390.6	1075.6
20426.7	1075.7	20435.9	1075.7	20452.6	1075.3	20481.8	1075.4	20485.6	1075.2
20501.3	1076.7	20634	1076	20804.5	1073.3	20853.6	1072.8	20858.1	1072.8
20865.8	1073.1	20870.9	1073	20902.9	1071.5	20922.6	1075.2	20923.6	1075.4
20925.3	1075.3	20936.8	1075.1	20950.5	1074.7	21085.5	1074.8	21211.9	1075.1
21311.2	1074.8								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17508.1	.037	19484.5	.032	20373.8	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19484.5	20373.8	650	500.37	390	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17508.1	19484.5	1077.7	20373.8	21311.2	1077.7

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1069.18	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.42	Wt. n-Val.		0.032	
E.G. Elev (ft)	1071.60	Reach Len. (ft)	650.00	500.37	390.00
Crit W.S. (ft)	1063.01	Flow Area (sq ft)		13529.99	
E.G. Slope (ft/ft)	0.001833	Area (sq ft)	186.63	13529.99	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1273.72	Top Width (ft)	421.56	852.16	
Vel Total (ft/s)	12.49	Avg. Vel. (ft/s)		12.49	
Max Chl Dpth (ft)	22.48	Hydr. Depth (ft)		15.88	
Conv. Total (cfs)	3947055.8	Conv. (cfs)		3947055.8	
Length Wtd. (ft)	500.37	Wetted Per. (ft)		859.21	
Min Ch El (ft)	1046.70	Shear (lb/sq ft)		1.80	
Alpha	1.00	Stream Power (lb/ft s)		22.51	
Frctn Loss (ft)	0.88	Cum Volume (acre-ft)	9354.91	34038.04	3553.02
C & E Loss (ft)	0.13	Cum SA (acres)	2194.93	3180.17	1046.19

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1069.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.42	Wt. n-Val.		0.032	
E.G. Elev (ft)	1071.61	Reach Len. (ft)	650.00	500.37	390.00
Crit W.S. (ft)	1063.01	Flow Area (sq ft)		13540.81	
E.G. Slope (ft/ft)	0.001830	Area (sq ft)		13540.81	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	852.16	Top Width (ft)		852.16	
Vel Total (ft/s)	12.48	Avg. Vel. (ft/s)		12.48	
Max Chl Dpth (ft)	22.49	Hydr. Depth (ft)		15.89	
Conv. Total (cfs)	3950146.5	Conv. (cfs)		3950146.5	
Length Wtd. (ft)	500.37	Wetted Per. (ft)		859.92	
Min Ch El (ft)	1046.70	Shear (lb/sq ft)		1.80	
Alpha	1.00	Stream Power (lb/ft s)		22.46	
Frctn Loss (ft)	0.88	Cum Volume (acre-ft)	1324.44	35013.05	879.42
C & E Loss (ft)	0.13	Cum SA (acres)	217.60	3185.09	101.73

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19484.50 LB	19662.36	4311.71	842.10	178.42	2.55	4.73	5.12
19662.36	19840.22	34534.63	2946.24	180.22	20.43	16.56	11.72
19840.22	20018.08	55290.48	3887.05	177.86	32.72	21.85	14.22

20018.08	20195.94	52046.40	3750.73	178.12	30.80	21.09	13.88
20195.94	20373.80 RB	22816.78	2103.88	144.60	13.50	14.95	10.85

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19484.50 LB	19662.36	4314.97	844.36	179.11	2.55	4.75	5.11
19662.36	19840.22	34540.16	2948.50	180.22	20.44	16.58	11.71
19840.22	20018.08	55282.25	3889.31	177.86	32.71	21.87	14.21
20018.08	20195.94	52040.50	3752.99	178.12	30.79	21.10	13.87
20195.94	20373.80 RB	22822.12	2105.66	144.62	13.50	14.96	10.84

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.47

INPUT
Description: 213.47
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17897	1072.3	17950.9	1072.3	17955.5	1073.1	17972.5	1074.8	18140.3	1074.1
18179.1	1074.1	18193.1	1074	18207.9	1073.9	18257.4	1074	18402.2	1073.7
18450.1	1073.2	18519.9	1072.6	18592.3	1071.7	18600.6	1071.6	18625.8	1071.9
18741.5	1071.7	18784.9	1071.7	18805.1	1070.7	18823.4	1069.4	18880.6	1067
18888.4	1066.7	18938.9	1066.6	18942.7	1066.6	18948.4	1066.6	18970.5	1067.2
19008	1068.2	19008.9	1068.2	19041.7	1068.5	19057.6	1068.6	19057.8	1068.6
19058.1	1068.6	19060.2	1068.6	19154.7	1068.1	19202.4	1067.9	19243.3	1067
19289	1066	19306.6	1065.6	19313.9	1065.3	19357.8	1064.8	19392.5	1064.4
19420.7	1063.8	19432.7	1063.5	19483.4	1062	19493.9	1061.7	19499.6	1061.8
19534.7	1062.6	19536.4	1062.5	19585.4	1061.2	19586.6	1061.2	19587.5	1061.2
19588.9	1061.1	19593.6	1060.6	19689.9	1051.5	19699.6	1050.5	19735.3	1047
19807.1	1046.8	19827.4	1046.8	19970.4	1046.6	19993.9	1046.3	20037.8	1046.2
20146.5	1045.8	20205.3	1048.7	20214.8	1049.3	20219.4	1049	20220.8	1048.9
20255.2	1063.1	20274.2	1072.4	20283.3	1072.6	20341.6	1072.5	20362.6	1072.6
20428.7	1074.9	20446.8	1074.9	20469.6	1074.9	20474.3	1074.9	20476.7	1075
20483.2	1074.9	20484.1	1074.9	20486.3	1074.9	20488.6	1074.7	20489.3	1074.7
20515.7	1073.2	20526.3	1073.3	20537.5	1073.5	20540.5	1073.4	20545	1073.8
20567.4	1075.2	20569.1	1075.4	20578.4	1075	20619.2	1074.5	20621.6	1074.4
20649.8	1074	20700.8	1074	20735.1	1074.2	20751.5	1074.5	20765.2	1074.8
20783.9	1075.1								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17897	.037	19243.3	.032	20274.2	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19243.3	20274.2	500	493.66	485	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17897	19243.3	1075.4	20274.2	20783.9	1075.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1068.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.00	Wt. n-Val.		0.032	
E.G. Elev (ft)	1070.60	Reach Len. (ft)	500.00	493.66	485.00
Crit W.S. (ft)	1061.30	Flow Area (sq ft)		14877.93	
E.G. Slope (ft/ft)	0.001697	Area (sq ft)	338.78	14877.93	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1418.72	Top Width (ft)	395.60	1023.12	
Vel Total (ft/s)	11.36	Avg. Vel. (ft/s)		11.36	
Max Chl Dpth (ft)	22.79	Hydr. Depth (ft)		14.54	
Conv. Total (cfs)	4102624.8	Conv. (cfs)		4102624.8	
Length Wtd. (ft)	493.66	Wetted Per. (ft)		1028.09	
Min Ch El (ft)	1045.80	Shear (lb/sq ft)		1.53	
Alpha	1.00	Stream Power (lb/ft s)		17.41	
Frctn Loss (ft)	0.56	Cum Volume (acre-ft)	9350.99	33874.88	3553.02

C & E Loss (ft)	0.24	Cum SA (acres)	2188.83	3169.40	1046.19

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1068.61	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.00	Wt. n-Val.		0.032	
E.G. Elev (ft)	1070.61	Reach Len. (ft)	500.00	493.66	485.00
Crit W.S. (ft)	1061.30	Flow Area (sq ft)		14892.05	
E.G. Slope (ft/ft)	0.001695	Area (sq ft)		14892.05	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1023.12	Top Width (ft)		1023.12	
Vel Total (ft/s)	11.35	Avg. Vel. (ft/s)		11.35	
Max Chl Dpth (ft)	22.81	Hydr. Depth (ft)		14.56	
Conv. Total (cfs)	4104804.8	Conv. (cfs)		4104804.8	
Length Wtd. (ft)	493.66	Wetted Per. (ft)		1029.71	
Min Ch El (ft)	1045.80	Shear (lb/sq ft)		1.53	
Alpha	1.00	Stream Power (lb/ft s)		17.37	
Frctn Loss (ft)	0.56	Cum Volume (acre-ft)	1324.44	34849.75	879.42
C & E Loss (ft)	0.24	Cum SA (acres)	217.60	3174.32	101.73

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19243.30 LB	19449.48	2866.82	737.47	206.22	1.70	3.58	3.89
19449.48	19655.66	10651.31	1621.83	206.54	6.30	7.87	6.57
19655.66	19861.84	51194.97	4160.22	206.56	30.29	20.18	12.31
19861.84	20068.02	59702.32	4558.91	206.18	35.33	22.11	13.10
20068.02	20274.20 RB	44584.59	3799.51	202.59	26.38	19.15	11.73

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19243.30 LB	19449.48	2866.87	740.31	207.83	1.70	3.59	3.87
19449.48	19655.66	10669.40	1624.67	206.54	6.31	7.88	6.57
19655.66	19861.84	51190.65	4163.07	206.56	30.29	20.19	12.30
19861.84	20068.02	59691.34	4561.75	206.18	35.32	22.13	13.09
20068.02	20274.20 RB	44581.74	3802.25	202.61	26.38	19.16	11.73

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.38

INPUT
Description: 213.38
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17634.6	1070.7	17652.1	1070.7	17729.5	1071.2	17747.9	1072.2	17763.8	1073.1
17893.9	1073.4	17976.4	1073.1	18006.5	1072.7	18006.7	1072.7	18008	1072.7
18197.8	1072.8	18341.3	1071.5	18390.9	1071.3	18419.4	1070.9	18420.4	1070.9
18423.8	1070.9	18431	1071	18656.8	1070.5	18735	1070.6	18756.6	1070.9
18796.6	1071.1	18974.7	1070.8	19012.6	1070.8	19073.3	1070.8	19129.4	1069.7
19192.7	1068.9	19195.5	1068.8	19196.5	1068.5	19204.6	1068.3	19213.9	1068.2
19225.5	1067.5	19242.1	1066.8	19303.8	1064.4	19303.9	1064.4	19304.2	1064.4
19346.1	1064.6	19365.3	1061.2	19365.5	1061.2	19401.7	1061	19405.7	1060.8
19411.2	1060.6	19452.9	1058.9	19499.7	1059.7	19523.7	1060.4	19526.3	1060.4
19530.8	1060.5	19534.1	1060.4	19575.5	1058.6	19625.5	1054.4	19648.5	1052.9
19678.5	1053.7	19684.4	1053.8	19732.6	1049.4	19735.1	1049.2	19761.4	1050.8
19767.8	1050.7	19771.9	1050.2	19796.5	1046.2	19864.4	1045.8	20277.6	1045.7
20311.6	1045.6	20311.7	1045.4	20329.1	1049.4	20361.7	1051.6	20363.3	1052.8
20364.3	1052.8	20374	1053.5	20405.3	1054.8	20417	1056.5	20434.2	1065
20473	1075.2	20473.5	1075.2	20515.6	1074.3	20532	1073.2	20533.3	1073
20535.9	1073	20539.6	1072.9	20569.9	1072.5	20578	1072.1	20607.5	1072.2
20652.6	1074	20655.9	1074.1	20722.7	1075.3	20793.4	1076	20804.4	1076.4
20831.2	1076.4	20834	1075.7	20842.3	1072.9	20845.3	1072.1	20848.9	1072.1
20860.3	1072.3	20875.9	1072.3	20895.1	1072.4	20963.7	1072.4	20982.3	1071.9
20996.7	1072.4								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17634.6	.037	19346.1	.032	20473	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19346.1	20473	210	290.06	395	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17634.6	19346.1	1076.4	20473	20996.7	1076.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1068.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.21	Wt. n-Val.		0.032	
E.G. Elev (ft)	1069.80	Reach Len. (ft)	210.00	290.06	395.00
Crit W.S. (ft)	1059.33	Flow Area (sq ft)		19129.90	
E.G. Slope (ft/ft)	0.000810	Area (sq ft)	394.36	19129.90	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1251.64	Top Width (ft)	149.89	1101.75	
Vel Total (ft/s)	8.83	Avg. Vel. (ft/s)		8.83	
Max Chl Dpth (ft)	23.19	Hydr. Depth (ft)		17.36	
Conv. Total (cfs)	5938642.0	Conv. (cfs)		5938642.0	
Length Wtd. (ft)	290.06	Wetted Per. (ft)		1106.67	
Min Ch El (ft)	1045.40	Shear (lb/sq ft)		0.87	
Alpha	1.00	Stream Power (lb/ft s)		7.72	
Frctn Loss (ft)	0.20	Cum Volume (acre-ft)	9346.78	33682.17	3553.02
C & E Loss (ft)	0.08	Cum SA (acres)	2185.70	3157.36	1046.19

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1068.60	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.21	Wt. n-Val.		0.032	
E.G. Elev (ft)	1069.81	Reach Len. (ft)	210.00	290.06	395.00
Crit W.S. (ft)	1059.33	Flow Area (sq ft)		19142.95	
E.G. Slope (ft/ft)	0.000812	Area (sq ft)		19142.95	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1101.75	Top Width (ft)		1101.75	
Vel Total (ft/s)	8.83	Avg. Vel. (ft/s)		8.83	
Max Chl Dpth (ft)	23.20	Hydr. Depth (ft)		17.38	
Conv. Total (cfs)	5931060.0	Conv. (cfs)		5931060.0	
Length Wtd. (ft)	290.06	Wetted Per. (ft)		1110.69	
Min Ch El (ft)	1045.40	Shear (lb/sq ft)		0.87	
Alpha	1.00	Stream Power (lb/ft s)		7.71	
Frctn Loss (ft)	0.20	Cum Volume (acre-ft)	1324.44	34656.89	879.42
C & E Loss (ft)	0.08	Cum SA (acres)	217.60	3162.28	101.73

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19346.10 LB	19571.48	9711.92	1885.13	225.78	5.75	8.36	5.15
19571.48	19796.86	28349.89	3587.87	226.23	16.78	15.92	7.90

19796.86	20022.24	51498.73	5125.44	225.38	30.47	22.74	10.05
20022.24	20247.62	51921.05	5150.59	225.38	30.72	22.85	10.08
20247.62	20473.00 RB	27518.42	3380.87	203.90	16.28	16.89	8.14

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19346.10 LB	19571.48	9617.85	1887.80	229.78	5.69	8.38	5.09
19571.48	19796.86	28374.10	3590.54	226.23	16.79	15.93	7.90
19796.86	20022.24	51523.57	5128.11	225.38	30.49	22.75	10.05
20022.24	20247.62	51945.87	5153.26	225.38	30.74	22.86	10.08
20247.62	20473.00 RB	27538.62	3383.24	203.92	16.30	16.90	8.14

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.33

INPUT
Description: 213.33
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17662.6	1072.6	17668	1072.6	17677	1072.6	17679.2	1072.7	17685.5	1072.7
17890.3	1072	17891.3	1072	17919.8	1071.9	18055.2	1071.9	18114.9	1071.9
18241.8	1071.2	18279.3	1070.9	18302.9	1070.9	18305.8	1070.8	18316.6	1070.7
18337.3	1070.5	18464.8	1070.6	18565.2	1070.8	18644.2	1071	18654.1	1071
18680.7	1070.7	18888.5	1070	18954.5	1069.6	19002.1	1069.7	19091.3	1069
19104.2	1069	19104.4	1069	19107.7	1069	19109.5	1068.5	19112.3	1067.7
19112.4	1067.7	19123.4	1067.3	19136.1	1067.1	19144.4	1069.1	19147.5	1069.9
19163.9	1070.3	19173.4	1070.7	19184.4	1069.5	19203.3	1068.1	19209.7	1067.1
19222.7	1066	19244.2	1064.1	19272.3	1063	19328.9	1063.5	19336.9	1063.4
19344.3	1063.4	19367.2	1062.3	19389	1062	19396.3	1061.9	19416.7	1061.3
19418.1	1060.9	19453.8	1059.7	19472.5	1059.2	19476.7	1057.5	19530.4	1058.7
19538.8	1058.7	19541	1058.6	19590	1056.9	19629.4	1054.2	19644.5	1053.7
19671.3	1051.4	19710.3	1047.2	19715.9	1046.8	19755.6	1046.4	19757.3	1046.3
19759.3	1046.3	19761.3	1046.3	19780.3	1046.2	20358.7	1045.4	20444.8	1048.7
20449.3	1048.9	20508	1066.2	20514.9	1068.7	20553.2	1069.1	20640.2	1069.7
20662.5	1069.4	20704	1068.4	20729.7	1068.7	20782.7	1069.1	20784.7	1069.2
20789.1	1069.5	20821.1	1071.4	20854.7	1073	20856.9	1073.1	20859.1	1073.1
20896	1072.7	20902.1	1072.7	20919.8	1072.5	20932.4	1072.6	20967.3	1072.5
21012.3	1072.8	21051.5	1073	21059.7	1073	21066	1073.1	21092.4	1073
21244.4	1073.1								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17662.6	.037	19328.9	.032	20514.9	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19328.9	20514.9	266	316.41	426	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17662.6	19328.9	1073.1	20640.2	21244.4	1073.1

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1068.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.96	Wt. n-Val.		0.032	
E.G. Elev (ft)	1069.52	Reach Len. (ft)	266.00	316.41	426.00
Crit W.S. (ft)	1057.67	Flow Area (sq ft)		21471.41	
E.G. Slope (ft/ft)	0.000607	Area (sq ft)	585.39	21471.41	1.65
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1370.78	Top Width (ft)	164.70	1185.62	20.46
Vel Total (ft/s)	7.87	Avg. Vel. (ft/s)		7.87	
Max Chl Dpth (ft)	23.16	Hydr. Depth (ft)		18.11	
Conv. Total (cfs)	6860576.0	Conv. (cfs)		6860576.0	
Length Wtd. (ft)	316.41	Wetted Per. (ft)		1189.54	
Min Ch El (ft)	1045.40	Shear (lb/sq ft)		0.68	
Alpha	1.00	Stream Power (lb/ft s)		5.38	
Frctn Loss (ft)	0.19	Cum Volume (acre-ft)	9344.42	33546.99	3553.01
C & E Loss (ft)	0.02	Cum SA (acres)	2184.94	3149.75	1046.10

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1068.57	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.96	Wt. n-Val.		0.032	
E.G. Elev (ft)	1069.53	Reach Len. (ft)	266.00	316.41	426.00
Crit W.S. (ft)	1057.67	Flow Area (sq ft)		21484.29	
E.G. Slope (ft/ft)	0.000609	Area (sq ft)		21484.29	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1185.62	Top Width (ft)		1185.62	
Vel Total (ft/s)	7.87	Avg. Vel. (ft/s)		7.87	
Max Chl Dpth (ft)	23.17	Hydr. Depth (ft)		18.12	
Conv. Total (cfs)	6847941.5	Conv. (cfs)		6847941.5	
Length Wtd. (ft)	316.41	Wetted Per. (ft)		1194.62	
Min Ch El (ft)	1045.40	Shear (lb/sq ft)		0.68	
Alpha	1.00	Stream Power (lb/ft s)		5.38	
Frctn Loss (ft)	0.19	Cum Volume (acre-ft)	1324.44	34521.63	879.42
C & E Loss (ft)	0.02	Cum SA (acres)	217.60	3154.67	101.73

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19328.90 LB	19566.10	8916.01	1985.83	237.68	5.28	8.37	4.49
19566.10	19803.30	31571.05	4240.29	237.66	18.68	17.88	7.45
19803.30	20040.50	46577.47	5350.46	237.20	27.56	22.56	8.71
20040.50	20277.70	47712.14	5428.31	237.20	28.23	22.88	8.79
20277.70	20514.90 RB	34223.32	4466.52	239.79	20.25	18.86	7.66

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19328.90 LB	19566.10	8808.67	1988.40	242.75	5.21	8.38	4.43
19566.10	19803.30	31596.82	4242.87	237.66	18.70	17.89	7.45
19803.30	20040.50	46605.69	5353.04	237.20	27.58	22.57	8.71
20040.50	20277.70	47740.50	5430.88	237.20	28.25	22.90	8.79
20277.70	20514.90 RB	34248.31	4469.10	239.81	20.27	18.87	7.66

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.26

INPUT
Description: 213.26
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17300	1071.7	17670	1072	17850	1073.6	18250	1075.5	19180	1078.2
19488.1	1078.1	19488.2	1072.97	19495.2	1069.2	19517.2	1057.5	19564.2	1055.45
19584.2	1051.3	19586.9	1051	19589.4	1051	19638.2	1048.1	19686.9	1047.3
19689.4	1047.3	19704.2	1047.2	19743.2	1042.2	19786.9	1042.15	19789.4	1042.2
19838.2	1042.8	19871.7	1042.9	19886.9	1043.85	19889.4	1043.8	19938.2	1044.1
19986.9	1042.7	19989.4	1042.7	20038.2	1042.3	20086.9	1042.85	20089.4	1042.8
20121.7	1043.3	20171.2	1041.05	20188.2	1040.9	20189.4	1040.9	20223.2	1040.4
20248.7	1042.2	20286.9	1043.4	20289.4	1043.4	20307.7	1044.35	20382.7	1069.6
20387.9	1070.4	20387.9	1072.9	20388	1078.19	20790	1078.3	21330	1075.5

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17300	.037	19488.2	.032	20387.9	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19488.2	20387.9	155	151.22	155	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17300	19488.2	1072.97	20387.9	21330	1070.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1068.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.17	Wt. n-Val.		0.032	
E.G. Elev (ft)	1069.32	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1055.56	Flow Area (sq ft)		19486.07	
E.G. Slope (ft/ft)	0.000569	Area (sq ft)		19486.07	

Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	881.21	Top Width (ft)		881.21	
Vel Total (ft/s)	8.67	Avg. Vel. (ft/s)		8.67	
Max Chl Dpth (ft)	27.75	Hydr. Depth (ft)		22.11	
Conv. Total (cfs)	7087382.5	Conv. (cfs)		7087382.5	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		888.89	
Min Ch El (ft)	1040.40	Shear (lb/sq ft)		0.78	
Alpha	1.00	Stream Power (lb/ft s)		6.75	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	9342.63	33398.24	3553.00
C & E Loss (ft)	0.01	Cum SA (acres)	2184.44	3142.24	1046.00

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1068.16	Element			
Vel Head (ft)	1.17	Wt. n-Val.		0.032	
E.G. Elev (ft)	1069.33	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1055.56	Flow Area (sq ft)		19495.54	
E.G. Slope (ft/ft)	0.000568	Area (sq ft)		19495.54	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	881.21	Top Width (ft)		881.21	
Vel Total (ft/s)	8.67	Avg. Vel. (ft/s)		8.67	
Max Chl Dpth (ft)	27.76	Hydr. Depth (ft)		22.12	
Conv. Total (cfs)	7093013.5	Conv. (cfs)		7093013.5	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		888.91	
Min Ch El (ft)	1040.40	Shear (lb/sq ft)		0.78	
Alpha	1.00	Stream Power (lb/ft s)		6.74	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	1324.44	34372.79	879.42
C & E Loss (ft)	0.01	Cum SA (acres)	217.60	3147.16	101.73

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19488.20 LB	19668.14	16606.42	2554.70	174.20	9.83	14.94	6.50
19668.14	19848.08	39652.89	4366.08	180.27	23.46	24.26	9.08
19848.08	20028.02	41330.27	4473.24	179.99	24.46	24.86	9.24
20028.02	20207.96	44414.86	4670.77	180.00	26.28	25.96	9.51
20207.96	20387.90 RB	26995.57	3421.28	174.43	15.97	20.07	7.89

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19488.20 LB	19668.14	16612.80	2556.54	174.20	9.83	14.95	6.50
19668.14	19848.08	39651.20	4368.01	180.27	23.46	24.27	9.08
19848.08	20028.02	41327.79	4475.17	179.99	24.45	24.87	9.23
20028.02	20207.96	44410.84	4672.70	180.00	26.28	25.97	9.50
20207.96	20387.90 RB	26997.38	3423.11	174.45	15.97	20.09	7.89

BRIDGE RIVER: 1
REACH: 1 RS: 213.255

INPUT
Description: Central Avenue Bridge
Distance from Upstream XS = 0
Deck/Roadway Width = 151.22
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 10

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19488.2	1078.14	1072.97	19586.9	1078.5	1073.28	19686.9	1078.86	1073.64
19786.9	1079.15	1073.93	19886.9	1079.37	1074.2	19989.4	1079.38	1074.2
20086.9	1079.13	1073.93	20188.2	1078.89	1073.7	20286.9	1078.53	1073.32
20387.9	1078.19	1072.98						

Upstream Bridge Cross Section Data
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17300	1071.7	17670	1072	17850	1073.6	18250	1075.5	19180	1078.2
19488.1	1078.1	19488.2	1072.97	19495.2	1069.2	19517.2	1057.5	19564.2	1055.45
19584.2	1051.3	19586.9	1051	19589.4	1051	19638.2	1048.1	19686.9	1047.3

```
 19689.4  1047.3 19704.2  1047.2 19743.2  1042.2 19786.9 1042.15 19789.4  1042.2
 19838.2  1042.8 19871.7  1042.9 19886.9 1043.85 19889.4  1043.8 19938.2  1044.1
 19986.9  1042.7 19989.4  1042.7 20038.2  1042.3 20086.9 1042.85 20089.4  1042.8
 20121.7  1043.3 20171.2 1041.05 20188.2  1040.9 20189.4  1040.9 20223.2  1040.4
 20248.7  1042.2 20286.9  1043.4 20289.4  1043.4 20307.7 1044.35 20382.7  1069.6
 20387.9  1070.4 20387.9  1072.9   20388 1078.19   20790  1078.3   21330  1075.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   17300    .037 19488.2    .032 20387.9    .037

Bank Sta: Left   Right    Coeff Contr.   Expan.
       19488.2 20387.9             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   17300 19488.2 1072.97 20387.9   21330  1070.4

Downstream  Deck/Roadway Coordinates
    num=      10
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
 19488.2 1078.14 1072.97 19586.9  1078.5 1073.28 19686.9 1078.86 1073.64
 19786.9 1079.15 1073.93 19886.9 1079.37  1074.2 19989.4 1079.38  1074.2
 20086.9 1079.13 1073.93 20188.2 1078.89  1073.7 20286.9 1078.53 1073.32
 20387.9 1078.19 1072.98

Downstream Bridge Cross Section Data
Station Elevation Data    num=      45
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   17300  1071.7   17670    1072   17850  1073.6   18250  1075.5   19180  1078.2
 19488.1  1078.1 19488.2 1072.97 19495.2  1069.2 19517.2  1057.5 19564.2 1055.45
 19584.2  1051.3 19586.9    1051 19589.4    1051 19638.2  1048.1 19686.9  1047.3
 19689.4  1047.3 19704.2  1047.2 19743.2  1042.2 19786.9 1042.15 19789.4  1042.2
 19838.2  1042.8 19871.7  1042.9 19886.9 1043.85 19889.4  1043.8 19938.2  1044.1
 19986.9  1042.7 19989.4  1042.7 20038.2  1042.3 20086.9 1042.85 20089.4  1042.8
 20121.7  1043.3 20171.2 1041.05 20188.2  1040.9 20189.4  1040.9 20223.2  1040.4
 20248.7  1042.2 20286.9  1043.4 20289.4  1043.4 20307.7 1044.35 20382.7  1069.6
 20387.9  1070.4 20387.9  1072.9   20388 1078.19   20790  1078.3   21330  1075.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   17300    .037 19488.2    .032 20387.9    .037

Bank Sta: Left   Right    Coeff Contr.   Expan.
       19488.2 20387.9             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   17300 19488.2 1072.97 20387.9   21330  1070.4

Upstream Embankment side slope              =         horiz. to 1.0 vertical
Downstream Embankment side slope            =         horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  8

Pier Data
Pier Station     Upstream=19588.15    Downstream=19588.15
Upstream     num=       2
    Width   Elev    Width   Elev
     2.5    1051     2.5 1073.28
Downstream     num=       2
    Width   Elev    Width   Elev
     2.5    1051     2.5 1073.28

Pier Data
Pier Station     Upstream=19688.15    Downstream=19688.15
Upstream     num=       2
    Width   Elev    Width   Elev
     2.5  1047.3     2.5  1073.7
Downstream     num=       2
    Width   Elev    Width   Elev
     2.5  1047.3     2.5  1073.7
```

```
Pier Data
Pier Station     Upstream=19788.15    Downstream=19788.15
Upstream     num=       2
    Width   Elev    Width   Elev
     2.5 1042.15     2.5  1073.9
Downstream     num=       2
    Width   Elev    Width   Elev
     2.5 1042.15     2.5  1073.9

Pier Data
Pier Station     Upstream=19888.15    Downstream=19888.15
Upstream     num=       2
    Width   Elev    Width   Elev
     2.5  1043.8     2.5  1074.2
Downstream     num=       2
    Width   Elev    Width   Elev
     2.5  1043.8     2.5  1074.2

Pier Data
Pier Station     Upstream=19988.15    Downstream=19988.15
Upstream     num=       2
    Width   Elev    Width   Elev
     2.5  1042.7     2.5  1074.2
Downstream     num=       2
    Width   Elev    Width   Elev
     2.5  1042.7     2.5  1074.2

Pier Data
Pier Station     Upstream=20088.15    Downstream=20088.15
Upstream     num=       2
    Width   Elev    Width   Elev
     2.5  1042.8     2.5  1073.9
Downstream     num=       2
    Width   Elev    Width   Elev
     2.5  1042.8     2.5  1073.9

Pier Data
Pier Station     Upstream=20189.45    Downstream=20189.45
Upstream     num=       2
    Width   Elev    Width   Elev
     2.5  1040.9     2.5  1073.7
Downstream     num=       2
    Width   Elev    Width   Elev
     2.5  1040.9     2.5  1073.7

Pier Data
Pier Station     Upstream=20288.15    Downstream=20288.15
Upstream     num=       2
    Width   Elev    Width   Elev
     2.5  1043.4     2.5  1073.3
Downstream     num=       2
    Width   Elev    Width   Elev
     2.5  1043.4     2.5  1073.3

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
       Momentum              Cd   =     1.2
       Yarnell               KVal =    1.05
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the downstream end
       Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT    Profile #PF#1
Opening : Bridge #1

  E.G. US. (ft)                1069.32   Element                Inside BR US  Inside BR DS
```

W.S. US. (ft)	1068.15	E.G. Elev (ft)	1069.31	1069.16
Q Total (cfs)	169000.00	W.S. Elev (ft)	1068.07	1067.90
Q Bridge (cfs)	169000.00	Crit W.S. (ft)	1055.80	1055.79
Q Weir (cfs)		Max Chl Dpth (ft)	27.67	27.50
Weir Sta Lft (ft)		Vel Total (ft/s)	8.92	8.99
Weir Sta Rgt (ft)		Flow Area (sq ft)	18944.18	18796.29
Weir Submerg		Froude # Chl	0.34	0.34
Weir Max Depth (ft)		Specif Force (cu ft)	270564.00	267689.06
Min Top Rd (ft)	1072.90	Hydr Depth (ft)	22.01	21.86
Min El Prs (ft)	1074.20	W.P. Total (ft)	1249.45	1245.79
Delta EG (ft)	0.18	Conv. Total (cfs)	5388805.5	5329273.5
Delta WS (ft)	0.20	Top Width (ft)	860.85	860.02
BR Open Area (sq ft)	23844.87	Frctn Loss (ft)	0.15	0.00
BR Open Vel (ft/s)	8.99	C & E Loss (ft)	0.00	0.02
Coef of Q		Shear Total (lb/sq ft)	0.93	0.95
Br Sel Mthd	Energy only	Power Total (lb/ft s)	8.31	8.52

BRIDGE OUTPUT Profile #PF#2
Opening : Bridge #1

		Element	Inside BR US	Inside BR DS
E.G. US. (ft)	1069.33	E.G. Elev (ft)	1069.32	1069.17
W.S. US. (ft)	1068.16	W.S. Elev (ft)	1068.08	1067.91
Q Total (cfs)	169000.00	Crit W.S. (ft)	1055.80	1055.79
Q Bridge (cfs)	169000.00	Max Chl Dpth (ft)	27.68	27.51
Q Weir (cfs)		Vel Total (ft/s)	8.92	8.99
Weir Sta Lft (ft)		Flow Area (sq ft)	18953.53	18805.95
Weir Sta Rgt (ft)		Froude # Chl	0.33	0.34
Weir Submerg		Specif Force (cu ft)	270746.78	267876.00
Weir Max Depth (ft)		Hydr Depth (ft)	22.02	21.87
Min Top Rd (ft)	1078.17	W.P. Total (ft)	1249.48	1246.03
Min El Prs (ft)	1074.20	Conv. Total (cfs)	5393144.0	5333159.5
Delta EG (ft)	0.18	Top Width (ft)	860.72	860.07
Delta WS (ft)	0.20	Frctn Loss (ft)	0.15	0.00
BR Open Area (sq ft)	23787.30	C & E Loss (ft)	0.00	0.02
BR Open Vel (ft/s)	8.99	Shear Total (lb/sq ft)	0.93	0.95
Coef of Q		Power Total (lb/ft s)	8.29	8.50
Br Sel Mthd	Energy only			

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.25

INPUT
Description: 213.25
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17300	1071.7	17670	1072	17850	1073.6	18250	1075.5	19180	1078.2
19488.1	1078.1	19488.2	1072.97	19495.2	1069.2	19517.2	1057.5	19564.2	1055.45
19584.2	1051.3	19586.9	1051	19589.4	1051	19638.2	1048.1	19686.9	1047.3
19689.4	1047.3	19704.2	1047.2	19743.2	1042.2	19786.9	1042.15	19789.4	1042.2
19838.2	1042.8	19871.7	1042.9	19886.9	1043.85	19889.4	1043.8	19938.2	1044.1
19986.9	1042.7	19989.4	1042.7	20038.2	1042.3	20086.9	1042.85	20089.4	1042.8
20121.7	1043.3	20171.2	1041.05	20188.2	1040.9	20189.4	1040.9	20223.2	1040.4
20248.7	1042.2	20286.9	1043.4	20289.4	1043.4	20307.7	1044.35	20382.7	1069.6
20387.9	1070.4	20387.9	1072.9	20388	1078.19	20790	1078.3	21330	1075.5

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17300	.037	19488.2	.032	20387.9	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19488.2	20387.9	121	123.36	121	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17300	19488.2	1072.97	20387.9	21330	1070.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1067.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.19	Wt. n-Val.		0.032	
E.G. Elev (ft)	1069.14	Reach Len. (ft)	121.00	123.36	121.00
Crit W.S. (ft)	1055.57	Flow Area (sq ft)		19309.64	
E.G. Slope (ft/ft)	0.000585	Area (sq ft)		19309.64	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	880.24	Top Width (ft)		880.24	

Vel Total (ft/s)	8.75	Avg. Vel. (ft/s)		8.75	
Max Chl Dpth (ft)	27.55	Hydr. Depth (ft)		21.94	
Conv. Total (cfs)	6986288.0	Conv. (cfs)		6986288.0	
Length Wtd. (ft)	123.36	Wetted Per. (ft)		887.84	
Min Ch El (ft)	1040.40	Shear (lb/sq ft)		0.79	
Alpha	1.00	Stream Power (lb/ft s)		6.95	
Frctn Loss (ft)	0.07	Cum Volume (acre-ft)	9342.63	33332.73	3553.00
C & E Loss (ft)	0.05	Cum SA (acres)	2184.44	3139.25	1046.00

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1067.96	Element			
Vel Head (ft)	1.19	Wt. n-Val.		0.032	
E.G. Elev (ft)	1069.15	Reach Len. (ft)	121.00	123.36	121.00
Crit W.S. (ft)	1055.57	Flow Area (sq ft)		19319.43	
E.G. Slope (ft/ft)	0.000584	Area (sq ft)		19319.43	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	880.24	Top Width (ft)		880.24	
Vel Total (ft/s)	8.75	Avg. Vel. (ft/s)		8.75	
Max Chl Dpth (ft)	27.56	Hydr. Depth (ft)		21.95	
Conv. Total (cfs)	6992080.0	Conv. (cfs)		6992080.0	
Length Wtd. (ft)	123.36	Wetted Per. (ft)		887.86	
Min Ch El (ft)	1040.40	Shear (lb/sq ft)		0.79	
Alpha	1.00	Stream Power (lb/ft s)		6.94	
Frctn Loss (ft)	0.07	Cum Volume (acre-ft)	1324.44	34307.25	879.42
C & E Loss (ft)	0.05	Cum SA (acres)	217.60	3144.17	101.73

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19488.20 LB	19668.14	16497.59	2520.49	173.77	9.76	14.78	6.55
19668.14	19848.08	39670.40	4330.04	180.27	23.47	24.06	9.16
19848.08	20028.02	41362.28	4437.19	179.99	24.47	24.66	9.32
20028.02	20207.96	44474.70	4634.73	180.00	26.32	25.76	9.60
20207.96	20387.90 RB	26995.03	3387.20	173.81	15.97	19.94	7.97

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19488.20 LB	19668.14	16504.03	2522.39	173.78	9.77	14.79	6.54
19668.14	19848.08	39668.62	4332.03	180.27	23.47	24.07	9.16
19848.08	20028.02	41359.65	4439.19	179.99	24.47	24.67	9.32
20028.02	20207.96	44470.45	4636.72	180.00	26.31	25.77	9.59
20207.96	20387.90 RB	26997.26	3389.09	173.81	15.97	19.96	7.97

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.21

INPUT
Description: 213.21

Right Channel Bank Station Interpolated
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18330.9	1072.8	18364	1072.8	18412.8	1073.1	18447.9	1073	18475.1	1072.3
18506.2	1072	18530.5	1071.1	18588.6	1070	18604.7	1069.8	18607.3	1070
18638.6	1069.9	18645.2	1070	18646.8	1070	18647	1070	18648.3	1070
18679.6	1070.4	18691	1070.2	18696.8	1070.3	18826.1	1070.2	18853.1	1069.7
18879.8	1069.1	18990	1068.8	19004.3	1068.6	19030.8	1069	19071.8	1069.5
19171.4	1069.4	19189.5	1069.4	19238.8	1069.2	19251.2	1070	19253.8	1070
19283.8	1069	19284.7	1069	19384	1068.2	19385.3	1068.1	19387.8	1068.1
19391.2	1068.1	19421.7	1067.9	19486.6	1066.6	19490.3	1065.6	19518.8	1054.9
19533.4	1049	19535.9	1049.5	19545.6	1052	19551.4	1054.2	19576.8	1051.8
19595.9	1047.4	19611.2	1046.8	19618.6	1046.7	19619.1	1046.6	19626.3	1045.5
19627	1045.3	19697	1045.2	19802.7	1045.1	20377.2	1044.9	20380.6	1045
20387.2	1045.1	20389.8	1045.1	20418.5	1045.3	20484.9	1046.3	20500.9	1046.4
20506.4	1046.3	20545.8	1046.4	20547	1046.4	20573.1	1046	20581	1046
20584	1054.4	20584.6	1058.9	20634.9	1062.9	20654.9	1064.2	20663	1064.8
20687	1065.1	20732.3	1064.9	20749.5	1065.1	20761.2	1066	20787.8	1066.2
20803.3	1066.3	20840	1066.3	20853.8	1066.3	20900.8	1066.8	20929.7	1067.2

20948.4	1067.8	20957.7	1070.3	20963.6	1072.1	20965.8	1071.9	20972.5	1072.2
20980.1	1072.5	21025.3	1072.2	21041.7	1072.4	21049	1072.4	21083	1072.6
21094.6	1072.7	21137.7	1072.7	21224.3	1073.6	21258.5	1074.2	21274.1	1074.3
21278.4	1074.5								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18330.9	.037	19490.3	.032	20418.5	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19490.3	20418.5	450	531.57	745	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18330.9	19253.8	1074	20418.5	21278.4	1074

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1067.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.04	Wt. n-Val.	0.037	0.032	
E.G. Elev (ft)	1069.02	Reach Len. (ft)	450.00	531.57	745.00
Crit W.S. (ft)	1055.85	Flow Area (sq ft)	55.42	20303.01	
E.G. Slope (ft/ft)	0.000510	Area (sq ft)	55.42	20303.01	4648.56
Q Total (cfs)	166000.00	Flow (cfs)	38.68	165961.31	
Top Width (ft)	1540.71	Top Width (ft)	81.92	928.20	530.60
Vel Total (ft/s)	8.15	Avg. Vel. (ft/s)	0.70	8.17	
Max Chl Dpth (ft)	23.09	Hydr. Depth (ft)	0.68	21.87	
Conv. Total (cfs)	7351092.5	Conv. (cfs)	1713.1	7349379.5	
Length Wtd. (ft)	531.56	Wetted Per. (ft)	82.06	932.81	
Min Ch El (ft)	1044.90	Shear (lb/sq ft)	0.02	0.69	
Alpha	1.00	Stream Power (lb/ft s)	0.02	5.66	
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	9342.55	33276.64	3546.55
C & E Loss (ft)	0.04	Cum SA (acres)	2184.33	3136.69	1045.26

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1068.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.04	Wt. n-Val.		0.032	
E.G. Elev (ft)	1069.03	Reach Len. (ft)	450.00	531.57	745.00
Crit W.S. (ft)	1055.85	Flow Area (sq ft)		20311.62	
E.G. Slope (ft/ft)	0.000528	Area (sq ft)		20311.62	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	928.20	Top Width (ft)		928.20	
Vel Total (ft/s)	8.17	Avg. Vel. (ft/s)		8.17	
Max Chl Dpth (ft)	23.10	Hydr. Depth (ft)		21.88	
Conv. Total (cfs)	7225568.0	Conv. (cfs)		7225568.0	
Length Wtd. (ft)	531.57	Wetted Per. (ft)		957.90	
Min Ch El (ft)	1044.90	Shear (lb/sq ft)		0.70	
Alpha	1.00	Stream Power (lb/ft s)		5.71	
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	1324.44	34251.13	879.42
C & E Loss (ft)	0.04	Cum SA (acres)	217.60	3141.61	101.73

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19335.71	19413.01	0.00	0.07	4.62	0.00	0.02	0.05
19413.01	19490.30	38.68	55.35	77.44	0.02	0.72	0.70
19490.30 LB	19675.94	22573.79	3260.12	190.25	13.60	17.56	6.92
19675.94	19861.58	35580.25	4241.67	185.64	21.43	22.85	8.39
19861.58	20047.22	35817.27	4258.62	185.64	21.58	22.94	8.41
20047.22	20232.86	35985.09	4270.56	185.64	21.68	23.00	8.43
20232.86	20418.50 RB	36004.91	4272.02	185.64	21.69	23.01	8.43

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19490.30 LB	19675.94	22787.05	3261.85	192.64	13.73	17.57	6.99
19675.94	19861.58	36210.00	4243.39	185.64	21.81	22.86	8.53
19861.58	20047.22	36451.12	4260.34	185.64	21.96	22.95	8.56
20047.22	20232.86	36621.84	4272.28	185.64	22.06	23.01	8.57
20232.86	20418.50 RB	33930.00	4273.74	208.34	20.44	23.02	7.94

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.11

INPUT
Description: 213.11
Station Elevation Data num= 85

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17566.5	1070.1	17705.4	1071.3	17742.2	1071.6	17814.3	1070.1	17888.9	1069.6
17929.2	1069.8	17996.1	1072.7	18084.9	1073.4	18245.7	1073.1	18304.6	1073.3
18312.5	1071.8	18319.5	1069.3	18320.2	1069.1	18324.7	1069.1	18353.4	1069.6
18382.1	1068.8	18390	1068.3	18395.2	1069.2	18399.3	1071.7	18472.2	1071.2
18480.8	1071.2	18492.7	1070.4	18507.8	1070	18517.1	1069.2	18520.7	1069.6
18584	1071.9	18596.8	1072.2	18606	1072.4	18609.2	1072.4	18753.6	1072
18759.6	1071.8	18769.2	1073.7	18780.8	1075.5	18785.7	1075	18793.4	1074.4
18863.8	1073.8	18931.9	1074.1	18960.3	1074.3	18976.4	1074.4	19015.9	1075
19047.7	1075	19171.5	1072.4	19275.4	1071	19456	1071.1	19523.2	1069.3
19575	1067.9	19589.1	1068.3	19601.9	1071.4	19606.1	1072.1	19616.1	1067.5
19661.3	1047.6	20012.6	1047.6	20486.9	1047.9	20586.5	1081.1	20599.1	1086
20638.9	1086.2	20743.9	1086.8	20798.9	1087.3	20849	1087.5	20878.6	1087.6
20889.5	1087.8	20899.2	1087.8	20922	1087.5	21000.4	1087.3	21062.3	1085.9
21080.5	1084.4	21100.6	1083.3	21131.5	1083	21372.7	1078.3	21390.1	1077.6
21449.7	1073.9	21464.1	1073.6	21478.8	1073.9	21484.8	1073.8	21573.7	1073.9
21602.4	1073.9	21694.6	1073.6	21800.6	1072.4	21943.2	1070.8	22180.4	1070.9
22217.7	1071	22268.3	1071.4	22474.2	1073.6	22486.2	1076.3	22488.2	1077

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17566.5	.037	19606.1	.032	20599.1	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19606.1	20599.1	425	459.38	565	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17566.5	18780.8	1087.8	20599.1	22488.2	1087.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1067.16	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.47	Wt. n-Val.		0.032	
E.G. Elev (ft)	1068.63	Reach Len. (ft)	425.00	459.38	565.00
Crit W.S. (ft)	1058.35	Flow Area (sq ft)		17065.84	
E.G. Slope (ft/ft)	0.000913	Area (sq ft)		17065.84	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	927.79	Top Width (ft)		927.79	
Vel Total (ft/s)	9.73	Avg. Vel. (ft/s)		9.73	
Max Chl Dpth (ft)	19.56	Hydr. Depth (ft)		18.39	
Conv. Total (cfs)	5493387.0	Conv. (cfs)		5493387.0	
Length Wtd. (ft)	459.38	Wetted Per. (ft)		935.03	
Min Ch El (ft)	1047.60	Shear (lb/sq ft)		1.04	
Alpha	1.00	Stream Power (lb/ft s)		10.12	
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	9342.27	33048.63	3506.79
C & E Loss (ft)	0.01	Cum SA (acres)	2183.90	3125.37	1040.73

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1067.16	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.47	Wt. n-Val.		0.032	
E.G. Elev (ft)	1068.63	Reach Len. (ft)	425.00	459.38	565.00
Crit W.S. (ft)	1058.35	Flow Area (sq ft)		17068.22	
E.G. Slope (ft/ft)	0.000913	Area (sq ft)		17068.22	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	927.79	Top Width (ft)		927.79	
Vel Total (ft/s)	9.73	Avg. Vel. (ft/s)		9.73	
Max Chl Dpth (ft)	19.56	Hydr. Depth (ft)		18.40	
Conv. Total (cfs)	5494651.0	Conv. (cfs)		5494651.0	
Length Wtd. (ft)	459.38	Wetted Per. (ft)		935.04	
Min Ch El (ft)	1047.60	Shear (lb/sq ft)		1.04	
Alpha	1.00	Stream Power (lb/ft s)		10.12	
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	1324.44	34023.05	879.42
C & E Loss (ft)	0.01	Cum SA (acres)	217.60	3130.29	101.73

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19606.10 LB	19804.70	29752.72	3238.85	191.93	17.92	17.24	9.19
19804.70	20003.30	39366.91	3884.04	198.60	23.72	19.56	10.14
20003.30	20201.90	39176.02	3872.74	198.60	23.60	19.50	10.12
20201.90	20400.50	38756.36	3847.78	198.60	23.35	19.37	10.07
20400.50	20599.10 RB	18948.00	2222.43	147.30	11.41	15.42	8.53

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19606.10 LB	19804.70	29753.10	3239.33	191.94	17.92	17.25	9.18
19804.70	20003.30	39366.48	3884.55	198.60	23.71	19.56	10.13
20003.30	20201.90	39175.61	3873.25	198.60	23.60	19.50	10.11
20201.90	20400.50	38756.02	3848.29	198.60	23.35	19.38	10.07
20400.50	20599.10 RB	18948.80	2222.80	147.30	11.41	15.42	8.52

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.03

INPUT
Description: 213.03
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16056.5	1068.9	16069.1	1068.8	16071.5	1068.8	16197.1	1069.2	16383.9	1070
16409	1070	16413.8	1070	16414.4	1070	16428.8	1070	16501.9	1070.2
16550	1070.3	16603.1	1070.5	16734.3	1069.9	16759	1069.9	16800.6	1069.5
16821.1	1069.8	16943.1	1070.1	16956.6	1070.5	16985.9	1070.6	17193.9	1070.8
17238.8	1069.8	17263.2	1069.3	17296.6	1068.7	17461.4	1069.1	17486.5	1069.2
17576.5	1069.4	17728.6	1070.6	17908.4	1072	17938.3	1071.6	17974.7	1070.1
17987.3	1069.9	18028.7	1068.5	18086.7	1069.1	18107.5	1068.9	18113.8	1068.9
18246.2	1068.5	18370.2	1068.2	18382.5	1068.2	18389	1068.3	18394.9	1068.3
18496	1070.4	18502.4	1070.5	18521.4	1070.6	18643.8	1071	18700.9	1071.3
18708.1	1071.2	18723.6	1071.3	18831.5	1070.9	18846.4	1070.8	18847.1	1070.8
18848.3	1070.8	18969.8	1071.4	19007.8	1071.8	19178.9	1073.7	19181.7	1073.7
19324.1	1073.1	19588.8	1066.9	19627.1	1066	19640.5	1066.2	19662.1	1067.2
19666.3	1067.8	19672.1	1066.574	19703.2	1060	19755.3	1050.7	19776.1	1048.9
19807.6	1047.8	19807.9	1047.8	19808.6	1047.8	19883.7	1046.8	19936.5	1046.7
19974.6	1046.7	20168.5	1046.8	20481.5	1047.5	20531.6	1047.5	20536.3	1047.6
20551.1	1052.6	20591.83	1066.575	20595.4	1067.8	20639.6	1083	20645.8	1085
20668.5	1085.5	20744.1	1085.4	20806.7	1086.1	20879.4	1082	20936.8	1078.5
20990.3	1075.5	21125.9	1073.2	21137.8	1072.9	21183.6	1072.1	21221	1072
21240.8	1071.7	21303.4	1071.3	21328.8	1071.1	21394.9	1071.7	21406.3	1071.8
21439	1071.7	21481.2	1071.9						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
16056.5	.037	19672.1	.03	20591.83	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19672.1	20591.83	475	495	525	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16056.5	19178.9	1086.1	20645.8	21481.2	1086.1

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1066.57	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.60	Wt. n-Val.	0.037	0.032	
E.G. Elev (ft)	1068.17	Reach Len. (ft)	475.00	495.00	525.00
Crit W.S. (ft)	1058.28	Flow Area (sq ft)	14.82	16375.94	
E.G. Slope (ft/ft)	0.001032	Area (sq ft)	14.82	16375.94	
Q Total (cfs)	166000.00	Flow (cfs)	9.00	165991.00	
Top Width (ft)	965.54	Top Width (ft)	45.83	919.72	
Vel Total (ft/s)	10.13	Avg. Vel. (ft/s)	0.61	10.14	
Max Chl Dpth (ft)	19.87	Hydr. Depth (ft)	0.32	17.81	
Conv. Total (cfs)	5167475.5	Conv. (cfs)	280.2	5167195.5	
Length Wtd. (ft)	495.00	Wetted Per. (ft)	45.84	924.49	
Min Ch El (ft)	1046.70	Shear (lb/sq ft)	0.02	1.14	
Alpha	1.00	Stream Power (lb/ft s)	0.01	11.57	
Frctn Loss (ft)	0.57	Cum Volume (acre-ft)	9342.19	32872.30	3506.79
C & E Loss (ft)	0.05	Cum SA (acres)	2183.68	3115.62	1040.73

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1066.58	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.60	Wt. n-Val.		0.032	
E.G. Elev (ft)	1068.17	Reach Len. (ft)	475.00	495.00	525.00
Crit W.S. (ft)	1058.28	Flow Area (sq ft)		16378.19	
E.G. Slope (ft/ft)	0.001032	Area (sq ft)	0.00	16378.19	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	919.74	Top Width (ft)		919.73	
Vel Total (ft/s)	10.14	Avg. Vel. (ft/s)		10.14	
Max Chl Dpth (ft)	19.88	Hydr. Depth (ft)		17.81	
Conv. Total (cfs)	5168331.0	Conv. (cfs)		5168331.0	
Length Wtd. (ft)	495.00	Wetted Per. (ft)		924.50	
Min Ch El (ft)	1046.70	Shear (lb/sq ft)		1.14	
Alpha	1.00	Stream Power (lb/ft s)		11.56	
Frctn Loss (ft)	0.57	Cum Volume (acre-ft)	1324.44	33846.69	879.42
C & E Loss (ft)	0.05	Cum SA (acres)	217.60	3120.55	101.73

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19431.06	19672.10	9.00	14.82	45.84	0.01	0.32	0.61
19672.10 LB	19856.04	21360.18	2534.22	185.55	12.87	13.78	8.43
19856.04	20039.99	39354.45	3643.94	183.95	23.71	19.81	10.80
20039.99	20223.94	39246.75	3637.92	183.95	23.64	19.78	10.79
20223.94	20407.88	38148.29	3576.50	183.95	22.98	19.44	10.67
20407.88	20591.83 RB	27881.34	2983.36	187.09	16.80	16.22	9.35

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19672.10 LB	19856.04	21362.51	2534.66	185.56	12.87	13.78	8.43
19856.04	20039.99	39356.05	3644.39	183.95	23.71	19.81	10.80
20039.99	20223.94	39248.35	3638.37	183.95	23.64	19.78	10.79
20223.94	20407.88	38149.98	3576.95	183.95	22.98	19.45	10.67
20407.88	20591.83 RB	27883.12	2983.81	187.10	16.80	16.22	9.34

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.93

INPUT
Description: 212.93

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 93

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18913.7	1067.5	18940.6	1066.4	18961.6	1067.4	18996.4	1069.5	19034.7	1069.3
19121.7	1070.2	19158.8	1070.2	19269.6	1071.2	19362.4	1070.3	19381.3	1070.6
19412.2	1072.5	19420.1	1072.9	19430.8	1073.3	19436.5	1073.5	19633.3	1068.7
19645	1068.3	19645.7	1068.4	19645.9	1068.4	19653.4	1069	19673.1	1070.5
19690.76	1065.485	19697.4	1063.6	19757.3	1046.7	19779.3	1046.4	19826.6	1046.3
19850.5	1046.5	19924.2	1047.4	19928.9	1047.5	19929.5	1047.4	19958.7	1045.5
20129.7	1045.4	20271.7	1045.6	20345.4	1045.6	20426.9	1045.5	20489.75	1065.484
20489.8	1065.5	20498.7	1068.1	20501.4	1068	20587.1	1066.5	20637	1066.5
20655.9	1066.4	20685.9	1065.7	20749.1	1064.9	20804.3	1071.3	20847	1074.9
20872.4	1075.1	20941	1074.1	20990.9	1073	21005.7	1072.8	21075.3	1071.3
21079.7	1071.2	21083	1071.2	21113	1071.3	21246.3	1072.7	21249.5	1072.8
21261.8	1072.9	21268.5	1072.9	21332.8	1073.1	21571.4	1072.7	21590.1	1072.7
21815.9	1071.3	21853.1	1071.3	21982.5	1070.6	22017.6	1070.5	22314.9	1070
22499	1068.8	22548.8	1068.9	22568.2	1068.4	22648.5	1068.9	22948.3	1069.7
23054.9	1071.1	23121.6	1072	23140.9	1076.4	23143.5	1077.2	23151.2	1077.1
23159.2	1077	23162.2	1077.3	23171	1077.8	23179.9	1081.1	23202.7	1089.6
23248.6	1089.5	23303.8	1089.6	23327.8	1082.2	23331.1	1081	23333.2	1080.6
23345.9	1077.9	23350.9	1077.9	23361.3	1078.1	23377.6	1073.6	23386.3	1070.8
23389.2	1071	23392	1071.2	23394	1070.7				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18913.7	.037	19690.76	.032	20489.75	.037

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

Left	Right	Left	Channel	Right	Coeff Contr.	Expan.
19690.76	20489.75	495	501.9	535	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18913.7	19673.1	1078	20498.7	23394	1078

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1065.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.06	Wt. n-Val.		0.032	
E.G. Elev (ft)	1067.55	Reach Len. (ft)	495.00	501.90	535.00
Crit W.S. (ft)	1057.98	Flow Area (sq ft)		14401.40	
E.G. Slope (ft/ft)	0.001316	Area (sq ft)		14401.40	14.91
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	850.10	Top Width (ft)		798.98	51.12
Vel Total (ft/s)	11.53	Avg. Vel. (ft/s)		11.53	
Max Chl Dpth (ft)	20.08	Hydr. Depth (ft)		18.02	
Conv. Total (cfs)	4575176.0	Conv. (cfs)		4575176.0	
Length Wtd. (ft)	501.90	Wetted Per. (ft)		804.76	
Min Ch El (ft)	1045.40	Shear (lb/sq ft)		1.47	
Alpha	1.00	Stream Power (lb/ft s)		16.95	
Frctn Loss (ft)	0.79	Cum Volume (acre-ft)	9342.11	32697.42	3506.70
C & E Loss (ft)	0.10	Cum SA (acres)	2183.43	3105.86	1040.42

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1065.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.06	Wt. n-Val.		0.032	
E.G. Elev (ft)	1067.55	Reach Len. (ft)	495.00	501.90	535.00
Crit W.S. (ft)	1057.98	Flow Area (sq ft)		14404.13	
E.G. Slope (ft/ft)	0.001316	Area (sq ft)		14404.13	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	798.99	Top Width (ft)		798.99	
Vel Total (ft/s)	11.52	Avg. Vel. (ft/s)		11.52	
Max Chl Dpth (ft)	20.09	Hydr. Depth (ft)		18.03	
Conv. Total (cfs)	4576573.0	Conv. (cfs)		4576573.0	
Length Wtd. (ft)	501.90	Wetted Per. (ft)		804.78	
Min Ch El (ft)	1045.40	Shear (lb/sq ft)		1.47	
Alpha	1.00	Stream Power (lb/ft s)		16.94	
Frctn Loss (ft)	0.79	Cum Volume (acre-ft)	1324.44	33671.79	879.42
C & E Loss (ft)	0.10	Cum SA (acres)	217.60	3110.78	101.73

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19690.76 LB	19850.56	24210.29	2403.96	162.40	14.58	15.04	10.07
19850.56	20010.36	36360.27	3049.18	159.87	21.90	19.08	11.92
20010.36	20170.15	39500.86	3203.98	159.80	23.80	20.05	12.33
20170.15	20329.95	39103.07	3184.57	159.80	23.56	19.93	12.28
20329.95	20489.75 RB	26825.52	2559.71	162.90	16.16	16.02	10.48

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19690.76 LB	19850.56	24211.27	2404.50	162.40	14.59	15.05	10.07
19850.56	20010.36	36360.02	3049.73	159.87	21.90	19.09	11.92

20010.36	20170.15	39500.04	3204.53	159.80	23.80	20.05	12.33
20170.15	20329.95	39102.32	3185.11	159.80	23.56	19.93	12.28
20329.95	20489.75 RB	26826.34	2560.26	162.90	16.16	16.02	10.48

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.84

INPUT
Description: 212.84

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16284.9	1068.4	16487.1	1068.9	16606	1069.3	16985	1071.2	17015.9	1071.4
17038.7	1071.8	17089.2	1071.1	17339.8	1070.2	17519.4	1069.1	17554.9	1069.1
17652.7	1069	17900.6	1068.7	18109.2	1068.8	18133.9	1069	19053.9	1067.7
19203.8	1066	19229.6	1065.8	19232.1	1065.8	19238.5	1065.7	19242.2	1065.7
19244.8	1065.8	19286.8	1067.4	19292.2	1069.2	19450.5	1067.9	19498.7	1067.5
19560.8	1067	19586	1066.9	19671.4	1066.8	19692.2	1068.3	19695.5	1068.9
19711.5	1063.544	19765.4	1045.5	19772.2	1043.1	19790.5	1043.1	19811.3	1043.2
20298.7	1043.5	20314.2	1050.2	20347.25	1063.544	20367.7	1071.8	20367.9	1071.8
20405.2	1072.8	20416.8	1072.7	20424.4	1072.7	20490.9	1070.9	20522.9	1069.8
20629.8	1070.1	20679.7	1070.1	20767.5	1070.4	20793.1	1070.2	20818.2	1069.1
20874.5	1068.7	20940.7	1070.4	20979.1	1070.3	21186.4	1069.3	21242.6	1069.1
21449.2	1070.2	21488.8	1070.8	21502.4	1071	21582.5	1070.9	21684.9	1071.4
21805.3	1070.7	21883.6	1070.5	21943.6	1070.2	22187.5	1070.4	22226.7	1070.2
22398.2	1069.8								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
16284.9	.037	19711.5	.03	20347.25	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19711.5	20347.25	565	538.19	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16284.9	19695.5	1072.8	20367.7	22398.2	1072.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1063.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.11	Wt. n-Val.		0.032	
E.G. Elev (ft)	1066.65	Reach Len. (ft)	565.00	538.19	480.00
Crit W.S. (ft)	1057.53	Flow Area (sq ft)		11736.64	
E.G. Slope (ft/ft)	0.001931	Area (sq ft)		11736.64	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	635.75	Top Width (ft)		635.75	
Vel Total (ft/s)	14.14	Avg. Vel. (ft/s)		14.14	
Max Chl Dpth (ft)	20.44	Hydr. Depth (ft)		18.46	
Conv. Total (cfs)	3777840.8	Conv. (cfs)		3777840.8	
Length Wtd. (ft)	538.19	Wetted Per. (ft)		643.08	
Min Ch El (ft)	1043.10	Shear (lb/sq ft)		2.20	
Alpha	1.00	Stream Power (lb/ft s)		31.11	
Frctn Loss (ft)	0.90	Cum Volume (acre-ft)	9342.11	32546.84	3506.61
C & E Loss (ft)	0.18	Cum SA (acres)	2183.43	3097.59	1040.10

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1063.55	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.10	Wt. n-Val.		0.032	
E.G. Elev (ft)	1066.65	Reach Len. (ft)	565.00	538.19	480.00
Crit W.S. (ft)	1057.53	Flow Area (sq ft)		11739.66	
E.G. Slope (ft/ft)	0.001929	Area (sq ft)		11739.66	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	635.75	Top Width (ft)		635.75	
Vel Total (ft/s)	14.14	Avg. Vel. (ft/s)		14.14	

Max Chl Dpth (ft)	20.45	Hydr. Depth (ft)		18.47		
Conv. Total (cfs)	3779414.5	Conv. (cfs)		3779414.5		
Length Wtd. (ft)	538.19	Wetted Per. (ft)		643.09		
Min Ch El (ft)	1043.10	Shear (lb/sq ft)		2.20		
Alpha	1.00	Stream Power (lb/ft s)		31.09		
Frctn Loss (ft)	0.90	Cum Volume (acre-ft)	1324.44	33521.18	879.42	
C & E Loss (ft)	0.18	Cum SA (acres)	217.60	3102.52	101.73	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19711.50 LB	19838.65	24353.42	1971.53	130.50	14.67	15.51	12.35
19838.65	19965.80	38783.14	2579.51	127.15	23.36	20.29	15.04
19965.80	20092.95	38533.57	2569.52	127.15	23.21	20.21	15.00
20092.95	20220.10	38285.62	2559.60	127.15	23.06	20.13	14.96
20220.10	20347.25 RB	26044.26	2056.49	131.13	15.69	16.17	12.66

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19711.50 LB	19838.65	24354.85	1972.13	130.51	14.67	15.51	12.35
19838.65	19965.80	38782.20	2580.11	127.15	23.36	20.29	15.03
19965.80	20092.95	38532.68	2570.12	127.15	23.21	20.21	14.99
20092.95	20220.10	38284.80	2560.21	127.15	23.06	20.14	14.95
20220.10	20347.25 RB	26045.46	2057.10	131.13	15.69	16.18	12.66

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.74

INPUT
Description: 212.74

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15451.4	1067.1	15456.2	1067.3	15464.1	1067.8	15467.8	1068.3	15480.9	1067.9
15619.6	1066.5	15997.3	1067	16142.7	1066.6	16235	1067.1	16317.5	1067.4
16486.7	1067.9	16644.3	1068.2	16906.1	1067.7	17106.4	1067.8	17312.1	1069.3
17351.4	1069.8	17392.8	1069.3	17578.5	1067.9	17799	1066.9	17906.3	1067
18021.4	1067.4	18082.2	1066.6	18121.5	1067.1	18128.7	1067	19421.5	1067
19430.3	1070.5	19440.7	1074.4	19464.5	1074.9	19479.6	1075	19498.8	1064.8
19504.9	1062.5	19514.1	1062.5	19546.7	1062.8	19569.3	1066	19571.5	1066.5
19577.2	1066.5	19641.5	1067.1	19653.8	1066.8	19678.6	1067.3	19690.61	1063.061
19709.2	1056.5	19745.4	1042.1	19776.5	1041.9	20081.3	1041.6	20297.5	1041.8
20311.1	1046.1	20335	1053.3	20367.2	1063.063	20372.6	1064.7	20387.5	1069
20400.7	1069	20436.3	1069	20477.6	1068.5	20512.4	1068.7	20545.9	1068.9
20612.1	1068.9	20630.4	1069.2	20677.9	1069.9	20719.8	1069.6	20764.1	1069.6
20802.7	1069.4	20847.1	1068.9	20916.2	1069.1	20977.1	1068.7	21027.9	1068.8
21126.4	1069.4	21156	1069.5	21203.9	1069.2	21326.9	1068.9	21421.2	1069.1

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
15451.4	.037	19690.61	.032	20367.2	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19690.61	20367.2	296	242.17	66	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15451.4	19678.6	1074	20387.5	21421.2	1074

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1063.06	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.51	Wt. n-Val.		0.032	
E.G. Elev (ft)	1065.57	Reach Len. (ft)	296.00	242.17	66.00
Crit W.S. (ft)	1055.49	Flow Area (sq ft)		13063.85	
E.G. Slope (ft/ft)	0.001466	Area (sq ft)	19.18	13063.85	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	721.70	Top Width (ft)	45.12	676.58	
Vel Total (ft/s)	12.71	Avg. Vel. (ft/s)		12.71	
Max Chl Dpth (ft)	21.46	Hydr. Depth (ft)		19.31	
Conv. Total (cfs)	4335926.5	Conv. (cfs)		4335926.5	
Length Wtd. (ft)	242.17	Wetted Per. (ft)		683.63	
Min Ch El (ft)	1041.60	Shear (lb/sq ft)		1.75	
Alpha	1.00	Stream Power (lb/ft s)		22.22	
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	9341.99	32393.63	3506.61
C & E Loss (ft)	0.11	Cum SA (acres)	2183.14	3089.49	1040.10

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1063.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.51	Wt. n-Val.		0.032	
E.G. Elev (ft)	1065.57	Reach Len. (ft)	296.00	242.17	66.00
Crit W.S. (ft)	1055.49	Flow Area (sq ft)		13067.49	
E.G. Slope (ft/ft)	0.001464	Area (sq ft)		13067.49	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	676.59	Top Width (ft)		676.59	
Vel Total (ft/s)	12.70	Avg. Vel. (ft/s)		12.70	
Max Chl Dpth (ft)	21.47	Hydr. Depth (ft)		19.31	
Conv. Total (cfs)	4337854.0	Conv. (cfs)		4337854.0	
Length Wtd. (ft)	242.17	Wetted Per. (ft)		683.65	
Min Ch El (ft)	1041.60	Shear (lb/sq ft)		1.75	
Alpha	1.00	Stream Power (lb/ft s)		22.20	
Frctn Loss (ft)	0.29	Cum Volume (acre-ft)	1324.44	33367.93	879.42
C & E Loss (ft)	0.11	Cum SA (acres)	217.60	3094.41	101.73

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19690.61 LB	19825.93	25492.37	2261.19	139.20	15.36	16.71	11.27
19825.93	19961.25	38853.83	2878.98	135.32	23.41	21.28	13.50
19961.25	20096.56	39254.44	2896.73	135.32	23.65	21.41	13.55
20096.56	20231.88	39183.02	2893.59	135.32	23.60	21.38	13.54
20231.88	20367.20 RB	23216.35	2133.37	138.48	13.99	15.77	10.88

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19690.61 LB	19825.93	25493.87	2261.91	139.21	15.36	16.72	11.27
19825.93	19961.25	38852.92	2879.70	135.32	23.41	21.28	13.49
19961.25	20096.56	39253.42	2897.46	135.32	23.65	21.41	13.55
20096.56	20231.88	39182.01	2894.31	135.32	23.60	21.39	13.54
20231.88	20367.20 RB	23217.78	2134.10	138.49	13.99	15.77	10.88

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.68

INPUT
Description: 212.68

Upstream face of 7th Avenue bridge

Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18325	1064.21	19130.38	1068	19307.91	1072	19492.8	1073.03	19492.89	1066.21
19501.07	1063.02	19567.36	1037.21	9595.08	1037.51	9600.27	1037.51	9645.74	1037.8
19703.33	1037.88	19708.52	1037.88	19721.94	1039.11	9780.83	1037.61	9790.36	1040
19811.58	1039.41	9816.77	1039.41	9829.76	1037.21	9839.72	1038	19878.26	1039.3
19919.83	1037.51	9925.02	1037.51	9977.41	1036.92	0028.08	1038.12	0033.27	1038.1
20064.88	1037.5	20130.11	1063.02	520137.19	1065.82	0137.28	1072.66	20407.73	1072
20615.57	1068	20641.55	1067.62	0780.11	1068	21568.17	1069.3		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18325	.037	19501.07	.032	20130.1	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19501.07	20130.1	155	153.01	155	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18325	19492.89	1066.21	20137.19	21568.17	1065.8

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1063.02	Element			
Vel Head (ft)	2.14	Wt. n-Val.		0.032	
E.G. Elev (ft)	1065.16	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1052.63	Flow Area (sq ft)		14139.23	
E.G. Slope (ft/ft)	0.001030	Area (sq ft)		14139.23	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	629.02	Top Width (ft)		629.02	
Vel Total (ft/s)	11.74	Avg. Vel. (ft/s)		11.74	
Max Chl Dpth (ft)	26.12	Hydr. Depth (ft)		22.48	
Conv. Total (cfs)	5172716.5	Conv. (cfs)		5172716.5	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		639.37	
Min Ch El (ft)	1036.90	Shear (lb/sq ft)		1.42	
Alpha	1.00	Stream Power (lb/ft s)		16.69	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	9341.92	32318.02	3506.61
C & E Loss (ft)	0.03	Cum SA (acres)	2182.98	3085.86	1040.10

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1063.03	Element			
Vel Head (ft)	2.14	Wt. n-Val.		0.032	
E.G. Elev (ft)	1065.17	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1052.69	Flow Area (sq ft)		14142.60	
E.G. Slope (ft/ft)	0.001029	Area (sq ft)		14142.60	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	629.03	Top Width (ft)		629.03	
Vel Total (ft/s)	11.74	Avg. Vel. (ft/s)		11.74	
Max Chl Dpth (ft)	26.13	Hydr. Depth (ft)		22.48	
Conv. Total (cfs)	5174679.5	Conv. (cfs)		5174679.5	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		639.39	
Min Ch El (ft)	1036.90	Shear (lb/sq ft)		1.42	
Alpha	1.00	Stream Power (lb/ft s)		16.68	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	1324.44	33292.30	879.42
C & E Loss (ft)	0.03	Cum SA (acres)	217.60	3090.78	101.73

Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19501.07 LB	19626.88	24187.62	2376.66	130.66	14.57	18.89	10.18
19626.88	19752.68	39327.21	3134.31	125.87	23.69	24.91	12.55
19752.68	19878.49	37952.39	3072.88	126.36	22.86	24.43	12.35
19878.49	20004.29	40651.86	3197.07	125.85	24.49	25.41	12.72

20004.29	20130.10 RB	23880.92	2358.31	130.63	14.39	18.75	10.13

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19501.07 LB	19626.88	24188.97	2377.33	130.67	14.57	18.90	10.17
19626.88	19752.68	39326.42	3134.98	125.87	23.69	24.92	12.54
19752.68	19878.49	37951.91	3073.55	126.36	22.86	24.43	12.35
19878.49	20004.29	40650.76	3197.74	125.85	24.49	25.42	12.71
20004.29	20130.10 RB	23881.96	2358.99	130.64	14.39	18.75	10.12

Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
energy was used.

BRIDGE RIVER: 1
REACH: 1 RS: 212.675

INPUT
Description: 7th Avenue Bridge
Distance from Upstream XS = 0
Deck/Roadway Width = 153.01
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 11

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
18325	1064.2	1064.219	130.38	1068	1068	19307.91	1072	1072
19492.8	1073.03	1073.03	19492.89	1073.03	1066.21	19595.08	1073.9	1067.07
19703.34	1074.35	1067.52	19811.58	1074.48	1067.64	19925.02	1074.24	1067.41
20033.27	1073.6	1066.76	20137.19	1072.66	1065.84			

Upstream Bridge Cross Section Data
Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18325	1064.21	9130.38	1068	19307.91	1072	19492.8	1073.03	19492.89	1066.21
19501.07	1063.02	319567.36	1037.21	9595.08	1037.51	9600.27	1037.51	9645.74	1037.8
19703.33	1037.88	19708.52	1037.88	19721.94	1039.11	9780.83	1037.61	9790.36	1040
19811.58	1039.41	9816.77	1039.41	9829.76	1037.21	9839.72	1038	19878.26	1039.3
19919.83	1037.51	9925.02	1037.51	9977.41	1036.92	0028.08	1038.12	0033.27	1038.1
20064.88	1037.5	20130.11	1063.02	520137.19	1065.82	0137.28	1072.66	20407.73	1072
20615.57	1068	20641.55	1067.62	0780.11	1068	21568.17	1069.3		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18325	.037	19501.07	.032	20130.1	.037

Bank Sta: Left Right Coeff Contr. Expan.
19501.07 20130.1 .1 .3
Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18325	19492.89	1066.21	20137.19	21568.17	1065.8

Downstream Deck/Roadway Coordinates
num= 11

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
18325	1064.2	1064.219	130.38	1068	1068	19307.91	1072	1072
19492.8	1073.03	1073.03	19492.89	1073.03	1066.21	19595.08	1073.9	1067.07
19703.34	1074.35	1067.52	19811.58	1074.48	1067.64	19925.02	1074.24	1067.41
20033.27	1073.6	1066.76	20137.19	1072.66	1065.84			

Downstream Bridge Cross Section Data
Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18325	1064.21	9130.38	1068	19307.91	1072	19492.8	1073.03	19492.89	1066.21
19502.33	1062.53	319567.36	1037.21	9595.08	1037.51	9600.27	1037.51	9645.74	1037.8
19703.33	1037.88	19708.52	1037.88	19721.94	1039.11	9780.83	1037.61	9790.36	1040
19811.58	1039.41	9816.77	1039.41	9829.76	1037.21	9839.72	1038	19878.26	1039.3
19919.83	1037.51	9925.02	1037.51	9977.41	1036.92	0028.08	1038.12	0033.27	1038.1
20064.88	1037.52	0128.84	1062.53	220137.19	1065.82	0137.28	1072.66	20407.73	1072
20615.57	1068	20641.55	1067.62	0780.11	1068	21568.17	1069.3		

Manning's n Values num= 3

```
     Sta    n Val      Sta    n Val      Sta    n Val
    18325     .03719502.33     .03220128.84     .037

 Bank Sta: Left    Right     Coeff Contr.    Expan.
       19502.3320128.84              .1        .3
 Ineffective Flow      num=        2
    Sta L    Sta R    Elev    Sta L    Sta R    Elev
    1832519492.89 1066.2120137.1921568.17  1065.8

 Upstream Embankment side slope                =          horiz. to 1.0 vertical
 Downstream Embankment side slope              =          horiz. to 1.0 vertical
 Maximum allowable submergence for weir flow =      .95
 Elevation at which weir flow begins           =
 Energy head used in spillway design           =
 Spillway height used in design                =
 Weir crest shape                              = Broad Crested

 Number of Piers =  5

 Pier Data
 Pier Station      Upstream=19597.67     Downstream=19597.67
 Upstream      num=        2
     Width    Elev     Width    Elev
      4.8     1036      4.8     1068
 Downstream      num=        2
     Width    Elev     Width    Elev
      4.8     1036      4.8     1068

 Pier Data
 Pier Station      Upstream=19705.06     Downstream=19705.06
 Upstream      num=        2
     Width    Elev     Width    Elev
      4.8     1036      4.8     1068
 Downstream      num=        2
     Width    Elev     Width    Elev
      4.8     1036      4.8     1068

 Pier Data
 Pier Station      Upstream=19814.17     Downstream=19814.17
 Upstream      num=        2
     Width    Elev     Width    Elev
      4.8     1036      4.8     1068
 Downstream      num=        2
     Width    Elev     Width    Elev
      4.8     1036      4.8     1068

 Pier Data
 Pier Station      Upstream=19922.42     Downstream=19922.42
 Upstream      num=        2
     Width    Elev     Width    Elev
      4.8     1036      4.8     1068
 Downstream      num=        2
     Width    Elev     Width    Elev
      4.8     1036      4.8     1068

 Pier Data
 Pier Station      Upstream=20030.67     Downstream=20030.67
 Upstream      num=        2
     Width    Elev     Width    Elev
      4.8     1036      4.8     1068
 Downstream      num=        2
     Width    Elev     Width    Elev
      4.8     1036      4.8     1068

 Number of Bridge Coefficient Sets =  1

 Low Flow Methods and Data
        Energy
        Momentum                 Cd    =      1.2
        Yarnell                  KVal =     1.05
 Selected Low Flow Methods = Highest Energy Answer

 High Flow Method
        Energy Only

 Additional Bridge Parameters
```

Add Friction component to Momentum
Add Weight component to Momentum
Class B flow critical depth computations use critical depth
inside the bridge at the downstream end
Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT Profile #PF#1
Opening : Bridge #1

E.G. US. (ft)	1065.16	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1063.02	E.G. Elev (ft)	1065.14	1064.84
Q Total (cfs)	166000.00	W.S. Elev (ft)	1062.74	1062.36
Q Bridge (cfs)	166000.00	Crit W.S. (ft)	1053.09	1053.08
Q Weir (cfs)		Max Chl Dpth (ft)	25.84	25.46
Weir Sta Lft (ft)		Vel Total (ft/s)	12.41	12.63
Weir Sta Rgt (ft)		Flow Area (sq ft)	13372.53	13142.18
Weir Submerg		Froude # Chl	0.46	0.48
Weir Max Depth (ft)		Specif Force (cu ft)	223149.34	219203.77
Min Top Rd (ft)	1065.80	Hydr Depth (ft)	22.15	21.84
Min El Prs (ft)	1067.64	W.P. Total (ft)	860.52	854.60
Delta EG (ft)	0.40	Conv. Total (cfs)	3866866.3	3773834.3
Delta WS (ft)	0.49	Top Width (ft)	603.59	601.63
BR Open Area (sq ft)	16032.12	Frctn Loss (ft)	0.29	0.00
BR Open Vel (ft/s)	12.63	C & E Loss (ft)	0.01	0.07
Coef of Q		Shear Total (lb/sq ft)	1.79	1.86
Br Sel Mthd	Energy only	Power Total (lb/ft s)	22.19	23.46

BRIDGE OUTPUT Profile #PF#2
Opening : Bridge #1

E.G. US. (ft)	1065.17	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1063.03	E.G. Elev (ft)	1065.14	1064.84
Q Total (cfs)	166000.00	W.S. Elev (ft)	1062.75	1062.37
Q Bridge (cfs)	166000.00	Crit W.S. (ft)	1053.13	1053.12
Q Weir (cfs)		Max Chl Dpth (ft)	25.85	25.47
Weir Sta Lft (ft)		Vel Total (ft/s)	12.41	12.63
Weir Sta Rgt (ft)		Flow Area (sq ft)	13375.84	13145.78
Weir Submerg		Froude # Chl	0.46	0.48
Weir Max Depth (ft)		Specif Force (cu ft)	223206.88	219264.55
Min Top Rd (ft)	1065.80	Hydr Depth (ft)	22.16	21.85
Min El Prs (ft)	1067.64	W.P. Total (ft)	860.61	854.69
Delta EG (ft)	0.39	Conv. Total (cfs)	3868208.5	3775290.0
Delta WS (ft)	0.49	Top Width (ft)	603.62	601.66
BR Open Area (sq ft)	16032.12	Frctn Loss (ft)	0.29	0.00
BR Open Vel (ft/s)	12.63	C & E Loss (ft)	0.01	0.07
Coef of Q		Shear Total (lb/sq ft)	1.79	1.86
Br Sel Mthd	Energy only	Power Total (lb/ft s)	22.18	23.44

Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
energy was used.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
energy was used.

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.67

INPUT
Description: 212.67

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18325	1064.21	9130.38		10681	9307.91	1072	19492.8	1073.03	19492.89
1066.21	19502.33	1062.53	19567.36	1037.21	9595.08	1037.51	9600.27	1037.51	9645.74
1037.8	19703.33	1037.881	9708.52	1037.881	9721.94	1039.11	9780.83	1037.61	9790.36
1040	19811.58	1039.41	9816.77	1039.41	9829.76	1037.21	9839.72	10381	9878.26
1039.3	19919.83	1037.51	9925.02	1037.51	9977.41	1036.92	0028.08	1038.12	0033.27
1038.1	20064.88	1037.52	0128.84	1062.53	2013 7.19	1065.82	0137.28	1072.66	20407.73
1072	20615.57	10682	0641.55	1067.62	0780.11	10682	1568.17	1069.3	

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val

18325 .03719502.33 .03220128.84 .037

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
19502.3320128.84 481 557.08 901 .1 .3
Ineffective Flow num= 2
Sta L Sta R Elev Sta L Sta R Elev
1832519492.89 1066.2120137.1921568.17 1065.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1062.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.24	Wt. n-Val.		0.032	
E.G. Elev (ft)	1064.77	Reach Len. (ft)	481.00	557.08	901.00
Crit W.S. (ft)	1052.64	Flow Area (sq ft)		13830.45	
E.G. Slope (ft/ft)	0.001102	Area (sq ft)		13830.45	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	626.50	Top Width (ft)		626.50	
Vel Total (ft/s)	12.00	Avg. Vel. (ft/s)		12.00	
Max Chl Dpth (ft)	25.63	Hydr. Depth (ft)		22.08	
Conv. Total (cfs)	4999937.5	Conv. (cfs)		4999937.5	
Length Wtd. (ft)	557.08	Wetted Per. (ft)		636.67	
Min Ch El (ft)	1036.90	Shear (lb/sq ft)		1.49	
Alpha	1.00	Stream Power (lb/ft s)		17.94	
Frctn Loss (ft)	1.13	Cum Volume (acre-ft)	9341.92	32271.45	3506.61
C & E Loss (ft)	0.41	Cum SA (acres)	2182.98	3083.74	1040.10

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1062.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.24	Wt. n-Val.		0.032	
E.G. Elev (ft)	1064.77	Reach Len. (ft)	481.00	557.08	901.00
Crit W.S. (ft)	1052.64	Flow Area (sq ft)		13834.20	
E.G. Slope (ft/ft)	0.001101	Area (sq ft)		13834.20	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	626.51	Top Width (ft)		626.51	
Vel Total (ft/s)	12.00	Avg. Vel. (ft/s)		12.00	
Max Chl Dpth (ft)	25.64	Hydr. Depth (ft)		22.08	
Conv. Total (cfs)	5002091.5	Conv. (cfs)		5002091.5	
Length Wtd. (ft)	557.08	Wetted Per. (ft)		636.69	
Min Ch El (ft)	1036.90	Shear (lb/sq ft)		1.49	
Alpha	1.00	Stream Power (lb/ft s)		17.93	
Frctn Loss (ft)	1.12	Cum Volume (acre-ft)	1324.44	33245.71	879.42
C & E Loss (ft)	0.40	Cum SA (acres)	217.60	3088.66	101.73

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19502.33 LB	19627.63	24363.23	2333.85	130.06	14.68	18.63	10.44
19627.63	19752.93	39209.34	3059.75	125.37	23.62	24.42	12.81
19752.93	19878.24	37822.88	2999.04	125.86	22.78	23.93	12.61
19878.24	20003.54	40554.56	3122.15	125.35	24.43	24.92	12.99
20003.54	20128.84 RB	24049.99	2315.65	130.04	14.49	18.48	10.39

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less

than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19502.33 LB	19627.63	24364.33	2334.60	130.07	14.68	18.63	10.44
19627.63	19752.93	39208.46	3060.50	125.37	23.62	24.43	12.81
19752.93	19878.24	37822.34	2999.79	125.86	22.78	23.94	12.61
19878.24	20003.54	40553.32	3122.90	125.35	24.43	24.92	12.99
20003.54	20128.84 RB	24051.54	2316.40	130.04	14.49	18.49	10.38

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.56

INPUT
Description: 212.56

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 84

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18526.6	1067.7	18605.6	1068.5	18672.9	1069.1	18686.4	1060	19108.7	1062.5
19147.3	1066.2	19151.5	1066.4	19161.7	1067.6	19184.3	1068.9	19238.8	1068.8
19249.1	1068.8	19264.6	1065	19289.8	1059.5	19333	1060.5	19374.1	1060.3
19381.8	1063.3	19405.9	1071.5	19420.1	1070.7	19427.9	1069.3	19436.8	1069
19464.9	1070.8	19474	1071.7	19488.9	1073.8	19506.5	1072.1	19530.4	1065.8
19539	1066.2	19604	1065.9	19607.1	1065.3	19613.7	1065.3	19619.1	1065.7
19619.8	1066.4	19637.7	1068	19655.3	1067.8	19692.8	1068.8	19731.05	1056.917
19757.5	1048.7	19785.4	1039.9	19929	1039.8	20217.8	1039.3	20252.14	1056.916
20264	1063	20269.6	1061.5	20279.7	1059.4	20318.1	1058.6	20372.9	1059.3
20398.1	1060.1	20425.6	1066.2	20438.5	1062.1	20445.5	1059.5	20451.6	1056.8
20575.6	1077.4	20581.9	1078.8	20601.9	1079.3	20671.6	1080.6	20698.7	1080.1
20732.1	1079.9	20755.7	1079.5	20791.2	1077.6	20834.9	1075.6	20892.5	1079.5
20896	1079.6	20938.4	1078.1	20958.4	1077.9	21004.8	1078.7	21029.1	1078.1
21101.8	1077.3	21144.7	1078.4	21165.1	1078.9	21203.3	1079.8	21236.8	1080.1
21329	1071.7	21351.9	1069.5	21384.8	1066.8	21396.7	1060	21632.6	1060
21640.1	1063.9	21686.7	1065.4	21688.1	1065.4	21734.9	1066.2	21757.8	1066.7
21833.3	1068.7	21846.1	1068.8	21931.4	1069.9	21952.1	1069		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18526.6	.037	19731.05	.032	20252.14	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19731.05	20252.14	495	502.71	525	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18526.6	19692.8	1078	20301	21952.1	1078

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1056.87	Element			
Vel Head (ft)	6.35	Wt. n-Val.		0.032	
E.G. Elev (ft)	1063.23	Reach Len. (ft)	495.00	502.71	525.00
Crit W.S. (ft)	1055.70	Flow Area (sq ft)		8207.39	
E.G. Slope (ft/ft)	0.004887	Area (sq ft)		8207.39	0.02
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	521.49	Top Width (ft)		520.87	0.62
Vel Total (ft/s)	20.23	Avg. Vel. (ft/s)		20.23	
Max Chl Dpth (ft)	17.57	Hydr. Depth (ft)		15.76	
Conv. Total (cfs)	2374591.5	Conv. (cfs)		2374591.5	
Length Wtd. (ft)	502.71	Wetted Per. (ft)		527.71	
Min Ch El (ft)	1039.30	Shear (lb/sq ft)		4.75	
Alpha	1.00	Stream Power (lb/ft s)		95.97	

Frctn Loss (ft)	1.91	Cum Volume (acre-ft)	9341.92	32130.53	3506.61
C & E Loss (ft)	0.54	Cum SA (acres)	2182.98	3076.40	1040.10

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1056.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	6.27	Wt. n-Val.		0.032	
E.G. Elev (ft)	1063.25	Reach Len. (ft)	495.00	502.71	525.00
Crit W.S. (ft)	1055.70	Flow Area (sq ft)		8264.06	
E.G. Slope (ft/ft)	0.004781	Area (sq ft)		8264.06	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	521.09	Top Width (ft)		521.09	
Vel Total (ft/s)	20.09	Avg. Vel. (ft/s)		20.09	
Max Chl Dpth (ft)	17.68	Hydr. Depth (ft)		15.86	
Conv. Total (cfs)	2400862.3	Conv. (cfs)		2400862.3	
Length Wtd. (ft)	502.71	Wetted Per. (ft)		528.08	
Min Ch El (ft)	1039.30	Shear (lb/sq ft)		4.67	
Alpha	1.00	Stream Power (lb/ft s)		93.82	
Frctn Loss (ft)	1.92	Cum Volume (acre-ft)	1324.44	33104.41	879.42
C & E Loss (ft)	0.53	Cum SA (acres)	217.60	3081.32	101.73

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19731.05 LB	19835.27	22290.28	1305.74	106.68	13.43	12.55	17.07
19835.27	19939.49	37818.82	1776.47	104.22	22.78	17.05	21.29
19939.49	20043.71	38326.91	1790.76	104.22	23.09	17.18	21.40
20043.71	20147.92	38999.25	1809.53	104.22	23.49	17.36	21.55
20147.92	20252.14 RB	28564.74	1524.89	108.38	17.21	14.64	18.73

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19731.05 LB	19835.27	22336.95	1317.07	106.89	13.46	12.64	16.96
19835.27	19939.49	37803.65	1787.80	104.22	22.77	17.15	21.15
19939.49	20043.71	38308.31	1802.10	104.22	23.08	17.29	21.26
20043.71	20147.92	38976.08	1820.87	104.22	23.48	17.47	21.41
20147.92	20252.14 RB	28575.01	1536.22	108.54	17.21	14.74	18.60

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.46

INPUT
Description: 212.46

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

18753.5	1067.1	18827.8	1067.7	18877.5	1068.2	18898.4	1055	19357.3	1055.1
19382.1	1053.4	19409	1053.9	19429.7	1053.3	19445.8	1054.1	19481.5	1054.3
19531	1052.9	19550.5	1054.6	19656.6	1055	19684.4	1069.8	19700	1067.4
19714.7	1067.8	19743.34	1056.289	19787.6	1038.5	19877.7	1038.3	20214.4	1037.2
20270.9	1039.9	20290.3	1040.2	20301	1040.331	20380.4	1041.3	20415.6	1048.6
20422.7	1048.9	20436.9	1047.2	20446.3	1048.4	20484.2	1055.6	20494.5	1057
20510.9	1057.5	20553.9	1062.4	20563.5	1064	20616.9	1070.3	20661.5	1072.5
20691.8	1074.7	20705.2	1075.2	20771.8	1073.9	20836.5	1073.6	20841.8	1073.2
20893.4	1072.8	20932.3	1068.7	20999.5	1072.8	21028.4	1074	21091.5	1069.7
21143.4	1069.4	21187.1	1070.2	21222.4	1071.9	21234.8	1070.7	21242.4	1070.9
21265.3	1070.2	21277.9	1069.2	21302	1065.4	21326.5	1063.3	21392.1	1057.4
21427.4	1052.9	21482.8	1061.6	21523.6	1061.6	21591.7	1061.2	21609.9	1060.7
21657.5	1061.6	22674	1062	22695.3	1072.2	22728.6	1064.6	22746.1	1064.3
22917.1	1063.8								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18753.5	.037	19743.34	.032	20301	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19743.34	20301	495	497.81	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18753.5	19684.4	1075.2	20301	22917.1	1075.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1056.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	4.54	Wt. n-Val.		0.032	
E.G. Elev (ft)	1060.77	Reach Len. (ft)	495.00	497.81	510.00
Crit W.S. (ft)	1052.72	Flow Area (sq ft)		9703.67	
E.G. Slope (ft/ft)	0.003034	Area (sq ft)	1160.90	9703.67	2110.16
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1555.15	Top Width (ft)	762.46	557.52	235.17
Vel Total (ft/s)	17.11	Avg. Vel. (ft/s)		17.11	
Max Chl Dpth (ft)	19.03	Hydr. Depth (ft)		17.41	
Conv. Total (cfs)	3013622.8	Conv. (cfs)		3013622.8	
Length Wtd. (ft)	497.81	Wetted Per. (ft)		561.01	
Min Ch El (ft)	1037.20	Shear (lb/sq ft)		3.28	
Alpha	1.00	Stream Power (lb/ft s)		56.05	
Frctn Loss (ft)	1.85	Cum Volume (acre-ft)	9335.33	32027.18	3493.90
C & E Loss (ft)	0.12	Cum SA (acres)	2178.65	3070.18	1038.68

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1056.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	4.51	Wt. n-Val.		0.032	
E.G. Elev (ft)	1060.80	Reach Len. (ft)	495.00	497.81	510.00
Crit W.S. (ft)	1052.72	Flow Area (sq ft)		9738.17	
E.G. Slope (ft/ft)	0.003114	Area (sq ft)		9738.17	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	557.66	Top Width (ft)		557.66	
Vel Total (ft/s)	17.05	Avg. Vel. (ft/s)		17.05	
Max Chl Dpth (ft)	19.09	Hydr. Depth (ft)		17.46	
Conv. Total (cfs)	2974785.5	Conv. (cfs)		2974785.5	
Length Wtd. (ft)	497.81	Wetted Per. (ft)		577.14	
Min Ch El (ft)	1037.20	Shear (lb/sq ft)		3.28	
Alpha	1.00	Stream Power (lb/ft s)		55.92	
Frctn Loss (ft)	1.87	Cum Volume (acre-ft)	1324.44	33000.53	879.42
C & E Loss (ft)	0.12	Cum SA (acres)	217.60	3075.10	101.73

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19743.34 LB	19854.87	23282.32	1588.87	114.82	14.03	14.26	14.65
19854.87	19966.40	35185.66	2012.11	111.53	21.20	18.04	17.49
19966.40	20077.94	36369.35	2052.44	111.53	21.91	18.40	17.72
20077.94	20189.47	37578.35	2093.13	111.53	22.64	18.77	17.95
20189.47	20301.00 RB	33584.32	1957.11	111.60	20.23	17.55	17.16

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19743.34 LB	19854.87	23703.84	1595.76	114.98	14.28	14.31	14.85
19854.87	19966.40	35801.94	2019.01	111.53	21.57	18.10	17.73
19966.40	20077.94	37002.22	2059.35	111.53	22.29	18.46	17.97
20077.94	20189.47	38228.10	2100.03	111.53	23.03	18.83	18.20
20189.47	20301.00 RB	31263.91	1964.02	127.56	18.83	17.61	15.92

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.37

INPUT
Description: 212.37

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 53

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18816.9	1066.3	18818.6	1066.2	18822.9	1066.3	18834	1066.3	18957.9	1066
18989.9	1065.8	19000	1065.6	19036.9	1065.2	19054.2	1064.9	19092.2	1064.1
19112.5	1063.4	19137.4	1064.7	19138.3	1064.8	19139.3	1064.8	19195.1	1066.9
19209.3	1061	19668.8	1061	19681.7	1066.2	19684.6	1067.4	19684.8	1067.3
19685.1	1067.2	19692.2	1064.6	19715.3	1065	19717.4	1065.1	19722.1	1063.2
19744.06	1053.778	19782.7	1037.2	19926.2	1036.9	20272.4	1037.1	20284.2	1036.6
20285.4	1036.6	20288.8	1038.6	20320.69	1053.776	20338.6	1062.3	20338.7	1062.3
20369.5	1065.2	20396.5	1069.4	20454.4	1070.1	20471.3	1070.1	20508.4	1061
22070.8	1061	22075.2	1062.9	22088.8	1064.3	22125.1	1067.6	22147.7	1068.9
22155.8	1069.3	22177.3	1071.8	22222.4	1065.3	22242.6	1063.6	22252.8	1063.9
22275.2	1064.6	22382.7	1065.6	22407.8	1066.1				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18816.9	.037	19744.06	.032	20320.69	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19744.06	20320.69	500	495.84	485	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18816.9	19684.6	1070	20396.5	22407.8	1070

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1053.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	5.71	Wt. n-Val.		0.032	
E.G. Elev (ft)	1058.81	Reach Len. (ft)	500.00	495.84	485.00
Crit W.S. (ft)	1051.67	Flow Area (sq ft)		8658.17	
E.G. Slope (ft/ft)	0.004646	Area (sq ft)		8658.17	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	573.64	Top Width (ft)		573.64	
Vel Total (ft/s)	19.17	Avg. Vel. (ft/s)		19.17	
Max Chl Dpth (ft)	16.50	Hydr. Depth (ft)		15.09	
Conv. Total (cfs)	2435396.0	Conv. (cfs)		2435396.0	
Length Wtd. (ft)	495.84	Wetted Per. (ft)		580.74	
Min Ch El (ft)	1036.60	Shear (lb/sq ft)		4.32	

Alpha	1.00	Stream Power (lb/ft s)		82.91	
Frctn Loss (ft)	2.43	Cum Volume (acre-ft)	9328.73	31922.26	3481.54
C & E Loss (ft)	0.02	Cum SA (acres)	2174.32	3063.72	1037.30

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1053.11	Element			
Vel Head (ft)	5.70	Wt. n-Val.		0.032	
E.G. Elev (ft)	1058.81	Reach Len. (ft)	500.00	495.84	485.00
Crit W.S. (ft)	1051.69	Flow Area (sq ft)		8665.10	
E.G. Slope (ft/ft)	0.004634	Area (sq ft)		8665.10	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	573.69	Top Width (ft)		573.69	
Vel Total (ft/s)	19.16	Avg. Vel. (ft/s)		19.16	
Max Chl Dpth (ft)	16.51	Hydr. Depth (ft)		15.10	
Conv. Total (cfs)	2438484.0	Conv. (cfs)		2438484.0	
Length Wtd. (ft)	495.84	Wetted Per. (ft)		580.79	
Min Ch El (ft)	1036.60	Shear (lb/sq ft)		4.32	
Alpha	1.00	Stream Power (lb/ft s)		82.69	
Frctn Loss (ft)	2.42	Cum Volume (acre-ft)	1324.44	32895.38	879.42
C & E Loss (ft)	0.03	Cum SA (acres)	217.60	3068.64	101.73

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19744.06 LB	19859.39	26449.78	1520.37	117.02	15.93	13.37	17.40
19859.39	19974.71	37482.55	1863.21	115.33	22.58	16.16	20.12
19974.71	20090.04	37424.03	1861.45	115.32	22.54	16.14	20.10
20090.04	20205.36	37167.69	1853.81	115.33	22.39	16.07	20.05
20205.36	20320.69 RB	27475.96	1559.32	117.74	16.55	13.69	17.62

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19744.06 LB	19859.39	26451.41	1521.75	117.05	15.93	13.37	17.38
19859.39	19974.71	37481.55	1864.61	115.33	22.58	16.17	20.10
19974.71	20090.04	37423.07	1862.85	115.32	22.54	16.15	20.09
20090.04	20205.36	37166.94	1855.20	115.33	22.39	16.09	20.03
20205.36	20320.69 RB	27477.02	1560.70	117.77	16.55	13.70	17.61

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.27

INPUT
Description: 212.27

Left and Right Channel Bank Stations Interpolated

Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17693.1	1064.6	17697.9	1064.6	17734.8	1064	17740.4	1063.9	17785.6	1063.1
17796.2	1063.1	17827.6	1062.5	17846.2	1062.4	17893.5	1062.2	18008.4	1061.5
18061.8	1061.5	18108.5	1062.4	18180.8	1062.8	18221.3	1063	18239.7	1059
18264.8	1054.5	18285.2	1054	18326.7	1048.1	18342.3	1046.2	18362.6	1053.4

18380.3	1046.2	18395.3	1042.4	18405.4	1039	18415.2	1036.5	18431.2	1031.5
18465.3	1023.5	18544.4	1025.1	18579.3	1015.6	18586.4	1013.2	18615.7	1013
18649.7	1013	18693.4	1012.9	18782.3	1012.3	18931.2	1012.8	18976.1	1012.6
18981.9	1012.7	19083	1012.1	19110	1012.1	19284.8	1012.2	19302.3	1012.4
19314.3	1019	19342.1	1028.5	19385.1	1048.2	19442.6	1044.9	19457.4	1044.6
19509.8	1062.9	19515.4	1063	19561	1063.7	19676.4	1065.4	19715.25	1052.334
19754.6	1039.1	19765.4	1035.4	19935.2	1035.2	20003.5	1035.2	20097.2	1035.1
20281.9	1035.1	20330.35	1052.334	20337	1054.7	20351	1059.5	20416.4	1037.6
20457	1023.9	20721.5	1023.4	20766.6	1022.9	20810.1	1022.2	20848.4	1021.5
20878.3	1023.7	20909.5	1025.8	20935.1	1026.2	20970.3	1026.8	20984	1027.2
21016.1	1028	21073.4	1026.9	21105.5	1026.6	21138.2	1026.2	21189.1	1025.7
21190.6	1025.7	21248.8	1040.7	21294.4	1051.5	21328.2	1059.6	21333.8	1060.2
21373.3	1067.4	21415.5	1061.7	21426.9	1059.4	21439.1	1056.3	21473.7	1050
21501.4	1044.9	21538.1	1038.9	21543.5	1037.9	21579.4	1046.2	21617.1	1054.3
21626.5	1056.1	21660.7	1060	21745.2	1060.6	21930.8	1061.7	21968.2	1061.7

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17693.1	.045	19715.25	.033	20330.35	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19715.25	20330.35	510	495	475	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17693.1	19676.4	1065.4	20351	21968.2	1059.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1050.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	5.64	Wt. n-Val.		0.033	
E.G. Elev (ft)	1056.36	Reach Len. (ft)	510.00	495.00	475.00
Crit W.S. (ft)	1049.53	Flow Area (sq ft)		8710.84	
E.G. Slope (ft/ft)	0.005181	Area (sq ft)	34374.66	8710.84	22273.88
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2802.81	Top Width (ft)	1152.49	605.76	1044.56
Vel Total (ft/s)	19.06	Avg. Vel. (ft/s)		19.06	
Max Chl Dpth (ft)	38.62	Hydr. Depth (ft)		14.38	
Conv. Total (cfs)	2306225.3	Conv. (cfs)		2306225.3	
Length Wtd. (ft)	495.00	Wetted Per. (ft)		610.97	
Min Ch El (ft)	1035.10	Shear (lb/sq ft)		4.61	
Alpha	1.00	Stream Power (lb/ft s)		87.88	
Frctn Loss (ft)	1.79	Cum Volume (acre-ft)	9131.45	31823.40	3357.54
C & E Loss (ft)	0.59	Cum SA (acres)	2167.70	3057.01	1031.48

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1050.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	5.60	Wt. n-Val.		0.033	
E.G. Elev (ft)	1056.37	Reach Len. (ft)	510.00	495.00	475.00
Crit W.S. (ft)	1049.53	Flow Area (sq ft)		8740.42	
E.G. Slope (ft/ft)	0.005126	Area (sq ft)		8740.42	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	606.04	Top Width (ft)		606.04	
Vel Total (ft/s)	18.99	Avg. Vel. (ft/s)		18.99	
Max Chl Dpth (ft)	15.67	Hydr. Depth (ft)		14.42	
Conv. Total (cfs)	2318532.3	Conv. (cfs)		2318532.3	
Length Wtd. (ft)	495.00	Wetted Per. (ft)		611.27	
Min Ch El (ft)	1035.10	Shear (lb/sq ft)		4.58	
Alpha	1.00	Stream Power (lb/ft s)		86.91	
Frctn Loss (ft)	1.77	Cum Volume (acre-ft)	1324.44	32796.31	879.42
C & E Loss (ft)	0.59	Cum SA (acres)	217.60	3061.92	101.73

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19715.25 LB	19838.27	24914.73	1465.59	120.73	15.01	12.40	17.00
19838.27	19961.29	38045.57	1903.61	123.02	22.92	15.47	19.99
19961.29	20084.31	38347.11	1912.66	123.02	23.10	15.55	20.05
20084.31	20207.33	38638.59	1921.36	123.02	23.28	15.62	20.11
20207.33	20330.35 RB	26054.00	1507.62	121.17	15.70	12.72	17.28

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19715.25 LB	19838.27	24923.55	1471.37	120.89	15.01	12.43	16.94
19838.27	19961.29	38041.68	1909.61	123.02	22.92	15.52	19.92
19961.29	20084.31	38342.23	1918.66	123.02	23.10	15.60	19.98
20084.31	20207.33	38632.77	1927.36	123.02	23.27	15.67	20.04
20207.33	20330.35 RB	26059.77	1513.41	121.32	15.70	12.76	17.22

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.18

INPUT
Description: 212.18

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16867.12	1065.21	6906.93	1063.91	7072.69	1063.62	7369.21	1062.48	7505.56	1062.52
17612.28	1062.91	7794.36	1062.33	7881.75	1062.58	7916.47	1062.32	7948.21	1065.69
18039.48	1010.81	8149.75	1011.69	8168.39	1016.64	8177.08	1014.6	18188	1020.06
18220.51	1027.21	8252.71	1039.34	8269.64	1041.16	8292.43	1036.71	8335.96	1016.75
18454.36	1016.21	8568.19	1014.72	8633.81	1016.11	8764.91	1017.46	8823.95	1017.09
19046.22	1017.71	9156.65	1019.37	9198.34	1018.44	9223.89	1018.49	9248.34	1016.23
19311.18	1015.1	19393.8	1012.98	19433	1012.52	19464.03	1021.81	19488.46	1011.1
19574.96	1010.61	9614.98	1037.42	9649.87	1059.81	19685.1	1058.81	9706.85	1050.309
19749.09	1033.81	9960.28	1030.82	0229.47	1031.72	0272.48	1032.67	0319.31	1039.88
20334.57	1050.30	720340.72	1054.51	20354.62	1060.32	0472.17	1061.55	20523.7	1061.62
20551.86	1053.04	20622.11	1048.82	0687.56	1052.22	0928.11	1055.29	21136.97	1058.41
21257.08	1058.69	21362.76	1060.71	21646.22	1067.22	1858.08	1068.11	22054.43	1067.43
22158.98	1065.96	22243.23	1064.32	22279.9	1062.82	2295.67	1065.59	22307.88	1060.91
22324.63	1061.39	22394.01	1058.43	22480.34	1058.92	2555.28	1058.92	22720.83	1059.92
22855.27	1061.54	22949.17	1061.49	22974.76	1060	23021.3	1058.52	3070.19	1058.44
23114.11	1060.29	23152.9	1060.08	23260.95	1061.42	3486.25	1061.05	23586.41	1061.15
23621.07	1061.47	23789.79	1060.37	23929.16	1060.4	24034.7	1061.82	4176.57	1062.42
24281.11	1062.33	24460.33	1061.22						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
16867.12	.045	19706.85	.033	20334.57	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19706.85	20334.57	500	502.53	485	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16867.12	19649.87	1068	20523.72	24460.33	1068

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1050.31	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.67	Wt. n-Val.		0.033	
E.G. Elev (ft)	1053.98	Reach Len. (ft)	500.00	502.53	485.00
Crit W.S. (ft)	1045.83	Flow Area (sq ft)		10798.63	

E.G. Slope (ft/ft)	0.002663	Area (sq ft)	53269.86	10798.63	40.76
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2343.04	Top Width (ft)	1661.28	627.72	54.04
Vel Total (ft/s)	15.37	Avg. Vel. (ft/s)		15.37	
Max Chl Dpth (ft)	39.71	Hydr. Depth (ft)		17.20	
Conv. Total (cfs)	3216692.3	Conv. (cfs)		3216692.3	
Length Wtd. (ft)	502.53	Wetted Per. (ft)		634.64	
Min Ch El (ft)	1030.80	Shear (lb/sq ft)		2.83	
Alpha	1.00	Stream Power (lb/ft s)		43.49	
Frctn Loss (ft)	0.95	Cum Volume (acre-ft)	8618.38	31712.55	3235.88
C & E Loss (ft)	0.32	Cum SA (acres)	2151.23	3050.00	1025.49

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1050.37	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.64	Wt. n-Val.		0.033	
E.G. Elev (ft)	1054.01	Reach Len. (ft)	500.00	502.53	485.00
Crit W.S. (ft)	1045.84	Flow Area (sq ft)		10836.17	
E.G. Slope (ft/ft)	0.002633	Area (sq ft)		10836.17	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	627.72	Top Width (ft)		627.72	
Vel Total (ft/s)	15.32	Avg. Vel. (ft/s)		15.32	
Max Chl Dpth (ft)	19.57	Hydr. Depth (ft)		17.26	
Conv. Total (cfs)	3234948.3	Conv. (cfs)		3234948.3	
Length Wtd. (ft)	502.53	Wetted Per. (ft)		634.76	
Min Ch El (ft)	1030.80	Shear (lb/sq ft)		2.81	
Alpha	1.00	Stream Power (lb/ft s)		42.99	
Frctn Loss (ft)	0.94	Cum Volume (acre-ft)	1324.44	32685.08	879.42
C & E Loss (ft)	0.32	Cum SA (acres)	217.60	3054.91	101.73

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19706.85 LB	19832.39	23437.74	1773.20	128.66	14.12	14.12	13.22
19832.39	19957.94	37636.32	2333.05	125.56	22.67	18.58	16.13
19957.94	20083.48	40109.93	2423.80	125.55	24.16	19.31	16.55
20083.48	20209.03	38668.04	2371.13	125.54	23.29	18.89	16.31
20209.03	20334.57 RB	26147.99	1897.44	129.33	15.75	15.11	13.78

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19706.85 LB	19832.39	23463.64	1780.71	128.72	14.13	14.18	13.18
19832.39	19957.94	37626.19	2340.56	125.56	22.67	18.64	16.08
19957.94	20083.48	40091.11	2431.31	125.55	24.15	19.37	16.49
20083.48	20209.03	38654.31	2378.63	125.54	23.29	18.95	16.25
20209.03	20334.57 RB	26164.75	1904.95	129.39	15.76	15.17	13.74

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.08

INPUT
Description: 212.08

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 101

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17052.4	1065.11	7093.98	1063.21	7330.91	1062.59	17423.14	1062.21	17562.97	1062.23
17854.31	1061	17952.67	1061.39	17989.42	1061.1	18003.9	1064.72	18053.78	1032.77
18092.97	1010.31	8121.67	1010.42	8204.85	1011.49	18218.51	1014.53	18400.47	1013.68
18430.19	1013.71	8591.23	1012.73	8717.39	1012.55	18827.36	1012.71	18982.9	1014.44
19125.21	1014.11	9158.95	1014.27	19197.5	1013.72	19237.59	1014.05	19246.24	1012.73
19261.95	1013.81	9287.74	1011.52	19294.56	1009.44	19377.18	1009.88	19458.03	1009.79
19560.86	1055.91	9603.52	1052.77	19676.09	1052.94	19681.09	1050.10	19689.85	1045.14
19720.06	1031.74	19729.83	1028.61	9835.59	1026.98	19956.58	1026.45	20018.74	1026.48
20046.86	1026.71	20134.08	1025.92	0179.54	1025.99	20234.17	1026.65	20245.73	1033.13
20270.89	1050.12	0275.07	1052.92	20290.81	1060.92	0335.45	1060.37	20383.25	1044.65
20424.79	1044.38	20442.88	1052.79	20545.79	1055.72	0813.04	1061.38	20956.27	1063.95
21082.72	1065.98	21252.33	1068.16	21359.98	1067.92	1436.79	1067.76	21473.77	1066.77
21529.98	1066.48	21607.29	1070.32	1676.41	1072.82	1730.28	1073.84	21923.53	1073.03
22030.61	1073.76	22091.57	1073.13	22182.24	1073.62	2303.01	1072.05	22453.89	1069.64
22595.45	1068.22	22755.09	1066.86	22966.16	1063.92	3129.47	1061.46	23222.4	1059.05
23255.36	1058.64	23268.74	1055.51	23278.67	1058.32	3295.59	1055.54	23328.26	1058.3
23417.52	1058.42	3428.87	1058.12	3519.64	1059.32	3868.62	1059.17	24082.28	1059.08
24280.77	1060.12	24441.84	1061.91	24594.59	1060.92	4688.74	1061.74	24871.91	1061.24
24970.8	1060.33	25012.15	1058.26	25172.94	1060.8	25399.4	1060.14	25629.95	1059.85
25800.17	1059.41	25815.84	1060.07	25861.96	1079.72	5884.17	1080.26	25963.83	1080.96
26004.82	1061.65								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17052.4	.045	19681.09	.033	20270.89	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19681.09	20270.89	510	519.85	475	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17052.4	19560.86	1078	20290.82	6004.82	1078

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1050.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.61	Wt. n-Val.		0.033	
E.G. Elev (ft)	1052.71	Reach Len. (ft)	510.00	519.85	475.00
Crit W.S. (ft)	1041.41	Flow Area (sq ft)		12809.28	
E.G. Slope (ft/ft)	0.001403	Area (sq ft)	54056.34	12809.28	312.58
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2181.45	Top Width (ft)	1521.21	589.80	70.44
Vel Total (ft/s)	12.96	Avg. Vel. (ft/s)		12.96	
Max Chl Dpth (ft)	40.66	Hydr. Depth (ft)		21.72	
Conv. Total (cfs)	4432099.5	Conv. (cfs)		4432099.5	
Length Wtd. (ft)	519.85	Wetted Per. (ft)		601.34	
Min Ch El (ft)	1025.90	Shear (lb/sq ft)		1.87	
Alpha	1.00	Stream Power (lb/ft s)		24.18	
Frctn Loss (ft)	0.82	Cum Volume (acre-ft)	8002.41	31576.38	3233.91
C & E Loss (ft)	0.06	Cum SA (acres)	2132.97	3042.97	1024.80

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1050.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.59	Wt. n-Val.		0.033	0.000
E.G. Elev (ft)	1052.76	Reach Len. (ft)	510.00	519.85	475.00
Crit W.S. (ft)	1041.39	Flow Area (sq ft)		12847.08	0.00
E.G. Slope (ft/ft)	0.001389	Area (sq ft)		12847.08	0.00
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	0.00
Top Width (ft)	589.81	Top Width (ft)		589.80	
Vel Total (ft/s)	12.92	Avg. Vel. (ft/s)		12.92	0.06
Max Chl Dpth (ft)	24.27	Hydr. Depth (ft)		21.78	0.06
Conv. Total (cfs)	4453591.0	Conv. (cfs)		4453591.0	0.0

Length Wtd. (ft)	519.85	Wetted Per. (ft)		601.41	0.07
Min Ch El (ft)	1025.90	Shear (lb/sq ft)		1.85	
Alpha	1.00	Stream Power (lb/ft s)		23.94	
Frctn Loss (ft)	0.81	Cum Volume (acre-ft)	1324.44	32548.47	879.42
C & E Loss (ft)	0.06	Cum SA (acres)	217.60	3047.89	101.73

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19681.09 LB	19799.05	23203.87	2094.00	122.60	13.98	17.75	11.08
19799.05	19917.01	37086.19	2731.90	117.96	22.34	23.16	13.58
19917.01	20034.97	38278.54	2784.24	117.96	23.06	23.60	13.75
20034.97	20152.93	38876.44	2810.27	117.96	23.42	23.82	13.83
20152.93	20270.89 RB	28554.97	2388.88	124.85	17.20	20.25	11.95

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19681.09 LB	19799.05	23223.15	2101.55	122.67	13.99	17.82	11.05
19799.05	19917.01	37078.43	2739.46	117.96	22.34	23.22	13.53
19917.01	20034.97	38267.23	2791.80	117.96	23.05	23.67	13.71
20034.97	20152.93	38863.33	2817.83	117.96	23.41	23.89	13.79
20152.93	20270.89 RB	28567.86	2396.44	124.85	17.21	20.32	11.92

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.99

INPUT
Description: 211.99

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17386.75	1062	17493.12	1060.36	17883.55	1058.91	18026.04	1059.08	18043.61	1064.43
18128.52	1011.91	18212.07	1010.04	18284.3	1009.41	18375.77	1031.99	18386.79	1034.99
18398.32	1031.61	18455.15	1010.42	18634.29	1010.15	18715.79	1026.17	18726.98	1025.43
18746.82	1028.91	18793.14	1039.11	18826.55	1047.22	18835.49	1050.27	18880.3	1056.14
18928.65	1059.61	19023.07	1060.47	19122.51	1058.69	19147.6	1056.98	19172.92	1053.9
19222.57	1059.71	19306.36	1064.75	19387.36	1066.26	19419.32	1065.73	19467.92	1063.3
19535.53	1055.9	19579.8	1052.51	19594.04	1050.01	19626.09	1059.75	19669.23	1060.17
19682.93	1052.11	19695.13	1051.71	19699.77	1048.63	19734.91	1025.39	19968.68	1025.66
20018.4	1026	20129.78	1025.52	20175.87	1025.66	20205.91	1027.82	20236.81	1047.09
20249.65	1048.63	20249.8	1048.65	20268.39	1059.72	20319.37	1059.45	20355.66	1049.61
20366.72	1051.16	20380.34	1056.31	20536.66	1059.72	20697.58	1062.91	20861.07	1067.46
20969.05	1071.42	21086.46	1074.54	21220.77	1077.82	21348.89	1078.35	21519.24	1075.76
21606.23	1073.42	21740.53	1069.14	21834.91	1068	21936.77	1071.02	22068.74	1077.26
22189.17	1082.49	22398.45	1089.62	22486.87	1090.32	22515.75	1089.94	22616.83	1085.49
22698.81	1083.43	22757.86	1080.06	22899.81	1069.52	23059.97	1066.12	23300.96	1061.35
23457.95	1059.09	23578.87	1055.29	23592.8	1052.82	23611.42	1057.12	23707.16	1057.71
23758.72	1057.84	23837.72	1057.31	23902	1056.22	23950.13	1056.57	24182.97	1056.91
24332.01	1056.07	24582.04	1056.01	24636.44	1059	24704.95	1057.53	24865.28	1057.45
24966.74	1058.31	24996.3	1059.93	25064.88	1059.82	25072.86	1059.09	25171.62	1057.94
25224.27	1057.75	25467.18	1058.61						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17386.75	.04	19699.77	.03	20249.65	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19699.77	20249.65	740	489.19	710	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17386.75	19669.23	1078	20268.32	5467.18	1078

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1048.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.20	Wt. n-Val.		0.033	
E.G. Elev (ft)	1051.83	Reach Len. (ft)	740.00	489.19	710.00
Crit W.S. (ft)	1041.14	Flow Area (sq ft)		11567.96	
E.G. Slope (ft/ft)	0.001803	Area (sq ft)	22412.64	11567.96	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1311.41	Top Width (ft)	761.54	549.87	
Vel Total (ft/s)	14.35	Avg. Vel. (ft/s)		14.35	
Max Chl Dpth (ft)	39.22	Hydr. Depth (ft)		21.04	
Conv. Total (cfs)	3909571.3	Conv. (cfs)		3909571.3	
Length Wtd. (ft)	489.19	Wetted Per. (ft)		562.56	
Min Ch El (ft)	1025.39	Shear (lb/sq ft)		2.31	
Alpha	1.00	Stream Power (lb/ft s)		33.21	
Frctn Loss (ft)	0.82	Cum Volume (acre-ft)	7554.76	31430.92	3232.21
C & E Loss (ft)	0.09	Cum SA (acres)	2119.60	3036.17	1024.42

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1048.71	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.17	Wt. n-Val.		0.033	
E.G. Elev (ft)	1051.89	Reach Len. (ft)	740.00	489.19	710.00
Crit W.S. (ft)	1041.14	Flow Area (sq ft)		11613.13	
E.G. Slope (ft/ft)	0.001780	Area (sq ft)		11613.13	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	549.87	Top Width (ft)		549.87	
Vel Total (ft/s)	14.29	Avg. Vel. (ft/s)		14.29	
Max Chl Dpth (ft)	23.32	Hydr. Depth (ft)		21.12	
Conv. Total (cfs)	3934291.5	Conv. (cfs)		3934291.5	
Length Wtd. (ft)	489.19	Wetted Per. (ft)		562.72	
Min Ch El (ft)	1025.39	Shear (lb/sq ft)		2.29	
Alpha	1.00	Stream Power (lb/ft s)		32.79	
Frctn Loss (ft)	0.81	Cum Volume (acre-ft)	1324.44	32402.52	879.42
C & E Loss (ft)	0.09	Cum SA (acres)	217.60	3041.09	101.73

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19699.77 LB	19809.75	28178.13	2144.39	116.96	16.97	19.50	13.14
19809.75	19919.72	38918.52	2539.50	109.98	23.44	23.09	15.33
19919.72	20029.70	38310.88	2515.63	109.98	23.08	22.87	15.23
20029.70	20139.67	38453.04	2521.24	109.98	23.16	22.93	15.25
20139.67	20249.65 RB	22139.43	1847.21	115.67	13.34	16.80	11.99

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19699.77 LB	19809.75	28185.15	2153.42	117.05	16.98	19.58	13.09
19809.75	19919.72	38904.47	2548.53	109.98	23.44	23.17	15.27
19919.72	20029.70	38299.20	2524.66	109.98	23.07	22.96	15.17
20029.70	20139.67	38440.80	2530.27	109.98	23.16	23.01	15.19
20139.67	20249.65 RB	22170.39	1856.24	115.74	13.36	16.88	11.94

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.89

INPUT
Description: 211.89

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

```
17673.64  1059.917830.52  1057.818075.45 1057.5918106.59 1061.3918156.21 1060.92
18181.64    105718268.15  1057.418570.49 1056.27 18656.7 1057.3718734.79  1059.4
18854.83  1058.1 18903.9 1058.6218933.75 1056.2618954.51  1054.319026.15 1059.53
19074.67  1064.519130.02 1067.6619166.92 1067.8219220.33 1064.2519291.97 1056.93
19339.05  1053.2 19355.5 1049.4119383.94 1051.7719506.58 1049.7319568.03 1052.09
19611.95  1052.419640.96 1059.4519668.79 1059.3319685.751048.02319719.16 1025.75
19877.45 1024.19   19996  1024.820046.95 1024.9420149.18 1025.3420215.53 1026.87
20231.37 1035.8620250.74 1048.0220268.71  1059.320317.76 1059.25 20347.9 1053.02
20357.11 1053.8720365.64 1057.4620503.92  1061.220587.79 1062.3220715.42 1064.82
20808.25 1066.4820898.25 1068.17 21050.2    107021240.42  1069.721365.85 1067.31
21444.39 1066.6721597.69 1066.8121747.36  1066.621837.61 1066.0122018.21 1062.79
22078.36 1061.7622206.84  1065.222377.75  1068.122579.85 1068.7522814.63 1068.78
22947.07 1067.96 23029.4 1068.0923191.51  1066.423528.26  1059.523662.78 1056.72
23775.83 1055.5423829.73 1054.1523844.87  1051.223876.82 1056.0923920.99    1057
23995.44 1056.4724052.85  1056.124082.77  1056.624140.98 1058.2724165.07 1058.25
24271.91 1056.4524411.05 1053.1724579.36  1053.324759.09 1054.04 24774.1 1055.28
24840.04 1057.6924883.78 1058.2624920.88  1055.825041.94 1055.2925284.44  1056.1
25336.01 1057.1325359.39 1058.3225402.51  1057.3 25726.4 1058.2326172.96 1058.11
 26295.6  1059.626333.92 1078.1726470.33  1078.826504.14  1058.926569.17 1059.94

Manning's n Values         num=       3
      Sta   n Val     Sta   n Val     Sta   n Val
17673.64    .04519685.75    .03320250.74     .04

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19685.7520250.74              507  527.46     640              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
17673.6419640.96    1068 20268.726569.17    1068
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1048.02	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.89	Wt. n-Val.		0.033	
E.G. Elev (ft)	1050.91	Reach Len. (ft)	507.00	527.46	640.00
Crit W.S. (ft)	1039.98	Flow Area (sq ft)		12164.79	
E.G. Slope (ft/ft)	0.001579	Area (sq ft)		12164.79	0.00
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	564.99	Top Width (ft)		564.99	
Vel Total (ft/s)	13.65	Avg. Vel. (ft/s)		13.65	
Max Chl Dpth (ft)	23.83	Hydr. Depth (ft)		21.53	
Conv. Total (cfs)	4177220.5	Conv. (cfs)		4177220.5	
Length Wtd. (ft)	527.46	Wetted Per. (ft)		577.63	
Min Ch El (ft)	1024.19	Shear (lb/sq ft)		2.08	
Alpha	1.00	Stream Power (lb/ft s)		28.33	
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)	7364.39	31297.65	3232.21
C & E Loss (ft)	0.00	Cum SA (acres)	2113.14	3029.91	1024.42

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1048.11	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.87	Wt. n-Val.		0.033	
E.G. Elev (ft)	1050.98	Reach Len. (ft)	507.00	527.46	640.00
Crit W.S. (ft)	1039.98	Flow Area (sq ft)		12216.30	
E.G. Slope (ft/ft)	0.001558	Area (sq ft)		12216.30	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	564.99	Top Width (ft)		564.99	
Vel Total (ft/s)	13.59	Avg. Vel. (ft/s)		13.59	
Max Chl Dpth (ft)	23.92	Hydr. Depth (ft)		21.62	
Conv. Total (cfs)	4205843.5	Conv. (cfs)		4205843.5	
Length Wtd. (ft)	527.46	Wetted Per. (ft)		577.82	
Min Ch El (ft)	1024.19	Shear (lb/sq ft)		2.06	
Alpha	1.00	Stream Power (lb/ft s)		27.94	
Frctn Loss (ft)	0.82	Cum Volume (acre-ft)	1324.44	32268.71	879.42
C & E Loss (ft)	0.00	Cum SA (acres)	217.60	3034.83	101.73

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19685.75 LB	19798.75	26671.66	2175.85	119.74	16.07	19.26	12.26
19798.75	19911.75	38734.18	2659.44	113.00	23.33	23.54	14.56
19911.75	20024.74	38292.60	2641.18	113.00	23.07	23.37	14.50
20024.74	20137.74	37130.61	2592.79	113.00	22.37	22.95	14.32

20137.74	20250.74 RB	25170.95	2095.54	118.89	15.16	18.54	12.01

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19685.75 LB	19798.75	26685.95	2186.15	119.84	16.08	19.35	12.21
19798.75	19911.75	38719.58	2669.74	113.00	23.33	23.63	14.50
19911.75	20024.74	38279.87	2651.48	113.00	23.06	23.46	14.44
20024.74	20137.74	37122.75	2603.09	113.00	22.36	23.04	14.26
20137.74	20250.74 RB	25191.86	2105.84	118.98	15.18	18.64	11.96

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.79

INPUT
Description: 211.79

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 85

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18158.31	1058.118	521.37	1057.921	8711.98	1053.291	8821.22	1049.971	9332.48	1038.9
19421.9	1034.719	443.13	1034.681	9494.83	1031.451	9529.82	1033.891	9593.73	1053.47
19613.84	1059.219	631.93	1059.121	9649.87	1047.182	19683.64	1024.711	9868.29	1023.84
19990.11	1024.452	0071.01	1024.2	20181	1025.03	20210.4	1042.542	0217.71	1047.186
20234.96	1058.152	0266.77	1058.962	0288.34	1058.22	0317.07	1049.642	0327.91	1051.41
20334.62	1054.862	0544.02	1058.112	0748.52	1061.32	0960.89	1062.192	1136.74	1063.31
21355.67	1062.99	21514.2	1062.922	1680.46	1061.62	1736.21	1061.762	1809.47	1060.69
21912.92	1059.542	2164.31	1055.862	2183.26	1055.42	2365.65	1059.352	2456.33	1059.66
22607.29	1061.072	2697.85	1061.242	2757.13		106222877.22	1061.982	2997.38	1061.21
23058.71	1061.692	3238.58	1060.292	3378.99	1059.62	3483.49	1059.372	3694.55	1056.44
23766.47	1056.352	3904.99	1053.872	3939.63	1052.52	3954.41	1049.732	3974.63	1054.92
24066.57	1057.012	4104.95	1055.722	4159.03	1054.92	4203.29	1053.77	24226.8	1054.13
24410.42	1054.11	24588.5	1054.812	4806.33	1056.92	4857.28	1056.922	4892.35	1056.25
24937.4	1056.272	4992.53	1057.912	5025.07	1054.52	5154.69	1054.632	5336.45	1057.87
25508.23	1059.012	5689.64	1058.182	5912.41	1058.82	6025.53	1058.462	6235.18	1058.51
26315.33		105826360.96	1059.142	6386.48	1071.42	6401.46	1071.61	26423.9	1078.8
26526.56	1078.922	6547.02	1071.322	6569.39	1067.82	6599.18	1058.282	6670.85	1059.87

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18158.31	.04	519649.87	.03	320217.71	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19649.87	20217.71	680	450.74	290	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18158.31	19613.84	1068	20266.72	6670.85	1068

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1047.18	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.89	Wt. n-Val.		0.033	
E.G. Elev (ft)	1050.08	Reach Len. (ft)	680.00	450.74	290.00
Crit W.S. (ft)	1039.19	Flow Area (sq ft)		12157.43	
E.G. Slope (ft/ft)	0.001594	Area (sq ft)	4303.15	12157.43	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1191.04	Top Width (ft)	623.20	567.83	
Vel Total (ft/s)	13.65	Avg. Vel. (ft/s)		13.65	
Max Chl Dpth (ft)	23.34	Hydr. Depth (ft)		21.41	
Conv. Total (cfs)	4157814.3	Conv. (cfs)		4157814.3	
Length Wtd. (ft)	450.74	Wetted Per. (ft)		580.80	
Min Ch El (ft)	1023.84	Shear (lb/sq ft)		2.08	
Alpha	1.00	Stream Power (lb/ft s)		28.44	
Frctn Loss (ft)	0.72	Cum Volume (acre-ft)	7339.35	31150.40	3232.21
C & E Loss (ft)	0.00	Cum SA (acres)	2109.51	3023.06	1024.42

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1047.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.87	Wt. n-Val.		0.033	

E.G. Elev (ft)	1050.16	Reach Len. (ft)	680.00	450.74	290.00
Crit W.S. (ft)	1039.19	Flow Area (sq ft)		12218.77	
E.G. Slope (ft/ft)	0.001568	Area (sq ft)		12218.77	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	567.83	Top Width (ft)		567.83	
Vel Total (ft/s)	13.59	Avg. Vel. (ft/s)		13.59	
Max Chl Dpth (ft)	23.45	Hydr. Depth (ft)		21.52	
Conv. Total (cfs)	4191803.5	Conv. (cfs)		4191803.5	
Length Wtd. (ft)	450.74	Wetted Per. (ft)		581.02	
Min Ch El (ft)	1023.84	Shear (lb/sq ft)		2.06	
Alpha	1.00	Stream Power (lb/ft s)		27.97	
Frctn Loss (ft)	0.71	Cum Volume (acre-ft)	1324.44	32120.77	879.42
C & E Loss (ft)	0.00	Cum SA (acres)	217.60	3027.97	101.73

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19649.87 LB	19763.44	26978.03	2187.61	120.36	16.25	19.26	12.33
19763.44	19877.01	37992.49	2624.77	113.57	22.89	23.11	14.47
19877.01	19990.57	37723.67	2613.61	113.57	22.73	23.01	14.43
19990.57	20104.14	37297.20	2595.84	113.57	22.47	22.86	14.37
20104.14	20217.71 RB	26008.62	2135.61	119.73	15.67	18.81	12.18

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19649.87 LB	19763.44	26993.67	2199.87	120.47	16.26	19.37	12.27
19763.44	19877.01	37978.58	2637.04	113.57	22.88	23.22	14.40
19877.01	19990.57	37711.12	2625.88	113.57	22.72	23.12	14.36
19990.57	20104.14	37286.77	2608.11	113.57	22.46	22.97	14.30
20104.14	20217.71 RB	26029.85	2147.88	119.84	15.68	18.91	12.12

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.71

INPUT
Description: 211.71

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18356.24	1056.618	403.32	1056.5	118836.53	1046.2	619011.11	1054.3	319170.81	1053.8
19462.94	1052.519	478.82	1053.0	919497.62	1060.06	19533	1043.2	819551.37	1045.32
19595.29	1059	19611.46	1057.8	119628.43	1046.4	719661.32	1024.4	919846.96	1023.81
19928.43	1023.1	919998.17	1023.2	20045.76	1023.2	120158.51	1023.3	920197.84	1046.47
20216.14	1057.2	120266.22	1057.7	620314.99	1042.6	20325.03	1043.14	20337.2	1046.87
20568.24	1050.2	520851.05	1051.3	120962.88	1051.5	21206.35	1051.6	421388.45	1051.42
21419.92	1051.2	321727.44	1052.6	221848.61	1053.5	21981.25	1052.7	822130.55	1052.51
22220.26	1051.5	322459.24	1054.3	422578.82	1055.1	22876.18	1055.9	323025.66	1056.21
23117.46	1056.8	923238.24	1055.61	23357.2	1054.6	23446.32	1054.2	323535.13	1054.99
23685.75	1053.2	823748.15	1053.5	423836.62	1056.4	23904.67	1055.7	524029.98	1052.16
24046.15	1048.7	24064.65	1054.8	424297.11	1054.6	24417.85	1054.0	824709.66	1055.58
24914.5	1057.2	724949.53	1057.2	425042.76	1055.7	25080.42	1056.7	725117.12	1053.8
25243.64	1054.8	825321.41	1057.3	325361.74		105825507.43	1059.54	25610.8	1058.49
25724.65	1059.9	825796.42	1060.0	825841.82	1059.6	25987.23	1060.3	26062.01	1060.39
26081.09	1058.8	926241.81	1058.1	126377.22	1057.1	26422.65	1058.2	926467.41	1067.88
26493.74	1078.7	726570.07	1078.7	926595.33		1080 26627.3	1065.29	26661.5	1058.87
26693.27	1058.2	226725.34	1059.01						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18356.24	.04	519628.43	.03	320197.84	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19628.4	320197.84	780	392.06	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18356.24	19595.3	1068	20266.2	26725.34	1068

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1046.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.89	Wt. n-Val.		0.033	
E.G. Elev (ft)	1049.36	Reach Len. (ft)	780.00	392.06	500.00
Crit W.S. (ft)	1038.49	Flow Area (sq ft)		12171.85	
E.G. Slope (ft/ft)	0.001593	Area (sq ft)	54.04	12171.85	78.25
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	644.81	Top Width (ft)	42.07	569.40	33.34
Vel Total (ft/s)	13.64	Avg. Vel. (ft/s)		13.64	
Max Chl Dpth (ft)	23.28	Hydr. Depth (ft)		21.38	
Conv. Total (cfs)	4158671.8	Conv. (cfs)		4158671.8	
Length Wtd. (ft)	392.06	Wetted Per. (ft)		582.35	
Min Ch El (ft)	1023.19	Shear (lb/sq ft)		2.08	
Alpha	1.00	Stream Power (lb/ft s)		28.35	
Frctn Loss (ft)	0.65	Cum Volume (acre-ft)	7305.34	31024.52	3231.95
C & E Loss (ft)	0.02	Cum SA (acres)	2104.32	3017.17	1024.31

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1046.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.86	Wt. n-Val.		0.033	
E.G. Elev (ft)	1049.45	Reach Len. (ft)	780.00	392.06	500.00
Crit W.S. (ft)	1038.49	Flow Area (sq ft)		12241.98	
E.G. Slope (ft/ft)	0.001564	Area (sq ft)		12241.98	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	569.41	Top Width (ft)		569.41	
Vel Total (ft/s)	13.56	Avg. Vel. (ft/s)		13.56	
Max Chl Dpth (ft)	23.40	Hydr. Depth (ft)		21.50	
Conv. Total (cfs)	4197478.0	Conv. (cfs)		4197478.0	
Length Wtd. (ft)	392.06	Wetted Per. (ft)		582.60	
Min Ch El (ft)	1023.19	Shear (lb/sq ft)		2.05	
Alpha	1.00	Stream Power (lb/ft s)		27.82	
Frctn Loss (ft)	0.64	Cum Volume (acre-ft)	1324.44	31994.22	879.42
C & E Loss (ft)	0.02	Cum SA (acres)	217.60	3022.09	101.73

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19628.43 LB	19742.31	26248.44	2153.47	120.55	15.81	18.91	12.19
19742.31	19856.19	36383.74	2560.58	113.88	21.92	22.48	14.21
19856.19	19970.08	38065.63	2630.99	113.88	22.93	23.10	14.47
19970.08	20083.96	38478.95	2648.05	113.88	23.18	23.25	14.53
20083.96	20197.84 RB	26823.24	2178.76	120.15	16.16	19.13	12.31

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19628.43 LB	19742.31	26270.55	2167.49	120.67	15.83	19.03	12.12
19742.31	19856.19	36377.16	2574.61	113.88	21.91	22.61	14.13
19856.19	19970.08	38049.50	2645.01	113.88	22.92	23.23	14.39
19970.08	20083.96	38460.46	2662.08	113.88	23.17	23.38	14.45
20083.96	20197.84 RB	26842.33	2192.78	120.28	16.17	19.25	12.24

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.64

INPUT
Description: 211.63

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18455.22	1055.61	8870.41	1054.61	19083.17	1054.49	19308.22	1054.25	19426.55	1053.86
19582.2	1054.11	9594.16	1050.21	19604.79	1050.33	19629.34	1057.41	19639.51	1057.5
19657.71	1045.60	11968	9.19	102519804.58	1023.31	9911.42	1022.65	19986.5	1022.75

```
20036.19 1022.9320060.82  1023.620181.08 1022.5820196.63 1031.17 20219.81045.602
20238.13 1057.0220265.94 1057.5920288.34  1056.820321.05 1046.9420343.65 1039.08
20371.71 1043.95 20510.4 1045.0120712.01  1046.120789.36 1046.9121038.61 1047.48
21208.66 1048.1421454.04 1047.8221685.69  1048.521805.81 1048.0822092.18 1048.45
22242.98 1048.2222332.89 1048.1922513.12  1050.222770.05 1051.0723054.32  1051.7
23295.42 1051.6523472.95 1051.1123700.42  1052.523820.77 1054.7623926.54 1054.04
23949.21 1052.3623981.01 1052.4624008.88  1047.424037.13 1053.1124090.43 1054.01
24133.79 1054.5824302.75 1054.0624347.21  1053.624484.04    105424904.87 1055.84
 25102.6 1055.6325165.57 1054.9925293.65  1054.325400.67 1057.0625522.25 1059.22
25597.17 1058.4125713.85 1057.9825824.69  1060.625850.02 1060.9225980.05 1061.02
26040.31 1060.2826085.96 1060.1626115.36  1058.626378.37 1057.1726385.52 1058.22
26496.95 1078.6826605.38 1079.6726703.24  1058.126712.22 1058.41

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
18455.22    .045 19657.7    .033 20219.8     .04

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19657.7 20219.8              481  521.13     221              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
18455.2219639.51    1068 20265.926712.22    1068

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1045.60   Element                   Left OB    Channel   Right OB
  Vel Head (ft)                3.08   Wt. n-Val.                            0.033
  E.G. Elev (ft)            1048.68   Reach Len. (ft)            481.00     521.13     221.00
  Crit W.S. (ft)            1038.21   Flow Area (sq ft)                   11783.58
  E.G. Slope (ft/ft)       0.001744   Area (sq ft)                        11783.58     363.84
  Q Total (cfs)           166000.00   Flow (cfs)                         166000.00
  Top Width (ft)             857.09   Top Width (ft)                        562.10     294.99
  Vel Total (ft/s)            14.09   Avg. Vel. (ft/s)                      14.09
  Max Chl Dpth (ft)           23.02   Hydr. Depth (ft)                      20.96
  Conv. Total (cfs)       3975210.5   Conv. (cfs)                        3975210.5
  Length Wtd. (ft)           521.13   Wetted Per. (ft)                      574.61
  Min Ch El (ft)            1022.58   Shear (lb/sq ft)                       2.23
  Alpha                        1.00   Stream Power (lb/ft s)                31.45
  Frctn Loss (ft)              1.02   Cum Volume (acre-ft)      7304.85   30916.72    3229.41
  C & E Loss (ft)              0.08   Cum SA (acres)            2103.94    3012.08    1022.42


Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1045.75   Element                   Left OB    Channel   Right OB
  Vel Head (ft)                3.04   Wt. n-Val.                            0.033
  E.G. Elev (ft)            1048.79   Reach Len. (ft)            481.00     521.13     221.00
  Crit W.S. (ft)            1038.21   Flow Area (sq ft)                   11866.33
  E.G. Slope (ft/ft)       0.001705   Area (sq ft)                        11866.33
  Q Total (cfs)           166000.00   Flow (cfs)                         166000.00
  Top Width (ft)             562.10   Top Width (ft)                        562.10
  Vel Total (ft/s)            13.99   Avg. Vel. (ft/s)                      13.99
  Max Chl Dpth (ft)           23.17   Hydr. Depth (ft)                      21.11
  Conv. Total (cfs)       4020469.0   Conv. (cfs)                        4020469.0
  Length Wtd. (ft)           521.13   Wetted Per. (ft)                      574.91
  Min Ch El (ft)            1022.58   Shear (lb/sq ft)                       2.20
  Alpha                        1.00   Stream Power (lb/ft s)                30.73
  Frctn Loss (ft)              0.99   Cum Volume (acre-ft)      1324.44   31885.72     879.42
  C & E Loss (ft)              0.08   Cum SA (acres)             217.60    3016.99     101.73


Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF#1

  Left Sta     Right Sta        Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)         (ft)             (cfs)    (sq ft)      (ft)                (ft)     (ft/s)
```

19657.70 LB	19770.12	25356.97	2039.95	118.57	15.28	18.15	12.43
19770.12	19882.54	37289.39	2516.92	112.43	22.46	22.39	14.82
19882.54	19994.96	38685.73	2573.03	112.42	23.30	22.89	15.04
19994.96	20107.38	37403.79	2521.60	112.43	22.53	22.43	14.83
20107.38	20219.80 RB	27264.11	2132.07	118.76	16.42	18.97	12.79

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19657.70 LB	19770.12	25390.53	2056.50	118.72	15.30	18.29	12.35
19770.12	19882.54	37274.90	2533.47	112.43	22.45	22.54	14.71
19882.54	19994.96	38661.53	2589.58	112.42	23.29	23.03	14.93
19994.96	20107.38	37388.50	2538.15	112.43	22.52	22.58	14.73
20107.38	20219.80 RB	27284.54	2148.62	118.91	16.44	19.11	12.70

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.54

INPUT
Description: 211.54

Station Elevation Data num= 24

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18557	105619	498.08	1062.8	819570.11	1056.9	19585.13	1056.7	19633.01	1023.1
19866.76	1021.9	20100.43	1023.2	20148.29	1056.8	20163.32	105720	195.23	1056.3
20223.6	1049.3	20265.59	1046.1	20326.25	1049.4	20339.59	1050.8	20360.21	1052.5
20374.03	1055.4	20382.33	1055.9	20385.6	1055.9	20412.1	1057.3	20434.96	1056.7
20443.92	1057.1	20456.54	1061.4	20479.34	1060.7	21248.52	1053.6		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18557	.037	19498.08	.032	20163.32	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19498.08	20163.32	125	124.49	120	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18557	19498.08	1070	20163.32	21248.52	1070

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1043.70	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.88	Wt. n-Val.		0.032	
E.G. Elev (ft)	1047.58	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1038.03	Flow Area (sq ft)		10501.56	
E.G. Slope (ft/ft)	0.002210	Area (sq ft)		10501.56	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	525.99	Top Width (ft)		525.99	
Vel Total (ft/s)	15.81	Avg. Vel. (ft/s)		15.81	
Max Chl Dpth (ft)	21.80	Hydr. Depth (ft)		19.97	
Conv. Total (cfs)	3530895.3	Conv. (cfs)		3530895.3	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		538.98	
Min Ch El (ft)	1021.90	Shear (lb/sq ft)		2.69	
Alpha	1.00	Stream Power (lb/ft s)		42.50	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	7304.85	30783.41	3228.49
C & E Loss (ft)	0.09	Cum SA (acres)	2103.94	3005.57	1021.67

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1043.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.79	Wt. n-Val.		0.032	
E.G. Elev (ft)	1047.72	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1038.03	Flow Area (sq ft)		10618.67	
E.G. Slope (ft/ft)	0.002132	Area (sq ft)		10618.67	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	525.99	Top Width (ft)		525.99	
Vel Total (ft/s)	15.63	Avg. Vel. (ft/s)		15.63	
Max Chl Dpth (ft)	22.03	Hydr. Depth (ft)		20.19	
Conv. Total (cfs)	3594783.8	Conv. (cfs)		3594783.8	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		539.43	
Min Ch El (ft)	1021.90	Shear (lb/sq ft)		2.62	
Alpha	1.00	Stream Power (lb/ft s)		40.97	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	1324.44	31751.22	879.42
C & E Loss (ft)	0.08	Cum SA (acres)	217.60	3010.48	101.73

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19498.08 LB	19631.13	2249.91	264.97	33.57	1.36	9.64	8.49
19631.13	19764.18	45194.36	2784.27	133.47	27.23	20.93	16.23
19764.18	19897.22	47676.29	2871.45	133.05	28.72	21.58	16.60
19897.22	20030.27	46513.56	2829.21	133.05	28.02	21.26	16.44
20030.27	20163.32 RB	24365.89	1751.66	105.85	14.68	17.63	13.91

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19498.08 LB	19631.13	2285.55	271.08	33.79	1.38	9.87	8.43
19631.13	19764.18	45182.50	2813.89	133.47	27.22	21.15	16.06
19764.18	19897.22	47638.41	2901.07	133.05	28.70	21.80	16.42
19897.22	20030.27	46488.39	2858.83	133.05	28.01	21.49	16.26
20030.27	20163.32 RB	24405.14	1773.79	106.07	14.70	17.85	13.76

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

BRIDGE RIVER: 1
REACH: 1 RS: 211.525

INPUT
Description: 19th Avenue Bridge
Distance from Upstream XS = 0
Deck/Roadway Width = 124.49
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 11

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
18557	1056	1056	19498.08	1062.88	1062.88	19498.08	1062.88	1056.33
19617.96	1065.1	1058.43	19732.91	1067.4	1060.68	19853.66	1068.72	1062.03
19974.41	1069.18	1062.51	20095.16	1068.67	1061.97	20215.91	1067.18	1060.46
20336.66	1064.77	1058.03	20456.45	1061.4	1054.73			

Upstream Bridge Cross Section Data
Station Elevation Data num= 24

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18557	1056	19498.08	1062.88	19570.11	1056.9	19585.13	1056.7	19633.01	1023.1
19866.76	1021.9	20100.43	1023.2	20148.29	1056.8	20163.32	1057	20195.23	1056.3
20223.6	1049.3	20265.59	1046.1	20326.25	1049.4	20339.59	1050.8	20360.21	1052.5

```
20374.03  1055.420382.33  1055.9 20385.6  1055.9 20412.1  1057.320434.96  1056.7
20443.92  1057.120456.54  1061.420479.34  1060.721248.52  1053.6

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   18557    .03719498.08    .03220163.32    .037

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19498.0820163.32             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1855719498.08    107020163.3221248.52    1070

Downstream  Deck/Roadway Coordinates
    num=      11
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
   18557    1056    105619498.08 1062.88 1062.8819498.08 1062.88 1056.33
19617.96  1065.1 1058.4319732.91  1067.4 1060.6819853.66 1068.72 1062.03
19974.41 1069.18 1062.5120095.16 1068.67 1061.9720215.91 1067.18 1060.46
20336.66 1064.77 1058.0320456.45  1061.4 1054.73

Downstream Bridge Cross Section Data
Station Elevation Data    num=      22
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   18577    105619498.08 1062.8819510.11    105119579.82  1056.719594.75  1056.5
19642.62    102319876.38  1021.820110.04    102320157.91  1056.620172.93  1056.8
20204.85  1056.120210.17  1055.920249.54  1049.420344.26  1054.820347.44  1054.8
20366.65  1054.320380.75  1054.620418.55    105520428.15    105520456.54  1061.4
20479.34  1060.721248.52  1053.6

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   18577    .03719579.82    .03220172.93    .037

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19579.8220172.93             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1857719579.82  1056.720172.9321248.52  1056.8

Upstream Embankment side slope              =         horiz. to 1.0 vertical
Downstream Embankment side slope            =         horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  7

Pier Data
Pier Station     Upstream=19615.06    Downstream=19615.06
Upstream     num=       2
    Width   Elev    Width   Elev
     5.8  1046.9     5.8 1058.51
Downstream     num=       2
    Width   Elev    Width   Elev
     5.8  1046.9     5.8 1058.51

Pier Data
Pier Station     Upstream=19735.81    Downstream=19735.81
Upstream     num=       2
    Width   Elev    Width   Elev
     5.8    1022     5.8 1060.77
Downstream     num=       2
    Width   Elev    Width   Elev
     5.8    1022     5.8 1060.77

Pier Data
Pier Station     Upstream=19856.56    Downstream=19856.56
Upstream     num=       2
    Width   Elev    Width   Elev
     5.8 1020.85     5.8 1062.07
Downstream     num=       2
    Width   Elev    Width   Elev
     5.8 1020.85     5.8 1062.07
```

```
Pier Data
Pier Station     Upstream=19977.31    Downstream=19977.31
Upstream     num=       2
    Width   Elev    Width   Elev
     5.8 1028.55     5.8 1062.51
Downstream     num=       2
    Width   Elev    Width   Elev
     5.8 1028.55     5.8 1062.51

Pier Data
Pier Station     Upstream=20098.06    Downstream=20098.06
Upstream     num=       2
    Width   Elev    Width   Elev
     5.8 1033.84     5.8 1062.02
Downstream     num=       2
    Width   Elev    Width   Elev
     5.8 1033.84     5.8 1062.02

Pier Data
Pier Station     Upstream=20218.81    Downstream=20218.81
Upstream     num=       2
    Width   Elev    Width   Elev
     5.8 1039.95     5.8 1060.55
Downstream     num=       2
    Width   Elev    Width   Elev
     5.8 1039.95     5.8 1060.55

Pier Data
Pier Station     Upstream=20339.56    Downstream=20339.56
Upstream     num=       2
    Width   Elev    Width   Elev
     5.8 1045.78     5.8 1058.17
Downstream     num=       2
    Width   Elev    Width   Elev
     5.8 1045.78     5.8 1058.17

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
      Energy
      Momentum                Cd   =     1.2
      Yarnell                 KVal =    1.05
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
      Energy Only

Additional Bridge Parameters
      Add Friction component to Momentum
      Add Weight component to Momentum
      Class B flow critical depth computations use critical depth
          inside the bridge at the downstream end
      Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT    Profile #PF#1
Opening : Bridge #1

  E.G. US. (ft)                 1047.58   Element                 Inside BR US  Inside BR DS
  W.S. US. (ft)                 1043.70   E.G. Elev (ft)               1047.50       1046.89
  Q Total (cfs)               166000.00   W.S. Elev (ft)               1042.75       1041.69
  Q Bridge (cfs)              166000.00   Crit W.S. (ft)               1038.54       1038.43
  Q Weir (cfs)                            Max Chl Dpth (ft)              20.85         19.89
  Weir Sta Lft (ft)                       Vel Total (ft/s)               17.49         18.31
  Weir Sta Rgt (ft)                       Flow Area (sq ft)            9489.36       9064.27
  Weir Submerg                            Froude # Chl                    0.70          0.75
  Weir Max Depth (ft)                     Specif Force (cu ft)       184467.78     180161.13
  Min Top Rd (ft)               1062.88   Hydr Depth (ft)                19.20         18.29
  Min El Prs (ft)               1062.51   W.P. Total (ft)               680.47        662.40
  Delta EG (ft)                    0.91   Conv. Total (cfs)          2552891.3     2407978.0
  Delta WS (ft)                    1.51   Top Width (ft)               494.25        495.50
  BR Open Area (sq ft)         19158.31   Frctn Loss (ft)                0.56          0.00
  BR Open Vel (ft/s)              18.31   C & E Loss (ft)                0.05          0.22
  Coef of Q                               Shear Total (lb/sq ft)         3.68          4.06
  Br Sel Mthd               Energy only   Power Total (lb/ft s)         64.39         74.35
```

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

BRIDGE OUTPUT Profile #PF#2
Opening : Bridge #1

E.G. US. (ft)	1047.72	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1043.93	E.G. Elev (ft)	1047.64	1047.07
Q Total (cfs)	166000.00	W.S. Elev (ft)	1043.02	1042.09
Q Bridge (cfs)	166000.00	Crit W.S. (ft)	1038.54	1038.43
Q Weir (cfs)		Max Chl Dpth (ft)	21.12	20.29
Weir Sta Lft (ft)		Vel Total (ft/s)	17.24	17.92
Weir Sta Rgt (ft)		Flow Area (sq ft)	9626.06	9262.35
Weir Submerg		Froude # Chl	0.69	0.73
Weir Max Depth (ft)		Specif Force (cu ft)	185828.47	181803.13
Min Top Rd (ft)	1062.88	Hydr Depth (ft)	19.45	18.67
Min El Prs (ft)	1062.51	W.P. Total (ft)	684.20	666.69
Delta EG (ft)	0.86	Conv. Total (cfs)	2604976.3	2485597.3
Delta WS (ft)	1.36	Top Width (ft)	495.04	496.07
BR Open Area (sq ft)	19158.31	Frctn Loss (ft)	0.53	0.00
BR Open Vel (ft/s)	17.92	C & E Loss (ft)	0.04	0.20
Coef of Q		Shear Total (lb/sq ft)	3.57	3.87
Br Sel Mthd	Energy only	Power Total (lb/ft s)	61.51	69.33

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.51

INPUT
Description: 211.51

Begin 19th Ave Landfill channelization

Station Elevation Data num= 22

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18577	105619	498.08	1062.88	19510.11	105119	579.82	1056.7	19594.75	1056.5
19642.62	102319	876.38	1021.8	20110.04	102320	157.91	1056.6	20172.93	1056.8
20204.85	1056.1	20210.17	1055.9	20249.54	1049.4	20344.26	1054.8	20347.44	1054.8
20366.65	1054.3	20380.75	1054.6	20418.55	105520	428.15	105520	456.54	1061.4
20479.34	1060.7	21248.52	1053.6						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18577	.037	19579.82	.032	20172.93	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19579.82	20172.93	541	562.88	606	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18577	19579.82	1056.7	20172.93	21248.52	1056.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1042.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	4.47	Wt. n-Val.		0.032	
E.G. Elev (ft)	1046.67	Reach Len. (ft)	541.00	562.88	606.00
Crit W.S. (ft)	1037.90	Flow Area (sq ft)		9779.93	
E.G. Slope (ft/ft)	0.002770	Area (sq ft)		9779.93	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	522.21	Top Width (ft)		522.21	
Vel Total (ft/s)	16.97	Avg. Vel. (ft/s)		16.97	
Max Chl Dpth (ft)	20.40	Hydr. Depth (ft)		18.73	
Conv. Total (cfs)	3154038.8	Conv. (cfs)		3154038.8	
Length Wtd. (ft)	562.88	Wetted Per. (ft)		534.33	
Min Ch El (ft)	1021.80	Shear (lb/sq ft)		3.17	
Alpha	1.00	Stream Power (lb/ft s)		53.73	

Frctn Loss (ft)	1.26	Cum Volume (acre-ft)	7304.85	30756.90	3228.49
C & E Loss (ft)	0.36	Cum SA (acres)	2103.94	3004.16	1021.67

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1042.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	4.30	Wt. n-Val.		0.032	
E.G. Elev (ft)	1046.87	Reach Len. (ft)	541.00	562.88	606.00
Crit W.S. (ft)	1037.90	Flow Area (sq ft)		9969.95	
E.G. Slope (ft/ft)	0.002603	Area (sq ft)		9969.95	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	522.20	Top Width (ft)		522.20	
Vel Total (ft/s)	16.65	Avg. Vel. (ft/s)		16.65	
Max Chl Dpth (ft)	20.76	Hydr. Depth (ft)		19.09	
Conv. Total (cfs)	3253887.0	Conv. (cfs)		3253887.0	
Length Wtd. (ft)	562.88	Wetted Per. (ft)		535.05	
Min Ch El (ft)	1021.80	Shear (lb/sq ft)		3.03	
Alpha	1.00	Stream Power (lb/ft s)		50.41	
Frctn Loss (ft)	1.18	Cum Volume (acre-ft)	1324.44	31724.23	879.42
C & E Loss (ft)	0.35	Cum SA (acres)	217.60	3009.07	101.73

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19579.82 LB	19698.44	19818.36	1343.02	89.31	11.94	16.13	14.76
19698.44	19817.06	41597.33	2347.45	118.62	25.06	19.79	17.72
19817.06	19935.69	43208.93	2401.59	118.62	26.03	20.25	17.99
19935.69	20054.31	41596.58	2347.42	118.62	25.06	19.79	17.72
20054.31	20172.93 RB	19778.80	1340.45	89.15	11.91	16.13	14.76

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19579.82 LB	19698.44	19883.94	1373.30	89.67	11.98	16.50	14.48
19698.44	19817.06	41563.99	2390.62	118.62	25.04	20.15	17.39
19817.06	19935.69	43144.98	2444.75	118.62	25.99	20.61	17.65
19935.69	20054.31	41563.25	2390.59	118.62	25.04	20.15	17.39
20054.31	20172.93 RB	19843.83	1370.68	89.51	11.95	16.50	14.48

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.41

INPUT
Description: 211.41

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18573.85	1055.5	18621.78	1056.6	118655.14	1053.7	918722.99	1053.2	518902.93	1052.9
19132.77	1051.6	19320.33	1050.8	719480.47	1049.5	819533.31	1047.7	219566.92	1049.4

```
 19611.4  1046.919634.53 1044.0819638.09 1041.7819668.43 1022.1819702.69 1018.56
19754.63 1019.6519786.92  1018.319889.98 1020.7419930.16 1020.8119994.45 1020.82
20076.61 1020.9120167.45  1021.220192.38 1033.0120195.55 1039.3220206.061041.777
20220.36 1045.1220236.46 1054.7820293.62    105620331.24 1065.2220351.37 1065.23
20357.03 1066.6220414.04 1056.96 20436.1  1062.220445.88 1058.7420504.13 1060.74
20521.21 1060.7920557.16 1066.5820578.69  1061.620603.37 1060.3620654.05 1060.04
20689.25 1058.2320722.97 1060.5820735.67  1057.720828.84 1057.0620846.13 1057.59
20898.33 1070.2520938.86 1063.6420980.02    106321017.32 1057.9221060.66 1055.82
21097.07 1055.5321119.44 1056.16 21132.9  1055.121181.47  1054.221283.06  1053.8
21298.44 1058.2121320.94 1060.3521339.43  1062.821380.38 1060.3221406.09 1052.45
21459.74 1053.4821477.97 1059.9821533.47    106121555.62 1081.8121619.68 1081.91
21644.09  1080.121655.42 1076.4821707.29  1075.321720.18 1072.1521749.96 1071.27
21770.47 1076.9921793.84 1054.8221802.85  1056.121842.36    105621864.05 1053.48
21891.41 1052.6921905.23 1051.4321991.71  1051.822210.76 1052.0622373.03 1052.78
22531.21 1052.1722650.75 1052.0922819.43  1052.522919.43 1053.1423211.23 1053.67
23252.71 1054.2423349.12 1054.0823463.55  1053.123574.33 1051.7923680.61 1051.32
23891.22 1051.5624133.09 1051.4824212.43  1051.924237.65 1050.3224284.73 1050.32
24320.22    105124361.59 1050.58 24444.1    1052

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
18573.85    .03719638.09    .03220206.06    .037

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19638.0920206.06              500  501.53     505            .1        .3

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)          1041.78   Element                    Left OB    Channel   Right OB
  Vel Head (ft)              3.28   Wt. n-Val.                            0.032
  E.G. Elev (ft)          1045.05   Reach Len. (ft)            500.00     501.53     505.00
  Crit W.S. (ft)                    Flow Area (sq ft)                   11426.47
  E.G. Slope (ft/ft)      0.001843  Area (sq ft)                        11426.47
  Q Total (cfs)          166000.00  Flow (cfs)                         166000.00
  Top Width (ft)            567.96  Top Width (ft)                        567.96
  Vel Total (ft/s)           14.53  Avg. Vel. (ft/s)                       14.53
  Max Chl Dpth (ft)          23.48  Hydr. Depth (ft)                       20.12
  Conv. Total (cfs)       3866616.5 Conv. (cfs)                        3866616.5
  Length Wtd. (ft)          501.53  Wetted Per. (ft)                      580.83
  Min Ch El (ft)           1018.30  Shear (lb/sq ft)                        2.26
  Alpha                       1.00  Stream Power (lb/ft s)                 32.89
  Frctn Loss (ft)             1.12  Cum Volume (acre-ft)      7304.85   30619.89    3228.49
  C & E Loss (ft)             0.05  Cum SA (acres)            2103.94    2997.11    1021.67

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)          1042.19   Element                    Left OB    Channel   Right OB
  Vel Head (ft)              3.15   Wt. n-Val.                            0.032
  E.G. Elev (ft)          1045.34   Reach Len. (ft)            500.00     501.53     505.00
  Crit W.S. (ft)                    Flow Area (sq ft)                   11663.09
  E.G. Slope (ft/ft)      0.001725  Area (sq ft)                        11663.09
  Q Total (cfs)          166000.00  Flow (cfs)                         166000.00
  Top Width (ft)            567.96  Top Width (ft)                        567.96
  Vel Total (ft/s)           14.23  Avg. Vel. (ft/s)                       14.23
  Max Chl Dpth (ft)          23.89  Hydr. Depth (ft)                       20.54
  Conv. Total (cfs)       3997170.8 Conv. (cfs)                        3997170.8
  Length Wtd. (ft)          501.53  Wetted Per. (ft)                      581.67
  Min Ch El (ft)           1018.30  Shear (lb/sq ft)                        2.16
  Alpha                       1.00  Stream Power (lb/ft s)                 30.73
  Frctn Loss (ft)             1.01  Cum Volume (acre-ft)      1324.44   31584.46     879.42
  C & E Loss (ft)             0.08  Cum SA (acres)             217.60    3002.02     101.73

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF#1

  Left Sta      Right Sta        Flow       Area       W.P.     % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                 (ft)      (ft/s)
  19638.09 LB   19751.68      29024.60    2142.88    119.57      17.48      18.87      13.54
  19751.68      19865.28      40605.89    2568.40    113.64      24.46      22.61      15.81
```

19865.28	19978.87	36070.44	2391.86	113.60	21.73	21.06	15.08
19978.87	20092.47	35649.55	2375.01	113.59	21.48	20.91	15.01
20092.47	20206.06 RB	24649.52	1948.31	120.42	14.85	17.15	12.65

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19638.09 LB	19751.68	29051.74	2190.20	119.98	17.50	19.28	13.26
19751.68	19865.28	40495.11	2615.73	113.64	24.39	23.03	15.48
19865.28	19978.87	36052.14	2439.19	113.60	21.72	21.47	14.78
19978.87	20092.47	35639.64	2422.33	113.59	21.47	21.32	14.71
20092.47	20206.06 RB	24761.37	1995.64	120.84	14.92	17.57	12.41

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.31

INPUT
Description: 211.31

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19209.8	1054	19309.4	1053.9	19371	1052.4	19415.6	1052	19462.5	1051.5
19496.2	1050.5	19510.1	1050.5	19528.9	1041.9	19531.2	1040.766	19571.7	1020.8
19614	1021.1	19677.8	1021.1	19724.1	1021.3	19888.2	1022	19928.3	1022.1
19954.9	1021.8	19973.9	1032	19980.4	1029.8	19994.7	1027.2	20059	1026.6
20112	1026.2	20123.3	1028	20158.9	1030.9	20198.7	1033.6	20212.5	1034.3
20267.3	1034.5	20269.1	1035.1	20281.8	1034.8	20323.2	1035.6	20338.5	1037.1
20343	1038	20356.1	1040.765	20425.9	1055.5	20434.4	1057.4	20457.3	1049
20499	1049.5	20549.5	1051.1	20551.5	1051	20571.1	1052.5	20575.3	1055.6
20584.2	1059.5	20614	1060.7	20625.4	1057	20636	1051.6	20682.5	1051.6
20692.1	1051.6	20699.2	1055	20718.1	1055.1	20723.4	1052.3	20725.3	1052.3
20778.6	1052.4	20806	1052.5	20808.3	1053.2	20835.4	1052.5	20836.7	1052.2
20884.1	1051.7	20893	1051.9	20922.6	1067.4	20930.4	1067.8	20944	1066.2
20964.4	1055.2	20970.5	1050.2	21010.5	1050.3	21036.1	1052	21040.8	1052.7
21082	1053.8	21083.4	1053.5	21093.1	1049.5	21124.5	1050.5	21134.6	1050.2
21141.3	1051.6	21160.1	1051.2	21201.6	1048.9	21204.4	1049.1	21219.3	1052.5
21236.3	1049.8	21240.9	1049.4	21293.9	1049	21338.4	1048.2	21394.2	1047.1
21457	1046.7	21459.4	1046.7	21510.1	1046.2	21538.8	1046.8	21571	1046.8
21576.7	1047.8	21607.4	1058.3	21626.3	1059.1	21651.1	1060.7	21661.7	1060.9
21672.8	1062	21684.6	1057.7	21696.7	1051.4	21740.6	1053.4	21745.1	1054.1
21754.3	1054.6	21757.7	1053	21786	1052.5				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19209.8	.037	19531.2	.032	20356.1	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19531.2	20356.1	540	523.28	460	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
20434.4	21786	1060

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1040.76	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.13	Wt. n-Val.		0.032	
E.G. Elev (ft)	1043.89	Reach Len. (ft)	540.00	523.28	460.00
Crit W.S. (ft)	1037.18	Flow Area (sq ft)		11698.88	
E.G. Slope (ft/ft)	0.002759	Area (sq ft)		11698.88	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	824.88	Top Width (ft)		824.88	
Vel Total (ft/s)	14.19	Avg. Vel. (ft/s)		14.19	
Max Chl Dpth (ft)	19.96	Hydr. Depth (ft)		14.18	
Conv. Total (cfs)	3160580.8	Conv. (cfs)		3160580.8	
Length Wtd. (ft)	523.28	Wetted Per. (ft)		833.64	
Min Ch El (ft)	1020.80	Shear (lb/sq ft)		2.42	

Alpha	1.00	Stream Power (lb/ft s)		34.29	
Frctn Loss (ft)	1.21	Cum Volume (acre-ft)	7304.85	30486.76	3228.49
C & E Loss (ft)	0.28	Cum SA (acres)	2103.94	2989.09	1021.67

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1041.37	Element			
Vel Head (ft)	2.88	Wt. n-Val.		0.032	
E.G. Elev (ft)	1044.24	Reach Len. (ft)	540.00	523.28	460.00
Crit W.S. (ft)	1037.18	Flow Area (sq ft)		12197.81	
E.G. Slope (ft/ft)	0.002405	Area (sq ft)		12197.81	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	824.88	Top Width (ft)		824.88	
Vel Total (ft/s)	13.61	Avg. Vel. (ft/s)		13.61	
Max Chl Dpth (ft)	20.57	Hydr. Depth (ft)		14.79	
Conv. Total (cfs)	3385149.8	Conv. (cfs)		3385149.8	
Length Wtd. (ft)	523.28	Wetted Per. (ft)		834.84	
Min Ch El (ft)	1020.80	Shear (lb/sq ft)		2.19	
Alpha	1.00	Stream Power (lb/ft s)		29.85	
Frctn Loss (ft)	1.03	Cum Volume (acre-ft)	1324.44	31447.10	879.42
C & E Loss (ft)	0.27	Cum SA (acres)	217.60	2994.01	101.73

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19531.20 LB	19696.18	42931.32	2857.46	169.63	25.86	17.32	15.02
19696.18	19861.16	52065.17	3172.62	164.98	31.36	19.23	16.41
19861.16	20026.14	39136.02	2693.60	168.14	23.58	16.33	14.53
20026.14	20191.12	25341.59	2061.31	165.32	15.27	12.49	12.29
20191.12	20356.10 RB	6525.91	913.88	165.57	3.93	5.54	7.14

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19531.20 LB	19696.18	42554.07	2957.24	170.23	25.63	17.93	14.39
19696.18	19861.16	51441.16	3272.41	164.98	30.99	19.84	15.72
19861.16	20026.14	39017.04	2793.39	168.14	23.50	16.93	13.97
20026.14	20191.12	25727.66	2161.10	165.32	15.50	13.10	11.90
20191.12	20356.10 RB	7260.07	1013.66	166.17	4.37	6.14	7.16

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.21

INPUT
Description: 211.21

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19418.7	1050	19432.3	1049.9	19486.6	1051	19504.4	1050.9	19507.4	1051.4

19520	1044.719	528.74	1040.216	19566	1021.1	19781.8	1021.6	19997.4	1022.1
20060.3	1022.2	20076.2	1032.8	20080	1035	20082.4	1032.7	20093.4	1024.4
20174.8	1026.6	20183.9	1027.6	20204.6	1029.5	20217.4	1030.4	20229.3	1030.7
20232.4	1030.9	20272.7	1031.9	20335.2	1032.6	20395.1	1032	20413.6	1031.7
20425.2	1031.3	20429.3	1031.7	20447.4	1035.2	20472.4	1032.1	20501.4	1030.2
20521.26	1040.216	20521.28	1040.226	20524.4	1041.8	20544	1051.9	20563.3	1064.6
20571.8	1065.7	20580.9	1066	20589.3	1061.5	20605.5	1058.5	20622.4	1060.1
20646.3	1062.6	20659.3	1063.4	20674.4	1064.8	20683.8	1065.5	20692.9	1064.2
20760.3	1066	20772	1068	20791.6	1063.6	20814.8	1059	20846.6	1053
20876.7	1045.5	20891.6	1044.9	20916.6	1044.2	20944.9	1044.5	20964.5	1044.9
21002.8	1046.7	21028.1	1048.6	21034.5	1044.8	21035.5	1044	21113.8	1044.6
21130.1	1044.6	21249.3	1044	21250	1044.1	21260.5	1047.3	21288	1046.8
21324.8	1046.7	21359.3	1046.9	21432.1	1048	21449.9	1048.7	21452.1	1049.4
21462.5	1051.8	21469.8	1052.8	21533.8	1052	21595.7	1051.9	21614.5	1051.8
21642.6	1057.9	21645.8	1056.1	21673.8	1046.4	21698	1040.9	21967.4	1041
21972	1044.7	21983.2	1052.6	21984.7	1051.9	21991.1	1050.7	21999	1051.3
22028.7	1051	22088.3	1051.4	22171	1051.7				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19418.7	.037	19528.74	.032	20521.26	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19528.74	20521.26	495	493.11	475	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
20571.8	22171	1068

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1040.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.19	Wt. n-Val.		0.032	
E.G. Elev (ft)	1042.40	Reach Len. (ft)	495.00	493.11	475.00
Crit W.S. (ft)	1035.52	Flow Area (sq ft)		13992.95	
E.G. Slope (ft/ft)	0.001956	Area (sq ft)		13992.95	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	992.51	Top Width (ft)		992.51	
Vel Total (ft/s)	11.86	Avg. Vel. (ft/s)		11.86	
Max Chl Dpth (ft)	19.11	Hydr. Depth (ft)		14.10	
Conv. Total (cfs)	3753411.0	Conv. (cfs)		3753411.0	
Length Wtd. (ft)	493.11	Wetted Per. (ft)		1007.86	
Min Ch El (ft)	1021.10	Shear (lb/sq ft)		1.70	
Alpha	1.00	Stream Power (lb/ft s)		20.11	
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	7304.85	30332.45	3228.49
C & E Loss (ft)	0.36	Cum SA (acres)	2103.94	2978.18	1021.67

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1040.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.97	Wt. n-Val.		0.032	
E.G. Elev (ft)	1042.94	Reach Len. (ft)	495.00	493.11	475.00
Crit W.S. (ft)	1035.52	Flow Area (sq ft)		14744.23	
E.G. Slope (ft/ft)	0.001646	Area (sq ft)		14744.23	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	992.50	Top Width (ft)		992.50	
Vel Total (ft/s)	11.26	Avg. Vel. (ft/s)		11.26	
Max Chl Dpth (ft)	19.87	Hydr. Depth (ft)		14.86	
Conv. Total (cfs)	4091170.0	Conv. (cfs)		4091170.0	
Length Wtd. (ft)	493.11	Wetted Per. (ft)		1009.37	
Min Ch El (ft)	1021.10	Shear (lb/sq ft)		1.50	
Alpha	1.00	Stream Power (lb/ft s)		16.90	
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	1324.44	31285.28	879.42
C & E Loss (ft)	0.31	Cum SA (acres)	217.60	2983.09	101.73

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less

than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19528.74 LB	19727.24	43680.50	3407.84	203.12	26.31	17.17	12.82
19727.24	19925.75	50282.89	3674.26	198.50	30.29	18.51	13.69
19925.75	20124.25	40694.89	3284.71	206.02	24.51	16.55	12.39
20124.25	20322.76	20033.94	2116.25	198.72	12.07	10.66	9.47
20322.76	20521.26 RB	11307.78	1509.90	201.50	6.81	7.61	7.49

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19528.74 LB	19727.24	43156.92	3558.09	203.87	26.00	17.93	12.13
19727.24	19925.75	49549.48	3824.52	198.50	29.85	19.27	12.96
19925.75	20124.25	40413.23	3434.97	206.02	24.35	17.30	11.77
20124.25	20322.76	20702.58	2266.51	198.72	12.47	11.42	9.13
20322.76	20521.26 RB	12177.78	1660.15	202.26	7.34	8.36	7.34

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.12

INPUT
Description: 211.12

Left Channel Bank Station Interpolated
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19314	1050.6	19321.1	1050.6	19403.5	1050.4	19415.2	1050.5	19470.9	1050.5
19482.5	1051.2	19483.7	1050.5	19498.46	1040.58	19527.6	1021	19600.2	1021.1
20090.7	1021	20239.6	1020.4	20259	1020.1	20267	1022.5	20276.5	1019.8
20287.8	1020	20321.5	1020.6	20364.3	1020.4	20406.5	1019.8	20438.1	1015.7
20453.3	1015.7	20484.3	1015.7	20510.9	1015.7	20526.1	1023.8	20540.7	1029.4
20572.2	1046.4	20577.1	1044.9	20591.9	1040.2	21035.6	1040.2	21045.7	1040.3
21082.9	1041.6	21123	1041.5	21166	1041.6	21189.7	1041.5	21228.3	1041
21264.3	1041.1	21277.3	1040.7	21299.3	1040.6	21311.7	1043.9	21321.5	1044.1
21335.9	1046.9	21349.5	1046.7	21377.3	1046.7	21389.3	1045.7	21395.8	1044.6
21409	1041.7	21414.3	1040.2	21431.9	1040.1	21441.7	1040.6	21511.5	1043.7
21564.5	1044.7	21580.3	1044.8	21593	1044.6	21597	1042	22094.6	1042
22111.5	1053.1	22112.9	1051.5	22113.7	1050.9	22123	1051.4	22146.6	1051.4
22200.7	1051.7	22225.6	1051.6	22293.4	1051.7				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19314	.037	19498.46	.032	20572.2	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19498.46	20572.2	500	505.73	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21335.9	22293.4	1050

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1040.58	Element			
Vel Head (ft)	0.99	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1041.56	Reach Len. (ft)	500.00	505.73	500.00
Crit W.S. (ft)	1029.81	Flow Area (sq ft)		20780.88	171.08

E.G. Slope (ft/ft)	0.000570	Area (sq ft)		20780.88	181.03
Q Total (cfs)	166000.00	Flow (cfs)		165915.48	84.51
Top Width (ft)	1554.03	Top Width (ft)		1062.94	491.09
Vel Total (ft/s)	7.92	Avg. Vel. (ft/s)		7.98	0.49
Max Chl Dpth (ft)	24.88	Hydr. Depth (ft)		19.55	0.37
Conv. Total (cfs)	6950559.5	Conv. (cfs)		6947021.0	3538.4
Length Wtd. (ft)	505.69	Wetted Per. (ft)		1075.80	462.92
Min Ch El (ft)	1015.70	Shear (lb/sq ft)		0.69	0.01
Alpha	1.01	Stream Power (lb/ft s)		5.49	0.01
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)	7304.85	30135.62	3227.50
C & E Loss (ft)	0.07	Cum SA (acres)	2103.94	2966.54	1019.00

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

		Element	Left OB	Channel	Right OB
W.S. Elev (ft)	1041.29				
Vel Head (ft)	0.92	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1042.21	Reach Len. (ft)	500.00	505.73	500.00
Crit W.S. (ft)	1029.81	Flow Area (sq ft)		21539.24	21.56
E.G. Slope (ft/ft)	0.000508	Area (sq ft)		21539.24	21.56
Q Total (cfs)	166000.00	Flow (cfs)		165981.19	18.81
Top Width (ft)	1085.78	Top Width (ft)		1064.26	21.53
Vel Total (ft/s)	7.70	Avg. Vel. (ft/s)		7.71	0.87
Max Chl Dpth (ft)	25.59	Hydr. Depth (ft)		20.24	1.00
Conv. Total (cfs)	7365407.0	Conv. (cfs)		7364572.5	834.7
Length Wtd. (ft)	505.72	Wetted Per. (ft)		1078.01	22.78
Min Ch El (ft)	1015.70	Shear (lb/sq ft)		0.63	0.03
Alpha	1.00	Stream Power (lb/ft s)		4.88	0.03
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	1324.44	31079.91	879.30
C & E Loss (ft)	0.07	Cum SA (acres)	217.60	2971.45	101.61

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19498.46 LB	19713.21	29372.06	3904.84	220.71	17.69	18.18	7.52
19713.21	19927.96	33667.11	4191.91	214.75	20.28	19.52	8.03
19927.96	20142.70	33862.07	4206.45	214.75	20.40	19.59	8.05
20142.70	20357.45	35142.50	4307.10	215.49	21.17	20.06	8.16
20357.45	20572.20 RB	33871.73	4170.58	210.11	20.40	20.45	8.12
20572.20	20686.95	17.79	35.89	96.28	0.01	0.37	0.50
20686.95	20801.69	21.44	43.06	114.75	0.01	0.38	0.50
20801.69	20916.44	21.44	43.06	114.75	0.01	0.38	0.50
20916.44	21031.19	21.44	43.06	114.75	0.01	0.38	0.50
21031.19	21145.93	2.40	6.02	22.39	0.00	0.27	0.40

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19498.46 LB	19713.21	29490.37	4057.95	221.42	17.77	18.90	7.27
19713.21	19927.96	33729.76	4345.03	214.75	20.32	20.23	7.76
19927.96	20142.70	33918.18	4359.56	214.75	20.43	20.30	7.78

20142.70	20357.45	35152.60	4460.22	215.49	21.18	20.77	7.88
20357.45	20572.20 RB	33690.27	4316.47	211.61	20.30	21.03	7.81
20572.20	20686.95	18.81	21.56	22.78	0.01	1.00	0.87

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.02

INPUT
Description: 211.02

Left Channel Bank Station Interpolated
Station Elevation Data num= 58

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19239	1049.4	19253.3	1049.2	19318.8	1049.3	19330	1049.2	19381.9	1049.5
19409.6	1049.3	19472.3	1049	19487.12	1039.375	19515.1	1021.2	19977.7	1020.4
20111.7	1020.1	20119.2	1025.6	20133.2	1024.1	20136.2	1022.2	20140	1019.4
20202.9	1020.4	20228.3	1020.7	20238.9	1022.4	20243.6	1025.6	20270.1	1025.5
20279.9	1025.7	20343.8	1026.1	20394.3	1041.3	20424.2	1040	20434	1040.5
20448.3	1038.4	20459.5	1037.9	20468.8	1038.2	20484.1	1038	20494.6	1038.7
20501.7	1038.2	21087.6	1039.1	21102.9	1037.2	21124.7	1036.8	21132.2	1033
21144.9	1032.5	21184.2	1034.3	21243.7	1036.3	21300.5	1038.4	21315.9	1038.7
21353.2	1040	21399.5	1041.4	21439	1042.3	21480	1043.6	21514.7	1043.6
21524.4	1043.8	21535.1	1043.6	21559.7	1042.3	21570.6	1042.2	22151.3	1042
22163.4	1052.1	22174.7	1052.9	22226.3	1051.5	22239.2	1051.3	22318	1051.9
22324.3	1052	22393.8	1052.8	22399.8	1052.7				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19239	.037	19487.12	.032	20394.3	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19487.12	20394.3	485	493.19	495	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21500	22399.8	1050

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1039.37	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.71	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1041.09	Reach Len. (ft)	485.00	493.19	495.00
Crit W.S. (ft)	1032.08	Flow Area (sq ft)		15475.21	1290.02
E.G. Slope (ft/ft)	0.001191	Area (sq ft)		15475.21	1290.02
Q Total (cfs)	166000.00	Flow (cfs)		163717.95	2282.03
Top Width (ft)	1794.36	Top Width (ft)		900.78	893.58
Vel Total (ft/s)	9.90	Avg. Vel. (ft/s)		10.58	1.77
Max Chl Dpth (ft)	19.97	Hydr. Depth (ft)		17.18	1.44
Conv. Total (cfs)	4809078.5	Conv. (cfs)		4742967.0	66111.3
Length Wtd. (ft)	493.36	Wetted Per. (ft)		912.61	894.88
Min Ch El (ft)	1019.40	Shear (lb/sq ft)		1.26	0.11
Alpha	1.13	Stream Power (lb/ft s)		13.34	0.19
Frctn Loss (ft)	0.54	Cum Volume (acre-ft)	7304.85	29925.15	3219.06
C & E Loss (ft)	0.18	Cum SA (acres)	2103.94	2955.15	1011.05

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1040.16	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.62	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1041.78	Reach Len. (ft)	485.00	493.19	495.00
Crit W.S. (ft)	1032.05	Flow Area (sq ft)		16184.15	208.79
E.G. Slope (ft/ft)	0.001055	Area (sq ft)		16184.15	208.79
Q Total (cfs)	166000.00	Flow (cfs)		165598.02	401.98
Top Width (ft)	1023.90	Top Width (ft)		903.39	120.51

Vel Total (ft/s)	10.13	Avg. Vel. (ft/s)		10.23	1.93
Max Chl Dpth (ft)	20.76	Hydr. Depth (ft)		17.91	1.73
Conv. Total (cfs)	5109900.5	Conv. (cfs)		5097526.5	12374.0
Length Wtd. (ft)	493.20	Wetted Per. (ft)		916.12	122.59
Min Ch El (ft)	1019.40	Shear (lb/sq ft)		1.16	0.11
Alpha	1.02	Stream Power (lb/ft s)		11.91	0.22
Frctn Loss (ft)	0.60	Cum Volume (acre-ft)	1324.44	30860.92	877.98
C & E Loss (ft)	0.02	Cum SA (acres)	217.60	2960.03	100.79

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19487.12 LB	19668.55	31332.76	3063.54	186.82	18.88	16.89	10.23
19668.55	19849.99	37527.60	3374.11	181.44	22.61	18.60	11.12
19849.99	20031.43	38602.15	3431.73	181.44	23.25	18.91	11.25
20031.43	20212.87	37545.34	3399.93	184.80	22.62	18.74	11.04
20212.87	20394.30 RB	18710.08	2205.90	178.12	11.27	12.60	8.48
20394.30	20528.00	109.90	96.43	86.46	0.07	1.12	1.14
20528.00	20661.70	149.16	137.88	133.70	0.09	1.03	1.08
20661.70	20795.40	103.01	110.42	133.70	0.06	0.83	0.93
20795.40	20929.10	63.96	82.96	133.70	0.04	0.62	0.77
20929.10	21062.80	32.73	55.50	133.70	0.02	0.42	0.59
21062.80	21196.50	1228.29	490.11	134.79	0.74	3.67	2.51
21196.50	21330.20	594.93	316.29	133.78	0.36	2.37	1.88
21330.20	21463.90	0.09	0.44	5.05	0.00	0.09	0.21

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19487.12 LB	19668.55	31726.04	3206.13	187.61	19.11	17.67	9.90
19668.55	19849.99	37845.74	3516.70	181.44	22.80	19.38	10.76
19849.99	20031.43	38885.21	3574.32	181.44	23.42	19.70	10.88
20031.43	20212.87	37844.20	3542.52	184.80	22.80	19.52	10.68
20212.87	20394.30 RB	19296.80	2344.48	180.84	11.62	13.20	8.23
20394.30	20528.00	319.84	166.92	98.70	0.19	1.69	1.92
20528.00	20661.70	82.15	41.86	23.89	0.05	1.90	1.96

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 210.93

INPUT
Description: 210.93

Left Channel Bank Station Interpolated
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19200.1	1048.6	19256.6	1048.1	19323.4	1048.3	19376.7	1048.6	19414.5	1048
19464.2	1048.3	19479.12	1039.255	19508.9	1021.2	19821.8	1022.3	20131.9	1023.4
20138.8	1028	20162.4	1029.4	20166.3	1026.3	20172.8	1019.1	20212	1018.7
20278.3	1019.9	20290	1025.6	20331.4	1025	20349.2	1032.1	20351.6	1031.2
20355.1	1030.5	20397.8	1031.3	20406.9	1035.2	20414.8	1039.6	20431.2	1039.4
20455.9	1039.7	20458.7	1037.8	20465.5	1037.9	20470.4	1034.9	20474.7	1032.7
21343.1	1032.7	21350.5	1032.5	21376.3	1035.6	21390.1	1033.4	21395.9	1033.7
21424.3	1033.9	21484.4	1034.5	21494.9	1034.3	21537	1034.4	22171.3	1034.4
22195.5	1049.6	22217.9	1047.5	22260.9	1035	22263.6	1034.9	22291.1	1051
22312.1	1051.8	22326.6	1051.4	22375.7	1051.7	22388.8	1051.5	22397.4	1050.6

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19200.1	.037	19479.12	.032	20414.8	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19479.12	20414.8	505	505.14	505	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21576	22397.4	1048

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1039.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.12	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1040.38	Reach Len. (ft)	505.00	505.14	505.00
Crit W.S. (ft)	1034.19	Flow Area (sq ft)		14880.69	6924.53
E.G. Slope (ft/ft)	0.000996	Area (sq ft)		14880.69	9890.05
Q Total (cfs)	166000.00	Flow (cfs)		136464.55	29535.45
Top Width (ft)	2682.27	Top Width (ft)		935.05	1747.22
Vel Total (ft/s)	7.61	Avg. Vel. (ft/s)		9.17	4.27
Max Chl Dpth (ft)	20.55	Hydr. Depth (ft)		15.91	6.19
Conv. Total (cfs)	5259846.5	Conv. (cfs)		4323991.5	935854.9
Length Wtd. (ft)	505.12	Wetted Per. (ft)		950.60	1121.64
Min Ch El (ft)	1018.70	Shear (lb/sq ft)		0.97	0.38
Alpha	1.25	Stream Power (lb/ft s)		8.93	1.64
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	7304.85	29753.31	3155.53
C & E Loss (ft)	0.01	Cum SA (acres)	2103.94	2944.75	996.05

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1039.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.86	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1041.16	Reach Len. (ft)	505.00	505.14	505.00
Crit W.S. (ft)	1033.14	Flow Area (sq ft)		14920.76	413.92
E.G. Slope (ft/ft)	0.001429	Area (sq ft)		14920.76	413.92
Q Total (cfs)	166000.00	Flow (cfs)		164150.11	1849.88
Top Width (ft)	1008.62	Top Width (ft)		935.12	73.50
Vel Total (ft/s)	10.83	Avg. Vel. (ft/s)		11.00	4.47
Max Chl Dpth (ft)	20.59	Hydr. Depth (ft)		15.96	5.63
Conv. Total (cfs)	4391962.5	Conv. (cfs)		4343019.0	48943.5
Length Wtd. (ft)	505.14	Wetted Per. (ft)		950.73	81.93
Min Ch El (ft)	1018.70	Shear (lb/sq ft)		1.40	0.45
Alpha	1.02	Stream Power (lb/ft s)		15.40	2.01
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	1324.44	30684.84	874.44
C & E Loss (ft)	0.04	Cum SA (acres)	217.60	2949.62	99.69

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19479.12 LB	19666.26	28318.25	3065.68	192.18	17.06	16.38	9.24
19666.26	19853.39	31168.98	3212.96	187.14	18.78	17.17	9.70
19853.39	20040.53	29192.21	3089.08	187.14	17.59	16.51	9.45
20040.53	20227.66	28397.82	3075.19	192.86	17.11	16.43	9.23
20227.66	20414.80 RB	19387.29	2437.79	191.29	11.68	13.07	7.95
20414.80	20546.97	2089.49	521.98	92.24	1.26	5.77	4.00
20546.97	20679.15	3821.47	865.89	132.17	2.30	6.55	4.41
20679.15	20811.32	3821.53	865.91	132.17	2.30	6.55	4.41
20811.32	20943.49	3821.53	865.91	132.17	2.30	6.55	4.41
20943.49	21075.67	3821.53	865.91	132.17	2.30	6.55	4.41
21075.67	21207.84	3821.47	865.89	132.17	2.30	6.55	4.41
21207.84	21340.01	3821.53	865.91	132.17	2.30	6.55	4.41
21340.01	21472.19	2687.92	701.89	132.55	1.62	5.31	3.83
21472.19	21604.36	1828.98	505.24	103.82	1.10	4.87	3.62

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19479.12 LB	19666.26	34057.69	3073.69	192.22	20.52	16.43	11.08
19666.26	19853.39	37483.93	3220.97	187.14	22.58	17.21	11.64
19853.39	20040.53	35112.50	3097.10	187.14	21.15	16.55	11.34
20040.53	20227.66	34157.67	3083.21	192.86	20.58	16.48	11.08

20227.66	20414.80 RB	23338.32	2445.79	191.38	14.06	13.11	9.54
20414.80	20546.97	1849.88	413.92	81.93	1.11	5.63	4.47

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 210.83

INPUT
Description: 210.83

Left Channel Bank Station Interpolated
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19202.3	1047.9	19230.6	1048.2	19316.1	1047.1	19412.4	1046.5	19438.4	1046.4
19450.41	1038.813	19469.9	1026.5	19479.2	1021.2	19797.6	1021	19923.9	1020.9
19961.4	1020.6	19972.9	1027.1	19981.7	1030.2	20023.7	1029.7	20030.1	1028.5
20042.7	1023.3	20047.1	1022.6	20060.1	1021.5	20068	1019.1	20084.8	1019.4
20164.7	1020.3	20209.2	1020.4	20210.1	1020.8	20276.6	1019.8	20285.1	1022.2
20306.6	1025.2	20309	1026.8	20312.4	1026.3	20316.8	1024.7	20372.8	1023.5
20408.7	1043.6	20410.4	1042.5	20412	1040	20434.3	1040.8	20448.6	1034
21423.7	1034.1	21433.7	1033	21527.5	1031.1	21554.4	1029.7	21577.9	1029.4
21646.5	1030.2	21704.4	1029.9	21742.9	1046.2	21761.3	1040	21807.2	1041.3
21814	1044.7	21818.3	1046.4	21862.5	1045.9	21879.4	1037.5	21883.7	1035
21887.9	1033.8	21911.6	1035.9	21937.9	1050.1	21957.5	1042.6	22341.8	1042.6
22364.7	1049.8	22372.9	1048.2	22423	1049.3	22443.3	1049.3	22494.1	1045.8
22499.7	1044.9								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19202.3	.037	19450.41	.032	20410.4	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19450.41	20410.4	505	505.61	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21742.9	22499.7	1048

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1038.81	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.08	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1039.88	Reach Len. (ft)	505.00	505.61	500.00
Crit W.S. (ft)	1032.16	Flow Area (sq ft)		15672.01	7010.29
E.G. Slope (ft/ft)	0.000898	Area (sq ft)		15672.01	7143.08
Q Total (cfs)	166000.00	Flow (cfs)		139926.77	26073.24
Top Width (ft)	2276.87	Top Width (ft)		949.71	1327.15
Vel Total (ft/s)	7.32	Avg. Vel. (ft/s)		8.93	3.72
Max Chl Dpth (ft)	19.71	Hydr. Depth (ft)		16.50	5.45
Conv. Total (cfs)	5540507.0	Conv. (cfs)		4670272.5	870234.8
Length Wtd. (ft)	504.94	Wetted Per. (ft)		963.98	1289.96
Min Ch El (ft)	1019.10	Shear (lb/sq ft)		0.91	0.30
Alpha	1.30	Stream Power (lb/ft s)		8.13	1.13
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)	7304.85	29576.16	3056.80
C & E Loss (ft)	0.02	Cum SA (acres)	2103.94	2933.82	978.22

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1038.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.72	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1040.43	Reach Len. (ft)	505.00	505.61	500.00
Crit W.S. (ft)	1031.94	Flow Area (sq ft)		15589.14	407.18
E.G. Slope (ft/ft)	0.001262	Area (sq ft)		15589.14	407.18
Q Total (cfs)	166000.00	Flow (cfs)		164489.34	1510.65
Top Width (ft)	1040.74	Top Width (ft)		949.42	91.32
Vel Total (ft/s)	10.38	Avg. Vel. (ft/s)		10.55	3.71
Max Chl Dpth (ft)	19.62	Hydr. Depth (ft)		16.42	4.46
Conv. Total (cfs)	4672802.0	Conv. (cfs)		4630278.0	42523.9
Length Wtd. (ft)	505.58	Wetted Per. (ft)		963.63	97.10
Min Ch El (ft)	1019.10	Shear (lb/sq ft)		1.27	0.33
Alpha	1.03	Stream Power (lb/ft s)		13.45	1.23
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	1324.44	30507.94	869.68

C & E Loss (ft) 0.14 Cum SA (acres) 217.60 2938.69 98.74

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19450.41 LB	19642.41	27576.42	3140.76	196.95	16.61	16.36	8.78
19642.41	19834.41	32196.36	3411.70	192.00	19.40	17.77	9.44
19834.41	20026.40	24856.83	2935.04	194.29	14.97	15.29	8.47
20026.40	20218.40	32836.30	3464.04	193.65	19.78	18.04	9.48
20218.40	20410.40 RB	22460.95	2720.48	187.09	13.53	14.97	8.26
20410.40	20549.69	1627.46	509.59	112.28	0.98	4.58	3.19
20549.69	20688.97	2207.54	666.97	139.29	1.33	4.79	3.31
20688.97	20828.26	2196.61	664.99	139.29	1.32	4.77	3.30
20828.26	20967.55	2185.66	663.00	139.29	1.32	4.76	3.30
20967.55	21106.83	2174.74	661.01	139.29	1.31	4.75	3.29
21106.83	21246.12	2163.82	659.01	139.29	1.30	4.73	3.28
21246.12	21385.41	2152.97	657.03	139.29	1.30	4.72	3.28
21385.41	21524.69	3273.45	845.02	139.37	1.97	6.07	3.87
21524.69	21663.98	6156.00	1234.23	139.33	3.71	8.86	4.99
21663.98	21803.27	1934.89	449.42	63.26	1.17	7.31	4.31

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19450.41 LB	19642.41	32424.49	3124.01	196.79	19.53	16.28	10.38
19642.41	19834.41	37862.52	3394.94	192.00	22.81	17.68	11.15
19834.41	20026.40	29192.29	2918.29	194.29	17.59	15.20	10.00
20026.40	20218.40	38619.89	3447.28	193.65	23.26	17.95	11.20
20218.40	20410.40 RB	26390.14	2704.62	186.91	15.90	14.90	9.76
20410.40	20549.69	1510.65	407.18	97.10	0.91	4.46	3.71

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 210.74

INPUT
Description: 210.74

Left Channel Bank Station Interpolated
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19243.9	1048.6	19252.9	1048.6	19306.8	1048.4	19320.5	1047.9	19400.4	1046.9
19417.4	1044.5	19426.12	1038.473	19455.3	1018.3	19887.7	1018.2	19910.2	1018.2
19912.1	1019.4	19926.7	1020.6	19947.1	1020.5	19971.2	1029.9	19999.5	1024.8
20005.9	1025.6	20026.7	1018.2	20095.6	1018.8	20149	1019.3	20154.3	1019.5
20159.1	1018.6	20206.5	1019.2	20250.3	1018.3	20256.9	1020.6	20263.3	1021.3
20281.7	1020.8	20318.1	1022	20333.5	1021.2	20349.8	1021.8	20361.7	1025.8
20373.2	1024.1	20404.6	1025.2	20432.5	1037.6	20433.7	1039.4	20462.4	1039.5
20468.2	1036.5	21389.5	1036.5	21394.6	1032.8	21404	1032.7	21513.7	1032
21520.3	1033.6	21537.2	1027.8	21587.9	1027.7	21638.9	1028.2	21695.6	1029
21747.1	1028.9	21771	1029.8	21801.8	1041	21813.2	1040.9	22057.2	1040.9
22066.5	1043.5	22085.1	1044.1	22096.2	1047.4	22123.7	1048.7	22156.7	1040.5
22272.5	1040.5	22293.7	1049.5	22308.5	1048.9	22356.6	1048.4	22365.3	1048.1
22369	1048.8	22377.5	1053.2	22399.8	1048.3				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19243.9	.037	19426.12	.032	20433.7	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19426.12	20433.7	495	503.39	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21801.8	22399.8	1048

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1038.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.00	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1039.47	Reach Len. (ft)	495.00	503.39	500.00
Crit W.S. (ft)	1029.76	Flow Area (sq ft)		18302.46	5178.42
E.G. Slope (ft/ft)	0.000687	Area (sq ft)		18302.46	5178.42
Q Total (cfs)	166000.00	Flow (cfs)		152539.30	13460.71
Top Width (ft)	2337.38	Top Width (ft)		1006.95	1330.43
Vel Total (ft/s)	7.07	Avg. Vel. (ft/s)		8.33	2.60
Max Chl Dpth (ft)	20.27	Hydr. Depth (ft)		18.18	3.89
Conv. Total (cfs)	6332068.5	Conv. (cfs)		5818610.0	513458.5
Length Wtd. (ft)	503.03	Wetted Per. (ft)		1021.67	1334.83
Min Ch El (ft)	1018.20	Shear (lb/sq ft)		0.77	0.17
Alpha	1.29	Stream Power (lb/ft s)		6.41	0.43
Frctn Loss (ft)	0.31	Cum Volume (acre-ft)	7304.85	29378.98	2986.08
C & E Loss (ft)	0.07	Cum SA (acres)	2103.94	2922.47	962.97

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1038.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.26	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1039.80	Reach Len. (ft)	495.00	503.39	500.00
Crit W.S. (ft)	1029.46	Flow Area (sq ft)		18371.91	190.84
E.G. Slope (ft/ft)	0.000801	Area (sq ft)		18371.91	190.84
Q Total (cfs)	166000.00	Flow (cfs)		165662.42	337.57
Top Width (ft)	1102.73	Top Width (ft)		1006.99	95.73
Vel Total (ft/s)	8.94	Avg. Vel. (ft/s)		9.02	1.77
Max Chl Dpth (ft)	20.34	Hydr. Depth (ft)		18.24	1.99
Conv. Total (cfs)	5866816.0	Conv. (cfs)		5854885.5	11930.5
Length Wtd. (ft)	503.34	Wetted Per. (ft)		1021.82	98.26
Min Ch El (ft)	1018.20	Shear (lb/sq ft)		0.90	0.10
Alpha	1.01	Stream Power (lb/ft s)		8.10	0.17
Frctn Loss (ft)	0.37	Cum Volume (acre-ft)	1324.44	30310.84	866.25
C & E Loss (ft)	0.06	Cum SA (acres)	217.60	2927.34	97.66

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19426.12 LB	19627.63	31518.35	3772.92	207.80	18.99	18.72	8.35
19627.63	19829.15	36599.66	4076.55	201.52	22.05	20.23	8.98
19829.15	20030.67	27473.06	3458.78	205.47	16.55	17.16	7.94
20030.67	20232.18	34794.03	3955.46	201.62	20.96	19.63	8.80
20232.18	20433.70 RB	22154.20	3038.75	205.28	13.35	15.13	7.29
20433.70	20564.77	241.01	193.63	100.85	0.15	1.93	1.24
20564.77	20695.85	325.93	257.73	131.07	0.20	1.97	1.26
20695.85	20826.92	325.94	257.73	131.07	0.20	1.97	1.26
20826.92	20957.99	325.93	257.73	131.07	0.20	1.97	1.26
20957.99	21089.07	325.94	257.73	131.07	0.20	1.97	1.26
21089.07	21220.14	325.94	257.73	131.07	0.20	1.97	1.26
21220.14	21351.21	325.93	257.73	131.07	0.20	1.97	1.26
21351.21	21482.29	1397.14	619.47	132.28	0.84	4.73	2.26
21482.29	21613.36	4107.10	1182.87	132.23	2.47	9.02	3.47
21613.36	21744.43	4769.75	1289.42	131.08	2.87	9.84	3.70
21744.43	21875.51	990.09	346.65	51.94	0.60	6.88	2.86

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19426.12 LB	19627.63	34220.57	3786.82	207.87	20.61	18.79	9.04
19627.63	19829.15	39728.11	4090.45	201.52	23.93	20.30	9.71
19829.15	20030.67	29851.55	3472.68	205.47	17.98	17.23	8.60
20030.67	20232.18	37774.68	3969.36	201.62	22.76	19.70	9.52
20232.18	20433.70 RB	24087.53	3052.60	205.36	14.51	15.19	7.89
20433.70	20564.77	337.57	190.84	98.26	0.20	1.99	1.77

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 210.64

INPUT
Description: 210.64
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19062.1	1046.2	19142.3	1046.5	19216.9	1046.5	19239.3	1046.6	19313.3	1046.3
19339.3	1045.9	19359.9	1044.7	19388.6	1036.7	19405.4	1034.5	19435.6	1017.8
19522.4	1017.9	19688	1018.2	19812.5	1018.5	19845.7	1021.7	19854.2	1021.6
19868.7	1023.2	19885.6	1022.9	19894.1	1026.4	19926.9	1018.1	19954	1018.1
20029.3	1018.2	20100.6	1018.3	20159.1	1018.4	20163.7	1019.2	20174.9	1019.6
20183.1	1020.8	20192.3	1019.6	20214.4	1021.7	20234.8	1024.3	20242.8	1022.1
20298.5	1024	20323.5	1025.5	20335	1029.1	20359.6	1019.1	20427.6	1017.8
20430.1	1017.7	20460.6	1039.9	20483.4	1039.5	20493.5	1033.2	21394.6	1033.2
21442.1	1031.4	21449.1	1028.1	21453.5	1025.3	21460.9	1025.2	21472.1	1026
21483.6	1028.3	21519.7	1032.5	22411.4	1032.5	22434.2	1045.9	22446.8	1049.8
22496.5	1049.4	22507.7	1051.3	22521	1044.2	22524.9	1044.1	22586.3	1043
22591.1	1043.3								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19062.1	.037	19388.6	.032	20460.6	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19388.6	20460.6	520	515.29	495	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21800	22591.1	1048

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1038.32	Element			
Vel Head (ft)	0.77	Wt. n-Val.	0.037	0.032	0.037
E.G. Elev (ft)	1039.09	Reach Len. (ft)	520.00	515.29	495.00
Crit W.S. (ft)	1028.99	Flow Area (sq ft)	4.71	19380.09	7317.06
E.G. Slope (ft/ft)	0.000552	Area (sq ft)	4.71	19380.09	10904.42
Q Total (cfs)	166000.00	Flow (cfs)	3.77	144352.89	21643.35
Top Width (ft)	3011.65	Top Width (ft)	5.81	1069.83	1936.01
Vel Total (ft/s)	6.22	Avg. Vel. (ft/s)	0.80	7.45	2.96
Max Chl Dpth (ft)	20.62	Hydr. Depth (ft)	0.81	18.12	5.57
Conv. Total (cfs)	7065400.0	Conv. (cfs)	160.3	6144041.5	921198.4
Length Wtd. (ft)	513.49	Wetted Per. (ft)	6.03	1086.37	1318.26
Min Ch El (ft)	1017.70	Shear (lb/sq ft)	0.03	0.61	0.19
Alpha	1.28	Stream Power (lb/ft s)	0.02	4.58	0.57
Frctn Loss (ft)	0.31	Cum Volume (acre-ft)	7304.83	29161.25	2893.78
C & E Loss (ft)	0.02	Cum SA (acres)	2103.91	2910.47	944.23

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1038.31	Element			
Vel Head (ft)	1.05	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1039.36	Reach Len. (ft)	520.00	515.29	495.00
Crit W.S. (ft)	1028.97	Flow Area (sq ft)		19369.38	1587.26
E.G. Slope (ft/ft)	0.000690	Area (sq ft)		19369.38	1587.26
Q Total (cfs)	166000.00	Flow (cfs)		161141.09	4858.91
Top Width (ft)	1384.51	Top Width (ft)		1069.82	314.69
Vel Total (ft/s)	7.92	Avg. Vel. (ft/s)		8.32	3.06
Max Chl Dpth (ft)	20.61	Hydr. Depth (ft)		18.11	5.04
Conv. Total (cfs)	6317299.0	Conv. (cfs)		6132388.5	184910.8
Length Wtd. (ft)	514.61	Wetted Per. (ft)		1087.96	321.27
Min Ch El (ft)	1017.70	Shear (lb/sq ft)		0.77	0.21
Alpha	1.08	Stream Power (lb/ft s)		6.38	0.65
Frctn Loss (ft)	0.35	Cum Volume (acre-ft)	1324.44	30092.77	856.05
C & E Loss (ft)	0.03	Cum SA (acres)	217.60	2915.34	95.31

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19366.83	19388.60	3.77	4.71	6.03	0.00	0.81	0.80
19388.60 LB	19603.00	28022.59	3830.06	218.85	16.88	17.86	7.32
19603.00	19817.40	34438.15	4299.04	214.42	20.75	20.05	8.01
19817.40	20031.80	29102.34	3899.92	216.35	17.53	18.19	7.46
20031.80	20246.20	31037.58	4044.95	215.21	18.70	18.87	7.67
20246.20	20460.60 RB	21752.22	3306.12	221.54	13.10	15.58	6.58
20460.60	20602.63	1557.11	579.82	118.81	0.94	4.94	2.69
20602.63	20744.67	2016.62	727.26	142.03	1.21	5.12	2.77
20744.67	20886.70	2016.62	727.26	142.03	1.21	5.12	2.77
20886.70	21028.73	2016.62	727.26	142.03	1.21	5.12	2.77
21028.73	21170.77	2016.62	727.26	142.03	1.21	5.12	2.77
21170.77	21312.80	2016.62	727.26	142.03	1.21	5.12	2.77
21312.80	21454.83	2511.42	833.30	143.62	1.51	5.87	3.01
21454.83	21596.87	3921.01	1085.35	142.54	2.36	7.64	3.61
21596.87	21738.90	2496.70	826.68	142.03	1.50	5.82	3.02
21738.90	21880.93	1074.03	355.62	61.10	0.65	5.82	3.02

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19388.60 LB	19603.00	31157.79	3827.91	220.46	18.77	17.85	8.14
19603.00	19817.40	38482.66	4296.90	214.42	23.18	20.04	8.96
19817.40	20031.80	32517.43	3897.78	216.35	19.59	18.18	8.34
20031.80	20246.20	34680.91	4042.80	215.21	20.89	18.86	8.58
20246.20	20460.60 RB	24302.28	3303.99	221.52	14.64	15.57	7.36
20460.60	20602.63	1753.60	578.64	118.79	1.06	4.93	3.03
20602.63	20744.67	2271.12	725.84	142.03	1.37	5.11	3.13
20744.67	20886.70	834.19	282.78	60.44	0.50	5.11	2.95

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 210.55

INPUT
Description: 210.55

Left Channel Bank Station Interpolated
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19008	1045.1	19023.1	1045.1	19106.6	1045.2	19117.1	1045.2	19188.7	1045.4
19198.2	1045.3	19263.2	1046	19303.5	1044.2	19322.16	1037.828	19365	1023.2
19375.9	1018.6	19396.7	1018.7	19519.3	1018.6	19791	1018.3	19813.4	1028.8
19857.3	1026.7	19886.1	1038.1	19909.3	1027.2	19915.5	1030.7	19959.6	1020
20002.1	1018	20058.3	1018.1	20175.7	1018.1	20440.7	1018.3	20476.7	1037.4
20483.2	1040.3	20500.3	1039.7	20507.6	1034.3	21313.5	1033.6	21372.5	1032.4
21406.9	1033	21409.3	1032.1	21417.2	1027.2	21429	1026.3	21456.2	1025.4
21459.3	1026.4	21468.1	1028.2	21496.9	1030.2	21548.3	1034.3	21557.5	1034.9
21626.2	1036.3	21634.2	1035.7	21643.8	1035.7	21713	1035.7	21771.2	1036
22449.6	1036	22451.9	1037.8	22455.6	1040	22484.4	1044.7	22494.2	1046.8
22499.9	1046	22506.9	1046.2	22537.1	1043.6	22580.7	1043.5	22585	1043

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19008	.037	19322.16	.032	20483.2	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19322.16	20483.2	475	473.19	495	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21300	22585	1046.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1037.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.94	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1038.76	Reach Len. (ft)	475.00	473.19	495.00
Crit W.S. (ft)	1028.53	Flow Area (sq ft)		19940.31	3072.90

E.G. Slope (ft/ft)	0.000667	Area (sq ft)		19940.31	6506.73
Q Total (cfs)	166000.00	Flow (cfs)		158174.88	7825.13
Top Width (ft)	3103.29	Top Width (ft)		1154.19	1949.10
Vel Total (ft/s)	7.21	Avg. Vel. (ft/s)		7.93	2.55
Max Chl Dpth (ft)	19.82	Hydr. Depth (ft)		17.28	3.85
Conv. Total (cfs)	6429886.5	Conv. (cfs)		6126786.0	303100.7
Length Wtd. (ft)	473.70	Wetted Per. (ft)		1171.52	798.32
Min Ch El (ft)	1018.00	Shear (lb/sq ft)		0.71	0.16
Alpha	1.16	Stream Power (lb/ft s)		5.62	0.41
Frctn Loss (ft)	0.17	Cum Volume (acre-ft)	7304.80	28928.68	2794.85
C & E Loss (ft)	0.18	Cum SA (acres)	2103.87	2897.31	922.15

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1038.04	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.94	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1038.98	Reach Len. (ft)	475.00	473.19	495.00
Crit W.S. (ft)	1028.53	Flow Area (sq ft)		20190.27	2419.82
E.G. Slope (ft/ft)	0.000654	Area (sq ft)		20190.27	2419.82
Q Total (cfs)	166000.00	Flow (cfs)		159792.56	6207.44
Top Width (ft)	1763.14	Top Width (ft)		1155.68	607.46
Vel Total (ft/s)	7.34	Avg. Vel. (ft/s)		7.91	2.57
Max Chl Dpth (ft)	20.04	Hydr. Depth (ft)		17.47	3.98
Conv. Total (cfs)	6491503.0	Conv. (cfs)		6248758.5	242744.5
Length Wtd. (ft)	473.60	Wetted Per. (ft)		1173.36	612.95
Min Ch El (ft)	1018.00	Shear (lb/sq ft)		0.70	0.16
Alpha	1.12	Stream Power (lb/ft s)		5.56	0.41
Frctn Loss (ft)	0.17	Cum Volume (acre-ft)	1324.44	29858.78	833.28
C & E Loss (ft)	0.19	Cum SA (acres)	217.60	2902.17	90.07

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19322.16 LB	19554.37	30183.38	3921.82	235.55	18.18	16.89	7.70
19554.37	19786.58	38358.50	4502.57	232.21	23.11	19.39	8.52
19786.58	20018.78	17612.38	2860.23	240.05	10.61	12.39	6.16
20018.78	20250.99	39452.27	4579.17	232.21	23.77	19.72	8.62
20250.99	20483.20 RB	32568.34	4076.52	231.50	19.62	17.99	7.99
20483.20	20623.32	1000.43	421.90	121.64	0.60	3.50	2.37
20623.32	20763.44	1274.60	516.29	140.12	0.77	3.68	2.47
20763.44	20903.56	1345.55	533.34	140.12	0.81	3.81	2.52
20903.56	21043.68	1418.04	550.40	140.12	0.85	3.93	2.58
21043.68	21183.80	1492.00	567.45	140.12	0.90	4.05	2.63
21183.80	21323.92	1294.53	483.52	116.20	0.78	4.16	2.68

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19322.16 LB	19554.37	30521.49	3972.07	235.77	18.39	17.11	7.68
19554.37	19786.58	38706.80	4552.83	232.21	23.32	19.61	8.50

19786.58	20018.78	17904.18	2910.31	241.14	10.79	12.55	6.15
20018.78	20250.99	39798.25	4629.43	232.21	23.97	19.94	8.60
20250.99	20483.20 RB	32861.83	4125.63	232.03	19.80	18.16	7.97
20483.20	20623.32	1094.07	448.01	122.01	0.66	3.71	2.44
20623.32	20763.44	1389.80	546.61	140.12	0.84	3.90	2.54
20763.44	20903.56	1462.83	563.67	140.12	0.88	4.02	2.60
20903.56	21043.68	1537.35	580.73	140.12	0.93	4.14	2.65
21043.68	21183.80	723.39	280.81	70.58	0.44	4.23	2.58

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 210.46

INPUT
Description: 210.46

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18491.3	1044.8	18509.6	1044.4	18559.8	1045.8	18571.1	1045.5	18584.8	1043.3
18607.7	1045	18678	1044.8	18723.7	1044.2	18801	1044.1	18803.4	1044.1
18891.1	1043.9	18897.1	1043.9	18962.7	1043.6	19022.5	1043.3	19024.4	1043.3
19078.3	1042.4	19136.1	1042.2	19176.5	1042.5	19201.9	1040.9	19233.8	1028.3
19266.3	1021.8	19276.2	1021.1	19328.5	1018.7	19351.6	1018.1	19377	1018.33
19395.8	1018.5	19810.2	1018.3	19863.8	1018.1	19922	1018.2	20015.9	1018.2
20094.1	1018.1	20114.1	1018.1	20127.6	1022.4	20129.6	1023.9	20150.4	1023.9
20174.1	1021.6	20197.2	1018.1	20239.9	1018.1	20295.4	1018.2	20303	1018.6
20351.5	1018	20390.4	1018.4	20443.9	1018.4	20502.8	1018.5	20565.4	1018.8
20656.3	1018.8	20722.5	1019	20743	1019.6	20798.1	1019.8	20867.2	1019.1
20920.3	1019.3	20973.2	1019.2	21047.3	1019.3	21120.7	1021.1	21123	1021.2
21136.1	1016.3	21211.7	1018.4	21228.5	1018.3	21261.8	1036.3	21280.4	1034.9
21284	1038.08	21290.7	1044	21292.3	1046	21334.2	1043	21405.2	1043.3
21443.5	1044.5	21454	1047.4	21465.5	1044.1	22456.6	1042.9	22498.8	1045.3
22515	1046.9	22564.7	1048.3	22637.2	1048.5	22652	1048.3		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18491.3	.037	19176.5	.032	20150.4	.037	21292.3	.037	21454	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19377	21284	520	522.28	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18491.3	19377	1048	21292.3	22652	1048

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1038.08	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.		0.035	
E.G. Elev (ft)	1038.40	Reach Len. (ft)	520.00	522.28	505.00
Crit W.S. (ft)	1025.03	Flow Area (sq ft)		36203.79	
E.G. Slope (ft/ft)	0.000227	Area (sq ft)	2618.84	36203.79	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2074.95	Top Width (ft)	167.96	1907.00	
Vel Total (ft/s)	4.59	Avg. Vel. (ft/s)		4.59	
Max Chl Dpth (ft)	21.78	Hydr. Depth (ft)		18.98	
Conv. Total (cfs)	11010876.0	Conv. (cfs)		11010876.0	
Length Wtd. (ft)	522.28	Wetted Per. (ft)		1915.32	
Min Ch El (ft)	1016.30	Shear (lb/sq ft)		0.27	
Alpha	1.00	Stream Power (lb/ft s)		1.23	
Frctn Loss (ft)	0.15	Cum Volume (acre-ft)	7290.52	28623.74	2757.89
C & E Loss (ft)	0.01	Cum SA (acres)	2102.96	2880.69	911.08

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1038.31	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.32	Wt. n-Val.		0.035	
E.G. Elev (ft)	1038.63	Reach Len. (ft)	520.00	522.28	505.00

Crit W.S. (ft)	1025.03	Flow Area (sq ft)		36640.04	
E.G. Slope (ft/ft)	0.000222	Area (sq ft)		36640.04	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1907.00	Top Width (ft)		1907.00	
Vel Total (ft/s)	4.53	Avg. Vel. (ft/s)		4.53	
Max Chl Dpth (ft)	22.01	Hydr. Depth (ft)		19.21	
Conv. Total (cfs)	11144022.0	Conv. (cfs)		11144022.0	
Length Wtd. (ft)	522.28	Wetted Per. (ft)		1935.53	
Min Ch El (ft)	1016.30	Shear (lb/sq ft)		0.26	
Alpha	1.00	Stream Power (lb/ft s)		1.19	
Frctn Loss (ft)	0.14	Cum Volume (acre-ft)	1324.44	29550.11	819.53
C & E Loss (ft)	0.01	Cum SA (acres)	217.60	2885.54	86.62

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19377.00 LB	19758.40	38210.64	7500.38	381.40	23.02	19.67	5.09
19758.40	20139.80	38034.33	7488.75	382.57	22.91	19.63	5.08
20139.80	20521.20	32004.21	7344.00	381.79	19.28	19.26	4.36
20521.20	20902.60	31106.06	7232.97	381.41	18.74	18.96	4.30
20902.60	21284.00 RB	26644.77	6637.69	388.15	16.05	17.40	4.01

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19377.00 LB	19758.40	37197.98	7587.63	401.38	22.41	19.89	4.90
19758.40	20139.80	38309.33	7576.00	382.57	23.08	19.86	5.06
20139.80	20521.20	32247.54	7431.24	381.79	19.43	19.48	4.34
20521.20	20902.60	31352.24	7320.22	381.41	18.89	19.19	4.28
20902.60	21284.00 RB	26892.91	6724.94	388.38	16.20	17.63	4.00

CROSS SECTION RIVER: 1
REACH: 1 RS: 210.36

INPUT
Description: 210.36

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 99

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19224.5	1050.4	19284.3	1050.7	19305	1051	19357.1	1049.6	19375.16	1037.787
19404.8	1018.4	19463.3	1018.3	19612.3	1018.1	19621.3	1018.1	19634.8	1021.9
19667.3	1022.1	19733.3	1021.4	19790.5	1022.1	19802.9	1021.9	19818.6	1026.5
19827	1026.5	19834.6	1028.4	19890.9	1029	19964.7	1027.7	19973.5	1027.6
19985.2	1023	19997.6	1019.2	20010.7	1019.2	20032.2	1022.5	20039.2	1024.8
20087.1	1023	20111.8	1024.6	20144.4	1023.1	20153.9	1025.4	20168.7	1024.3
20191.7	1024.2	20273.6	1021.2	20346.9	1017.4	20363.5	1017.6	20425.8	1018.5
20437.5	1019.6	20442.7	1017.4	20510.8	1017.5	20526.1	1018	20581.3	1024.2
20636.5	1025.3	20692.9	1026.1	20742.9	1025.6	20769.6	1031.4	20776.7	1032.1
20797.4	1031.2	20811.3	1023.1	20868.1	1020.3	20886.8	1019.8	21012.2	1019.3
21017.9	1019.4	21027	1020.7	21039.6	1017.6	21095.8	1017.7	21149.8	1018
21208.9	1018.7	21245	1019.6	21291.17	1037.78	21291.23	1037.81	21303.9	1042.8
21368	1043.7	21407.5	1045.3	21418.5	1048.3	21429.5	1045.3	21450.9	1041.3
21516.4	1042.2	21531.8	1042.1	21606.4	1042.3	21664.8	1042.2	21728.4	1042.1
21735.8	1042.3	21795.8	1042.1	21853	1041.4	21904.7	1040.9	21945.9	1041.5
22007.4	1043.5	22067.8	1044.3	22085.5	1044.9	22124.1	1042.5	22213.9	1042.6
22278	1043.1	22282.5	1043	22318.4	1050.8	22330.1	1051.8	22376	1061.9
22399.2	1062.6	22410.6	1059.4	22438.3	1043.7	22476	1043.3	22498.2	1043.9
22517.5	1047.5	22554.5	1047.8	22615.4	1044.3	22685.5	1043.5	22715.7	1043.9
22733.2	1052.6	22752.7	1056.6	22761.2	1057.6	22797.5	1059		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19224.5	.032	19357.1	.037	20776.7	.025	21303.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19375.16	21291.17	480	487.62	480	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21303.9	22797.5	1058

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1037.78	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.		0.032	
E.G. Elev (ft)	1038.24	Reach Len. (ft)	480.00	487.62	480.00
Crit W.S. (ft)	1027.52	Flow Area (sq ft)		30410.01	
E.G. Slope (ft/ft)	0.000357	Area (sq ft)		30410.01	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1915.99	Top Width (ft)		1915.99	
Vel Total (ft/s)	5.46	Avg. Vel. (ft/s)		5.46	
Max Chl Dpth (ft)	20.38	Hydr. Depth (ft)		15.87	
Conv. Total (cfs)	8781299.0	Conv. (cfs)		8781299.0	
Length Wtd. (ft)	487.62	Wetted Per. (ft)		1933.62	
Min Ch El (ft)	1017.40	Shear (lb/sq ft)		0.35	
Alpha	1.00	Stream Power (lb/ft s)		1.92	
Frctn Loss (ft)	0.16	Cum Volume (acre-ft)	7274.89	28224.39	2757.89
C & E Loss (ft)	0.02	Cum SA (acres)	2101.95	2857.77	911.08

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1038.02	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.		0.032	
E.G. Elev (ft)	1038.47	Reach Len. (ft)	480.00	487.62	480.00
Crit W.S. (ft)	1027.52	Flow Area (sq ft)		30870.54	
E.G. Slope (ft/ft)	0.000340	Area (sq ft)		30870.54	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1915.99	Top Width (ft)		1915.99	
Vel Total (ft/s)	5.38	Avg. Vel. (ft/s)		5.38	
Max Chl Dpth (ft)	20.62	Hydr. Depth (ft)		16.11	
Conv. Total (cfs)	9000211.0	Conv. (cfs)		9000211.0	
Length Wtd. (ft)	487.62	Wetted Per. (ft)		1934.10	
Min Ch El (ft)	1017.40	Shear (lb/sq ft)		0.34	
Alpha	1.00	Stream Power (lb/ft s)		1.82	
Frctn Loss (ft)	0.15	Cum Volume (acre-ft)	1324.44	29145.39	819.53
C & E Loss (ft)	0.02	Cum SA (acres)	217.60	2862.62	86.62

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19375.16 LB	19758.36	33855.21	6736.25	389.50	20.39	17.58	5.03
19758.36	20141.56	19831.86	4871.09	386.29	11.95	12.71	4.07
20141.56	20524.77	34812.11	6812.33	384.19	20.97	17.78	5.11
20524.77	20907.97	25716.20	5136.30	386.51	15.49	13.40	5.01
20907.97	21291.17 RB	51784.62	6854.03	387.13	31.20	17.89	7.56

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19375.16 LB	19758.36	33784.86	6828.35	389.74	20.35	17.82	4.95
19758.36	20141.56	19969.55	4963.20	386.29	12.03	12.95	4.02
20141.56	20524.77	34745.40	6904.44	384.19	20.93	18.02	5.03
20524.77	20907.97	25843.28	5228.40	386.51	15.57	13.64	4.94
20907.97	21291.17 RB	51656.89	6946.13	387.37	31.12	18.13	7.44

CROSS SECTION RIVER: 1
REACH: 1 RS: 210.26

INPUT
Description: 210.26

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 75

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18518	1039.8	18554.5	1039.8	18657.8	1042	18741.9	1041.6	18818	1041.2
18898.6	1041.1	18982.3	1040.1	19077.8	1039.4	19162	1039.9	19268.1	1040.3
19363.8	1039.3	19372.2	1040.4	19377.07	1037.672	19408.8	1019.9	19682.2	1018.6
19755.3	1018.2	19759.5	1026	19769	1023.5	19813.4	1021.7	19816	1022.7
19816.8	1022	19849.2	1020.9	19871.6	1022.5	19881.3	1022.3	19909.8	1024.5
19932.2	1024.7	19991.1	1027.6	20032.1	1025.3	20063.9	1021.9	20070.8	1022
20075.8	1024	20075.9	1020.9	20082.4	1025	20120.1	1032.8	20142.9	1027.4

20152.1	1027.4	20162	1021.5	20166.1	1020	20257.3	1025.2	20290.7	1026.3
20327.7	1020.7	20449	1018.6	20490.7	1017.8	20521.6	1018.3	20541.8	1020.7
20564.4	1016.9	20641.9	1017.2	20694.8	1022.3	20718.8	1018.4	20789.5	1018.3
20862.3	1019.1	20960	1018.2	20989.1	1018.9	21058.3	1018.1	21141	1018
21241.8	1017.5	21265.8	1018.4	21280.3	1023.5	21331.82	1037.672	21342.1	1040.5
21367.6	1040.4	21378.7	1044	21393.2	1047	21408.2	1043.8	21433.3	1036.1
21453.3	1036.5	21462.7	1039.8	21481.6	1041	22697.5	1041	22726.9	1046.8
22740.7	1043.8	22748.5	1041	22815.8	1041	22841.3	1048	22891	1057.7

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18518	.037	19372.2	.032	20694.8	.037	21342.1	.037	21393.2	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19377.07	21331.82	505	512.65	520	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18518	19162	1050	21393.2	22891	1050

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1037.67	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.		0.034	
E.G. Elev (ft)	1038.06	Reach Len. (ft)	505.00	512.65	520.00
Crit W.S. (ft)	1026.44	Flow Area (sq ft)		32878.57	
E.G. Slope (ft/ft)	0.000308	Area (sq ft)		32878.57	33.27
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1983.15	Top Width (ft)		1954.72	28.43
Vel Total (ft/s)	5.05	Avg. Vel. (ft/s)		5.05	
Max Chl Dpth (ft)	20.77	Hydr. Depth (ft)		16.82	
Conv. Total (cfs)	9463630.0	Conv. (cfs)		9463630.0	
Length Wtd. (ft)	512.65	Wetted Per. (ft)		1977.66	
Min Ch El (ft)	1016.90	Shear (lb/sq ft)		0.32	
Alpha	1.00	Stream Power (lb/ft s)		1.61	
Frctn Loss (ft)	0.17	Cum Volume (acre-ft)	7274.89	27870.16	2757.70
C & E Loss (ft)	0.01	Cum SA (acres)	2101.95	2836.10	910.92

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1037.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.38	Wt. n-Val.		0.034	
E.G. Elev (ft)	1038.30	Reach Len. (ft)	505.00	512.65	520.00
Crit W.S. (ft)	1026.45	Flow Area (sq ft)		33360.09	
E.G. Slope (ft/ft)	0.000293	Area (sq ft)		33360.09	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1954.72	Top Width (ft)		1954.72	
Vel Total (ft/s)	4.98	Avg. Vel. (ft/s)		4.98	
Max Chl Dpth (ft)	21.01	Hydr. Depth (ft)		17.07	
Conv. Total (cfs)	9694490.0	Conv. (cfs)		9694490.0	
Length Wtd. (ft)	512.65	Wetted Per. (ft)		1978.16	
Min Ch El (ft)	1016.90	Shear (lb/sq ft)		0.31	
Alpha	1.00	Stream Power (lb/ft s)		1.54	
Frctn Loss (ft)	0.16	Cum Volume (acre-ft)	1324.44	28785.88	819.53
C & E Loss (ft)	0.01	Cum SA (acres)	217.60	2840.96	86.62

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19377.07 LB	19768.02	37183.39	6899.55	400.53	22.40	17.65	5.39
19768.02	20158.97	21881.24	5012.16	399.08	13.18	12.82	4.37
20158.97	20549.92	34339.62	6525.42	392.59	20.69	16.69	5.26
20549.92	20940.87	39564.36	7477.89	391.72	23.83	19.13	5.29
20940.87	21331.82 RB	33031.40	6963.55	393.75	19.90	17.81	4.74

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

19377.07 LB	19768.02	37139.65	6995.85	400.78	22.37	17.89	5.31
19768.02	20158.97	22053.71	5108.46	399.08	13.29	13.07	4.32
20158.97	20549.92	34358.45	6621.73	392.59	20.70	16.94	5.19
20549.92	20940.87	39462.84	7574.20	391.72	23.77	19.37	5.21
20940.87	21331.82 RB	32985.34	7059.85	393.99	19.87	18.06	4.67

CROSS SECTION RIVER: 1
REACH: 1 RS: 210.17

INPUT
Description: 210.17

Right Channel Bank Station Interpolated
Station Elevation Data num= 81

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18525.7	1038	18530.7	1038	18532.2	1038.8	18540.9	1039	18542.7	1038.3
18559.1	1038.3	18583.6	1039.8	18667.3	1040	18672.2	1040	18771.1	1039.9
18843.2	1039.2	18918.6	1039.2	18975.6	1038.6	19067.9	1036.2	19141.4	1035.5
19159.7	1029.9	19162.1	1028.2	19206.3	1023.5	19232.4	1025.6	19237.8	1026.9
19267.8	1029.3	19288.9	1028.6	19327.1	1031	19354.6	1031.5	19359.6	1019.6
19498.4	1019.3	19752.3	1018.6	19761.8	1021.9	19768.4	1019.7	19807.9	1021.1
19826.4	1023.3	19861.6	1026.2	19939.7	1026.1	20019.7	1026.2	20040.5	1026
20047	1026.8	20077	1025.5	20173.1	1021.8	20204.7	1022.1	20221.8	1027.9
20260.5	1027.9	20289.3	1020.1	20308.5	1019.1	20310	1020	20324.5	1021.7
20336.8	1017.9	20348.1	1016.4	20392.6	1014.7	20407.8	1014.9	20421.1	1019.4
20505.4	1021.6	20584.7	1020	20677.5	1020.6	20713	1019.7	20811.2	1021.5
20931.9	1023.3	20991.7	1025	21079.4	1022.7	21093.5	1022.3	21106.3	1024.9
21181.2	1023.5	21223	1023	21231	1018.7	21249.3	1020.1	21260.4	1023.1
21302.8	1025.1	21334.72	1037.43	21339.3	1039.2	21359.2	1038.4	21371.3	1044
21385.9	1046.9	21435.8	1035.7	21473.1	1040	22703.8	1040.5	22737.6	1046.8
22750.2	1044.1	22757.2	1040.5	22826.4	1040.5	22854	1049.8	22873.2	1052.2
22897.3	1057								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18525.7	.037	19354.6	.032	20991.7	.037	21339.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19354.6	21334.72	505	497.78	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18525.7	19354.6	1050	21385.9	22897.3	1050

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1037.42	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.		0.033	
E.G. Elev (ft)	1037.88	Reach Len. (ft)	505.00	497.78	495.00
Crit W.S. (ft)	1027.93	Flow Area (sq ft)		30534.52	
E.G. Slope (ft/ft)	0.000373	Area (sq ft)	2078.42	30534.52	19.51
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2336.50	Top Width (ft)	333.76	1980.11	22.63
Vel Total (ft/s)	5.44	Avg. Vel. (ft/s)		5.44	
Max Chl Dpth (ft)	22.72	Hydr. Depth (ft)		15.42	
Conv. Total (cfs)	8594446.0	Conv. (cfs)		8594446.0	
Length Wtd. (ft)	497.66	Wetted Per. (ft)		1997.47	
Min Ch El (ft)	1014.70	Shear (lb/sq ft)		0.36	
Alpha	1.00	Stream Power (lb/ft s)		1.94	
Frctn Loss (ft)	0.18	Cum Volume (acre-ft)	7262.84	27497.01	2757.39
C & E Loss (ft)	0.03	Cum SA (acres)	2100.02	2812.95	910.61

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1037.68	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.		0.033	
E.G. Elev (ft)	1038.13	Reach Len. (ft)	505.00	497.78	495.00
Crit W.S. (ft)	1027.94	Flow Area (sq ft)		31046.71	
E.G. Slope (ft/ft)	0.000355	Area (sq ft)		31046.71	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1980.12	Top Width (ft)		1980.12	
Vel Total (ft/s)	5.35	Avg. Vel. (ft/s)		5.35	

Max Chl Dpth (ft)	22.98	Hydr. Depth (ft)		15.68	
Conv. Total (cfs)	8814748.0	Conv. (cfs)		8814748.0	
Length Wtd. (ft)	497.68	Wetted Per. (ft)		2003.93	
Min Ch El (ft)	1014.70	Shear (lb/sq ft)		0.34	
Alpha	1.00	Stream Power (lb/ft s)		1.83	
Frctn Loss (ft)	0.17	Cum Volume (acre-ft)	1324.44	28406.88	819.53
C & E Loss (ft)	0.02	Cum SA (acres)	217.60	2817.80	86.62

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19354.60 LB	19750.62	43875.45	7213.04	403.93	26.43	18.21	6.08
19750.62	20146.65	24537.69	5056.25	397.34	14.78	12.77	4.85
20146.65	20542.67	37411.39	6528.95	399.90	22.54	16.49	5.73
20542.67	20938.70	37158.69	6477.56	396.08	22.38	16.36	5.74
20938.70	21334.72 RB	23016.79	5258.71	400.22	13.87	13.28	4.38

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19354.60 LB	19750.62	43385.65	7315.48	410.11	26.14	18.47	5.93
19750.62	20146.65	24755.20	5158.69	397.34	14.91	13.03	4.80
20146.65	20542.67	37461.69	6631.39	399.90	22.57	16.74	5.65
20542.67	20938.70	37216.25	6580.00	396.08	22.42	16.62	5.66
20938.70	21334.72 RB	23181.21	5361.15	400.49	13.96	13.54	4.32

CROSS SECTION RIVER: 1
REACH: 1 RS: 210.07

INPUT
Description: 210.07

Left Channel Bank Station Interpolated
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18501.7	1037.5	18541.3	1037.3	18564.5	1038.8	18619.1	1038.6	18704.2	1038.7
18760.6	1038.9	18769.9	1038.8	18829.1	1038.5	18842	1038.3	18894.1	1038.1
18959.6	1037.3	18970.3	1037	18978.8	1029.1	18997.2	1018.5	19080.1	1018.5
19143	1018.7	19188.2	1018.7	19210	1018.946	19241.4	1019.3	19299.9	1019.1
19351.1	1019.1	20002.2	1019.3	20010.8	1019.3	20015.9	1021.6	20017.6	1021.9
20043.4	1020.3	20109.3	1021.6	20149.1	1018.8	20241.7	1019.6	20301.9	1019.6
20319.7	1020.4	20385.2	1020.2	20395	1020.3	20523.6	1020	20576	1020.4
20689.9	1019.9	20746.4	1020.1	20785.8	1020	20842.9	1018.9	20851.6	1018.9
20907.6	1018.8	20909.5	1018.7	20945.5	1031.5	20951.8	1031.4	21011.2	1029.6
21065.6	1030.2	21073.1	1030.3	21098.1	1026.3	21164.8	1026.1	21186.9	1026.4
21207.2	1024.8	21212.4	1026.6	21220.7	1028.3	21237.2	1024.7	21246.8	1023.1
21286.7	1032.7	21315.8	1034.4	21346.3	1039.3	21383.5	1047.6	21397.9	1044.6
21428.3	1035.2	21444.5	1036.3	21455.5	1040.2	21470	1040.9	22716.5	1040.5
22744.1	1046.7	22757.9	1043.7	22766.1	1040.5	22836.3	1040.5	22861.9	1049.1
22885.1	1052.1								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18501.7	.032	18959.6	.037	19241.4	.037	20945.5	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19210	20945.5	495	490.15	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18501.7	19210	1048	21383.5	22885.1	1048

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1037.31	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.		0.037	0.025
E.G. Elev (ft)	1037.68	Reach Len. (ft)	495.00	490.15	505.00
Crit W.S. (ft)	1026.27	Flow Area (sq ft)		30531.66	3305.49
E.G. Slope (ft/ft)	0.000333	Area (sq ft)	4266.28	30531.66	3339.33
Q Total (cfs)	166000.00	Flow (cfs)		151132.45	14867.55

Top Width (ft)	2402.36	Top Width (ft)	252.60	1735.50	414.26
Vel Total (ft/s)	4.91	Avg. Vel. (ft/s)		4.95	4.50
Max Chl Dpth (ft)	18.81	Hydr. Depth (ft)		17.59	8.51
Conv. Total (cfs)	9099727.0	Conv. (cfs)		8284723.0	815003.8
Length Wtd. (ft)	494.46	Wetted Per. (ft)		1738.43	391.23
Min Ch El (ft)	1018.70	Shear (lb/sq ft)		0.36	0.18
Alpha	1.00	Stream Power (lb/ft s)		1.81	0.79
Frctn Loss (ft)	0.18	Cum Volume (acre-ft)	7226.06	27148.09	2738.30
C & E Loss (ft)	0.02	Cum SA (acres)	2096.62	2791.72	908.13

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1037.56	Element			
Vel Head (ft)	0.38	Wt. n-Val.		0.037	0.025
E.G. Elev (ft)	1037.94	Reach Len. (ft)	495.00	490.15	505.00
Crit W.S. (ft)	1026.26	Flow Area (sq ft)		30963.20	2597.68
E.G. Slope (ft/ft)	0.000333	Area (sq ft)		30963.20	2597.68
Q Total (cfs)	166000.00	Flow (cfs)		153874.48	12125.51
Top Width (ft)	2015.00	Top Width (ft)		1735.50	279.50
Vel Total (ft/s)	4.95	Avg. Vel. (ft/s)		4.97	4.67
Max Chl Dpth (ft)	18.86	Hydr. Depth (ft)		17.84	9.29
Conv. Total (cfs)	9102426.0	Conv. (cfs)		8437537.0	664889.1
Length Wtd. (ft)	493.89	Wetted Per. (ft)		1757.04	290.69
Min Ch El (ft)	1018.70	Shear (lb/sq ft)		0.37	0.19
Alpha	1.00	Stream Power (lb/ft s)		1.82	0.87
Frctn Loss (ft)	0.19	Cum Volume (acre-ft)	1324.44	28052.58	804.77
C & E Loss (ft)	0.03	Cum SA (acres)	217.60	2796.57	85.03

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19210.00 LB	19557.10	31920.00	6306.73	347.10	19.23	18.17	5.06
19557.10	19904.20	31689.50	6279.35	347.10	19.09	18.09	5.05
19904.20	20251.30	29804.33	6057.27	347.79	17.95	17.45	4.92
20251.30	20598.40	29112.57	5967.94	347.12	17.54	17.19	4.88
20598.40	20945.50 RB	28606.08	5920.38	349.32	17.23	17.06	4.83
20945.50	21074.81	3541.29	909.36	129.36	2.13	7.03	3.89
21074.81	21204.11	7237.79	1397.66	129.66	4.36	10.81	5.18
21204.11	21333.42	4088.45	998.44	131.73	2.46	7.72	4.09
21333.42	21462.73	0.00	0.02	0.48	0.00	0.04	0.12

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19210.00 LB	19557.10	31592.37	6393.04	365.71	19.03	18.42	4.94
19557.10	19904.20	32478.71	6365.66	347.10	19.57	18.34	5.10
19904.20	20251.30	30571.92	6143.57	347.79	18.42	17.70	4.98
20251.30	20598.40	29872.80	6054.24	347.12	18.00	17.44	4.93
20598.40	20945.50 RB	29358.70	6006.68	349.32	17.69	17.31	4.89
20945.50	21074.81	3741.42	941.51	129.36	2.25	7.28	3.97
21074.81	21204.11	7495.37	1429.82	129.66	4.52	11.06	5.24
21204.11	21333.42	888.71	226.35	31.67	0.54	10.84	3.93

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.98

INPUT
Description: 209.98

Left Channel Bank Station Interpolated
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19210.8	1039.8	19216.4	1039.8	19229.3	1040.8	19256.1	1038.3	19270.9	1038.7
19289.9	1043.3	19303.8	1043.6	19320.1	1041.9	19336.2	1037.1	19338.51	1036.916
19338.7	1036.9	19361.5	1021.9	19388.1	1021.9	19515.6	1021.3	19713.1	1021.7
20015.3	1021.9	20072.9	1024.3	20080.8	1022.9	20118.2	1022	20369.3	1021.1

20445.2	1020.9	20458.4	1022.8	20481.8	1021.8	20518	1023.6	20568.6	1034.4
20571	1034.9	20616.8	1035.6	20623.9	1035.8	20628.3	1035.5	20657.3	1035.7
20663.4	1034.3	20694.7	1018.1	20723.3	1020.3	20793.2	1020.9	20799.7	1020.9
20854.2	1020.7	20860.4	1020.9	20904.8	1021.1	20914.5	1020.7	20955.4	1020.7
20961.5	1020.8	21001.9	1019.9	21007.1	1019.6	21059.6	1018.5	21066.6	1018.2
21088.4	1019.4	21090.3	1020.1	21106.6	1019.5	21139.4	1019.9	21169.2	1019.4
21191.2	1020.3	21230.7	1019.2	21293	1018.8	21312.7	1018.3	21356.9	1043.1
21366.5	1044.5	21383.9	1044.8	21395.6	1044.5	21426	1037.6	21435	1036.5
21453.5	1042.5	21466.6	1042.2	21474.1	1040	22740.4	1043	22767.4	1043
22845.4	1040	22872.1	1049.7						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19210.8	.032	19303.8	.037	20623.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19338.5	20623.9	500	502.4	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19210.8	19303.8	1045	21383.9	22872.1	1045

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1036.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.		0.037	0.025
E.G. Elev (ft)	1037.48	Reach Len. (ft)	500.00	502.40	480.00
Crit W.S. (ft)	1028.12	Flow Area (sq ft)		18181.79	11191.45
E.G. Slope (ft/ft)	0.000395	Area (sq ft)		18181.79	11192.39
Q Total (cfs)	166000.00	Flow (cfs)		84561.76	81438.24
Top Width (ft)	2011.88	Top Width (ft)		1285.31	726.57
Vel Total (ft/s)	5.65	Avg. Vel. (ft/s)		4.65	7.28
Max Chl Dpth (ft)	18.81	Hydr. Depth (ft)		14.15	15.50
Conv. Total (cfs)	8357637.0	Conv. (cfs)		4257448.5	4100188.5
Length Wtd. (ft)	492.83	Wetted Per. (ft)		1291.39	731.30
Min Ch El (ft)	1020.90	Shear (lb/sq ft)		0.35	0.38
Alpha	1.16	Stream Power (lb/ft s)		1.61	2.74
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	7201.82	26874.03	2654.07
C & E Loss (ft)	0.01	Cum SA (acres)	2095.18	2774.72	901.52

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1037.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.65	Wt. n-Val.		0.037	0.025
E.G. Elev (ft)	1037.71	Reach Len. (ft)	500.00	502.40	480.00
Crit W.S. (ft)	1028.53	Flow Area (sq ft)		18384.50	9087.63
E.G. Slope (ft/ft)	0.000474	Area (sq ft)		18384.50	9087.63
Q Total (cfs)	166000.00	Flow (cfs)		94404.92	71595.08
Top Width (ft)	1868.53	Top Width (ft)		1285.31	583.22
Vel Total (ft/s)	6.04	Avg. Vel. (ft/s)		5.14	7.88
Max Chl Dpth (ft)	18.97	Hydr. Depth (ft)		14.30	15.58
Conv. Total (cfs)	7625221.0	Conv. (cfs)		4336496.5	3288724.5
Length Wtd. (ft)	494.06	Wetted Per. (ft)		1291.55	604.88
Min Ch El (ft)	1020.90	Shear (lb/sq ft)		0.42	0.44
Alpha	1.14	Stream Power (lb/ft s)		2.16	3.50
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	1324.44	27774.94	737.04
C & E Loss (ft)	0.02	Cum SA (acres)	217.60	2779.58	80.03

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19338.50 LB	19595.58	17626.45	3764.20	261.48	10.62	14.65	4.68
19595.58	19852.66	19052.58	3917.39	257.08	11.48	15.24	4.86
19852.66	20109.74	17831.11	3765.77	257.26	10.74	14.65	4.74
20109.74	20366.82	19257.51	3942.64	257.08	11.60	15.34	4.88
20366.82	20623.90 RB	10794.12	2791.78	258.48	6.50	10.86	3.87
20623.90	20773.78	10060.00	1724.28	154.08	6.06	11.50	5.83
20773.78	20923.66	17834.35	2404.44	149.89	10.74	16.04	7.42
20923.66	21073.54	19888.79	2567.25	149.93	11.98	17.13	7.75
21073.54	21223.42	20058.06	2581.34	150.07	12.08	17.22	7.77
21223.42	21373.30	13597.03	1914.14	127.32	8.19	15.63	7.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19338.50 LB	19595.58	19662.94	3804.73	261.64	11.85	14.80	5.17
19595.58	19852.66	21247.85	3957.94	257.08	12.80	15.40	5.37
19852.66	20109.74	19899.30	3806.32	257.26	11.99	14.81	5.23
20109.74	20366.82	21474.04	3983.19	257.08	12.94	15.49	5.39
20366.82	20623.90 RB	12120.81	2832.33	258.48	7.30	11.02	4.28
20623.90	20773.78	11275.30	1747.92	154.08	6.79	11.66	6.45
20773.78	20923.66	19861.54	2428.08	149.89	11.96	16.20	8.18
20923.66	21073.54	22126.73	2590.89	149.93	13.33	17.29	8.54
21073.54	21223.42	18331.50	2320.75	150.98	11.04	17.37	7.90

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.88

INPUT
Description: 209.88
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18501.6	1042.1	18528.8	1043.1	18537.8	1042.9	18574.3	1040.8	18652	1040.5
18739.9	1040.3	18813.4	1040.8	18852.6	1040.6	18874.1	1040.1	18934.3	1040.2
18997.1	1040.3	19062.4	1039.9	19081	1040.1	19142.2	1041	19204	1042
19256.5	1042.2	19318.4	1040.5	19374.2	1039.8	19432.9	1040	19434	1040
19465.8	1025.8	19472.7	1026	19513	1039.1	19517.5	1038.2	19551.2	1024.4
19557.7	1019.9	19669.3	1020.3	19783.1	1020.9	20065	1021.8	20083.9	1021.8
20276.7	1020.6	20381.4	1019.6	20422	1019.3	20445.6	1026.2	20472.5	1035
20535.1	1035.1	20607	1034.4	20691	1033.1	20702.5	1033.3	20710.2	1031.7
20764.2	1029.4	20784.7	1021.7	20827.3	1021.8	20907.6	1017.4	20952.7	1017.1
20986.8	1017.4	21010.4	1016.5	21045.1	1016.6	21090.8	1018.4	21114.2	1018.7
21168.8	1021.5	21185.4	1014.7	21210.8	1016.2	21223.3	1019.8	21245.7	1019
21292.7	1018.9	21317.4	1019.5	21351	1043	21366.2	1042.6	21378.1	1042.9
21392.6	1042.6	21430.3	1035.8	21448.3	1041.7	21461.5	1041.4	22746.5	1041.7
22760	1042	22773.5	1041.7	22844.9	1040.4	22853.4	1040.1	22878.2	1047.9
22883.5	1049.9	22895.7	1051						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18501.6	.037	19513	.032	20472.5	.037	21351	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19513	20472.5	500	504.74	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18501.6	19256.5	1045	21351	22895.7	1045

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1036.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.70	Wt. n-Val.	0.037	0.032	0.037
E.G. Elev (ft)	1037.22	Reach Len. (ft)	500.00	504.74	500.00
Crit W.S. (ft)	1027.52	Flow Area (sq ft)	372.56	14327.53	10845.44
E.G. Slope (ft/ft)	0.000670	Area (sq ft)	372.56	14327.53	10847.70
Q Total (cfs)	166000.00	Flow (cfs)	1212.17	104575.56	60212.27
Top Width (ft)	1889.70	Top Width (ft)	63.30	950.91	875.48
Vel Total (ft/s)	6.50	Avg. Vel. (ft/s)	3.25	7.30	5.55
Max Chl Dpth (ft)	21.83	Hydr. Depth (ft)	5.89	15.07	12.48
Conv. Total (cfs)	6414574.0	Conv. (cfs)	46840.6	4041010.3	2326723.3
Length Wtd. (ft)	502.53	Wetted Per. (ft)	67.26	957.11	878.40
Min Ch El (ft)	1019.30	Shear (lb/sq ft)	0.23	0.63	0.52
Alpha	1.06	Stream Power (lb/ft s)	0.75	4.57	2.87
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	7199.68	26686.55	2532.63
C & E Loss (ft)	0.08	Cum SA (acres)	2094.82	2761.83	892.69

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1036.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.83	Wt. n-Val.		0.032	0.037

E.G. Elev (ft)	1037.40	Reach Len. (ft)	500.00	504.74	500.00
Crit W.S. (ft)	1027.96	Flow Area (sq ft)		14364.10	8972.51
E.G. Slope (ft/ft)	0.000788	Area (sq ft)		14364.10	8972.51
Q Total (cfs)	166000.00	Flow (cfs)		113943.50	52056.50
Top Width (ft)	1698.51	Top Width (ft)		951.01	747.50
Vel Total (ft/s)	7.11	Avg. Vel. (ft/s)		7.93	5.80
Max Chl Dpth (ft)	21.86	Hydr. Depth (ft)		15.10	12.00
Conv. Total (cfs)	5911842.0	Conv. (cfs)		4057927.5	1853914.6
Length Wtd. (ft)	502.69	Wetted Per. (ft)		957.21	768.85
Min Ch El (ft)	1019.30	Shear (lb/sq ft)		0.74	0.57
Alpha	1.06	Stream Power (lb/ft s)		5.86	3.33
Frctn Loss (ft)	0.26	Cum Volume (acre-ft)	1324.44	27586.09	637.53
C & E Loss (ft)	0.11	Cum SA (acres)	217.60	2766.68	72.69

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19378.15	19445.57	2.73	3.21	4.16	0.00	0.85	0.85
19445.57	19513.00	1209.43	369.35	63.10	0.73	6.21	3.27
19513.00 LB	19704.90	18989.24	2680.47	187.11	11.44	14.62	7.08
19704.90	19896.80	22453.47	2994.14	191.90	13.53	15.60	7.50
19896.80	20088.70	20937.64	2871.15	191.90	12.61	14.96	7.29
20088.70	20280.60	21858.68	2946.31	191.90	13.17	15.35	7.42
20280.60	20472.50 RB	20336.54	2835.46	194.30	12.25	14.78	7.17
20472.50	20634.05	362.78	283.27	161.55	0.22	1.75	1.28
20634.05	20795.59	2700.17	948.38	163.17	1.63	5.87	2.85
20795.59	20957.14	16338.96	2782.79	161.67	9.84	17.23	5.87
20957.14	21118.69	19521.36	3095.89	161.61	11.76	19.16	6.31
21118.69	21280.23	17173.75	2880.32	163.52	10.35	17.83	5.96
21280.23	21441.78	4115.26	854.79	66.88	2.48	13.90	4.81

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19513.00 LB	19704.90	20686.94	2687.52	187.21	12.46	14.65	7.70
19704.90	19896.80	24462.95	3001.52	191.90	14.74	15.64	8.15
19896.80	20088.70	22815.46	2878.53	191.90	13.74	15.00	7.93
20088.70	20280.60	23816.51	2953.69	191.90	14.35	15.39	8.06
20280.60	20472.50 RB	22161.64	2842.84	194.30	13.35	14.81	7.80
20472.50	20634.05	399.41	289.49	161.55	0.24	1.79	1.38
20634.05	20795.59	2898.62	954.59	163.17	1.75	5.91	3.04
20795.59	20957.14	17414.54	2789.00	161.67	10.49	17.26	6.24
20957.14	21118.69	20798.63	3102.10	161.61	12.53	19.20	6.70
21118.69	21280.23	10545.31	1837.34	120.85	6.35	18.13	5.74

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.79

INPUT
Description: 209.79

Left Channel Bank Station Interpolated
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19302.1	1037	19390.4	1037.7	19422.4	1037.9	19450.6	1038.6	19469.8	1042
19475.2	1039.5	19483.02	1036.471	19511.6	1025.4	19544.2	1024.3	19568.5	1024
19585.1	1022.1	19604	1021.3	19652	1021.9	19659.2	1022.5	19704.1	1023.9
19743.6	1023.4	19758.3	1023.6	19804.1	1021.8	19848.4	1022	19854.6	1022.4
19903.2	1022.6	19907.9	1022.3	19977.4	1021.3	20009.8	1021.4	20048.6	1022.3
20058.7	1024	20073.2	1024.3	20081.6	1025.8	20102.4	1022	20112.8	1020.9
20156.2	1020.9	20256.4	1020.9	20405.6	1020.8	20467	1020.8	20496.1	1035.7

20514.4	1034.2	20550.2	1023.5	20623.5	1023.8	20694.6	1023.6	20727.9	1023.3
20733.7	1025.1	20747.4	1030.6	20772.1	1029.7	20812.6	1013.1	20821.9	1011.1
20921.1	1007.3	21031.7	1007.2	21102	1008.3	21146.2	1010.3	21153.2	1011.1
21167.6	1011.6	21181.9	1014.5	21219.7	1013.4	21280.6	1014.9	21300.5	1014.6
21345.1	1038.3	21349	1039.6	21388.2	1041.1	21398.1	1036.5	21724.8	1037
22053.9	1038.7	22084.9	1038.7	22412.8	1037.5	22736.4	1036.5	22750.8	1040.4
22851	1040	22880.8	1050.9	22891.5	1049.4	22896	1050.7		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19302.1	.037	19469.8	.032	20496.1	.037	21349	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19483.02	20496.1	500	500.44	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19302.1	19469.8	1048	21388.2	22896	1048

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1036.46	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1036.91	Reach Len. (ft)	500.00	500.44	510.00
Crit W.S. (ft)	1026.08	Flow Area (sq ft)		14219.94	16883.92
E.G. Slope (ft/ft)	0.000358	Area (sq ft)		14219.94	16883.92
Q Total (cfs)	166000.00	Flow (cfs)		72428.23	93571.77
Top Width (ft)	1858.60	Top Width (ft)		1013.06	845.54
Vel Total (ft/s)	5.34	Avg. Vel. (ft/s)		5.09	5.54
Max Chl Dpth (ft)	29.26	Hydr. Depth (ft)		14.04	19.97
Conv. Total (cfs)	8768003.0	Conv. (cfs)		3825607.8	4942395.0
Length Wtd. (ft)	506.06	Wetted Per. (ft)		1019.67	857.96
Min Ch El (ft)	1020.80	Shear (lb/sq ft)		0.31	0.44
Alpha	1.01	Stream Power (lb/ft s)		1.59	2.44
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	7197.55	26521.16	2373.48
C & E Loss (ft)	0.03	Cum SA (acres)	2094.46	2750.45	882.82

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1036.57	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1037.03	Reach Len. (ft)	500.00	500.44	510.00
Crit W.S. (ft)	1026.19	Flow Area (sq ft)		14326.17	16288.75
E.G. Slope (ft/ft)	0.000367	Area (sq ft)		14326.17	16288.75
Q Total (cfs)	166000.00	Flow (cfs)		74235.56	91764.45
Top Width (ft)	1806.96	Top Width (ft)		1013.06	793.90
Vel Total (ft/s)	5.42	Avg. Vel. (ft/s)		5.18	5.63
Max Chl Dpth (ft)	29.37	Hydr. Depth (ft)		14.14	20.52
Conv. Total (cfs)	8660700.0	Conv. (cfs)		3873084.0	4787616.5
Length Wtd. (ft)	506.00	Wetted Per. (ft)		1019.78	822.68
Min Ch El (ft)	1020.80	Shear (lb/sq ft)		0.32	0.45
Alpha	1.01	Stream Power (lb/ft s)		1.67	2.56
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	1324.44	27419.87	492.55
C & E Loss (ft)	0.02	Cum SA (acres)	217.60	2755.30	63.85

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19483.02 LB	19685.63	11705.13	2511.53	204.85	7.05	12.40	4.66
19685.63	19888.25	13866.86	2768.55	202.68	8.35	13.66	5.01
19888.25	20090.87	14658.47	2864.55	203.07	8.83	14.14	5.12
20090.87	20293.48	16939.77	3122.99	202.87	10.20	15.41	5.42
20293.48	20496.10 RB	15257.99	2952.31	206.21	9.19	14.57	5.17
20496.10	20656.09	5432.58	1653.47	161.62	3.27	10.33	3.29
20656.09	20816.09	7148.42	1964.22	164.70	4.31	12.28	3.64
20816.09	20976.08	28486.51	4452.88	160.20	17.16	27.83	6.40
20976.08	21136.07	29851.82	4577.85	160.04	17.98	28.61	6.52
21136.07	21296.07	20801.21	3689.03	160.39	12.53	23.06	5.64
21296.07	21456.06	1851.23	546.48	51.02	1.12	11.99	3.39

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta	Right Sta	Flow	Area	W.P.	% Conv.	Hydr D.	Velocity

(ft)	(ft)	(cfs)	(sq ft)	(ft)		(ft)	(ft/s)
19483.02 LB	19685.63	12013.81	2532.78	204.95	7.24	12.50	4.74
19685.63	19888.25	14219.09	2789.80	202.68	8.57	13.77	5.10
19888.25	20090.87	15024.42	2885.80	203.07	9.05	14.24	5.21
20090.87	20293.48	17345.04	3144.23	202.87	10.45	15.52	5.52
20293.48	20496.10 RB	15633.20	2973.56	206.21	9.42	14.68	5.26
20496.10	20656.09	5632.69	1670.24	161.62	3.39	10.44	3.37
20656.09	20816.09	7392.11	1981.00	164.70	4.45	12.38	3.73
20816.09	20976.08	29225.61	4469.65	160.20	17.61	27.94	6.54
20976.08	21136.07	30621.11	4594.63	160.04	18.45	28.72	6.66
21136.07	21296.07	18892.92	3573.23	176.13	11.38	23.21	5.29

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.69

INPUT
Description: 209.69

Left Channel Bank Station Interpolated
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18487.6	1037.1	18511.5	1038.9	18512.2	1038.3	18570	1037.1	18609.5	1037.4
18675.1	1037.2	18686.5	1037.2	18757.5	1036.9	18831.1	1037	18905.3	1036.6
18942.8	1036.5	19014.6	1036.3	19080.4	1036.9	19089.1	1039.2	19093.3	1038.7
19097.6	1036	19108.2	1036.5	19117.9	1041	19129.1	1036.3	19223.8	1037
19236.2	1036.9	19306.7	1037.1	19377.2	1036.8	19448.9	1038.8	19451.6	1039.2
19460.14	1035.952	19494.2	1023	19567.3	1019.4	19601.3	1019.8	19663.7	1024.7
19744.5	1029.8	19834.4	1031.8	19911.5	1032.7	19977.6	1032.7	20055.2	1034
20101.5	1021.7	20107.4	1021.1	20162.6	1021	20498.8	1020.7	20560.9	1034.8
20578.5	1035.8	20646.6	1035.2	20702.4	1031.7	20717.4	1031.4	20730.1	1030.1
20773.2	1013.3	20782.5	1013.1	20845.5	1011.4	20929.9	1011.3	20963.9	1011.2
21028.3	1011.1	21095.9	1010.7	21179.3	1010.6	21186.8	1010.4	21201.5	1014.3
21206.7	1012.8	21290	1013.8	21325.4	1034	21344.7	1037.9	21377	1040.8
21396	1036	21716.5	1037	22044.5	1037.5	22075.5	1037.5	22405.9	1036.3
22732.5	1036	22744	1038.7	22773.1	1038.3	22776.8	1039	22845.1	1039
22868.7	1048.8	22887.2	1047.3						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18487.6	.037	19451.6	.032	20578.5	.037	21290	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19460.14	20578.5	495	494.38	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18487.6	19451.6	1046	21377	22887.2	1046

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1035.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.70	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1036.64	Reach Len. (ft)	495.00	494.38	510.00
Crit W.S. (ft)	1025.98	Flow Area (sq ft)		11449.30	13908.76
E.G. Slope (ft/ft)	0.000665	Area (sq ft)		11449.30	13908.76
Q Total (cfs)	166000.00	Flow (cfs)		64420.82	101579.18
Top Width (ft)	1874.85	Top Width (ft)		1118.33	756.51
Vel Total (ft/s)	6.55	Avg. Vel. (ft/s)		5.63	7.30
Max Chl Dpth (ft)	25.54	Hydr. Depth (ft)		10.24	18.39
Conv. Total (cfs)	6435780.0	Conv. (cfs)		2497579.8	3938200.3
Length Wtd. (ft)	499.97	Wetted Per. (ft)		1124.44	766.16
Min Ch El (ft)	1019.40	Shear (lb/sq ft)		0.42	0.75
Alpha	1.05	Stream Power (lb/ft s)		2.38	5.51
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)	7197.55	26373.71	2193.22
C & E Loss (ft)	0.03	Cum SA (acres)	2094.46	2738.21	873.44

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1036.08	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.68	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1036.76	Reach Len. (ft)	495.00	494.38	510.00
Crit W.S. (ft)	1026.00	Flow Area (sq ft)		11602.06	14012.10
E.G. Slope (ft/ft)	0.000644	Area (sq ft)		11602.06	14012.10
Q Total (cfs)	166000.00	Flow (cfs)		64806.16	101193.84
Top Width (ft)	1874.84	Top Width (ft)		1118.33	756.51

Vel Total (ft/s)	6.48	Avg. Vel. (ft/s)		5.59	7.22
Max Chl Dpth (ft)	25.68	Hydr. Depth (ft)		10.37	18.52
Conv. Total (cfs)	6539886.0	Conv. (cfs)		2553162.0	3986723.8
Length Wtd. (ft)	499.95	Wetted Per. (ft)		1124.57	766.29
Min Ch El (ft)	1019.40	Shear (lb/sq ft)		0.41	0.74
Alpha	1.05	Stream Power (lb/ft s)		2.32	5.31
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	1324.44	27270.93	315.17
C & E Loss (ft)	0.03	Cum SA (acres)	217.60	2743.06	54.77

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19460.14 LB	19683.81	17741.77	2921.28	226.35	10.69	13.06	6.07
19683.81	19907.48	4187.02	1222.83	223.82	2.52	5.47	3.42
19907.48	20131.16	4278.88	1242.17	225.32	2.58	5.55	3.44
20131.16	20354.83	22554.42	3357.75	223.67	13.59	15.01	6.72
20354.83	20578.50 RB	15658.70	2705.26	225.28	9.43	12.09	5.79
20578.50	20732.41	464.10	315.58	154.27	0.28	2.05	1.47
20732.41	20886.33	23017.81	3306.36	156.93	13.87	21.48	6.96
20886.33	21040.24	29478.67	3805.84	153.91	17.76	24.73	7.75
21040.24	21194.15	30364.61	3876.63	154.17	18.29	25.19	7.83
21194.15	21348.07	18253.98	2604.36	146.88	11.00	18.49	7.01

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19460.14 LB	19683.81	17795.22	2951.83	226.48	10.72	13.20	6.03
19683.81	19907.48	4302.45	1253.39	223.82	2.59	5.60	3.43
19907.48	20131.16	4394.06	1272.73	225.32	2.65	5.69	3.45
20131.16	20354.83	22580.64	3388.31	223.67	13.60	15.15	6.66
20354.83	20578.50 RB	15733.77	2735.81	225.28	9.48	12.23	5.75
20578.50	20732.41	509.50	336.60	154.27	0.31	2.19	1.51
20732.41	20886.33	22935.36	3327.38	156.93	13.82	21.62	6.89
20886.33	21040.24	29332.49	3826.86	153.91	17.67	24.86	7.66
21040.24	21194.15	30208.99	3897.65	154.17	18.20	25.32	7.75
21194.15	21348.07	18207.51	2623.60	147.02	10.97	18.63	6.94

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.6

INPUT
Description: 209.6
Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18471.1	1035.6	18496.7	1038.3	18607.4	1038	18680.1	1039.8	18741.6	1037.7
18879.8	1037	19015.9	1036.1	19028.2	1034.8	19152.5	1033.5	19250.6	1034.5
19341.4	1037.2	19351.9	1034.1	19365.8	1031.7	19374.9	1033.6	19412.8	1028.7
19427.6	1022.5	19468.8	1016.4	19481.8	1016.4	19564.4	1022.8	19578.3	1019.6
19597.1	1016.9	19698.6	1019.2	19729.4	1022.5	19836.1	1021.7	19930.5	1022.3
19965.1	1019.8	19965.5	1020.6	19987.2	1019.5	20055.5	1019.5	20413.3	1020.2
20534.4	1020.5	20578	1028.4	20664.2	1027	20687	1029.2	20784.5	1026.4
20818.2	1025.3	20877.5	1031.3	20903.8	1029.2	20919.4	1025.4	20952.7	1027.2
21034.7	1012	21184.6	1013	21197.5	1013.3	21214.7	1021.1	21253.6	1021.8
21259.3	1025.3	21285	1031.8	21303.5	1032.2	21376.6	1040.1	21388.5	1035.5
21712.8	1036.1	22038.2	1036	22062	1038.1	22071.3	1037.9	22400.5	1035.8
22736.6	1038.6	22771.4	1038	22816.3	1035.5	22817.7	1036.3	22900.7	1032.1
23002.2	1032.7	23120.7	1033.1	23129.8	1033.1	23156.7	1038.2	23258.8	1038
23383.7	1037.9	23478.9	1038.9	23571.2	1038.9	23695.4	1038.7	23813	1038
23927.9	1038.6	23944.9	1036.6	24036	1038.4	24127.3	1038.3	24217.5	1039.5
24260.3	1040.4	24277.2	1039.6						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18471.1	.037	19341.4	.032	20578	.037	21376.6	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19341.4	20578	311	344.14	446	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18471.1	19130	1040	21003.8	24277.2	1040

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1035.16	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.04	Wt. n-Val.	0.037	0.032	0.037
E.G. Elev (ft)	1036.21	Reach Len. (ft)	311.00	344.14	446.00
Crit W.S. (ft)	1028.98	Flow Area (sq ft)	156.39	17486.04	3439.42
E.G. Slope (ft/ft)	0.000976	Area (sq ft)	248.25	17486.04	9597.39
Q Total (cfs)	166000.00	Flow (cfs)	208.30	148474.11	17317.59
Top Width (ft)	2531.34	Top Width (ft)	248.17	1229.70	1053.46
Vel Total (ft/s)	7.87	Avg. Vel. (ft/s)	1.33	8.49	5.04
Max Chl Dpth (ft)	23.16	Hydr. Depth (ft)	1.09	14.22	8.08
Conv. Total (cfs)	5314184.0	Conv. (cfs)	6668.2	4753125.0	554390.8
Length Wtd. (ft)	349.30	Wetted Per. (ft)	142.94	1234.60	427.74
Min Ch El (ft)	1016.40	Shear (lb/sq ft)	0.07	0.86	0.49
Alpha	1.08	Stream Power (lb/ft s)	0.09	7.33	2.47
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	7196.14	26209.51	2055.61
C & E Loss (ft)	0.15	Cum SA (acres)	2093.05	2724.88	862.84

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1035.31	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.03	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1036.34	Reach Len. (ft)	311.00	344.14	446.00
Crit W.S. (ft)	1028.95	Flow Area (sq ft)		17670.12	3503.14
E.G. Slope (ft/ft)	0.000948	Area (sq ft)		17670.12	3503.14
Q Total (cfs)	166000.00	Flow (cfs)		148868.13	17131.89
Top Width (ft)	1656.01	Top Width (ft)		1230.21	425.80
Vel Total (ft/s)	7.84	Avg. Vel. (ft/s)		8.42	4.89
Max Chl Dpth (ft)	18.91	Hydr. Depth (ft)		14.36	8.23
Conv. Total (cfs)	5391893.5	Conv. (cfs)		4835428.0	556465.7
Length Wtd. (ft)	349.25	Wetted Per. (ft)		1235.13	445.32
Min Ch El (ft)	1016.40	Shear (lb/sq ft)		0.85	0.47
Alpha	1.08	Stream Power (lb/ft s)		7.13	2.28
Frctn Loss (ft)	0.32	Cum Volume (acre-ft)	1324.44	27104.81	212.64
C & E Loss (ft)	0.15	Cum SA (acres)	217.60	2729.73	47.85

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19109.32	19167.34	91.94	58.36	37.34	0.06	1.56	1.58
19167.34	19225.36	94.15	70.61	58.02	0.06	1.22	1.33
19225.36	19283.38	22.21	27.42	47.58	0.01	0.58	0.81
19283.38	19341.40						
19341.40 LB	19588.72	21719.81	2890.95	243.71	13.08	12.02	7.51
19588.72	19836.04	32702.22	3719.06	247.61	19.70	15.04	8.79
19836.04	20083.36	30538.48	3571.25	247.93	18.40	14.44	8.55
20083.36	20330.68	33933.93	3800.69	247.32	20.44	15.37	8.93
20330.68	20578.00 RB	29579.66	3504.10	248.03	17.82	14.17	8.44
20578.00	20824.61	9258.54	1897.49	246.82	5.58	7.69	4.88
20824.61	21071.23	8059.06	1541.92	180.92	4.85	8.61	5.23

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19341.40 LB	19588.72	21821.75	2926.96	244.24	13.15	12.15	7.46
19588.72	19836.04	32767.59	3756.07	247.61	19.74	15.19	8.72
19836.04	20083.36	30620.33	3608.26	247.93	18.45	14.59	8.49
20083.36	20330.68	33989.77	3837.71	247.32	20.48	15.52	8.86
20330.68	20578.00 RB	29668.66	3541.11	248.03	17.87	14.32	8.38
20578.00	20824.61	9436.51	1934.40	246.82	5.68	7.84	4.88

20824.61	21071.23	7695.40	1568.74	198.50	4.64	8.75	4.91

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.54

INPUT
Description: 209.54
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18558.3	1035.9	18953.3	1031	19413.3	1031	19568.3	1036	19713.3	1040
19863.3	1042	19945.14	1044.01	20000.32	1043.67	20022.38	1039.82	20036.91	1033.42
20102.9	1018.25	20139.23	1009.9	20153.9	1009.66	20165.29	1004.32	20283.58	998.4
20352.9	995.32	20409.65	992.31	20445.78	1004.75	20453.49	1008.73	20473.79	1014.13
20531.4	1031.98	20551.27	1040.69	20587.06	1042.78	20763.7	1040	20898.7	1036
21233.7	1031	22228.7	1031	22578.7	1031	22988.7	1036	23038.7	1037
23838.7	1038.3								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18558.3	.037	19945.14	.037	20102.9	.032	20587.06	.037	20763.7	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19945.14	20587.06	46.58	46.58	46.58	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18558.3	19130	1050	20521	23838.7	1050

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1033.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.56	Wt. n-Val.	0.037	0.032	
E.G. Elev (ft)	1035.72	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1020.15	Flow Area (sq ft)	686.57	12782.22	
E.G. Slope (ft/ft)	0.000916	Area (sq ft)	1258.62	12812.93	3263.83
Q Total (cfs)	166000.00	Flow (cfs)	1306.13	164693.86	
Top Width (ft)	2865.75	Top Width (ft)	701.82	496.10	1667.83
Vel Total (ft/s)	12.32	Avg. Vel. (ft/s)	1.90	12.88	
Max Chl Dpth (ft)	40.86	Hydr. Depth (ft)	1.96	26.46	
Conv. Total (cfs)	5486060.5	Conv. (cfs)	43165.8	5442894.5	
Length Wtd. (ft)	0.00	Wetted Per. (ft)	350.50	493.08	
Min Ch El (ft)	992.31	Shear (lb/sq ft)	0.11	1.48	
Alpha	1.08	Stream Power (lb/ft s)	0.21	19.09	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	7190.76	26089.82	1989.77
C & E Loss (ft)	0.03	Cum SA (acres)	2089.66	2718.07	848.91

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1033.35	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.51	Wt. n-Val.	0.037	0.032	
E.G. Elev (ft)	1035.87	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1020.15	Flow Area (sq ft)	752.74	12872.74	
E.G. Slope (ft/ft)	0.000907	Area (sq ft)	752.74	12872.74	
Q Total (cfs)	166000.00	Flow (cfs)	1491.99	164508.02	
Top Width (ft)	840.07	Top Width (ft)	356.27	483.80	
Vel Total (ft/s)	12.18	Avg. Vel. (ft/s)	1.98	12.78	
Max Chl Dpth (ft)	41.04	Hydr. Depth (ft)	2.11	26.61	
Conv. Total (cfs)	5513368.0	Conv. (cfs)	49553.6	5463814.5	
Length Wtd. (ft)	0.00	Wetted Per. (ft)	358.66	498.52	
Min Ch El (ft)	992.31	Shear (lb/sq ft)	0.12	1.46	
Alpha	1.09	Stream Power (lb/ft s)	0.24	18.68	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	1321.75	26984.16	194.70
C & E Loss (ft)	0.03	Cum SA (acres)	216.33	2722.96	45.67

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta	Right Sta	Flow	Area	W.P.	% Conv.	Hydr D.	Velocity

Top Width (ft)	4780.00	Top Width (ft)	4535.40	244.60
Vel Total (ft/s)	3.77	Avg. Vel. (ft/s)	3.68	7.54
Max Chl Dpth (ft)	18.70	Hydr. Depth (ft)	10.27	4.55
Conv. Total (cfs)	3845832.5	Conv. (cfs)	3666261.3	179571.2
Length Wtd. (ft)		Wetted Per. (ft)	4548.21	248.76
Min Ch El (ft)	931.20	Shear (lb/sq ft)	1.40	0.61
Alpha	1.10	Stream Power (lb/ft s)	5.14	4.60
Frctn Loss (ft)		Cum Volume (acre-ft)		
C & E Loss (ft)		Cum SA (acres)		

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16870.00 LB	17777.08	15319.12	8054.32	907.08	8.52	8.88	1.90
17777.08	18684.16	14198.17	7695.37	907.09	7.90	8.48	1.85
18684.16	19591.24	28444.18	8830.12	909.91	15.82	9.73	3.22
19591.24	20498.32	41978.22	8928.85	907.08	23.35	9.84	4.70
20498.32	21405.40 RB	38979.88	8541.17	907.25	21.69	9.42	4.56
21405.40	21730.17	5274.86	868.20	244.60	2.93	3.55	6.08
21730.17	22704.49						
22704.49	23029.27	1501.23	316.50	129.27	0.84	2.45	4.74
23029.27	23354.04	4438.55	876.77	324.77	2.47	2.70	5.06
23354.04	23678.81	3484.40	756.95	323.37	1.94	2.35	4.60
23678.81	24003.59	2118.65	829.49	300.43	1.18	2.76	2.55
24003.59	24328.36	4475.77	1383.79	325.16	2.49	4.26	3.23
24328.36	24653.13	7143.16	1830.96	324.78	3.97	5.64	3.90
24653.13	24977.91	6500.64	1730.29	324.78	3.62	5.33	3.76
24977.91	25302.68	5563.80	1050.96	325.30	3.10	3.24	5.29
25302.68	25627.45	329.37	85.22	47.32	0.18	1.80	3.86

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16870.00 LB	17777.08	18959.40	8961.40	916.88	10.55	9.88	2.12
17777.08	18684.16	17837.91	8602.45	907.09	9.92	9.48	2.07
18684.16	19591.24	34971.27	9737.20	909.91	19.46	10.73	3.59
19591.24	20498.32	51465.28	9835.93	907.08	28.63	10.84	5.23
20498.32	21405.40 RB	48123.18	9448.25	907.25	26.77	10.42	5.09
21405.40	21730.17	8392.96	1112.80	248.76	4.67	4.55	7.54

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	199.82	179750.00	931.20	948.90	943.28	949.09	0.002007	3.30	51778.97	10752.57	0.19
1	199.82	179750.00	931.20	949.90	943.25	950.14	0.002185	3.68	47698.04	4780.00	0.20
1	199.91	179750.00	932.10	949.39	943.35	949.60	0.000668	3.83	50254.95	10846.61	0.22
1	199.91	179750.00	932.10	950.39	943.35	950.61	0.000573	3.75	48102.12	4530.00	0.20
1	200	179750.00	933.40	949.74	944.16	950.01	0.000864	4.29	44537.34	11193.60	0.24
1	200	179750.00	933.40	950.70	944.11	950.98	0.000792	4.23	42550.11	4100.00	0.23
1	200.1	179750.00	934.50	950.19	945.21	950.66	0.001730	5.74	37659.50	11254.10	0.32
1	200.1	179750.00	934.50	951.11	945.19	951.53	0.001392	5.36	38392.25	3770.00	0.29
1	200.2	179750.00	937.00	951.10	946.76	951.67	0.002027	6.37	35619.57	11857.73	0.37
1	200.2	179750.00	937.00	951.83	946.76	952.38	0.001732	6.15	34725.75	3629.00	0.35
1	200.3	179750.00	937.70	952.12	947.15	952.61	0.001603	5.79	36488.30	9118.96	0.34
1	200.3	179750.00	937.70	952.73	947.16	953.18	0.001382	5.57	36217.50	3683.53	0.31
1	200.39	164000.00	937.00	952.89	946.22	953.17	0.000738	4.35	39815.16	11315.80	0.24
1	200.39	164000.00	937.00	953.40	946.22	953.69	0.000702	4.37	38316.82	3741.00	0.23
1	200.49	164000.00	936.90	953.28	946.93	953.59	0.000940	4.59	37371.56	10978.72	0.26
1	200.49	164000.00	936.90	953.77	946.93	954.10	0.000893	4.59	36177.60	3791.00	0.25
1	200.58	164000.00	937.60	953.76	948.28	954.14	0.001313	5.04	33542.78	10091.43	0.30
1	200.58	164000.00	937.60	954.23	948.28	954.60	0.001187	4.91	33793.10	3940.00	0.28
1	200.67	164000.00	939.80	954.42	948.96	954.80	0.001288	4.96	33785.32	10368.40	0.30
1	200.67	164000.00	939.80	954.84	948.96	955.20	0.001158	4.82	34280.89	4009.30	0.28
1	200.77	164000.00	936.90	955.02	949.21	955.35	0.000950	4.62	36841.44	11450.00	0.28
1	200.77	164000.00	936.90	955.38	949.21	955.70	0.000875	4.52	36283.11	4122.20	0.27
1	200.86	164000.00	938.50	955.63	949.69	955.94	0.001346	4.48	37608.27	11080.63	0.27
1	200.86	164000.00	938.50	955.94	949.69	956.24	0.001276	4.46	36762.42	4032.00	0.26
1	200.95	164000.00	939.80	956.09	949.86	956.38	0.000668	4.33	39058.09	10045.49	0.25
1	200.95	164000.00	939.80	956.38	949.86	956.66	0.000629	4.27	38407.23	4001.09	0.24
1	201.05	164000.00	941.50	956.49	950.96	956.80	0.000974	4.50	37111.35	9250.10	0.26
1	201.05	164000.00	941.50	956.74	950.96	957.06	0.000928	4.48	36618.42	3898.52	0.26
1	201.14	164000.00	940.40	956.91	952.04	957.32	0.001090	5.20	32069.63	8631.40	0.31
1	201.14	164000.00	940.40	957.15	952.04	957.55	0.001017	5.10	32149.23	3680.58	0.30
1	201.24	164000.00	943.00	957.46	953.56	958.06	0.001852	6.23	26885.10	6935.04	0.40

(ft)	(ft)	(cfs)	(sq ft)	(ft)		(ft)	(ft/s)
19113.04	19205.49	326.74	163.56	75.49	0.20	2.17	2.00
19205.49	19297.95	400.17	200.32	92.46	0.24	2.17	2.00
19297.95	19390.40	400.16	200.32	92.46	0.24	2.17	2.00
19390.40	19482.86	179.05	122.37	90.10	0.11	1.36	1.46
19482.86	19945.14						
19945.14 LB	20073.53	423.31	144.95	36.44	0.26	4.08	2.92
20073.53	20201.91	29083.81	2763.64	131.33	17.52	21.53	10.52
20201.91	20330.29	61106.80	4345.38	128.53	36.81	33.85	14.06
20330.29	20458.68	67468.43	4656.71	131.71	40.64	36.27	14.49
20458.68	20587.06 RB	6611.50	871.53	65.06	3.98	13.98	7.59

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19113.04	19205.49	364.23	177.70	77.85	0.22	2.35	2.05
19205.49	19297.95	455.30	217.63	92.46	0.27	2.35	2.09
19297.95	19390.40	455.29	217.63	92.46	0.27	2.35	2.09
19390.40	19482.86	217.14	139.59	92.49	0.13	1.51	1.56
19482.86	19575.32	0.03	0.19	3.41	0.00	0.05	0.17
19575.32	19945.14						
19945.14 LB	20073.53	445.36	151.68	37.28	0.27	4.18	2.94
20073.53	20201.91	29198.90	2787.68	131.33	17.59	21.71	10.47
20201.91	20330.29	61075.10	4369.43	128.53	36.79	34.03	13.98
20330.29	20458.68	67392.10	4680.75	131.71	40.60	36.46	14.40
20458.68	20587.06 RB	6396.56	883.20	69.66	3.85	14.17	7.24

Warning - Divided flow computed for this cross-section.

BRIDGE RIVER: 1
REACH: 1 RS: 209.535

INPUT
Description: 35th Avenue Bridge
Distance from Upstream XS = 0
Deck/Roadway Width = 46.58
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 18

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
18558.3	1035.9	1035.9	18953.3	1032	1032	19413.3	1032	1032
19568.3	1036	1036	19713.3	1040	1040	20020.9	1043.87	1037.09
20147.9	1043.74	1036.96	20272.9	1043.5	1036.72	20397.9	1043.02	1036.23
20521	1042.46	1035.68	20521.1	1042.42	1042.42	20763.7	1040	1040
20898.7	1036	1036	21233.7	1032	1032	22578.7	1032	1032
22988.7	1036	1036	23038.7	1037	1037	23838.7	1038.3	1038.3

Upstream Bridge Cross Section Data
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18558.3	1035.9	18953.3	1031	19413.3	1031	19568.3	1036	19713.3	1040
19863.3	1042	19945.14	1044.01	20000.32	1043.67	20022.38	1039.82	20036.91	1033.42
20102.9	1018.25	20139.23	1009.9	20153.9	1009.66	20165.29	1004.32	20283.58	998.4
20352.9	995.32	20409.65	992.31	20445.78	1004.75	20453.49	1008.73	20473.79	1014.13
20531.4	1031.98	20551.27	1040.69	20587.06	1042.78	20763.7	1040	20898.7	1036
21233.7	1031	22228.7	1031	22578.7	1031	22988.7	1036	23038.7	1037
23838.7	1038.3								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18558.3	.037	19945.14	.037	20102.9	.032	20587.06	.037	20763.7	.025

Bank Sta: Left	Right	Coeff Contr.	Expan.
19945.14	20587.06	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18558.3	19130	1050	20521	23838.7	1050

Downstream Deck/Roadway Coordinates
num= 18

```
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
 18558.3  1035.9  1035.9 18953.3    1032    1032 19413.3    1032    1032
 19568.3    1036    1036 19713.3    1040    1040 20020.9 1043.87 1037.09
 20147.9 1043.74 1036.96 20272.9  1043.5 1036.72 20397.9 1043.02 1036.23
   20521 1042.46 1035.68 20521.1 1042.42 1042.42 20763.7    1040    1040
 20898.7    1036    1036 21233.7    1032    1032 22578.7    1032    1032
 22988.7    1036    1036 23038.7    1037    1037 23838.7  1038.3  1038.3

Downstream Bridge Cross Section Data
Station Elevation Data    num=      33
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 18558.3  1035.9 18953.3    1030 19413.3    1030 19568.3    1036 19713.3    1040
 19863.3    104219967.01  1043.420002.05 1042.91 20020.91038.21120034.22 1034.89
 20102.91020.23520147.21 1010.7820164.84 1009.7320171.51 1007.4920222.65 1006.24
 20279.2 1001.7520351.65  995.9320410.25  992.8220447.48 1001.0320457.97 1008.48
20469.59 1010.87   20521 1027.9520536.71 1033.1720558.02 1040.2320593.88 1041.57
 20763.7    1040   20898    1036 21233.7    1031 22228.7    1031 22578.7    1031
 22988.7    1036 23038.7    1037 23838.7  1038.3

Manning's n Values        num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 18558.3    .03720002.05    .037 20102.9    .03220593.88    .037   20898    .025

Bank Sta: Left   Right    Coeff Contr.   Expan.
     20002.0520593.88             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 18558.3   19130    1048   20521 23838.7    1048

Upstream Embankment side slope              =         horiz. to 1.0 vertical
Downstream Embankment side slope            =         horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =    1032
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  3

Pier Data
Pier Station     Upstream= 20145.9    Downstream= 20145.9
Upstream     num=       2
    Width   Elev    Width   Elev
      4     990       4 1036.96
Downstream     num=       2
    Width   Elev    Width   Elev
      4     990       4 1036.96

Pier Data
Pier Station     Upstream= 20270.9    Downstream= 20270.9
Upstream     num=       2
    Width   Elev    Width   Elev
      4     990       4 1036.72
Downstream     num=       2
    Width   Elev    Width   Elev
      4     990       4 1036.72

Pier Data
Pier Station     Upstream= 20395.9    Downstream= 20395.9
Upstream     num=       2
    Width   Elev    Width   Elev
      4     990       410036.23
Downstream     num=       2
    Width   Elev    Width   Elev
      4     990       410036.23

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
      Energy
      Momentum                Cd   =     1.2
      Yarnell                 KVal =    1.05
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
      Energy Only
```

Additional Bridge Parameters
Add Friction component to Momentum
Add Weight component to Momentum
Class B flow critical depth computations use critical depth inside the bridge at the downstream end
Criteria to check for pressure flow = Upstream energy grade line

BRIDGE OUTPUT Profile #PF#1
Opening : Bridge #1

E.G. US. (ft)	1035.72	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1033.17	E.G. Elev (ft)	1035.70	1035.57
Q Total (cfs)	166000.00	W.S. Elev (ft)	1032.89	1032.32
Q Bridge (cfs)	165607.77	Crit W.S. (ft)	1020.61	1022.22
Q Weir (cfs)		Max Chl Dpth (ft)	40.58	39.50
Weir Sta Lft (ft)		Vel Total (ft/s)	12.92	13.73
Weir Sta Rgt (ft)		Flow Area (sq ft)	12851.07	12089.84
Weir Submerg		Froude # Chl	0.61	0.67
Weir Max Depth (ft)		Specif Force (cu ft)	259585.17	241028.61
Min Top Rd (ft)	1032.00	Hydr Depth (ft)	15.83	15.00
Min El Prs (ft)	1042.42	W.P. Total (ft)	1650.79	1586.76
Delta EG (ft)	0.24	Conv. Total (cfs)	4040039.0	3656084.0
Delta WS (ft)	0.64	Top Width (ft)	2779.40	2693.57
BR Open Area (sq ft)	14091.02	Frctn Loss (ft)	0.09	0.00
BR Open Vel (ft/s)	13.80	C & E Loss (ft)	0.04	0.09
Coef of Q		Shear Total (lb/sq ft)	0.82	0.98
Br Sel Mthd	Energy only	Power Total (lb/ft s)	10.60	13.46

Note - Yarnell answer is not valid if the water surface is above the low chord or if there is weir flow.
The Yarnell answer has been disregarded.
Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir
flow. The momentum answer has been disregarded.

BRIDGE OUTPUT Profile #PF#2
Opening : Bridge #1

E.G. US. (ft)	1035.87	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1033.35	E.G. Elev (ft)	1035.84	1035.71
Q Total (cfs)	166000.00	W.S. Elev (ft)	1033.08	1032.53
Q Bridge (cfs)	165463.34	Crit W.S. (ft)	1020.61	1022.22
Q Weir (cfs)		Max Chl Dpth (ft)	40.77	39.71
Weir Sta Lft (ft)		Vel Total (ft/s)	12.76	13.54
Weir Sta Rgt (ft)		Flow Area (sq ft)	13005.17	12257.47
Weir Submerg		Froude # Chl	0.60	0.66
Weir Max Depth (ft)		Specif Force (cu ft)	261443.28	242799.83
Min Top Rd (ft)	1032.00	Hydr Depth (ft)	15.89	15.09
Min El Prs (ft)	1042.42	W.P. Total (ft)	1673.29	1610.41
Delta EG (ft)	0.24	Conv. Total (cfs)	4083436.8	3702612.0
Delta WS (ft)	0.62	Top Width (ft)	818.30	812.36
BR Open Area (sq ft)	14091.02	Frctn Loss (ft)	0.08	0.00
BR Open Vel (ft/s)	13.67	C & E Loss (ft)	0.04	0.09
Coef of Q		Shear Total (lb/sq ft)	0.80	0.96
Br Sel Mthd	Energy only	Power Total (lb/ft s)	10.24	12.93

Note - Yarnell answer is not valid if the water surface is above the low chord or if there is weir flow.
The Yarnell answer has been disregarded.
Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir
flow. The momentum answer has been disregarded.

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.53

INPUT
Description: 209.53
Station Elevation Data num= 33

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18558.3	1035.9	18953.3	1030	19413.3	1030	19568.3	1036	19713.3	1040
19863.3	1042	19967.01	1043.42	20002.05	1042.91	20020.91	1038.21	20034.22	1034.89
20102.91	1020.23	20147.21	1010.78	20164.84	1009.73	20171.51	1007.49	20222.65	1006.24

```
 20279.2 1001.7520351.65  995.9320410.25  992.8220447.48 1001.0320457.97 1008.48
20469.59 1010.87   20521 1027.9520536.71 1033.1720558.02 1040.2320593.88 1041.57
 20763.7    1040   20898    1036 21233.7    1031 22228.7    1031 22578.7    1031
 22988.7    1036 23038.7    1037 23838.7  1038.3

Manning's n Values        num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 18558.3    .03720002.05    .037 20102.9    .03220593.88    .037   20898    .025

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      20002.0520593.88              486  541.77     601             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 18558.3   19130    1048   20521 23838.7    1048
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1032.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.95	Wt. n-Val.	0.037	0.033	
E.G. Elev (ft)	1035.48	Reach Len. (ft)	486.00	541.77	601.00
Crit W.S. (ft)	1021.67	Flow Area (sq ft)	798.84	11819.83	
E.G. Slope (ft/ft)	0.001314	Area (sq ft)	1459.58	11851.38	2229.77
Q Total (cfs)	166000.00	Flow (cfs)	2021.08	163978.91	
Top Width (ft)	2757.01	Top Width (ft)	694.58	489.49	1572.93
Vel Total (ft/s)	13.16	Avg. Vel. (ft/s)	2.53	13.87	
Max Chl Dpth (ft)	39.71	Hydr. Depth (ft)	2.29	24.85	
Conv. Total (cfs)	4579464.0	Conv. (cfs)	55755.9	4523708.0	
Length Wtd. (ft)	541.43	Wetted Per. (ft)	348.66	485.19	
Min Ch El (ft)	992.82	Shear (lb/sq ft)	0.19	2.00	
Alpha	1.10	Stream Power (lb/ft s)	0.48	27.72	
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)	7189.48	26077.16	1987.25
C & E Loss (ft)	0.45	Cum SA (acres)	2088.94	2717.55	847.22

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1032.73	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.89	Wt. n-Val.	0.037	0.033	
E.G. Elev (ft)	1035.63	Reach Len. (ft)	486.00	541.77	601.00
Crit W.S. (ft)	1021.67	Flow Area (sq ft)	871.40	11918.19	
E.G. Slope (ft/ft)	0.001295	Area (sq ft)	871.40	11918.19	
Q Total (cfs)	166000.00	Flow (cfs)	2283.77	163716.22	
Top Width (ft)	830.63	Top Width (ft)	353.95	476.68	
Vel Total (ft/s)	12.98	Avg. Vel. (ft/s)	2.62	13.74	
Max Chl Dpth (ft)	39.91	Hydr. Depth (ft)	2.46	25.00	
Conv. Total (cfs)	4613631.0	Conv. (cfs)	63472.8	4550158.0	
Length Wtd. (ft)	541.39	Wetted Per. (ft)	356.74	490.96	
Min Ch El (ft)	992.82	Shear (lb/sq ft)	0.20	1.96	
Alpha	1.11	Stream Power (lb/ft s)	0.52	26.95	
Frctn Loss (ft)	0.80	Cum Volume (acre-ft)	1320.98	26971.44	194.70
C & E Loss (ft)	0.46	Cum SA (acres)	215.95	2722.46	45.67

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19039.55	19135.80	38.39	14.67	5.80	0.02	2.53	2.62
19135.80	19232.05	637.06	243.35	96.25	0.38	2.53	2.62
19232.05	19328.30	637.06	243.35	96.25	0.38	2.53	2.62
19328.30	19424.55	626.37	240.90	96.26	0.38	2.50	2.60
19424.55	19520.80	82.21	56.58	54.10	0.05	1.05	1.45

19520.80	20002.05						
20002.05 LB	20120.42	3691.98	602.18	76.82	2.22	8.02	6.13
20120.42	20238.78	34766.55	2805.21	119.43	20.94	23.70	12.39
20238.78	20357.15	58440.68	3821.87	118.73	35.21	32.29	15.29
20357.15	20475.52	62826.81	4038.67	122.27	37.85	34.12	15.56
20475.52	20593.88 RB	4252.88	551.91	47.93	2.56	12.13	7.71

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19039.55	19135.80	33.49	15.86	8.54	0.02	2.73	2.11
19135.80	19232.05	718.94	263.23	96.25	0.43	2.73	2.73
19232.05	19328.30	718.94	263.23	96.25	0.43	2.73	2.73
19328.30	19424.55	707.79	260.78	96.26	0.43	2.71	2.71
19424.55	19520.80	104.62	68.29	59.44	0.06	1.15	1.53
19520.80	20002.05						
20002.05 LB	20120.42	3768.18	617.80	77.81	2.27	8.12	6.10
20120.42	20238.78	34846.59	2829.66	119.43	20.99	23.91	12.31
20238.78	20357.15	58350.99	3846.32	118.73	35.15	32.50	15.17
20357.15	20475.52	62694.74	4063.12	122.27	37.77	34.33	15.43
20475.52	20593.88 RB	4055.71	561.30	52.71	2.44	12.34	7.23

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.42

INPUT
Description: 209.42

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18513.1	1035.5	18574.6	1035.9	18632.5	1034.6	18635.6	1035.4	18680.9	1036
18687.8	1038.5	18701.4	1035.2	18765.3	1035.2	18835.1	1035.1	18900.1	1034.7
18961.3	1033.7	19000	1032.138	19025.7	1031.1	19065.8	1027.8	19104.1	1022.3
19120.6	1022.6	19125.1	1023.7	19197.6	1025.3	19246	1026	19272.2	1027.8
19302.1	1027.8	19321.9	1026.7	19328.1	1029.6	19343.4	1022.9	19375.4	1021.5
19391.1	1023	19460.5	1022.9	19564.6	1022.1	19568.3	1022.2	19574.4	1019.8
19580.4	1022.5	19651.1	1021.3	19734.5	1021.9	19816.3	1021.1	19912.2	1021
19990.4	1020.5	20054.5	1019.6	20101.7	1020.2	20105.2	1019.7	20498.9	1020
20581.2	1020	20630.2	1030.4	20651.6	1032.2	20652.67	1032.771	20678.6	1046.6
20730.3	1043.9	20738.4	1042.7	20748.3	1044.1	20763.6	1040.6	20779.3	1040.7
20848.4	1041.7	20859.5	1041.4	20872	1043.7	20881.6	1043.1	20905.4	1030.8
20920.2	1032.2	21002.8	1031.3	21074.4	1031.3	21080.4	1031.3	21145.3	1031.6
21189.4	1031.7	21251.9	1031.7	21253.8	1031.7	21327.8	1030.8	21328.7	1030.8
21393	1029.7	21454.5	1029.5	21522.8	1029.1	21585.4	1028.8	21633.2	1028.1
21668.4	1029.3	21781.5	1029.2	21786.8	1029.4	21861.9	1030.7	21866.8	1030.8
21933.5	1032	21950.3	1032.1	22025.9	1032.4	22032.2	1032.3	22104.7	1032.3
22114.7	1032.3	22183.6	1032.3	22249.7	1032.4	22313.6	1032.4	22379.4	1031.3
22445.2	1031.7	22506.8	1031.2	22573.5	1031.3	22646.8	1031.1	22725.1	1032.8
22749.8	1033.1	22763.4	1030.6	22774	1030.6	22784.2	1034.4	22794.1	1035.3
22860.8	1035.8	22923.3	1036.2	22993	1036.4				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18513.1	.037	18900.1	.037	19197.6	.032	20581.2	.037	20678.6	.037
20872	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19000	20652.67	510	510.73	575	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18513.1	19000	1046.6	20678.6	22993	1046.6

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1032.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.44	Wt. n-Val.		0.032	
E.G. Elev (ft)	1034.19	Reach Len. (ft)	510.00	510.73	575.00
Crit W.S. (ft)	1028.88	Flow Area (sq ft)		17253.24	
E.G. Slope (ft/ft)	0.001853	Area (sq ft)	4.65	17253.24	3133.46
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	3517.10	Top Width (ft)	15.19	1652.63	1849.28
Vel Total (ft/s)	9.62	Avg. Vel. (ft/s)		9.62	
Max Chl Dpth (ft)	13.15	Hydr. Depth (ft)		10.44	
Conv. Total (cfs)	3856012.5	Conv. (cfs)		3856012.5	
Length Wtd. (ft)	510.73	Wetted Per. (ft)		1657.99	
Min Ch El (ft)	1019.60	Shear (lb/sq ft)		1.20	
Alpha	1.00	Stream Power (lb/ft s)		11.58	
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	7181.31	25896.17	1950.25
C & E Loss (ft)	0.05	Cum SA (acres)	2084.98	2704.23	823.61

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1032.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.37	Wt. n-Val.		0.032	
E.G. Elev (ft)	1034.37	Reach Len. (ft)	510.00	510.73	575.00
Crit W.S. (ft)	1028.88	Flow Area (sq ft)		17654.70	
E.G. Slope (ft/ft)	0.001721	Area (sq ft)		17654.70	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1652.63	Top Width (ft)		1652.63	
Vel Total (ft/s)	9.40	Avg. Vel. (ft/s)		9.40	
Max Chl Dpth (ft)	13.39	Hydr. Depth (ft)		10.68	
Conv. Total (cfs)	4001670.0	Conv. (cfs)		4001670.0	
Length Wtd. (ft)	510.73	Wetted Per. (ft)		1659.09	
Min Ch El (ft)	1019.60	Shear (lb/sq ft)		1.14	
Alpha	1.00	Stream Power (lb/ft s)		10.75	
Frctn Loss (ft)	0.79	Cum Volume (acre-ft)	1316.11	26787.53	194.70
C & E Loss (ft)	0.05	Cum SA (acres)	213.98	2709.22	45.67

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19000.00 LB	19330.53	12499.76	2059.15	332.20	7.53	6.23	6.07
19330.53	19661.07	31465.57	3401.74	332.87	18.96	10.29	9.25
19661.07	19991.60	38216.63	3811.82	330.54	23.02	11.53	10.03
19991.60	20322.14	46064.31	4264.04	330.58	27.75	12.90	10.80
20322.14	20652.67 RB	37753.73	3716.50	331.80	22.74	11.25	10.16

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19000.00 LB	19330.53	12826.97	2139.45	333.06	7.73	6.47	6.00
19330.53	19661.07	31546.33	3482.03	332.87	19.00	10.53	9.06
19661.07	19991.60	38156.42	3892.11	330.54	22.99	11.78	9.80
19991.60	20322.14	45824.16	4344.33	330.58	27.60	13.14	10.55
20322.14	20652.67 RB	37646.11	3796.78	332.04	22.68	11.49	9.92

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.33

INPUT
Description: 209.33

Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18805.6	1034.2	18877.6	1035.1	18915.6	1036.2	18919.2	1035	18988.3	1034.4
19048	1034.3	19090.2	1033.6	19122.27	1031.9	72 19129.6	1031.6	19136.7	1028.7
19151.1	1021.4	19214	1024.9	19263.6	1023.8	19325.2	1019.4	19353.4	1019.1
19384.8	1021.1	19397.4	1023.8	19407.5	1019.8	19479	1021.1	19544.8	1020.6
19627.3	1020.2	19659.1	1019.7	19722.2	1021.3	19783.5	1021.9	19849	1021.7
19908.4	1021.2	19998.6	1019.8	20012.1	1019.2	20028.7	1019.6	20037.7	1019.1
20132.6	1019	20227.8	1018.9	20304.8	1018.9	20368.5	1018.9	20451.7	1018.9
20508.2	1018.9	20535	1021.9	20556.6	1021.9	20587.2	1013.4	20625	1012
20631.7	1016.7	20643.4	1021.5	20674.2	1024.9	20676.3	1025.7	20686.3	1024.9
20715.2	1031	20732.6	1031	20771.2	1028.9	20789.7	1027.4	20819.3	1030.9
20832.1	1031.7	20895.5	1031.2	20926.6	1030.4	20939	1035.1	20961.5	1031.1
20974.4	1026.4	20989.2	1025.5	21018	1031.1	21089.8	1030.1	21150.5	1030.1
21211.3	1030	21276.9	1030	21335.5	1030.1	21401.9	1030.6	21492.3	1030.3
21555.6	1029.6	21661.6	1029.4	21712.9	1029.6	21772.4	1028.9	21843.8	1027.8
21878.8	1026.3	21894.4	1028.8	21895.8	1027.9	21909.1	1026.8	21928.4	1027.9
21993.8	1028.7	22054.9	1028.5	22110.2	1032.3	22203.3	1030.7	22272.4	1030.5
22282.8	1030.5	22295.7	1027.1	22353.6	1028.2	22386.4	1027.1	22399.1	1029.7
22428.3	1030.6	22439.8	1026.5	22461	1027.5	22530.6	1027.3	22561.2	1030.1
22572.6	1032.3	22585	1027.9	22616.3	1032.3	22642.1	1032.3	22728.7	1032.7
22817.3	1033.5	22913	1034.5						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18805.6	.037	19090.2	.037	19263.6	.032	20535	.037	20715.2	.037
21018	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19122.27	20715.2	485	487.54	495	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
20715.2	22913	1036.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1032.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.27	Wt. n-Val.	0.037	0.033	
E.G. Elev (ft)	1033.29	Reach Len. (ft)	485.00	487.54	495.00
Crit W.S. (ft)	1027.34	Flow Area (sq ft)	0.02	18335.38	
E.G. Slope (ft/ft)	0.001515	Area (sq ft)	0.02	18335.38	4671.95
Q Total (cfs)	166000.00	Flow (cfs)	0.00	166000.00	
Top Width (ft)	3444.06	Top Width (ft)	0.80	1592.93	1850.33
Vel Total (ft/s)	9.05	Avg. Vel. (ft/s)	0.12	9.05	
Max Chl Dpth (ft)	20.01	Hydr. Depth (ft)	0.02	11.51	
Conv. Total (cfs)	4264280.5	Conv. (cfs)	0.0	4264280.5	
Length Wtd. (ft)	487.65	Wetted Per. (ft)	0.80	1601.51	
Min Ch El (ft)	1012.00	Shear (lb/sq ft)	0.00	1.08	
Alpha	1.00	Stream Power (lb/ft s)	0.00	9.81	
Frctn Loss (ft)	0.66	Cum Volume (acre-ft)	7181.28	25687.54	1898.73
C & E Loss (ft)	0.01	Cum SA (acres)	2084.88	2685.21	799.19

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1032.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.21	Wt. n-Val.		0.033	
E.G. Elev (ft)	1033.53	Reach Len. (ft)	485.00	487.54	495.00
Crit W.S. (ft)	1027.34	Flow Area (sq ft)		18829.09	
E.G. Slope (ft/ft)	0.001390	Area (sq ft)		18829.09	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1592.93	Top Width (ft)		1592.93	
Vel Total (ft/s)	8.82	Avg. Vel. (ft/s)		8.82	
Max Chl Dpth (ft)	20.32	Hydr. Depth (ft)		11.82	
Conv. Total (cfs)	4452662.5	Conv. (cfs)		4452662.5	
Length Wtd. (ft)	487.73	Wetted Per. (ft)		1603.18	
Min Ch El (ft)	1012.00	Shear (lb/sq ft)		1.02	
Alpha	1.00	Stream Power (lb/ft s)		8.98	
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	1316.11	26573.65	194.70
C & E Loss (ft)	0.02	Cum SA (acres)	213.98	2690.19	45.67

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta	Right Sta	Flow	Area	W.P.	% Conv.	Hydr D.	Velocity

(ft)	(ft)	(cfs)	(sq ft)	(ft)		(ft)	(ft/s)
19101.16	19122.27	0.00	0.02	0.80	0.00	0.02	0.12
19122.27 LB	19440.86	24194.48	3048.93	322.30	14.57	9.57	7.94
19440.86	19759.44	33059.89	3624.21	318.62	19.92	11.38	9.12
19759.44	20078.03	32612.20	3594.74	318.63	19.65	11.28	9.07
20078.03	20396.61	41698.63	4165.69	318.59	25.12	13.08	10.01
20396.61	20715.20 RB	34434.78	3901.82	323.37	20.74	12.25	8.83

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19122.27 LB	19440.86	24378.27	3147.67	322.65	14.69	9.88	7.74
19440.86	19759.44	33115.61	3722.96	318.62	19.95	11.69	8.89
19759.44	20078.03	32679.01	3693.48	318.63	19.69	11.59	8.85
20078.03	20396.61	41529.18	4264.43	318.59	25.02	13.39	9.74
20396.61	20715.20 RB	34297.92	4000.56	324.69	20.66	12.56	8.57

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.24

INPUT
Description: 209.24
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18800.9	1031.5	18845.2	1031.7	18853.7	1034.8	18869.6	1030.2	18915.9	1030.2
18963.2	1027.6	19026.2	1018.3	19072.6	1022.7	19145.5	1025.3	19204.5	1026.7
19228	1027.1	19267.6	1026.7	19336.8	1018.5	19401	1018	19469	1019
19559.6	1018.9	19600.3	1019	19664.3	1019	19693.2	1019.3	19751.6	1019.2
19788.9	1019.1	19833.6	1020.4	19858.1	1020.3	19886.4	1017.7	19971	1017.4
19982.5	1021.6	19990.5	1025.8	20018.6	1018.6	20042.8	1017.5	20058.4	1018.8
20077.7	1018.9	20090.4	1015.2	20111.7	1010.3	20135.2	1012.6	20140.8	1010.2
20203.6	1008.9	20268.9	1009.4	20288	1010.6	20307.3	1010.4	20312	1013.8
20352.1	1014.9	20376.3	1025.5	20383.4	1023.4	20390.2	1026.6	21913	1027.4
21918.5	1026.2	21937.9	1023.9	21950.8	1023.6	21971.5	1026.2	21995	1024
22089.4	1024.8	22140	1026	22164.3	1024.1	22247.4	1026.7	22301.3	1026.2
22321.1	1026.6	22357.4	1030.1	22379.9	1031.6	22389.9	1027.4	22399.6	1028.2
22408.1	1030.8	22473.3	1030.9	22546.1	1031.4	22631	1032.1	22690	1032.8

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18800.9	.037	19228	.032	19267.6	.032	20312	.037	20390.2	.037
21913	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19267.6	20390.2	510	515	525	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18800.9	18853.7	1034.8	20850	22690	1034.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1031.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.23	Wt. n-Val.	0.037	0.032	0.037
E.G. Elev (ft)	1032.61	Reach Len. (ft)	510.00	515.00	525.00
Crit W.S. (ft)	1026.03	Flow Area (sq ft)	2348.93	15737.16	2142.94
E.G. Slope (ft/ft)	0.001227	Area (sq ft)	2348.93	15737.16	9420.65
Q Total (cfs)	166000.00	Flow (cfs)	10837.45	146752.06	8410.49
Top Width (ft)	3674.06	Top Width (ft)	402.08	1122.60	2149.38
Vel Total (ft/s)	8.21	Avg. Vel. (ft/s)	4.61	9.33	3.92
Max Chl Dpth (ft)	22.48	Hydr. Depth (ft)	5.84	14.02	4.66
Conv. Total (cfs)	4739328.5	Conv. (cfs)	309411.2	4189796.5	240121.0
Length Wtd. (ft)	515.21	Wetted Per. (ft)	403.28	1132.10	459.80
Min Ch El (ft)	1008.90	Shear (lb/sq ft)	0.45	1.06	0.36
Alpha	1.17	Stream Power (lb/ft s)	2.06	9.93	1.40
Frctn Loss (ft)	0.64	Cum Volume (acre-ft)	7168.21	25496.86	1818.66
C & E Loss (ft)	0.00	Cum SA (acres)	2082.64	2670.01	776.46

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1031.37	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.45	Wt. n-Val.	0.033	0.032	0.037
E.G. Elev (ft)	1032.83	Reach Len. (ft)	510.00	515.00	525.00
Crit W.S. (ft)	1025.96	Flow Area (sq ft)	246.43	15728.25	2139.29
E.G. Slope (ft/ft)	0.001390	Area (sq ft)	246.43	15728.25	2139.29
Q Total (cfs)	166000.00	Flow (cfs)	1068.06	156062.97	8868.98
Top Width (ft)	1637.72	Top Width (ft)	55.32	1122.60	459.80
Vel Total (ft/s)	9.16	Avg. Vel. (ft/s)	4.33	9.92	4.15
Max Chl Dpth (ft)	22.47	Hydr. Depth (ft)	4.45	14.01	4.65
Conv. Total (cfs)	4452373.0	Conv. (cfs)	28646.9	4185846.8	237879.6
Length Wtd. (ft)	515.51	Wetted Per. (ft)	59.87	1132.10	464.33
Min Ch El (ft)	1008.90	Shear (lb/sq ft)	0.36	1.21	0.40
Alpha	1.11	Stream Power (lb/ft s)	1.55	11.96	1.66
Frctn Loss (ft)	0.73	Cum Volume (acre-ft)	1314.74	26380.26	182.55
C & E Loss (ft)	0.00	Cum SA (acres)	213.67	2675.00	43.06

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18863.13	18894.24	40.60	31.52	28.89	0.02	1.10	1.29
18894.24	18925.35	55.59	39.21	31.13	0.03	1.26	1.42
18925.35	18956.47	180.52	79.53	31.16	0.11	2.56	2.27
18956.47	18987.58	577.64	160.28	31.39	0.35	5.15	3.60
18987.58	19018.69	1649.74	301.08	31.45	0.99	9.68	5.48
19018.69	19049.81	2401.33	376.42	31.30	1.45	12.10	6.38
19049.81	19080.92	1588.86	293.50	31.22	0.96	9.43	5.41
19080.92	19112.03	1166.91	243.61	31.13	0.70	7.83	4.79
19112.03	19143.15	904.52	209.08	31.13	0.54	6.72	4.33
19143.15	19174.26	701.56	179.50	31.12	0.42	5.77	3.91
19174.26	19205.37	558.25	156.50	31.12	0.34	5.03	3.57
19205.37	19236.49	470.88	137.93	31.12	0.28	4.43	3.41
19236.49	19267.60	541.07	140.76	31.11	0.33	4.52	3.84
19267.60 LB	19492.12	21212.52	2613.18	225.01	12.78	11.64	8.12
19492.12	19716.64	23484.18	2775.23	224.52	14.15	12.36	8.46
19716.64	19941.16	23487.47	2776.15	224.66	14.15	12.36	8.46
19941.16	20165.68	31484.98	3335.12	228.98	18.97	14.85	9.44
20165.68	20390.20 RB	47082.91	4237.49	228.92	28.36	18.87	11.11
20390.20	20543.52	2885.36	726.91	153.32	1.74	4.74	3.97
20543.52	20696.84	2804.10	714.55	153.32	1.69	4.66	3.92
20696.84	20850.16	2721.00	701.48	153.16	1.64	4.58	3.88

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19205.37	19236.49	403.49	105.91	28.75	0.24	4.38	3.81
19236.49	19267.60	664.56	140.52	31.11	0.40	4.52	4.73
19267.60 LB	19492.12	22553.34	2611.39	225.01	13.59	11.63	8.64
19492.12	19716.64	24970.24	2773.45	224.52	15.04	12.35	9.00
19716.64	19941.16	24973.75	2774.37	224.66	15.04	12.36	9.00
19941.16	20165.68	33483.36	3333.34	228.98	20.17	14.85	10.04
20165.68	20390.20 RB	50082.32	4235.70	228.92	30.17	18.87	11.82
20390.20	20543.52	3061.87	725.69	153.32	1.84	4.73	4.22
20543.52	20696.84	2975.50	713.34	153.32	1.79	4.65	4.17
20696.84	20850.16	2831.58	700.26	157.69	1.71	4.57	4.04

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.14

INPUT
Description: 209.14
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18530.6	1030.2	18647.3	1030.8	18717.7	1031	18799.9	1030.8	18812.7	1030.6
18900	1029.5	18932.6	1029.3	18944.6	1034.8	18957.8	1027.8	18961.9	1027.7
19022.8	1026.2	19085	1025.9	19166	1017.5	19223.3	1022.8	19272.5	1024.6
19338.9	1024.1	19386.4	1017.7	19425.6	1016.4	19503.5	1016.6	19527.4	1016.6
19538.6	1021.6	19565.5	1014.5	19580.5	1016.2	19601.3	1015.8	19617.1	1017.3
19620.4	1016	19621.3	1017	19649.1	1016.3	19715.5	1017.1	19791	1016.6

19861	1016.8	19939.6	1017	20018.5	1017.5	20098.7	1018.4	20136.8	1016.4
20159	1021.8	20163.8	1021.6	20169.1	1022.8	20184	1018.8	20211.5	1019.1
20235.1	1012.1	20271.8	1010.6	20284.5	1010.9	20305.9	1016.4	20368.5	1013.7
20394.9	1013.1	20413.2	1023.8	20418.3	1025.4	20439.5	1025	20471.6	1026.6
21987.9	1026.6	21999.2	1033.7	22018.9	1024.5	22092.4	1030.2	22094.4	1030.3
22100.9	1026.3	22162.2	1027.1	22231.7	1027.3	22248.2	1030.6	22261	1029.5
22293.3	1030.2								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18530.6	.037	19338.9	.032	20418.3	.037	21999.2	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19338.9	20418.3	500	504.56	485	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18530.6	18944.6	1034	21100	22293.3	1034

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1030.73	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.23	Wt. n-Val.	0.037	0.032	0.037
E.G. Elev (ft)	1031.97	Reach Len. (ft)	500.00	504.56	485.00
Crit W.S. (ft)	1025.72	Flow Area (sq ft)	2650.29	14983.13	2873.44
E.G. Slope (ft/ft)	0.001259	Area (sq ft)	2784.02	14983.13	7424.27
Q Total (cfs)	166000.00	Flow (cfs)	13592.06	141725.30	10682.64
Top Width (ft)	3565.39	Top Width (ft)	622.06	1079.40	1863.93
Vel Total (ft/s)	8.09	Avg. Vel. (ft/s)	5.13	9.46	3.72
Max Chl Dpth (ft)	20.13	Hydr. Depth (ft)	6.85	13.88	4.22
Conv. Total (cfs)	4678927.0	Conv. (cfs)	383110.0	3994712.8	301104.3
Length Wtd. (ft)	502.50	Wetted Per. (ft)	388.10	1089.05	681.74
Min Ch El (ft)	1010.60	Shear (lb/sq ft)	0.54	1.08	0.33
Alpha	1.21	Stream Power (lb/ft s)	2.75	10.23	1.23
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	7138.16	25315.26	1717.15
C & E Loss (ft)	0.11	Cum SA (acres)	2076.65	2656.99	752.28

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1030.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.45	Wt. n-Val.	0.037	0.032	0.037
E.G. Elev (ft)	1032.10	Reach Len. (ft)	500.00	504.56	485.00
Crit W.S. (ft)	1025.98	Flow Area (sq ft)	965.67	14888.66	2813.78
E.G. Slope (ft/ft)	0.001438	Area (sq ft)	965.67	14888.66	2813.78
Q Total (cfs)	166000.00	Flow (cfs)	5116.70	149900.53	10982.76
Top Width (ft)	1899.79	Top Width (ft)	138.69	1079.40	681.70
Vel Total (ft/s)	8.89	Avg. Vel. (ft/s)	5.30	10.07	3.90
Max Chl Dpth (ft)	20.05	Hydr. Depth (ft)	6.96	13.79	4.13
Conv. Total (cfs)	4377358.0	Conv. (cfs)	134925.6	3952821.0	289611.3
Length Wtd. (ft)	502.65	Wetted Per. (ft)	148.80	1089.05	685.79
Min Ch El (ft)	1010.60	Shear (lb/sq ft)	0.58	1.23	0.37
Alpha	1.18	Stream Power (lb/ft s)	3.09	12.36	1.44
Frctn Loss (ft)	0.55	Cum Volume (acre-ft)	1307.65	26199.27	152.70
C & E Loss (ft)	0.15	Cum SA (acres)	212.54	2661.98	36.18

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18907.81	18961.69	40.52	19.72	10.16	0.02	2.09	2.05
18961.69	19015.58	627.31	198.97	53.90	0.38	3.69	3.15
19015.58	19069.47	911.33	248.93	53.89	0.55	4.62	3.66
19069.47	19123.35	1499.94	336.17	54.09	0.90	6.24	4.46
19123.35	19177.24	4078.54	612.98	54.16	2.46	11.38	6.65
19177.24	19231.13	3148.51	524.53	54.09	1.90	9.73	6.00
19231.13	19285.01	1704.04	362.44	53.91	1.03	6.73	4.70
19285.01	19338.90	1581.86	346.55	53.89	0.95	6.43	4.56
19338.90 LB	19554.78	24634.15	2762.79	217.95	14.84	12.80	8.92
19554.78	19770.66	29360.99	3064.97	217.12	17.69	14.20	9.58
19770.66	19986.54	28337.35	2993.53	215.88	17.07	13.87	9.47
19986.54	20202.42	23354.51	2672.32	217.25	14.07	12.38	8.74

20202.42	20418.30 RB	36038.30	3489.53	220.84	21.71	16.16	10.33
20418.30	20543.30	2244.41	572.10	125.04	1.35	4.58	3.92
20543.30	20668.30	1894.70	516.74	125.00	1.14	4.13	3.67
20668.30	20793.30	1894.70	516.74	125.00	1.14	4.13	3.67
20793.30	20918.30	1894.70	516.74	125.00	1.14	4.13	3.67
20918.30	21043.30	1894.70	516.74	125.00	1.14	4.13	3.67
21043.30	21168.30	859.42	234.39	56.70	0.52	4.13	3.67

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19177.24	19231.13	1409.87	266.11	41.00	0.85	8.61	5.30
19231.13	19285.01	1923.27	357.72	53.91	1.16	6.64	5.38
19285.01	19338.90	1783.57	341.83	53.89	1.07	6.34	5.22
19338.90 LB	19554.78	26030.27	2743.89	217.95	15.68	12.71	9.49
19554.78	19770.66	31060.11	3046.07	217.12	18.71	14.11	10.20
19770.66	19986.54	29969.84	2974.63	215.88	18.05	13.78	10.08
19986.54	20202.42	24668.51	2653.42	217.25	14.86	12.29	9.30
20202.42	20418.30 RB	38171.80	3470.64	220.84	23.00	16.08	11.00
20418.30	20543.30	2322.21	561.16	125.04	1.40	4.49	4.14
20543.30	20668.30	1953.56	505.80	125.00	1.18	4.05	3.86
20668.30	20793.30	1953.56	505.80	125.00	1.18	4.05	3.86
20793.30	20918.30	1953.56	505.80	125.00	1.18	4.05	3.86
20918.30	21043.30	1953.56	505.80	125.00	1.18	4.05	3.86
21043.30	21168.30	846.32	229.43	60.75	0.51	4.05	3.69

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.04

INPUT
Description: 209.04
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17502.1	1032.3	17560.1	1032.9	17609.7	1031.6	17636.5	1033.4	17744.6	1031.9
17770	1031	17784.7	1027.9	17886.2	1029	17976	1029.5	18087	1029.7
18189.2	1028.4	18278	1028.5	18371.6	1028.9	18408.2	1029.7	18494.9	1028.9
18579.6	1028.4	18720.8	1029	18831.6	1028.7	18921.3	1028.4	19009.8	1028.1
19029.7	1029.9	19039.2	1026.5	19129.8	1025.1	19156.1	1023.5	19206.7	1017.7
19260.8	1016.5	19291.9	1022.9	19315.3	1025.6	19358.3	1024.5	19381.5	1014.5
19410.3	1014.2	19515.9	1015.1	19568.7	1015.3	19609.7	1014.2	19715.7	1014.2
19776	1013.5	19864.4	1016	19951.2	1016.3	20000.4	1015.1	20015.4	1013.4
20144.8	1012.2	20171.9	1012.3	20307.8	1014.7	20330.1	1015.1	20379.3	1022.7
20387.8	1020.9	20406	1020.1	20427.2	1023	20461.4	1023.2	20591	1024.2
22074.8	1024	22077.6	1027.6	22104.8	1036.3	22120.5	1030.7	22123.6	1027.7
22179.3	1027.5	22209.6	1031.1	22217	1033.3	22254	1026.2	22313.5	1029.2
22366.7	1029.7	22453.1	1030.2	22468	1030.4				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17502.1	.037	19315.3	.037	19410.3	.032	20461.4	.037	22254	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19315.3	20461.4	495	493.26	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17502.1	19029.7	1035	21200	22468	1035

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1030.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.86	Wt. n-Val.	0.037	0.032	0.037
E.G. Elev (ft)	1031.36	Reach Len. (ft)	495.00	493.26	500.00
Crit W.S. (ft)	1023.82	Flow Area (sq ft)	2316.94	17128.95	4738.30
E.G. Slope (ft/ft)	0.000805	Area (sq ft)	4389.45	17128.95	10916.17
Q Total (cfs)	166000.00	Flow (cfs)	10615.30	136742.50	18642.20
Top Width (ft)	4634.40	Top Width (ft)	1542.90	1146.10	1945.40
Vel Total (ft/s)	6.86	Avg. Vel. (ft/s)	4.58	7.98	3.93
Max Chl Dpth (ft)	18.29	Hydr. Depth (ft)	8.11	14.95	6.42
Conv. Total (cfs)	5850159.0	Conv. (cfs)	374103.5	4819068.5	656986.9

Length Wtd. (ft)	493.90	Wetted Per. (ft)	287.40	1149.37	738.60
Min Ch El (ft)	1012.20	Shear (lb/sq ft)	0.41	0.75	0.32
Alpha	1.18	Stream Power (lb/ft s)	1.86	5.98	1.27
Frctn Loss (ft)	0.78	Cum Volume (acre-ft)	7096.99	25129.28	1615.05
C & E Loss (ft)	0.25	Cum SA (acres)	2064.22	2644.10	731.07

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1030.44	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.95	Wt. n-Val.	0.037	0.032	0.037
E.G. Elev (ft)	1031.39	Reach Len. (ft)	495.00	493.26	500.00
Crit W.S. (ft)	1024.28	Flow Area (sq ft)	1029.15	17067.39	4698.63
E.G. Slope (ft/ft)	0.000873	Area (sq ft)	1029.15	17067.39	4698.63
Q Total (cfs)	166000.00	Flow (cfs)	5449.30	141520.64	19030.06
Top Width (ft)	1980.00	Top Width (ft)	95.30	1146.10	738.60
Vel Total (ft/s)	7.28	Avg. Vel. (ft/s)	5.29	8.29	4.05
Max Chl Dpth (ft)	18.24	Hydr. Depth (ft)	10.80	14.89	6.36
Conv. Total (cfs)	5619159.5	Conv. (cfs)	184460.7	4790524.5	644174.4
Length Wtd. (ft)	493.88	Wetted Per. (ft)	109.15	1149.37	744.93
Min Ch El (ft)	1012.20	Shear (lb/sq ft)	0.51	0.81	0.34
Alpha	1.16	Stream Power (lb/ft s)	2.72	6.71	1.39
Frctn Loss (ft)	0.82	Cum Volume (acre-ft)	1296.20	26014.20	110.88
C & E Loss (ft)	0.24	Cum SA (acres)	211.19	2649.09	28.27

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18952.66	19073.54	435.62	168.05	44.44	0.26	3.83	2.59
19073.54	19194.42	2969.16	794.04	121.19	1.79	6.57	3.74
19194.42	19315.30	7210.50	1354.85	121.78	4.34	11.21	5.32
19315.30 LB	19544.52	22299.19	3066.19	231.30	13.43	13.38	7.27
19544.52	19773.74	30996.22	3706.32	229.24	18.67	16.17	8.36
19773.74	20002.96	27406.65	3442.78	229.29	16.51	15.02	7.96
20002.96	20232.18	35961.30	4052.44	229.31	21.66	17.68	8.87
20232.18	20461.40 RB	20079.09	2861.21	230.22	12.10	12.48	7.02
20461.40	20595.17	3699.14	906.73	133.78	2.23	6.78	4.08
20595.17	20728.95	3277.50	843.21	133.77	1.97	6.30	3.89
20728.95	20862.72	3293.12	845.62	133.77	1.98	6.32	3.89
20862.72	20996.49	3308.82	848.04	133.77	1.99	6.34	3.90
20996.49	21130.27	3324.50	850.45	133.77	2.00	6.36	3.91
21130.27	21264.04	1739.19	444.27	69.73	1.05	6.37	3.91

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19194.42	19315.30	5449.30	1029.15	109.15	3.28	10.80	5.29
19315.30 LB	19544.52	23066.20	3053.88	231.30	13.90	13.32	7.55
19544.52	19773.74	32090.33	3694.01	229.24	19.33	16.12	8.69
19773.74	20002.96	28361.98	3430.47	229.29	17.09	14.97	8.27
20002.96	20232.18	37248.33	4040.13	229.31	22.44	17.63	9.22
20232.18	20461.40 RB	20753.75	2848.90	230.22	12.50	12.43	7.28
20461.40	20595.17	3798.84	899.54	133.78	2.29	6.72	4.22
20595.17	20728.95	3362.46	836.03	133.77	2.03	6.25	4.02
20728.95	20862.72	3378.63	838.44	133.77	2.04	6.27	4.03
20862.72	20996.49	3394.87	840.85	133.77	2.05	6.29	4.04
20996.49	21130.27	3411.10	843.26	133.77	2.05	6.30	4.05
21130.27	21264.04	1684.23	440.52	76.05	1.01	6.32	3.82

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 208.95

INPUT
Description: 208.95
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17388.1	1030.8	17406	1030.7	17453.4	1039.3	17470.9	1039.4	17498	1031.1
17600.7	1030.9	17686	1030.7	17760.7	1027.3	17869.1	1027.3	17947.5	1027.5
18034.7	1027.8	18122.9	1027.9	18229.8	1028	18362.5	1027.6	18483.7	1027.2
18571	1026.4	18659.7	1025.6	18802.8	1026.1	18871.2	1029.7	18908.6	1028.7
18928.4	1025.8	19016.8	1024.1	19035.5	1027.7	19114.2	1024.9	19137.7	1030.4
19142.2	1025.8	19205.2	1023.5	19276.9	1018.7	19293.7	1013.8	19408.9	1014.5
19496.9	1014.1	19543	1014.4	19646.8	1014.7	19794.8	1014.5	19910.6	1015.8
19987.9	1016.6	20028.6	1018.7	20113.7	1020.6	20123.6	1024.6	21531.3	1025.2
22092	1024.6	22101.4	1027.9	22119.6	1027.7	22135	1034.4	22141.9	1036.4
22162.1	1026.4	22186	1026.7						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17388.1	.037	19137.7	.037	19276.9	.032	20123.6	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19137.7	20123.6	505	506.69	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17388.1	19137.7	1038	21200	22186	1038

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1026.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.35	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1030.33	Reach Len. (ft)	505.00	506.69	505.00
Crit W.S. (ft)	1026.98	Flow Area (sq ft)		10301.74	2314.02
E.G. Slope (ft/ft)	0.004363	Area (sq ft)	549.71	10301.74	4111.30
Q Total (cfs)	166000.00	Flow (cfs)		155774.88	10225.12
Top Width (ft)	3473.24	Top Width (ft)	490.43	982.55	2000.25
Vel Total (ft/s)	13.16	Avg. Vel. (ft/s)		15.12	4.42
Max Chl Dpth (ft)	13.18	Hydr. Depth (ft)		10.48	2.15
Conv. Total (cfs)	2513025.8	Conv. (cfs)		2358230.5	154795.2
Length Wtd. (ft)		Wetted Per. (ft)		984.82	1076.40
Min Ch El (ft)	1013.80	Shear (lb/sq ft)		2.85	0.59
Alpha	1.25	Stream Power (lb/ft s)		43.09	2.59
Frctn Loss (ft)		Cum Volume (acre-ft)	7068.93	24973.97	1528.80
C & E Loss (ft)		Cum SA (acres)	2052.67	2632.05	708.43

Warning - The energy equation could not be balanced within the specified number of iterations. The

program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1026.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.35	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1030.33	Reach Len. (ft)	505.00	506.69	505.00
Crit W.S. (ft)	1026.98	Flow Area (sq ft)		10299.82	2311.92
E.G. Slope (ft/ft)	0.004367	Area (sq ft)		10299.82	2311.92
Q Total (cfs)	166000.00	Flow (cfs)		155797.94	10202.05
Top Width (ft)	2058.95	Top Width (ft)		982.55	1076.40
Vel Total (ft/s)	13.16	Avg. Vel. (ft/s)		15.13	4.41
Max Chl Dpth (ft)	13.18	Hydr. Depth (ft)		10.48	2.15
Conv. Total (cfs)	2511912.0	Conv. (cfs)		2357534.5	154377.4
Length Wtd. (ft)		Wetted Per. (ft)		984.82	1078.32
Min Ch El (ft)	1013.80	Shear (lb/sq ft)		2.85	0.58
Alpha	1.25	Stream Power (lb/ft s)		43.13	2.58
Frctn Loss (ft)		Cum Volume (acre-ft)	1290.35	25859.25	70.64
C & E Loss (ft)		Cum SA (acres)	210.65	2637.04	17.86

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19137.70 LB	19334.88	15430.56	1286.75	195.23	9.30	6.64	11.99
19334.88	19532.06	41385.14	2504.92	197.18	24.93	12.70	16.52
19532.06	19729.24	39749.77	2445.05	197.18	23.95	12.40	16.26
19729.24	19926.42	37487.23	2360.60	197.19	22.58	11.97	15.88
19926.42	20123.60 RB	21722.08	1704.42	198.04	13.09	8.64	12.74
20123.60	20261.09	1511.78	323.09	137.49	0.91	2.35	4.68
20261.09	20398.59	1449.46	315.03	137.49	0.87	2.29	4.60
20398.59	20536.08	1388.23	306.98	137.49	0.84	2.23	4.52
20536.08	20673.57	1328.02	298.92	137.49	0.80	2.17	4.44
20673.57	20811.07	1268.93	290.87	137.49	0.76	2.12	4.36
20811.07	20948.56	1210.89	282.81	137.49	0.73	2.06	4.28
20948.56	21086.05	1153.93	274.75	137.49	0.70	2.00	4.20
21086.05	21223.55	913.97	221.59	113.95	0.55	1.94	4.12

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19137.70 LB	19334.88	15431.35	1286.37	195.23	9.30	6.64	12.00
19334.88	19532.06	41392.74	2504.53	197.18	24.94	12.70	16.53
19532.06	19729.24	39756.81	2444.66	197.18	23.95	12.40	16.26

19729.24	19926.42	37493.52	2360.21	197.19	22.59	11.97	15.89
19926.42	20123.60 RB	21723.45	1704.04	198.04	13.09	8.64	12.75
20123.60	20261.09	1510.06	322.82	137.49	0.91	2.35	4.68
20261.09	20398.59	1447.75	314.76	137.49	0.87	2.29	4.60
20398.59	20536.08	1386.54	306.71	137.49	0.84	2.23	4.52
20536.08	20673.57	1326.36	298.65	137.49	0.80	2.17	4.44
20673.57	20811.07	1267.28	290.60	137.49	0.76	2.11	4.36
20811.07	20948.56	1209.27	282.54	137.49	0.73	2.05	4.28
20948.56	21086.05	1152.33	274.48	137.49	0.69	2.00	4.20
21086.05	21223.55	902.55	221.37	115.87	0.54	1.94	4.08

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 208.85

INPUT
Description: 208.85
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17667	1028.3	17683.4	1029.5	17702	1037.2	17712.6	1036.7	17732.2	1028.9
17793.4	1029.3	17794.3	1028.1	17811.4	1029.7	17884.4	1029.8	17954.5	1029.5
18021.3	1029	18086.8	1028.4	18155.5	1027.6	18253.7	1026.5	18321.5	1026.3
18395.4	1025.8	18469.1	1025.7	18517	1025.4	18547.8	1030.6	18614.6	1029.1
18653.1	1029.8	18743.2	1028.7	18829.7	1028.9	18902.2	1028.7	18950.5	1028.5
18968.7	1029.4	19052.5	1028	19118	1027.5	19183.9	1025.1	19199.7	1025.2
19210.3	1021.6	19228.4	1014.1	19243.7	1013.4	19285.7	1013.5	19404.4	1013.7
19442.3	1013.8	19550.1	1014.4	19628.8	1015.9	19695.2	1016.5	19784.8	1017.1
19851.9	1017.7	19926.2	1019	20020.7	1019.9	20118.1	1019.8	20148.7	1019.8
20176.3	1018.8	20233.8	1020.2	20291.9	1019.7	20357.5	1017.6	20426	1016.4
20472.5	1017.1	20530.5	1016.5	20568.5	1021.6	20573.6	1019.4	20598	1014.9
20615.5	1016.2	20685.2	1014.7	20701.9	1014.6	20716.4	1019	20745.8	1021.2
21590.5	1021.2	21595.5	1023.1	21612.9	1023.6	21620.3	1024.7	21935.6	1028.7
21943	1025.9	22047.6	1025.8	22056.8	1030.6	22086	1042.9		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17667	.037	19199.7	.032	20701.9	.037	20745.8	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19199.7	20745.8	510	519.42	530	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17667	18968.7	1035	21150	22086	1035

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1025.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.89	Wt. n-Val.	0.037	0.032	0.037
E.G. Elev (ft)	1027.72	Reach Len. (ft)	510.00	519.42	530.00
Crit W.S. (ft)	1024.09	Flow Area (sq ft)	18.11	13625.11	1871.96
E.G. Slope (ft/ft)	0.003277	Area (sq ft)	38.20	13625.11	4037.03
Q Total (cfs)	166000.00	Flow (cfs)	26.38	154015.53	11958.10
Top Width (ft)	2707.19	Top Width (ft)	164.65	1546.10	996.43
Vel Total (ft/s)	10.70	Avg. Vel. (ft/s)	1.46	11.30	6.39
Max Chl Dpth (ft)	12.43	Hydr. Depth (ft)	0.50	8.81	4.63
Conv. Total (cfs)	2899597.0	Conv. (cfs)	460.8	2690258.8	208877.5
Length Wtd. (ft)	519.80	Wetted Per. (ft)	35.89	1550.34	404.20
Min Ch El (ft)	1013.40	Shear (lb/sq ft)	0.10	1.80	0.95
Alpha	1.06	Stream Power (lb/ft s)	0.15	20.33	6.05
Frctn Loss (ft)	1.31	Cum Volume (acre-ft)	7065.52	24834.82	1481.57
C & E Loss (ft)	0.11	Cum SA (acres)	2048.87	2617.34	691.06

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1025.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.89	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1027.72	Reach Len. (ft)	510.00	519.42	530.00
Crit W.S. (ft)	1024.09	Flow Area (sq ft)		13636.43	1874.92
E.G. Slope (ft/ft)	0.003274	Area (sq ft)		13636.43	1874.92
Q Total (cfs)	166000.00	Flow (cfs)		154107.27	11892.72
Top Width (ft)	1950.30	Top Width (ft)		1546.10	404.20
Vel Total (ft/s)	10.70	Avg. Vel. (ft/s)		11.30	6.34
Max Chl Dpth (ft)	12.44	Hydr. Depth (ft)		8.82	4.64
Conv. Total (cfs)	2901071.3	Conv. (cfs)		2693230.0	207841.2
Length Wtd. (ft)	519.80	Wetted Per. (ft)		1550.98	408.84
Min Ch El (ft)	1013.40	Shear (lb/sq ft)		1.80	0.94
Alpha	1.06	Stream Power (lb/ft s)		20.31	5.95
Frctn Loss (ft)	1.32	Cum Volume (acre-ft)	1290.35	25720.04	46.37
C & E Loss (ft)	0.11	Cum SA (acres)	210.65	2622.33	9.27

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19097.52	19199.70	26.38	18.11	35.89	0.02	0.50	1.46
19199.70 LB	19508.92	47283.32	3574.00	311.33	28.48	11.56	13.23
19508.92	19818.14	36485.24	3050.94	309.24	21.98	9.87	11.96
19818.14	20127.36	19220.57	2076.92	309.24	11.58	6.72	9.25
20127.36	20436.58	20988.49	2189.71	309.30	12.64	7.08	9.59
20436.58	20745.80 RB	30037.90	2733.55	311.23	18.10	8.84	10.99
20745.80	20835.15	2643.26	413.79	89.35	1.59	4.63	6.39
20835.15	20924.49	2643.32	413.79	89.35	1.59	4.63	6.39
20924.49	21013.84	2643.26	413.79	89.35	1.59	4.63	6.39
21013.84	21103.19	2643.32	413.79	89.35	1.59	4.63	6.39
21103.19	21192.53	1384.93	216.80	46.81	0.83	4.63	6.39

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19199.70 LB	19508.92	47253.03	3576.26	311.96	28.47	11.57	13.21
19508.92	19818.14	36518.32	3053.20	309.24	22.00	9.87	11.96
19818.14	20127.36	19249.15	2079.18	309.24	11.60	6.72	9.26
20127.36	20436.58	21017.74	2191.97	309.30	12.66	7.09	9.59
20436.58	20745.80 RB	30069.04	2735.81	311.23	18.11	8.85	10.99
20745.80	20835.15	2647.53	414.44	89.35	1.59	4.64	6.39
20835.15	20924.49	2647.59	414.45	89.35	1.59	4.64	6.39
20924.49	21013.84	2647.53	414.44	89.35	1.59	4.64	6.39
21013.84	21103.19	2647.59	414.45	89.35	1.59	4.64	6.39
21103.19	21192.53	1302.49	217.14	51.45	0.78	4.64	6.00

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 208.75

INPUT
Description: 208.75
Station Elevation Data num= 81

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17694.2	1021.1	17763.9	1027.7	17785	1036	17797.3	1035.5	17818.9	1026.8
17862.3	1027.5	17876.4	1028.3	17879.6	1027	17887.5	1027.8	17976.5	1027.4
18069.6	1028.1	18129.1	1026.6	18227.5	1026	18358.7	1025	18492.4	1025.2
18601.8	1024.8	18699.9	1024.5	18819.7	1024.6	18852.6	1024.6	18949.1	1024.4
19044.9	1024	19145.7	1024.3	19192.9	1024.4	19220.5	1014.1	19251.3	1012.8
19259.2	1013.5	19469.4	1013.5	19559.7	1013.6	19581	1014.6	19605.6	1018.3
19624.1	1017.7	19644.9	1018.4	19739.6	1018.2	19808.7	1018.7	19912.6	1019.8

20031.3	1019	20124.1	1018.4	20199.4	1018.2	20239.9	1014.1	20370.8	1011.9
20423	1008.1	20441.8	1007.4	20459.1	1008.5	20487.2	1008.9	20517.6	1007.6
20545.9	1007.6	20574.1	1007.6	20616.3	1007.6	20685.5	1007.6	20704.1	1009.9
20720.5	1009	20737	1005.2	20763.6	1011.5	20774.6	1011	20799.2	1019.7
20826.5	1020	21626	1022.7	21706	1024.3	21714.3	1025.4	21770	1027.2
21800.9	1044.1	21813.2	1039.1	21842.4	1033.1	21857.2	1027.1	21893.8	1028.4
22015.3	1028.8	22117.6	1027.6	22189.1	1026	22214.4	1028.5	22251.7	1027.8
22282.9	1029.1	22304.2	1030.9	22314.1	1036.1	22336.1	1034.2	22354	1031.3
22395.9	1029.6	22417.9	1030.2	22426.2	1025.2	22438.2	1024.8	22447	1027
22490.7	1026.9								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17694.2	.037	19192.9	.032	20799.2	.037	22314.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19192.9	20799.2	440	443.83	450	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17694.2	19192.9	1038	20799.2	22490.7	1038

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1024.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.53	Wt. n-Val.		0.032	
E.G. Elev (ft)	1026.30	Reach Len. (ft)	440.00	443.83	450.00
Crit W.S. (ft)	1021.22	Flow Area (sq ft)		16750.51	
E.G. Slope (ft/ft)	0.002008	Area (sq ft)	278.51	16750.51	2971.83
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	3136.98	Top Width (ft)	620.33	1606.30	910.35
Vel Total (ft/s)	9.91	Avg. Vel. (ft/s)		9.91	
Max Chl Dpth (ft)	19.57	Hydr. Depth (ft)		10.43	
Conv. Total (cfs)	3704065.8	Conv. (cfs)		3704065.8	
Length Wtd. (ft)	443.83	Wetted Per. (ft)		1611.83	
Min Ch El (ft)	1005.20	Shear (lb/sq ft)		1.30	
Alpha	1.00	Stream Power (lb/ft s)		12.91	
Frctn Loss (ft)	0.90	Cum Volume (acre-ft)	7063.66	24653.71	1438.93
C & E Loss (ft)	0.03	Cum SA (acres)	2044.27	2598.55	679.46

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1024.78	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.52	Wt. n-Val.		0.032	
E.G. Elev (ft)	1026.30	Reach Len. (ft)	440.00	443.83	450.00
Crit W.S. (ft)	1021.22	Flow Area (sq ft)		16762.08	
E.G. Slope (ft/ft)	0.002013	Area (sq ft)		16762.08	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1606.30	Top Width (ft)		1606.30	
Vel Total (ft/s)	9.90	Avg. Vel. (ft/s)		9.90	
Max Chl Dpth (ft)	19.58	Hydr. Depth (ft)		10.44	
Conv. Total (cfs)	3699984.5	Conv. (cfs)		3699984.5	
Length Wtd. (ft)	443.83	Wetted Per. (ft)		1617.29	
Min Ch El (ft)	1005.20	Shear (lb/sq ft)		1.30	
Alpha	1.00	Stream Power (lb/ft s)		12.90	
Frctn Loss (ft)	0.90	Cum Volume (acre-ft)	1290.35	25538.80	34.97
C & E Loss (ft)	0.03	Cum SA (acres)	210.65	2603.54	6.81

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19192.90 LB	19514.16	32876.13	3465.38	323.18	19.80	10.79	9.49
19514.16	19835.42	18067.27	2414.90	321.58	10.88	7.52	7.48
19835.42	20156.68	11336.29	1825.05	321.27	6.83	5.68	6.21
20156.68	20477.94	39374.81	3854.28	321.67	23.72	12.00	10.22
20477.94	20799.20 RB	64345.49	5190.90	324.13	38.76	16.16	12.40

Warning - Divided flow computed for this cross-section.

Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19192.90 LB	19514.16	32989.01	3467.69	323.56	19.87	10.79	9.51
19514.16	19835.42	18152.22	2417.22	321.58	10.94	7.52	7.51
19835.42	20156.68	11395.46	1827.37	321.27	6.86	5.69	6.24
20156.68	20477.94	39536.37	3856.59	321.67	23.82	12.00	10.25
20477.94	20799.20 RB	63926.94	5193.21	329.21	38.51	16.17	12.31

CROSS SECTION RIVER: 1
REACH: 1 RS: 208.67

INPUT
Description: 208.67

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17786.1	1022.3	17843.6	1026.5	17855.3	1034.5	17872.2	1033.9	17892.4	1025.1
17923.9	1026.9	17935.3	1026.9	17946.1	1029.5	17954.2	1026.8	17960.6	1028.1
18085.3	1025.9	18175.8	1025.5	18284.1	1025.1	18393	1024.3	18536.6	1023.2
18662.6	1023.3	18777.1	1023.6	18913.6	1023.9	19013.8	1024.8	19102.8	1025.9
19116.6	1024.6	19118.22	1023.942	19145.2	1013	19150.7	1014.2	19263.7	1013.6
19374.5	1013.1	19435.1	1013.5	19572.8	1013.6	19645.9	1014.5	19689.8	1017.6
19797.8	1018.5	19923.6	1018.8	20022.9	1016	20112.6	1014.2	20119.4	1013.9
20139.2	1008.8	20180.9	1009.7	20203.7	1007.6	20293	1010.5	20307.2	1007.8
20372	1009.4	20399.2	1008.8	20452.2	1010.5	20523.1	1009.4	20536.1	1014.1
20548.6	1010.7	20639.2	1014.5	20652.7	1013.5	20665.3	1010.4	20713.7	1010.2
20725.6	1013.6	20738.6	1020.7	20826	1023.1	20841.3	1024.7	20857.6	1022.8
20866.3	1014.9	20871.8	1016.1	20881.2	1020.9	20902	1018.8	20908.11	1023.942
20912.1	1027.3	20915.2	1025.5	21808.2	1025.7	21897.3	1025.4	21995.2	1025.3
22131.2	1026.1	22205.3	1026.2	22276.6	1027.7	22393.1	1027.2	22428	1027.2
22464.1	1025.6	22496.5	1027	22518.1	1024.1	22529.5	1026	22649	1025.9
22747.7	1025.2	22864.8	1024.7	22963.7	1025.8	23106.8	1026.4	23231	1026.5
23328.6	1027.2	23422.1	1026.4	23522.3	1028.3	23562.9	1027.2	23612.4	1030.4
23634.1	1030.7	23767.5	1029.2	23789.9	1028.4				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17786.1	.037	19102.8	.037	19116.6	.032	20826	.037	20912.1	.037
22428	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19118.22	20908.11	495	511.45	475	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17786.1	19102.8	1033	21150	23789.9	1033

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1023.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.43	Wt. n-Val.		0.032	
E.G. Elev (ft)	1025.37	Reach Len. (ft)	495.00	511.45	475.00
Crit W.S. (ft)	1020.38	Flow Area (sq ft)		17307.31	
E.G. Slope (ft/ft)	0.002030	Area (sq ft)	224.60	17307.31	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2277.36	Top Width (ft)	501.21	1776.15	
Vel Total (ft/s)	9.59	Avg. Vel. (ft/s)		9.59	
Max Chl Dpth (ft)	16.34	Hydr. Depth (ft)		9.74	
Conv. Total (cfs)	3684594.8	Conv. (cfs)		3684594.8	
Length Wtd. (ft)	511.45	Wetted Per. (ft)		1790.24	
Min Ch El (ft)	1007.60	Shear (lb/sq ft)		1.23	
Alpha	1.00	Stream Power (lb/ft s)		11.75	
Frctn Loss (ft)	1.32	Cum Volume (acre-ft)	7061.12	24480.21	1423.58
C & E Loss (ft)	0.07	Cum SA (acres)	2038.61	2581.32	674.76

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need

for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1023.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.43	Wt. n-Val.		0.032	
E.G. Elev (ft)	1025.38	Reach Len. (ft)	495.00	511.45	475.00
Crit W.S. (ft)	1020.38	Flow Area (sq ft)		17320.43	
E.G. Slope (ft/ft)	0.002025	Area (sq ft)		17320.43	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1776.29	Top Width (ft)		1776.29	
Vel Total (ft/s)	9.58	Avg. Vel. (ft/s)		9.58	
Max Chl Dpth (ft)	16.35	Hydr. Depth (ft)		9.75	
Conv. Total (cfs)	3689144.5	Conv. (cfs)		3689144.5	
Length Wtd. (ft)	511.45	Wetted Per. (ft)		1790.39	
Min Ch El (ft)	1007.60	Shear (lb/sq ft)		1.22	
Alpha	1.00	Stream Power (lb/ft s)		11.72	
Frctn Loss (ft)	1.32	Cum Volume (acre-ft)	1290.35	25365.16	34.97
C & E Loss (ft)	0.07	Cum SA (acres)	210.65	2586.30	6.81

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19118.22 LB	19476.20	33651.89	3586.55	360.25	20.27	10.02	9.38
19476.20	19834.18	23778.77	2904.99	358.10	14.32	8.12	8.19
19834.18	20192.15	25166.41	3007.73	358.75	15.16	8.40	8.37
20192.15	20550.13	62429.20	5193.08	359.67	37.61	14.51	12.02
20550.13	20908.11 RB	20973.71	2614.96	353.48	12.63	7.60	8.02

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19118.22 LB	19476.20	33652.63	3589.19	360.25	20.27	10.03	9.38
19476.20	19834.18	23786.50	2907.63	358.10	14.33	8.12	8.18
19834.18	20192.15	25173.29	3010.38	358.75	15.16	8.41	8.36
20192.15	20550.13	62407.79	5195.72	359.67	37.60	14.51	12.01
20550.13	20908.11 RB	20979.79	2617.50	353.63	12.64	7.60	8.02

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 208.57

INPUT
Description: 208.57

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17892.9	1023.8	17920.6	1025.8	17926.7	1033.6	17946	1032.8	17966.2	1024.2
18010.1	1026	18022	1028.4	18027.2	1025.8	18036.6	1027.8	18048.7	1025

18090.2	1023.6	18189.1	1023.8	18284.4	1023.8	18378.8	1023.6	18492.2	1023.9
18502.6	1023.9	18575.4	1024.1	18681.9	1023.6	18705.6	1023.6	18777.9	1023.5
18853.8	1023.6	18935.4	1023.8	19041.2	1023.8	19080.9	1025	19087.13	1021.839
19101.4	1014.6	19184.3	1012.9	19255.1	1011.9	19315.3	1011.9	19368.2	1010.4
19435.4	1013.3	19524.5	1013.8	19585.9	1012	19676.3	1014	19772.4	1014.4
19846.2	1014.8	19900.7	1016.3	19982.9	1016.5	20023.8	1014.7	20071.3	1014.9
20086.3	1012.9	20123	1013.5	20146	1011	20220.3	1007.6	20240.8	1007.6
20261.8	1009.9	20276.9	1008.4	20361	1010.1	20458.8	1010.7	20541.8	1012.1
20584.9	1012.3	20595.3	1014.5	20599.2	1013.9	20607.5	1016.1	20614.3	1015
20623.9	1016	20640	1016.203	20647.7	1016.3	20654.4	1017.4	20724.7	1017.3
20827.2	1020	20901.1	1020.7	20951.9	1021	20965.4	1016.5	20974.8	1017
21000.4	1025.7	21032.4	1026.3	21033.8	1024	21616	1024.8	21707.7	1024.4
21817.1	1024.3	21913.4	1023.7	21991.5	1023.8	22065.5	1024.5	22100	1024.9
22243.4	1025.1	22248	1025.1	22334.2	1026.7	22341.3	1026.8	22434.5	1027.5
22499.8	1026.8	22523.2	1026.9	22552.2	1028.3	22565.8	1024.5	22577.9	1025.6
22585	1027.8								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17892.9	.037	19080.9	.037	19101.4	.032	21000.4	.032	21032.4	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19087.13	20640	560	514.75	370	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17892.9	19080.9	1028	20640	22585	1028

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1021.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.14	Wt. n-Val.		0.032	
E.G. Elev (ft)	1023.98	Reach Len. (ft)	560.00	514.75	370.00
Crit W.S. (ft)	1019.78	Flow Area (sq ft)		14140.69	
E.G. Slope (ft/ft)	0.003382	Area (sq ft)	0.00	14140.69	1004.21
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1901.92	Top Width (ft)		1552.87	349.05
Vel Total (ft/s)	11.74	Avg. Vel. (ft/s)		11.74	
Max Chl Dpth (ft)	14.24	Hydr. Depth (ft)		9.11	
Conv. Total (cfs)	2854606.8	Conv. (cfs)		2854606.8	
Length Wtd. (ft)	514.75	Wetted Per. (ft)		1556.11	
Min Ch El (ft)	1007.60	Shear (lb/sq ft)		1.92	
Alpha	1.00	Stream Power (lb/ft s)		22.52	
Frctn Loss (ft)	1.21	Cum Volume (acre-ft)	7059.85	24295.59	1418.11
C & E Loss (ft)	0.32	Cum SA (acres)	2035.76	2561.77	672.85

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1021.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.13	Wt. n-Val.		0.032	
E.G. Elev (ft)	1023.99	Reach Len. (ft)	560.00	514.75	370.00
Crit W.S. (ft)	1019.78	Flow Area (sq ft)		14163.44	
E.G. Slope (ft/ft)	0.003380	Area (sq ft)		14163.44	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1552.87	Top Width (ft)		1552.87	
Vel Total (ft/s)	11.72	Avg. Vel. (ft/s)		11.72	
Max Chl Dpth (ft)	14.26	Hydr. Depth (ft)		9.12	
Conv. Total (cfs)	2855343.0	Conv. (cfs)		2855343.0	
Length Wtd. (ft)	514.75	Wetted Per. (ft)		1561.78	
Min Ch El (ft)	1007.60	Shear (lb/sq ft)		1.91	
Alpha	1.00	Stream Power (lb/ft s)		22.43	
Frctn Loss (ft)	1.21	Cum Volume (acre-ft)	1290.35	25180.33	34.97
C & E Loss (ft)	0.31	Cum SA (acres)	210.65	2566.76	6.81

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19087.13 LB	19397.71	33844.88	2873.92	312.38	20.39	9.25	11.78
19397.71	19708.28	30018.42	2688.47	310.66	18.08	8.66	11.17
19708.28	20018.85	18810.47	2030.93	310.63	11.33	6.54	9.26
20018.85	20329.43	44236.65	3394.78	311.14	26.65	10.93	13.03
20329.43	20640.00 RB	39089.57	3152.58	311.30	23.55	10.15	12.40

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19087.13 LB	19397.71	33939.07	2878.47	312.40	20.45	9.27	11.79
19397.71	19708.28	30108.90	2693.02	310.66	18.14	8.67	11.18
19708.28	20018.85	18884.37	2035.48	310.63	11.38	6.55	9.28
20018.85	20329.43	44343.99	3399.33	311.14	26.71	10.95	13.04
20329.43	20640.00 RB	38723.68	3157.13	316.95	23.33	10.17	12.27

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: 1
REACH: 1 RS: 208.48

INPUT
Description: 208.48

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18038.2	1024.5	18107.3	1024	18176.8	1026.3	18180.6	1023.6	18220	1024.2
18231.5	1030.8	18253	1040.2	18276.7	1045.8	18279.2	1045.4	18325.3	1023.2
18350.1	1034.9	18383.7	1036.5	18431.8	1022.6	18508.9	1022.1	18510.56	1021.363
18528.5	1013.4	18574.3	1009.5	18585	1009.5	18656.1	1009.7	18723.8	1009.2
18751.4	1011.9	18757.6	1013.2	18773.9	1012	18790	1012.6	18811.4	1014.6
18894	1015.4	18935.3	1016.3	18976.7	1016	18993.7	1009.2	19033.2	1007.6
19073.1	1010.5	19142.7	1010.5	19210.3	1011.2	19297.6	1012.4	19357.3	1014.5
19432.9	1014	19515.6	1015.2	19565.3	1016.2	19630.9	1012.6	19702.1	1013.3
19791.9	1013	19865.2	1012.2	19956.6	1011.4	20027.1	1011	20099.9	1011
20112.3	1011	20178.6	1011.1	20248.4	1011.1	20312.8	1010.9	20383.8	1010.5
20479.2	1009.8	20529.6	1009.2	20545.1	1017	20627.3	1012.2	20656.3	1012
20680.86	1021.362	20694.6	1026.6	20705.7	1021.5	20806.1	1023.8	21024.6	1028.4
21084	1028.5	21102.7	1031.8	21472.3	1022.1	21971.9	1021.8	22046.1	1022.2
22091.6	1023	22109.6	1026.2	22178.4	1024.8	22198	1027	22264.7	1026.9
22377	1027.5	22430	1027.5						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18038.2	.043	18508.9	.043	18585	.032	20545.1	.037	20694.6	.037
22377	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18510.56	20680.86	500	476.54	525	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18038.2	18508.9	1038	20694.6	22430	1038

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1021.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.09	Wt. n-Val.		0.032	
E.G. Elev (ft)	1022.45	Reach Len. (ft)	500.00	476.54	525.00

Crit W.S. (ft)	1017.83	Flow Area (sq ft)		19846.32	
E.G. Slope (ft/ft)	0.001742	Area (sq ft)		19846.32	0.00
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2170.30	Top Width (ft)		2170.30	
Vel Total (ft/s)	8.36	Avg. Vel. (ft/s)		8.36	
Max Chl Dpth (ft)	13.76	Hydr. Depth (ft)		9.14	
Conv. Total (cfs)	3977140.0	Conv. (cfs)		3977140.0	
Length Wtd. (ft)	476.54	Wetted Per. (ft)		2177.94	
Min Ch El (ft)	1007.60	Shear (lb/sq ft)		0.99	
Alpha	1.00	Stream Power (lb/ft s)		8.29	
Frctn Loss (ft)	0.89	Cum Volume (acre-ft)	7059.85	24094.78	1413.84
C & E Loss (ft)	0.00	Cum SA (acres)	2035.76	2539.78	671.37

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1021.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.08	Wt. n-Val.		0.032	
E.G. Elev (ft)	1022.46	Reach Len. (ft)	500.00	476.54	525.00
Crit W.S. (ft)	1017.83	Flow Area (sq ft)		19884.20	
E.G. Slope (ft/ft)	0.001731	Area (sq ft)		19884.20	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2170.30	Top Width (ft)		2170.30	
Vel Total (ft/s)	8.35	Avg. Vel. (ft/s)		8.35	
Max Chl Dpth (ft)	13.78	Hydr. Depth (ft)		9.16	
Conv. Total (cfs)	3989710.0	Conv. (cfs)		3989710.0	
Length Wtd. (ft)	476.54	Wetted Per. (ft)		2177.97	
Min Ch El (ft)	1007.60	Shear (lb/sq ft)		0.99	
Alpha	1.00	Stream Power (lb/ft s)		8.24	
Frctn Loss (ft)	0.88	Cum Volume (acre-ft)	1290.35	24979.16	34.97
C & E Loss (ft)	0.00	Cum SA (acres)	210.65	2544.76	6.81

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18510.56 LB	18944.62	31016.14	3904.04	436.35	18.68	8.99	7.94
18944.62	19378.68	37209.67	4242.92	435.56	22.42	9.77	8.77
19378.68	19812.74	23304.59	3200.28	434.18	14.04	7.37	7.28
19812.74	20246.80	38473.65	4322.89	434.07	23.18	9.96	8.90
20246.80	20680.86 RB	35995.96	4176.18	437.78	21.68	9.62	8.62

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18510.56 LB	18944.62	31018.71	3911.62	436.36	18.69	9.01	7.93
18944.62	19378.68	37204.03	4250.50	435.56	22.41	9.79	8.75
19378.68	19812.74	23323.62	3207.86	434.18	14.05	7.39	7.27
19812.74	20246.80	38465.70	4330.47	434.07	23.17	9.98	8.88
20246.80	20680.86 RB	35987.93	4183.75	437.80	21.68	9.64	8.60

CROSS SECTION RIVER: 1
REACH: 1 RS: 208.39

INPUT
Description: 208.39

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18033.7	1024.2	18048.9	1023.9	18052.4	1029.4	18060.9	1031.1	18078.5	1028.7
18083.6	1026.5	18089.9	1022.5	18176.1	1021.5	18253.5	1021.3	18379.7	1022.4
18417.8	1035.8	18447	1022.6	18462.94	1020.436	18469.1	1019.6	18494.4	1010.7
18597.1	1007.9	18699.5	1009.4	18760.1	1011.4	18779.9	1010	18820.5	1010.6
18843.1	1015.2	18914.5	1016.3	18932.1	1009.7	19018.2	1006.1	19063.1	1005.6
19094.9	1009.1	19184.7	1010.4	19213.8	1010.9	19266.1	1013.3	19343.9	1014.9
19411.9	1013.9	19452.4	1014.4	19493.3	1016.2	19593.6	1015.6	19647.5	1014.8
19744.6	1015.5	19808.5	1013.7	19910.3	1013.1	20054	1012.2	20156.8	1011.7
20242.7	1010.5	20343.9	1010	20449.6	1010.3	20484.4	1010.8	20718.2	1010.6
20748.79	1020.435	20754.9	1022.4	20802.7	1021.3	20917.8	1022	20992.6	1024
21004.2	1019	21264.2	1022.8	21271.1	1021.2	21710.3	1019	21734.9	1021.9
21769.9	1021.9	21817.5	1020.2	21841.4	1017.4	21869.1	1018.9	21889.9	1018.1

21894.1	1020.2	21908.6	1017.2	21928.1	1016.5	21932.5	1018.5	22018.7	1019.9
22082.6	1021.4	22098.4	1024.6	22134	1025.4	22198	1023.8	22317.1	1023.6
22352.6	1025.6	22382	1025.9						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18033.7	.043	18417.8	.043	18597.1	.032	20718.2	.037	20754.9	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18462.9	20748.79	505	512.19	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18033.7	18417.8	1030	20754.9	22382	1030

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1020.44	Element			
Vel Head (ft)	1.12	Wt. n-Val.		0.033	
E.G. Elev (ft)	1021.56	Reach Len. (ft)	505.00	512.19	480.00
Crit W.S. (ft)	1017.30	Flow Area (sq ft)		19556.15	
E.G. Slope (ft/ft)	0.002009	Area (sq ft)	0.00	19556.15	657.24
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2917.03	Top Width (ft)		2285.85	631.18
Vel Total (ft/s)	8.49	Avg. Vel. (ft/s)		8.49	
Max Chl Dpth (ft)	14.84	Hydr. Depth (ft)		8.56	
Conv. Total (cfs)	3703136.8	Conv. (cfs)		3703136.8	
Length Wtd. (ft)	512.19	Wetted Per. (ft)		2291.23	
Min Ch El (ft)	1005.60	Shear (lb/sq ft)		1.07	
Alpha	1.00	Stream Power (lb/ft s)		9.09	
Frctn Loss (ft)	0.98	Cum Volume (acre-ft)	7059.85	23879.25	1409.88
C & E Loss (ft)	0.03	Cum SA (acres)	2035.76	2515.40	667.57

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1020.47	Element			
Vel Head (ft)	1.11	Wt. n-Val.		0.033	
E.G. Elev (ft)	1021.58	Reach Len. (ft)	505.00	512.19	480.00
Crit W.S. (ft)	1017.30	Flow Area (sq ft)		19621.86	
E.G. Slope (ft/ft)	0.001987	Area (sq ft)		19621.86	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2285.85	Top Width (ft)		2285.85	
Vel Total (ft/s)	8.46	Avg. Vel. (ft/s)		8.46	
Max Chl Dpth (ft)	14.87	Hydr. Depth (ft)		8.58	
Conv. Total (cfs)	3723811.8	Conv. (cfs)		3723811.8	
Length Wtd. (ft)	512.19	Wetted Per. (ft)		2291.29	
Min Ch El (ft)	1005.60	Shear (lb/sq ft)		1.06	
Alpha	1.00	Stream Power (lb/ft s)		8.99	
Frctn Loss (ft)	0.96	Cum Volume (acre-ft)	1290.35	24763.07	34.97
C & E Loss (ft)	0.03	Cum SA (acres)	210.65	2520.39	6.81

Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18462.94 LB	18920.11	34642.30	4233.46	459.74	20.87	9.26	8.18
18920.11	19377.28	43549.19	4618.57	458.34	26.23	10.10	9.43
19377.28	19834.45	15497.98	2482.39	457.25	9.34	5.43	6.24
19834.45	20291.62	31857.20	3824.76	457.18	19.19	8.37	8.33
20291.62	20748.79 RB	40453.34	4396.97	458.72	24.37	9.62	9.20

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18462.94 LB	18920.11	34632.51	4246.60	459.76	20.86	9.29	8.16
18920.11	19377.28	43519.16	4631.71	458.34	26.22	10.13	9.40
19377.28	19834.45	15550.37	2495.53	457.25	9.37	5.46	6.23
19834.45	20291.62	31866.50	3837.90	457.18	19.20	8.39	8.30
20291.62	20748.79 RB	40431.44	4410.12	458.75	24.36	9.65	9.17

Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: 1
REACH: 1 RS: 208.29

INPUT
Description: 208.29

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17002.6	1020.8	17033.1	1020.7	17130	1020.6	17223.7	1020.7	17316.5	1020.8
17410	1021	17443.4	1021	17527.8	1021.3	17612.8	1021.5	17700	1022.8
17725.5	1028.3	17746	1019	18278.7	1023.8	18304.6	1033.9	18306.7	1033.7
18430.1	1023.3	18444.4	1021.3	18480	1020.6	18525.3	1021.4	18545.4	1030.1
18562.61	1019.523	18580.2	1008.7	18645.9	1006.9	18729.8	1008.2	18813.6	1008
18846.3	1006.7	18858.5	1011.3	18964	1010.4	19046.3	1010.7	19068	1009.9
19095.1	1004.7	19192.2	1007.2	19204.4	1008	19237.6	1005	19274.3	1005.1
19293.9	1010.7	19341.5	1011.4	19389.6	1015	19461.9	1012.7	19548.6	1016.1
19665.7	1014.5	19730.4	1012.3	19830.2	1012.9	19905.4	1012.6	19969.1	1014.2
20073.7	1013.1	20194.6	1010.4	20258.7	1012.5	20359.4	1011.5	20498.8	1009.7
20566.1	1009.2	20843.2	1010.4	20909.3	1011.2	20944.07	1019.521	20944.4	1019.6
20975	1023	21021.7	1024	21130.5	1022.9	21208.2	1021.6	21306.6	1021.3
21351.8	1021.1	21367	1020	21795	1020	21802.7	1023.1	21891.9	1019.9
21966.6	1016.6	21987.4	1019.1	22088.4	1021	22160.2	1022.7	22169.6	1026.3
22197	1026								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17002.6	.025	17725.5	.043	18545.4	.043	18645.9	.032	20909.3	.037
20975	.037	21987.4	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18562.62	20944.07	490	501.01	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17002.6	18545.4	1033.9	21021.7	22197	1033.9

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1019.52	Element			
Vel Head (ft)	1.03	Wt. n-Val.		0.033	
E.G. Elev (ft)	1020.55	Reach Len. (ft)	490.00	501.01	510.00
Crit W.S. (ft)	1016.22	Flow Area (sq ft)		20401.16	
E.G. Slope (ft/ft)	0.001815	Area (sq ft)	15.45	20401.16	136.20
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2550.02	Top Width (ft)	59.13	2381.47	109.42
Vel Total (ft/s)	8.14	Avg. Vel. (ft/s)		8.14	
Max Chl Dpth (ft)	14.82	Hydr. Depth (ft)		8.57	
Conv. Total (cfs)	3896982.8	Conv. (cfs)		3896982.8	
Length Wtd. (ft)	501.01	Wetted Per. (ft)		2388.31	
Min Ch El (ft)	1004.70	Shear (lb/sq ft)		0.97	
Alpha	1.00	Stream Power (lb/ft s)		7.87	
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)	7059.76	23644.33	1405.51
C & E Loss (ft)	0.05	Cum SA (acres)	2035.42	2487.96	663.49

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1019.57	Element			
Vel Head (ft)	1.02	Wt. n-Val.		0.033	
E.G. Elev (ft)	1020.58	Reach Len. (ft)	490.00	501.01	510.00
Crit W.S. (ft)	1016.22	Flow Area (sq ft)		20507.99	

E.G. Slope (ft/ft)	0.001783	Area (sq ft)		20507.99	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2381.47	Top Width (ft)		2381.47	
Vel Total (ft/s)	8.09	Avg. Vel. (ft/s)		8.09	
Max Chl Dpth (ft)	14.87	Hydr. Depth (ft)		8.61	
Conv. Total (cfs)	3930916.5	Conv. (cfs)		3930916.5	
Length Wtd. (ft)	501.01	Wetted Per. (ft)		2388.41	
Min Ch El (ft)	1004.70	Shear (lb/sq ft)		0.96	
Alpha	1.00	Stream Power (lb/ft s)		7.74	
Frctn Loss (ft)	0.82	Cum Volume (acre-ft)	1290.35	24527.14	34.97
C & E Loss (ft)	0.05	Cum SA (acres)	210.65	2492.95	6.81

Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18562.60 LB	19038.89	43009.06	4941.46	480.26	25.91	10.37	8.70
19038.89	19515.19	41171.17	4676.81	478.00	24.80	9.82	8.80
19515.19	19991.48	16913.54	2738.74	476.39	10.19	5.75	6.18
19991.48	20467.78	27329.20	3652.41	476.38	16.46	7.67	7.48
20467.78	20944.07 RB	37577.03	4391.76	477.29	22.64	9.22	8.56

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18562.60 LB	19038.89	42953.09	4962.82	480.30	25.88	10.42	8.65
19038.89	19515.19	41136.21	4698.17	478.00	24.78	9.86	8.76
19515.19	19991.48	16989.92	2760.10	476.39	10.23	5.79	6.16
19991.48	20467.78	27364.07	3673.78	476.38	16.48	7.71	7.45
20467.78	20944.07 RB	37556.72	4413.12	477.33	22.62	9.27	8.51

Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: 1
REACH: 1 RS: 208.19

INPUT
Description: 208.19

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16738.4	1022.5	16814.9	1021.3	16821.2	1024.1	16826.8	1024.4	16846	1022.6
16869.2	1018.1	16892.4	1020.2	17011.8	1018.9	17149.6	1018.8	17287.4	1019
17387.1	1019.5	17473.6	1019.4	17580.5	1019.5	17670	1020.5	17703.3	1019.8
17715.2	1023.4	17720.4	1019.5	18540.1	1019.5	18545.5	1021.5	18598.6	1019.7
18675.6	1020	18679.181	1018.788	18707.5	1009.2	18726.3	1010.8	18788	1007.7
18875.7	1008.8	18927.6	1008.9	18995.2	1007.2	19040	1004.7	19071.5	1004.8
19117	1012.1	19221.7	1012.6	19293	1010.3	19310.2	1006.5	19415.1	1005.7
19433	1005.7	19473.9	1008.3	19506.7	1017.8	19594.5	1018.2	19623.8	1016.2
19711.7	1018.6	19793	1010.9	19904.1	1011.6	19997.4	1011.8	20089.1	1012.4
20178.1	1013.8	20250.4	1007.3	20363.1	1007.4	20433.4	1005.7	20559.2	1006.9
20626.2	1007.7	20641.6	1005.9	20704.7	1010	20807.3	1012.1	20891.1	1011
21007.8	1008.2	21027.6	1007.7	21114.3	1011	21201.9	1010.7	21231.6	1010
21232	1010.8	21278.3	1014.9	21343.2	1018.788	21348.4	1019.1	21818.1	1019.2
21871.3	1019.6	22068.3	1019.1	22125.4	1020	22187	1022.1	22200.2	1026.3
22310.7	1025.1	22415.4	1025	22486	1024.5				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16738.4	.025	17715.2	.043	18675.6	.043	18707.5	.032	21348.4	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18679.18	21343.2	550	514.57	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16738.4	18675.6	1024	21348.4	22486	1024

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1018.79	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.87	Wt. n-Val.		0.032	
E.G. Elev (ft)	1019.66	Reach Len. (ft)	550.00	514.57	505.00
Crit W.S. (ft)	1014.90	Flow Area (sq ft)		22151.23	
E.G. Slope (ft/ft)	0.001564	Area (sq ft)	3.84	22151.23	0.00
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2675.20	Top Width (ft)	11.16	2664.02	0.01
Vel Total (ft/s)	7.49	Avg. Vel. (ft/s)		7.49	
Max Chl Dpth (ft)	14.09	Hydr. Depth (ft)		8.31	
Conv. Total (cfs)	4197599.0	Conv. (cfs)		4197599.0	
Length Wtd. (ft)	514.57	Wetted Per. (ft)		2670.29	
Min Ch El (ft)	1004.70	Shear (lb/sq ft)		0.81	
Alpha	1.00	Stream Power (lb/ft s)		6.07	
Frctn Loss (ft)	0.81	Cum Volume (acre-ft)	7059.65	23399.62	1404.71
C & E Loss (ft)	0.02	Cum SA (acres)	2035.02	2458.95	662.84

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1018.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.86	Wt. n-Val.		0.032	
E.G. Elev (ft)	1019.71	Reach Len. (ft)	550.00	514.57	505.00
Crit W.S. (ft)	1014.90	Flow Area (sq ft)		22324.40	
E.G. Slope (ft/ft)	0.001524	Area (sq ft)		22324.40	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2664.02	Top Width (ft)		2664.02	
Vel Total (ft/s)	7.44	Avg. Vel. (ft/s)		7.44	
Max Chl Dpth (ft)	14.15	Hydr. Depth (ft)		8.38	
Conv. Total (cfs)	4252254.5	Conv. (cfs)		4252254.5	
Length Wtd. (ft)	514.57	Wetted Per. (ft)		2670.42	
Min Ch El (ft)	1004.70	Shear (lb/sq ft)		0.80	
Alpha	1.00	Stream Power (lb/ft s)		5.91	
Frctn Loss (ft)	0.78	Cum Volume (acre-ft)	1290.35	24280.82	34.97
C & E Loss (ft)	0.02	Cum SA (acres)	210.65	2463.93	6.81

Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18679.18 LB	19211.98	41844.68	5157.20	535.21	25.21	9.68	8.11
19211.98	19744.79	19716.24	3294.02	534.94	11.88	6.18	5.99
19744.79	20277.59	25031.25	3796.63	533.33	15.08	7.13	6.59
20277.59	20810.39	51638.92	5861.63	533.09	31.11	11.00	8.81
20810.39	21343.20 RB	27768.91	4041.75	533.71	16.73	7.59	6.87

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18679.18 LB	19211.98	41778.96	5191.83	535.28	25.17	9.74	8.05
19211.98	19744.79	19812.92	3328.66	534.94	11.94	6.25	5.95
19744.79	20277.59	25096.27	3831.26	533.33	15.12	7.19	6.55
20277.59	20810.39	51498.54	5896.26	533.09	31.02	11.07	8.73
20810.39	21343.20 RB	27813.31	4076.39	533.78	16.76	7.65	6.82

Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: 1
REACH: 1 RS: 208.1

INPUT
Description: 208.1

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16819.7	1020	16911.7	1020	16920.8	1021.8	17013.5	1018.3	17181.5	1017.7
17278.5	1017.9	17421.8	1018.4	17530.4	1018.9	17672.5	1019	17700.9	1021.1
17741	1041.2	17785.3	1019.8	17794.9	1019.4	18660.8	1020.4	18677.2	1019
18756.4	1019.4	18786.9	1024.5	18805.9	1022.21	8822.371	1018.025	18827.2	1016.8
18834.8	1016.8	18846	1012	18862.1	1009.8	18895.6	1011.5	18990.9	1008.1
19103.9	1008.1	19211.4	1009.5	19294.1	1007	19344.4	1005.3	19402.2	1005.6
19441.1	1001.9	19492.5	1001.4	19507.6	1005.4	19538.7	1004.2	19589.1	1004.9
19611.9	1009.1	19719.5	1009.4	19730.1	1011.2	19842.8	1011.2	19883.7	1010.5
19981.4	1014	20076.5	1014	20186.6	1011.8	20200.6	1004.4	20293.1	1005.3
20440	1005.6	20518.6	1005.6	20579.1	1016	20684.7	1017.1	20777.7	1016.5
20898.9	1016.6	20918.1	1016.7	20993	1011.1	21084.2	1010.3	21202.2	1009.9
21318.2	1011.4	21438.8	1010.4	21535.9	1009	21597.7	1011.1	21698.8	1010.3
21706.3	1012.82	1767.181	1018.025	21783.2	1019.4	21878.3	1019.5	21970.4	1019.6
22184.8	1019.5	22249.1	1022.6	22375.9	1023.7	22460	1023.8		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16819.7	.025	17741	.043	18786.9	.043	18805.9	.032	21783.2	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18822.37	21767.18	640	558.37	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16819.7	18786.9	1030	21783.2	22460	1030

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1018.03	Element			
Vel Head (ft)	0.81	Wt. n-Val.		0.032	
E.G. Elev (ft)	1018.84	Reach Len. (ft)	640.00	558.37	480.00
Crit W.S. (ft)	1014.24	Flow Area (sq ft)		22975.85	
E.G. Slope (ft/ft)	0.001569	Area (sq ft)	39.02	22975.85	0.00
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	3169.07	Top Width (ft)	224.25	2944.81	
Vel Total (ft/s)	7.22	Avg. Vel. (ft/s)		7.22	
Max Chl Dpth (ft)	16.63	Hydr. Depth (ft)		7.80	
Conv. Total (cfs)	4190747.5	Conv. (cfs)		4190747.5	
Length Wtd. (ft)	558.37	Wetted Per. (ft)		2951.27	
Min Ch El (ft)	1001.40	Shear (lb/sq ft)		0.76	
Alpha	1.00	Stream Power (lb/ft s)		5.51	
Frctn Loss (ft)	0.95	Cum Volume (acre-ft)	7059.38	23133.08	1404.71
C & E Loss (ft)	0.01	Cum SA (acres)	2033.54	2425.82	662.84

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1018.12	Element			
Vel Head (ft)	0.79	Wt. n-Val.		0.032	
E.G. Elev (ft)	1018.91	Reach Len. (ft)	640.00	558.37	480.00
Crit W.S. (ft)	1014.24	Flow Area (sq ft)		23256.96	
E.G. Slope (ft/ft)	0.001507	Area (sq ft)		23256.96	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2944.81	Top Width (ft)		2944.81	
Vel Total (ft/s)	7.14	Avg. Vel. (ft/s)		7.14	
Max Chl Dpth (ft)	16.72	Hydr. Depth (ft)		7.90	
Conv. Total (cfs)	4276366.5	Conv. (cfs)		4276366.5	
Length Wtd. (ft)	558.37	Wetted Per. (ft)		2951.47	
Min Ch El (ft)	1001.40	Shear (lb/sq ft)		0.74	
Alpha	1.00	Stream Power (lb/ft s)		5.29	
Frctn Loss (ft)	0.91	Cum Volume (acre-ft)	1290.35	24011.59	34.97
C & E Loss (ft)	0.01	Cum SA (acres)	210.65	2430.80	6.81

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18822.37 LB	19411.33	43549.06	5562.12	590.47	26.23	9.44	7.83
19411.33	20000.29	43683.69	5571.60	590.25	26.32	9.46	7.84
20000.29	20589.26	42812.32	5510.10	591.71	25.79	9.36	7.77

20589.26	21178.22	9109.45	2173.54	589.18	5.49	3.69	4.19
21178.22	21767.18 RB	26845.46	4158.49	589.66	16.17	7.06	6.46

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18822.37 LB	19411.33	43443.00	5618.34	590.57	26.17	9.54	7.73
19411.33	20000.29	43580.80	5627.82	590.25	26.25	9.56	7.74
20000.29	20589.26	42719.42	5566.32	591.71	25.73	9.45	7.67
20589.26	21178.22	9325.78	2229.77	589.18	5.62	3.79	4.18
21178.22	21767.18 RB	26931.00	4214.71	589.75	16.22	7.16	6.39

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.99

INPUT
Description: 207.99

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17809.3	1018.5	17815.5	1018.4	17825.2	1016.2	17906.9	1016.7	18020.3	1016.6
18102.9	1017.1	18116.8	1017.8	18121.1	1019.2	18156	1021.3	18162.3	1018.5
18168.8	1017.5	18272.9	1016.7	18288.2	1016.8	18385.1	1017	18430.3	1017.1
18440.8	1018.3	18447.7	1016.2	18501.8	1016.4	18510.3	1018	18514.6	1015.5
18538.2	1015.7	18541.7	1014.1	18552.7	1006.7	18579.2	1006.9	18660.4	1004.5
18672.2	1007.9	18695.7	1012.5	18709.9	1013.9	18790.3	1015.9	18865.8	1016.8
18884.7	1023.5	18901.5	1024.9	18919.6	1017.9	18933.3	1017.3	19008	1016.5
19025.7	1016.3	19034.2	1018.6	19040.9	1016.9	19083.8	1019.8	19093.03	1016.923
19108.5	1012.1	19169.3	1009	19252	1007.4	19308	1009	19330.7	1003.7
19355.3	1004.7	19441.2	1004.1	19496.6	1000.7	19571.6	999.9	19628.3	1003.8
19657.1	1004.6	19679.9	1006.9	19709	1005.7	19786.5	1006.6	19863.9	1009.8
19926.2	1011	19969.4	1002.6	20043.2	1002.9	20123.4	1004.2	20199.1	1003.3
20291.6	1005.7	20354	1006.7	20409.8	1008.7	20448.4	1011.1	20498.1	1016.9
20579	1017.6	20660.5	1016.3	20726.3	1014.2	20743.2	1010.4	20801.5	1014.5
20874.6	1015.4	20955.4	1016	21051.7	1015.4	21137.2	1014.3	21215.8	1012.8
21233.3	1012.4	21267.9	1009.1	21316.4	1007.5	21351.9	1005.2	21379.5	1005.3
21468.2	1009.5	21567.9	1011.4	21676.9	1011.6	21738.1	1010.6	21759	1009.1
21849.9	1013.1	21881	1015.52	1934.42	1016.922	21967.4	1017.8	22054.7	1017.9
22077.8	1018	22085.6	1018.9	22160.9	1020.4	22188.5	1022.7	22281.8	1022.9
22357.5	1022.4	22442	1022.2	22476.6	1022.2				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17809.3	.043	19083.8	.043	19108.5	.032	22085.6	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19093.03	21934.42	475	482.29	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
17809.3	19083.8	1021

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1016.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.95	Wt. n-Val.		0.032	
E.G. Elev (ft)	1017.87	Reach Len. (ft)	475.00	482.29	500.00
Crit W.S. (ft)	1013.04	Flow Area (sq ft)		21223.83	
E.G. Slope (ft/ft)	0.001846	Area (sq ft)	1977.81	21223.83	0.00
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	3550.29	Top Width (ft)	829.39	2720.83	0.06
Vel Total (ft/s)	7.82	Avg. Vel. (ft/s)		7.82	
Max Chl Dpth (ft)	17.02	Hydr. Depth (ft)		7.80	
Conv. Total (cfs)	3863446.0	Conv. (cfs)		3863446.0	
Length Wtd. (ft)	482.29	Wetted Per. (ft)		2725.38	
Min Ch El (ft)	999.90	Shear (lb/sq ft)		0.90	
Alpha	1.00	Stream Power (lb/ft s)		7.02	
Frctn Loss (ft)	0.73	Cum Volume (acre-ft)	7044.56	22849.79	1404.71
C & E Loss (ft)	0.08	Cum SA (acres)	2025.80	2389.51	662.84

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1017.08	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.91	Wt. n-Val.		0.032	
E.G. Elev (ft)	1017.99	Reach Len. (ft)	475.00	482.29	500.00
Crit W.S. (ft)	1013.04	Flow Area (sq ft)		21658.35	
E.G. Slope (ft/ft)	0.001750	Area (sq ft)		21658.35	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2749.15	Top Width (ft)		2749.15	
Vel Total (ft/s)	7.66	Avg. Vel. (ft/s)		7.66	
Max Chl Dpth (ft)	17.18	Hydr. Depth (ft)		7.88	
Conv. Total (cfs)	3968420.3	Conv. (cfs)		3968420.3	
Length Wtd. (ft)	482.29	Wetted Per. (ft)		2754.03	
Min Ch El (ft)	999.90	Shear (lb/sq ft)		0.86	
Alpha	1.00	Stream Power (lb/ft s)		6.58	
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	1290.35	23723.72	34.97
C & E Loss (ft)	0.07	Cum SA (acres)	210.65	2394.31	6.81

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19093.03 LB	19661.31	61740.33	6587.09	570.04	37.19	11.59	9.37
19661.31	20229.59	58028.37	6386.03	569.32	34.96	11.24	9.09
20229.59	20797.86	17189.60	2798.21	448.79	10.36	6.25	6.14
20797.86	21366.14	8828.03	2062.25	568.58	5.32	3.63	4.28
21366.14	21934.42 RB	20213.67	3390.25	568.66	12.18	5.97	5.96

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19093.03 LB	19661.31	61517.08	6677.38	570.20	37.06	11.75	9.21
19661.31	20229.59	57881.21	6476.31	569.32	34.87	11.40	8.94
20229.59	20797.86	16788.76	2871.60	477.11	10.11	6.03	5.85
20797.86	21366.14	9238.77	2152.53	568.58	5.57	3.79	4.29
21366.14	21934.42 RB	20574.18	3480.54	568.82	12.39	6.12	5.91

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.9

INPUT
Description: 207.9

Right Channel Bank Station Interpolated
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18318.7	1015.8	18394.8	1015.8	18463.1	1016.2	18469.7	1018.1	18472.9	1015
18724.1	1015	18761.1	1014.3	18777.9	1016.8	18795.6	1016.9	18860.1	1015.9
18896.1	1016.3	18904.8	1019.7	18929.3	1019.8	18940.1	1015.2	19033.5	1016.1
19047.9	1016	19059.8	1017.2	19066.9	1015.1	19104.7	1016	19116.7	1011.7
19126.7	1007.1	19193.6	1007.4	19285	1009.3	19371.2	1009	19445.7	1007.1
19492.9	1005.5	19566.8	1005.1	19594	1005.6	19624.6	1005.2	19638.3	1006.4
19689	1001.1	19766	1000.8	19843.4	1001.2	19860.6	1000.8	19947.8	1001.8
19955.3	1001.9	20050.4	1001.4	20071.1	1001.6	20089.1	1003.2	20118.3	1004.3
20156	1007.1	20190.3	1008	20289.9	1007.9	20381.4	1008.9	20427.9	1010.5
20531.5	1011.1	20544.8	1011.1	20560.1	1011.9	20586.4	1015.8	20608.7	1016.9
20680.6	1014.6	20727.2	1013.8	20735.8	1014.5	20764.9	1009.7	20788.6	1011.6
20822.1	1012.5	20927.9	1011.9	20963	1010.7	20994.1	1008.3	21051.7	1014.1
21082.2	1013.7	21131.1	1014.8	21213.2	1014.5	21238.4	1013.9	21256.2	1007.6
21259.2	1007.2	21307.5	1008.3	21334.5	1010	21416.2	1010.9	21507.7	1009.2

21598.5	1005.8	21681.1	1006.9	21719.6	1007.7	21776.6	1006.7	21793.9	1004.3
21872.6	1005.5	21939.8	1009	21972.8	1010.5	22032.5	1008.8	22046.3	1006.6
22111	1005.9	22137.55	1016.374	22143.7	1018.8	22212.8	1020.7	22232.2	1021.2
22300.9	1021	22378.9	1020.5	22421.5	1020.6	22488.9	1019.9		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18318.7	.043	19047.9	.032	19104.7	.032	22143.7	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19104.72	22137.55	505	509.52	585	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
18318.7	19059.8	1020

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1016.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1017.07	Reach Len. (ft)	505.00	509.52	585.00
Crit W.S. (ft)	1012.11	Flow Area (sq ft)	34.02	24806.98	
E.G. Slope (ft/ft)	0.001249	Area (sq ft)	621.32	24806.98	0.00
Q Total (cfs)	166000.00	Flow (cfs)	48.27	165951.73	
Top Width (ft)	3677.89	Top Width (ft)	671.98	3005.90	
Vel Total (ft/s)	6.68	Avg. Vel. (ft/s)	1.42	6.69	
Max Chl Dpth (ft)	15.58	Hydr. Depth (ft)	0.81	8.25	
Conv. Total (cfs)	4697757.0	Conv. (cfs)	1365.9	4696391.0	
Length Wtd. (ft)	509.50	Wetted Per. (ft)	42.31	3013.40	
Min Ch El (ft)	1000.80	Shear (lb/sq ft)	0.06	0.64	
Alpha	1.00	Stream Power (lb/ft s)	0.09	4.29	
Frctn Loss (ft)	0.73	Cum Volume (acre-ft)	7030.39	22594.97	1404.71
C & E Loss (ft)	0.02	Cum SA (acres)	2017.61	2357.80	662.84

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1016.58	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.66	Wt. n-Val.		0.032	
E.G. Elev (ft)	1017.24	Reach Len. (ft)	505.00	509.52	585.00
Crit W.S. (ft)	1012.11	Flow Area (sq ft)		25411.26	
E.G. Slope (ft/ft)	0.001159	Area (sq ft)		25411.26	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	3016.24	Top Width (ft)		3016.24	
Vel Total (ft/s)	6.53	Avg. Vel. (ft/s)		6.53	
Max Chl Dpth (ft)	15.78	Hydr. Depth (ft)		8.42	
Conv. Total (cfs)	4876598.0	Conv. (cfs)		4876598.0	
Length Wtd. (ft)	509.52	Wetted Per. (ft)		3024.53	
Min Ch El (ft)	1000.80	Shear (lb/sq ft)		0.61	
Alpha	1.00	Stream Power (lb/ft s)		3.97	
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	1290.35	23463.15	34.97
C & E Loss (ft)	0.02	Cum SA (acres)	210.65	2362.39	6.81

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19052.30	19104.70	48.27	34.02	42.31	0.03	0.81	1.42
19104.70 LB	19711.27	38998.75	5744.07	608.73	23.49	9.47	6.79
19711.27	20317.84	65510.34	7831.06	606.79	39.46	12.91	8.37
20317.84	20924.41	10752.67	2601.69	580.52	6.48	4.49	4.13
20924.41	21530.98	13671.06	3061.40	608.21	8.24	5.05	4.47
21530.98	22137.55 RB	37018.92	5568.75	609.14	22.30	9.18	6.65

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19104.70 LB	19711.27	38958.75	5865.80	609.31	23.47	9.67	6.64
19711.27	20317.84	64882.06	7952.79	606.79	39.09	13.11	8.16
20317.84	20924.41	11040.42	2719.05	590.87	6.65	4.61	4.06
20924.41	21530.98	14082.37	3183.13	608.21	8.48	5.25	4.42
21530.98	22137.55 RB	37036.39	5690.48	609.34	22.31	9.38	6.51

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.8

INPUT
Description: 207.8

Right Channel Bank Station Interpolated
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16720.8	1015.6	16820	1018	16844.2	1018.7	16848.8	1017.5	16856.8	1019
16867.4	1017.3	16875.2	1017.8	16895	1016.2	16996.6	1015.8	17124.1	1015.3
17221.3	1014.7	17233.7	1014.6	17327.7	1014.3	17428.5	1014.5	17461.8	1014.4
17509	1014.7	17520.5	1015.7	17546.1	1014.2	18739.7	1014.2	18794.2	1014.4
18801.9	1012.7	18900.8	1014.4	18913	1018.5	18934.2	1018.4	18945.1	1013.9
19039.6	1013.5	19178.5	1013.1	19235	1013.5	19249.5	1015	19270.9	1008.6
19304.9	1007.2	19435.5	1007.2	19520.8	1006.1	19559.8	1004.3	19673.3	1005.3
19780.3	1005.6	19820.2	1000.5	19919.9	1000.6	20045.1	1000.2	20073	1001.1
20160.5	1002.9	20209	1001.4	20279.2	1004.6	20310.6	1008.1	20429.9	1009.7
20529.9	1009.3	20571.6	1009.6	20646.2	1007	20667.3	1010.8	20787.7	1013.1
20898.5	1015.2	20915	1015.8	20928.8	1011.5	21033	1009.7	21101	1010.3
21126.1	1013.2	21165.5	1011.3	21182.3	1008.2	21287.6	1007.8	21332.6	1005.8
21365.6	1009.5	21456.3	1009.3	21581.9	1009	21695.3	1007.9	21776.1	1006.6
21795.3	1002.4	21834.5	999.1	21842.9	1003.5	21871.22	1015.405	21881.2	1019.6
21991.4	1019.8	22085.9	1019.5	22180	1020.6				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16720.8	.025	17520.5	.043	19039.6	.032	19249.5	.032	21881.2	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19249.52	21871.22	495	494.8	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16720.8	18913	1019	21881.2	22180	1019

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1015.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.91	Wt. n-Val.	0.034	0.032	
E.G. Elev (ft)	1016.32	Reach Len. (ft)	495.00	494.80	505.00
Crit W.S. (ft)	1011.91	Flow Area (sq ft)	593.05	21375.49	
E.G. Slope (ft/ft)	0.001667	Area (sq ft)	2625.94	21375.49	0.00
Q Total (cfs)	166000.00	Flow (cfs)	1634.70	164365.30	
Top Width (ft)	4716.85	Top Width (ft)	2107.14	2609.70	
Vel Total (ft/s)	7.56	Avg. Vel. (ft/s)	2.76	7.69	
Max Chl Dpth (ft)	16.31	Hydr. Depth (ft)	1.93	8.19	
Conv. Total (cfs)	4065414.0	Conv. (cfs)	40034.5	4025379.5	
Length Wtd. (ft)	494.80	Wetted Per. (ft)	308.43	2617.27	
Min Ch El (ft)	999.10	Shear (lb/sq ft)	0.20	0.85	
Alpha	1.03	Stream Power (lb/ft s)	0.55	6.54	
Frctn Loss (ft)	0.88	Cum Volume (acre-ft)	7011.57	22324.87	1404.71
C & E Loss (ft)	0.01	Cum SA (acres)	2001.50	2324.96	662.84

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1015.66	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.88	Wt. n-Val.		0.032	
E.G. Elev (ft)	1016.54	Reach Len. (ft)	495.00	494.80	505.00
Crit W.S. (ft)	1011.89	Flow Area (sq ft)		22027.76	
E.G. Slope (ft/ft)	0.001545	Area (sq ft)		22027.76	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	

Top Width (ft)	2617.37	Top Width (ft)		2617.37		
Vel Total (ft/s)	7.54	Avg. Vel. (ft/s)		7.54		
Max Chl Dpth (ft)	16.56	Hydr. Depth (ft)		8.42		
Conv. Total (cfs)	4222910.0	Conv. (cfs)		4222910.0		
Length Wtd. (ft)	494.80	Wetted Per. (ft)		2625.89		
Min Ch El (ft)	999.10	Shear (lb/sq ft)		0.81		
Alpha	1.00	Stream Power (lb/ft s)		6.10		
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	1290.35	23185.70	34.97	
C & E Loss (ft)	0.02	Cum SA (acres)	210.65	2329.44	6.81	

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18912.34	19080.92	567.98	245.55	139.77	0.34	1.76	2.31
19080.92	19249.50	1066.72	347.51	168.66	0.64	2.06	3.07
19249.50 LB	19773.84	36263.88	4756.08	525.36	21.85	9.07	7.62
19773.84	20298.19	72441.31	7201.27	524.92	43.64	13.73	10.06
20298.19	20822.53	15619.48	2868.10	524.85	9.41	5.47	5.45
20822.53	21346.88	13190.50	2569.11	513.59	7.95	5.01	5.13
21346.88	21871.22 RB	26850.13	3980.93	528.55	16.17	7.59	6.74

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19249.50 LB	19773.84	36613.05	4886.94	526.02	22.06	9.32	7.49
19773.84	20298.19	72093.98	7332.13	524.92	43.43	13.98	9.83
20298.19	20822.53	16249.44	2998.96	524.85	9.79	5.72	5.42
20822.53	21346.88	13684.79	2697.93	521.29	8.24	5.19	5.07
21346.88	21871.22 RB	27358.74	4111.79	528.81	16.48	7.84	6.65

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.71

INPUT
Description: 207.71

Right Channel Bank Station Interpolated
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16626.2	1015.3	16668.1	1016.9	16690.7	1017.7	16699.2	1016.4	16733.9	1017.7
16740.2	1016.3	16747.5	1017.3	16818.1	1015.6	16927.6	1015.4	17021	1015.3
17153.4	1014.4	17242.5	1014.4	17313.4	1014.7	17424.4	1012.2	17499	1011
17545	1013	17556.4	1015	18768.1	1013.7	18795	1011.6	18818.9	1011.4
18826.3	1012.5	18837.7	1011	18904.5	1010.8	18932.9	1017.1	18948.7	1016.5
18965.2	1012.7	18981.8	1010.9	19105.3	1010.4	19195.8	1010.5	19272.7	1010.8
19360	1012.7	19373.3	1012.3	19388.1	1010.3	19485.7	1009.8	19579.6	1007.5
19626	1005.9	19656.3	1007	19724.1	1004.1	19825	1001.9	19865.5	1001.1
20033.4	1000.7	20147.9	1000.3	20249.8	1001.7	20337.9	1005	20425.2	1009.8
20449	1011	20553.3	1008.9	20639.2	1006.4	20687.9	1004.5	20738.5	1010.7
20781.1	1011.2	20925.4	1010.6	21010.9	1010.5	21099.7	1007.8	21189.9	1007.3
21251.6	1004.6	21350.8	1006.6	21434.6	1006	21545.1	1002.4	21640.9	1004.3
21652.1	1006	21660.7	1004.2	21704.1	1014.399	21725.4	1019.4	21784.6	1016.6
21889.9	1018.1	21992.7	1019.3	22114.5	1018.7	22157	1018.7		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16626.2	.025	17556.4	.043	18981.8	.032	19360	.032	21725.4	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19360	21704.11	485	487.91	485	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16626.2	18932.9	1018	21725.4	22157	1018

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1014.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.03	Wt. n-Val.	0.032	0.032	0.000
E.G. Elev (ft)	1015.43	Reach Len. (ft)	485.00	487.91	485.00
Crit W.S. (ft)	1011.58	Flow Area (sq ft)	1392.19	19377.19	0.00
E.G. Slope (ft/ft)	0.001885	Area (sq ft)	2487.42	19377.19	0.00
Q Total (cfs)	166000.00	Flow (cfs)	6418.17	159581.83	0.00
Top Width (ft)	3875.09	Top Width (ft)	1530.95	2344.11	0.03
Vel Total (ft/s)	7.99	Avg. Vel. (ft/s)	4.61	8.24	0.05
Max Chl Dpth (ft)	14.11	Hydr. Depth (ft)	3.46	8.27	0.00
Conv. Total (cfs)	3823548.8	Conv. (cfs)	147832.5	3675716.3	0.0
Length Wtd. (ft)	487.81	Wetted Per. (ft)	402.52	2346.83	0.03
Min Ch El (ft)	1000.30	Shear (lb/sq ft)	0.41	0.97	
Alpha	1.03	Stream Power (lb/ft s)	1.88	8.00	
Frctn Loss (ft)	1.11	Cum Volume (acre-ft)	6982.52	22093.42	1404.71
C & E Loss (ft)	0.05	Cum SA (acres)	1980.83	2296.82	662.84

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1014.58	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.09	Wt. n-Val.		0.032	
E.G. Elev (ft)	1015.67	Reach Len. (ft)	485.00	487.91	485.00
Crit W.S. (ft)	1011.45	Flow Area (sq ft)		19781.23	
E.G. Slope (ft/ft)	0.001906	Area (sq ft)		19781.23	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2344.11	Top Width (ft)		2344.11	
Vel Total (ft/s)	8.39	Avg. Vel. (ft/s)		8.39	
Max Chl Dpth (ft)	14.28	Hydr. Depth (ft)		8.44	
Conv. Total (cfs)	3802119.3	Conv. (cfs)		3802119.3	
Length Wtd. (ft)	487.91	Wetted Per. (ft)		2348.89	
Min Ch El (ft)	1000.30	Shear (lb/sq ft)		1.00	
Alpha	1.00	Stream Power (lb/ft s)		8.41	
Frctn Loss (ft)	1.10	Cum Volume (acre-ft)	1290.35	22948.25	34.97
C & E Loss (ft)	0.05	Cum SA (acres)	210.65	2301.27	6.81

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18813.24	18995.49	344.65	97.97	37.99	0.21	2.60	3.52
18995.49	19177.75	3470.57	702.80	182.25	2.09	3.86	4.94
19177.75	19360.00	2602.95	591.42	182.28	1.57	3.25	4.40
19360.00 LB	19828.82	24485.31	3434.86	469.13	14.75	7.33	7.13
19828.82	20297.64	66707.19	6265.79	468.87	40.19	13.36	10.65
20297.64	20766.46	19973.44	3040.68	469.49	12.03	6.49	6.57
20766.46	21235.29	12886.95	2336.55	468.91	7.76	4.98	5.52
21235.29	21704.11 RB	35528.94	4299.31	470.43	21.40	9.17	8.26

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19360.00 LB	19828.82	25589.24	3515.67	471.00	15.42	7.50	7.28
19828.82	20297.64	68695.05	6346.60	468.87	41.38	13.54	10.82
20297.64	20766.46	21033.67	3121.48	469.49	12.67	6.66	6.74
20766.46	21235.29	13747.93	2417.36	468.91	8.28	5.16	5.69
21235.29	21704.11 RB	36934.11	4380.12	470.61	22.25	9.34	8.43

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.62

INPUT
Description: 207.62

Right Channel Bank Station Interpolated
Station Elevation Data num= 85

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16251.6	1013	16315.4	1013.5	16374.7	1014.7	16377.5	1015.5	16395.5	1014.6
16421.5	1015.7	16422	1014.7	16556.1	1013.9	16632.1	1014	16716.9	1014
16809.1	1014.3	16813.5	1014.3	16896.9	1014.4	16907.1	1014.4	16991.8	1014.6
17078.6	1013.2	17168.3	1009.6	17287	1010.1	17414.8	1010.3	17522.4	1010.6
17591.1	1013.4	17609.8	1011.4	17662	1012.1	17679.1	1013.9	17688.4	1011.8
17788.8	1010.9	17868.6	1012.4	17910.4	1011.6	17996.3	1008.9	18009.6	1010.7
18035.1	1010.4	18045.1	1011.9	18138.2	1012.6	18185.4	1012.3	18195	1014.2
18263.6	1011.9	18647.5	1012.1	18732.3	1011.6	18815.2	1006.9	18891.8	1011.1
18961.7	1011	18978.7	1015.9	18991.8	1016.8	19005.5	1010.9	19115.1	1011.1
19173.3	1010.9	19236.3	1009.2	19351.7	1010.9	19441.1	1010.7	19518.1	1010.9
19536.8	1005.8	19551.7	1003.6	19572.3	1011.7	19592.2	1007	19618.9	1009.2
19629.6	1005.5	19641.4	1008.7	19649.6	1006.2	19667.1	1010.9	19710.7	1009
19801.1	1007.5	19885.1	1000.9	20012.8	1000.7	20210.2	1000.2	20295.5	1002.1
20395.7	1005.1	20429.1	1005.7	20464.4	1011.5	20549.3	1010.6	20664.2	1007.1
20756.4	1006	20844.7	1004.1	20964.8	1003.4	21097.7	1002.5	21189.6	1001.6
21272.9	1002.2	21361.2	1003.4	21445.5	1003.8	21449.7	1003.9	21472.33	1012.741
21484	1017.3	21597.8	1018	21670.5	1017.5	21682.6	1018.4	21786	1017.2

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16251.6	.025	17591.1	.043	19005.5	.032	19518.1	.032	21484	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19518.1	21472.33	460	465	515	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16251.6	18991.8	1018.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1012.76	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.51	Wt. n-Val.	0.032	0.032	0.000
E.G. Elev (ft)	1014.28	Reach Len. (ft)	460.00	465.00	515.00
Crit W.S. (ft)	1010.41	Flow Area (sq ft)	1110.05	16165.65	0.00
E.G. Slope (ft/ft)	0.002780	Area (sq ft)	4018.01	16165.65	0.00
Q Total (cfs)	166000.00	Flow (cfs)	4528.28	161471.72	0.00
Top Width (ft)	4261.90	Top Width (ft)	2307.61	1954.23	0.05
Vel Total (ft/s)	9.61	Avg. Vel. (ft/s)	4.08	9.99	0.11
Max Chl Dpth (ft)	12.56	Hydr. Depth (ft)	2.15	8.27	0.01
Conv. Total (cfs)	3148167.5	Conv. (cfs)	85878.3	3062289.3	0.0
Length Wtd. (ft)	464.83	Wetted Per. (ft)	517.34	1961.92	0.06
Min Ch El (ft)	1000.20	Shear (lb/sq ft)	0.37	1.43	
Alpha	1.06	Stream Power (lb/ft s)	1.52	14.29	
Frctn Loss (ft)	0.92	Cum Volume (acre-ft)	6946.30	21894.36	1404.71
C & E Loss (ft)	0.11	Cum SA (acres)	1959.46	2272.75	662.84

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1012.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.56	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1014.53	Reach Len. (ft)	460.00	465.00	515.00
Crit W.S. (ft)	1010.37	Flow Area (sq ft)	16.64	16570.95	
E.G. Slope (ft/ft)	0.002704	Area (sq ft)	16.64	16570.95	
Q Total (cfs)	166000.00	Flow (cfs)	56.08	165943.92	
Top Width (ft)	1962.23	Top Width (ft)	8.00	1954.23	
Vel Total (ft/s)	10.01	Avg. Vel. (ft/s)	3.37	10.01	
Max Chl Dpth (ft)	12.77	Hydr. Depth (ft)	2.08	8.48	
Conv. Total (cfs)	3192147.0	Conv. (cfs)	1078.4	3191068.5	
Length Wtd. (ft)	465.00	Wetted Per. (ft)	10.09	1962.15	
Min Ch El (ft)	1000.20	Shear (lb/sq ft)	0.28	1.43	
Alpha	1.00	Stream Power (lb/ft s)	0.94	14.28	
Frctn Loss (ft)	0.94	Cum Volume (acre-ft)	1290.26	22744.66	34.97

C & E Loss (ft) 0.09 Cum SA (acres) 210.61 2277.19 6.81

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18864.80	19082.57	502.05	142.11	81.77	0.30	1.75	3.53
19082.57	19300.33	2305.54	526.35	217.80	1.39	2.42	4.38
19300.33	19518.10	1720.68	441.59	217.77	1.04	2.03	3.90
19518.10 LB	19908.95	16955.38	2275.35	396.22	10.21	5.82	7.45
19908.95	20299.79	57539.51	4710.67	390.87	34.66	12.05	12.21
20299.79	20690.64	13949.56	2014.13	391.43	8.40	5.15	6.93
20690.64	21081.48	32128.05	3320.75	390.88	19.35	8.50	9.67
21081.48	21472.33 RB	40899.23	3844.75	392.53	24.64	9.84	10.64

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19300.33	19518.10	56.08	16.64	10.09	0.03	2.08	3.37
19518.10 LB	19908.95	17770.27	2356.41	396.22	10.70	6.03	7.54
19908.95	20299.79	58528.05	4791.73	390.87	35.26	12.26	12.21
20299.79	20690.64	14728.86	2095.19	391.43	8.87	5.36	7.03
20690.64	21081.48	33066.57	3401.81	390.88	19.92	8.70	9.72
21081.48	21472.33 RB	41850.16	3925.81	392.76	25.21	10.04	10.66

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.53

INPUT
Description: 207.53

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16022.7	1011.1	16143.3	1011.7	16215.8	1011.5	16221.1	1014.1	16232.7	1013.9
16241.1	1012.7	16266.4	1013.7	16266.5	1014.9	16268.8	1013.2	16273.6	1014.2
16372.5	1014.1	16429	1014.9	16432.3	1013.6	16526.5	1013	16542.7	1012.9
16638.5	1012.9	16738.7	1012.6	16828.5	1012.8	16854.4	1014.1	16891.5	1014.1
16896.5	1014.8	17034.3	1011.1	17122	1009.6	17238.3	1009.7	17332.6	1009.9
17423.9	1010.1	17511.1	1010.4	17604.5	1010.7	17620.2	1013.7	17629.7	1010.7
17643.4	1009.3	17724	1010	17812.5	1010.1	17954	1010	18065.4	1010.1
18155.9	1010.1	18267.1	1010.5	18354.5	1010.5	18454.3	1011.5	18527.2	1011.5
18611.5	1010	18724.9	1010	18789.3	1010.5	18796.9	1011.3	18812.1	1007.4
18898.8	1008.9	18986.9	1010	18999.5	1010.7	19027.1	1017.5	19046.3	1011.3
19124.1	1011.5	19133.7	1010.3	19137.2	1008.4	19148.2	1008.1	19240.4	1009.9
19257.7	1010.8	19302.9	1009.2	19305.5	1008.3	19314.2	1008.5	19319	1010.3
19329.6	1007.9	19386.1	1006.6	19502.9	1006.4	19603.8	1004.2	19684.4	1002.8
19763.2	1001.2	19791	999.1	19817.3	1000.3	19986.4	1000.3	20057	1000.3
20190.1	1000.3	20256.8	1001.2	20303.8	999.8	20452.2	999.9	20549.1	1000.2
20636.9	1000.2	20732.4	1000.1	20823	1000.7	20885.5	1001.5	20917.4	1004.8
20933.9	1001.4	20947	1004	20965	1000.8	21002.6	1002.6	21159.7	1002.9
21175	1003.865	21269.1	1009.8	21336	1012.1	21366.8	1015.8	21376.8	1013.2
21407.7	1013.3	21446.9	1014.6	21511.1	1014.3	21572.1	1017.7	21609.7	1014
21754.4	1013.1	21798	1013.8						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16022.7	.025	17620.2	.043	19124.1	.032	19502.9	.032	21336	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19502.9	21175	231	227	201	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16022.7	19027.1	1015	21175	21798	1015

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1012.09	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.16	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1013.25	Reach Len. (ft)	231.00	227.00	201.00
Crit W.S. (ft)	1008.06	Flow Area (sq ft)	1537.92	18157.76	
E.G. Slope (ft/ft)	0.001487	Area (sq ft)	5535.82	18157.76	570.57
Q Total (cfs)	166000.00	Flow (cfs)	6639.81	159360.20	
Top Width (ft)	4480.12	Top Width (ft)	2647.39	1672.10	160.63
Vel Total (ft/s)	8.43	Avg. Vel. (ft/s)	4.32	8.78	
Max Chl Dpth (ft)	12.99	Hydr. Depth (ft)	3.35	10.86	
Conv. Total (cfs)	4304674.5	Conv. (cfs)	172182.0	4132492.8	
Length Wtd. (ft)	227.08	Wetted Per. (ft)	460.56	1673.42	
Min Ch El (ft)	999.10	Shear (lb/sq ft)	0.31	1.01	
Alpha	1.05	Stream Power (lb/ft s)	1.34	8.84	
Frctn Loss (ft)	0.23	Cum Volume (acre-ft)	6895.85	21711.16	1401.34
C & E Loss (ft)	0.09	Cum SA (acres)	1933.30	2253.40	661.89

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1012.24	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.26	Wt. n-Val.		0.032	
E.G. Elev (ft)	1013.50	Reach Len. (ft)	231.00	227.00	201.00
Crit W.S. (ft)	1007.97	Flow Area (sq ft)		18411.17	
E.G. Slope (ft/ft)	0.001558	Area (sq ft)		18411.17	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1672.10	Top Width (ft)		1672.10	
Vel Total (ft/s)	9.02	Avg. Vel. (ft/s)		9.02	
Max Chl Dpth (ft)	13.14	Hydr. Depth (ft)		11.01	
Conv. Total (cfs)	4205284.0	Conv. (cfs)		4205284.0	
Length Wtd. (ft)	227.00	Wetted Per. (ft)		1687.63	
Min Ch El (ft)	999.10	Shear (lb/sq ft)		1.06	
Alpha	1.00	Stream Power (lb/ft s)		9.57	
Frctn Loss (ft)	0.23	Cum Volume (acre-ft)	1290.17	22557.94	34.97
C & E Loss (ft)	0.13	Cum SA (acres)	210.57	2257.84	6.81

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19038.87	19270.89	1390.88	452.39	227.76	0.84	1.99	3.07
19270.89	19502.90	5248.93	1085.53	232.80	3.16	4.68	4.84
19502.90 LB	19837.32	23865.97	3065.49	334.58	14.38	9.17	7.79
19837.32	20171.74	36301.98	3941.93	334.42	21.87	11.79	9.21
20171.74	20506.16	36984.54	3986.36	334.45	22.28	11.92	9.28
20506.16	20840.58	36488.82	3954.10	334.42	21.98	11.82	9.23
20840.58	21175.00 RB	25718.88	3209.88	335.55	15.49	9.60	8.01

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19502.90 LB	19837.32	24792.37	3116.17	340.42	14.94	9.32	7.96
19837.32	20171.74	37918.95	3992.61	334.42	22.84	11.94	9.50
20171.74	20506.16	38622.81	4037.04	334.45	23.27	12.07	9.57
20506.16	20840.58	38111.63	4004.79	334.42	22.96	11.98	9.52
20840.58	21175.00 RB	26554.23	3260.56	343.93	16.00	9.75	8.14

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.49

INPUT
Description: 207.49
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16210	1013.8	17338.3	1010.47	18388.3	1010.34	18888.3	1010.64	18938.3	1011
18988.3	1011.5	19038.3	1012.3	19088.3	1013.2	19138.3	1014.3	19188.3	1015.6
19288.3	1018.2	19388.3	1020.56	19455	1022.05	19465.2	1020.4	19465.3	1014.7
19468.2	1013.7	19522.3	997.9	19560.3	997.3	19564.3	997.3	19660.3	997
19664.3	997	19760.3	996.4	19764.3	996.4	19860.3	999.5	19864.3	999.5
19960.3	997.4	19964.3	997.4	20060.3	994.6	20064.3	994.6	20160.3	995.5
20164.3	995.5	20260.3	999.6	20264.3	999.6	20360.3	998.5	20364.3	998.5
20460.3	998.9	20464.3	998.9	20560.3	996.7	20564.3	996.7	20660.3	997.9
20664.3	997.9	20760.3	998	20764.3	998	20860.3	999.9	20864.3	999.9
20960.3	998	20964.3	998	21027.8	992.2	21056.5	1014.7	21059.4	1014.7
21059.5	1020.4	21080	1020.7	21115	1020	21280	1016	21875	1013.8

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
16210	.032	19455	.032	21059.4	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19465.3	21059.4		50	53	35 .1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16210	19465.3	1020	21059.4	21875	1020

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1012.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.85	Wt. n-Val.		0.032	
E.G. Elev (ft)	1012.92	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1004.70	Flow Area (sq ft)		22425.63	
E.G. Slope (ft/ft)	0.000745	Area (sq ft)	3088.34	22425.63	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	3807.62	Top Width (ft)	2228.25	1579.37	
Vel Total (ft/s)	7.40	Avg. Vel. (ft/s)		7.40	
Max Chl Dpth (ft)	19.87	Hydr. Depth (ft)		14.20	
Conv. Total (cfs)	6081881.5	Conv. (cfs)		6081881.5	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		1588.81	
Min Ch El (ft)	992.20	Shear (lb/sq ft)		0.66	
Alpha	1.00	Stream Power (lb/ft s)		4.86	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	6872.99	21605.42	1400.02
C & E Loss (ft)	0.01	Cum SA (acres)	1920.37	2244.92	661.52

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1012.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.82	Wt. n-Val.		0.032	
E.G. Elev (ft)	1013.14	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1004.70	Flow Area (sq ft)		22815.94	
E.G. Slope (ft/ft)	0.000704	Area (sq ft)		22815.94	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1579.37	Top Width (ft)		1579.37	
Vel Total (ft/s)	7.28	Avg. Vel. (ft/s)		7.28	
Max Chl Dpth (ft)	20.12	Hydr. Depth (ft)		14.45	
Conv. Total (cfs)	6258026.0	Conv. (cfs)		6258026.0	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		1589.31	
Min Ch El (ft)	992.20	Shear (lb/sq ft)		0.63	
Alpha	1.00	Stream Power (lb/ft s)		4.59	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	1290.17	22450.52	34.97
C & E Loss (ft)	0.01	Cum SA (acres)	210.57	2249.37	6.81

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19465.30 LB	19784.12	31135.11	4288.13	312.39	18.76	13.82	7.26
19784.12	20102.94	36401.14	4748.80	318.93	21.93	14.89	7.67
20102.94	20421.76	33939.67	4553.38	318.92	20.45	14.28	7.45
20421.76	20740.58	33872.14	4547.59	318.85	20.40	14.26	7.45
20740.58	21059.40 RB	30651.95	4287.73	319.73	18.47	13.72	7.15

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19465.30 LB	19784.12	31149.98	4364.82	312.63	18.77	14.06	7.14
19784.12	20102.94	36360.45	4827.59	318.93	21.90	15.14	7.53
20102.94	20421.76	33941.32	4632.17	318.92	20.45	14.53	7.33
20421.76	20740.58	33875.02	4626.38	318.85	20.41	14.51	7.32
20740.58	21059.40 RB	30673.25	4364.97	319.98	18.48	13.96	7.03

BRIDGE RIVER: 1
REACH: 1 RS: 207.485

INPUT
Description: 51st Avenue Bridge
Distance from Upstream XS = 0
Deck/Roadway Width = 50.71
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 28

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
17338.3	1010.47	1010.47	18388.3	1010.34	1010.34	18888.3	1010.64	1010.64
18938.3	1011	1011	18988.3	1011.5	1011.5	19038.3	1012.3	1012.3
19088.3	1013.2	1013.2	19138.3	1014.3	1014.3	19188.3	1015.6	1015.6
19288.3	1018.2	1018.2	19388.3	1020.56	1020.56	19445	1022.05	1020.2
19560.3	1023.4	1017.77	19660.3	1025.18	1019.47	19760.3	1026.58	1020.87
19860.3	1027.68	1022	19960.3	1028.58	1022.87	20060.3	1029.28	1023.59
20160.3	1029.68	1023.99	20260.3	1029.78	1024.09	20360.3	1029.68	1024
20460.3	1029.28	1023.59	20560.3	1028.68	1023.01	20660.3	1027.88	1022.21
20760.3	1026.68	1021	20860.3	1025.41	1019.67	20960.3	1023.68	1018.03
21059.4	1020.6	1014.92						

Upstream Bridge Cross Section Data
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16210	1013.8	17338.3	1010.47	18388.3	1010.34	18888.3	1010.64	18938.3	1011
18988.3	1011.5	19038.3	1012.3	19088.3	1013.2	19138.3	1014.3	19188.3	1015.6
19288.3	1018.2	19388.3	1020.56	19455	1022.05	19465.2	1020.4	19465.3	1014.7
19468.2	1013.7	19522.3	997.9	19560.3	997.3	19564.3	997.3	19660.3	997
19664.3	997	19760.3	996.4	19764.3	996.4	19860.3	999.5	19864.3	999.5
19960.3	997.4	19964.3	997.4	20060.3	994.6	20064.3	994.6	20160.3	995.5
20164.3	995.5	20260.3	999.6	20264.3	999.6	20360.3	998.5	20364.3	998.5
20460.3	998.9	20464.3	998.9	20560.3	996.7	20564.3	996.7	20660.3	997.9
20664.3	997.9	20760.3	998	20764.3	998	20860.3	999.9	20864.3	999.9
20960.3	998	20964.3	998	21027.8	992.2	21056.5	1014.7	21059.4	1014.7
21059.5	1020.4	21080	1020.7	21115	1020	21280	1016	21875	1013.8

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
16210	.032	19455	.032	21059.4	.032

Bank Sta: Left	Right	Coeff Contr.	Expan.
19465.3	21059.4	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16210	19465.3	1020	21059.4	21875	1020

Downstream Deck/Roadway Coordinates
num= 28

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
17338.3	1010.47	1010.47	18388.3	1010.34	1010.34	18888.3	1010.64	1010.64
18938.3	1011	1011	18988.3	1011.5	1011.5	19038.3	1012.3	1012.3
19088.3	1013.2	1013.2	19138.3	1014.3	1014.3	19188.3	1015.6	1015.6

19288.3	1018.2	1018.2	19388.3	1020.56	1020.56	19445	1022.05	1020.2
19560.3	1023.4	1017.77	19660.3	1025.18	1019.47	19760.3	1026.58	1020.87
19860.3	1027.68	1022	19960.3	1028.58	1022.87	20060.3	1029.28	1023.59
20160.3	1029.68	1023.99	20260.3	1029.78	1024.09	20360.3	1029.68	1024
20460.3	1029.28	1023.59	20560.3	1028.68	1023.01	20660.3	1027.88	1022.21
20760.3	1026.68	1021	20860.3	1025.41	1019.67	20960.3	1023.68	1018.03
21059.4	1020.6	1014.92						

Downstream Bridge Cross Section Data
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16210	1013.8	17338.3	1010.47	18388.3	1010.34	18888.3	1010.64	18938.3	1011
18988.3	1011.5	19038.3	1012.3	19088.3	1013.2	19138.3	1014.3	19188.3	1015.6
19288.3	1018.2	19388.3	1020.56	19455	1022.05	19465.2	1020.4	19465.3	1014.7
19468.2	1013.7	19522.3	997.9	19560.3	997.3	19564.3	997.3	19660.3	997
19664.3	997	19760.3	996.4	19764.3	996.4	19860.3	999.5	19864.3	999.5
19960.3	997.4	19964.3	997.4	20060.3	994.6	20064.3	994.6	20160.3	995.5
20164.3	995.5	20260.3	999.6	20264.3	999.6	20360.3	998.5	20364.3	998.5
20460.3	998.9	20464.3	998.9	20560.3	996.7	20564.3	996.7	20660.3	997.9
20664.3	997.9	20760.3	998	20764.3	998	20860.3	999.9	20864.3	999.9
20960.3	998	20964.3	998	21027.8	992.2	21056.5	1014.7	21059.4	1014.7
21059.5	1020.4	21080	1020.7	21115	1020	21280	1016	21875	1013.8

Manning's n Values num= 2

Sta	n Val	Sta	n Val
16210	.032	21059.4	.032

Bank Sta: Left	Right	Coeff Contr.	Expan.
19465.3	21059.4	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16210	19465.3	1020	21059.4	21875	1020

Upstream Embankment side slope = horiz. to 1.0 vertical
Downstream Embankment side slope = horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins = 1010.34
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Piers = 15

Pier Data
Pier Station Upstream= 19562.3 Downstream= 19562.3
Upstream num= 2

Width	Elev	Width	Elev
4	997.3	4	1017.8

Downstream num= 2

Width	Elev	Width	Elev
4	997.3	4	1017.8

Pier Data
Pier Station Upstream= 19662.3 Downstream= 19662.3
Upstream num= 2

Width	Elev	Width	Elev
4	997	4	1019.54

Downstream num= 2

Width	Elev	Width	Elev
4	997	4	1019.54

Pier Data
Pier Station Upstream= 19762.3 Downstream= 19762.3
Upstream num= 2

Width	Elev	Width	Elev
4	996.4	4	1020.94

Downstream num= 2

Width	Elev	Width	Elev
4	996.4	4	1020.94

Pier Data
Pier Station Upstream= 19862.3 Downstream= 19862.3
Upstream num= 2

Width	Elev	Width	Elev
4	999.5	4	1022

Downstream num= 2

```
     Width   Elev    Width   Elev
       4   999.5       4    1022

 Pier Data
 Pier Station     Upstream= 19962.3    Downstream= 19962.3
 Upstream     num=        2
     Width   Elev    Width   Elev
       4   997.4       4  1022.9
 Downstream     num=        2
     Width   Elev    Width   Elev
       4   997.4       4  1022.9

 Pier Data
 Pier Station     Upstream= 20062.3    Downstream= 20062.3
 Upstream     num=        2
     Width   Elev    Width   Elev
       4   994.6       4  1023.6
 Downstream     num=        2
     Width   Elev    Width   Elev
       4   994.6       4  1023.6

 Pier Data
 Pier Station     Upstream= 20162.3    Downstream= 20162.3
 Upstream     num=        2
     Width   Elev    Width   Elev
       4   995.5       4    1024
 Downstream     num=        2
     Width   Elev    Width   Elev
       4   995.5       4    1024

 Pier Data
 Pier Station     Upstream= 20262.3    Downstream= 20262.3
 Upstream     num=        2
     Width   Elev    Width   Elev
       4   999.6       4  1024.1
 Downstream     num=        2
     Width   Elev    Width   Elev
       4   999.6       4  1024.1

 Pier Data
 Pier Station     Upstream= 20362.3    Downstream= 20362.3
 Upstream     num=        2
     Width   Elev    Width   Elev
       4   998.5       4    1024
 Downstream     num=        2
     Width   Elev    Width   Elev
       4   998.5       4    1024

 Pier Data
 Pier Station     Upstream= 20462.3    Downstream= 20462.3
 Upstream     num=        2
     Width   Elev    Width   Elev
       4   998.9       4  1023.6
 Downstream     num=        2
     Width   Elev    Width   Elev
       4   998.9       4  1023.6

 Pier Data
 Pier Station     Upstream= 20562.3    Downstream= 20562.3
 Upstream     num=        2
     Width   Elev    Width   Elev
       4   996.7       4    1023
 Downstream     num=        2
     Width   Elev    Width   Elev
       4   996.7       4    1023

 Pier Data
 Pier Station     Upstream= 20662.3    Downstream= 20662.3
 Upstream     num=        2
     Width   Elev    Width   Elev
       4   997.9       4  1022.2
 Downstream     num=        2
     Width   Elev    Width   Elev
       4   997.9       4  1022.2

 Pier Data
```

```
Pier Station     Upstream= 20762.3    Downstream= 20762.3
Upstream     num=       2
    Width   Elev    Width   Elev
       4     998       4    1021
Downstream     num=       2
    Width   Elev    Width   Elev
       4     998       4    1021

Pier Data
Pier Station     Upstream= 20862.3    Downstream= 20862.3
Upstream     num=       2
    Width   Elev    Width   Elev
       4   999.9       4  1019.7
Downstream     num=       2
    Width   Elev    Width   Elev
       4   999.9       4  1019.7

Pier Data
Pier Station     Upstream= 20962.3    Downstream= 20962.3
Upstream     num=       2
    Width   Elev    Width   Elev
       4     998       4    1018
Downstream     num=       2
    Width   Elev    Width   Elev
       4     998       4    1018

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
       Momentum                Cd   =     1.2
       Yarnell                 KVal =    1.05
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
       Pressure and Weir flow
           Submerged Inlet Cd          =
           Submerged Inlet + Outlet Cd =      .8
           Max Low Cord                =

Additional Bridge Parameters
       Add Friction component to Momentum
       Add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the downstream end
       Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT    Profile #PF#1
Opening : Bridge #1

  E.G. US. (ft)                1012.92   Element                 Inside BR US  Inside BR DS
  W.S. US. (ft)                1012.07   E.G. Elev (ft)               1012.91       1012.85
  Q Total (cfs)              166000.00   W.S. Elev (ft)               1011.98       1011.91
  Q Bridge (cfs)             166000.00   Crit W.S. (ft)               1004.92       1004.90
  Q Weir (cfs)                           Max Chl Dpth (ft)              19.78         19.71
  Weir Sta Lft (ft)                      Vel Total (ft/s)               7.75          7.79
  Weir Sta Rgt (ft)                      Flow Area (sq ft)          21426.50      21322.50
  Weir Submerg                           Froude # Chl                   0.36          0.37
  Weir Max Depth (ft)                    Specif Force (cu ft)       194745.88     193476.94
  Min Top Rd (ft)              1020.00   Hydr Depth (ft)               14.11         14.04
  Min El Prs (ft)              1024.09   W.P. Total (ft)             1957.41       1955.00
  Delta EG (ft)                   0.09   Conv. Total (cfs)         4905046.5     4869425.5
  Delta WS (ft)                   0.11   Top Width (ft)              1518.95       1518.63
  BR Open Area (sq ft)        35958.82   Frctn Loss (ft)                0.06          0.06
  BR Open Vel (ft/s)              7.79   C & E Loss (ft)                0.00          0.02
  Coef of Q                              Shear Total (lb/sq ft)         0.78          0.79
  Br Sel Mthd              Energy only   Power Total (lb/ft s)          6.06          6.16


BRIDGE OUTPUT    Profile #PF#2
Opening : Bridge #1

  E.G. US. (ft)                1013.14   Element                 Inside BR US  Inside BR DS
  W.S. US. (ft)                1012.32   E.G. Elev (ft)               1013.13       1013.08
  Q Total (cfs)              166000.00   W.S. Elev (ft)               1012.23       1012.17
  Q Bridge (cfs)             166000.00   Crit W.S. (ft)               1004.92       1004.90
```

Q Weir (cfs)		Max Chl Dpth (ft)	20.03	19.97
Weir Sta Lft (ft)		Vel Total (ft/s)	7.61	7.65
Weir Sta Rgt (ft)		Flow Area (sq ft)	21807.78	21709.91
Weir Submerg		Froude # Chl	0.35	0.36
Weir Max Depth (ft)		Specif Force (cu ft)	199471.66	198247.45
Min Top Rd (ft)	1020.00	Hydr Depth (ft)	14.35	14.28
Min El Prs (ft)	1024.09	W.P. Total (ft)	1966.24	1963.97
Delta EG (ft)	0.09	Conv. Total (cfs)	5036246.5	5002475.0
Delta WS (ft)	0.10	Top Width (ft)	1520.13	1519.83
BR Open Area (sq ft)	35958.82	Frctn Loss (ft)	0.06	0.00
BR Open Vel (ft/s)	7.65	C & E Loss (ft)	0.00	0.02
Coef of Q		Shear Total (lb/sq ft)	0.75	0.76
Br Sel Mthd	Energy only	Power Total (lb/ft s)	5.73	5.81

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.48

INPUT
Description: 207.48
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16210	1013.8	17338.3	1010.47	18388.3	1010.34	18888.3	1010.64	18938.3	1011
18988.3	1011.5	19038.3	1012.3	19088.3	1013.2	19138.3	1014.3	19188.3	1015.6
19288.3	1018.2	19388.3	1020.56	19455	1022.05	19465.2	1020.4	19465.3	1014.7
19468.2	1013.7	19522.3	997.9	19560.3	997.3	19564.3	997.3	19660.3	997
19664.3	997	19760.3	996.4	19764.3	996.4	19860.3	999.5	19864.3	999.5
19960.3	997.4	19964.3	997.4	20060.3	994.6	20064.3	994.6	20160.3	995.5
20164.3	995.5	20260.3	999.6	20264.3	999.6	20360.3	998.5	20364.3	998.5
20460.3	998.9	20464.3	998.9	20560.3	996.7	20564.3	996.7	20660.3	997.9
20664.3	997.9	20760.3	998	20764.3	998	20860.3	999.9	20864.3	999.9
20960.3	998	20964.3	998	21027.8	992.2	21056.5	1014.7	21059.4	1014.7
21059.5	1020.4	21080	1020.7	21115	1020	21280	1016	21875	1013.8

Manning's n Values num= 2

Sta	n Val	Sta	n Val
16210	.032	21059.4	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19465.3	21059.4	251	245.54	316	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16210	19465.3	1020	21059.4	21875	1020

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1011.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.86	Wt. n-Val.		0.032	
E.G. Elev (ft)	1012.83	Reach Len. (ft)	251.00	245.54	316.00
Crit W.S. (ft)	1004.71	Flow Area (sq ft)		22258.79	
E.G. Slope (ft/ft)	0.000763	Area (sq ft)	2855.17	22258.79	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	3764.72	Top Width (ft)	2185.85	1578.87	
Vel Total (ft/s)	7.46	Avg. Vel. (ft/s)		7.46	
Max Chl Dpth (ft)	19.77	Hydr. Depth (ft)		14.10	
Conv. Total (cfs)	6008038.0	Conv. (cfs)		6008038.0	
Length Wtd. (ft)	245.54	Wetted Per. (ft)		1588.26	
Min Ch El (ft)	992.20	Shear (lb/sq ft)		0.67	
Alpha	1.00	Stream Power (lb/ft s)		4.98	
Frctn Loss (ft)	0.29	Cum Volume (acre-ft)	6872.91	21579.39	1400.02
C & E Loss (ft)	0.06	Cum SA (acres)	1920.31	2243.08	661.52

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1012.22	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.83	Wt. n-Val.		0.032	
E.G. Elev (ft)	1013.05	Reach Len. (ft)	251.00	245.54	316.00
Crit W.S. (ft)	1004.71	Flow Area (sq ft)		22658.14	

E.G. Slope (ft/ft)	0.000720	Area (sq ft)		22658.14		
Q Total (cfs)	166000.00	Flow (cfs)		166000.00		
Top Width (ft)	1578.87	Top Width (ft)		1578.87		
Vel Total (ft/s)	7.33	Avg. Vel. (ft/s)		7.33		
Max Chl Dpth (ft)	20.02	Hydr. Depth (ft)		14.35		
Conv. Total (cfs)	6187454.0	Conv. (cfs)		6187454.0		
Length Wtd. (ft)	245.54	Wetted Per. (ft)		1588.77		
Min Ch El (ft)	992.20	Shear (lb/sq ft)		0.64		
Alpha	1.00	Stream Power (lb/ft s)		4.69		
Frctn Loss (ft)	0.27	Cum Volume (acre-ft)	1290.17	22424.02	34.97	
C & E Loss (ft)	0.06	Cum SA (acres)	210.57	2247.51	6.81	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19465.30 LB	19784.12	31142.55	4255.36	312.01	18.76	13.73	7.32
19784.12	20102.94	36414.11	4715.12	318.93	21.94	14.79	7.72
20102.94	20421.76	33934.42	4519.70	318.92	20.44	14.18	7.51
20421.76	20740.58	33866.36	4513.91	318.85	20.40	14.16	7.50
20740.58	21059.40 RB	30642.58	4254.71	319.56	18.46	13.62	7.20

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19465.30 LB	19784.12	31157.28	4333.76	312.26	18.77	13.98	7.19
19784.12	20102.94	36372.05	4795.76	318.93	21.91	15.04	7.58
20102.94	20421.76	33936.30	4600.34	318.92	20.44	14.43	7.38
20421.76	20740.58	33869.52	4594.55	318.85	20.40	14.41	7.37
20740.58	21059.40 RB	30664.85	4333.73	319.81	18.47	13.87	7.08

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.43

INPUT
Description: 207.43

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16001	1012.1	16131.4	1012.2	16228.7	1013.1	16320.3	1013.5	16407.2	1012.9
16462.7	1013	16534.7	1009.5	16622	1009.9	16771.3	1010.1	16811.7	1010.1
16903.6	1009.9	17000.5	1009.7	17064.3	1009.5	17157.6	1009.6	17168	1009.6
17254.7	1009.5	17423.7	1009.1	17535	1009.1	17611.5	1010	17646.2	1011.6
17670.8	1009.4	17760.3	1009.7	17874.6	1010.1	17964.8	1011.6	17984.9	1012
17997.8	1016.3	18045.8	1011.1	18059.4	1010.8	18090.3	1019.1	18104.6	1011.8
18153.8	1012.3	18156.2	1012	18391.4	1012.4	18596.1	1016.3	18654.3	1014.9
18908.3	1012	19012	1011.9	19027.1	1014.5	19083.8	1014.7	19094.4	1012.4
19147.4	1018.1	19153.2	1017.8	19176.4	1012.1	19237.2	1010.4	19250.8	1011.8
19253.3	1010.962	19268.1	1006	19370.6	1006.3	19448.3	1005	19562.2	1000.2
19660.1	999.2	19729.8	999	19896.9	999.1	20054.8	999.2	20143.1	999.3
20241.9	1000.1	20361.6	1000.3	20453.3	1000.3	20539.4	999.9	20632.9	1001.1
20689.8	1003.1	20747.1	1003	20818	999.4	20892	1000.8	20911.4	1002.3

20940	1001.503	20940.1	1001.5	20958.5	1009.2	21053.7	1010.9	21146.5	1011.2
21244.1	1013	21380.1	1013.7	21490.2	1010.1	21618.6	1011	21731	1013.6
21751.5	1014.2	21777.8	1011.3	21912.6	1011.5	21985	1012.4		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16001	.025	17611.5	.043	19012	.032	19250.8	.032	21053.7	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19253.3	20940	450	471	575	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16001	19250.8	1015	20940	21985	1015

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1010.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.49	Wt. n-Val.	0.000	0.032	
E.G. Elev (ft)	1012.48	Reach Len. (ft)	450.00	471.00	575.00
Crit W.S. (ft)	1007.62	Flow Area (sq ft)	0.00	16943.36	
E.G. Slope (ft/ft)	0.002056	Area (sq ft)	1800.24	16943.36	263.14
Q Total (cfs)	166000.00	Flow (cfs)	0.00	166000.00	
Top Width (ft)	3420.48	Top Width (ft)	1439.59	1686.70	294.19
Vel Total (ft/s)	9.80	Avg. Vel. (ft/s)	0.11	9.80	
Max Chl Dpth (ft)	11.99	Hydr. Depth (ft)	0.01	10.05	
Conv. Total (cfs)	3661190.3	Conv. (cfs)	0.0	3661190.3	
Length Wtd. (ft)	471.00	Wetted Per. (ft)	0.08	1687.85	
Min Ch El (ft)	999.00	Shear (lb/sq ft)		1.29	
Alpha	1.00	Stream Power (lb/ft s)		12.62	
Frctn Loss (ft)	1.09	Cum Volume (acre-ft)	6859.50	21468.90	1399.07
C & E Loss (ft)	0.03	Cum SA (acres)	1909.87	2233.87	660.46

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1011.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.39	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1012.73	Reach Len. (ft)	450.00	471.00	575.00
Crit W.S. (ft)	1007.62	Flow Area (sq ft)	0.03	17532.74	
E.G. Slope (ft/ft)	0.001849	Area (sq ft)	0.03	17532.74	
Q Total (cfs)	166000.00	Flow (cfs)	0.01	165999.98	
Top Width (ft)	1686.77	Top Width (ft)	0.07	1686.70	
Vel Total (ft/s)	9.47	Avg. Vel. (ft/s)	0.31	9.47	
Max Chl Dpth (ft)	12.34	Hydr. Depth (ft)	0.36	10.39	
Conv. Total (cfs)	3860919.3	Conv. (cfs)	0.2	3860919.0	
Length Wtd. (ft)	471.00	Wetted Per. (ft)	0.42	1697.68	
Min Ch El (ft)	999.00	Shear (lb/sq ft)	0.01	1.19	
Alpha	1.00	Stream Power (lb/ft s)	0.00	11.28	
Frctn Loss (ft)	0.94	Cum Volume (acre-ft)	1290.17	22310.75	34.97
C & E Loss (ft)	0.02	Cum SA (acres)	210.57	2238.31	6.81

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19253.30 LB	19590.64	15971.67	2213.70	338.26	9.62	6.56	7.21
19590.64	19927.98	42648.21	3986.36	337.34	25.69	11.82	10.70
19927.98	20265.32	41223.33	3905.91	337.34	24.83	11.58	10.55
20265.32	20602.66	36479.73	3629.68	337.35	21.98	10.76	10.05
20602.66	20940.00 RB	29677.04	3207.71	337.55	17.88	9.51	9.25

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19036.48	19253.30	0.01	0.03	0.42	0.00	0.36	0.31

19253.30 LB	19590.64	16528.25	2331.58	338.26	9.96	6.91	7.09
19590.64	19927.98	42493.17	4104.24	337.34	25.60	12.17	10.35
19927.98	20265.32	41113.98	4023.78	337.34	24.77	11.93	10.22
20265.32	20602.66	36518.25	3747.56	337.35	22.00	11.11	9.74
20602.66	20940.00 RB	29346.34	3325.59	347.38	17.68	9.86	8.82

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.34

INPUT
Description: 207.34

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16035.2	1011.8	16177.7	1012.1	16280.1	1013	16403.9	1013.3	16481.2	1012
16521.9	1009.6	16702.7	1009.6	16804.9	1009.5	16839.4	1009.4	16942.2	1010.3
16976.4	1010.3	17093.8	1008.9	17125.8	1008.8	17242.3	1008.6	17266.9	1008.4
17385.6	1008.6	17409.9	1008.6	17524	1008.8	17624.3	1009.1	17632.4	1009.2
17642.3	1011.1	17673.2	1011.4	17693.3	1008.6	17801.9	1009	17911.5	1008.1
17944	1007.7	17970.8	1008.9	18420.5	1010.8	18468.8	1010.2	18518.8	1009.3
19089.4	1009.3	19158.1	1010.6	19180.5	1009.1	19194.8	1003.1	19196.9	1003.1
19214.8	1010.1	19221.2	1005.7	19228.6	1002.1	19230	1001.961	19238.7	1001.1
19249	1002.5	19288.5	997	19326.4	995.9	19381	999.5	19392.5	1002.2
19404.7	999	19437.8	1000.9	19593.3	1002.4	19706.7	1001.8	19842	1000.3
19946.7	998.7	20191.8	998.9	20302.5	998.8	20382.5	998.4	20416.2	996.5
20521.3	998.7	20631.1	998.6	20696.7	998.2	20735.2	1000.8	20761.1	1007.9
20798.76	1009.511	20824.2	1010.6	20847.7	1013.3	20977	1014.8	20997	1014.1

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16035.2	.025	17693.3	.043	19196.9	.032	19214.8	.032	20847.7	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19230	20798.76	370	393.75	530	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16035.2	19230	1013

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1009.51	Element			
Vel Head (ft)	1.84	Wt. n-Val.		0.032	
E.G. Elev (ft)	1011.35	Reach Len. (ft)	370.00	393.75	530.00
Crit W.S. (ft)	1006.68	Flow Area (sq ft)		15263.20	
E.G. Slope (ft/ft)	0.002647	Area (sq ft)	1070.13	15263.20	0.00
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	3295.01	Top Width (ft)	1726.23	1568.76	0.01
Vel Total (ft/s)	10.88	Avg. Vel. (ft/s)		10.88	
Max Chl Dpth (ft)	13.61	Hydr. Depth (ft)		9.73	
Conv. Total (cfs)	3226517.3	Conv. (cfs)		3226517.3	
Length Wtd. (ft)	389.43	Wetted Per. (ft)		1571.38	
Min Ch El (ft)	995.90	Shear (lb/sq ft)		1.61	
Alpha	1.00	Stream Power (lb/ft s)		17.46	
Frctn Loss (ft)	1.06	Cum Volume (acre-ft)	6844.67	21294.78	1397.33
C & E Loss (ft)	0.01	Cum SA (acres)	1893.52	2216.27	658.51

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1010.15	Element			
Vel Head (ft)	1.62	Wt. n-Val.		0.032	0.032
E.G. Elev (ft)	1011.77	Reach Len. (ft)	370.00	393.75	530.00
Crit W.S. (ft)	1006.68	Flow Area (sq ft)		16261.87	0.01
E.G. Slope (ft/ft)	0.002158	Area (sq ft)		16261.87	0.01
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	0.00
Top Width (ft)	1568.77	Top Width (ft)		1568.76	
Vel Total (ft/s)	10.21	Avg. Vel. (ft/s)		10.21	0.10
Max Chl Dpth (ft)	14.25	Hydr. Depth (ft)		10.37	0.64
Conv. Total (cfs)	3573585.5	Conv. (cfs)		3573585.5	0.0
Length Wtd. (ft)	389.48	Wetted Per. (ft)		1579.57	0.65

Min Ch El (ft)	995.90	Shear (lb/sq ft)		1.39	0.00
Alpha	1.00	Stream Power (lb/ft s)		14.16	0.00
Frctn Loss (ft)	0.82	Cum Volume (acre-ft)	1290.17	22128.04	34.97
C & E Loss (ft)	0.02	Cum SA (acres)	210.56	2220.71	6.81

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19230.00 LB	19543.75	32972.79	3057.48	315.19	19.86	9.74	10.78
19543.75	19857.50	23554.54	2494.19	313.77	14.19	7.95	9.44
19857.50	20171.26	37764.42	3310.79	313.76	22.75	10.55	11.41
20171.26	20485.01	41890.14	3523.57	313.82	25.24	11.23	11.89
20485.01	20798.76 RB	29818.10	2877.17	314.84	17.96	9.17	10.36

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19230.00 LB	19543.75	32547.42	3257.22	323.38	19.61	10.38	9.99
19543.75	19857.50	24200.02	2693.92	313.77	14.58	8.59	8.98
19857.50	20171.26	37623.96	3510.53	313.76	22.67	11.19	10.72
20171.26	20485.01	41495.64	3723.30	313.82	25.00	11.87	11.14
20485.01	20798.76 RB	30132.96	3076.90	314.84	18.15	9.81	9.79
20798.76	20811.98	0.00	0.01	0.65	0.00	0.64	0.10

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.27

INPUT
Description: 207.27
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16209.3	1012.6	16252.8	1013.2	16284.2	1012	16383.8	1012.6	16415.5	1012.9
16480.2	1009.2	16601.8	1009.4	16722.1	1009.3	16901.6	1009.1	17028	1008.9
17034.7	1008.9	17132.7	1008.7	17256.4	1008.5	17345.1	1009.7	17477.8	1009
17574.2	1008.9	17623.2	1008.9	17640.8	1010.6	17654.3	1009.2	17776.8	1009.2
17890	1009.9	18017.7	1009.2	18033.8	1009.3	18373.9	1009.8	18428.4	1009.8
18529.9	1009.9	18634.4	1008.2	18686.7	1008.6	18936.9	1006.8	18965	1004.2
18981	1000.1	18990.9	999.5	19008.8	996.4	19021	989.6	19047.9	988.8
19072	996.4	19107.5	995	19123.5	989.3	19162.8	987.6	19190	994.7
19301.3	1002.1	19428.8	1005	19561.5	1003.7	19676.8	1002	19820.6	999.3
19940.6	998.8	19971.8	997.8	19986.7	993.8	20109.9	993.3	20119.1	995.5
20215.4	998.5	20300.7	998.8	20305.8	1000.2	20322.6	1001.4	20345.1	998.6
20382.4	998.7	20402.9	1000.7	20414.9	1000.4	20429.2	1001.7	20526.1	1000.4
20597.9	1002.6	20662.2	1037.1	20670.6	1034	20727.4	1003.5	20805.4	1006.4
20813.3	1010.3	20822.2	1008.4	20916.8	1009.6	21025	1009.2	21122.8	1010.2
21233.4	1010.9	21356.4	1011	21463	1011.1				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16209.3	.025	17640.8	.043	19008.8	.032	19428.8	.032	20597.9	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19428.8	20597.9	575	572.72	585	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16209.3	18980	1037.1	20662.2	21463	1037.1

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1008.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.89	Wt. n-Val.	0.032	0.032	0.032
E.G. Elev (ft)	1010.28	Reach Len. (ft)	575.00	572.72	585.00
Crit W.S. (ft)	1006.05	Flow Area (sq ft)	5058.58	10109.26	31.29
E.G. Slope (ft/ft)	0.002803	Area (sq ft)	5412.04	10109.26	326.31
Q Total (cfs)	166000.00	Flow (cfs)	61252.95	104603.35	143.69
Top Width (ft)	2022.03	Top Width (ft)	750.98	1169.10	101.96
Vel Total (ft/s)	10.92	Avg. Vel. (ft/s)	12.11	10.35	4.59

Max Chl Dpth (ft)	20.79	Hydr. Depth (ft)	11.27	8.65	2.90
Conv. Total (cfs)	3135691.8	Conv. (cfs)	1157050.5	1975926.9	2714.3
Length Wtd. (ft)	573.43	Wetted Per. (ft)	454.31	1170.60	12.26
Min Ch El (ft)	993.30	Shear (lb/sq ft)	1.95	1.51	0.45
Alpha	1.02	Stream Power (lb/ft s)	23.59	15.63	2.05
Frctn Loss (ft)	1.23	Cum Volume (acre-ft)	6817.14	21180.11	1395.35
C & E Loss (ft)	0.20	Cum SA (acres)	1883.00	2203.90	657.89

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1009.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.54	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1010.93	Reach Len. (ft)	575.00	572.72	585.00
Crit W.S. (ft)	1006.00	Flow Area (sq ft)	5503.54	11268.37	
E.G. Slope (ft/ft)	0.002033	Area (sq ft)	5503.54	11268.37	
Q Total (cfs)	166000.00	Flow (cfs)	59640.09	106359.92	
Top Width (ft)	1617.90	Top Width (ft)	448.80	1169.10	
Vel Total (ft/s)	9.90	Avg. Vel. (ft/s)	10.84	9.44	
Max Chl Dpth (ft)	21.79	Hydr. Depth (ft)	12.26	9.64	
Conv. Total (cfs)	3681263.5	Conv. (cfs)	1322595.6	2358668.0	
Length Wtd. (ft)	573.29	Wetted Per. (ft)	463.34	1177.39	
Min Ch El (ft)	993.30	Shear (lb/sq ft)	1.51	1.21	
Alpha	1.01	Stream Power (lb/ft s)	16.34	11.47	
Frctn Loss (ft)	1.10	Cum Volume (acre-ft)	1266.80	22003.62	34.97
C & E Loss (ft)	0.02	Cum SA (acres)	208.66	2208.34	6.81

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18784.90	18999.53	1272.98	176.50	19.71	0.77	9.04	7.21
18999.53	19214.17	48758.60	3463.53	219.74	29.37	16.14	14.08
19214.17	19428.80	11221.40	1418.55	214.86	6.76	6.61	7.91
19428.80 LB	19662.62	7049.30	1086.83	233.84	4.25	4.65	6.49
19662.62	19896.44	17955.73	1904.60	233.85	10.82	8.15	9.43
19896.44	20130.26	38667.29	3021.81	234.63	23.29	12.92	12.80
20130.26	20364.08	25164.51	2333.82	234.27	15.16	9.98	10.78
20364.08	20597.90 RB	15766.50	1762.19	234.02	9.50	7.54	8.95
20597.90	20655.57	143.69	31.29	12.26	0.09	2.90	4.59

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18784.90	18999.53	1015.39	195.86	28.74	0.61	10.03	5.18
18999.53	19214.17	46410.74	3676.33	219.74	27.96	17.13	12.62
19214.17	19428.80	12213.97	1631.35	214.86	7.36	7.60	7.49
19428.80 LB	19662.62	8366.74	1318.66	233.84	5.04	5.64	6.34
19662.62	19896.44	18698.40	2136.43	233.85	11.26	9.14	8.75
19896.44	20130.26	37610.40	3253.63	234.63	22.66	13.92	11.56
20130.26	20364.08	25339.56	2565.64	234.27	15.26	10.97	9.88
20364.08	20597.90 RB	16344.81	1994.02	240.81	9.85	8.53	8.20

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1

REACH: 1 RS: 207.16

INPUT
Description: 207.16
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16210.1	1011.7	16309.9	1011.9	16344.7	1012.7	16358.1	1011.8	16364.1	1013.5
16438.5	1011.6	16493.9	1011.9	16557.8	1010.7	16585.8	1008.3	16700.8	1008.1
16756.6	1008.6	16852.6	1008.6	16969	1008.6	17076	1008.4	17204.5	1008.7
17321.8	1008.1	17421.3	1007.7	17541.4	1007.5	17638.7	1007.7	17755.6	1007.6
17773.4	1007.2	17787.5	1009.2	17904.3	1007.5	17925	1006.5	18023.9	1007.4
18085.4	1008	18140	1009.4	18201.1	1007.7	18218.4	1008.1	18321.4	1005
18342.3	1005.4	18407.3	1003.8	18456.1	1009.9	18484.8	1008.2	18498.7	1005.3
18523.8	1008.7	18528.7	1008.4	18529.5	1007.2	18545.1	1003.7	18570.4	1008.1
18605.9	1007.9	18638.7	1000.3	18663.3	997.6	18680.3	997.7	18717	996.2
18733.2	994.8	18778.6	996.9	18811.7	999.5	18924.2	1002.3	19046.2	1002.4
19107	1000.2	19209.6	1000.7	19329.8	1002.2	19395.2	1003.5	19404.5	1002.1
19419.4	1003.2	19521.4	1003.3	19614.6	1002	19721.9	1001.4	19815.6	999.6
19920.9	996.2	19994.2	994.9	20008.7	992.7	20062.5	992.7	20094.8	994.3
20106.3	993.1	20160.3	993	20395.5	993	20413	995	20418.4	997.1
20436.9	1001.5	20463.3	996.6	20488.6	995.2	20609.4	995.2	20655.2	996
20660.9	995.4	20697	996.6	20734.5	1007.6	20838.6	1008.7	20985.3	1010.1
21116.5	1009.9	21223.5	1009.3	21316.4	1008.4	21471.6	1007.6	21595.3	1007.5
21624	1007.5	21725.6	1009.3	21731.8	1008.9	21782.9	1010.9	21783	1010.3
21812.5	1010	21872.1	1013.5	21911.2	1012.7	21930.8	1006	21952.5	1011.3
21998	1010.9								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16210.1	.025	17204.5	.043	18605.9	.032	19521.4	.032	20734.5	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19521.4	20734.5	475	463.31	475	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16210.1	18605.9	1013	20734.5	21998	1013

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1007.64	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.21	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1008.85	Reach Len. (ft)	475.00	463.31	475.00
Crit W.S. (ft)	1004.53	Flow Area (sq ft)	6083.54	13259.82	
E.G. Slope (ft/ft)	0.001701	Area (sq ft)	6717.75	13259.82	24.52
Q Total (cfs)	166000.00	Flow (cfs)	41169.60	124830.40	
Top Width (ft)	2942.53	Top Width (ft)	1547.71	1213.10	181.72
Vel Total (ft/s)	8.58	Avg. Vel. (ft/s)	6.77	9.41	
Max Chl Dpth (ft)	14.94	Hydr. Depth (ft)	6.65	10.93	
Conv. Total (cfs)	4024950.3	Conv. (cfs)	998226.5	3026723.8	
Length Wtd. (ft)	465.81	Wetted Per. (ft)	915.83	1216.61	
Min Ch El (ft)	992.70	Shear (lb/sq ft)	0.71	1.16	
Alpha	1.06	Stream Power (lb/ft s)	4.77	10.90	
Frctn Loss (ft)	1.29	Cum Volume (acre-ft)	6737.09	21026.48	1392.99
C & E Loss (ft)	0.19	Cum SA (acres)	1867.82	2188.24	655.99

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1008.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.48	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1009.81	Reach Len. (ft)	475.00	463.31	475.00
Crit W.S. (ft)	1005.05	Flow Area (sq ft)	3346.63	14093.90	
E.G. Slope (ft/ft)	0.001829	Area (sq ft)	3346.63	14093.90	
Q Total (cfs)	166000.00	Flow (cfs)	22772.33	143227.66	
Top Width (ft)	1734.50	Top Width (ft)	521.40	1213.10	
Vel Total (ft/s)	9.52	Avg. Vel. (ft/s)	6.80	10.16	
Max Chl Dpth (ft)	15.62	Hydr. Depth (ft)	6.42	11.62	

Conv. Total (cfs)	3881842.0	Conv. (cfs)	532521.7	3349320.3	
Length Wtd. (ft)	464.74	Wetted Per. (ft)	527.57	1217.34	
Min Ch El (ft)	992.70	Shear (lb/sq ft)	0.72	1.32	
Alpha	1.05	Stream Power (lb/ft s)	4.93	13.43	
Frctn Loss (ft)	1.36	Cum Volume (acre-ft)	1208.38	21836.89	34.97
C & E Loss (ft)	0.20	Cum SA (acres)	202.26	2192.68	6.81

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18417.63	18638.39	482.31	113.82	32.17	0.29	3.63	4.24
18638.39	18859.14	18286.43	2179.73	221.17	11.02	9.87	8.39
18859.14	19079.89	7164.83	1241.53	220.80	4.32	5.62	5.77
19079.89	19300.65	9876.61	1505.17	220.78	5.95	6.82	6.56
19300.65	19521.40	5359.42	1043.28	220.91	3.23	4.73	5.14
19521.40 LB	19764.02	8080.76	1381.16	242.64	4.87	5.69	5.85
19764.02	20006.64	21280.88	2470.07	242.84	12.82	10.18	8.62
20006.64	20249.26	38784.88	3540.34	242.74	23.36	14.59	10.96
20249.26	20491.88	31970.36	3160.01	244.13	19.26	13.02	10.12
20491.88	20734.50 RB	24713.52	2708.24	244.26	14.89	11.16	9.13

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18859.14	19079.89	3113.66	494.62	85.88	1.88	6.19	6.30
19079.89	19300.65	12443.69	1656.95	220.78	7.50	7.51	7.51
19300.65	19521.40	7214.99	1195.06	220.91	4.35	5.41	6.04
19521.40 LB	19764.02	10182.00	1547.97	242.64	6.13	6.38	6.58
19764.02	20006.64	24725.23	2636.89	242.84	14.89	10.87	9.38
20006.64	20249.26	43635.09	3707.16	242.74	26.29	15.28	11.77
20249.26	20491.88	36293.66	3326.82	244.13	21.86	13.71	10.91
20491.88	20734.50 RB	28391.67	2875.06	244.98	17.10	11.85	9.88

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.07

INPUT
Description: 207.07

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16445.4	1010.8	16477.5	1010.8	16492.9	1010.8	16495.3	1012.4	16612.3	1012.1
16706.3	1012.4	16731.4	1011.4	16754.5	1011.7	16775.6	1010.8	16823.5	1006
16897.1	1007.2	16996.9	1007.2	17084.4	1008.1	17118	1007.2	17130.1	1007.9
17215.3	1007.5	17296.8	1005.9	17391.8	1005.8	17473.1	1006.2	17581.5	1006.7

17688.2	1006.9	17793.8	1007.5	17860.3	1007.8	17918.6	1006.5	17937.7	1009.2
17950.5	1008.4	18054.6	1008.5	18145.7	1009.4	18249.2	1008.8	18339.2	1006.2
18409	1004.8	18416.3	1003.9	18490.8	1003.4	18511.6	998.8	18578.1	997.6
18602.7	998.8	18624	998.9	18705.2	1001.4	18768.4	1001.7	18825	999.3
18843.9	997.7	18938	998.1	19029.9	1000.3	19121	1004.5	19134.1	1007.4
19200.4	1009.2	19224.9	1008.7	19244.6	1006.5	19312.8	1004.4	19414.2	1003.2
19443.8	1001.8	19521.9	1001.9	19538.7	1003.4	19547.9	1003.2	19557.9	1004.4
19673.5	1001.7	19761.8	1001.1	19774.6	1001.9	19789.4	1004.7	19852.9	995.2
19935.8	993.4	19939.1	993.8	19945.4	992.8	19998	992.8	20099	992.9
20181.6	993	20237.1	993	20335	993.1	20381.8	993.2	20403	998.8
20417.1	996.1	20529.1	995.5	20635.3	995.9	20719.4	996.3	20720.5	998.7
20734.9	1003.5	20748.22	1004.3	20786.5	1006.6	20840.1	1007	20851.3	1007.9
20926.4	1009.4	21006.6	1009.9	21089.4	1010	21172.8	1009.7	21301.4	1008.9
21383.6	1008.7	21497.8	1007.9	21578.8	1007.1	21613.2	1007.3	21673.3	1011.2
21705.2	1010.3	21732.7	1013.7	21818.2	1013	21896.1	1014.4	21908.3	1013.5
21967.3	1014.4	21999.5	1014.1						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16445.4	.043	18490.8	.032	19789.4	.032	20926.4	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19789.42	20748.22	510	514.11	520	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16445.4	18145.7	1013	20926.4	21999.5	1013

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1004.30	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.07	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1007.37	Reach Len. (ft)	510.00	514.11	520.00
Crit W.S. (ft)	1004.30	Flow Area (sq ft)	3654.06	9043.60	
E.G. Slope (ft/ft)	0.005285	Area (sq ft)	3654.06	9043.60	
Q Total (cfs)	166000.00	Flow (cfs)	29853.11	136146.89	
Top Width (ft)	2120.20	Top Width (ft)	1164.11	956.09	
Vel Total (ft/s)	13.07	Avg. Vel. (ft/s)	8.17	15.05	
Max Chl Dpth (ft)	11.50	Hydr. Depth (ft)	3.14	9.46	
Conv. Total (cfs)	2283500.5	Conv. (cfs)	410660.2	1872840.4	
Length Wtd. (ft)	513.60	Wetted Per. (ft)	1165.41	960.22	
Min Ch El (ft)	992.80	Shear (lb/sq ft)	1.03	3.11	
Alpha	1.16	Stream Power (lb/ft s)	8.45	46.78	
Frctn Loss (ft)	0.83	Cum Volume (acre-ft)	6680.54	20907.87	1392.86
C & E Loss (ft)	0.60	Cum SA (acres)	1853.04	2176.70	655.00

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need
for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to
critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1004.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.49	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1008.25	Reach Len. (ft)	510.00	514.11	520.00
Crit W.S. (ft)	1004.75	Flow Area (sq ft)	2281.01	9480.96	
E.G. Slope (ft/ft)	0.005380	Area (sq ft)	2281.01	9480.96	
Q Total (cfs)	166000.00	Flow (cfs)	17709.58	148290.42	
Top Width (ft)	1711.46	Top Width (ft)	752.68	958.78	

Vel Total (ft/s)	14.11	Avg. Vel. (ft/s)	7.76	15.64	
Max Chl Dpth (ft)	11.95	Hydr. Depth (ft)	3.03	9.89	
Conv. Total (cfs)	2263206.3	Conv. (cfs)	241448.3	2021757.9	
Length Wtd. (ft)	513.87	Wetted Per. (ft)	760.34	963.40	
Min Ch El (ft)	992.80	Shear (lb/sq ft)	1.01	3.31	
Alpha	1.13	Stream Power (lb/ft s)	7.82	51.70	
Frctn Loss (ft)	0.83	Cum Volume (acre-ft)	1177.70	21711.51	34.97
C & E Loss (ft)	0.71	Cum SA (acres)	195.31	2181.13	6.81

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18228.87	18451.80	29.37	18.98	38.75	0.02	0.49	1.55
18451.80	18674.73	9911.07	1002.14	223.50	5.97	4.50	9.89
18674.73	18897.67	8339.58	949.31	223.07	5.02	4.26	8.78
18897.67	19120.60	7654.37	895.20	219.06	4.61	4.09	8.55
19120.60	19343.53	2.48	2.88	22.08	0.00	0.13	0.86
19343.53	19566.47	1488.82	334.45	217.87	0.90	1.54	4.45
19566.47	19789.40	2427.42	451.09	221.09	1.46	2.04	5.38
19789.40 LB	19981.16	22489.13	1621.19	189.87	13.55	8.57	13.87
19981.16	20172.93	36853.40	2189.06	191.76	22.20	11.42	16.84
20172.93	20364.69	35978.06	2157.72	191.77	21.67	11.25	16.67
20364.69	20556.46	23011.90	1653.61	192.75	13.86	8.62	13.92
20556.46	20748.22 RB	17814.37	1422.03	194.07	10.73	7.42	12.53

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18674.73	18897.67	3012.37	277.11	47.09	1.81	6.91	10.87
18897.67	19120.60	9017.50	996.65	223.05	5.43	4.47	9.05

19120.60	19343.53	35.56	18.77	43.82	0.02	0.43	1.89
19343.53	19566.47	2272.92	436.00	223.11	1.37	1.96	5.21
19566.47	19789.40	3371.22	552.48	223.25	2.03	2.48	6.10
19789.40 LB	19981.16	24548.82	1708.23	192.59	14.79	8.91	14.37
19981.16	20172.93	39736.98	2276.64	191.76	23.94	11.87	17.45
20172.93	20364.69	38829.30	2245.31	191.77	23.39	11.71	17.29
20364.69	20556.46	25329.73	1741.19	192.75	15.26	9.08	14.55
20556.46	20748.22 RB	19845.60	1509.59	194.52	11.96	7.87	13.15

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.97

INPUT
Description: 206.97

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16303.3	1009.9	16422	1010.3	16524.8	1010.6	16626.6	1010.6	16719.6	1011.3
16794.5	1009.6	16836.4	1004.7	16959	1004.6	17073.2	1004.7	17198.7	1004.8
17241.8	1005.5	17390.7	1004.8	17512.3	1005.1	17603.3	1005.3	17704.7	1005.3
17836.9	1005.5	17965	1005.2	18085.7	1005.8	18094.8	1005.9	18105	1008
18196	1007.4	18235.2	1007.2	18260.5	1005.9	18283.2	1007.6	18372.2	1006.3
18390.1	1005.1	18407.6	999.1	18518.7	997.7	18623.3	996.9	18669.1	995.6
18742.3	996.3	18834	1000.5	18925.1	1002.3	19025.7	1004.4	19072.3	1003.7
19086.7	1001.2	19181.7	1005.8	19197	1005.7	19217.7	1002.3	19234.5	1008.4
19316.9	1001.8	19405.1	1002.1	19456.4	1006.1	19566.5	1005.4	19666.3	1005.2
19736.5	1004.4	19776.5	998.7	19783.2	1000.5	19808.3	994.1	19822.1	992.8
19919.1	992.9	20108.8	993.1	20124.9	999	20128.8	998.6	20159.3	982.1
20170.6	981.8	20265.5	981.8	20360.8	981.8	20399.3	981.8	20400.1	981.8
20443.8	981.8	20457.3	981.8	20522.8	981.8	20543.7	981.8	20552.2	981.8
20558.1	981.8	20559.2	981.8	20645	981.8	20661.9	981.7	20684.6	981.8
20778.2	981.8	20792.8	981.8	20800984.2432		20814.9	989.3	20826.8	991.9
20829.6	993.6	20832.1	993.2	20841.1	988	20882.9	981.8	20888	981.8
20995.1	981.8	21051.7	981.8	21053.6	981.8	21086.6	1009	21114.5	1010.4
21124.9	1008.4	21145.7	1009.1	21151.2	1011.2	21171.8	1014.5	21174	1009.3
21270.2	1009.8	21364.9	1009.2	21463.9	1009.1	21469.9	1008.9	21475.8	1010.8
21486.9	1008.5	21498	1009.8						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16303.3	.025	16719.6	.043	18407.6	.032	19736.5	.032	21086.6	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19736.5	20800	480	491.78	480	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
20800	21498	1010

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1003.73	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.07	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1004.80	Reach Len. (ft)	480.00	491.78	480.00

Crit W.S. (ft)	995.20	Flow Area (sq ft)	3249.21	18103.85	
E.G. Slope (ft/ft)	0.000773	Area (sq ft)	3249.21	18103.85	5406.03
Q Total (cfs)	166000.00	Flow (cfs)	11556.15	154443.86	
Top Width (ft)	2153.05	Top Width (ft)	814.05	1058.80	280.21
Vel Total (ft/s)	7.77	Avg. Vel. (ft/s)	3.56	8.53	
Max Chl Dpth (ft)	22.03	Hydr. Depth (ft)	3.99	17.10	
Conv. Total (cfs)	5970171.5	Conv. (cfs)	415615.5	5554556.0	
Length Wtd. (ft)	490.90	Wetted Per. (ft)	815.77	1065.91	
Min Ch El (ft)	981.70	Shear (lb/sq ft)	0.19	0.82	
Alpha	1.13	Stream Power (lb/ft s)	0.68	6.99	
Frctn Loss (ft)	0.31	Cum Volume (acre-ft)	6640.13	20747.67	1360.59
C & E Loss (ft)	0.07	Cum SA (acres)	1841.46	2164.81	653.33

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1004.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.14	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1005.77	Reach Len. (ft)	480.00	491.78	480.00
Crit W.S. (ft)	995.18	Flow Area (sq ft)	892.47	19057.76	
E.G. Slope (ft/ft)	0.000760	Area (sq ft)	892.47	19057.76	
Q Total (cfs)	166000.00	Flow (cfs)	1714.47	164285.53	
Top Width (ft)	1567.62	Top Width (ft)	504.12	1063.50	
Vel Total (ft/s)	8.32	Avg. Vel. (ft/s)	1.92	8.62	
Max Chl Dpth (ft)	22.93	Hydr. Depth (ft)	1.77	17.92	
Conv. Total (cfs)	6019757.5	Conv. (cfs)	62173.0	5957584.5	
Length Wtd. (ft)	491.63	Wetted Per. (ft)	509.08	1091.04	
Min Ch El (ft)	981.70	Shear (lb/sq ft)	0.08	0.83	
Alpha	1.06	Stream Power (lb/ft s)	0.16	7.15	
Frctn Loss (ft)	0.31	Cum Volume (acre-ft)	1159.12	21543.10	34.97
C & E Loss (ft)	0.07	Cum SA (acres)	187.95	2169.19	6.81

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18363.22	18592.10	4003.65	1086.69	198.79	2.41	5.49	3.68
18592.10	18820.98	6603.28	1564.35	228.99	3.98	6.83	4.22
18820.98	19049.86	528.86	307.23	172.68	0.32	1.78	1.72
19049.86	19278.74	119.94	93.62	81.96	0.07	1.15	1.28
19278.74	19507.62	300.42	197.33	133.35	0.18	1.48	1.52
19507.62	19736.50						
19736.50 LB	19949.20	9099.42	1800.62	209.46	5.48	8.66	5.05
19949.20	20161.90	13493.49	2317.34	217.95	8.13	10.89	5.82
20161.90	20374.60	43993.57	4663.55	212.70	26.50	21.93	9.43
20374.60	20587.30	44010.19	4664.60	212.70	26.51	21.93	9.43
20587.30	20800.00 RB	43847.20	4657.74	213.10	26.41	21.90	9.41

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18820.98	19049.86	702.52	369.15	203.71	0.42	1.85	1.90
19049.86	19278.74	325.24	193.80	129.14	0.20	1.51	1.68
19278.74	19507.62	686.03	327.22	156.16	0.41	2.10	2.10
19507.62	19736.50	0.69	2.29	20.07	0.00	0.11	0.30
19736.50 LB	19949.20	10597.06	1990.14	214.21	6.38	9.36	5.32
19949.20	20161.90	15406.50	2508.44	217.95	9.28	11.79	6.14
20161.90	20374.60	47063.14	4854.65	212.70	28.35	22.82	9.69
20374.60	20587.30	47080.25	4855.70	212.70	28.36	22.83	9.70
20587.30	20800.00 RB	44138.59	4848.84	233.49	26.59	22.80	9.10

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.88

INPUT
Description: 206.88

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16205.8	1008.1	16348.5	1008.4	16441.8	1008.4	16531.3	1008.2	16598.3	1009.2
16605	1008.5	16606.3	1010.2	16696.6	1005.4	16819.2	1004.3	16908.4	1004.4
17006	1004.7	17092.4	1003.2	17182	1004	17323.7	1003.7	17415.5	1003.8
17503.8	1003.9	17603.8	1003.9	17703.9	1004.6	17815.8	1005.9	17930.5	1006.3
18057.4	1006.3	18152.5	1006	18216	1005.3	18267.1	1005.9	18292.7	1007.3
18373.6	999.7	18386.3	996.3	18470	995.7	18533.8	995.1	18593.4	996.7
18657.8	996.4	18748.4	998	18835.7	998.9	18932.3	1000.4	18993.2	1000.9
19018.7	1003.6	19101.5	1004	19119.7	1002.9	19166.7	1006	19168.3	1006.9
19251.9	1004.5	19258.4	1005	19341.6	1001.3	19360.8	1001.1	19415.8	1004.9
19507.2	1001.3	19566.3	1004.7	19645.5	1003.4	19728.8	1003.5	19781.8	993.3
19833	992.7	19942.2	993	19947.1	996.6	19996.5	982.3	20008.3	981.8
20016.1	981.8	20105.7	981.8	20143	981.8	20146.6	981.8	20221.6	981.8
20334.4	981.8	20459.7	981.8	20546.8	981.8	20641.2	981.8	20760.8	981.8
20800	981.8	20820.9	981.8	20832	984	20842.1	983.1	20850.4	981.8
20851.4	981.8	20928.6	981.8	20948.4	981.8	21002.4	999.3	21012.9	997
21041.1	997	21047.1	998.2	21081.4	998.4	21113.7	986.4	21142	981.7
21162.6	990	21181.8	991.8	21199.6	1001.3	21208.2	1003.8	21233.9	1006.9
21251.5	1012.2	21270.1	1006.2	21313.5	1006.5	21327.6	1009.1	21361.8	1011.6
21394.4	1008.9	21440.9	1009.7	21454	1011.6	21546.5	1009	21569.8	1012.6
21605	1009.6	21674.6	1010.5						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16205.8	.025	16696.6	.043	18386.3	.032	19728.8	.032	21251.5	.032
21605	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19728.8	20800	480	487.71	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16205.8	18292.7	1007.3	20800	21674.6	1012

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1003.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.83	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1004.41	Reach Len. (ft)	480.00	487.71	505.00
Crit W.S. (ft)	993.25	Flow Area (sq ft)	4121.46	20233.55	
E.G. Slope (ft/ft)	0.000528	Area (sq ft)	4134.14	20233.55	6019.41
Q Total (cfs)	166000.00	Flow (cfs)	13323.65	152676.34	
Top Width (ft)	2551.49	Top Width (ft)	1072.83	1071.20	407.47
Vel Total (ft/s)	6.82	Avg. Vel. (ft/s)	3.23	7.55	
Max Chl Dpth (ft)	21.89	Hydr. Depth (ft)	4.09	18.89	
Conv. Total (cfs)	7226420.0	Conv. (cfs)	580013.8	6646406.0	
Length Wtd. (ft)	487.04	Wetted Per. (ft)	1008.35	1075.39	
Min Ch El (ft)	981.80	Shear (lb/sq ft)	0.13	0.62	
Alpha	1.15	Stream Power (lb/ft s)	0.44	4.68	
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	6599.45	20531.26	1297.64
C & E Loss (ft)	0.04	Cum SA (acres)	1831.06	2152.79	649.54

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1004.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.91	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1005.39	Reach Len. (ft)	480.00	487.71	505.00
Crit W.S. (ft)	993.25	Flow Area (sq ft)	1430.44	21191.51	
E.G. Slope (ft/ft)	0.000533	Area (sq ft)	1430.44	21191.51	
Q Total (cfs)	166000.00	Flow (cfs)	2573.39	163426.61	
Top Width (ft)	1800.83	Top Width (ft)	729.63	1071.20	
Vel Total (ft/s)	7.34	Avg. Vel. (ft/s)	1.80	7.71	
Max Chl Dpth (ft)	22.68	Hydr. Depth (ft)	1.96	19.78	
Conv. Total (cfs)	7191381.0	Conv. (cfs)	111483.3	7079897.5	
Length Wtd. (ft)	487.55	Wetted Per. (ft)	735.75	1098.08	
Min Ch El (ft)	981.80	Shear (lb/sq ft)	0.06	0.64	
Alpha	1.09	Stream Power (lb/ft s)	0.12	4.95	
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	1146.33	21315.90	34.97
C & E Loss (ft)	0.05	Cum SA (acres)	181.15	2157.14	6.81

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18319.60	18554.47	5582.59	1478.36	222.88	3.36	6.65	3.78
18554.47	18789.33	5496.08	1540.34	234.90	3.31	6.56	3.57
18789.33	19024.20	1958.86	821.62	229.40	1.18	3.58	2.38
19024.20	19259.07	3.73	7.48	21.82	0.00	0.34	0.50
19259.07	19493.93	222.78	188.89	151.58	0.13	1.25	1.18
19493.93	19728.80	59.62	84.78	147.77	0.04	0.57	0.70
19728.80 LB	19943.04	9056.29	1998.04	215.42	5.46	9.33	4.53
19943.04	20157.28	31466.90	4232.73	217.26	18.96	19.76	7.43
20157.28	20371.52	37384.16	4667.57	214.24	22.52	21.79	8.01
20371.52	20585.76	37384.50	4667.61	214.24	22.52	21.79	8.01
20585.76	20800.00 RB	37384.50	4667.61	214.24	22.52	21.79	8.01

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18789.33	19024.20	1768.06	743.71	190.96	1.07	4.01	2.38
19024.20	19259.07	70.65	89.33	119.55	0.04	0.75	0.79
19259.07	19493.93	474.69	349.23	207.40	0.29	1.69	1.36
19493.93	19728.80	259.99	248.17	217.84	0.16	1.14	1.05
19728.80 LB	19943.04	10657.97	2189.63	215.42	6.42	10.22	4.87
19943.04	20157.28	34225.00	4424.32	217.26	20.62	20.65	7.74
20157.28	20371.52	40387.85	4859.16	214.24	24.33	22.68	8.31
20371.52	20585.76	40388.21	4859.20	214.24	24.33	22.68	8.31
20585.76	20800.00 RB	37767.59	4859.20	236.92	22.75	22.68	7.77

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.79

INPUT
Description: 206.79

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16211.1	1006.9	16286.9	1006.9	16364.1	1007.5	16379.7	1007.6	16449.9	1007.6
16525.2	1007.8	16538.6	1008.9	16619.3	1008.5	16666.4	1006.2	16699.6	1001.9
16769.7	1002.3	16840	1002.4	16905.7	1002.4	16989.2	1002.5	17055.4	1002.7
17133	1002.7	17230.9	1002.5	17245.4	1002.4	17322.6	1003	17404	1003.7
17419.6	1003.8	17484.7	1004.3	17553	1004.8	17588.7	1004.8	17631.2	1003
17670.6	1002.9	17748.9	1006.3	17834.7	1006.5	17871.1	1006.6	17919.1	1005.8
17921.7	1005.2	17948.4	1004.4	18036.8	1004.9	18106	1004.9	18182.5	1004.5
18301.7	1004.4	18337	1004.5	18378.4	997.7	18439.7	995.6	18517.1	995.3
18604.7	996.5	18674.2	996.8	18740.3	995.7	18770.1	994.8	18841.6	996.3
18882	997.5	18920.6	1006.8	19010.4	1005.9	19096.2	1003.2	19138.3	1000.6
19186.5	1000.9	19206.9	1002.3	19281.9	1002	19360.7	1002.6	19391.1	1000
19450.2	1002.2	19485	1002.5	19519.3	1004	19570	1004.1	19626.2	1001.8
19645.2	1001.4	19653.2	1002.5	19663.1	1005.3	19671.5	1001	19690.4	994.6
19711.8	993	19766	993.3	19929.9	994	19943.3	996.8	19952.4	996.3
19962.3	992.6	19991	990.7	20007.7	991.1	20032.9	987.2	20042.3	985
20082.5	982.2	20100.2	981.8	20136.1	981.8	20140	981.8	20180.6	981.8
20309.2	981.8	20331	981.8	20390.5	981.8	20420.7	981.8	20422.7	981.8
20425	981.8	20501.8	981.8	20576.6	981.8	20625.3	981.8	20832.1	981.8
20847	981.8	20851.9	981.8	20865.4	988.8	20895.15	1003.436	20902.8	1007.2
20935.6	1019.6	20986	1019.6						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16211.1	.025	16525.2	.043	18378.4	.032	19663.1	.032	20935.6	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19663.12	20895.15	495	489.96	520	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16211.1	17871.1	1015

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1003.43	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1004.13	Reach Len. (ft)	495.00	489.96	520.00
Crit W.S. (ft)	992.79	Flow Area (sq ft)	4633.99	21710.35	
E.G. Slope (ft/ft)	0.000488	Area (sq ft)	5263.04	21710.35	
Q Total (cfs)	166000.00	Flow (cfs)	15594.92	150405.08	
Top Width (ft)	3026.58	Top Width (ft)	1798.18	1228.40	
Vel Total (ft/s)	6.30	Avg. Vel. (ft/s)	3.37	6.93	
Max Chl Dpth (ft)	21.63	Hydr. Depth (ft)	4.41	17.67	
Conv. Total (cfs)	7514667.5	Conv. (cfs)	705967.6	6808700.0	
Length Wtd. (ft)	490.43	Wetted Per. (ft)	1052.77	1236.91	
Min Ch El (ft)	981.80	Shear (lb/sq ft)	0.13	0.53	
Alpha	1.12	Stream Power (lb/ft s)	0.45	3.70	
Frctn Loss (ft)	0.23	Cum Volume (acre-ft)	6547.67	20296.45	1262.75
C & E Loss (ft)	0.05	Cum SA (acres)	1815.24	2139.91	647.17

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1004.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.76	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1005.10	Reach Len. (ft)	495.00	489.96	520.00
Crit W.S. (ft)	992.76	Flow Area (sq ft)	1935.13	22824.62	
E.G. Slope (ft/ft)	0.000478	Area (sq ft)	1935.13	22824.62	
Q Total (cfs)	166000.00	Flow (cfs)	4403.64	161596.36	
Top Width (ft)	1934.30	Top Width (ft)	704.12	1230.18	
Vel Total (ft/s)	6.70	Avg. Vel. (ft/s)	2.28	7.08	
Max Chl Dpth (ft)	22.54	Hydr. Depth (ft)	2.75	18.55	
Conv. Total (cfs)	7590858.5	Conv. (cfs)	201369.9	7389488.5	
Length Wtd. (ft)	490.08	Wetted Per. (ft)	714.47	1239.81	
Min Ch El (ft)	981.80	Shear (lb/sq ft)	0.08	0.55	
Alpha	1.09	Stream Power (lb/ft s)	0.18	3.89	
Frctn Loss (ft)	0.22	Cum Volume (acre-ft)	1127.78	21069.49	34.97
C & E Loss (ft)	0.06	Cum SA (acres)	173.25	2144.26	6.81

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18282.30	18512.43	4034.37	1095.97	169.45	2.43	6.49	3.68
18512.43	18742.57	6356.26	1661.81	230.15	3.83	7.22	3.82
18742.57	18972.70	4157.09	1127.00	164.81	2.50	6.87	3.69
18972.70	19202.83	367.55	227.03	114.19	0.22	1.99	1.62
19202.83	19432.97	512.26	366.82	230.29	0.31	1.59	1.40
19432.97	19663.10	167.39	155.35	143.89	0.10	1.08	1.08
19663.10 LB	19909.51	10013.55	2286.14	244.47	6.03	9.42	4.38
19909.51	20155.92	24201.55	3905.02	248.11	14.58	15.85	6.20
20155.92	20402.33	40842.38	5330.80	246.41	24.60	21.63	7.66
20402.33	20648.74	40842.38	5330.80	246.41	24.60	21.63	7.66
20648.74	20895.15 RB	34505.21	4857.59	251.52	20.79	19.71	7.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18742.57	18972.70	2329.38	697.13	114.01	1.40	6.68	3.34
18972.70	19202.83	615.56	343.48	143.00	0.37	2.40	1.79
19202.83	19432.97	1058.78	575.43	230.29	0.64	2.50	1.84
19432.97	19663.10	399.92	319.09	227.17	0.24	1.41	1.25
19663.10 LB	19909.51	11532.95	2506.99	246.46	6.95	10.25	4.60
19909.51	20155.92	26366.50	4128.37	248.11	15.88	16.75	6.39
20155.92	20402.33	43428.02	5554.15	246.41	26.16	22.54	7.82

20402.33	20648.74	43428.02	5554.15	246.41	26.16	22.54	7.82
20648.74	20895.15 RB	36840.86	5080.94	252.43	22.19	20.62	7.25

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.7

INPUT
Description: 206.7
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16235.4	1006.6	16247.5	1006.6	16320.8	1007.1	16332.7	1007	16402.3	1007.2
16479.2	1008	16505.8	1007.5	16527.3	1008	16552.4	1002	16640.8	1001.4
16727.5	1001.8	16815.4	1001.7	16889.1	1001.5	16902.1	1001.5	16968.1	1001.2
17043.4	1001.3	17155	1000.9	17251.1	1001.1	17317.4	1002.1	17335.4	1002.3
17401.1	1002.9	17430.7	1003.1	17519.9	1003.5	17616.5	1003.3	17699.9	1004
17823.5	1005.8	17891.6	1004.8	17962.7	1005.6	18043.4	1006.2	18125.2	1006.2
18207.9	1005.3	18257.6	1003	18280.3	995.2	18285.8	995.2	18301.4	997.1
18329.6	998.9	18423.4	998.8	18488.5	996	18559.6	995.2	18629.1	994.8
18690.8	994.6	18728.6	993.3	18746.4	994.2	18779.5	994.4	18815.2	996.6
18848.2	1004.6	18945.8	1005	19021.2	1004.8	19092.1	1004.4	19150.1	1003.8
19192.4	1001.5	19285.5	1002.1	19293.9	1002.1	19370.4	999.7	19431.5	999.7
19468.9	1000.2	19510.1	1003.7	19543.9	1002.8	19624.5	994.6	19647.2	992.9
19711.3	993.2	19814.1	993.4	19871.2	993.4	19882.5	995.3	19901.9	992.6
19941.1	991.3	20015.4	991.6	20098.2	993.9	20143.5	994	20167.9	992.9
20185.2	1000.4	20197.8	994.4	20212.7	993.7	20259.6	993.7	20275.9	991.3
20314.8	981.8	20318.5	981.8	20393.8	981.8	20691.8	981.8	20713.3	981.8
20963.1	981.8	21002.8	981.8	21076.8	981.8	21102.7	981.8	21120	988.8
21131	999.6	21138.8	1004.7	21146.9	1002.8	21207	1004.5	21234.3	1006.1
21262.4	1006.4	21329	1008.1	21422.5	1007.5	21452.5	1018.4	21484.3	1017.2
21488	1018.6								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16235.4	.025	16640.8	.043	18329.6	.032	19510.1	.032	21138.8	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19510.1	21138.8	500	500.23	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16235.4	18110	1015

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1003.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.53	Wt. n-Val.	0.033	0.032	0.032
E.G. Elev (ft)	1003.85	Reach Len. (ft)	500.00	500.23	500.00
Crit W.S. (ft)	993.99	Flow Area (sq ft)	4836.44	24990.56	5.40
E.G. Slope (ft/ft)	0.000441	Area (sq ft)	6376.01	24990.56	5.40
Q Total (cfs)	166000.00	Flow (cfs)	15340.47	150657.39	2.15
Top Width (ft)	3518.91	Top Width (ft)	1885.82	1612.40	20.69
Vel Total (ft/s)	5.56	Avg. Vel. (ft/s)	3.17	6.03	0.40
Max Chl Dpth (ft)	21.52	Hydr. Depth (ft)	5.15	15.50	0.26
Conv. Total (cfs)	7908947.5	Conv. (cfs)	730885.3	7177960.0	102.2
Length Wtd. (ft)	500.20	Wetted Per. (ft)	941.75	1624.45	20.76
Min Ch El (ft)	981.80	Shear (lb/sq ft)	0.14	0.42	0.01
Alpha	1.10	Stream Power (lb/ft s)	0.45	2.55	0.00
Frctn Loss (ft)	0.28	Cum Volume (acre-ft)	6481.54	20033.81	1262.72
C & E Loss (ft)	0.01	Cum SA (acres)	1794.31	2123.94	647.05

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1004.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.58	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1004.82	Reach Len. (ft)	500.00	500.23	500.00
Crit W.S. (ft)	993.99	Flow Area (sq ft)	1493.39	26492.62	
E.G. Slope (ft/ft)	0.000429	Area (sq ft)	1493.39	26492.62	
Q Total (cfs)	166000.00	Flow (cfs)	3212.35	162787.66	
Top Width (ft)	2093.11	Top Width (ft)	465.10	1628.01	
Vel Total (ft/s)	5.93	Avg. Vel. (ft/s)	2.15	6.14	
Max Chl Dpth (ft)	22.45	Hydr. Depth (ft)	3.21	16.27	

Conv. Total (cfs)	8015275.0	Conv. (cfs)	155107.6	7860167.5	
Length Wtd. (ft)	500.22	Wetted Per. (ft)	475.84	1640.33	
Min Ch El (ft)	981.80	Shear (lb/sq ft)	0.08	0.43	
Alpha	1.05	Stream Power (lb/ft s)	0.18	2.66	
Frctn Loss (ft)	0.27	Cum Volume (acre-ft)	1108.30	20792.13	34.97
C & E Loss (ft)	0.02	Cum SA (acres)	166.61	2128.18	6.81

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18200.22	18418.53	1872.03	801.11	169.38	1.13	4.77	2.34
18418.53	18636.85	5774.73	1601.08	218.38	3.48	7.33	3.61
18636.85	18855.16	6366.34	1661.62	207.00	3.84	8.06	3.83
18855.16	19073.47						
19073.47	19291.79	210.40	179.94	132.95	0.13	1.35	1.17
19291.79	19510.10	1116.95	592.69	214.04	0.67	2.77	1.88
19510.10 LB	19835.84	9152.31	2499.39	312.04	5.51	8.02	3.66
19835.84	20161.58	15116.84	3437.81	326.16	9.11	10.55	4.40
20161.58	20487.32	31702.44	5386.31	329.99	19.10	16.54	5.89
20487.32	20813.06	49616.67	7010.65	325.74	29.89	21.52	7.08
20813.06	21138.80 RB	45069.14	6656.40	330.52	27.15	20.57	6.77
21138.80	21162.08	2.13	5.25	17.47	0.00	0.30	0.41
21162.08	21185.36	0.02	0.15	3.28	0.00	0.05	0.12

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18636.85	18855.16	1062.79	381.16	72.39	0.64	6.16	2.79
18855.16	19073.47						
19073.47	19291.79	421.58	318.51	184.95	0.25	1.72	1.32
19291.79	19510.10	1727.97	793.72	218.50	1.04	3.64	2.18
19510.10 LB	19835.84	10618.99	2797.92	326.23	6.40	8.59	3.80
19835.84	20161.58	17219.42	3739.01	326.16	10.37	11.48	4.61
20161.58	20487.32	34375.04	5687.51	329.99	20.71	17.46	6.04
20487.32	20813.06	52703.75	7311.86	325.74	31.75	22.45	7.21
20813.06	21138.80 RB	47870.45	6956.32	332.21	28.84	21.40	6.88

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.6

INPUT
Description: 206.6

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15752.8	1005.9	15777	1004.9	15795.8	1006	15801	1003.8	15809.3	1007.3
15819.9	1006.1	15842.8	1009.5	15850.1	1008	15855.5	1009.8	15868.1	1009.5
15879.9	1006.9	15895.6	1008.4	15904.2	1005.4	15941.1	1007.3	16035.3	1006.2
16155.5	1005.7	16243.9	1005.6	16347.4	1004.9	16444.6	1004.9	16555.6	1004.8
16645	1004.4	16756.4	1003.6	16845.8	1003.1	16944.2	1003.4	17049.2	1002.3
17143.6	1001.7	17249.3	1001.2	17366.6	1001	17501.5	1003.7	17624.2	1003.7
17723.3	1004.1	17790.8	1004	17818	998.9	17847.9	1003.1	17937.7	1002.9
17956.2	1002.7	17971.4	998.8	17988.6	1001.2	18083.6	1001.7	18173.1	1001.7
18217.2	1001.9	18242.2	997.1	18334.4	996.5	18436.5	995	18542.1	993.8
18633.3	993.9	18742.2	997.5	18817.7	997.8	18852.6	1003.9	18965.8	1004.2
19055.2	1003.8	19184.3	1003.1	19243.2	1000	19325.9	998.4	19358	993.4
19395.9	993.2	19452.5	996.6	19546.1	997.7	19580.1	996.6	19611.2	993.1
19679	993.4	19778	993.3	19846.4	993.3	19854.8	995.6	19874.7	992.9
19953.8	992.1	20043.5	994.5	20146.1	995.4	20262.3	995.5	20371.5	995.1
20435.5	995.1	20475.7	981.8	20489.7	981.8	20608.9	981.8	20609	981.8
20738.4	981.8	20854.4	981.8	20866.2	981.8	20903.7	981.8	20931.2	981.8
20996	981.8	21003.4	981.8	21042	988.8	21050.2	995	21066.25	1002.898
21069.1	1004.3	21182.2	1006.4	21270.7	1006.8	21401.9	1007.6	21495.5	1008
21503.1	1008	21594.4	1008.1	21688	1008.4	21840.4	1008.8	21940.4	1009.3

21957.8 1009.5 21998 1007.2

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15752.8	.025	16944.2	.043	18334.4	.032	19546.1	.032	21069.1	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19546.12	1066.25	515	504.63	520	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
15752.8	17847.9	1009

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1002.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.66	Wt. n-Val.	0.033	0.032	
E.G. Elev (ft)	1003.56	Reach Len. (ft)	515.00	504.63	520.00
Crit W.S. (ft)	996.86	Flow Area (sq ft)	6694.76	20183.13	
E.G. Slope (ft/ft)	0.000710	Area (sq ft)	7349.47	20183.13	
Q Total (cfs)	166000.00	Flow (cfs)	26458.74	139541.25	
Top Width (ft)	3305.87	Top Width (ft)	1785.72	1520.15	
Vel Total (ft/s)	6.18	Avg. Vel. (ft/s)	3.95	6.91	
Max Chl Dpth (ft)	21.10	Hydr. Depth (ft)	5.28	13.28	
Conv. Total (cfs)	6231049.0	Conv. (cfs)	993166.9	5237882.0	
Length Wtd. (ft)	507.00	Wetted Per. (ft)	1269.03	1527.59	
Min Ch El (ft)	981.80	Shear (lb/sq ft)	0.23	0.59	
Alpha	1.12	Stream Power (lb/ft s)	0.92	4.05	
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	6402.77	19774.43	1262.69
C & E Loss (ft)	0.04	Cum SA (acres)	1773.24	2105.95	646.93

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1003.79	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.75	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1004.54	Reach Len. (ft)	515.00	504.63	520.00
Crit W.S. (ft)	996.65	Flow Area (sq ft)	3388.65	21538.78	
E.G. Slope (ft/ft)	0.000695	Area (sq ft)	3388.65	21538.78	
Q Total (cfs)	166000.00	Flow (cfs)	12208.75	153791.25	
Top Width (ft)	2185.34	Top Width (ft)	665.19	1520.15	
Vel Total (ft/s)	6.66	Avg. Vel. (ft/s)	3.60	7.14	
Max Chl Dpth (ft)	21.99	Hydr. Depth (ft)	5.09	14.17	
Conv. Total (cfs)	6298209.5	Conv. (cfs)	463212.3	5834997.0	
Length Wtd. (ft)	506.14	Wetted Per. (ft)	674.83	1528.48	
Min Ch El (ft)	981.80	Shear (lb/sq ft)	0.22	0.61	
Alpha	1.09	Stream Power (lb/ft s)	0.78	4.36	
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	1080.28	20516.34	34.97
C & E Loss (ft)	0.04	Cum SA (acres)	160.12	2110.11	6.81

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17775.89	18028.78	180.27	148.18	91.45	0.11	1.63	1.22
18028.78	18281.67	807.72	547.78	253.35	0.49	2.17	1.47
18281.67	18534.55	8235.47	1886.91	252.91	4.96	7.46	4.36
18534.55	18787.44	8766.30	1917.23	252.95	5.28	7.58	4.57
18787.44	19040.33	670.35	230.36	59.86	0.40	3.88	2.91
19040.33	19293.21	523.54	248.80	105.14	0.32	2.37	2.10
19293.21	19546.10	7275.09	1715.50	253.39	4.38	6.78	4.24
19546.10 LB	19850.13	13302.85	2735.16	304.38	8.01	9.00	4.86
19850.13	20154.16	13569.78	2768.12	304.43	8.17	9.10	4.90
20154.16	20458.19	10645.69	2395.57	305.24	6.41	7.88	4.44
20458.19	20762.22	54270.90	6363.39	304.96	32.69	20.93	8.53
20762.22	21066.25 RB	47752.02	5920.90	308.57	28.77	19.47	8.06

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18534.55	18787.44	2828.24	772.74	120.39	1.70	6.91	3.66
18787.44	19040.33	811.68	285.63	65.04	0.49	4.43	2.84
19040.33	19293.21	575.84	389.27	236.01	0.35	1.65	1.48
19293.21	19546.10	7992.98	1941.02	253.39	4.82	7.68	4.12
19546.10 LB	19850.13	15582.76	3006.29	304.38	9.39	9.89	5.18
19850.13	20154.16	15867.03	3039.25	304.43	9.56	10.00	5.22
20154.16	20458.19	12737.05	2666.70	305.24	7.67	8.77	4.78
20458.19	20762.22	58217.73	6634.52	304.96	35.07	21.82	8.77
20762.22	21066.25 RB	51386.68	6192.03	309.47	30.96	20.37	8.30

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.51

INPUT
Description: 206.51
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15913.8	1005.6	15956.7	1007.2	15960.5	1006.2	15969.2	1008	16053.6	1008.2
16067.4	1005.5	16150.9	1004.8	16244	1004.8	16317.6	1004.8	16358.5	1004.6
16454.2	1004.5	16463	1004.5	16544	1004.3	16655.6	1003.2	16728.4	1002.6
16756.4	1002.5	16830	1001.9	16942.4	1001.6	16965.9	1001.5	17053.8	1001.7
17131.5	1001.6	17218.7	1001.1	17306.1	1000.9	17382.1	1001.5	17467	1001.9
17537	1002.2	17549.6	1001.2	17642.5	1001.4	17732.1	999	17805.5	999.3
17867.7	1000	17906.8	1001.8	17982.4	1001.1	18024.8	1000	18113.4	1001
18197.5	1001.3	18210.2	1000.8	18235.8	995.8	18284.9	994.8	18353.6	996.2
18430.7	989.4	18472.3	992.6	18563.8	993.1	18633.6	994.5	18690.9	995.9
18720.1	998	18725.5	999	18780.9	997.9	18793	996.9	18839.1	995.7
18912.5	997.1	18936.6	997.3	18950.4	998.8	18982	1000.3	19017.4	998.8
19041	995.2	19046.4	993.8	19117.4	994.6	19184.9	992.6	19190.6	992.6
19209.6	996.5	19283.6	998.8	19380.8	997	19450	996.8	19458	996.8
19546.2	997.4	19586.4	996.5	19645.9	993.2	19653.5	993.3	19813.4	992.5
19869.8	992.3	19881.5	997.9	19911.8	995.3	19937.5	994.2	19964.8	991.9
19978.6	992.1	20019.7	990.5	20038.1	988.7	20070.3	987.9	20113.5	982.4
20192.5	982	20272.4	981.8	20353.1	981.8	20395.6	982.6	20485.4	993.1
20530.4	997	20546.7	997.4	20554.3	995.6	20599.9	998.6	20622.1	999.3
20634.8	998.6	20716.6	1000	20819.1	1001.3	20897.8	1001.5	20989.4	1002.8
21021	1008								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15913.8	.025	17218.7	.043	18235.8	.032	19546.2	.032	20622.1	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19546.2	20622.1	495	496.45	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15913.8	17700	1008	20615	21021	1008

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1002.02	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.02	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1003.04	Reach Len. (ft)	495.00	496.45	500.00
Crit W.S. (ft)	998.45	Flow Area (sq ft)	9128.09	12982.80	
E.G. Slope (ft/ft)	0.001348	Area (sq ft)	9628.56	13002.93	461.25
Q Total (cfs)	166000.00	Flow (cfs)	49264.98	116735.02	
Top Width (ft)	4076.31	Top Width (ft)	2687.84	1075.90	312.57
Vel Total (ft/s)	7.51	Avg. Vel. (ft/s)	5.40	8.99	
Max Chl Dpth (ft)	20.22	Hydr. Depth (ft)	4.94	12.15	
Conv. Total (cfs)	4521027.0	Conv. (cfs)	1341736.8	3179290.0	
Length Wtd. (ft)	495.96	Wetted Per. (ft)	1848.59	1072.00	
Min Ch El (ft)	981.80	Shear (lb/sq ft)	0.42	1.02	
Alpha	1.16	Stream Power (lb/ft s)	2.24	9.17	
Frctn Loss (ft)	0.69	Cum Volume (acre-ft)	6302.40	19582.20	1259.93
C & E Loss (ft)	0.03	Cum SA (acres)	1746.80	2090.91	645.07

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1002.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.18	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1004.02	Reach Len. (ft)	495.00	496.45	500.00
Crit W.S. (ft)	998.98	Flow Area (sq ft)	6259.57	13855.84	
E.G. Slope (ft/ft)	0.001341	Area (sq ft)	6259.57	13881.76	
Q Total (cfs)	166000.00	Flow (cfs)	36246.82	129753.19	
Top Width (ft)	2060.75	Top Width (ft)	984.85	1075.90	
Vel Total (ft/s)	8.25	Avg. Vel. (ft/s)	5.79	9.36	
Max Chl Dpth (ft)	21.04	Hydr. Depth (ft)	6.36	12.96	
Conv. Total (cfs)	4533433.0	Conv. (cfs)	989894.7	3543538.5	
Length Wtd. (ft)	496.07	Wetted Per. (ft)	995.97	1072.00	
Min Ch El (ft)	981.80	Shear (lb/sq ft)	0.53	1.08	
Alpha	1.11	Stream Power (lb/ft s)	3.05	10.13	
Frctn Loss (ft)	0.69	Cum Volume (acre-ft)	1023.25	20311.18	34.97
C & E Loss (ft)	0.03	Cum SA (acres)	150.37	2095.07	6.81

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17608.92	17851.08	963.12	406.58	151.10	0.58	2.69	2.37
17851.08	18093.24	416.47	296.94	242.22	0.25	1.23	1.40
18093.24	18335.40	4233.56	872.93	242.67	2.55	3.60	4.85
18335.40	18577.56	16212.70	2239.28	242.59	9.77	9.25	7.24
18577.56	18819.72	7514.94	1411.32	242.42	4.53	5.83	5.32
18819.72	19061.88	5354.55	1152.30	242.78	3.23	4.76	4.65
19061.88	19304.04	9134.04	1587.16	242.63	5.50	6.55	5.75
19304.04	19546.20	5435.60	1161.57	242.18	3.27	4.80	4.68
19546.20 LB	19761.38	10201.94	1667.60	215.28	6.15	7.75	6.12
19761.38	19976.56	11823.35	1826.64	216.68	7.12	8.49	6.47
19976.56	20191.74	33589.92	3411.24	215.66	20.23	15.85	9.85
20191.74	20406.92	49660.04	4309.94	215.26	29.92	20.03	11.52
20406.92	20622.10 RB	11459.77	1767.38	209.10	6.90	8.49	6.48

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18335.40	18577.56	869.87	156.00	25.97	0.52	9.62	5.58
18577.56	18819.72	9589.66	1609.13	242.42	5.78	6.64	5.96
18819.72	19061.88	7150.40	1350.11	242.78	4.31	5.58	5.30
19061.88	19304.04	11392.40	1784.96	242.63	6.86	7.37	6.38
19304.04	19546.20	7244.49	1359.38	242.18	4.36	5.61	5.33
19546.20 LB	19761.38	12145.97	1843.37	215.28	7.32	8.57	6.59
19761.38	19976.56	13882.11	2002.41	216.68	8.36	9.31	6.93
19976.56	20191.74	36795.30	3587.01	215.66	22.17	16.67	10.26
20191.74	20406.92	53475.69	4485.71	215.26	32.21	20.85	11.92
20406.92	20622.10 RB	13454.11	1937.34	209.10	8.10	9.31	6.94

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.41

INPUT
Description: 206.41

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16072.3	1004.6	16106.4	1006.4	16110	1005.1	16145.4	1008.7	16171	1008.7
16201.9	1005.9	16207.2	1004	16245.8	1004.3	16311.3	1003.5	16339	1003.3
16410.7	1003.1	16479.2	1003.2	16504.4	1003.2	16587.4	1003	16660.5	1002.5
16723.1	1001.7	16801.8	1001.5	16828.5	1001.3	16901.2	1001.1	16957.6	1001.1
17046.4	1001	17111	1001.2	17185.4	1001	17248.3	1000.1	17325.6	999.8
17339.6	999.7	17404.5	999.4	17486.4	999.7	17508.2	999.5	17572.4	999.3
17623.9	997.5	17651.1	1000.3	17677.5	1000.2	17744.8	1000	17841.4	1000
17924.2	1000	17975.5	1001.6	18054.4	997.3	18144.7	995.9	18247.4	997.4
18279.8	997.6	18300.2	993.9	18302.9	992.5	18313.4	993.5	18405.6	991.3
18469.8	989.6	18495.7	988.3	18533.5	989.6	18556.8	987.7	18575.5	988.9
18582.4	987.8	18584.3	989.6	18620.5	992.5	18634.5	992.5	18697.7	996.9
18786	998.9	18861.4	999.4	18929.1	999.3	18999.1	996.6	19037	995.4
19069.4	992.6	19082.5	992.4	19169.3	990.8	19285.4	995	19369.2	996.5

19395.7	996.5	19466.6	996.5	19539.8	996.4	19622.9	997.3	19694.4	996.7
19720.5	996.5	19730.2	994.5	19748.7	992.6	19835.1	990.8	19895.8	991.8
19904.5	990.4	19996.1	990.2	20002.5	990.4	20015.5	997.7	20035	990
20091.8	991.6	20171.9	991.2	20269.1	991.6	20343.1	990.4	20356.9	990
20360	988.9	20373.3	988	20379.2	986.7	20421	985.4	20490.4	985.8
20544.3	985.8	20576.7	983.8	20636.9	982.5	20685.2	1001.4	20690.8	1003.6
20719.8	1001.5	20729	1007.4						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16072.3	.025	17185.4	.043	18300.2	.032	19622.9	.032	20690.8	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19622.9	20685.22	495	494.64	490	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16072.3	17111	1008

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1001.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.91	Wt. n-Val.	0.033	0.032	
E.G. Elev (ft)	1002.32	Reach Len. (ft)	495.00	494.64	490.00
Crit W.S. (ft)	997.86	Flow Area (sq ft)	11582.02	11788.71	
E.G. Slope (ft/ft)	0.001436	Area (sq ft)	11667.93	11788.71	
Q Total (cfs)	166000.00	Flow (cfs)	63303.46	102696.55	
Top Width (ft)	3862.04	Top Width (ft)	2799.73	1062.31	
Vel Total (ft/s)	7.10	Avg. Vel. (ft/s)	5.47	8.71	
Max Chl Dpth (ft)	18.91	Hydr. Depth (ft)	4.63	11.10	
Conv. Total (cfs)	4380580.0	Conv. (cfs)	1670517.3	2710063.0	
Length Wtd. (ft)	494.77	Wetted Per. (ft)	2505.07	1070.20	
Min Ch El (ft)	982.50	Shear (lb/sq ft)	0.41	0.99	
Alpha	1.16	Stream Power (lb/ft s)	2.27	8.60	
Frctn Loss (ft)	0.72	Cum Volume (acre-ft)	6181.40	19440.93	1257.29
C & E Loss (ft)	0.03	Cum SA (acres)	1715.62	2078.73	643.27

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1002.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.09	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1003.30	Reach Len. (ft)	495.00	494.64	490.00
Crit W.S. (ft)	998.34	Flow Area (sq ft)	7928.29	12640.42	
E.G. Slope (ft/ft)	0.001436	Area (sq ft)	7928.29	12640.42	
Q Total (cfs)	166000.00	Flow (cfs)	50716.00	115283.98	
Top Width (ft)	2190.50	Top Width (ft)	1128.19	1062.31	
Vel Total (ft/s)	8.07	Avg. Vel. (ft/s)	6.40	9.12	
Max Chl Dpth (ft)	19.71	Hydr. Depth (ft)	7.03	11.90	
Conv. Total (cfs)	4381207.0	Conv. (cfs)	1338538.0	3042668.8	
Length Wtd. (ft)	494.75	Wetted Per. (ft)	1143.59	1071.00	
Min Ch El (ft)	982.50	Shear (lb/sq ft)	0.62	1.06	
Alpha	1.08	Stream Power (lb/ft s)	3.97	9.65	
Frctn Loss (ft)	0.72	Cum Volume (acre-ft)	942.64	20160.04	34.97
C & E Loss (ft)	0.03	Cum SA (acres)	138.36	2082.89	6.81

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17019.13	17255.83	95.33	87.31	144.84	0.06	0.60	1.09
17255.83	17492.54	717.79	410.12	236.71	0.43	1.73	1.75
17492.54	17729.25	928.07	478.61	236.88	0.56	2.02	1.94
17729.25	17965.95	441.74	306.49	236.73	0.27	1.29	1.44
17965.95	18202.66	2655.30	884.60	227.32	1.60	3.89	3.00
18202.66	18439.37	10789.30	1734.13	237.47	6.50	7.33	6.22
18439.37	18676.07	20980.73	2607.90	237.91	12.64	11.02	8.05
18676.07	18912.78	2348.80	699.65	236.78	1.41	2.96	3.36
18912.78	19149.49	8216.48	1483.47	236.91	4.95	6.27	5.54
19149.49	19386.19	10852.12	1752.65	236.80	6.54	7.40	6.19
19386.19	19622.90	5277.82	1137.09	236.71	3.18	4.80	4.64
19622.90 LB	19835.37	9236.74	1485.61	212.79	5.56	6.99	6.22
19835.37	20047.83	17287.50	2176.74	215.97	10.41	10.25	7.94
20047.83	20260.29	17080.61	2147.07	212.48	10.29	10.11	7.96

20260.29	20472.76	26040.16	2767.18	212.86	15.69	13.02	9.41
20472.76	20685.22 RB	33051.52	3212.10	216.10	19.91	15.12	10.29

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18439.37	18676.07	16866.44	2096.32	196.39	10.16	11.56	8.05
18676.07	18912.78	3566.90	889.43	236.78	2.15	3.76	4.01
18912.78	19149.49	10222.30	1673.25	236.91	6.16	7.07	6.11
19149.49	19386.19	13111.66	1942.43	236.80	7.90	8.21	6.75
19386.19	19622.90	6948.70	1326.87	236.71	4.19	5.61	5.24
19622.90 LB	19835.37	11118.26	1655.95	212.79	6.70	7.79	6.71
19835.37	20047.83	19688.54	2347.09	215.97	11.86	11.05	8.39
20047.83	20260.29	19485.46	2317.42	212.48	11.74	10.91	8.41
20260.29	20472.76	28895.36	2937.53	212.86	17.41	13.83	9.84
20472.76	20685.22 RB	36096.38	3382.44	216.90	21.74	15.92	10.67

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.32

INPUT
Description: 206.32

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16817.7	1002.2	16831.7	1004.4	16847.7	1000.1	16903	997.6	16998.5	999.5
17015.9	999.8	17073.2	995.7	17113.2	998.3	17193.6	998.2	17277.8	999.4
17336.8	998.4	17343.9	998.8	17416.7	997.2	17461	999.1	17530.2	1000
17612	1000.6	17634.8	999.5	17703.3	1001.3	17735.8	1000.4	17761.4	998.4
17843.7	998.5	17853.7	998	17875.9	994.2	17903.4	993.9	17962.9	996.3
18028.7	995.2	18096.2	993.6	18102.6	993.3	18134.8	1001.1	18154.4	1000.2
18192.6	1000.1	18243.3	992.5	18301.4	992.6	18329.8	993.4	18404.3	989.6
18429.4	987.7	18495.6	987.8	18512.7	986.5	18544.6	986.5	18577	989.5
18647	992.5	18707.1	997.1	18782.1	996.8	18869.6	997.5	18885	997.8
18895.7	996.8	18922.1	996.8	18939.9	995.3	18961.5	991.6	18990.7	990
19055.1	991.9	19120.2	992.7	19199.6	995.3	19288	998.1	19351.7	998.3
19433.6	998.5	19488.7	998.2	19527.8	996.5	19535	995.3	19546.5	994.9
19619.6	996.5	19696.3	996.5	19801.3	996.5	19818	996	19830.1	994.5
19917.7	993.3	19992.8	991.2	20076.4	989.2	20107.3	989	20181.4	989.5
20194.5	994.9	20217.3	987.2	20265.3	989.9	20314.9	990.8	20362.4	989.9
20372.9	988.8	20409.1	988.6	20435	986.4	20447.1	986.7	20565.6	989.2
20589.2	986.1	20647.7	982.8	20703.3	983.2	20732.7	988.7	20805.2	991
20816.2	997.6	20847.3	998.3	20854.9	1000.773	20855.6	1001	20889.3	1002
20959.7	1001.8	20988.9	1002.7	21076.4	1002.8	21150.5	1002.8	21226.3	1002.8
21295.2	1002.7	21368	1003.3						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16817.7	.043	18404.3	.032	19488.7	.032	20889.3	.032	20988.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19488.7	20854.9	515	513.83	520	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16817.7	17150	1004	20899.3	21368	1004

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1000.76	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.80	Wt. n-Val.	0.035	0.032	
E.G. Elev (ft)	1001.56	Reach Len. (ft)	515.00	513.83	520.00
Crit W.S. (ft)	997.01	Flow Area (sq ft)	11528.30	13024.82	
E.G. Slope (ft/ft)	0.001495	Area (sq ft)	12280.28	13024.82	
Q Total (cfs)	166000.00	Flow (cfs)	61168.81	104831.18	
Top Width (ft)	3961.08	Top Width (ft)	2594.91	1366.17	
Vel Total (ft/s)	6.76	Avg. Vel. (ft/s)	5.31	8.05	
Max Chl Dpth (ft)	17.96	Hydr. Depth (ft)	5.03	9.53	
Conv. Total (cfs)	4293483.5	Conv. (cfs)	1582092.1	2711391.3	
Length Wtd. (ft)	514.23	Wetted Per. (ft)	2293.46	1372.17	
Min Ch El (ft)	982.80	Shear (lb/sq ft)	0.47	0.89	

Alpha	1.12	Stream Power (lb/ft s)	2.49	7.13	
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	6045.33	19300.04	1257.29
C & E Loss (ft)	0.01	Cum SA (acres)	1684.97	2064.94	643.27

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1001.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.99	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1002.55	Reach Len. (ft)	515.00	513.83	520.00
Crit W.S. (ft)	997.75	Flow Area (sq ft)	7080.71	14107.90	
E.G. Slope (ft/ft)	0.001499	Area (sq ft)	7080.71	14107.90	
Q Total (cfs)	166000.00	Flow (cfs)	46124.84	119875.16	
Top Width (ft)	2377.93	Top Width (ft)	1011.76	1366.17	
Vel Total (ft/s)	7.83	Avg. Vel. (ft/s)	6.51	8.50	
Max Chl Dpth (ft)	18.76	Hydr. Depth (ft)	7.00	10.33	
Conv. Total (cfs)	4287670.5	Conv. (cfs)	1191374.1	3096296.5	
Length Wtd. (ft)	514.13	Wetted Per. (ft)	1026.57	1372.97	
Min Ch El (ft)	982.80	Shear (lb/sq ft)	0.65	0.96	
Alpha	1.04	Stream Power (lb/ft s)	4.20	8.17	
Frctn Loss (ft)	0.83	Cum Volume (acre-ft)	857.36	20008.17	34.97
C & E Loss (ft)	0.00	Cum SA (acres)	126.21	2069.10	6.81

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16995.77	17173.83	130.69	60.14	23.83	0.08	2.52	2.17
17173.83	17351.90	666.55	357.39	178.10	0.40	2.01	1.87
17351.90	17529.97	752.09	384.27	178.13	0.45	2.16	1.96
17529.97	17708.03	66.92	84.67	152.95	0.04	0.55	0.79
17708.03	17886.10	936.20	423.80	163.83	0.56	2.59	2.21
17886.10	18064.17	3678.90	996.12	178.13	2.22	5.59	3.69
18064.17	18242.23	1732.70	623.48	170.81	1.04	3.68	2.78
18242.23	18420.30	8408.78	1584.77	178.23	5.07	8.90	5.31
18420.30	18598.37	20063.42	2309.37	178.30	12.09	12.97	8.69
18598.37	18776.43	5605.65	1074.52	178.29	3.38	6.03	5.22
18776.43	18954.50	2809.30	710.07	178.40	1.69	3.99	3.96
18954.50	19132.57	11239.31	1630.98	178.25	6.77	9.16	6.89
19132.57	19310.63	3857.74	858.42	178.15	2.32	4.82	4.49
19310.63	19488.70	1220.58	430.29	178.07	0.74	2.42	2.84
19488.70 LB	19761.94	5512.89	1210.50	273.40	3.32	4.43	4.55
19761.94	20035.18	12488.85	1977.17	273.39	7.52	7.24	6.32
20035.18	20308.42	25455.92	3041.22	275.67	15.33	11.13	8.37
20308.42	20581.66	30099.17	3352.56	273.57	18.13	12.27	8.98
20581.66	20854.90 RB	31274.34	3443.37	276.14	18.84	12.60	9.08

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18420.30	18598.37	14538.80	1670.58	135.42	8.76	13.76	8.70
18598.37	18776.43	7125.62	1215.69	178.29	4.29	6.83	5.86
18776.43	18954.50	3932.77	851.24	178.40	2.37	4.78	4.62
18954.50	19132.57	13355.97	1772.15	178.25	8.05	9.95	7.54
19132.57	19310.63	5145.00	999.59	178.15	3.10	5.61	5.15
19310.63	19488.70	2026.69	571.46	178.07	1.22	3.21	3.55
19488.70 LB	19761.94	7330.17	1427.12	273.40	4.42	5.22	5.14
19761.94	20035.18	15008.90	2193.79	273.39	9.04	8.03	6.84
20035.18	20308.42	28851.38	3257.84	275.67	17.38	11.92	8.86
20308.42	20581.66	33763.61	3569.19	273.57	20.34	13.06	9.46
20581.66	20854.90 RB	34921.11	3659.96	276.93	21.04	13.40	9.54

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.22

INPUT
Description: 206.22

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16557.5	1004.3	16639.4	1004	16713.7	1003.6	16806.6	1001.8	16878.4	999
16892.3	998.9	16946.1	1002.9	16955.9	1004.8	16975.7	997.5	16981.9	999.4
16987.4	998.1	17046.8	996.8	17159.7	997	17260.1	998.5	17320.1	997.5
17343.9	994.5	17380.4	994.5	17400.6	996.8	17408	996.8	17477.4	998.9
17541.1	999.5	17596.5	998.4	17631.6	996.8	17724.8	998.9	17740.4	998.5
17771.5	991.4	17846.4	992.8	17904.5	993.5	17940	995.6	18004.2	995.6
18016.1	997.5	18035.4	995.9	18079.4	996.3	18103.6	997.7	18147.1	997.6
18161.3	993.8	18238.9	993.7	18321.5	992.4	18333.6	991.4	18443.6	991.4
18455.9	991.4	18507.4	994.4	18550.2	989.5	18634.4	989.6	18723.2	987.6
18759.4	986.3	18833.1	991.5	18933.1	991.9	18987.8	992.5	19058	994.5
19110.4	996.4	19138.8	999.5	19223.6	1000.6	19278.4	1001.5	19361.2	1000.2
19370.9	998.6	19381.6	1000.1	19456.3	999.5	19512.1	996.4	19583	994.5
19660.7	994.4	19691.9	994.4	19781.3	994.4	19826.6	994.4	19870	992.6
19877.4	990.6	19912.2	990	20004.6	991.9	20079	991.3	20117.2	990.7
20188.2	986.9	20282	986.7	20306.6	994.7	20332.7	985.9	20338.2	985.9
20423.1	985.1	20525.8	983	20611.1	984.7	20700.7	989.7	20755.5	992.3
20766.6	995.9	20807.8	996.5	20844.2	994.9	20887.6	996.6	20898.1	998.3
20968.3	999	20974.6	999.1	20977.3	5999.8	423 20990.9	1003.5	21017.9	1001.7
21148.3	1002.6	21222.8	1003.1	21294.4	1003.3	21307.8	1003.3	21385.2	1003.5
21467.9	1003.9	21480	1004						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16557.5	.043	19278.4	.043	19583	.032	20990.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19278.4	20977.35	500	502.44	460	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16557.5	16955.9	1004	21480	21480	1004

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	999.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.87	Wt. n-Val.	0.043	0.032	
E.G. Elev (ft)	1000.70	Reach Len. (ft)	500.00	502.44	460.00
Crit W.S. (ft)	996.52	Flow Area (sq ft)	11714.82	13206.79	
E.G. Slope (ft/ft)	0.001856	Area (sq ft)	11741.48	13206.79	
Q Total (cfs)	166000.00	Flow (cfs)	53201.16	112798.84	
Top Width (ft)	3819.70	Top Width (ft)	2242.02	1577.69	
Vel Total (ft/s)	6.66	Avg. Vel. (ft/s)	4.54	8.54	
Max Chl Dpth (ft)	16.83	Hydr. Depth (ft)	5.34	8.37	
Conv. Total (cfs)	3853684.5	Conv. (cfs)	1235063.1	2618621.5	
Length Wtd. (ft)	501.63	Wetted Per. (ft)	2198.34	1582.26	
Min Ch El (ft)	983.00	Shear (lb/sq ft)	0.62	0.97	
Alpha	1.27	Stream Power (lb/ft s)	2.80	8.26	
Frctn Loss (ft)	0.99	Cum Volume (acre-ft)	5903.33	19145.33	1257.29
C & E Loss (ft)	0.00	Cum SA (acres)	1656.37	2047.58	643.27

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1000.69	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.03	Wt. n-Val.	0.043	0.032	
E.G. Elev (ft)	1001.72	Reach Len. (ft)	500.00	502.44	460.00
Crit W.S. (ft)	996.67	Flow Area (sq ft)	6624.36	14610.28	
E.G. Slope (ft/ft)	0.001735	Area (sq ft)	6624.36	14610.28	
Q Total (cfs)	166000.00	Flow (cfs)	38880.90	127119.09	
Top Width (ft)	2441.69	Top Width (ft)	794.23	1647.46	
Vel Total (ft/s)	7.82	Avg. Vel. (ft/s)	5.87	8.70	
Max Chl Dpth (ft)	17.69	Hydr. Depth (ft)	8.34	8.87	
Conv. Total (cfs)	3985675.0	Conv. (cfs)	933534.0	3052141.0	
Length Wtd. (ft)	501.89	Wetted Per. (ft)	804.37	1652.95	
Min Ch El (ft)	983.00	Shear (lb/sq ft)	0.89	0.96	
Alpha	1.08	Stream Power (lb/ft s)	5.23	8.33	
Frctn Loss (ft)	1.05	Cum Volume (acre-ft)	776.34	19838.79	34.97
C & E Loss (ft)	0.02	Cum SA (acres)	115.53	2051.32	6.81

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross

section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16920.29	17101.68	750.59	326.25	133.15	0.45	2.47	2.30
17101.68	17283.07	894.35	410.15	181.41	0.54	2.26	2.18
17283.07	17464.47	1634.83	589.44	181.74	0.98	3.25	2.77
17464.47	17645.86	321.00	221.81	181.45	0.19	1.22	1.45
17645.86	17827.25	2455.28	753.15	182.23	1.48	4.15	3.26
17827.25	18008.65	3958.69	1001.55	181.52	2.38	5.52	3.95
18008.65	18190.04	1879.15	641.32	182.10	1.13	3.54	2.93
18190.04	18371.43	5898.35	1272.07	181.44	3.55	7.01	4.64
18371.43	18552.83	7181.43	1432.52	181.76	4.33	7.90	5.01
18552.83	18734.22	12246.94	1971.83	181.42	7.38	10.87	6.21
18734.22	18915.61	10589.33	1807.74	181.59	6.38	9.97	5.86
18915.61	19097.01	5207.80	1180.52	181.45	3.14	6.51	4.41
19097.01	19278.40	183.43	106.48	67.07	0.11	1.59	1.72
19278.40 LB	19618.19	2112.84	619.58	218.89	1.27	2.83	3.41
19618.19	19957.98	14387.04	2224.71	340.11	8.67	6.55	6.47
19957.98	20297.77	30756.44	3512.09	340.72	18.53	10.34	8.76
20297.77	20637.56	54617.45	4962.93	341.77	32.90	14.61	11.01
20637.56	20977.35 RB	10925.07	1887.47	340.77	6.58	5.56	5.79

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18371.43	18552.83	5131.60	999.10	127.49	3.09	8.48	5.14
18552.83	18734.22	14313.45	2129.10	181.42	8.62	11.74	6.72
18734.22	18915.61	12514.74	1965.00	181.59	7.54	10.83	6.37
18915.61	19097.01	6597.08	1337.79	181.45	3.97	7.38	4.93
19097.01	19278.40	324.03	193.37	132.41	0.20	1.46	1.68
19278.40 LB	19618.19	2879.19	844.73	288.71	1.73	2.93	3.41
19618.19	19957.98	17330.62	2519.31	340.11	10.44	7.41	6.88
19957.98	20297.77	34440.38	3806.69	340.72	20.75	11.20	9.05
20297.77	20637.56	58870.79	5257.53	341.77	35.46	15.47	11.20
20637.56	20977.35 RB	13598.13	2182.02	341.63	8.19	6.42	6.23

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.13

INPUT
Description: 206.13

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16722.1	1002.8	16785.1	1002.2	16877.3	1002.1	16908.3	1000.9	16979.6	1000.9
17014.5	1000.3	17057.5	998.5	17070.3	997.5	17183.2	997.5	17222.6	994.5
17342.3	992.1	17417.8	994.4	17490.8	994.6	17494	994.7	17613.2	996.3
17668.4	995.8	17699.1	991.3	17790.1	992.3	17861.7	993.7	17934.2	993.6
17996.1	993.2	18017.5	997.2	18080.8	996.1	18121.2	996.9	18147.1	992.3
18166.8	991.3	18235.4	991.3	18302.6	991.3	18386	991.3	18421.8	989.5
18432	988.4	18469.5	988.4	18475.1	989.5	18500.2	989.3	18504.2	988.4
18568.5	987.1	18688.1	988.4	18765.4	989.5	18782.8	992.5	18860.9	996.5
18915	999.2	18980.4	995.4	19020.4	994.5	19089.1	997.3	19153.9	1000.5
19162	1001.6	19203	1003.8	19205.7	1003.2	19223.2	1003	19263.9	1000.5
19294	999.3	19352.5	999.3	19369.3	998.5	19381.9	996.4	19450.5	995.7
19547.3	995.6	19615.3	994.4	19675.1	990.6	19753.3	990.5	19774.8	990.4
19852.5	988.3	19926.3	986.6	19938.1	987.1	19943.1	987.8	19956	986.6
19959	986.7	20036.9	986.5	20105.4	986.3	20129.5	986.8	20164.8	990.8
20183.5	987.1	20270.6	987.9	20276.8	988.6	20297.8	988.6	20342.4	987.5
20366.8	987.4	20431.3	985.5	20458.7	984.6	20505.9	984.6	20523.1	985.6
20557.7	986.6	20563.2	987.2	20637	987.5	20656	988.4	20660.4	988
20685	996.6	20699.6	998	20710.6	997.6	20766.4	997.9	20788.2	997
20848.3	996.7	20868.5	996	20903.4	995.7	20914.9	9998.8	7120934.1	1004.1

20964.8 1000.3 20989.1 1000.6

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
16722.1	.043	19203	.033	20934.1	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19203	20914.99	490	483.44	540	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	998.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.86	Wt. n-Val.	0.043	0.033	
E.G. Elev (ft)	999.71	Reach Len. (ft)	490.00	483.44	540.00
Crit W.S. (ft)		Flow Area (sq ft)	11342.92	12898.36	
E.G. Slope (ft/ft)	0.002097	Area (sq ft)	11342.92	12898.36	
Q Total (cfs)	166000.00	Flow (cfs)	57076.93	108923.07	
Top Width (ft)	3610.68	Top Width (ft)	2057.86	1552.82	
Vel Total (ft/s)	6.85	Avg. Vel. (ft/s)	5.03	8.44	
Max Chl Dpth (ft)	14.24	Hydr. Depth (ft)	5.51	8.31	
Conv. Total (cfs)	3625219.5	Conv. (cfs)	1246484.3	2378735.3	
Length Wtd. (ft)	485.81	Wetted Per. (ft)	2060.22	1556.11	
Min Ch El (ft)	984.60	Shear (lb/sq ft)	0.72	1.09	
Alpha	1.18	Stream Power (lb/ft s)	3.63	9.16	
Frctn Loss (ft)	1.19	Cum Volume (acre-ft)	5770.84	18994.78	1257.29
C & E Loss (ft)	0.04	Cum SA (acres)	1631.69	2029.52	643.27

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	999.43	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.23	Wt. n-Val.	0.043	0.033	
E.G. Elev (ft)	1000.65	Reach Len. (ft)	490.00	483.44	540.00
Crit W.S. (ft)		Flow Area (sq ft)	5507.48	13816.02	
E.G. Slope (ft/ft)	0.002540	Area (sq ft)	5507.48	13816.02	
Q Total (cfs)	166000.00	Flow (cfs)	35563.52	130436.48	
Top Width (ft)	2386.30	Top Width (ft)	762.20	1624.11	
Vel Total (ft/s)	8.59	Avg. Vel. (ft/s)	6.46	9.44	
Max Chl Dpth (ft)	14.83	Hydr. Depth (ft)	7.23	8.51	
Conv. Total (cfs)	3294031.8	Conv. (cfs)	705706.9	2588324.8	
Length Wtd. (ft)	484.60	Wetted Per. (ft)	771.32	1627.99	
Min Ch El (ft)	984.60	Shear (lb/sq ft)	1.13	1.35	
Alpha	1.07	Stream Power (lb/ft s)	7.31	12.70	
Frctn Loss (ft)	1.44	Cum Volume (acre-ft)	706.71	19674.85	34.97
C & E Loss (ft)	0.06	Cum SA (acres)	106.60	2032.46	6.81

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16887.49	17052.89	0.07	0.27	3.62	0.00	0.08	0.25
17052.89	17218.28	492.31	257.75	165.54	0.30	1.56	1.91
17218.28	17383.67	4215.53	934.70	165.45	2.54	5.65	4.51
17383.67	17549.07	2652.70	707.84	165.42	1.60	4.28	3.75
17549.07	17714.46	2136.71	622.16	165.73	1.29	3.76	3.43
17714.46	17879.85	5025.40	1038.54	165.41	3.03	6.28	4.84
17879.85	18045.25	2918.96	750.29	165.77	1.76	4.54	3.89
18045.25	18210.64	2986.35	760.77	165.84	1.80	4.60	3.93
18210.64	18376.03	6824.50	1247.79	165.39	4.11	7.54	5.47
18376.03	18541.43	10372.60	1605.34	165.71	6.25	9.71	6.46
18541.43	18706.82	12924.51	1830.48	165.41	7.79	11.07	7.06
18706.82	18872.21	5281.71	1070.93	165.77	3.18	6.48	4.93
18872.21	19037.61	901.17	358.33	152.32	0.54	2.36	2.51
19037.61	19203.00	344.42	157.71	82.85	0.21	1.91	2.18
19203.00 LB	19545.40	1902.49	513.56	183.52	1.15	2.80	3.70

19545.40	19887.80	18735.57	2600.34	342.57	11.29	7.59	7.21
19887.80	20230.19	38687.32	4020.23	343.12	23.31	11.74	9.62
20230.19	20572.59	41525.25	4191.98	342.57	25.02	12.24	9.91
20572.59	20914.99 RB	8072.42	1572.26	344.33	4.86	4.59	5.13

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18210.64	18376.03	169.24	49.04	14.16	0.10	8.13	3.45
18376.03	18541.43	12124.42	1701.90	165.71	7.30	10.29	7.12
18541.43	18706.82	14932.05	1927.04	165.41	9.00	11.65	7.75
18706.82	18872.21	6467.79	1167.49	165.77	3.90	7.06	5.54
18872.21	19037.61	1333.75	452.53	165.58	0.80	2.74	2.95
19037.61	19203.00	536.29	209.48	94.69	0.32	2.21	2.56
19203.00 LB	19545.40	2345.83	631.71	254.81	1.41	2.48	3.71
19545.40	19887.80	23036.24	2800.23	342.57	13.88	8.18	8.23
19887.80	20230.19	45585.86	4220.12	343.12	27.46	12.33	10.80
20230.19	20572.59	48771.68	4391.87	342.57	29.38	12.83	11.10
20572.59	20914.99 RB	10696.88	1772.09	344.91	6.44	5.18	6.04

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.03

INPUT
Description: 206.03
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16802.9	1002.4	16810.4	1002	16813.6	1000.9	16824	1002.4	16844.6	1000.6
16890.3	1000.8	16957.6	998.6	16974.2	996.3	17051	996.3	17118.7	996
17158.8	996.3	17238.1	994.4	17268.4	993.9	17337.7	992.2	17429.7	992.2
17531.5	992.2	17538.3	993.5	17547.2	994.4	17602.5	996.5	17662	996.6
17711.8	998.8	17753.6	997.9	17811.8	999.7	17868.4	998.8	17876	996.8
17888.6	992.2	17921.7	991.3	17955.9	991.3	18046.3	991.3	18129	992.2
18208.5	993.4	18309.7	993.6	18420.9	993.3	18447.9	989.4	18457.8	986.4
18517.5	985.1	18549.4	986.9	18588	984	18644.4	992.4	18712.4	995.4
18774.2	998.9	18830	995.4	18904.6	994.2	18908.3	994.2	18995.9	996.3
19086.5	1000.5	19177	1002.9	19201.9	1004.4	19226.8	1002.9	19249.6	1003.2
19274.5	1000.5	19281.8	998.5	19300.1	995.7	19315.7	994.3	19390.1	994.3
19400.5	994.3	19413.5	991.2	19424.9	989.1	19482.5	986.8	19510.1	986.8
19554.4	985.8	19658.8	985.8	19753.3	985.9	19822.1	985.9	19854.2	986.9
19870.5	986.6	19902.2	987.2	19919.6	986.6	19994.1	987.8	20078.9	988.1
20133.4	987.5	20176.6	991.9	20201.4	992.1	20216.4	992.9	20292.1	994.2
20354	993	20378.4	992	20392	989.3	20410.4	989.1	20427.7	986.6
20479.5	986.9	20548	985.1	20601.3	984.5	20610.2	984.8	20660.5	989.4
20711.9	992.7	20772.6	995.4	20851.6	995.1	20876.8	995	20972.6	994.7
21099.7	995.7	21122.5	995.9	21132.1	998.6	21160.4	1005.3	21175.8	999.9
21184.2	999.9								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
16802.9	.043	19201.9	.033	20772.6	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19201.9	20772.6	590	513.6	510	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16802.9	16900	1003

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	997.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.28	Wt. n-Val.	0.043	0.033	0.032
E.G. Elev (ft)	998.47	Reach Len. (ft)	590.00	513.60	510.00

Crit W.S. (ft)	995.38	Flow Area (sq ft)	7301.46	12448.49	718.55
E.G. Slope (ft/ft)	0.002920	Area (sq ft)	7301.46	12448.49	718.55
Q Total (cfs)	166000.00	Flow (cfs)	38067.04	125045.94	2887.02
Top Width (ft)	3627.32	Top Width (ft)	1790.61	1482.23	354.48
Vel Total (ft/s)	8.11	Avg. Vel. (ft/s)	5.21	10.05	4.02
Max Chl Dpth (ft)	13.19	Hydr. Depth (ft)	4.08	8.40	2.03
Conv. Total (cfs)	3071732.3	Conv. (cfs)	704408.1	2313901.5	53422.6
Length Wtd. (ft)	528.46	Wetted Per. (ft)	1793.58	1484.21	354.67
Min Ch El (ft)	984.50	Shear (lb/sq ft)	0.74	1.53	0.37
Alpha	1.25	Stream Power (lb/ft s)	3.87	15.36	1.48
Frctn Loss (ft)	1.19	Cum Volume (acre-ft)	5665.98	18854.13	1252.83
C & E Loss (ft)	0.12	Cum SA (acres)	1610.05	2012.68	641.08

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	997.37	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.78	Wt. n-Val.	0.043	0.033	
E.G. Elev (ft)	999.15	Reach Len. (ft)	590.00	513.60	510.00
Crit W.S. (ft)	995.37	Flow Area (sq ft)	3391.07	12720.36	
E.G. Slope (ft/ft)	0.003548	Area (sq ft)	3391.07	12720.36	
Q Total (cfs)	166000.00	Flow (cfs)	23329.40	142670.61	
Top Width (ft)	2131.13	Top Width (ft)	647.70	1483.43	
Vel Total (ft/s)	10.30	Avg. Vel. (ft/s)	6.88	11.22	
Max Chl Dpth (ft)	13.37	Hydr. Depth (ft)	5.24	8.57	
Conv. Total (cfs)	2786995.5	Conv. (cfs)	391680.3	2395315.3	
Length Wtd. (ft)	524.67	Wetted Per. (ft)	653.26	1487.40	
Min Ch El (ft)	984.50	Shear (lb/sq ft)	1.15	1.89	
Alpha	1.08	Stream Power (lb/ft s)	7.91	21.24	
Frctn Loss (ft)	1.16	Cum Volume (acre-ft)	656.67	19527.60	34.97
C & E Loss (ft)	0.28	Cum SA (acres)	98.67	2015.21	6.81

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16962.83	17122.77	240.67	146.23	155.05	0.14	0.94	1.65
17122.77	17282.70	889.14	324.33	159.97	0.54	2.03	2.74
17282.70	17442.63	3682.30	760.78	159.95	2.22	4.76	4.84
17442.63	17602.57	2462.44	597.89	160.14	1.48	3.74	4.12
17602.57	17762.50	49.61	41.89	72.78	0.03	0.58	1.18
17762.50	17922.43	1016.11	218.52	48.79	0.61	4.56	4.65
17922.43	18082.37	5190.48	934.76	159.94	3.13	5.84	5.55
18082.37	18242.30	3361.88	720.33	159.95	2.03	4.50	4.67
18242.30	18402.23	2410.83	590.03	159.93	1.45	3.69	4.09
18402.23	18562.17	11365.29	1499.05	160.76	6.85	9.37	7.58
18562.17	18722.10	6389.44	1060.94	160.71	3.85	6.63	6.02
18722.10	18882.03	345.39	153.93	102.54	0.21	1.50	2.24
18882.03	19041.97	663.47	252.78	133.09	0.40	1.90	2.62
19041.97	19201.90						
19201.90 LB	19516.04	9823.77	1305.34	226.45	5.92	5.78	7.53
19516.04	19830.18	41802.33	3547.66	314.15	25.18	11.29	11.78
19830.18	20144.32	32852.80	3070.53	314.24	19.79	9.77	10.70
20144.32	20458.46	12920.06	1755.28	314.82	7.78	5.59	7.36
20458.46	20772.60 RB	27646.96	2769.67	314.55	16.65	8.82	9.98
20772.60	20800.04	187.62	50.52	27.44	0.11	1.84	3.71
20800.04	20827.48	205.67	53.38	27.44	0.12	1.95	3.85
20827.48	20854.92	224.36	56.24	27.44	0.14	2.05	3.99
20854.92	20882.36	244.14	59.16	27.44	0.15	2.16	4.13
20882.36	20909.80	261.98	61.72	27.44	0.16	2.25	4.24
20909.80	20937.24	278.90	64.08	27.44	0.17	2.34	4.35
20937.24	20964.68	296.19	66.43	27.44	0.18	2.42	4.46

20964.68	20992.12	298.14	66.70	27.44	0.18	2.43	4.47
20992.12	21019.56	257.75	61.12	27.44	0.16	2.23	4.22
21019.56	21047.00	217.48	55.20	27.44	0.13	2.01	3.94
21047.00	21074.44	179.97	49.27	27.44	0.11	1.80	3.65
21074.44	21101.88	145.36	43.34	27.44	0.09	1.58	3.35
21101.88	21129.32	89.46	31.40	25.38	0.05	1.25	2.85

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18242.30	18402.23	1478.75	321.62	86.03	0.89	3.91	4.60
18402.23	18562.17	13093.07	1528.37	160.76	7.89	9.56	8.57
18562.17	18722.10	7458.23	1090.26	160.71	4.49	6.82	6.84
18722.10	18882.03	451.35	173.28	108.71	0.27	1.60	2.60
18882.03	19041.97	848.01	277.54	137.05	0.51	2.03	3.06
19041.97	19201.90						
19201.90 LB	19516.04	11382.32	1346.82	227.66	6.86	5.94	8.45
19516.04	19830.18	47392.32	3605.25	314.15	28.55	11.48	13.15
19830.18	20144.32	37400.25	3128.13	314.24	22.53	9.96	11.96
20144.32	20458.46	15048.20	1812.88	314.82	9.07	5.77	8.30
20458.46	20772.60 RB	31447.50	2827.27	316.52	18.94	9.00	11.12

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 205.94

INPUT
Description: 205.94
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16903.8	1000.5	16909.4	1000	16920.9	1001.6	16972.5	1001.2	16975.5	1000.3
16985.1	1001.6	17007.6	998.7	17082.9	996.3	17151.6	996.3	17234	996.3
17267.9	996.3	17336.5	996.2	17426	996.4	17508.2	996.2	17592.3	996.3
17688.9	994.4	17733.4	994	17754.7	991.9	17830.3	991.2	17928	993.4
17928.3	993.4	18000.5	993.2	18041.8	993.1	18116.7	993.3	18216.4	993.4
18279.7	991.1	18294.7	987.3	18302.5	986.7	18362.5	986.9	18376.8	985.1
18407.6	986.2	18496.1	984.1	18565.5	985.4	18614.9	987.2	18629.5	988.4
18642.1	988.5	18669.8	994.1	18756.5	994.7	18817.1	995.6	18869.8	993.4
18916.1	992.8	18941.2	994.2	19004.1	991	19053.5	981.9	19123.4	981.8
19199.3	982	19250	981.9	19337.5	981.5	19354.9	982.2	19448.6	985
19535.3	985	19613.6	984.8	19703.6	985.4	19775.9	989.5	19831.1	990.2
19926.3	989.4	19994.7	989.1	20082.6	988.9	20106.6	989.1	20111.2	988.5
20149.5	990.4	20183.7	994.3	20237	990.7	20262.2	991.4	20291.7	989.3
20345	989.3	20445.6	986.5	20507.2	982.5	20519.9	982.9	20520.2	982.1
20569.1	981	20589.6	984	20612	989.6	20643	991.1	20662.1	992.9
20686.6	992.8	20704.4	994.4	20767	996.6	20871.9	997.4	20903.2	996.9
20938.8	991.7	20969.6	993.5	21038.9	995.4	21103	995.9	21150.3	993.9
21195.3	994.9	21265.8	994.7	21288.8	994	21309.9	995.5	21385.6	995.9
21402.4	995.6	21473.1	995.1	21527.7	994.8	21551	998.8	21641.3	999.1
21683	1001.6								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16903.8	.043	18817.1	.033	20767	.032	20938.8	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18817.1	20767	505	506.69	510	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21215	21683	999

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	996.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.89	Wt. n-Val.	0.043	0.033	0.036
E.G. Elev (ft)	997.17	Reach Len. (ft)	505.00	506.69	510.00
Crit W.S. (ft)	992.59	Flow Area (sq ft)	6215.90	17060.02	528.52
E.G. Slope (ft/ft)	0.001782	Area (sq ft)	6215.90	17060.02	877.85
Q Total (cfs)	166000.00	Flow (cfs)	26725.79	137949.17	1325.04
Top Width (ft)	3972.72	Top Width (ft)	1403.24	1940.66	628.82
Vel Total (ft/s)	6.97	Avg. Vel. (ft/s)	4.30	8.09	2.51
Max Chl Dpth (ft)	15.28	Hydr. Depth (ft)	4.43	8.79	1.72
Conv. Total (cfs)	3932508.3	Conv. (cfs)	633128.8	3267989.5	31389.9
Length Wtd. (ft)	506.47	Wetted Per. (ft)	1404.75	1944.24	307.99
Min Ch El (ft)	981.00	Shear (lb/sq ft)	0.49	0.98	0.19
Alpha	1.18	Stream Power (lb/ft s)	2.12	7.89	0.48
Frctn Loss (ft)	0.66	Cum Volume (acre-ft)	5574.44	18680.16	1243.49
C & E Loss (ft)	0.07	Cum SA (acres)	1588.42	1992.50	635.32

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	996.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.86	Wt. n-Val.	0.043	0.033	
E.G. Elev (ft)	997.71	Reach Len. (ft)	505.00	506.69	510.00
Crit W.S. (ft)	992.21	Flow Area (sq ft)	4747.93	18184.85	
E.G. Slope (ft/ft)	0.001519	Area (sq ft)	4747.93	18184.85	
Q Total (cfs)	166000.00	Flow (cfs)	24792.00	141208.00	
Top Width (ft)	2567.00	Top Width (ft)	617.10	1949.90	
Vel Total (ft/s)	7.24	Avg. Vel. (ft/s)	5.22	7.77	
Max Chl Dpth (ft)	15.85	Hydr. Depth (ft)	7.69	9.33	
Conv. Total (cfs)	4259276.5	Conv. (cfs)	636120.4	3623156.3	
Length Wtd. (ft)	506.48	Wetted Per. (ft)	621.93	1953.74	
Min Ch El (ft)	981.00	Shear (lb/sq ft)	0.72	0.88	
Alpha	1.06	Stream Power (lb/ft s)	3.78	6.85	
Frctn Loss (ft)	0.59	Cum Volume (acre-ft)	601.55	19345.40	34.97
C & E Loss (ft)	0.06	Cum SA (acres)	90.10	1994.97	6.81

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17158.91	17286.46	0.00	0.00	1.64	0.00	0.00	0.01
17286.46	17414.01	0.43	3.21	83.74	0.00	0.04	0.13
17414.01	17541.57	0.46	3.02	64.32	0.00	0.05	0.15
17541.57	17669.12	44.17	56.69	105.57	0.03	0.54	0.78
17669.12	17796.67	961.12	388.23	127.66	0.58	3.04	2.48
17796.67	17924.23	1680.99	542.81	127.58	1.01	4.26	3.10
17924.23	18051.78	957.92	387.32	127.55	0.58	3.04	2.47
18051.78	18179.33	940.89	383.18	127.55	0.57	3.00	2.46
18179.33	18306.89	1885.88	582.52	128.09	1.14	4.57	3.24
18306.89	18434.44	7015.83	1279.71	127.69	4.23	10.03	5.48
18434.44	18561.99	8816.76	1467.23	127.58	5.31	11.50	6.01
18561.99	18689.55	4131.16	932.81	128.20	2.49	7.31	4.43
18689.55	18817.10	290.17	189.18	127.56	0.17	1.48	1.53
18817.10 LB	19207.08	24356.80	3237.33	390.98	14.67	8.30	7.52
19207.08	19597.06	50479.68	5008.00	390.04	30.41	12.84	10.08
19597.06	19987.04	24302.74	3230.11	390.11	14.64	8.28	7.52
19987.04	20377.02	14968.68	2416.09	390.51	9.02	6.20	6.20
20377.02	20767.00 RB	23841.27	3168.48	382.61	14.36	8.32	7.52
20767.00	20889.13						
20889.13	20950.20	407.01	120.02	43.07	0.25	2.81	3.39
20950.20	21011.27	443.37	156.68	61.12	0.27	2.57	2.83
21011.27	21072.33	88.48	59.56	61.08	0.05	0.98	1.49
21072.33	21133.40	57.77	46.12	61.09	0.03	0.76	1.25
21133.40	21194.47	273.90	117.34	61.09	0.16	1.92	2.33
21194.47	21255.53	54.51	28.80	20.53	0.03	1.40	1.89

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta	Right Sta	Flow	Area	W.P.	% Conv.	Hydr D.	Velocity

(ft)	(ft)	(cfs)	(sq ft)	(ft)		(ft)	(ft/s)
18179.33	18306.89	2107.48	584.29	110.89	1.27	5.47	3.61
18306.89	18434.44	7778.85	1353.39	127.69	4.69	10.61	5.75
18434.44	18561.99	9662.55	1540.90	127.58	5.82	12.08	6.27
18561.99	18689.55	4736.06	1006.49	128.20	2.85	7.89	4.71
18689.55	18817.10	507.05	262.86	127.56	0.31	2.06	1.93
18817.10 LB	19207.08	25244.64	3462.60	390.98	15.21	8.88	7.29
19207.08	19597.06	50329.35	5233.27	390.04	30.32	13.42	9.62
19597.06	19987.04	25194.68	3455.38	390.11	15.18	8.86	7.29
19987.04	20377.02	16090.28	2641.36	390.51	9.69	6.77	6.09
20377.02	20767.00 RB	24349.05	3392.24	392.10	14.67	8.70	7.18

CROSS SECTION RIVER: 1
REACH: 1 RS: 205.84

INPUT
Description: 205.84
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17154.7	999.5	17167.6	998.3	17173.7	999	17242.7	999.3	17319.2	999.3
17395.4	998.8	17445.8	998.6	17482.3	997.2	17534.1	997.5	17544.3	997.1
17572.5	997.3	17612.4	996.5	17644.3	993.7	17719.4	994.2	17735.7	993.6
17775	993.6	17842.8	992.3	17862.2	987.5	17958.9	987.6	17969.5	989.4
18029.4	989.1	18042.3	990.1	18085.3	986.5	18121.7	984.6	18194.4	985
18242.1	986.4	18267.7	987.9	18304.8	988.6	18343.6	988.3	18423.5	987.9
18487.6	987.3	18519.2	980.3	18575.4	985.3	18594.1	984.3	18599.2	983
18611.3	981.7	18624.5	979.5	18698.1	979.6	18782.8	980.6	18852.2	980.4
18868.5	982.8	18970.3	982.9	19086.6	984.3	19137.9	986	19161.5	987.5
19244.2	986.1	19262.6	985.8	19339.3	985.7	19420.2	986.1	19521.7	987.3
19606.4	989.5	19664.7	990.4	19734.4	992	19762.4	991.1	19876.6	990.8
19965.5	989.4	20028.7	988.2	20132.7	984.3	20147.5	983.5	20176	983
20199.7	984.8	20287.6	984.2	20364.3	982.3	20417.7	981.2	20446.2	981.5
20481.4	989.8	20508	994.7	20535.7	996	20575.3	996.4	20613.9	995.2
20691.5	994.7	20737.2	994.6	20809.8	995.7	20816.4	996	20875	995.1
20909.1	992.8	20953.5	994.7	21021.3	995.7	21074.7	995.5	21087.2	993.8
21126.7	992.2	21139.8	993.2	21222.1	993.7	21281.4	994.3	21334.2	993
21367.3	994.1	21398.1	992.4	21450.5	994.8	21460	991.6	21508.8	993.1
21563.2	993.7	21607.4	993.3	21622.3	993.7	21634.1	995.7	21671.2	996.7
21696	999.5								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17154.7	.043	18487.6	.043	18575.4	.032	20535.7	.032	20875	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18487.6	20535.7	495	496	480	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21450	21696	999

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	995.78	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.64	Wt. n-Val.	0.043	0.033	0.036
E.G. Elev (ft)	996.43	Reach Len. (ft)	495.00	496.00	480.00
Crit W.S. (ft)	991.08	Flow Area (sq ft)	5827.63	20747.79	1226.87
E.G. Slope (ft/ft)	0.001006	Area (sq ft)	5827.63	20747.79	1697.14
Q Total (cfs)	166000.00	Flow (cfs)	22730.27	141072.88	2196.85
Top Width (ft)	3933.87	Top Width (ft)	867.04	2043.50	1023.32
Vel Total (ft/s)	5.97	Avg. Vel. (ft/s)	3.90	6.80	1.79
Max Chl Dpth (ft)	16.28	Hydr. Depth (ft)	6.72	10.15	1.47
Conv. Total (cfs)	5233179.5	Conv. (cfs)	716575.7	4447347.5	69256.1
Length Wtd. (ft)	495.56	Wetted Per. (ft)	868.21	2046.96	836.58
Min Ch El (ft)	979.50	Shear (lb/sq ft)	0.42	0.64	0.09
Alpha	1.16	Stream Power (lb/ft s)	1.64	4.33	0.16
Frctn Loss (ft)	0.65	Cum Volume (acre-ft)	5504.62	18460.27	1228.41
C & E Loss (ft)	0.00	Cum SA (acres)	1575.26	1969.33	625.65

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	996.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.	0.043	0.033	

E.G. Elev (ft)	997.06	Reach Len. (ft)	495.00	496.00	480.00
Crit W.S. (ft)	991.09	Flow Area (sq ft)	3668.55	21988.35	
E.G. Slope (ft/ft)	0.000928	Area (sq ft)	3668.55	21988.35	
Q Total (cfs)	166000.00	Flow (cfs)	16967.52	149032.47	
Top Width (ft)	2435.70	Top Width (ft)	387.60	2048.10	
Vel Total (ft/s)	6.47	Avg. Vel. (ft/s)	4.63	6.78	
Max Chl Dpth (ft)	16.89	Hydr. Depth (ft)	9.46	10.74	
Conv. Total (cfs)	5449052.0	Conv. (cfs)	556969.3	4892082.5	
Length Wtd. (ft)	495.95	Wetted Per. (ft)	398.36	2051.95	
Min Ch El (ft)	979.50	Shear (lb/sq ft)	0.53	0.62	
Alpha	1.04	Stream Power (lb/ft s)	2.47	4.21	
Frctn Loss (ft)	0.58	Cum Volume (acre-ft)	552.76	19111.76	34.97
C & E Loss (ft)	0.01	Cum SA (acres)	84.28	1971.72	6.81

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17599.00	17687.86	149.15	109.22	67.40	0.09	1.62	1.37
17687.86	17776.72	268.57	173.62	88.87	0.16	1.95	1.55
17776.72	17865.58	781.96	330.53	89.46	0.47	3.72	2.37
17865.58	17954.44	2953.76	731.74	88.86	1.78	8.23	4.04
17954.44	18043.30	2063.81	590.63	89.05	1.24	6.65	3.49
18043.30	18132.16	3460.00	805.32	89.06	2.08	9.06	4.30
18132.16	18221.02	4631.86	958.54	88.87	2.79	10.79	4.83
18221.02	18309.88	3018.27	741.49	88.92	1.82	8.34	4.07
18309.88	18398.74	2539.17	668.27	88.86	1.53	7.52	3.80
18398.74	18487.60	2863.71	718.28	88.86	1.73	8.08	3.99
18487.60 LB	18897.22	47581.12	5926.41	411.23	28.66	14.47	8.03
18897.22	19306.84	31271.17	4486.92	409.72	18.84	10.95	6.97
19306.84	19716.46	18380.95	3261.85	409.68	11.07	7.96	5.64
19716.46	20126.08	12637.32	2605.31	409.73	7.61	6.36	4.85
20126.08	20535.70 RB	31202.33	4467.30	406.60	18.80	11.03	6.98
20535.70	20613.05	2.85	5.01	17.95	0.00	0.28	0.57
20613.05	20690.41	75.33	64.04	77.36	0.05	0.83	1.18
20690.41	20767.76	114.04	82.13	77.36	0.07	1.06	1.39
20767.76	20845.11	11.61	18.66	58.57	0.01	0.32	0.62
20845.11	20922.47	195.76	112.21	77.45	0.12	1.45	1.74
20922.47	20999.82	111.99	88.65	77.39	0.07	1.15	1.26
20999.82	21077.17	6.57	16.17	77.38	0.00	0.21	0.41
21077.17	21154.53	437.16	200.84	77.51	0.26	2.60	2.18
21154.53	21231.88	346.69	174.61	77.36	0.21	2.26	1.99
21231.88	21309.23	230.69	136.75	77.36	0.14	1.77	1.69
21309.23	21386.59	359.64	178.54	77.41	0.22	2.31	2.01
21386.59	21463.94	304.52	149.26	63.49	0.18	2.35	2.04

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18043.30	18132.16	1599.39	366.59	42.85	0.96	11.40	4.36
18132.16	18221.02	5345.81	1012.38	88.87	3.22	11.39	5.28
18221.02	18309.88	3574.36	795.33	88.92	2.15	8.95	4.49
18309.88	18398.74	3044.26	722.12	88.86	1.83	8.13	4.22
18398.74	18487.60	3403.69	772.13	88.86	2.05	8.69	4.41
18487.60 LB	18897.22	49125.16	6174.63	411.23	29.59	15.07	7.96
18897.22	19306.84	33004.71	4735.13	409.72	19.88	11.56	6.97
19306.84	19716.46	20040.62	3510.06	409.68	12.07	8.57	5.71
19716.46	20126.08	14190.03	2853.52	409.73	8.55	6.97	4.97
20126.08	20535.70 RB	32671.96	4715.01	411.59	19.68	11.51	6.93

CROSS SECTION RIVER: 1
REACH: 1 RS: 205.75

INPUT
Description: 205.75
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17305.3	998.9	17323.7	996.7	17395.5	996.8	17486.9	996.4	17509.8	996.4
17581.1	996.2	17666.5	995.9	17680.3	996	17753.1	996.5	17853.4	996.5
17864.9	996.5	17966.3	996	18048	994.8	18136.2	989.8	18199.9	985.9

18204.5	985.7	18238.3	975.2	18303	975.1	18340.9	977.7	18362.6	983.3
18414.2	984.2	18425.5	978.9	18465.2	978.9	18482	983.4	18487.5	980.6
18502.7	981.5	18551.9	977.5	18634.1	978.7	18705.8	979.9	18783.7	983.6
18852.2	983.7	18938.1	983.3	19031.5	983.4	19132.6	984.5	19156	984.8
19231.1	986.4	19292.3	989.2	19362.3	991.3	19410.6	989.7	19510.1	990.4
19547	990.4	19564.3	991.1	19608.3	991.1	19685.9	990.7	19759.4	989.7
19806.7	989.9	19819.8	990.5	19830.2	990.2	19906.7	988.4	19984.6	988.8
20051.4	988.1	20065.4	987.5	20101.2	975.7	20131.5	973.9	20148.4	974.7
20183.3	981	20265.9	982.2	20296.1	983.6	20320.1	985.5	20338.8	985.9
20373.3	988.6	20450.3	990	20500.5	990.7	20583.6	992.4	20674.8	995.6
20691.1	996.1	20754.7	995.2	20833.9	994.8	20900.7	994.8	20927.8	993.3
20929.3	994.1	20943.9	991.9	20951.5	991.7	20989	994	21037.1	991.6
21060.1	993.2	21120.9	992.7	21131.3	991.3	21198.6	991.5	21306.4	993.9
21377	994.4	21386.2	994.7	21449.8	995	21502.3	995.3	21567.5	995.7
21648.1	996.3	21682	996.5	21789	996.8	21807.7	996.8	21902.8	997.4
21921	997.6	22001	997.7	22076.6	997.7	22142.9	997.7	22143.7	999
22145	998.9								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17305.3	.043	18048	.043	20583.6	.043	21131.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18048	20450.3	825	642	490	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21400	22145	999

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	995.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.68	Wt. n-Val.	0.043	0.043	0.035
E.G. Elev (ft)	995.78	Reach Len. (ft)	825.00	642.00	490.00
Crit W.S. (ft)	989.65	Flow Area (sq ft)	2.98	23920.42	1754.08
E.G. Slope (ft/ft)	0.001766	Area (sq ft)	2.98	23920.42	1765.51
Q Total (cfs)	166000.00	Flow (cfs)	1.21	160405.86	5592.93
Top Width (ft)	3323.81	Top Width (ft)	20.14	2402.30	901.37
Vel Total (ft/s)	6.46	Avg. Vel. (ft/s)	0.41	6.71	3.19
Max Chl Dpth (ft)	21.20	Hydr. Depth (ft)	0.15	9.96	2.10
Conv. Total (cfs)	3950022.3	Conv. (cfs)	28.8	3816908.0	133085.4
Length Wtd. (ft)	634.93	Wetted Per. (ft)	20.14	2410.71	835.60
Min Ch El (ft)	973.90	Shear (lb/sq ft)	0.02	1.09	0.23
Alpha	1.05	Stream Power (lb/ft s)	0.01	7.34	0.74
Frctn Loss (ft)	0.66	Cum Volume (acre-ft)	5471.50	18205.96	1209.33
C & E Loss (ft)	0.05	Cum SA (acres)	1570.22	1944.02	615.04

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	995.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.65	Wt. n-Val.		0.043	
E.G. Elev (ft)	996.48	Reach Len. (ft)	825.00	642.00	490.00
Crit W.S. (ft)	989.63	Flow Area (sq ft)		25689.30	
E.G. Slope (ft/ft)	0.001497	Area (sq ft)		25689.30	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2402.30	Top Width (ft)		2402.30	
Vel Total (ft/s)	6.46	Avg. Vel. (ft/s)		6.46	
Max Chl Dpth (ft)	21.93	Hydr. Depth (ft)		10.69	
Conv. Total (cfs)	4290694.0	Conv. (cfs)		4290694.0	
Length Wtd. (ft)	642.00	Wetted Per. (ft)		2417.57	
Min Ch El (ft)	973.90	Shear (lb/sq ft)		0.99	
Alpha	1.00	Stream Power (lb/ft s)		6.42	
Frctn Loss (ft)	0.62	Cum Volume (acre-ft)	531.91	18840.31	34.97
C & E Loss (ft)	0.02	Cum SA (acres)	82.08	1946.38	6.81

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17998.49	18048.00	1.21	2.98	20.14	0.00	0.15	0.41
18048.00 LB	18528.46	42196.18	5840.25	485.68	25.42	12.16	7.23
18528.46	19008.92	51731.48	6572.17	480.64	31.16	13.68	7.87
19008.92	19489.38	20394.84	3759.72	480.61	12.29	7.83	5.42
19489.38	19969.84	9844.34	2428.42	480.52	5.93	5.05	4.05
19969.84	20450.30 RB	36239.03	5319.86	483.25	21.83	11.07	6.81
20450.30	20563.28	1611.84	473.89	113.00	0.97	4.19	3.40
20563.28	20676.26	299.55	162.56	97.20	0.18	1.67	1.84
20676.26	20789.24	0.07	0.49	13.91	0.00	0.04	0.14
20789.24	20902.22	14.84	28.45	112.98	0.01	0.25	0.52
20902.22	21015.20	432.61	215.63	113.49	0.26	1.91	2.01
21015.20	21128.18	662.37	278.07	113.13	0.40	2.46	2.38
21128.18	21241.16	2002.85	392.79	113.02	1.21	3.48	5.10
21241.16	21354.14	524.01	174.41	113.00	0.32	1.54	3.00
21354.14	21467.12	44.76	27.79	45.86	0.03	0.61	1.61

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18048.00 LB	18528.46	43101.68	6194.03	486.72	25.96	12.89	6.96
18528.46	19008.92	52356.63	6925.94	480.64	31.54	14.42	7.56
19008.92	19489.38	21972.50	4113.50	480.61	13.24	8.56	5.34
19489.38	19969.84	11452.30	2782.19	480.52	6.90	5.79	4.12
19969.84	20450.30 RB	37116.90	5673.63	489.08	22.36	11.81	6.54

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 205.62

INPUT
Description: 205.62
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16987.1	998.1	17010.8	998	17131	997.7	17220.3	997.9	17312.3	997.2
17337.5	997.1	17349.7	993.8	17415.9	993.4	17452.1	994.5	17456	993.6
17462.6	995.4	17470.7	993.9	17481.8	995.3	17536.8	995.9	17541.4	995
17548.6	996.6	17570.5	992.9	17606.9	994.3	17705.6	994.3	17778.6	994
17854.3	993.6	17935.8	992.6	18000.5	991.8	18066.9	989.1	18154.7	990.1
18182.6	989.5	18216	991.5	18272.9	988.7	18345.5	987	18362.3	985.3
18364.3	986.4	18412.4	980.4	18471.7	977.8	18582.6	976.6	18682.4	977.6
18758.9	978.6	18831.8	982	18915	981.6	18928.4	981.8	18994.8	981.7
19088.8	983.1	19188.8	983.9	19260.2	983.8	19272.1	983.6	19307.3	987.6
19315.9	987.5	19391.2	986.5	19461.1	986.8	19526.5	987.3	19591.7	987.7
19623.7	987.9	19690.2	986.9	19701.7	986.9	19732.4	983.9	19808.3	985.5
19928.6	988.8	19968.4	987.6	20009.8	976	20075.5	976.6	20117.2	979
20204.9	979.7	20242.3	978.4	20253.8	980.5	20285.7	981	20339.5	984.7
20409.9	988.4	20450.1	989.3	20468.3	987	20504.3	986.9	20542.3	986
20605.7	986.7	20698.9	989.9	20708.2	990.1	20715.6	995	20780.9	994.9
20847	991.9	20932.4	991	21003.2	991.1	21102.3	991.6	21194.4	992
21286.6	992.7	21318.6	992.9	21388	993.6	21473.6	994.3	21596.5	994.7
21668.5	995	21758.9	995.6	21817	996.1	21920.7	996.9	21963.3	997.1
22043.7	997.1	22107.3	997.1	22215.9	997.1	22261	998.1	22277.9	997.6
22288.5	999.4								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16987.1	.025	17481.8	.043	18216	.043	18471.7	.032	20715.6	.032
20847	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18216	20450.1	560	523	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16987.1	17548.6	999.4	21480	22288.5	999.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	994.55	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.52	Wt. n-Val.	0.043	0.033	0.030
E.G. Elev (ft)	995.07	Reach Len. (ft)	560.00	523.00	510.00
Crit W.S. (ft)	988.64	Flow Area (sq ft)	1396.47	25301.67	3417.31
E.G. Slope (ft/ft)	0.000680	Area (sq ft)	1488.23	25301.67	3425.20
Q Total (cfs)	166000.00	Flow (cfs)	2083.10	151545.33	12371.57
Top Width (ft)	4036.29	Top Width (ft)	776.42	2234.10	1025.77
Vel Total (ft/s)	5.51	Avg. Vel. (ft/s)	1.49	5.99	3.62
Max Chl Dpth (ft)	18.55	Hydr. Depth (ft)	2.13	11.33	3.57
Conv. Total (cfs)	6366568.5	Conv. (cfs)	79892.7	5812191.0	474484.8
Length Wtd. (ft)	523.01	Wetted Per. (ft)	655.56	2237.69	957.78
Min Ch El (ft)	976.00	Shear (lb/sq ft)	0.09	0.48	0.15
Alpha	1.11	Stream Power (lb/ft s)	0.13	2.87	0.55
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	5457.37	17843.24	1180.14
C & E Loss (ft)	0.02	Cum SA (acres)	1562.68	1909.85	604.20

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	995.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.		0.033	
E.G. Elev (ft)	995.85	Reach Len. (ft)	560.00	523.00	510.00
Crit W.S. (ft)	988.61	Flow Area (sq ft)		26878.26	
E.G. Slope (ft/ft)	0.000671	Area (sq ft)		26878.26	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2234.10	Top Width (ft)		2234.10	
Vel Total (ft/s)	6.18	Avg. Vel. (ft/s)		6.18	
Max Chl Dpth (ft)	19.25	Hydr. Depth (ft)		12.03	
Conv. Total (cfs)	6407288.0	Conv. (cfs)		6407288.0	
Length Wtd. (ft)	523.00	Wetted Per. (ft)		2247.40	
Min Ch El (ft)	976.00	Shear (lb/sq ft)		0.50	
Alpha	1.00	Stream Power (lb/ft s)		3.10	
Frctn Loss (ft)	0.31	Cum Volume (acre-ft)	531.91	18452.93	34.97
C & E Loss (ft)	0.00	Cum SA (acres)	82.08	1912.22	6.81

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17560.59	17642.51	24.51	51.33	81.93	0.01	0.63	0.48
17642.51	17724.44	5.53	21.00	81.93	0.00	0.26	0.26
17724.44	17806.37	16.76	40.86	81.93	0.01	0.50	0.41
17806.37	17888.29	49.90	78.64	81.93	0.03	0.96	0.63
17888.29	17970.22	151.34	153.03	81.93	0.09	1.87	0.99
17970.22	18052.15	398.58	273.65	81.97	0.24	3.34	1.46
18052.15	18134.07	801.83	416.18	81.94	0.48	5.08	1.93
18134.07	18216.00	634.67	361.79	81.99	0.38	4.42	1.75
18216.00 LB	18662.82	35101.17	5681.32	447.72	21.15	12.72	6.18
18662.82	19109.64	40603.71	6091.80	446.92	24.46	13.63	6.67
19109.64	19556.46	19810.83	3960.97	447.06	11.93	8.86	5.00
19556.46	20003.28	16921.62	3607.82	448.40	10.19	8.07	4.69
20003.28	20450.10 RB	39108.00	5959.75	447.60	23.56	13.34	6.56
20450.10	20572.66	4346.87	952.06	122.72	2.62	7.77	4.57
20572.66	20695.22	3461.85	830.22	122.61	2.09	6.77	4.17
20695.22	20817.78	165.81	93.79	50.18	0.10	1.92	1.77
20817.78	20940.34	1041.40	350.62	122.60	0.63	2.86	2.97
20940.34	21062.90	1402.91	416.32	122.56	0.85	3.40	3.37
21062.90	21185.46	1051.26	350.13	122.56	0.63	2.86	3.00
21185.46	21308.02	655.34	263.69	122.56	0.39	2.15	2.49
21308.02	21430.58	230.17	140.75	122.57	0.14	1.15	1.64
21430.58	21553.14	15.95	19.73	49.42	0.01	0.40	0.81

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta	Right Sta	Flow	Area	W.P.	% Conv.	Hydr D.	Velocity

(ft)	(ft)	(cfs)	(sq ft)	(ft)		(ft)	(ft/s)
18216.00 LB	18662.82	37887.96	5996.64	451.47	22.82	13.42	6.32
18662.82	19109.64	44075.84	6407.12	446.92	26.55	14.34	6.88
19109.64	19556.46	22462.13	4276.29	447.06	13.53	9.57	5.25
19556.46	20003.28	19417.62	3923.14	448.40	11.70	8.78	4.95
20003.28	20450.10 RB	42156.45	6275.07	453.55	25.40	14.04	6.72

CROSS SECTION RIVER: 1
REACH: 1 RS: 205.52

INPUT
Description: 205.52
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17458.9	998.2	17496.2	998.1	17528.6	993.9	17537	994	17538.2	993.3
17605.2	993.8	17611.5	994.9	17615.9	993.3	17622.8	995	17635.1	992.9
17665.3	993	17698.1	994.2	17701.5	993.5	17707.3	995.3	17718.9	995
17731.8	991.3	17820.7	991.9	17894	991.4	17966.9	990.6	18049.9	988.1
18115.3	988.8	18176.3	990.1	18241.5	990	18289.2	989.7	18376.9	989.8
18458.3	990.2	18560.9	990.7	18591.6	991.1	18628.8	988.9	18702.3	978.1
18778	976.8	18843.9	975.9	18919.8	976.6	19003.3	977.9	19078	982
19149.6	982.2	19216.6	981.8	19294.8	981.6	19381.8	980.6	19438.9	979.8
19513.6	979.7	19597.1	981.3	19627.4	982.2	19649.8	981.4	19768.3	982.9
19791.5	982.7	19851.9	983.6	19974.7	981.4	20083.4	978.3	20118	977.6
20126.6	978.1	20161.7	976.5	20215.1	976.5	20237.4	983.2	20307.8	986.1
20375.9	986.4	20411.3	986.8	20436.2	983.2	20454.8	985.7	20472.6	986.8
20567.5	986.1	20573.3	986	20590.7	989.7	20611.5	992.8	20623.9	992.6
20656.5	990.1	20672.2	990.7	20688.3	988.5	20695.2	989.1	20701.5	986.9
20769.2	978.7	20789.2	977.6	20827.6	986.2	20844.7	988.1	20936.4	989.8
21007.2	990.9	21024.7	991.2	21032.1	992.9	21046.7	990.6	21139.1	991.6
21236.4	992	21330.9	992.2	21420.6	992.8	21530.8	993.2	21637.9	993.3
21722.2	993.8	21801	994.3	21909.2	994.5	22026.9	995.2	22127.5	995.8
22175.4	995.9	22246.4	996.2	22303.2	996.7	22383	996.1	22389.5	996.1
22400	997.5								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17458.9	.043	18591.6	.043	18628.8	.032	20611.5	.032	21032.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18591.6	20611.5	430	470	400	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17458.9	17650	998.2	21400	22400	998.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	994.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.	0.043	0.032	0.031
E.G. Elev (ft)	994.75	Reach Len. (ft)	430.00	470.00	400.00
Crit W.S. (ft)	987.04	Flow Area (sq ft)	3557.27	25803.39	3782.25
E.G. Slope (ft/ft)	0.000496	Area (sq ft)	3641.47	25803.39	4150.54
Q Total (cfs)	166000.00	Flow (cfs)	6878.48	146271.84	12849.68
Top Width (ft)	4244.93	Top Width (ft)	1036.58	2019.90	1188.45
Vel Total (ft/s)	5.01	Avg. Vel. (ft/s)	1.93	5.67	3.40
Max Chl Dpth (ft)	18.39	Hydr. Depth (ft)	3.85	12.77	4.80
Conv. Total (cfs)	7454359.5	Conv. (cfs)	308883.5	6568451.0	577025.0
Length Wtd. (ft)	462.67	Wetted Per. (ft)	925.00	2023.22	791.15
Min Ch El (ft)	975.90	Shear (lb/sq ft)	0.12	0.39	0.15
Alpha	1.17	Stream Power (lb/ft s)	0.23	2.24	0.50
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	5424.40	17536.44	1135.79
C & E Loss (ft)	0.01	Cum SA (acres)	1551.02	1884.32	591.24

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	994.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.58	Wt. n-Val.		0.032	
E.G. Elev (ft)	995.53	Reach Len. (ft)	430.00	470.00	400.00
Crit W.S. (ft)	987.25	Flow Area (sq ft)		27121.30	
E.G. Slope (ft/ft)	0.000543	Area (sq ft)		27121.30	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2019.90	Top Width (ft)		2019.90	

Vel Total (ft/s)	6.12	Avg. Vel. (ft/s)		6.12	
Max Chl Dpth (ft)	19.05	Hydr. Depth (ft)		13.43	
Conv. Total (cfs)	7126288.0	Conv. (cfs)		7126288.0	
Length Wtd. (ft)	470.00	Wetted Per. (ft)		2029.21	
Min Ch El (ft)	975.90	Shear (lb/sq ft)		0.45	
Alpha	1.00	Stream Power (lb/ft s)		2.77	
Frctn Loss (ft)	0.28	Cum Volume (acre-ft)	531.91	18128.76	34.97
C & E Loss (ft)	0.01	Cum SA (acres)	82.08	1886.68	6.81

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17609.93	17685.44	30.84	38.80	35.45	0.02	1.09	0.79
17685.44	17760.95	118.68	106.65	58.83	0.07	1.83	1.11
17760.95	17836.47	271.46	193.62	75.52	0.16	2.56	1.40
17836.47	17911.98	308.26	208.97	75.52	0.19	2.77	1.48
17911.98	17987.49	468.76	268.74	75.53	0.28	3.56	1.74
17987.49	18063.01	940.37	408.10	75.54	0.57	5.40	2.30
18063.01	18138.52	1001.27	423.71	75.52	0.60	5.61	2.36
18138.52	18214.03	670.00	332.96	75.52	0.40	4.41	2.01
18214.03	18289.55	663.11	330.89	75.51	0.40	4.38	2.00
18289.55	18365.06	706.06	343.58	75.51	0.43	4.55	2.06
18365.06	18440.57	658.23	329.42	75.51	0.40	4.36	2.00
18440.57	18516.09	568.64	301.74	75.51	0.34	4.00	1.88
18516.09	18591.60	472.77	270.10	75.52	0.28	3.58	1.75
18591.60 LB	18995.58	38540.72	6076.11	404.86	23.22	15.04	6.34
18995.58	19399.56	29621.42	5273.20	404.10	17.84	13.05	5.62
19399.56	19803.54	29889.98	5301.48	404.04	18.01	13.12	5.64
19803.54	20207.52	33442.52	5671.42	404.11	20.15	14.04	5.90
20207.52	20611.50 RB	14777.19	3481.18	406.11	8.90	8.62	4.24
20611.50	20730.73	1614.85	597.83	120.10	0.97	5.01	2.70
20730.73	20849.97	7160.75	1463.50	120.60	4.31	12.27	4.89
20849.97	20969.20	1617.18	596.64	119.25	0.97	5.00	2.71
20969.20	21088.43	915.98	395.37	119.62	0.55	3.32	2.32
21088.43	21207.67	753.51	325.36	119.24	0.45	2.73	2.32
21207.67	21326.90	540.23	266.47	119.23	0.33	2.23	2.03
21326.90	21446.13	247.19	137.07	73.10	0.15	1.88	1.80

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18591.60 LB	18995.58	43174.29	6339.69	408.71	26.01	15.69	6.81
18995.58	19399.56	33660.63	5536.78	404.10	20.28	13.71	6.08
19399.56	19803.54	33951.42	5565.07	404.04	20.45	13.78	6.10
19803.54	20207.52	37791.30	5935.00	404.11	22.77	14.69	6.37
20207.52	20611.50 RB	17422.36	3744.76	408.26	10.50	9.27	4.65

CROSS SECTION RIVER: 1
REACH: 1 RS: 205.43

INPUT
Description: 205.43
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17577.6	999	17651.4	999	17676.6	993.3	17745.1	993.5	17753.8	994.9
17756.2	993	17761.9	994.1	17779.1	992.9	17827.8	993.4	17837	994.7
17842	993.6	17850.1	995.1	17856.3	994.6	17874.1	989.8	17945.8	990.5
18015.5	989.2	18089	988.6	18171.5	988.1	18272	989	18345.2	989.6
18417.8	988.9	18513.1	989.6	18555.5	988.8	18590.9	983.9	18653.7	980.2
18675.6	981.9	18718.1	992.1	18755	996.2	18831.5	994	18917.5	994.6
18981	993.6	18995.7	991.7	19013.2	983.5	19029.3	979.6	19078	977.3
19159.1	977.1	19235.8	977	19329.8	976.7	19401.3	976.1	19408.1	977.1
19408.2	976.1	19472.5	977.8	19481.8	976.1	19482.8	979.9	19504.5	976.3
19572.1	976.7	19685.1	976.7	19752	976.5	19776.2	976.6	19871.8	985.4
19922.1	984.5	19948.6	982.8	19969.8	979	19994.4	976.5	20009.7	976.5
20115.4	976.5	20173.1	982	20198.5	982.2	20281.7	985.3	20371.1	985.5
20444.6	985.5	20542.7	985.9	20552.8	986	20628.8	985.9	20672.4	986.4
20739.7	988.8	20745.5	988.9	20770.4	996.3	20821.2	987.3	20830.8	986.4
20857.3	988.8	20888.7	988.5	20910.3	984	20959.4	986.1	21024	983.6

21078.8	987.2	21088.9	990.3	21171.4	991.7	21190.4	992.1	21193.4	991.5
21282.9	992	21368	992.7	21454.5	993.1	21528.9	993.3	21613.1	993.6
21695.1	993.6	21768.9	993.9	21849.3	994.3	21923.6	994.4	21927.2	994.4
21997.3	994.6	22016.9	994.6	22089.4	994.6	22155	995.4	22231.3	997.7
22285	998.6								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17577.6	.043	18917.5	.043	18981	.032	20770.4	.032	21088.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18917.5	20770.4	175	171.89	125	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17577.6	17800	999	21400	22285	999

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	994.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.51	Wt. n-Val.	0.043	0.032	0.031
E.G. Elev (ft)	994.50	Reach Len. (ft)	175.00	171.89	125.00
Crit W.S. (ft)	986.90	Flow Area (sq ft)	4969.12	23600.91	2927.49
E.G. Slope (ft/ft)	0.000544	Area (sq ft)	5044.20	23600.91	3139.79
Q Total (cfs)	166000.00	Flow (cfs)	12628.40	142594.56	10777.03
Top Width (ft)	3841.72	Top Width (ft)	1030.25	1806.77	1004.71
Vel Total (ft/s)	5.27	Avg. Vel. (ft/s)	2.54	6.04	3.68
Max Chl Dpth (ft)	17.90	Hydr. Depth (ft)	5.45	13.06	4.75
Conv. Total (cfs)	7116403.0	Conv. (cfs)	541378.3	6113014.5	462010.0
Length Wtd. (ft)	169.60	Wetted Per. (ft)	915.11	1815.67	618.55
Min Ch El (ft)	976.10	Shear (lb/sq ft)	0.18	0.44	0.16
Alpha	1.18	Stream Power (lb/ft s)	0.47	2.67	0.59
Frctn Loss (ft)	0.07	Cum Volume (acre-ft)	5381.53	17269.91	1102.32
C & E Loss (ft)	0.03	Cum SA (acres)	1540.82	1863.67	581.17

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	994.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.71	Wt. n-Val.		0.032	
E.G. Elev (ft)	995.24	Reach Len. (ft)	175.00	171.89	125.00
Crit W.S. (ft)	986.93	Flow Area (sq ft)		24572.33	
E.G. Slope (ft/ft)	0.000647	Area (sq ft)		24572.33	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1842.37	Top Width (ft)		1842.37	
Vel Total (ft/s)	6.76	Avg. Vel. (ft/s)		6.76	
Max Chl Dpth (ft)	18.43	Hydr. Depth (ft)		13.34	
Conv. Total (cfs)	6524229.5	Conv. (cfs)		6524229.5	
Length Wtd. (ft)	171.89	Wetted Per. (ft)		1851.35	
Min Ch El (ft)	976.10	Shear (lb/sq ft)		0.54	
Alpha	1.00	Stream Power (lb/ft s)		3.62	
Frctn Loss (ft)	0.09	Cum Volume (acre-ft)	531.91	17849.88	34.97
C & E Loss (ft)	0.05	Cum SA (acres)	82.08	1865.84	6.81

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr.D. (ft)	Velocity (ft/s)
17756.25	17845.58	12.54	22.56	36.07	0.01	0.63	0.56
17845.58	17934.91	473.03	269.71	76.92	0.28	3.53	1.75
17934.91	18024.23	724.45	369.80	89.34	0.44	4.14	1.96
18024.23	18113.56	1067.76	466.69	89.33	0.64	5.22	2.29
18113.56	18202.89	1246.31	512.05	89.33	0.75	5.73	2.43
18202.89	18292.21	1064.97	465.95	89.33	0.64	5.22	2.29
18292.21	18381.54	862.29	410.52	89.33	0.52	4.60	2.10
18381.54	18470.87	962.44	438.50	89.33	0.58	4.91	2.19
18470.87	18560.19	900.51	421.43	89.38	0.54	4.72	2.14
18560.19	18649.52	3406.67	937.77	89.72	2.05	10.50	3.63
18649.52	18738.85	1907.46	654.14	87.03	1.15	7.64	2.92
18738.85	18917.50						
18917.50 LB	19288.08	29564.54	4648.87	334.67	17.81	13.99	6.36
19288.08	19658.66	44312.25	6392.21	374.97	26.69	17.25	6.93
19658.66	20029.24	32643.34	5301.59	371.51	19.66	14.31	6.16
20029.24	20399.82	25099.64	4525.26	370.90	15.12	12.21	5.55

20399.82	20770.40 RB	10974.81	2732.97	363.62	6.61	7.53	4.02
20770.40	20871.37	1336.49	438.68	88.71	0.81	4.99	3.05
20871.37	20972.35	3366.00	805.80	101.49	2.03	7.98	4.18
20972.35	21073.32	4194.39	918.15	101.12	2.53	9.09	4.57
21073.32	21174.29	1009.07	344.90	101.46	0.61	3.42	2.93
21174.29	21275.27	517.17	225.44	101.04	0.31	2.23	2.29
21275.27	21376.24	310.51	165.95	100.98	0.19	1.64	1.87
21376.24	21477.21	43.41	28.57	23.76	0.03	1.20	1.52

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18917.50 LB	19288.08	34250.84	4834.74	368.49	20.63	13.21	7.08
19288.08	19658.66	50959.51	6589.51	374.97	30.70	17.78	7.73
19658.66	20029.24	37926.32	5498.89	371.51	22.85	14.84	6.90
20029.24	20399.82	29461.54	4722.56	370.90	17.75	12.74	6.24
20399.82	20770.40 RB	13401.80	2926.62	365.48	8.07	8.03	4.58

CROSS SECTION RIVER: 1
REACH: 1 RS: 205.4

INPUT
Description: 205.4
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17511.1	996.9	17519.9	996.9	17605.2	997.3	17609	997.3	17712.9	997.8
17756.7	992.2	17854.3	993.8	17914.6	991.3	17916.5	991.2	17968.9	990.2
18031	989.2	18084.1	988.8	18154.5	988.3	18213.4	988.3	18281.7	988.2
18304.7	988.2	18362.5	988.2	18388.7	988.6	18461.3	988.1	18529.4	988.4
18564.6	988.5	18633.4	988.7	18712.8	988.5	18774.2	988.2	18787.4	988.1
18843.8	987.9	18915.9	985.1	18943.3	984.3	19013.3	982.5	19020	982.2985
19079.8	980.5	19133	979.1	19154.8	978.5	19196.1	978.7	19231.1	977.1
19260.1	977.2	19291.7	976.5	19304.1	976.8	19364.1	975.5	19377.1	975.5
19436	975.7	19498.9	975.9	19564	975.7	19635.3	976.2	19694.9	976.3
19718.4	976.2	19774.1	976.1	19840.5	976	19902.9	976	19988.4	976
20047.6	976.1	20060.4	976.2	20120.1	976.4	20173.6	976.9	20230.4	977.5
20290.1	977.8	20348.4	979	20391.6	980.6	20448.9	982.1	20522.8	983.7
20592.3	985.3	20647.3	986.7	20692.4	987.2	20767.8	987.4	20829.1	987.4
20894.3	987.9	20922.5	988.1	20978.2	988.9	21055.7	989.4	21057.2	989.4
21142	989.4	21212	990.9	21270.2	991	21321.8	991.1	21338.9	991.2
21394.1	991.7	21407.6	991.9	21469.8	992.7	21547.3	993.5	21598.6	992.6
21619.5	993.7	21690.3	993.7	21721.2	993.7	21811.7	993.8	21872.4	994.2
21923.6	995.3	21941	995.5	22005.1	996.1	22017	996.2	22078.7	996.7
22181.1	997.7	22194.2	997.8	22249.3	998.6	22318.8	999	22386.3	999.2
22404.4	998.5	22455.6	999.3						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17511.1	.043	18843.8	.043	19079.8	.032	20767.8	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19020	20767.8	305	315	370	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17511.1	17800	999.3	21450	22455.6	999.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
17511.1	19020	988

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	993.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.41	Wt. n-Val.	0.043	0.032	0.032
E.G. Elev (ft)	994.40	Reach Len. (ft)	305.00	315.00	370.00
Crit W.S. (ft)	984.66	Flow Area (sq ft)	6163.33	26799.90	2955.60
E.G. Slope (ft/ft)	0.000362	Area (sq ft)	6237.96	26799.90	3172.11
Q Total (cfs)	164000.00	Flow (cfs)	11964.65	145097.92	6937.42
Top Width (ft)	4097.72	Top Width (ft)	1277.29	1747.80	1072.63
Vel Total (ft/s)	4.57	Avg. Vel. (ft/s)	1.94	5.41	2.35
Max Chl Dpth (ft)	18.49	Hydr. Depth (ft)	5.05	15.33	4.33
Conv. Total (cfs)	8622105.0	Conv. (cfs)	629027.2	7628351.0	364726.5

Length Wtd. (ft)	317.46	Wetted Per. (ft)	1220.09	1753.75	682.23
Min Ch El (ft)	975.50	Shear (lb/sq ft)	0.11	0.35	0.10
Alpha	1.27	Stream Power (lb/ft s)	0.22	1.87	0.23
Frctn Loss (ft)	0.18	Cum Volume (acre-ft)	5358.87	17170.47	1093.26
C & E Loss (ft)	0.02	Cum SA (acres)	1536.19	1856.66	578.19

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	994.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.54	Wt. n-Val.		0.032	
E.G. Elev (ft)	995.10	Reach Len. (ft)	305.00	315.00	370.00
Crit W.S. (ft)	984.66	Flow Area (sq ft)		27793.38	
E.G. Slope (ft/ft)	0.000413	Area (sq ft)		27793.38	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	1747.80	Top Width (ft)		1747.80	
Vel Total (ft/s)	5.90	Avg. Vel. (ft/s)		5.90	
Max Chl Dpth (ft)	19.06	Hydr. Depth (ft)		15.90	
Conv. Total (cfs)	8073093.0	Conv. (cfs)		8073093.0	
Length Wtd. (ft)	314.90	Wetted Per. (ft)		1767.46	
Min Ch El (ft)	975.50	Shear (lb/sq ft)		0.41	
Alpha	1.00	Stream Power (lb/ft s)		2.39	
Frctn Loss (ft)	0.21	Cum Volume (acre-ft)	531.91	17746.56	34.97
C & E Loss (ft)	0.03	Cum SA (acres)	82.08	1858.76	6.81

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17712.29	17812.88	7.75	12.54	12.88	0.00	0.97	0.62
17812.88	17913.47	68.71	105.69	100.65	0.04	1.05	0.65
17913.47	18014.07	550.07	368.14	100.61	0.34	3.66	1.49
18014.07	18114.66	933.58	505.63	100.60	0.57	5.03	1.85
18114.66	18215.25	1128.93	566.68	100.59	0.69	5.63	1.99
18215.25	18315.85	1170.59	579.12	100.59	0.71	5.76	2.02
18315.85	18416.44	1135.58	568.68	100.60	0.69	5.65	2.00
18416.44	18517.03	1168.99	578.66	100.60	0.71	5.75	2.02
18517.03	18617.63	1078.79	551.44	100.59	0.66	5.48	1.96
18617.63	18718.22	1046.68	541.53	100.59	0.64	5.38	1.93
18718.22	18818.81	1174.32	580.24	100.59	0.72	5.77	2.02
18818.81	18919.41	1250.33	602.49	100.59	0.76	5.99	2.08
18919.41	19020.00	1250.33	602.49	100.59	0.76	5.99	2.08
19020.00 LB	19369.56	28330.90	5453.86	355.38	17.27	15.60	5.19
19369.56	19719.12	37444.63	6323.93	349.56	22.83	18.09	5.92
19719.12	20068.68	36915.63	6270.14	349.56	22.51	17.94	5.89
20068.68	20418.24	30891.43	5634.86	349.62	18.84	16.12	5.48
20418.24	20767.80 RB	11515.35	3117.10	349.63	7.02	8.92	3.69
20767.80	20880.32	2114.25	731.37	112.52	1.29	6.50	2.89
20880.32	20992.84	1667.73	634.34	112.53	1.02	5.64	2.63
20992.84	21105.36	1232.76	529.14	112.52	0.75	4.70	2.33
21105.36	21217.88	958.59	455.03	112.54	0.58	4.04	2.11
21217.88	21330.40	575.60	335.05	112.52	0.35	2.98	1.72
21330.40	21442.92	375.76	259.42	112.53	0.23	2.31	1.45
21442.92	21555.44	12.72	11.25	7.08	0.01	1.59	1.13

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19020.00 LB	19369.56	31924.91	5652.56	361.94	19.47	16.17	5.65
19369.56	19719.12	42117.99	6522.63	349.56	25.68	18.66	6.46
19719.12	20068.68	41541.04	6468.84	349.56	25.33	18.51	6.42

20068.68	20418.24	34962.91	5833.56	349.62	21.32	16.69	5.99
20418.24	20767.80 RB	13453.14	3315.80	356.79	8.20	9.49	4.06

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 205.34

INPUT
Description: 205.34
Station Elevation Data num= 268

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13687.27	990.713	918.08	990.68	13941.26	990.714	074.31	990.74	14097.95	990.77
14379.8	991.214	502.02	991.27	14504.17	991.321	4654.78	991.45	14667.42	991.12
14692.66	993	14709.75	992.96	14715.8	991.19	14721	993.28	14723.16	993.14
14738.13	990.914	750.87	991.89	14755.59	992.514	795.12	991.61	4806.23	991.16
14847.09	991.615	017.82	991.67	15028.83	991.05	15074.2	990.915	389.93	990.38
15426.63	990.415	457.08	991.76	15497.69	991.911	5548.79	991.74	15599.83	990.06
15624.82	992.515	632.81	992.18	15645.65	991.271	5655.09	992.74	15660.02	991.59
15665.1	993.615	682.98	994.84	15701.37	993.321	5707.96	993.32	15720.14	993.51
15863.53	993.415	962.36	993.78	16143.17	993.716	302.48	993.53	16434.69	994
16540.11	994.5	16630.9	994.03	16710.83	993.421	6732.11	994.29	16741.14	994.53
16755.65	994.816	763.06	993.99	16780.42	993.761	6789.57	993.41	6811.41	992.38
16945.01	992.917	037.42	993.38	17118.17	992.917	138.04	992.78	17279.36	992.27
17420.37	992.117	527.98	992.75	17560.1	992.78	17728.5	991.33	17729.54	991.26
17753.81	988.517	789.02	988.81	7833.72	989.117	845.57	991.95	17853.64	990.8
17860.73	992	17869.58	992	17881.45	991.841	7895.69	992.13	17897.64	994.57
17904.21	994.517	909.94	991.82	17920.11	988.791	7940.57	989.61	17986.35	989.54
18002.56	989.718	065.95	989.16	18080.07	988.831	8116.41	988.38	18122.12	987.76
18187.93	987.418	195.48	987.36	18246.02	987.581	8264.37	987.64	18314.54	986.65
18327.91	986.818	350.36	988.11	18365.79	988.581	8392.98	988.65	18415.65	990.57
18418	991	18432.37	990.82	18481.36	991.38	18548.7	990.72	18596.12	990.95
18645.9	995	18660.36	994.98	18676.98	995.061	8724.18	991.47	18772.07	990.61
18787.28	990.318	822.48	988.85	18833.8	988.791	8853.31	988.48	18883.89	988.52
18895.6	987.7	18912.2	992.12	18970.58	990.161	9022.37	991.35	19035.55	989.07
19043.96	988.619	066.14	988.56	19076.9	991.331	9096.79	993.07	19099.41	993.11
19116.55	988.419	170.12	987.71	9232.28	987.219	252.59	986.66	19258.9	986.61
19276.73	986.119	284.34	985.99	19293.57	985.391	9297.05	984.94	19318.57	978.71
19328.6	976.919	337.34	976	19422.11	976.181	9470.05	976.22	19524.9	976.33
19562.89	976.719	632.66	976.09	19705.72	976.431	9754.05	976.63	19843.53	976.95
19853.47	977	19865.48	976.51	9880.46	976.361	9890.89	975.81	19912.96	977.83
19933.5	976.919	947.42	976.61	9979.26	976.26	20010.7	976.08	20051.63	975.84
20062.33	975.720	073.85	975.57	20119.54	976.87	20199.2	978.29	20212.26	978.81
20258.32	980.920	264.39	980.66	20329.9	980.642	0332.62	980.41	20369.18	979.74
20375	980.1	20380.1	980.63	20381.06	981.032	0388.75	983.03	20395.38	983.51
20436.76	985.120	502.38	985.61	20525.59	985.52	0561.61	985.74	20587.94	985.95
20626.14	985.820	644.89	985.74	20678.28	985.552	0707.29	986.18	20742.96	987
20746.96	986.620	752.64	985.54	20762.54	985.052	0787.99	983.01	20822.69	985.52
20836.01	987.120	844.69	986.96	20890.92	987.192	0931.14	987.62	20978.97	988.36
21006.5	988.721	057.23	989.38	21083.41	989.721	100.77	990.25	21161.6	990.89
21172.71	991	21247.07	990.97	21252.7	990.992	1266.22	990.76	21277.98	990.73
21290.76	992.8	21299	991.14	21333.63	991.132	1435.22	991.22	1524.43	991.65
21554.31	991.6	21567.7	991.72	21625.82	992.32	1657.32	992.42	21684.03	992.58
21782.19	993.421	851.31	993.72	21863.14	993.92	1872.38	994.16	21891.44	994.52
21949.81	994.621	975.44	994.92	21995.48	994.912	2007.76	995.25	22037.54	996.24
22051.44	996.622	075.07	997.63	22125.13	998.612	2139.54	998.95	22159.57	998.78
22179.58	998.822	264.13	998.32	2280.55	998.032	2353.16	997.91	22369.37	997.91
22404.01	998	22463.45	998.27	22491.06	998.82	2531.57	998.52	22560.64	998.76
22593.64	998.8	22617.2	999.07	22646.25	999.122	2676.56	998.94	22686.88	999.19
22731.76	1000.522	770.23	1000.79	22779.44	1001.342	2789.67	1000.97	22824.65	1001.12
22886.17	1001.722	901.04	1001.67	22978.01	1002.062	3003.78	1002.23	23080.5	1002.51
23154.45	1002.823	270.34	1003.43	23291.75	1003.562	3364.66	1004.12	23410.89	1004.31
23481.28	1004.623	504.95	1004.76	23548.34	1004.852	3582.71	1004.84	23645.08	1005.05
23678.1	1005.223	738.97	1005.23	23762.47	1005.11	23813.7	1005.12	23872.53	1005.28
23908.97	1005.423	920.45	1005.54	23934.72	1004.942	3951.14	1004.46	23976.71	1005.57
23998.12	1003.624	004.04	1002.94	24049.64	1002.74				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
13687.27	.043	18481.36	.043	20931.14	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19284.3	20742.96	485	492	450	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
13687.27	17900	1000	21400	24049.64	1000

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	993.64	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.	0.043	0.043	0.033
E.G. Elev (ft)	994.20	Reach Len. (ft)	485.00	492.00	450.00
Crit W.S. (ft)	986.68	Flow Area (sq ft)	5631.82	20855.17	3037.12
E.G. Slope (ft/ft)	0.001005	Area (sq ft)	12324.10	20855.17	3643.13
Q Total (cfs)	164000.00	Flow (cfs)	16574.65	134496.09	12929.26
Top Width (ft)	7349.09	Top Width (ft)	4799.50	1458.62	1090.97
Vel Total (ft/s)	5.55	Avg. Vel. (ft/s)	2.94	6.45	4.26
Max Chl Dpth (ft)	18.07	Hydr. Depth (ft)	4.29	14.30	4.62
Conv. Total (cfs)	5172364.0	Conv. (cfs)	522744.8	4241846.0	407773.3
Length Wtd. (ft)	488.72	Wetted Per. (ft)	1315.08	1460.47	657.80
Min Ch El (ft)	975.57	Shear (lb/sq ft)	0.27	0.90	0.29
Alpha	1.18	Stream Power (lb/ft s)	0.79	5.78	1.23
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)	5293.88	16998.17	1064.32
C & E Loss (ft)	0.00	Cum SA (acres)	1514.91	1845.06	569.00

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	993.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.87	Wt. n-Val.	0.043	0.043	
E.G. Elev (ft)	994.85	Reach Len. (ft)	485.00	492.00	450.00
Crit W.S. (ft)	986.65	Flow Area (sq ft)	729.56	21354.88	
E.G. Slope (ft/ft)	0.001336	Area (sq ft)	729.56	21354.88	
Q Total (cfs)	164000.00	Flow (cfs)	3238.53	160761.48	
Top Width (ft)	1562.96	Top Width (ft)	104.34	1458.62	
Vel Total (ft/s)	7.43	Avg. Vel. (ft/s)	4.44	7.53	
Max Chl Dpth (ft)	18.41	Hydr. Depth (ft)	6.99	14.64	
Conv. Total (cfs)	4487195.5	Conv. (cfs)	88609.1	4398586.5	
Length Wtd. (ft)	491.57	Wetted Per. (ft)	110.72	1467.45	
Min Ch El (ft)	975.57	Shear (lb/sq ft)	0.55	1.21	
Alpha	1.01	Stream Power (lb/ft s)	2.44	9.14	
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	529.36	17568.86	34.97
C & E Loss (ft)	0.00	Cum SA (acres)	81.71	1847.16	6.81

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17791.79	18164.93	3588.76	1183.39	259.78	2.19	4.57	3.03
18164.93	18538.06	5631.67	1792.80	373.32	3.43	4.80	3.14
18538.06	18911.20	2379.33	989.25	307.47	1.45	3.23	2.41
18911.20	19284.34	4974.88	1666.37	374.51	3.03	4.47	2.99
19284.34 LB	19576.06	32937.25	4816.83	292.87	20.08	16.51	6.84
19576.06	19867.79	35043.80	4991.66	291.74	21.37	17.11	7.02
19867.79	20159.51	35285.45	5013.27	291.88	21.52	17.19	7.04
20159.51	20451.24	21662.10	3742.76	292.23	13.21	12.83	5.79
20451.24	20742.96 RB	9567.49	2290.66	291.75	5.83	7.85	4.18
20742.96	20963.41	7033.13	1618.22	220.85	4.29	7.34	4.35
20963.41	21183.85	4043.63	875.07	220.47	2.47	3.97	4.62
21183.85	21404.30	1852.49	543.83	216.48	1.13	2.52	3.41

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18911.20	19284.34	3238.53	729.56	110.72	1.97	6.99	4.44
19284.34 LB	19576.06	39273.86	4916.77	292.87	23.95	16.85	7.99
19576.06	19867.79	41736.13	5091.60	291.74	25.45	17.45	8.20
19867.79	20159.51	42017.98	5113.22	291.88	25.62	17.53	8.22

20159.51	20451.24	26081.16	3842.70	292.23	15.90	13.17	6.79
20451.24	20742.96 RB	11652.35	2390.60	298.73	7.11	8.19	4.87

CROSS SECTION RIVER: 1
REACH: 1 RS: 205.25

INPUT
Description: 205.25
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16580.4	994	16657.1	994	16708.3	993.9	16776.5	993.6	16819.1	994.5
16845.8	992.8	16892.9	992.2	16971.6	992.3	17154.1	993.1	17172.8	993.1
17289.2	992.5	17431.5	991.8	17455.8	991.6	17644.6	992.5	17718.9	992.3
17808.9	991.8	17842.7	989.1	17907.9	989.9	17920.6	992.1	17926.4	990.6
17933.2	992.4	17964.3	990.4	17989.2	990.3	17999.1	987.6	18061	989.2
18108.7	990.1	18179	988.3	18216.3	987	18244.2	987.5	18311.6	987.2
18329.2	987.8	18392.2	987.8	18457.1	988.6	18493.2	989.2	18509.7	988.5
18583.8	989	18614.2	989.1	18647.4	988	18708.8	987.6	18775.5	989.5
18807.1	990	18886.3	989.2	18946.4	989	18990.4	988.1	19012.5	989.2
19101	990.2	19156.3	989.9	19179.1	987.1	19186.7	985.4	19228.7	983.3
19242.4	982	19306.5	983.4	19368.3	983.9	19442.9	983.5	19503.3	984.6
19563	981.8	19581.1	985.9	19632.5	986.1	19671.9	987.3	19726.2	975.8
19815.7	975.6	19878.1	976.2	19957	975.9	20042	975.5	20112.8	975.3
20121.8	975.7	20160.5	973.8	20242	973.4	20260.5	974.6	20329.5	975
20404.8	975.5	20471.4	978.3	20486.8	979.5	20522.9	977.9	20526	975.8
20552.9	975.9	20584.6	974.1	20632.4	973.9	20697	975.7	20712	975.7
20738.9	981.7	20741.5	980.7	20782.3	986.4	20848.1	987.4	20923.8	989.9
21014.3	990.6	21121.3	991.6	21201.7	992.1	21283.6	992.1	21338.5	993.1
21347.9	993.8	21358.2	992.2	21370.3	995.6	21409.5	995.7	21424	994.5
21499.5	993.3								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16580.4	.025	18108.7	.037	19671.9	.037	20782.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19671.9	20782.3	505	506	485	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16580.4	17950	995.7	21347.9	21499.5	995.7

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	993.26	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.	0.036	0.037	0.025
E.G. Elev (ft)	993.82	Reach Len. (ft)	505.00	506.00	485.00
Crit W.S. (ft)	985.26	Flow Area (sq ft)	10028.46	18998.39	1514.71
E.G. Slope (ft/ft)	0.000623	Area (sq ft)	11314.56	18998.39	1520.31
Q Total (cfs)	164000.00	Flow (cfs)	33461.84	126168.16	4370.00
Top Width (ft)	4512.59	Top Width (ft)	2833.29	1110.40	568.90
Vel Total (ft/s)	5.37	Avg. Vel. (ft/s)	3.34	6.64	2.89
Max Chl Dpth (ft)	19.86	Hydr. Depth (ft)	5.82	17.11	2.71
Conv. Total (cfs)	6571643.5	Conv. (cfs)	1340849.3	5055684.0	175110.3
Length Wtd. (ft)	505.35	Wetted Per. (ft)	1723.55	1113.81	558.40
Min Ch El (ft)	973.40	Shear (lb/sq ft)	0.23	0.66	0.11
Alpha	1.26	Stream Power (lb/ft s)	0.75	4.40	0.30
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)	5162.29	16773.10	1037.65
C & E Loss (ft)	0.09	Cum SA (acres)	1472.42	1830.56	560.43

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	993.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.85	Wt. n-Val.	0.037	0.037	
E.G. Elev (ft)	994.34	Reach Len. (ft)	505.00	506.00	485.00
Crit W.S. (ft)	985.17	Flow Area (sq ft)	3415.02	19253.02	
E.G. Slope (ft/ft)	0.000817	Area (sq ft)	3415.02	19253.02	
Q Total (cfs)	164000.00	Flow (cfs)	16866.26	147133.73	

Top Width (ft)	1482.30	Top Width (ft)	371.90	1110.40	
Vel Total (ft/s)	7.23	Avg. Vel. (ft/s)	4.94	7.64	
Max Chl Dpth (ft)	20.09	Hydr. Depth (ft)	9.18	17.34	
Conv. Total (cfs)	5737354.5	Conv. (cfs)	590046.9	5147307.5	
Length Wtd. (ft)	505.72	Wetted Per. (ft)	382.69	1120.90	
Min Ch El (ft)	973.40	Shear (lb/sq ft)	0.46	0.88	
Alpha	1.05	Stream Power (lb/ft s)	2.25	6.70	
Frctn Loss (ft)	0.59	Cum Volume (acre-ft)	506.29	17339.53	34.97
C & E Loss (ft)	0.06	Cum SA (acres)	79.06	1832.66	6.81

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17817.00	18023.10	949.00	277.71	73.50	0.58	3.80	3.42
18023.10	18229.20	2772.48	918.19	206.17	1.69	4.46	3.02
18229.20	18435.30	3471.17	1155.59	206.12	2.12	5.61	3.00
18435.30	18641.40	2381.72	921.87	206.14	1.45	4.47	2.58
18641.40	18847.50	2420.46	930.84	206.14	1.48	4.52	2.60
18847.50	19053.60	2145.98	865.99	206.14	1.31	4.20	2.48
19053.60	19259.70	3730.77	1207.79	206.58	2.27	5.86	3.09
19259.70	19465.80	8737.86	2010.77	206.12	5.33	9.76	4.35
19465.80	19671.90	6852.41	1739.69	206.65	4.18	8.44	3.94
19671.90 LB	19893.98	22569.58	3561.72	223.29	13.76	16.04	6.34
19893.98	20116.06	26365.29	3901.46	222.08	16.08	17.57	6.76
20116.06	20338.14	29891.34	4207.31	222.17	18.23	18.94	7.10
20338.14	20560.22	23887.06	3682.35	222.88	14.57	16.58	6.49
20560.22	20782.30 RB	23454.88	3645.55	223.39	14.30	16.42	6.43
20782.30	20830.11	1296.49	310.53	47.82	0.79	6.49	4.18
20830.11	20877.93	1013.23	267.87	47.83	0.62	5.60	3.78
20877.93	20925.74	598.34	195.29	47.84	0.36	4.08	3.06
20925.74	20973.55	389.88	151.01	47.82	0.24	3.16	2.58
20973.55	21021.37	316.63	133.28	47.81	0.19	2.79	2.38
21021.37	21069.18	241.38	113.25	47.81	0.15	2.37	2.13
21069.18	21116.99	170.37	91.89	47.82	0.10	1.92	1.85
21116.99	21164.81	117.38	73.48	47.81	0.07	1.54	1.60
21164.81	21212.62	82.82	59.61	47.82	0.05	1.25	1.39
21212.62	21260.43	73.25	55.37	47.81	0.04	1.16	1.32
21260.43	21308.25	61.46	49.84	47.82	0.04	1.04	1.23
21308.25	21356.06	8.80	13.29	32.39	0.01	0.41	0.66

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19259.70	19465.80	8229.42	1628.07	176.04	5.02	9.82	5.05
19465.80	19671.90	8636.84	1786.95	206.65	5.27	8.67	4.83
19671.90 LB	19893.98	26461.73	3612.65	223.29	16.14	16.27	7.32
19893.98	20116.06	30848.80	3952.38	222.08	18.81	17.80	7.81
20116.06	20338.14	34919.88	4258.23	222.17	21.29	19.17	8.20
20338.14	20560.22	27984.87	3733.28	222.88	17.06	16.81	7.50
20560.22	20782.30 RB	26918.45	3696.48	230.48	16.41	16.64	7.28

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1

REACH: 1 RS: 205.15

INPUT
Description: 205.15
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18001.2	994	18008.5	992.8	18015.6	994.9	18038.3	990.9	18047.4	991.8
18061.5	992.1	18077.6	991.6	18146.4	988.8	18170.1	988.9	18200.6	988.3
18243	988.8	18269.7	988.5	18292.3	988.8	18341.7	989.8	18374.9	990.2
18415.6	990.6	18438.3	991.1	18547.3	991	18558.8	991.1	18618.4	991.8
18625.4	991.9	18687.7	991.3	18696.2	991.3	18745.4	991.4	18794.1	991.1
18810	991.2	18866.4	991	18894.1	991.2	18920.9	990.7	18973.2	990.3
19018.9	989.8	19055.8	989.7	19109.2	989.4	19141.8	988.8	19181.8	988.8
19228.5	988.7	19285.2	989.2	19335.5	988.1	19346.3	987.8	19386.8	986.1
19394.2	985.9	19440.1	984.4	19443.6	984.3	19490	983.7	19506.7	983.8
19532.2	982.8	19587.2	983.3	19612.4	983.6	19619.1	984.1	19660.7	983.9
19705.1	983.1	19747.1	983.7	19787.1	984.9	19805.2	976.8	19822.3	973.4
19827.6	974.7	19829.5	974.2	19853	974.2	19880.4	973.6	19881.2	973.1
19908.4	980	19918.9	982.2	19934	984.3	19978.1	984.9	20006.4	984.1
20054.3	983.8	20064.2	983.5	20106.6	982	20110.7	981.8	20166.7	979
20196.8	978.1	20246.3	976.6	20250.4	976.4	20298.9	975.4	20340.8	975.5
20371.6	975.7	20436.2	974	20495	974.1	20608.2	975.2	20651	975.7
20691.5	977.2	20705.2	979.5	20746.3	987.3	20793.1	987.9	20838	988.7
20896.6	989.6	20910.7	990.1	20968.3	990.3	20999	990.6	21039.8	990.8
21107	991.7	21127.2	991.3	21170.3	994.1	21206.9	995.7	21258.6	996.3
21293	996.4								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18001.2	.025	18146.4	.037	19787.1	.037	20746.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19787.1	20746.3	495	495.39	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18001.2	18061.5	995	21293	21293	996.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	991.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.46	Wt. n-Val.	0.037	0.037	0.025
E.G. Elev (ft)	993.21	Reach Len. (ft)	495.00	495.39	495.00
Crit W.S. (ft)	987.56	Flow Area (sq ft)	5456.13	13248.98	742.33
E.G. Slope (ft/ft)	0.002039	Area (sq ft)	5461.90	13248.98	742.33
Q Total (cfs)	164000.00	Flow (cfs)	23073.87	137855.30	3070.83
Top Width (ft)	3049.13	Top Width (ft)	1702.03	959.20	387.90
Vel Total (ft/s)	8.43	Avg. Vel. (ft/s)	4.23	10.40	4.14
Max Chl Dpth (ft)	18.65	Hydr. Depth (ft)	3.23	13.81	1.91
Conv. Total (cfs)	3631815.3	Conv. (cfs)	510975.8	3052835.3	68004.3
Length Wtd. (ft)	495.35	Wetted Per. (ft)	1688.81	964.03	387.95
Min Ch El (ft)	973.10	Shear (lb/sq ft)	0.41	1.75	0.24
Alpha	1.32	Stream Power (lb/ft s)	1.74	18.20	1.01
Frctn Loss (ft)	0.97	Cum Volume (acre-ft)	5065.04	16585.80	1025.05
C & E Loss (ft)	0.02	Cum SA (acres)	1446.13	1818.54	555.10

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	992.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.44	Wt. n-Val.	0.037	0.037	0.025
E.G. Elev (ft)	993.69	Reach Len. (ft)	495.00	495.39	495.00
Crit W.S. (ft)	987.59	Flow Area (sq ft)	3367.78	13720.67	365.70
E.G. Slope (ft/ft)	0.001820	Area (sq ft)	3367.78	13720.67	365.70
Q Total (cfs)	164000.00	Flow (cfs)	23552.77	138039.66	2407.58
Top Width (ft)	1445.00	Top Width (ft)	402.10	959.20	83.70
Vel Total (ft/s)	9.40	Avg. Vel. (ft/s)	6.99	10.06	6.58
Max Chl Dpth (ft)	19.15	Hydr. Depth (ft)	8.38	14.30	4.37
Conv. Total (cfs)	3844723.8	Conv. (cfs)	552157.8	3236124.0	56442.0
Length Wtd. (ft)	495.36	Wetted Per. (ft)	408.28	964.03	87.40
Min Ch El (ft)	973.10	Shear (lb/sq ft)	0.94	1.62	0.48
Alpha	1.05	Stream Power (lb/ft s)	6.55	16.27	3.13
Frctn Loss (ft)	0.90	Cum Volume (acre-ft)	466.97	17148.02	32.93
C & E Loss (ft)	0.00	Cum SA (acres)	74.57	1820.64	6.35

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18001.20	18120.26	85.06	44.02	47.68	0.05	0.92	1.93
18120.26	18239.32	1085.49	353.31	119.09	0.66	2.97	3.07
18239.32	18358.38	835.06	316.21	119.08	0.51	2.66	2.64
18358.38	18477.44	188.20	129.33	119.07	0.11	1.09	1.46
18477.44	18596.50	75.77	74.93	119.06	0.05	0.63	1.01
18596.50	18715.56	14.26	24.93	93.12	0.01	0.27	0.57
18715.56	18834.62	52.93	60.41	119.06	0.03	0.51	0.88
18834.62	18953.68	123.77	100.58	119.07	0.08	0.84	1.23
18953.68	19072.74	437.12	214.43	119.06	0.27	1.80	2.04
19072.74	19191.80	836.39	316.50	119.06	0.51	2.66	2.64
19191.80	19310.86	953.75	342.45	119.07	0.58	2.88	2.79
19310.86	19429.92	2371.85	591.66	119.13	1.45	4.97	4.01
19429.92	19548.98	5289.00	957.17	119.09	3.22	8.04	5.53
19548.98	19668.04	5433.47	972.74	119.08	3.31	8.17	5.59
19668.04	19787.10	5291.74	957.46	119.09	3.23	8.04	5.53
19787.10 LB	19978.94	24273.21	2500.52	195.52	14.80	13.03	9.71
19978.94	20170.78	13736.59	1763.98	191.96	8.38	9.20	7.79
20170.78	20362.62	31936.73	2926.03	191.89	19.47	15.25	10.91
20362.62	20554.46	39228.21	3310.08	191.87	23.92	17.25	11.85
20554.46	20746.30 RB	28680.56	2748.37	192.80	17.49	14.33	10.44
20746.30	20782.75	864.61	153.85	36.45	0.53	4.22	5.62
20782.75	20819.19	696.31	135.11	36.45	0.42	3.71	5.15
20819.19	20855.64	510.09	112.10	36.45	0.31	3.08	4.55
20855.64	20892.09	362.07	91.26	36.45	0.22	2.50	3.97
20892.09	20928.53	209.33	65.69	36.45	0.13	1.80	3.19
20928.53	20964.98	159.24	55.75	36.45	0.10	1.53	2.86
20964.98	21001.43	122.77	47.69	36.45	0.07	1.31	2.57
21001.43	21037.87	85.54	38.40	36.45	0.05	1.05	2.23
21037.87	21074.32	47.05	26.83	36.45	0.03	0.74	1.75
21074.32	21110.77	8.03	9.29	36.45	0.00	0.25	0.86
21110.77	21147.21	5.78	6.39	23.45	0.00	0.27	0.90

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19310.86	19429.92	1708.24	304.76	51.01	1.04	6.78	5.61
19429.92	19548.98	7218.42	1015.72	119.09	4.40	8.53	7.11
19548.98	19668.04	7404.17	1031.29	119.08	4.51	8.66	7.18
19668.04	19787.10	7221.95	1016.01	119.09	4.40	8.53	7.11
19787.10 LB	19978.94	24423.97	2594.86	195.52	14.89	13.53	9.41
19978.94	20170.78	14173.38	1858.31	191.96	8.64	9.69	7.63
20170.78	20362.62	31852.45	3020.37	191.89	19.42	15.74	10.55
20362.62	20554.46	38888.64	3404.42	191.87	23.71	17.75	11.42
20554.46	20746.30 RB	28701.18	2842.71	192.80	17.50	14.82	10.10
20746.30	20782.75	1207.40	171.77	36.45	0.74	4.71	7.03
20782.75	20819.19	995.93	153.03	36.45	0.61	4.20	6.51
20819.19	20855.64	204.26	40.91	14.50	0.12	3.79	4.99

CROSS SECTION RIVER: 1
REACH: 1 RS: 205.06

INPUT
Description: 205.06
Station Elevation Data num= 129

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17971	990.9	18065.3	988.6	18104.6	990.4	18115.6	988.2	18128.9	991.2
18143.2	991.5	18167.1	990.4	18222.4	988.9	18239	988.9	18268	988.1
18295.2	989	18314.3	988.5	18358.9	987.5	18410.5	986.7	18435.8	988.1
18478.4	994.2	18515	994	18541.2	993.6	18567.7	993	18668.2	993.4
18694.6	996.3	18716.8	994.1	18733	990.9	18773.1	991.2	18799	993.8
18844	996.4	18879.8	994	18912.8	991.3	18929.6	990.6	18948.8	990.9
18974.6	992.4	18989	991.8	18996.9	990.8	19026.5	996.8	19033.3	997.5
19038.3	998.5	19071.8	995.8	19078.5	994.1	19097.2	986.1	19133.8	987
19136.4	990.2	19142.8	992.6	19151.6	994.3	19202.7	994.1	19217.4	994.9
19226.3	988.3	19230.3	986.5	19252.3	985.8	19287.1	985.9	19329.2	986.2
19380.3	987.3	19388.1	987.3	19434.5	987.8	19445.1	987.8	19500.6	988.4

19538.9	988.7	19598.7	988.7	19648.7	990	19669.4	989.9	19722.7	988.3
19771.5	986.5	19803.6	986.4	19827.5	985.6	19841.3	984.7	19887	983.6
19904.2	973.1	19931.3	971.2	19981.6	971.1	19982.8	971.1	20027.4	970.5
20053.2	971.3	20073.5	976.1	20120.4	976.2	20137.3	976.4	20147.5	981
20155.4	983.6	20196	987.3	20208.9	986.1	20221.7	985.3	20253.8	981
20275.4	981	20301.5	975.4	20306.9	975.1	20315.2	975.1	20365	974.5
20425.5	974.6	20470.1	974.5	20497.9	974.4	20563.5	973.5	20601.9	973.2
20671.9	974	20850.2	976	20856.8	977.9	20880.3	977.7	20892.4	984.3
20905.3	990.8	20927.2	991.2	20971.3	992	21020.6	993	21062.7	993.2
21101.6	993.3	21146	993.7	21204.6	993.9	21256.1	994.5	21300.3	994.8
21336.3	994.9	21378.2	995	21414.7	995.2	21457.8	995.2	21484.8	995.4
21512.4	994.7	21514.5	995.9	21516.2	996.3	21518.9	995.5	21525.9	994.3
21532.1	994.6	21537.4	995.2	21546	995	21560.5	995.3	21575	995
21602.5	996.4	21628.8	996.3	21672.8	996.3	21709.9	996.5	21754.4	996.4
21826.9	996.1	21895.5	996.5	21951.4	996.6	21997.9	996.4		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17971	.037	19026.5	.037	19669.4	.037	20905.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19669.4	20905.3	505	505	530	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17971	18080	998.5	21997.9	21997.9	998.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	990.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.37	Wt. n-Val.	0.037	0.037	0.025
E.G. Elev (ft)	992.22	Reach Len. (ft)	505.00	505.00	530.00
Crit W.S. (ft)	984.94	Flow Area (sq ft)	2334.82	16203.33	0.05
E.G. Slope (ft/ft)	0.001876	Area (sq ft)	2466.12	16203.33	0.05
Q Total (cfs)	164000.00	Flow (cfs)	8132.39	155867.59	0.01
Top Width (ft)	2210.49	Top Width (ft)	972.16	1235.90	2.43
Vel Total (ft/s)	8.85	Avg. Vel. (ft/s)	3.48	9.62	0.20
Max Chl Dpth (ft)	20.34	Hydr. Depth (ft)	2.70	13.11	0.02
Conv. Total (cfs)	3786910.3	Conv. (cfs)	187784.4	3599125.5	0.3
Length Wtd. (ft)	505.01	Wetted Per. (ft)	870.21	1245.68	2.43
Min Ch El (ft)	970.50	Shear (lb/sq ft)	0.31	1.52	0.00
Alpha	1.13	Stream Power (lb/ft s)	1.09	14.65	0.00
Frctn Loss (ft)	0.73	Cum Volume (acre-ft)	5019.99	16418.33	1020.83
C & E Loss (ft)	0.19	Cum SA (acres)	1430.93	1806.05	552.89

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	991.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.43	Wt. n-Val.	0.037	0.037	
E.G. Elev (ft)	992.79	Reach Len. (ft)	505.00	505.00	530.00
Crit W.S. (ft)	984.91	Flow Area (sq ft)	491.34	16836.52	
E.G. Slope (ft/ft)	0.001795	Area (sq ft)	491.34	16836.52	
Q Total (cfs)	164000.00	Flow (cfs)	1508.46	162491.55	
Top Width (ft)	1435.30	Top Width (ft)	199.40	1235.90	
Vel Total (ft/s)	9.46	Avg. Vel. (ft/s)	3.07	9.65	
Max Chl Dpth (ft)	20.86	Hydr. Depth (ft)	2.46	13.62	
Conv. Total (cfs)	3871037.3	Conv. (cfs)	35605.4	3835431.8	
Length Wtd. (ft)	505.00	Wetted Per. (ft)	202.71	1246.23	
Min Ch El (ft)	970.50	Shear (lb/sq ft)	0.27	1.51	
Alpha	1.03	Stream Power (lb/ft s)	0.83	14.61	
Frctn Loss (ft)	0.82	Cum Volume (acre-ft)	445.04	16974.26	30.85
C & E Loss (ft)	0.10	Cum SA (acres)	71.15	1808.15	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17971.00	18084.23	13.14	6.23	4.23	0.01	1.47	2.11
18084.23	18197.45	124.31	79.17	83.66	0.08	0.95	1.57
18197.45	18310.68	620.15	234.41	113.27	0.38	2.07	2.65
18310.68	18423.91	1381.00	378.96	113.27	0.84	3.35	3.64

18423.91	18537.13	163.07	62.85	31.27	0.10	2.02	2.59
18537.13	18876.81						
18876.81	18990.04	1.05	2.63	21.51	0.00	0.12	0.40
18990.04	19103.27	181.97	54.66	18.71	0.11	3.08	3.33
19103.27	19216.49	527.44	135.23	36.50	0.32	3.88	3.90
19216.49	19329.72	2257.29	499.47	108.09	1.38	4.67	4.52
19329.72	19442.95	1594.22	413.02	113.24	0.97	3.65	3.86
19442.95	19556.17	852.91	283.77	113.23	0.52	2.51	3.01
19556.17	19669.40	415.83	184.41	113.24	0.25	1.63	2.25
19669.40 LB	19916.58	6720.74	1342.36	250.28	4.10	5.43	5.01
19916.58	20163.76	45757.85	4236.16	249.23	27.90	17.14	10.80
20163.76	20410.94	23469.96	2833.61	248.29	14.31	11.46	8.28
20410.94	20658.12	44874.19	4173.12	247.19	27.36	16.88	10.75
20658.12	20905.30 RB	35044.84	3618.08	250.69	21.37	14.64	9.69
20905.30	20978.14	0.01	0.05	2.43	0.00	0.02	0.20

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19442.95	19556.17	829.84	248.92	89.46	0.51	2.89	3.33
19556.17	19669.40	678.61	242.42	113.24	0.41	2.14	2.80
19669.40 LB	19916.58	7675.82	1468.99	250.28	4.68	5.94	5.23
19916.58	20163.76	47232.49	4362.80	249.23	28.80	17.65	10.83
20163.76	20410.94	24809.22	2960.25	248.29	15.13	11.98	8.38
20410.94	20658.12	46354.21	4299.76	247.19	28.26	17.40	10.78
20658.12	20905.30 RB	36419.80	3744.72	251.25	22.21	15.15	9.73

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.97

INPUT
Description: 204.97

Left Channel Bank Station Interpolated
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16000	993.3	16025.7	992.1	16060.7	991.7	16273.1	992.3	16303.1	992.4
16597.7	992.1	16613.7	992	16818.7	992	16912.8	992.3	17061.4	992.3
17169.3	991.7	17232.9	991.8	17259.7	989	17316.4	990.2	17470.6	990.2
17483.4	990.2	17700.5	989.9	17786.2	989.2	17832.4	989	17894.5	988.9
17924.8	989.2	17933.3	990.5	17979.7	992.1	17985.3	991.5	17994.8	988.7
18008.6	988.7	18105.1	987.6	18137.2	986.9	18189.2	987.8	18201.2	986.8
18216.4	989.2	18243.6	989.2	18301.9	989	18377.5	989.6	18462.9	990.2
18523.7	988.6	18573.9	986	18643	986.6	18672	985.8	18672.9	984.9
18697.7	984.3	18729.6	988.3	18807.2	987.9	18833	984	18865.3	987.3
18888.3	985.4	18917	987.8	18955.4	987.9	18987.3	984.9	19046.8	987.1
19093.5	986.8	19152.6	983.5	19285.8	983.8	19317.6	981.5	19332.9	979.1
19418.6	978	19438.3	978.8	19545	978.843	19934.7	979	19938.2	981.1
19945.9	981.9	20008.7	980.8	20068.2	980.2	20091.8	979.6	20151.8	979.3
20225.8	978.1	20300.7	979	20367.2	979.3	20442.3	978.7	20509.6	977.2
20568	974.8	20659.1	973.3	20662.9	973.3	20925.5	975.4	20961.3	988.6
20999.4	990.2	21056.8	990.8	21126.2	991.7	21187	992.8	21200.2	992.9
21265.2	993	21340.5	993	21356.1	993	21427.5	993.4	21492.8	993.1
21496	993.1								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16000	.025	18301.9	.037	19046.8	.037	20961.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19545	20961.3	510	503	550	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16000	18200	993.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	990.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.74	Wt. n-Val.	0.037	0.037	0.025

E.G. Elev (ft)	991.30	Reach Len. (ft)	510.00	503.00	550.00
Crit W.S. (ft)	984.94	Flow Area (sq ft)	6790.38	17977.70	50.63
E.G. Slope (ft/ft)	0.001134	Area (sq ft)	7907.97	17977.70	50.63
Q Total (cfs)	164000.00	Flow (cfs)	31809.95	132110.56	79.49
Top Width (ft)	3736.07	Top Width (ft)	2246.92	1416.30	72.85
Vel Total (ft/s)	6.61	Avg. Vel. (ft/s)	4.68	7.35	1.57
Max Chl Dpth (ft)	17.26	Hydr. Depth (ft)	5.05	12.69	0.69
Conv. Total (cfs)	4869885.0	Conv. (cfs)	944578.1	3922946.5	2360.3
Length Wtd. (ft)	504.14	Wetted Per. (ft)	1347.14	1419.41	72.89
Min Ch El (ft)	973.30	Shear (lb/sq ft)	0.36	0.90	0.05
Alpha	1.09	Stream Power (lb/ft s)	1.67	6.59	0.08
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	4959.86	16220.19	1020.52
C & E Loss (ft)	0.04	Cum SA (acres)	1412.28	1790.68	552.43

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	990.76	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.11	Wt. n-Val.	0.037	0.037	
E.G. Elev (ft)	991.87	Reach Len. (ft)	510.00	503.00	550.00
Crit W.S. (ft)	985.03	Flow Area (sq ft)	1194.12	18262.10	
E.G. Slope (ft/ft)	0.001485	Area (sq ft)	1194.12	18262.10	
Q Total (cfs)	164000.00	Flow (cfs)	8955.40	155044.61	
Top Width (ft)	1516.30	Top Width (ft)	100.00	1416.30	
Vel Total (ft/s)	8.43	Avg. Vel. (ft/s)	7.50	8.49	
Max Chl Dpth (ft)	17.46	Hydr. Depth (ft)	11.94	12.89	
Conv. Total (cfs)	4255196.0	Conv. (cfs)	232359.7	4022836.5	
Length Wtd. (ft)	503.24	Wetted Per. (ft)	111.96	1421.57	
Min Ch El (ft)	973.30	Shear (lb/sq ft)	0.99	1.19	
Alpha	1.00	Stream Power (lb/ft s)	7.42	10.11	
Frctn Loss (ft)	0.59	Cum Volume (acre-ft)	435.27	16770.81	30.85
C & E Loss (ft)	0.08	Cum SA (acres)	69.42	1792.78	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18127.00	18363.33	555.32	246.86	163.53	0.34	1.51	2.25
18363.33	18599.67	784.65	420.32	236.42	0.48	1.78	1.87
18599.67	18836.00	2911.36	924.40	237.29	1.78	3.91	3.15
18836.00	19072.33	3046.15	949.15	236.85	1.86	4.02	3.21
19072.33	19308.67	6484.04	1492.54	236.48	3.95	6.32	4.34
19308.67	19545.00	18028.45	2757.11	236.57	10.99	11.67	6.54
19545.00 LB	19828.26	22735.44	3303.70	283.26	13.86	11.66	6.88
19828.26	20111.52	19178.68	2985.82	283.90	11.69	10.54	6.42
20111.52	20394.78	22691.73	3299.98	283.28	13.84	11.65	6.88
20394.78	20678.04	32373.04	4084.49	283.34	19.74	14.42	7.93
20678.04	20961.30 RB	35131.67	4303.70	285.62	21.42	15.19	8.16
20961.30	20996.95	75.58	43.30	35.68	0.05	1.21	1.75
20996.95	21032.59	3.90	7.32	35.65	0.00	0.21	0.53
21032.59	21068.24	0.00	0.01	1.56	0.00	0.01	0.06

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19308.67	19545.00	8955.41	1194.12	111.96	5.46	11.94	7.50
19545.00 LB	19828.26	26787.93	3360.58	283.26	16.33	11.86	7.97
19828.26	20111.52	22665.10	3042.70	283.90	13.82	10.74	7.45
20111.52	20394.78	26737.29	3356.86	283.28	16.30	11.85	7.96
20394.78	20678.04	37937.92	4141.37	283.34	23.13	14.62	9.16
20678.04	20961.30 RB	40916.36	4360.58	287.79	24.95	15.39	9.38

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.87

INPUT
Description: 204.87

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17067.4	991.5	17111.3	991.5	17255	990.6	17291.2	991.6	17298.2	992.1
17315.9	991	17328.2	990.9	17345.3	988.6	17426.3	988	17520.6	988.2
17594.7	988.5	17781.4	988.6	17822.3	988.5	17925.1	988.2	18001	987.2
18108.5	987.1	18221.3	987.3	18261.7	986.3	18269.2	986.9	18279.6	985.4
18296.9	986.8	18325.5	986.8	18352.2	985.5	18429.1	985.3	18501.3	985.6
18553	984.4	18559.8	986.3	18565.9	988.9	18578.6	987.7	18604.1	983.9
18645.9	981.4	18657.3	984	18678.8	986.2	18730	987.6	18832.5	987.5
18855.2	985.7	18859.7	984.6	18874.5	986.6	18920.1	984.6	18942.9	980.4
18960	980.8	18970.7	982.4	19015.9	985.9	19104.6	986.7	19209.9	985.7
19234.9	985	19264.2	982.7	19275.4	983.5	19297.4	981	19382.3	981.4
19462.8	981	19532.8	979	19555.4	979.1	19566	978.5	19579.4	978.5
19588.4	976.2	19598.7	976.3	19623.4	978.5	19628	979.5	19642.3	981
19714.7	981	19730.8	981	19759.9	975.9	19765	976.4	19772.7	975.9
19854.5	975.9	19859.5	975.9	19861.3	977.3	19877.6	980.8	19890	975.9
19903.3	969.9	19909.9	970	19919.2	968.1	20001	968.1	20022.9	968.1
20059.2	975.3	20126.4	976.2	20213.9	975.3	20298.1	974.9	20351	974.8
20377.2	977.3	20393.3	977.5	20505.4	975.8	20559.1	974.3	20612	976.5
20624.2	974.6	20654.3	973.2	20826.7	974.3	20919.3	974.9	20939.9	984.7
20954.34	991.1405	20961.2	994.2	20981.5	994.3	21037.9	989.4	21047	990.3
21137.3	991.2	21197.6	991.4						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17067.4	.025	18221.3	.037	19462.8	.037	20961.2	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19462.8	20954.34		495	499	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17067.4	18300	994.3	20961.2	21197.6	994.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	990.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.61	Wt. n-Val.	0.037	0.037	
E.G. Elev (ft)	990.80	Reach Len. (ft)	495.00	499.00	505.00
Crit W.S. (ft)	982.85	Flow Area (sq ft)	6202.73	21657.64	
E.G. Slope (ft/ft)	0.000767	Area (sq ft)	8398.93	21657.64	6.71
Q Total (cfs)	164000.00	Flow (cfs)	21030.20	142969.80	
Top Width (ft)	3635.73	Top Width (ft)	2129.30	1489.40	17.03
Vel Total (ft/s)	5.89	Avg. Vel. (ft/s)	3.39	6.60	
Max Chl Dpth (ft)	22.09	Hydr. Depth (ft)	5.33	14.54	
Conv. Total (cfs)	5920435.5	Conv. (cfs)	759194.9	5161240.5	
Length Wtd. (ft)	498.39	Wetted Per. (ft)	1165.78	1498.26	
Min Ch El (ft)	968.10	Shear (lb/sq ft)	0.25	0.69	
Alpha	1.14	Stream Power (lb/ft s)	0.86	4.57	
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	4864.40	15991.35	1020.16
C & E Loss (ft)	0.05	Cum SA (acres)	1386.66	1773.90	551.86

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	990.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.84	Wt. n-Val.	0.037	0.037	
E.G. Elev (ft)	991.20	Reach Len. (ft)	495.00	499.00	505.00
Crit W.S. (ft)	982.79	Flow Area (sq ft)	487.52	21921.08	
E.G. Slope (ft/ft)	0.000942	Area (sq ft)	487.52	21921.08	
Q Total (cfs)	164000.00	Flow (cfs)	2378.67	161621.33	
Top Width (ft)	1542.20	Top Width (ft)	52.80	1489.40	
Vel Total (ft/s)	7.32	Avg. Vel. (ft/s)	4.88	7.37	
Max Chl Dpth (ft)	22.26	Hydr. Depth (ft)	9.23	14.72	
Conv. Total (cfs)	5343392.0	Conv. (cfs)	77501.1	5265891.0	
Length Wtd. (ft)	498.86	Wetted Per. (ft)	61.90	1498.43	
Min Ch El (ft)	968.10	Shear (lb/sq ft)	0.46	0.86	
Alpha	1.01	Stream Power (lb/ft s)	2.26	6.34	
Frctn Loss (ft)	0.37	Cum Volume (acre-ft)	425.43	16538.80	30.85
C & E Loss (ft)	0.06	Cum SA (acres)	68.52	1776.00	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18185.25	18344.95	398.72	161.47	44.97	0.24	3.59	2.47
18344.95	18504.64	2256.36	758.39	159.70	1.38	4.75	2.98
18504.64	18664.33	2865.61	878.70	161.24	1.75	5.50	3.26
18664.33	18824.03	1068.26	484.33	159.79	0.65	3.03	2.21
18824.03	18983.72	3157.23	929.88	160.62	1.93	5.82	3.40
18983.72	19143.41	1813.71	665.41	159.80	1.11	4.17	2.73
19143.41	19303.11	2944.82	890.36	159.97	1.80	5.58	3.31
19303.11	19462.80	6525.49	1434.19	159.70	3.98	8.98	4.55
19462.80 LB	19761.11	16897.15	3182.53	299.38	10.30	10.67	5.31
19761.11	20059.42	39035.33	5280.29	302.32	23.80	17.70	7.39
20059.42	20357.72	29205.29	4413.32	298.35	17.81	14.79	6.62
20357.72	20656.03	27794.70	4285.91	298.66	16.95	14.37	6.49
20656.03	20954.34 RB	30037.33	4495.59	299.56	18.32	15.18	6.68

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19303.11	19462.80	2378.67	487.52	61.90	1.45	9.23	4.88
19462.80 LB	19761.11	19248.22	3235.30	299.38	11.74	10.85	5.95
19761.11	20059.42	43987.57	5333.05	302.32	26.82	17.88	8.25
20059.42	20357.72	33017.11	4466.08	298.35	20.13	14.97	7.39
20357.72	20656.03	31440.81	4338.67	298.66	19.17	14.54	7.25
20656.03	20954.34 RB	33927.63	4547.98	299.73	20.69	15.36	7.46

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.78

INPUT
Description: 204.78

Right Channel Bank Station Interpolated
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16026.1	987.6	16094.8	987.3	16113.5	986.9	16143.6	989.2	16147.7	990.2
16176.4	990.8	16200.6	988.8	16231.8	988.4	16338.9	988.8	16416.1	988.9
16579.2	988.9	16686	989.1	16786.7	989.1	16866.8	989.3	17093.1	989.3
17192.6	989.3	17283.5	988	17369.3	988	17407.5	989.7	17420.2	988
17479.3	987	17521.2	986.9	17670.9	988	17754.2	987.8	17912.8	987.4
17952.6	987.1	18028.5	987	18174.7	986.5	18221.6	986.3	18279.6	986.1
18350.4	984.9	18361.8	983	18373.6	985.9	18402.3	985.9	18413.2	983.6
18427.5	987.2	18487.5	986.4	18504	984.4	18585.3	983.7	18598.2	984.9
18667.6	983.9	18753.3	984.6	18756.1	984.9	18767.8	981.3	18836.7	981
19173.1	979.8	19219.1	979.8	19295.8	977.2	19323.7	977.5	19337.5	981
19356.4	981	19398.6	983	19409.2	982.4	19419.8	979.2	19429.6	977.4
19432.3	975.9	19489.4	975.9	19561.1	974.8	19621.6	973	19660.7	972.1
19667.7	970.8	19677.1	967.6	19767.4	968.8	19768	968.8	19935.5	968
19986.5	968	20033.8	975.7	20056.9	977.8	20073.7	975.3	20160.4	975
20170.8	975.3	20229.5	975	20246.7	975	20324.8	974.9	20340	975
20452	975.9	20510.9	973	20530.9	973.1	20662.3	973.7	20706.1	973.8
20782.6	974.9	20801.8	975.1	20832.3	3990.9976	20840.4	995.2	20866.6	994.5
20921.2	988.9	20982.7	988.3						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16026.1	.025	18427.5	.037	19398.6	.037	20840.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19398.6	20832.33	505	515	550	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16026.1	18400	995.2	20840.4	20982.7	995.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	990.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.	0.037	0.037	
E.G. Elev (ft)	990.45	Reach Len. (ft)	505.00	515.00	550.00
Crit W.S. (ft)	980.95	Flow Area (sq ft)	8139.73	23734.71	
E.G. Slope (ft/ft)	0.000477	Area (sq ft)	12727.67	23734.71	92.42

Q Total (cfs)	164000.00	Flow (cfs)	29110.95	134889.06	
Top Width (ft)	4837.50	Top Width (ft)	3333.40	1431.83	72.28
Vel Total (ft/s)	5.15	Avg. Vel. (ft/s)	3.58	5.68	
Max Chl Dpth (ft)	22.41	Hydr. Depth (ft)	8.15	16.58	
Conv. Total (cfs)	7511922.5	Conv. (cfs)	1333409.6	6178513.0	
Length Wtd. (ft)	513.16	Wetted Per. (ft)	1000.57	1438.22	
Min Ch El (ft)	967.60	Shear (lb/sq ft)	0.24	0.49	
Alpha	1.09	Stream Power (lb/ft s)	0.87	2.79	
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	4744.36	15731.36	1019.59
C & E Loss (ft)	0.03	Cum SA (acres)	1355.62	1757.17	551.34

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	990.13	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.63	Wt. n-Val.	0.037	0.037	
E.G. Elev (ft)	990.77	Reach Len. (ft)	505.00	515.00	550.00
Crit W.S. (ft)	980.72	Flow Area (sq ft)	2009.19	23918.67	
E.G. Slope (ft/ft)	0.000611	Area (sq ft)	2009.19	23918.67	
Q Total (cfs)	164000.00	Flow (cfs)	9302.94	154697.06	
Top Width (ft)	1620.43	Top Width (ft)	188.60	1431.83	
Vel Total (ft/s)	6.33	Avg. Vel. (ft/s)	4.63	6.47	
Max Chl Dpth (ft)	22.53	Hydr. Depth (ft)	10.65	16.70	
Conv. Total (cfs)	6634496.5	Conv. (cfs)	376343.4	6258153.0	
Length Wtd. (ft)	514.26	Wetted Per. (ft)	199.46	1438.35	
Min Ch El (ft)	967.60	Shear (lb/sq ft)	0.38	0.63	
Alpha	1.02	Stream Power (lb/ft s)	1.78	4.10	
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	411.24	16276.25	30.85
C & E Loss (ft)	0.04	Cum SA (acres)	67.15	1759.27	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18274.43	18499.27	926.42	375.76	100.04	0.56	3.79	2.47
18499.27	18724.10	3547.08	1303.98	224.94	2.16	5.80	2.72
18724.10	18948.93	6635.08	1900.25	225.39	4.05	8.45	3.49
18948.93	19173.77	8515.79	2204.98	224.83	5.19	9.81	3.86
19173.77	19398.60	9486.61	2354.76	225.36	5.78	10.47	4.03
19398.60 LB	19685.35	22959.00	4348.77	288.48	14.00	15.17	5.28
19685.35	19972.09	41872.74	6221.71	286.76	25.53	21.70	6.73
19972.09	20258.84	24018.80	4462.99	287.65	14.65	15.56	5.38
20258.84	20545.58	23110.07	4355.84	286.82	14.09	15.19	5.31
20545.58	20832.33 RB	22928.42	4345.40	288.50	13.98	15.26	5.28

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19173.77	19398.60	9302.94	2009.19	199.46	5.67	10.65	4.63
19398.60 LB	19685.35	26368.43	4385.61	288.48	16.08	15.29	6.01
19685.35	19972.09	47888.36	6258.55	286.76	29.20	21.83	7.65
19972.09	20258.84	27575.74	4499.83	287.65	16.81	15.69	6.13
20258.84	20545.58	26541.34	4392.68	286.82	16.18	15.32	6.04
20545.58	20832.33 RB	26323.20	4382.00	288.63	16.05	15.38	6.01

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.68

INPUT
Description: 204.68

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

17501.1	986.1	17554.2	985.7	17607.9	985.5	17645.5	987.6	17657	986.8
17668.8	987.1	17674.9	990.2	17682.2	987.8	17691	985.7	17742.4	986.2
17748.2	986.3	17778	988.7	17792.2	990.8	17806.1	988.7	17807.3	988.9
17839.5	987.8	17848.5	986.9	17867.4	986.8	17881.2	986.2	17970.4	985.8
18016.4	985.9	18087.9	985.4	18189.8	985	18231.2	984.8	18295.5	984.9
18354.5	984.6	18412.6	984.3	18437.1	982.9	18472.2	984	18491.1	983.4
18518.9	981.6	18530.8	984.6	18531.9	985.1	18550.1	982.9	18601.2	983.1
18621.4	983.6	18662.6	982.9	18685.1	983	18736.6	981.7	18767.6	980.4
18849.4	980.3	18886.2	980.2	18950.6	980	19029.6	979.9	19057.5	983
19071.2	980.7	19099.7	980.9	19114	981.6	19143.3	981.3	19197.1	981.7
19249.9	983.3	19284.9	981.9	19308.1	982.1	19314.7	984.6	19321.8	985
19357.4	981	19361.7	979.6	19368.2	980.1	19394.4	978.2	19398.6	975.9
19415.9	975.9	19458.6	973.3	19479.3	973.1	19513.5	971.9	19564.9	971.9
19621.8	972.2	19668.2	973.2	19691.4	975.5	19719	976.9	19734.6	976.2
19779.1	971.8	19814.3	971.4	19869.4	971.6	19901	972.5	19927.9	972.8
19942.8	973.9	20011.2	975.3	20053.7	976.3	20121.8	976.1	20137.2	975.6
20206.4	975.5	20256.1	973.7	20273.3	974.7	20295	973	20348.3	973.2
20369.6	973.3	20516.3	974.1	20548.6	1990.5	028 20548.8	990.6	20582.8	991.5
20647	987.5	20715.7	987.8	20786.9	988	20814	988	20872.4	988.2
20904.2	988.1	20971	988.4						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17501.1	.025	18472.2	.037	19321.8	.037	20548.8	.037	20582.8	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19321.8	20548.61	325	407	570	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17501.1	18455	991.5	20582.8	20971	991.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	989.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.73	Wt. n-Val.	0.037	0.037	
E.G. Elev (ft)	990.10	Reach Len. (ft)	325.00	407.00	570.00
Crit W.S. (ft)	982.88	Flow Area (sq ft)	6628.25	18233.93	
E.G. Slope (ft/ft)	0.000903	Area (sq ft)	10032.64	18233.93	473.90
Q Total (cfs)	164000.00	Flow (cfs)	31210.81	132789.19	
Top Width (ft)	3375.80	Top Width (ft)	1797.31	1224.57	353.93
Vel Total (ft/s)	6.60	Avg. Vel. (ft/s)	4.71	7.28	
Max Chl Dpth (ft)	17.96	Hydr. Depth (ft)	7.65	14.89	
Conv. Total (cfs)	5457463.5	Conv. (cfs)	1038608.9	4418854.5	
Length Wtd. (ft)	390.47	Wetted Per. (ft)	868.45	1230.06	
Min Ch El (ft)	971.40	Shear (lb/sq ft)	0.43	0.84	
Alpha	1.08	Stream Power (lb/ft s)	2.03	6.09	
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	4612.43	15483.26	1016.01
C & E Loss (ft)	0.03	Cum SA (acres)	1325.88	1741.47	548.65

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	989.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.99	Wt. n-Val.	0.037	0.037	
E.G. Elev (ft)	990.31	Reach Len. (ft)	325.00	407.00	570.00
Crit W.S. (ft)	982.76	Flow Area (sq ft)	2820.49	18178.85	
E.G. Slope (ft/ft)	0.001151	Area (sq ft)	2820.49	18178.85	
Q Total (cfs)	164000.00	Flow (cfs)	14830.20	149169.80	
Top Width (ft)	1586.28	Top Width (ft)	361.80	1224.48	
Vel Total (ft/s)	7.81	Avg. Vel. (ft/s)	5.26	8.21	
Max Chl Dpth (ft)	17.92	Hydr. Depth (ft)	7.80	14.85	
Conv. Total (cfs)	4833993.5	Conv. (cfs)	437128.5	4396865.0	
Length Wtd. (ft)	395.87	Wetted Per. (ft)	372.04	1229.96	
Min Ch El (ft)	971.40	Shear (lb/sq ft)	0.54	1.06	
Alpha	1.05	Stream Power (lb/ft s)	2.86	8.71	
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	383.25	16027.39	30.85
C & E Loss (ft)	0.02	Cum SA (acres)	63.96	1743.57	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta	Right Sta	Flow	Area	W.P.	% Conv.	Hydr D.	Velocity

(ft)	(ft)	(cfs)	(sq ft)	(ft)		(ft)	(ft/s)
18350.76	18472.14	539.32	96.59	17.15	0.33	5.64	5.58
18472.14	18593.52	3015.00	752.37	122.06	1.84	6.20	4.01
18593.52	18714.90	3123.00	766.85	121.40	1.90	6.32	4.07
18714.90	18836.28	5161.61	1036.71	121.42	3.15	8.54	4.98
18836.28	18957.66	5846.19	1117.02	121.38	3.56	9.20	5.23
18957.66	19079.04	5423.32	1069.10	121.74	3.31	8.81	5.07
19079.04	19200.42	4641.80	972.70	121.40	2.83	8.01	4.77
19200.42	19321.80	3460.56	816.90	121.90	2.11	6.73	4.24
19321.80 LB	19567.16	23069.07	3358.68	246.59	14.07	13.69	6.87
19567.16	19812.52	29756.94	3907.68	245.76	18.14	15.93	7.61
19812.52	20057.89	29592.64	3892.74	245.44	18.04	15.87	7.60
20057.89	20303.25	24453.15	3472.03	245.50	14.91	14.15	7.04
20303.25	20548.61 RB	25917.41	3602.79	246.77	15.80	14.82	7.19

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18957.66	19079.04	5698.25	1041.81	128.74	3.47	8.75	5.47
19079.04	19200.42	5235.66	967.24	121.40	3.19	7.97	5.41
19200.42	19321.80	3896.30	811.44	121.90	2.38	6.69	4.80
19321.80 LB	19567.16	25901.66	3347.64	246.59	15.79	13.64	7.74
19567.16	19812.52	33436.51	3896.64	245.76	20.39	15.88	8.58
19812.52	20057.89	33251.29	3881.71	245.44	20.28	15.82	8.57
20057.89	20303.25	27460.62	3461.00	245.50	16.74	14.11	7.93
20303.25	20548.61 RB	29119.71	3591.86	246.68	17.76	14.78	8.11

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.61

INPUT
Description: 204.61
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14501.4	987.8	14573.3	990	14582.2	987.6	14618.2	988.2	14777.3	988.3
14862.5	988	15060	988.1	15169	988.1	15293.6	988.1	15349.5	988
15354.3	989.1	15407.2	987.7	15581	987.7	15683.1	987.7	15895.1	987.7
15973.3	987.8	16138.5	987.8	16253	987.3	16305.2	988.9	16356.5	986.6
16502.7	987	16642.3	986.6	16753.7	986.8	16913.6	986.7	17015.2	986.4
17201.6	986.5	17292.3	986.1	17385	986.2	17492.5	986.6	17525.7	986
17544.8	987	17555.9	984.9	17607.1	987.6	17733.4	988	17760.1	988.2
17907	986.4	17945.4	985.9	18071.1	985.8	18171.7	984.9	18250.5	986.1
18300.1	984.4	18402.9	984.9	18466.2	984.6	18493.6	983.5	18498.9	981.8
18563.6	983.3	18578.3	983	18591.3	980.7	18665.2	981.8	18677.5	983.2
18687.3	985.4	18775.1	988.2	18821.3	988.9	18834.2	979.9	18973.9	980.4
19090.8	980.1	19180.1	979.7	19288	980.1	19386.4	980.8	19428.1	982.7
19471.3	983.1	19479.7	979.4	19500.4	973.3	19642.8	973.3	19760.9	972.7
19781	972.7	19928.9	973.4	20022	973.4	20085.3	975.2	20097.7	972.6
20188.3	973	20275.9	973.4	20374.8	973.9	20426.1	974.2	20456.1	987.8
20482.9	988.5	20507	986.5	20620.9	986.8	20726.9	987	20849.8	987.1
20944.2	987.1	21033.3	987.2	21060.5	987.3	21176.6	986.9	21261.7	986.8
21362.3	986.7	21489.6	987	21584.7	987.7	21599.3	987.7	21697.6	987.5
21835.5	987.5	21887.1	988.6	21890.1	987.2	21897.8	989.2	21930.6	990.8
21963.1	990.8								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14501.4	.025	18498.9	.037	19471.3	.037	20482.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19471.3	20482.9		395	449	545	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14501.4	18570	990.8	20482.9	21963.1	990.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	988.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.05	Wt. n-Val.	0.037	0.037	

E.G. Elev (ft)	989.64	Reach Len. (ft)	395.00	449.00	545.00
Crit W.S. (ft)	983.50	Flow Area (sq ft)	6207.74	14692.76	
E.G. Slope (ft/ft)	0.001360	Area (sq ft)	12681.26	14692.76	2059.41
Q Total (cfs)	164000.00	Flow (cfs)	34890.96	129109.04	
Top Width (ft)	7282.55	Top Width (ft)	4858.94	1011.60	1412.01
Vel Total (ft/s)	7.85	Avg. Vel. (ft/s)	5.62	8.79	
Max Chl Dpth (ft)	15.99	Hydr. Depth (ft)	7.05	14.52	
Conv. Total (cfs)	4447459.0	Conv. (cfs)	946195.9	3501263.3	
Length Wtd. (ft)	441.21	Wetted Per. (ft)	883.69	1016.51	
Min Ch El (ft)	972.60	Shear (lb/sq ft)	0.60	1.23	
Alpha	1.10	Stream Power (lb/ft s)	3.35	10.78	
Frctn Loss (ft)	0.69	Cum Volume (acre-ft)	4527.70	15329.44	999.44
C & E Loss (ft)	0.02	Cum SA (acres)	1301.05	1731.02	537.10

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	988.61	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.17	Wt. n-Val.	0.037	0.037	
E.G. Elev (ft)	989.78	Reach Len. (ft)	395.00	449.00	545.00
Crit W.S. (ft)	983.45	Flow Area (sq ft)	4819.97	14718.69	
E.G. Slope (ft/ft)	0.001463	Area (sq ft)	4819.97	14718.69	
Q Total (cfs)	164000.00	Flow (cfs)	29699.95	134300.05	
Top Width (ft)	1602.90	Top Width (ft)	591.30	1011.60	
Vel Total (ft/s)	8.39	Avg. Vel. (ft/s)	6.16	9.12	
Max Chl Dpth (ft)	16.01	Hydr. Depth (ft)	8.15	14.55	
Conv. Total (cfs)	4287816.5	Conv. (cfs)	776511.7	3511304.8	
Length Wtd. (ft)	442.78	Wetted Per. (ft)	599.90	1016.62	
Min Ch El (ft)	972.60	Shear (lb/sq ft)	0.73	1.32	
Alpha	1.07	Stream Power (lb/ft s)	4.52	12.06	
Frctn Loss (ft)	0.74	Cum Volume (acre-ft)	354.74	15873.70	30.85
C & E Loss (ft)	0.02	Cum SA (acres)	60.41	1733.12	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18477.32	18808.65	3636.33	954.62	231.35	2.22	4.14	3.81
18808.65	19139.97	15834.67	2630.70	320.96	9.66	8.27	6.02
19139.97	19471.30	15419.99	2622.42	331.37	9.40	7.91	5.88
19471.30 LB	19673.62	26013.25	2965.77	203.98	15.86	14.66	8.77
19673.62	19875.94	29286.36	3173.97	202.32	17.86	15.69	9.23
19875.94	20078.26	27173.34	3034.63	202.34	16.57	15.00	8.95
20078.26	20280.58	28537.24	3126.69	202.59	17.40	15.45	9.13
20280.58	20482.90 RB	18098.83	2391.70	205.27	11.04	11.82	7.57

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18808.65	19139.97	13618.52	2189.06	268.53	8.30	8.42	6.22
19139.97	19471.30	16081.44	2630.92	331.37	9.81	7.94	6.11
19471.30 LB	19673.62	27060.36	2970.96	203.98	16.50	14.68	9.11
19673.62	19875.94	30459.41	3179.16	202.32	18.57	15.71	9.58
19875.94	20078.26	28265.28	3039.82	202.34	17.23	15.02	9.30
20078.26	20280.58	29681.51	3131.87	202.59	18.10	15.48	9.48
20280.58	20482.90 RB	18833.51	2396.89	205.38	11.48	11.85	7.86

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.53

INPUT
Description: 204.53
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

17504.9	987.8	17516.3	987.9	17522.8	987.1	17597	987.9	17615.7	987.3
17634.6	987.5	17637.7	988.1	17645.9	986.3	17657.9	988	17704.2	989.7
17740.1	1006.3	17784.7	1004.7	17850.8	1006.5	17875.5	988.5	17970.4	986.9
18011.9	987.2	18027.9	986.1	18091.1	986.1	18155.5	985.2	18204.4	984.7
18283.5	984.5	18320.2	984.4	18443	984.3	18501.9	983.9	18579.8	983.6
18647	982.6	18678.7	980.4	18706.4	982.9	18747	982.6	18757	983.3
18815.9	983.6	18827.1	980.6	18916.2	981.2	18927.3	982	19007.2	982.5
19073.9	982.8	19175.3	983.2	19185.4	983.5	19240.3	981	19276	975.9
19293	975	19359.2	979.5	19386	976	19409.2	976.4	19468.7	973.1
19520.6	973	19547.6	973.9	19571.2	975.5	19585.1	972.9	19610.7	972.7
19729.3	972.9	19787.3	973	19805.5	973.5	19860.6	976.1	19930.7	975.8
19979.8	973.4	19994.9	973.6	20150.7	974	20174.8	974	20434.3	974.4
20443.5	974.5	20465.7	985.2	20495.9	987.1	20550.8	986.4	20566	984.8
20629.6	984.7	20701.1	984.8	20780.4	985	20872.2	985	20943	985.1
21022.1	985.1	21052.3	985	21118.4	984.9	21183.9	984.8	21260.2	985
21337.7	986.1	21351.7	986.3	21381.4	984.7	21472.3	984.9	21564.8	985.3
21626.7	986.2	21653.6	986.5	21678.1	985.5	21716.4	985.3	21781	984.7
21817.6	987.6	21875.1	987.3	21880.1	988.5	21884.2	988.1	21885	988.9
21887.9	987.2	21894.1	988.4	21914.7	989.1	21935.1	988.6	21999.2	989.8
22011	990.1								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17504.9	.025	18647	.037	19185.4	.037	20495.9	.037	20566	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19185.4	20495.9	570	552	525	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17504.9	18730	1000	20495.9	22011	1000

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	987.68	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.25	Wt. n-Val.	0.037	0.037	
E.G. Elev (ft)	988.93	Reach Len. (ft)	570.00	552.00	525.00
Crit W.S. (ft)	983.01	Flow Area (sq ft)	2401.96	16443.62	
E.G. Slope (ft/ft)	0.001814	Area (sq ft)	4933.04	16443.62	3266.22
Q Total (cfs)	164000.00	Flow (cfs)	12439.19	151560.81	
Top Width (ft)	4061.33	Top Width (ft)	1366.78	1310.50	1384.04
Vel Total (ft/s)	8.70	Avg. Vel. (ft/s)	5.18	9.22	
Max Chl Dpth (ft)	14.98	Hydr. Depth (ft)	5.27	12.55	
Conv. Total (cfs)	3850961.5	Conv. (cfs)	292090.4	3558871.0	
Length Wtd. (ft)	552.83	Wetted Per. (ft)	455.86	1314.36	
Min Ch El (ft)	972.70	Shear (lb/sq ft)	0.60	1.42	
Alpha	1.06	Stream Power (lb/ft s)	3.09	13.06	
Frctn Loss (ft)	1.15	Cum Volume (acre-ft)	4447.83	15168.97	966.12
C & E Loss (ft)	0.01	Cum SA (acres)	1272.82	1719.05	519.61

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	987.68	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.35	Wt. n-Val.	0.037	0.037	
E.G. Elev (ft)	989.02	Reach Len. (ft)	570.00	552.00	525.00
Crit W.S. (ft)	982.93	Flow Area (sq ft)	1559.48	16443.15	
E.G. Slope (ft/ft)	0.001920	Area (sq ft)	1559.48	16443.15	
Q Total (cfs)	164000.00	Flow (cfs)	8107.38	155892.63	
Top Width (ft)	1610.90	Top Width (ft)	300.40	1310.50	
Vel Total (ft/s)	9.11	Avg. Vel. (ft/s)	5.20	9.48	
Max Chl Dpth (ft)	14.98	Hydr. Depth (ft)	5.19	12.55	
Conv. Total (cfs)	3742679.8	Conv. (cfs)	185020.3	3557659.5	
Length Wtd. (ft)	552.45	Wetted Per. (ft)	307.12	1314.94	
Min Ch El (ft)	972.70	Shear (lb/sq ft)	0.61	1.50	
Alpha	1.05	Stream Power (lb/ft s)	3.16	14.21	
Frctn Loss (ft)	1.21	Cum Volume (acre-ft)	325.82	15713.10	30.85
C & E Loss (ft)	0.01	Cum SA (acres)	56.36	1721.16	5.87

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18625.23	18737.27	179.05	36.18	7.27	0.11	4.98	4.95
18737.27	18849.30	2798.68	563.19	112.45	1.71	5.03	4.97
18849.30	18961.33	4082.36	705.38	112.06	2.49	6.30	5.79
18961.33	19073.37	2918.74	576.70	112.03	1.78	5.15	5.06
19073.37	19185.40	2460.35	520.52	112.04	1.50	4.65	4.73
19185.40 LB	19447.50	19362.92	2530.29	262.99	11.81	9.65	7.65
19447.50	19709.60	37973.16	3787.17	262.44	23.15	14.45	10.03
19709.60	19971.70	32805.30	3467.74	262.22	20.00	13.23	9.46
19971.70	20233.80	35314.62	3623.94	262.11	21.53	13.83	9.74
20233.80	20495.90 RB	26104.82	3034.49	264.60	15.92	11.58	8.60

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18849.30	18961.33	2548.31	462.35	83.05	1.55	6.06	5.51
18961.33	19073.37	3016.42	576.66	112.03	1.84	5.15	5.23
19073.37	19185.40	2542.65	520.48	112.04	1.55	4.65	4.89
19185.40 LB	19447.50	19921.01	2530.19	262.99	12.15	9.65	7.87
19447.50	19709.60	39068.47	3787.07	262.44	23.82	14.45	10.32
19709.60	19971.70	33751.41	3467.65	262.22	20.58	13.23	9.73
19971.70	20233.80	36333.17	3623.85	262.11	22.15	13.83	10.03
20233.80	20495.90 RB	26818.58	3034.39	265.18	16.35	11.58	8.84

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.42

INPUT
Description: 204.42

Right Channel Bank Station Interpolated
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17576	985.4	17608.5	985.2	17708	984.7	17783.2	985.9	17832.4	987.2
17853.5	986.1	17871.5	986.6	17926.9	986	17956.8	985.7	18023.8	985.6
18149.3	988.2	18169.7	988.1	18191.3	988.5	18226.7	987.2	18239	992.9
18240.3	993.2	18241.4	992.8	18249.3	987	18255.2	986.8	18279.8	990.2
18308.3	987.7	18322.1	985.5	18347.4	985.3	18488.4	983.7	18517.8	983
18560.8	983.8	18635.1	982.4	18650.1	983	18667.7	983	18723.8	982.5
18733.2	982.4	18795.2	981.7	18839.1	981.2	18874.1	983.2	18899.1	981.9
18955.6	982.5	18998.6	983.3	19025.4	984.6	19040.4	981.3	19045	980.6
19052.9	980.4	19095.4	981.9	19166.1	982.1	19255.9	982	19280.2	982
19341.8	981.8	19381.9	981.6	19437	981.1	19475.3	981	19500.2	980.6
19543.1	978.9	19552.9	979.1	19561.9	978.3	19576.9	979.5	19599.7	980.5
19616.5	980.7	19649.2	979.5	19653	978.6	19672.9	972.5	19732	972.5
19781.3	972.6	19794.7	975.8	19805.4	972.9	19824.4	972.6	19905.9	971.4
19930	972.8	19954.4	972.4	19966.8	973.5	19992	972.4	20006.4	972.1
20057.7	972.3	20101.5	973	20150.5	972	20162.2	972.1	20303.9	972.1
20322.7	972.1	20397.5	972.3	20434.6	971.9	20454.2	972.5	20468.3	973.3
20548.4	973.9	20577.1	973.9	20609.6	973.2	20616.9	972.5	20646	972.8
20682.0	9987.6656	20689.7	990.8	20701.7	992.2	20714.4	988.5	20967	988.5

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17576	.025	18839.1	.037	19025.4	.037	20689.7	.037	20701.7	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19025.4	20682.09	430	453	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17576	18874.1	993.2	20689.7	20967	993.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	986.40	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.36	Wt. n-Val.	0.037	0.037	
E.G. Elev (ft)	987.76	Reach Len. (ft)	430.00	453.00	500.00
Crit W.S. (ft)	982.73	Flow Area (sq ft)	550.34	17165.11	
E.G. Slope (ft/ft)	0.002432	Area (sq ft)	2664.73	17165.11	
Q Total (cfs)	164000.00	Flow (cfs)	2577.06	161422.94	
Top Width (ft)	2778.70	Top Width (ft)	1125.08	1653.63	
Vel Total (ft/s)	9.26	Avg. Vel. (ft/s)	4.68	9.40	
Max Chl Dpth (ft)	15.00	Hydr. Depth (ft)	3.64	10.38	
Conv. Total (cfs)	3325542.5	Conv. (cfs)	52256.9	3273285.5	
Length Wtd. (ft)	452.82	Wetted Per. (ft)	151.38	1658.94	
Min Ch El (ft)	971.40	Shear (lb/sq ft)	0.55	1.57	
Alpha	1.02	Stream Power (lb/ft s)	2.58	14.77	
Frctn Loss (ft)	1.11	Cum Volume (acre-ft)	4398.12	14956.02	946.44
C & E Loss (ft)	0.00	Cum SA (acres)	1256.52	1700.27	511.27

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	986.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.42	Wt. n-Val.		0.037	
E.G. Elev (ft)	987.80	Reach Len. (ft)	430.00	453.00	500.00
Crit W.S. (ft)	982.70	Flow Area (sq ft)		17122.72	
E.G. Slope (ft/ft)	0.002535	Area (sq ft)		17122.72	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	1653.56	Top Width (ft)		1653.56	
Vel Total (ft/s)	9.58	Avg. Vel. (ft/s)		9.58	
Max Chl Dpth (ft)	14.98	Hydr. Depth (ft)		10.36	
Conv. Total (cfs)	3257584.8	Conv. (cfs)		3257584.8	
Length Wtd. (ft)	453.00	Wetted Per. (ft)		1660.65	
Min Ch El (ft)	971.40	Shear (lb/sq ft)		1.63	
Alpha	1.00	Stream Power (lb/ft s)		15.63	
Frctn Loss (ft)	1.13	Cum Volume (acre-ft)	315.62	15500.42	30.85
C & E Loss (ft)	0.02	Cum SA (acres)	54.40	1702.37	5.87

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18832.15	18928.77	1140.39	225.33	54.71	0.70	4.12	5.06
18928.77	19025.40	1436.67	325.01	96.67	0.88	3.36	4.42
19025.40 LB	19356.74	7508.62	1503.04	331.78	4.58	4.54	5.00
19356.74	19688.08	14007.36	2186.95	332.53	8.54	6.60	6.40
19688.08	20019.41	48338.22	4596.70	332.23	29.47	13.87	10.52
20019.41	20350.75	50082.77	4690.56	331.35	30.54	14.16	10.68
20350.75	20682.09 RB	41485.98	4187.85	331.05	25.30	12.76	9.91

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19025.40 LB	19356.74	7558.95	1494.55	333.56	4.61	4.51	5.06
19356.74	19688.08	14193.55	2178.46	332.53	8.65	6.57	6.52
19688.08	20019.41	49147.74	4588.20	332.23	29.97	13.85	10.71
20019.41	20350.75	50924.64	4682.07	331.35	31.05	14.13	10.88
20350.75	20682.09 RB	42175.11	4179.44	330.98	25.72	12.73	10.09

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.34

INPUT
Description: 204.34

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18066.2	985.2	18081.3	985	18158.1	983.7	18200	983.2	18226	984
18228.2	983.4	18283.2	983.4	18339.1	987.8	18395.4	986.8	18498.7	986.6
18514.4	986.2	18516	986.7	18586.8	985.6	18638.2	981.3	18678.3	981
18721.9	979.9	18774.5	984.6	18806.4	982.8	18806.6	981.1	18864.9	982.2
18888.3	975.4	18906.9	980.7	18919.1	979.8	18932.5	981.8	18936.3	983.3
18988.6	982.9	19004.9	982.1	19086.4	981.7	19100	981.6	19184.5	981.5
19245.5	981	19310.8	980.7	19329.3	980.7	19389.4	980.3	19453.4	979.8
19487.9	979.5	19552	979.2	19615.6	978.7	19689.1	978.5	19736.5	978.7
19757.1	988.9	19782.1	971.2	19783.9	970.6	19819.5	969.3	19835.1	971.8
19891	971	19954.9	970.8	20009.4	971.2	20054.1	972.9	20100.5	973.1
20107.5	972.7	20175.2	972.5	20253	971.7	20324.6	971.9	20395.6	971.7
20465.2	971.4	20539.7	971.3	20603.2	971.5	20661.9	971.9	20671.8	972
20743.2	970.2	20773.2	970	20795.3	976.9	20816.2	3986.0935	20827.4	991
20878.6	990.5	20887.2	987	22239.1	987.1	22248.4	987.2	22254.3	988.2
22259.5	985.8	22266.1	987.7	22287.1	988.3	22317.8	988		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18066.2	.025	18774.5	.037	20827.4	.037	20878.6	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19100	20816.23		495	488	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18066.2	19100	991	20827.4	22317.8	991

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	985.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.37	Wt. n-Val.		0.037	
E.G. Elev (ft)	986.65	Reach Len. (ft)	495.00	488.00	480.00
Crit W.S. (ft)	981.49	Flow Area (sq ft)		17463.06	
E.G. Slope (ft/ft)	0.002470	Area (sq ft)	2118.03	17463.06	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2452.20	Top Width (ft)	750.25	1701.95	
Vel Total (ft/s)	9.39	Avg. Vel. (ft/s)		9.39	
Max Chl Dpth (ft)	15.98	Hydr. Depth (ft)		10.26	
Conv. Total (cfs)	3299596.5	Conv. (cfs)		3299596.5	
Length Wtd. (ft)	488.00	Wetted Per. (ft)		1711.20	
Min Ch El (ft)	969.30	Shear (lb/sq ft)		1.57	
Alpha	1.00	Stream Power (lb/ft s)		14.78	
Frctn Loss (ft)	1.97	Cum Volume (acre-ft)	4374.52	14775.96	946.44
C & E Loss (ft)	0.22	Cum SA (acres)	1247.26	1682.83	511.27

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	985.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.37	Wt. n-Val.		0.037	
E.G. Elev (ft)	986.65	Reach Len. (ft)	495.00	488.00	480.00
Crit W.S. (ft)	981.49	Flow Area (sq ft)		17469.40	
E.G. Slope (ft/ft)	0.002474	Area (sq ft)		17469.40	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	

Top Width (ft)	1701.97	Top Width (ft)		1701.97	
Vel Total (ft/s)	9.39	Avg. Vel. (ft/s)		9.39	
Max Chl Dpth (ft)	15.98	Hydr. Depth (ft)		10.26	
Conv. Total (cfs)	3296929.0	Conv. (cfs)		3296929.0	
Length Wtd. (ft)	488.00	Wetted Per. (ft)		1714.83	
Min Ch El (ft)	969.30	Shear (lb/sq ft)		1.57	
Alpha	1.00	Stream Power (lb/ft s)		14.77	
Frctn Loss (ft)	1.97	Cum Volume (acre-ft)	315.62	15320.55	30.85
C & E Loss (ft)	0.22	Cum SA (acres)	54.40	1684.93	5.87

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19100.00 LB	19443.25	7328.71	1498.59	343.25	4.47	4.37	4.89
19443.25	19786.49	12890.99	2087.45	336.94	7.86	6.31	6.18
19786.49	20129.74	49897.43	4738.58	343.52	30.43	13.81	10.53
20129.74	20472.98	47327.23	4589.15	343.25	28.86	13.37	10.31
20472.98	20816.23 RB	46555.64	4549.29	344.23	28.39	13.33	10.23

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19100.00 LB	19443.25	7286.45	1499.87	346.86	4.44	4.37	4.86
19443.25	19786.49	12900.38	2088.68	336.96	7.87	6.31	6.18
19786.49	20129.74	49908.54	4739.86	343.52	30.43	13.81	10.53
20129.74	20472.98	47338.47	4590.43	343.25	28.86	13.37	10.31
20472.98	20816.23 RB	46566.17	4550.56	344.24	28.39	13.33	10.23

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.25

INPUT
Description: 204.25

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 202

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13993.51	986.91	4130.56	987.41	14486.44	987.43	14755.8	987.03	14937.72	987.04
15050.6	988.11	5090.94	987.57	15102.07	987.57	15109.44	988.64	15116.98	989.38
15128.77	988.11	5132.01	987.97	15140	988.47	15148.98	986.93	15153.86	985.73
15173.36	986.21	5690.75	986.18	15878.25	985.18	15889.67	986.28	15904.51	988.05
15907.38	988.11	5919.42	987.92	15924.1	987.47	15931.02	985.83	15970.22	986.25

```
   16049   986.116175.22  986.0216450.56  986.1616463.91  986.2916480.31  987.87
16486.56   987.416495.93   987.116504.19  987.7916511.66   987.916518.49  987.78
16535.99   985.816542.09  985.62   16555  985.5516564.89  984.2816584.86  984.26
16687.99   984.816810.65  985.2916823.94  985.32 16873.9  984.7316893.09  984.53
16922.74   984.6 16941.4  984.2616960.75  984.6616990.05  984.3317020.18  984.79
17048.94   986.617091.64  985.2817177.92      98517208.14   985.117249.69  984.95
17398.31   984.317414.87  984.49 17522.6  984.3917556.82  984.2117600.03  984.35
17721.19   984.217812.48  984.25 17851.5  984.8117861.89  984.59 17867.1  984.93
17880.92     98517892.56  984.3517898.26  983.9217932.23  986.4917944.09  986.98
 17988.7   986.718005.49  986.89 18050.6  987.5718083.28  987.6218106.23  986.76
18158.97   986.818174.45   987.118185.88  987.1218240.34  986.9218277.05  986.27
18300.85   986.118323.52  985.5518372.65  985.1418410.49  985.0818449.87  985.08
18490.27   985.5 18520.4  985.1518569.61   985.8 18587.9  985.7618609.93   985.4
18633.73   984.818652.28  984.25 18660.4  983.8518672.96  983.4118703.66  978.51
18719.46   976.218724.94   975.718730.59  976.2818765.73  981.3818788.83  981.86
18812.39     98218851.86  982.6718856.84  982.0218876.79  980.9318917.58  980.72
18958.37   980.818990.64  980.15 19005.3   981.3   19038  982.5519054.34  981.71
19061.47   981.919088.33  981.0319097.24  980.6119117.27  982.08 19126.5  981.33
19134.63   980.819139.73  980.7919178.34  980.9919189.92  980.9119237.27  980.78
19263.33   980.219297.08  979.95   19300 979.93619332.52  979.7819361.32  979.52
19438.75  979.41 19458.3   979.519506.35   978.719519.13  978.8519527.66  978.72
19542.19  978.7319623.64   978.619631.41   978.619649.23  978.6319696.73  978.82
19703.53  975.7119717.53   970.2   19739   971.319747.27  974.51 19771.1  974.27
20035.47  970.8820227.56   972.420273.64  972.3620297.51  972.19 20307.7  971.98
20309.92  971.7420357.54   969.8 20436.7  969.4420448.29  969.4520499.51  969.22
20526.05  969.29 20588.3   969.720612.99  970.1420643.57  971.0820655.61  971.37
20680.85  971.2420705.02   971.520710.67  971.3720740.01  974.1420776.89  977.31
20818.53981.025320830.46  982.09 20922.2   989.620964.06  989.9520995.89  990.41
21004.86  987.3921018.73  981.0821052.72   981.121087.73  980.7921108.33  980.92
21157.66   981.421178.54  981.5221210.73   981.221262.99  982.6321279.42  982.45
21290.06  979.4521361.92  980.42 21408.6   981.221446.51   981.421456.08  981.58
21481.84  981.6121499.03  981.7121649.19   981.921681.55  982.0721787.28  982.66
21862.63   982.921876.61  982.9521939.71   983.421983.01  983.3822043.39  983.78
22083.67  984.1722130.05  984.4322172.04   984.422225.83  984.5822265.02  984.87
22339.34  986.3522389.33  985.4622416.26   985.922438.79  986.0322474.98  986.32
22486.29  987.5222500.35  987.24

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
13993.51    .03518812.39    .03221290.06    .025

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         1930020818.53              510     508     500             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
13993.51   19300     990 20922.222500.35     990

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)              980.90   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                 3.56   Wt. n-Val.                              0.032
  E.G. Elev (ft)              984.46   Reach Len. (ft)             510.00     508.00     500.00
  Crit W.S. (ft)              980.90   Flow Area (sq ft)                    10836.17
  E.G. Slope (ft/ft)        0.007743   Area (sq ft)                277.17   10836.17      82.22
  Q Total (cfs)            164000.00   Flow (cfs)                          164000.00
  Top Width (ft)             1993.71   Top Width (ft)              339.45    1517.18     137.09
  Vel Total (ft/s)             15.13   Avg. Vel. (ft/s)                        15.13
  Max Chl Dpth (ft)            11.68   Hydr. Depth (ft)                         7.14
  Conv. Total (cfs)        1863777.4   Conv. (cfs)                         1863777.4
  Length Wtd. (ft)            508.00   Wetted Per. (ft)                     1520.08
  Min Ch El (ft)              969.22   Shear (lb/sq ft)                        3.45
  Alpha                         1.00   Stream Power (lb/ft s)                 52.15
  Frctn Loss (ft)               1.15   Cum Volume (acre-ft)       4360.91   14617.45     945.99
  C & E Loss (ft)               0.79   Cum SA (acres)             1241.07    1664.79     510.51


Warning - The energy equation could not be balanced within the specified number of iterations.
The
                program used critical depth for the water surface and continued on with the
calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
                than 0.7 or greater than 1.4.  This may indicate the need for additional cross
sections.
```

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	980.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.56	Wt. n-Val.		0.032	
E.G. Elev (ft)	984.46	Reach Len. (ft)	510.00	508.00	500.00
Crit W.S. (ft)	980.90	Flow Area (sq ft)		10836.17	
E.G. Slope (ft/ft)	0.007749	Area (sq ft)		10836.17	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	1517.18	Top Width (ft)		1517.18	
Vel Total (ft/s)	15.13	Avg. Vel. (ft/s)		15.13	
Max Chl Dpth (ft)	11.68	Hydr. Depth (ft)		7.14	
Conv. Total (cfs)	1862986.1	Conv. (cfs)		1862986.1	
Length Wtd. (ft)	508.00	Wetted Per. (ft)		1521.05	
Min Ch El (ft)	969.22	Shear (lb/sq ft)		3.45	
Alpha	1.00	Stream Power (lb/ft s)		52.16	
Frctn Loss (ft)	1.15	Cum Volume (acre-ft)	315.62	15162.00	30.85
C & E Loss (ft)	0.79	Cum SA (acres)	54.40	1666.89	5.87

Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19300.00 LB	19603.71	2653.76	510.41	303.72	1.62	1.68	5.20
19603.71	19907.41	21707.48	1806.80	306.07	13.24	5.95	12.01
19907.41	20211.12	45748.31	2817.28	303.72	27.90	9.28	16.24
20211.12	20514.82	54503.68	3129.57	303.76	33.23	10.30	17.42
20514.82	20818.53 RB	39386.77	2572.11	302.80	24.02	8.51	15.31

Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates

that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19300.00 LB	19603.71	2648.22	510.41	304.68	1.61	1.68	5.19
19603.71	19907.41	21708.23	1806.80	306.07	13.24	5.95	12.01
19907.41	20211.12	45749.88	2817.28	303.72	27.90	9.28	16.24
20211.12	20514.82	54505.55	3129.57	303.76	33.24	10.30	17.42
20514.82	20818.53 RB	39388.12	2572.11	302.80	24.02	8.51	15.31

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need
for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to
critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.15

INPUT
Description: 204.15

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 80

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16507.2	984.4	16600	985	16650.2	986.1	16657.8	983.8	16666.8	986
16708.7	983.2	16800.2	983.6	16895.3	983.8	16963.7	983.3	17111.7	982.5
17141.8	982.4	17289.1	982.7	17397	983.7	17427.8	983.8	17571.9	983.4
17609.8	983.3	17719.7	983.5	17833.6	983	17949.9	982.8	18031.8	984.3
18081.2	983.6	18087	981.9	18093.6	985.1	18094.5	983.7	18130.3	986
18214.6	985.6	18280.4	986.6	18357.2	984.7	18446.1	985.5	18578.2	984.4
18725.8	984.7	18824.1	985.3	18862.3	983.1	18888.3	980.6	18907	981.1
18955.1	980	19045.1	979.6	19065.5	979.9	19074.1	976.8	19104	969
19192.6	971.7	19200	971.7	19310.3	971.7	19331.3	970.9	19446.3	971.9
19486.8	971.6	19501.3	966.1	19595	966	19644.2	966.2	19661	973.6
19681	970.2	19769.8	971.6	19860.6	972.7	19968.4	974.8	20027.5	972.3
20066.1	967.9	20074.7	967.9	20209.5	968	20337.2	968.2	20441.7	967.7
20540.9	966.7	20554.5	966.5	20580.4	968.8	20679.7	967.8	20753.2	967.1
20790.2	968.9	20795.8	969.9	20814.5	969.5	20911.6	969.2	20940	967.1
20986.5	968.3	21033.38	981.5	872 21042.6	984.2	21131.4	985.3	21379.2	985.3
22652.4	985.2	22684.9	986.3	22693	983.9	22700.1	985.5	22708.9	985.4

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16507.2	.035	18824.1	.032	21131.4	.025	21379.2	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19200	21033.38	510	509	510	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16507.2	19200	986.6

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft) 981.17 Element Left OB Channel Right OB

Vel Head (ft)	0.93	Wt. n-Val.		0.032	
E.G. Elev (ft)	982.09	Reach Len. (ft)	510.00	509.00	510.00
Crit W.S. (ft)	975.80	Flow Area (sq ft)		21240.53	
E.G. Slope (ft/ft)	0.001058	Area (sq ft)	1488.74	21240.53	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2149.48	Top Width (ft)	317.59	1831.89	
Vel Total (ft/s)	7.72	Avg. Vel. (ft/s)		7.72	
Max Chl Dpth (ft)	15.17	Hydr. Depth (ft)		11.59	
Conv. Total (cfs)	5042849.5	Conv. (cfs)		5042849.5	
Length Wtd. (ft)	509.00	Wetted Per. (ft)		1837.25	
Min Ch El (ft)	966.00	Shear (lb/sq ft)		0.76	
Alpha	1.00	Stream Power (lb/ft s)		5.89	
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	4350.57	14430.41	945.51
C & E Loss (ft)	0.02	Cum SA (acres)	1237.22	1645.26	509.72

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	981.18	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.92	Wt. n-Val.		0.032	
E.G. Elev (ft)	982.11	Reach Len. (ft)	510.00	509.00	510.00
Crit W.S. (ft)	975.80	Flow Area (sq ft)		21274.52	
E.G. Slope (ft/ft)	0.001059	Area (sq ft)		21274.52	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	1831.89	Top Width (ft)		1831.89	
Vel Total (ft/s)	7.71	Avg. Vel. (ft/s)		7.71	
Max Chl Dpth (ft)	15.18	Hydr. Depth (ft)		11.61	
Conv. Total (cfs)	5038951.0	Conv. (cfs)		5038951.0	
Length Wtd. (ft)	509.00	Wetted Per. (ft)		1846.75	
Min Ch El (ft)	966.00	Shear (lb/sq ft)		0.76	
Alpha	1.00	Stream Power (lb/ft s)		5.87	
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	315.62	14974.76	30.85
C & E Loss (ft)	0.02	Cum SA (acres)	54.40	1647.37	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19200.00 LB	19566.68	28562.18	3921.51	367.70	17.42	10.69	7.28
19566.68	19933.35	27532.34	3839.59	368.55	16.79	10.47	7.17
19933.35	20300.03	31980.11	4193.41	366.99	19.50	11.44	7.63
20300.03	20666.71	41505.86	4902.44	366.79	25.31	13.37	8.47
20666.71	21033.38 RB	34419.51	4383.58	367.21	20.99	12.00	7.85

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19200.00 LB	19566.68	28170.83	3928.32	377.19	17.18	10.71	7.17
19566.68	19933.35	27621.77	3846.39	368.55	16.84	10.49	7.18
19933.35	20300.03	32076.01	4200.22	366.99	19.56	11.45	7.64
20300.03	20666.71	41614.07	4909.24	366.79	25.37	13.39	8.48
20666.71	21033.38 RB	34517.33	4390.35	367.23	21.05	12.02	7.86

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.05

INPUT
Description: 204.05

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18304.1	982.1	18322.9	981.3	18412.7	981.2	18490.1	981.1	18499.9	981.4
18523	980.8	18527.4	981.7	18530.5	980.8	18552.5	980.6	18585.3	987.2
18649.8	986.5	18710.4	987.1	18782.2	985.8	18858.9	986.9	18882.3	985.9
18903.8	986.2	18952	984.5	18962.59	980.697	18970.1	978	18992.5	968.5
19020.9	971.4	19097.5	973.6	19099.9	973.6	19168.9	971.6	19234.1	970.7
19315.1	973.1	19401.3	974.1	19432.4	974.2	19453	972.9	19510.9	971.5
19570.9	965.6	19644.7	967.7	19662	968.9	19741.3	971.7	19784.3	975.1
19860.9	975.2	19946.2	976.1	20026.3	975.5	20061.6	973.5	20142.4	974.9
20200.7	974.3	20222.7	972.5	20272.6	972.8	20286.9	973.4	20327.7	971.7
20354.5	969.2	20434.3	970.9	20491.6	971.4	20536	969.7	20605	969.1

20618.5	968.7	20679.5	965	20701.3	965.4	20715.6	967	20746.4	966
20828.1	965.9	20914.2	966.5	20930	968.1	20994	968.4	21024.5	966.7
21045.1	967	21067.8	975.8	21081.7	698	0.6981	21090.6	983.8	21160.1	983.8
22668.7	984.2	22676.7	984.2	22773.1	984.3	22829	984.6	22836.3	985.6
22843	983.5	22852.2	986	22860.7	985.9				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18304.1	.05	18552.5	.035	18858.9	.032	21090.6	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18962.59	21081.76	510	505	520	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
18304.1	18750	987.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	980.27	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.12	Wt. n-Val.		0.032	
E.G. Elev (ft)	981.39	Reach Len. (ft)	510.00	505.00	520.00
Crit W.S. (ft)	976.82	Flow Area (sq ft)		19320.24	
E.G. Slope (ft/ft)	0.001759	Area (sq ft)		19320.24	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2116.76	Top Width (ft)		2116.76	
Vel Total (ft/s)	8.49	Avg. Vel. (ft/s)		8.49	
Max Chl Dpth (ft)	15.27	Hydr. Depth (ft)		9.13	
Conv. Total (cfs)	3910394.8	Conv. (cfs)		3910394.8	
Length Wtd. (ft)	505.00	Wetted Per. (ft)		2123.09	
Min Ch El (ft)	965.00	Shear (lb/sq ft)		1.00	
Alpha	1.00	Stream Power (lb/ft s)		8.48	
Frctn Loss (ft)	1.42	Cum Volume (acre-ft)	4341.86	14193.43	945.51
C & E Loss (ft)	0.10	Cum SA (acres)	1235.36	1622.19	509.72

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	980.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.11	Wt. n-Val.		0.032	
E.G. Elev (ft)	981.41	Reach Len. (ft)	510.00	505.00	520.00
Crit W.S. (ft)	976.82	Flow Area (sq ft)		19370.37	
E.G. Slope (ft/ft)	0.001744	Area (sq ft)		19370.37	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2116.76	Top Width (ft)		2116.76	
Vel Total (ft/s)	8.47	Avg. Vel. (ft/s)		8.47	
Max Chl Dpth (ft)	15.29	Hydr. Depth (ft)		9.15	
Conv. Total (cfs)	3927263.3	Conv. (cfs)		3927263.3	
Length Wtd. (ft)	505.00	Wetted Per. (ft)		2123.13	
Min Ch El (ft)	965.00	Shear (lb/sq ft)		0.99	
Alpha	1.00	Stream Power (lb/ft s)		8.41	
Frctn Loss (ft)	1.35	Cum Volume (acre-ft)	315.62	14737.29	30.85
C & E Loss (ft)	0.09	Cum SA (acres)	54.40	1624.30	5.87

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18962.59 LB	19386.42	24823.52	3352.55	425.23	15.14	7.93	7.40
19386.42	19810.26	33699.30	4024.45	424.44	20.55	9.50	8.37

19810.26	20234.09	13030.04	2274.66	423.99	7.95	5.37	5.73
20234.09	20657.93	35478.80	4149.46	424.13	21.63	9.79	8.55
20657.93	21081.76 RB	56968.35	5519.11	425.30	34.74	13.06	10.32

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18962.59 LB	19386.42	24844.42	3362.56	425.25	15.15	7.96	7.39
19386.42	19810.26	33701.32	4034.49	424.44	20.55	9.52	8.35
19810.26	20234.09	13072.42	2284.70	423.99	7.97	5.39	5.72
20234.09	20657.93	35476.49	4159.49	424.13	21.63	9.81	8.53
20657.93	21081.76 RB	56905.34	5529.12	425.33	34.70	13.08	10.29

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 203.96

INPUT
Description: 203.96

Right Channel Bank Staion Interpolated
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16511.6	983.5	16713.4	983.8	16774.3	983.9	16908.7	984.4	16963.5	986.3
16968.1	982.5	16973.8	984.3	17039.3	980.6	17126.9	980	17138.9	980
17175.8	974.9	17222.8	980.2	17277.4	983.2	17284.8	982.3	17330	982.5
17366.5	984.4	17465.6	982.2	17576.8	981.2	17680.4	980.6	17774.7	979.6
17869.9	981.4	17958.4	981.2	18010.3	980.8	18015.8	982.2	18024.6	982.8
18047.1	980.2	18070.6	981.5	18128.1	982.9	18242.5	983.3	18284.4	984.3
18384	982.4	18469.6	983.6	18481.1	980.9	18496.2	979.1	18583.4	978
18607.3	975.5	18626.7	976.9	18657.9	976	18690	978.1	18723.2	976.2
18730.8	978.5	18760	974.5	18783.2	969.3	18801.2	968.9	18811.7	967.4
18891.8	971.9	18902.5	971.8	18997.2	971.4	19057.4	972	19069.5	973.6
19145.7	973.5	19201.5	971.8	19284.9	973.5	19375	977.1	19427.1	976
19471.7	976.7	19531.2	976.1	19556.4	976.8	19606.4	965.6	19696.9	968.3
19784.2	968.9	19847.3	971.5	19965.6	970.7	19998.5	972.3	20089.8	973.2
20179.8	972.3	20254.9	970.6	20367	970.8	20411.5	970.7	20421.4	969.4
20435.9	965.4	20451.7	964.7	20529.6	965	20554.9	967	20642.7	965.7
20735.2	964.2	20738.9	964.1	20767.7	971.2	20790.3	8978.7	3393 20803.5	983.1
20835.5	994.9	20850.3	995.2	20872.5	997.5	20910.1	984.2	20997.3	981.9
21108.2	981.9	21539.6	982	21552	986.1	21559.4	984.2	21657.7	986.4
21694	988.5								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16511.6	.025	17175.8	.043	18469.6	.043	18902.5	.032	20835.5	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18730.8	20790.38	495	502	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16511.6	18730.8	997.5	20835.5	21694	997.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	977.71	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.15	Wt. n-Val.		0.033	
E.G. Elev (ft)	979.86	Reach Len. (ft)	495.00	502.00	505.00

Crit W.S. (ft)	976.68	Flow Area (sq ft)		13938.40	
E.G. Slope (ft/ft)	0.005221	Area (sq ft)	202.32	13938.40	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2225.52	Top Width (ft)	174.76	2050.76	
Vel Total (ft/s)	11.77	Avg. Vel. (ft/s)		11.77	
Max Chl Dpth (ft)	13.61	Hydr. Depth (ft)		6.80	
Conv. Total (cfs)	2269793.8	Conv. (cfs)		2269793.8	
Length Wtd. (ft)	502.00	Wetted Per. (ft)		2056.11	
Min Ch El (ft)	964.10	Shear (lb/sq ft)		2.21	
Alpha	1.00	Stream Power (lb/ft s)		26.00	
Frctn Loss (ft)	0.90	Cum Volume (acre-ft)	4340.67	14000.64	945.51
C & E Loss (ft)	0.43	Cum SA (acres)	1234.34	1598.04	509.72

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	977.98	Element			
Vel Head (ft)	1.99	Wt. n-Val.		0.033	
E.G. Elev (ft)	979.97	Reach Len. (ft)	495.00	502.00	505.00
Crit W.S. (ft)	976.68	Flow Area (sq ft)		14478.25	
E.G. Slope (ft/ft)	0.004601	Area (sq ft)		14478.25	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2050.76	Top Width (ft)		2050.76	
Vel Total (ft/s)	11.33	Avg. Vel. (ft/s)		11.33	
Max Chl Dpth (ft)	13.88	Hydr. Depth (ft)		7.06	
Conv. Total (cfs)	2417851.8	Conv. (cfs)		2417851.8	
Length Wtd. (ft)	502.00	Wetted Per. (ft)		2056.64	
Min Ch El (ft)	964.10	Shear (lb/sq ft)		2.02	
Alpha	1.00	Stream Power (lb/ft s)		22.90	
Frctn Loss (ft)	0.83	Cum Volume (acre-ft)	315.62	14541.09	30.85
C & E Loss (ft)	0.39	Cum SA (acres)	54.40	1600.14	5.87

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18730.80 LB	19142.72	21710.98	2442.08	407.32	13.24	6.01	8.89
19142.72	19554.63	7150.86	1164.96	412.06	4.36	2.83	6.14
19554.63	19966.55	41719.32	3360.47	413.26	25.44	8.16	12.41
19966.55	20378.46	24421.30	2434.02	411.98	14.89	5.91	10.03
20378.46	20790.38 RB	68997.53	4536.87	411.49	42.07	11.10	15.21

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18730.80 LB	19142.72	22034.41	2549.01	407.58	13.44	6.28	8.64
19142.72	19554.63	7836.49	1273.39	412.06	4.78	3.09	6.15

19554.63	19966.55	41559.26	3468.91	413.26	25.34	8.42	11.98
19966.55	20378.46	24811.94	2542.45	411.98	15.13	6.17	9.76
20378.46	20790.38 RB	67757.89	4644.49	411.76	41.32	11.36	14.59

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 203.86

INPUT
Description: 203.86

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17504.9	979.4	17555	980.7	17589.4	982.1	17613.5	980.8	17620.6	979.8
17657.6	978.3	17694.3	979.8	17718.4	978.9	17729	980.8	17762.1	977.4
17780.7	978.7	17821.9	984.3	17861.6	984.2	17888.2	982.4	17897.5	983.2
17930.6	983.2	17969.6	984.1	17989.1	983.6	18013.3	984	18044.9	981.7
18064.4	979.2	18096.7	981.5	18136.8	979.8	18171.7	980	18207.5	982
18243.1	982.7	18290.8	981.3	18353.7	982	18421.5	981.7	18458.6	982.1
18488.1	978.2	18540.3	978.5	18564	971	18599.5	968.8	18660.4	971
18700.2	971.8	18760.2	970	18806.7	971.3	18853.4	969.4	18891.2	969
18974.3	973.5	19064.8	976.5	19077.3	975.8	19161.8	973.4	19223.1	970.5
19246.5	967.4	19268.5	965.8	19288.8	962.4	19365.2	962.6	19365.7	962.6
19450.7	962.8	19451.6	962.8	19539.2	963.1	19611.5	963	19690.6	962.4
19743.6	962.3	19811.2	962.7	19858.2	963.1	19928.9	963.6	19992.8	963.8
20013.5	963.8	20076.4	964	20099.2	964	20196.1	964.2	20254.4	964.2
20298.4	964.5	20318.1	968.2	20429.2	967.6	20486.9	967.6	20543.1	968.6
20555	966.5	20576	964.2	20634.3	964.2	20650.7	964.2	20663.3	965.7
20676.9	965.8	20697.7	967.2	20730.9	976.1	20735.9	978.6	323 20761.9	991.8
20803.3	981	20878.5	982.5	20946.4	982.5	20965.7	981.1	21031.2	980.5
21099.9	980.6	21167.6	980.7	21198.2	981	21258.8	981.1	21324.9	981
21359.8	980.5	21368.4	981	21395.8	980.4	21405.9	982.4	21411.7	980.4
21482.6	980.2	21488.8	980.2						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17504.9	.043	18243.1	.043	18891.2	.032	20761.9	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18488.1	20735.9	505	498	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17504.9	18243.1	991.8	20761.9	21488.8	991.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	977.81	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.72	Wt. n-Val.		0.033	
E.G. Elev (ft)	978.53	Reach Len. (ft)	505.00	498.00	480.00
Crit W.S. (ft)	971.81	Flow Area (sq ft)		24032.46	
E.G. Slope (ft/ft)	0.000902	Area (sq ft)	1.99	24032.46	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2201.57	Top Width (ft)	9.79	2191.78	
Vel Total (ft/s)	6.82	Avg. Vel. (ft/s)		6.82	
Max Chl Dpth (ft)	15.51	Hydr. Depth (ft)		10.96	
Conv. Total (cfs)	5460354.5	Conv. (cfs)		5460354.5	
Length Wtd. (ft)	498.00	Wetted Per. (ft)		2196.26	
Min Ch El (ft)	962.30	Shear (lb/sq ft)		0.62	
Alpha	1.00	Stream Power (lb/ft s)		4.21	
Frctn Loss (ft)	0.44	Cum Volume (acre-ft)	4339.51	13781.85	945.51
C & E Loss (ft)	0.03	Cum SA (acres)	1233.29	1573.59	509.72

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	978.06	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.		0.033	
E.G. Elev (ft)	978.75	Reach Len. (ft)	505.00	498.00	480.00
Crit W.S. (ft)	971.81	Flow Area (sq ft)		24588.70	
E.G. Slope (ft/ft)	0.000838	Area (sq ft)		24588.70	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2191.78	Top Width (ft)		2191.78	
Vel Total (ft/s)	6.67	Avg. Vel. (ft/s)		6.67	
Max Chl Dpth (ft)	15.76	Hydr. Depth (ft)		11.22	
Conv. Total (cfs)	5666331.0	Conv. (cfs)		5666331.0	
Length Wtd. (ft)	498.00	Wetted Per. (ft)		2196.77	
Min Ch El (ft)	962.30	Shear (lb/sq ft)		0.59	
Alpha	1.00	Stream Power (lb/ft s)		3.90	
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	315.62	14315.98	30.85
C & E Loss (ft)	0.03	Cum SA (acres)	54.40	1575.69	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18488.10 LB	18937.66	11177.53	2862.13	396.49	6.82	7.24	3.91
18937.66	19387.22	17059.54	3334.93	450.33	10.40	7.42	5.12
19387.22	19836.78	55613.65	6772.03	449.56	33.91	15.06	8.21
19836.78	20286.34	48950.15	6272.82	449.56	29.85	13.95	7.80
20286.34	20735.90 RB	31199.12	4790.54	450.31	19.02	10.69	6.51

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18488.10 LB	18937.66	11418.78	2962.41	396.75	6.96	7.50	3.85
18937.66	19387.22	17413.36	3449.02	450.33	10.62	7.67	5.05
19387.22	19836.78	55187.56	6886.13	449.56	33.65	15.32	8.01
19836.78	20286.34	48681.91	6386.91	449.56	29.68	14.21	7.62
20286.34	20735.90 RB	31298.40	4904.22	450.57	19.08	10.95	6.38

CROSS SECTION RIVER: 1
REACH: 1 RS: 203.77

INPUT
Description: 203.77

Left and Right Channel Bank Staions Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15516.5	980.4	15611.3	979.8	15668.7	980.9	15700.1	979.6	15734.7	982.9
15797.9	987.2	15835	986	15865.2	981.2	15920	981.4	15937.6	976.9
15947.6	978.2	15969.6	982.9	15985.2	984.3	16056.9	984.3	16076.8	983.7
16103.9	981.6	16184.4	981.2	16265.9	982.1	16312.5	981.7	16348.3	982.1
16366.7	978.9	16400.4	980.3	16452.6	980.5	16569.1	980.4	16622.2	980.5
16857.6	980.3	17032.7	979.9	17052.5	979.9	17220.4	979.9	17326.1	979.2
17424.8	979	17450	979.3	17461.6	980.3	17495.9	980.1	17515.6	978.2
17558.9	979.2	17678.1	978.7	17709.3	979.1	17747.1	977.4	17826.8	982.9
17879.9	983.7	17902.1	982.1	17924.4	981.6	18003.9	982.8	18091.9	980.7
18117.2	979.8	18191	981.8	18222.6	1978.2	686 18227.7	977.7	18281.9	974.6
18343.8	974.4	18371.2	970.5	18451.7	968.1	18515.7	969.6	18591.7	968.7
18603.5	969.7	18721.8	967.3	18770.9	970.5	18803.6	971.5	18834.8	974.6
18888.2	976.1	18941.5	973.8	18956.3	972.3	18974.2	976.6	18983.5	976.3
19032.5	965.6	19113.9	965.1	19224	964.8	19282.2	964.6	19290.6	969.7
19307.6	974.2	19313.1	973.7	19322.8	969.5	19338.6	967.2	19345.7	964.7
19426.8	964.5	19492.9	964.4	19606.6	964.2	19685.9	964.3	19717.5	964.1
19865.4	964.1	19957	963.3	20019.3	964.3	20221.9	964.3	20253.9	964.3
20282.3	966.5	20325.8	965.1	20328.7	964.2	20338.6	965.4	20430	966.2
20524.9	966.2	20609.1	966.4	20684.8	966.7	20728.9	97120745.6	1978.2	692
20746.6	978.7	20820.8	981.2	20854	997.6				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15516.5	.025	17495.9	.043	18191	.043	18803.6	.032	20820.8	.025

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

18222.6120745.61 490 498 480 .1 .3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15516.5	18191	997.6	20820.8	20854	997.6

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	977.43	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.63	Wt. n-Val.		0.033	
E.G. Elev (ft)	978.06	Reach Len. (ft)	490.00	498.00	480.00
Crit W.S. (ft)	971.55	Flow Area (sq ft)		25745.47	
E.G. Slope (ft/ft)	0.000873	Area (sq ft)	1.65	25745.47	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2518.53	Top Width (ft)	7.27	2511.27	
Vel Total (ft/s)	6.37	Avg. Vel. (ft/s)		6.37	
Max Chl Dpth (ft)	14.13	Hydr. Depth (ft)		10.25	
Conv. Total (cfs)	5549480.0	Conv. (cfs)		5549480.0	
Length Wtd. (ft)	497.87	Wetted Per. (ft)		2519.22	
Min Ch El (ft)	963.30	Shear (lb/sq ft)		0.56	
Alpha	1.00	Stream Power (lb/ft s)		3.55	
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	4339.49	13497.31	945.51
C & E Loss (ft)	0.00	Cum SA (acres)	1233.19	1546.71	509.72

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	977.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.60	Wt. n-Val.		0.033	
E.G. Elev (ft)	978.32	Reach Len. (ft)	490.00	498.00	480.00
Crit W.S. (ft)	971.55	Flow Area (sq ft)		26473.22	
E.G. Slope (ft/ft)	0.000799	Area (sq ft)		26473.22	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2511.27	Top Width (ft)		2511.27	
Vel Total (ft/s)	6.19	Avg. Vel. (ft/s)		6.19	
Max Chl Dpth (ft)	14.42	Hydr. Depth (ft)		10.54	
Conv. Total (cfs)	5803367.0	Conv. (cfs)		5803367.0	
Length Wtd. (ft)	497.94	Wetted Per. (ft)		2519.80	
Min Ch El (ft)	963.30	Shear (lb/sq ft)		0.52	
Alpha	1.00	Stream Power (lb/ft s)		3.24	
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	315.62	14024.09	30.85
C & E Loss (ft)	0.01	Cum SA (acres)	54.40	1548.81	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18222.61 LB	18727.21	12491.28	3428.22	495.29	7.62	6.93	3.64
18727.21	19231.81	19352.65	3856.20	506.68	11.80	7.64	5.02
19231.81	19736.41	44647.66	6229.16	508.10	27.22	12.34	7.17
19736.41	20241.01	51117.81	6737.46	504.61	31.17	13.35	7.59
20241.01	20745.61 RB	36390.59	5494.42	504.54	22.19	10.93	6.62

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18222.61 LB	18727.21	12795.71	3571.61	495.58	7.80	7.22	3.58
18727.21	19231.81	19707.65	4002.44	506.68	12.02	7.93	4.92
19231.81	19736.41	44418.54	6375.40	508.10	27.08	12.63	6.97
19736.41	20241.01	50708.88	6883.69	504.61	30.92	13.64	7.37
20241.01	20745.61 RB	36369.23	5640.09	504.83	22.18	11.22	6.45

CROSS SECTION RIVER: 1
REACH: 1 RS: 203.67

INPUT
Description: 203.67

Right Channel Bank Staion Interpolated

Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15401.1	982.5	15424.7	984.1	15508.1	982.3	15591.4	979.1	15681.8	979.9
15787.8	979.3	15920	979.3	16055.7	978.9	16157.5	979.1	16260.6	979.3
16282.2	979.2	16477	979.1	16627.1	979.9	16750.8	980.1	16865.7	979.3
16957.3	981.3	16980.5	980.6	17002.4	977.7	17014.1	979.2	17103.7	973.3
17179.5	973.2	17215.7	975.7	17267.4	969.7	17366.5	975.6	17541.8	974.3
17694.8	973.7	17837.2	974.1	17962.6	973.8	17982.5	973.7	18104.5	972.8
18289.3	972.9	18348.9	975.3	18350.2	973.2	18394.8	968.7	18516.9	971.1
18627.3	969.9	18690.1	970.4	18740.2	966.8	18787.4	966.3	18802.9	968.2
18941.9	973.8	19049	974.1	19155.9	972.4	19180.7	975.8	19211.3	962.3
19411.4	963.8	19519	963.9	19654.3	964.2	19798.6	964.3	19832.9	964.3
20036.1	964.3	20137.2	965.3	20302.2	963	20432.8	965.2	20537.5	965.2
20656.2	965.3	20661.5	965.6	20693.5	975.1	20699.3977.8097		20708.7	982.2
20796	983.8	20827.7	980.1	20837	982.9	20858.2	981.6	21858.6	983.5
21904.3	982.5	23520.4	980	23527.3	982.8	23545.1	983.5	23556.1	980.2
23584.2	981.5	23593	977.2	23603.5	980.1	23621	979.7		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15401.1	.025	16957.3	.037	18348.9	.037	18941.9	.032	20708.7	.032
20796	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18348.9	20699.3	470	490	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15401.1	17837.2	984.1	20708.7	23621	984.1

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	976.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.	0.037	0.033	
E.G. Elev (ft)	977.61	Reach Len. (ft)	470.00	490.00	505.00
Crit W.S. (ft)	971.55	Flow Area (sq ft)	1810.34	23834.66	
E.G. Slope (ft/ft)	0.000940	Area (sq ft)	4151.50	23834.66	
Q Total (cfs)	164000.00	Flow (cfs)	5175.86	158824.14	
Top Width (ft)	3648.90	Top Width (ft)	1300.38	2348.53	
Vel Total (ft/s)	6.40	Avg. Vel. (ft/s)	2.86	6.66	
Max Chl Dpth (ft)	14.63	Hydr. Depth (ft)	3.54	10.15	
Conv. Total (cfs)	5348269.5	Conv. (cfs)	168792.0	5179477.5	
Length Wtd. (ft)	489.59	Wetted Per. (ft)	511.75	2355.25	
Min Ch El (ft)	962.30	Shear (lb/sq ft)	0.21	0.59	
Alpha	1.06	Stream Power (lb/ft s)	0.59	3.96	
Frctn Loss (ft)	0.46	Cum Volume (acre-ft)	4316.13	13213.89	945.51
C & E Loss (ft)	0.00	Cum SA (acres)	1225.84	1518.93	509.72

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	977.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.66	Wt. n-Val.	0.037	0.033	
E.G. Elev (ft)	977.89	Reach Len. (ft)	470.00	490.00	505.00
Crit W.S. (ft)	971.55	Flow Area (sq ft)	882.55	24524.42	
E.G. Slope (ft/ft)	0.000885	Area (sq ft)	882.55	24524.42	
Q Total (cfs)	164000.00	Flow (cfs)	2635.68	161364.31	
Top Width (ft)	2567.43	Top Width (ft)	218.90	2348.53	
Vel Total (ft/s)	6.45	Avg. Vel. (ft/s)	2.99	6.58	
Max Chl Dpth (ft)	14.93	Hydr. Depth (ft)	4.03	10.44	
Conv. Total (cfs)	5511952.0	Conv. (cfs)	88583.8	5423368.0	
Length Wtd. (ft)	489.82	Wetted Per. (ft)	223.36	2355.54	
Min Ch El (ft)	962.30	Shear (lb/sq ft)	0.22	0.58	
Alpha	1.03	Stream Power (lb/ft s)	0.65	3.79	
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	310.65	13732.58	30.85
C & E Loss (ft)	0.01	Cum SA (acres)	53.17	1521.03	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17759.34	17955.86	895.57	353.06	118.66	0.55	2.98	2.54
17955.86	18152.38	2152.26	731.08	196.53	1.31	3.72	2.94
18152.38	18348.90	2128.01	726.19	196.57	1.30	3.70	2.93
18348.90 LB	18818.98	15637.87	3458.30	471.77	9.54	7.36	4.52
18818.98	19289.06	12516.62	2829.54	473.27	7.63	6.02	4.42

19289.06	19759.14	47244.71	6144.90	470.08	28.81	13.07	7.69
19759.14	20229.22	43596.76	5855.71	470.09	26.58	12.46	7.45
20229.22	20699.30 RB	39828.20	5546.21	470.03	24.29	11.85	7.18

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17955.86	18152.38	280.90	98.64	26.79	0.17	4.41	2.85
18152.38	18348.90	2354.76	783.91	196.57	1.44	3.99	3.00
18348.90 LB	18818.98	16220.13	3596.36	471.77	9.89	7.65	4.51
18818.98	19289.06	13164.30	2967.60	473.27	8.03	6.31	4.44
19289.06	19759.14	47640.69	6282.97	470.08	29.05	13.37	7.58
19759.14	20229.22	44041.71	5993.77	470.09	26.85	12.75	7.35
20229.22	20699.30 RB	40297.51	5683.72	470.32	24.57	12.14	7.09

CROSS SECTION RIVER: 1
REACH: 1 RS: 203.58

INPUT
Description: 203.58

Right Channel Bank Staion Interpolated
Station Elevation Data num= 75

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15526.8	983.1	15573.8	984.7	15577.9	981.7	15586.4	984.8	15648.9	982.8
15684.7	983.7	15735.5	978.7	15806.7	977.9	15925.6	978.3	15954.8	978.2
16031.7	974.4	16204.9	973.9	16321.4	974.3	16490.9	975.4	16570	975.3
16706.6	974.9	16819.9	975.7	16971.3	975.7	17120	975.1	17136.9	976.6
17168.4	976.1	17202.6	978.2	17251.4	973.9	17388.1	976	17458.2	974.6
17489	971.8	17596.3	976.7	17707.8	975.2	17790.7	972.4	17873.7	975.6
17978	974.3	18064.9	975.2	18204	975.9	18355.4	971.3	18433.8	971.3
18553.6	967.4	18636	970.5	18664.8	967.3	18681	970.8	18724	969.1
18765.5	971	18876.6	970.7	18988.9	970	19101.4	968.2	19228.7	965.4
19261.3	964.2	19337.3	967.8	19426.3	965.2	19456.9	967.4	19474	963.9
19482.9	963.9	19725.9	963.6	19842.5	963.6	19929.1	963.8	20222.2	963.5
20355.7	963.9	20380	963.9	20543.8	963.6	20636	963.9	20645.5	962.1
20704.98	977.3868	20706.2	977.7	20767.4	979.5	20782.3	981.3	20788.1	979.3
20818.3	979.5	20825.7	982.3	20859.8	981.5	22062.2	983.3	22098	982.2
23711.2	980	23724.5	982.4	23738.8	982.8	23750.9	979.2	23783	979.2

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15526.8	.025	17202.6	.037	18204	.037	18681	.032	20782.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18204	20704.98	560	513	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15526.8	17707.8	984.8	20782.3	23783	984.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	976.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.68	Wt. n-Val.	0.037	0.032	
E.G. Elev (ft)	977.14	Reach Len. (ft)	560.00	513.00	495.00
Crit W.S. (ft)	971.51	Flow Area (sq ft)	859.86	24479.72	
E.G. Slope (ft/ft)	0.000946	Area (sq ft)	3274.29	24479.72	
Q Total (cfs)	164000.00	Flow (cfs)	1531.70	162468.31	
Top Width (ft)	4630.90	Top Width (ft)	2133.51	2497.39	
Vel Total (ft/s)	6.47	Avg. Vel. (ft/s)	1.78	6.64	
Max Chl Dpth (ft)	14.37	Hydr. Depth (ft)	1.73	9.80	
Conv. Total (cfs)	5333318.5	Conv. (cfs)	49811.2	5283507.5	
Length Wtd. (ft)	514.20	Wetted Per. (ft)	496.32	2500.83	
Min Ch El (ft)	962.10	Shear (lb/sq ft)	0.10	0.58	
Alpha	1.04	Stream Power (lb/ft s)	0.18	3.84	
Frctn Loss (ft)	0.56	Cum Volume (acre-ft)	4276.07	12942.15	945.51
C & E Loss (ft)	0.00	Cum SA (acres)	1207.31	1491.67	509.72

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	976.81	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.65	Wt. n-Val.	0.037	0.032	
E.G. Elev (ft)	977.46	Reach Len. (ft)	560.00	513.00	495.00
Crit W.S. (ft)	971.51	Flow Area (sq ft)	248.25	25348.25	
E.G. Slope (ft/ft)	0.000858	Area (sq ft)	248.25	25348.25	
Q Total (cfs)	164000.00	Flow (cfs)	360.44	163639.56	
Top Width (ft)	2676.39	Top Width (ft)	179.00	2497.39	
Vel Total (ft/s)	6.41	Avg. Vel. (ft/s)	1.45	6.46	
Max Chl Dpth (ft)	14.71	Hydr. Depth (ft)	1.39	10.15	
Conv. Total (cfs)	5599106.5	Conv. (cfs)	12305.7	5586801.0	
Length Wtd. (ft)	513.05	Wetted Per. (ft)	181.03	2501.17	
Min Ch El (ft)	962.10	Shear (lb/sq ft)	0.07	0.54	
Alpha	1.01	Stream Power (lb/ft s)	0.11	3.50	
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)	304.55	13452.07	30.85
C & E Loss (ft)	0.00	Cum SA (acres)	51.02	1493.77	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17668.56	17847.04	873.09	388.76	139.33	0.53	2.79	2.25
17847.04	18025.52	443.66	285.97	178.51	0.27	1.60	1.55
18025.52	18204.00	214.95	185.13	178.48	0.13	1.04	1.16
18204.00 LB	18704.20	10662.53	2790.35	500.96	6.50	5.58	3.82
18704.20	19204.39	17942.16	3511.34	500.30	10.94	7.02	5.11
19204.39	19704.59	40777.16	5748.64	500.78	24.86	11.49	7.09
19704.59	20204.79	48928.46	6409.88	500.20	29.83	12.81	7.63
20204.79	20704.98 RB	44158.00	6019.51	498.60	26.93	12.12	7.34

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17847.04	18025.52	0.68	1.05	2.55	0.00	2.02	0.65
18025.52	18204.00	359.75	247.20	178.48	0.22	1.39	1.46
18204.00 LB	18704.20	11250.01	2964.31	500.96	6.86	5.93	3.80
18704.20	19204.39	18553.96	3685.29	500.30	11.31	7.37	5.03
19204.39	19704.59	40884.42	5922.60	500.78	24.93	11.84	6.90
19704.59	20204.79	48809.68	6583.83	500.20	29.76	13.16	7.41
20204.79	20704.98 RB	44141.48	6192.22	498.94	26.92	12.47	7.13

CROSS SECTION RIVER: 1
REACH: 1 RS: 203.48

INPUT
Description: 203.48

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15578.8	977.1	15693.5	976.9	15717.9	977	15814.4	976.9	15880.9	978.5
15900.7	978.2	15967.5	973.1	16013.9	973.9	16068.7	973.5	16168.1	973.8
16324.7	974	16419.6	974.1	16584.4	974.1	16657.7	974.3	16810.8	974.5
16932.4	974.5	17066.5	974.6	17177.1	974.2	17201.7	974.2	17312.2	975.1
17301.6	976	17341.7	975.7	17369.6	978.2	17434.9	970.7	17473.9	969.3
17535.6	971.3	17609.4	970.9	17714.8	972.8	17721.6	972.8	17841.5	973.7
17932.6	974	18016.7	972.4	18039.3	972.1	18120.3	973.5	18171.8	968
18184	969.1	18267.5	973.4	18353.5	970.9	18380.1	969.8	18439	969.7
18521.1	965.52	18538.6	965.3	18561.3	969.6	18571.7	970	18619.2	968.6
18635.6	969.2	18675.5	973.1	18730.7	972.2	18817.1	970.9	18956	969.1
18991.1	970.6	19035.5	973.7	19082.7	974.1	19116.8	968.9	19177.6	972.2
19217.3	970.5	19332.9	970.5	19399.6	962.9	19491.7	962.7	19584.5	965.1
19624.3	962.2	19645.8	962.3	19669.3	965	19679.4	965.3	19794.5	963.4
19884.7	963.3	19987.2	964.5	20013.9	964.4	20199.2	964	20220.6	964.7
20227.4	967.6	20231.3	963.9	20325.6	963.9	20342.5	963.9	20345.7	965.5
20353.5	967.3	20358.6	964.3	20404	963.2	20433.1	965.2	20458.7	965
20480	963.1	20588.9	964.7	20638.4	966.8	20725.1	968.7	20785.1	971.2
20856.76	976.9083	20866.7	977.7	20886.7	979.4	20901.8	978.6	20909.2	979.5
20915.7	978.5	20925.9	979.4	20953.9	979.4	20960.7	978.7	20985.4	978.7
20989.2	980.3	20999	981.2						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15578.8	.025	17369.6	.037	17932.6	.037	18619.2	.032	20886.7	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17932.62	0856.76	500	505.82	515	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15578.8	17369.6	981.2	20999	20999	981.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	975.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.	0.037	0.032	
E.G. Elev (ft)	976.58	Reach Len. (ft)	500.00	505.82	515.00
Crit W.S. (ft)	972.02	Flow Area (sq ft)	2009.07	23607.95	
E.G. Slope (ft/ft)	0.001248	Area (sq ft)	4384.08	23607.95	
Q Total (cfs)	164000.00	Flow (cfs)	6814.83	157185.16	
Top Width (ft)	4863.74	Top Width (ft)	1952.03	2911.71	
Vel Total (ft/s)	6.40	Avg. Vel. (ft/s)	3.39	6.66	
Max Chl Dpth (ft)	13.72	Hydr. Depth (ft)	3.70	8.11	
Conv. Total (cfs)	4642055.0	Conv. (cfs)	192895.3	4449159.5	
Length Wtd. (ft)	505.61	Wetted Per. (ft)	543.50	2918.40	
Min Ch El (ft)	962.20	Shear (lb/sq ft)	0.29	0.63	
Alpha	1.05	Stream Power (lb/ft s)	0.98	4.20	
Frctn Loss (ft)	0.65	Cum Volume (acre-ft)	4226.84	12658.99	945.51
C & E Loss (ft)	0.00	Cum SA (acres)	1181.05	1459.82	509.72

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	976.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.		0.033	
E.G. Elev (ft)	976.94	Reach Len. (ft)	500.00	505.82	515.00
Crit W.S. (ft)	971.95	Flow Area (sq ft)		24567.62	
E.G. Slope (ft/ft)	0.001196	Area (sq ft)		24567.62	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2911.71	Top Width (ft)		2911.71	
Vel Total (ft/s)	6.68	Avg. Vel. (ft/s)		6.68	
Max Chl Dpth (ft)	14.05	Hydr. Depth (ft)		8.44	
Conv. Total (cfs)	4742309.0	Conv. (cfs)		4742309.0	
Length Wtd. (ft)	505.82	Wetted Per. (ft)		2920.97	
Min Ch El (ft)	962.20	Shear (lb/sq ft)		0.63	
Alpha	1.00	Stream Power (lb/ft s)		4.19	
Frctn Loss (ft)	0.62	Cum Volume (acre-ft)	302.96	13158.15	30.85
C & E Loss (ft)	0.00	Cum SA (acres)	49.87	1461.92	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17304.92	17461.84	882.75	272.03	72.68	0.54	3.76	3.25
17461.84	17618.76	3359.55	825.37	156.96	2.05	5.26	4.07
17618.76	17775.68	1766.63	561.23	156.94	1.08	3.58	3.15
17775.68	17932.60	805.91	350.44	156.92	0.49	2.23	2.30
17932.60 LB	18517.43	10740.05	2788.82	585.48	6.55	4.77	3.85
18517.43	19102.26	13895.50	3016.55	585.87	8.47	5.16	4.61
19102.26	19687.10	37556.00	5418.84	585.85	22.90	9.27	6.93
19687.10	20271.93	56564.96	6933.41	586.93	34.49	11.86	8.16
20271.93	20856.76 RB	38428.65	5450.31	574.27	23.43	9.52	7.05

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17932.60 LB	18517.43	11757.81	2981.58	587.72	7.17	5.10	3.94
18517.43	19102.26	15100.28	3209.31	585.87	9.21	5.49	4.71
19102.26	19687.10	39087.03	5611.60	585.85	23.83	9.60	6.97
19687.10	20271.93	58136.55	7126.17	586.93	35.45	12.18	8.16
20271.93	20856.76 RB	39918.32	5638.96	574.60	24.34	9.85	7.08

CROSS SECTION RIVER: 1
REACH: 1 RS: 203.39

INPUT
Description: 203.39
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15500	974.4	15548.5	978.1	15604.9	974.8	15609.8	975.3	15717.3	976.3
15722.2	976.3	15836.5	975.1	15864.7	976.6	15875.6	973	15888.1	975.4
15914.3	976.1	16076.8	976.1	16271.9	976.2	16290.8	976.1	16376.9	976.2
16390.2	976.2	16520.6	976	16549.4	977.1	16694.9	973.2	16751.5	970.2
16832.2	968.6	16901	973.2	17053.7	971.4	17105.6	971.5	17120	974.9
17136.1	970.9	17147.5	974.3	17212	975.5	17260.9	972.8	17296.2	974.2
17353	971.2	17382.3	974.9	17417.1	974.8	17453.9	976.4	17519.2	968.1
17602.4	973.1	17694.4	971.8	17733.8	970.7	17815.5	973	17901.2	972.3
17947.7	972.1	17970.8	973	18042	972.8	18114	969.5	18199.7	969.1
18207.5	968.6	18224.3	964.4	18259.9	963.8	18330.5	967.6	18418.7	967.4
18507.8	969.8	18601.7	972.8	18629.1	974.7	18686.7	980.9	18738	974.3
18773.9	975.9	18902.4	975	19023.2	970.3	19056.6	971.7	19105.2	965.4
19218.1	968.3	19268.2	972	19346.8	971.4	19370.8	969.4	19397.9	965.7
19418.4	960.4	19479.4	959.9	19491.4	962	19633	960.6	19736.1	965
19770.9	965.7	19800.9	963.8	19816.1	965.5	19916.4	965	20010.4	963.8
20159.5	964.6	20260.9	963.8	20303.7	964.2	20330.3	963.1	20346	964.4
20389.8	962.9	20483.7	964.2	20485.1	964.9	20576.8	964.7	20682.1	965.3
20789.2	969.4	20834.2	971.9	20922.2	969.5	20993.5	968.3	21038.8	975.6
21082.9	975.6	21098.5	976.5	21138.2	977.4	21143.6	978.2	21153.1	976.5
21223	978.3								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15500	.025	16832.2	.037	17970.8	.037	18601.7	.032	21038.8	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17970.8	21038.8	500	505	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15500	17519.2	980.9	21223.3	21223	980.9

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	975.22	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.70	Wt. n-Val.	0.037	0.033	
E.G. Elev (ft)	975.93	Reach Len. (ft)	500.00	505.00	500.00
Crit W.S. (ft)	971.09	Flow Area (sq ft)	1495.59	23365.43	
E.G. Slope (ft/ft)	0.001331	Area (sq ft)	3865.57	23365.43	
Q Total (cfs)	164000.00	Flow (cfs)	4866.54	159133.47	
Top Width (ft)	4207.55	Top Width (ft)	1350.24	2857.31	
Vel Total (ft/s)	6.60	Avg. Vel. (ft/s)	3.25	6.81	
Max Chl Dpth (ft)	15.32	Hydr. Depth (ft)	3.31	8.18	
Conv. Total (cfs)	4495587.0	Conv. (cfs)	133402.0	4362185.0	
Length Wtd. (ft)	504.81	Wetted Per. (ft)	451.83	2861.48	
Min Ch El (ft)	959.90	Shear (lb/sq ft)	0.28	0.68	
Alpha	1.04	Stream Power (lb/ft s)	0.89	4.62	
Frctn Loss (ft)	0.73	Cum Volume (acre-ft)	4179.50	12386.26	945.51
C & E Loss (ft)	0.00	Cum SA (acres)	1162.10	1426.33	509.72

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	975.62	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.		0.033	
E.G. Elev (ft)	976.32	Reach Len. (ft)	500.00	505.00	500.00
Crit W.S. (ft)	971.08	Flow Area (sq ft)		24519.97	
E.G. Slope (ft/ft)	0.001254	Area (sq ft)		24519.97	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2930.04	Top Width (ft)		2930.04	
Vel Total (ft/s)	6.69	Avg. Vel. (ft/s)		6.69	
Max Chl Dpth (ft)	15.72	Hydr. Depth (ft)		8.37	
Conv. Total (cfs)	4631074.0	Conv. (cfs)		4631074.0	
Length Wtd. (ft)	505.00	Wetted Per. (ft)		2937.29	

Min Ch El (ft)	959.90	Shear (lb/sq ft)		0.65	
Alpha	1.00	Stream Power (lb/ft s)		4.37	
Frctn Loss (ft)	0.69	Cum Volume (acre-ft)	302.96	12873.15	30.85
C & E Loss (ft)	0.01	Cum SA (acres)	49.87	1428.01	5.87

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17476.64	17641.36	1718.27	478.32	122.32	1.05	3.92	3.59
17641.36	17806.08	1897.55	571.92	164.77	1.16	3.47	3.32
17806.08	17970.80	1250.72	445.34	164.75	0.76	2.70	2.81
17970.80 LB	18584.40	18239.18	3824.98	614.39	11.12	6.23	4.77
18584.40	19198.00	7075.83	1682.69	405.98	4.31	4.15	4.21
19198.00	19811.60	49257.53	6366.49	615.17	30.04	10.38	7.74
19811.60	20425.20	54087.54	6727.78	613.75	32.98	10.96	8.04
20425.20	21038.80 RB	30473.39	4763.48	612.19	18.58	7.79	6.40

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17970.80 LB	18584.40	19388.73	4069.79	617.01	11.82	6.63	4.76
18584.40	19198.00	7174.11	1858.89	478.77	4.37	3.89	3.86
19198.00	19811.60	50426.25	6611.31	615.17	30.75	10.77	7.63
19811.60	20425.20	55187.45	6972.60	613.75	33.65	11.36	7.91
20425.20	21038.80 RB	31823.46	5007.37	612.59	19.40	8.19	6.36

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 203.29

INPUT
Description: 203.29

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14306.7	975.2	14398.4	975.7	14462.6	975.2	14487	977.9	14491.6	976.6
14498.9	977.7	14515.3	976.7	14528	974	14553.9	972.7	14670.7	972.7
14687.5	972.7	14856.4	972.7	14867.5	972.7	15002.5	972.7	15006.1	972.7
15100.1	972.9	15122.5	975.2	15172.8	972.4	15364.8	972.7	15484.5	974
15649.2	973.6	15701.1	973.4	15710	975.9	15724.5	974.3	15776.8	976.4
15815.8	974	15918.9	974.9	15999.4	974.9	16112.9	975.4	16114.8	975.5
16293.6	975.5	16301	975.5	16411.1	976	16465.5	976	16664.1	976
16733.3	975.8	16808.3	976.1	16968.8	976.1	17062.2	976.1	17153	976.2
17251.7	975.1	17286.9	974.6	17327.4	969.3	17410.1	970.5	17467.7	974.5
17469.8	973.6	17539	974.4	17590	968.4	17649.5	971.4	17775.2	971.1
17888.5	970.4	17987.9	968.4	18065.6	972.5	18117.7	969.6	18146.3	971.6
18204.1	968.8	18247.3	971.6	18266.5	967.8	18378.2	963.9	18464	968.2
18535.2	966.5	18593.9	967.2	18627.7	974.8	18719.2	971.5	18838.7	974.7
18920	973.9	18947.9	969.3	19046.6	972.7	19166.7	971.8	19269	971.6
19295.1	965.4	19325.9	960.7	19447.7	960.9	19552.4	961.6	19655.6	961.1
19756.7	962.1	19849.6	963.4	19945.3	963	20028	965.9	20124.9	965.7
20226	965.2	20297.8	963.6	20378.8	964.4	20396.1	961.9	20494.8	962.8
20586	966.7	20676.2	969.1	20796.8	969	20894.8	969.2	20935.1	968.4
20981.6	969.2	21027.6	966.6	21082.58	975.7	482 21088.3	976.7	21155	977.1
21257.1	975.6	21295	976.3						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14306.7	.025	16968.8	.037	18065.6	.037	18535.2	.032	21088.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18065.621	082.58	620	535	420	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14306.7	17590	977.9	21088.3	21295	977.9

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	974.46	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.73	Wt. n-Val.	0.037	0.033	
E.G. Elev (ft)	975.20	Reach Len. (ft)	620.00	535.00	420.00
Crit W.S. (ft)	970.77	Flow Area (sq ft)	1911.74	22390.42	
E.G. Slope (ft/ft)	0.001572	Area (sq ft)	4404.29	22390.42	
Q Total (cfs)	164000.00	Flow (cfs)	7692.92	156307.08	
Top Width (ft)	4967.77	Top Width (ft)	2002.07	2965.71	
Vel Total (ft/s)	6.75	Avg. Vel. (ft/s)	4.02	6.98	
Max Chl Dpth (ft)	13.76	Hydr. Depth (ft)	4.02	7.55	
Conv. Total (cfs)	4136567.0	Conv. (cfs)	194038.3	3942528.8	
Length Wtd. (ft)	540.60	Wetted Per. (ft)	475.81	2970.14	
Min Ch El (ft)	960.70	Shear (lb/sq ft)	0.39	0.74	
Alpha	1.04	Stream Power (lb/ft s)	1.59	5.16	
Frctn Loss (ft)	0.91	Cum Volume (acre-ft)	4132.03	12121.04	945.51
C & E Loss (ft)	0.01	Cum SA (acres)	1142.86	1392.57	509.72

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	974.88	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.75	Wt. n-Val.		0.033	
E.G. Elev (ft)	975.63	Reach Len. (ft)	620.00	535.00	420.00
Crit W.S. (ft)	970.68	Flow Area (sq ft)		23633.34	
E.G. Slope (ft/ft)	0.001478	Area (sq ft)		23633.34	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	3009.26	Top Width (ft)		3009.26	
Vel Total (ft/s)	6.94	Avg. Vel. (ft/s)		6.94	
Max Chl Dpth (ft)	14.18	Hydr. Depth (ft)		7.85	
Conv. Total (cfs)	4265773.5	Conv. (cfs)		4265773.5	
Length Wtd. (ft)	535.03	Wetted Per. (ft)		3016.54	
Min Ch El (ft)	960.70	Shear (lb/sq ft)		0.72	
Alpha	1.00	Stream Power (lb/ft s)		5.02	
Frctn Loss (ft)	0.88	Cum Volume (acre-ft)	302.96	12594.02	30.85
C & E Loss (ft)	0.00	Cum SA (acres)	49.87	1393.58	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17564.41	17815.01	3041.22	814.42	225.08	1.85	3.62	3.73
17815.01	18065.60	4651.70	1097.31	250.72	2.84	4.38	4.24
18065.60 LB	18669.00	17267.19	3584.03	594.30	10.53	6.05	4.82
18669.00	19272.39	3513.84	1265.27	571.25	2.14	2.22	2.78
19272.39	19875.79	66836.17	7577.40	604.40	40.75	12.56	8.82
19875.79	20479.18	47165.16	6144.29	603.65	28.76	10.18	7.68
20479.18	21082.58 RB	21524.71	3819.44	596.53	13.12	6.41	5.64

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18065.60 LB	18669.00	18572.01	3832.58	607.53	11.32	6.35	4.85
18669.00	19272.39	4433.49	1511.77	604.01	2.70	2.51	2.93
19272.39	19875.79	68677.36	7827.76	604.40	41.88	12.97	8.77
19875.79	20479.18	49068.54	6394.65	603.65	29.92	10.60	7.67
20479.18	21082.58 RB	23248.59	4066.60	596.95	14.18	6.83	5.72

CROSS SECTION RIVER: 1
REACH: 1 RS: 203.19

INPUT
Description: 203.19

Right Channel Bank Staion Interpolated

Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16639.2	974.6	16696.5	974.6	16879.5	976.3	16960.6	976.7	16982.2	976.1
16987.1	975.2	16999.5	976.6	17045.2	975.2	17145.4	975	17180.8	974.8
17306.9	974	17389.7	974.5	17513.2	972.9	17539	972.7	17596.6	969.7
17650.2	971	17690.3	968.3	17762.5	967.5	17781.9	968.4	17812.7	966.2
17893.5	967.8	17945.6	971.7	18023.5	971.3	18058.7	964.6	18099.2	971.6
18139.8	972.1	18185.8	967.2	18251.5	970.8	18282.1	971.9	18338.2	971.3
18384.4	969	18406.2	969.7	18445.9	965.2	18495.1	966.4	18521	969
18558.4	964.7	18605.8	963.2	18623.9	961.2	18659	961.4	18701.5	965.4
18712.2	964.5	18734.5	964.5	18797.4	970	18848.7	968.9	18911.7	969.9
18983.1	969.7	19009.9	968.7	19025	967.1	19031	968.2	19080.8	968.8
19095.4	970.3	19159	970.9	19191.3	967.9	19256	967.2	19294.3	960.1
19346.5	959	19442.2	956.7	19471.8	962.7	19542.3	963	19643.7	963.4
19644.6	963.4	19721.9	962.3	19788.7	962.7	19870	964.6	19925.6	962.6
19971.9	966.8	20041.3	966	20111.2	965.3	20142.5	963.8	20233.9	963.3
20336.2	963.2	20384.6	963.4	20398.2	962.6	20462.1	962.2	20541.1	965.2
20570.6	966.9	20635.2	967.1	20669.2	965.5	20696.2	966.5	20752.9	964.7
20795.4	967.4	20825.2	966.9	20848.9	967.5	20865.3	966.7	20898.7	966.8
20928.5	970.1	20952.6	973.8	20965.3	9974.9827	20981.8	976.5	20999	975.6
21013	977.9	21075.8	975.9	21096.9	975.8	21174.9	976.1	21273.9	975.8
21344.5	975.8	21380	975.6						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16639.2	.025	17762.5	.043	18282.1	.043	18734.5	.037	20981.8	.025
21013	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18282.1	20965.39	535	520	485	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16639.2	17587	978

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	973.59	Element			
Vel Head (ft)	0.69	Wt. n-Val.	0.036	0.038	
E.G. Elev (ft)	974.28	Reach Len. (ft)	535.00	520.00	485.00
Crit W.S. (ft)	969.95	Flow Area (sq ft)	3019.47	22027.15	
E.G. Slope (ft/ft)	0.001787	Area (sq ft)	3161.07	22027.15	
Q Total (cfs)	164000.00	Flow (cfs)	13926.43	150073.56	
Top Width (ft)	3491.38	Top Width (ft)	822.24	2669.14	
Vel Total (ft/s)	6.55	Avg. Vel. (ft/s)	4.61	6.81	
Max Chl Dpth (ft)	16.89	Hydr. Depth (ft)	4.34	8.25	
Conv. Total (cfs)	3879641.0	Conv. (cfs)	329448.5	3550192.5	
Length Wtd. (ft)	521.19	Wetted Per. (ft)	697.10	2673.28	
Min Ch El (ft)	956.70	Shear (lb/sq ft)	0.48	0.92	
Alpha	1.03	Stream Power (lb/ft s)	2.23	6.26	
Frctn Loss (ft)	1.01	Cum Volume (acre-ft)	4078.19	11848.27	945.51
C & E Loss (ft)	0.01	Cum SA (acres)	1122.76	1357.97	509.72

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	973.95	Element			
Vel Head (ft)	0.79	Wt. n-Val.	0.043	0.038	
E.G. Elev (ft)	974.74	Reach Len. (ft)	535.00	520.00	485.00
Crit W.S. (ft)	970.00	Flow Area (sq ft)	48.25	22993.21	
E.G. Slope (ft/ft)	0.001849	Area (sq ft)	48.25	22993.21	
Q Total (cfs)	164000.00	Flow (cfs)	118.21	163881.80	
Top Width (ft)	2689.14	Top Width (ft)	20.00	2669.14	
Vel Total (ft/s)	7.12	Avg. Vel. (ft/s)	2.45	7.13	
Max Chl Dpth (ft)	17.25	Hydr. Depth (ft)	2.41	8.61	
Conv. Total (cfs)	3814344.8	Conv. (cfs)	2749.4	3811595.5	
Length Wtd. (ft)	520.03	Wetted Per. (ft)	22.78	2673.65	
Min Ch El (ft)	956.70	Shear (lb/sq ft)	0.24	0.99	
Alpha	1.00	Stream Power (lb/ft s)	0.60	7.07	
Frctn Loss (ft)	1.04	Cum Volume (acre-ft)	302.61	12307.69	30.85
C & E Loss (ft)	0.02	Cum SA (acres)	49.73	1358.71	5.87

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross

section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17515.41	17624.94	774.59	135.48	37.96	0.47	3.57	5.72
17624.94	17734.47	3098.28	475.72	109.63	1.89	4.34	6.51
17734.47	17843.99	3918.46	691.18	109.63	2.39	6.31	5.67
17843.99	17953.52	2130.49	526.22	109.68	1.30	4.80	4.05
17953.52	18063.05	1254.74	383.77	110.22	0.77	3.50	3.27
18063.05	18172.57	1136.54	361.68	110.25	0.69	3.30	3.14
18172.57	18282.10	1613.32	445.42	109.72	0.98	4.07	3.62
18282.10 LB	18818.76	19347.59	3698.24	537.98	11.80	6.89	5.23
18818.76	19355.42	17102.61	3178.52	537.77	10.43	5.92	5.38
19355.42	19892.07	52013.30	6193.19	537.33	31.72	11.54	8.40
19892.07	20428.73	37075.95	5053.29	536.94	22.61	9.42	7.34
20428.73	20965.39 RB	24534.11	3903.90	523.26	14.96	7.47	6.28

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18172.57	18282.10	118.21	48.25	22.78	0.07	2.41	2.45
18282.10 LB	18818.76	21484.57	3892.48	537.98	13.10	7.25	5.52
18818.76	19355.42	19250.30	3372.76	537.77	11.74	6.28	5.71
19355.42	19892.07	55835.27	6387.43	537.33	34.05	11.90	8.74
19892.07	20428.73	40256.38	5247.53	536.94	24.55	9.78	7.67
20428.73	20965.39 RB	27055.28	4093.02	523.63	16.50	7.83	6.61

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 203.09

INPUT
Description: 203.09

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16077.3	972.6	16108.8	973.2	16114.5	973.9	16141.2	974.9	16147	976.1
16177.1	975.5	16186.3	974.5	16217.9	974.3	16296.3	973.5	16396.3	973.6
16495.1	973.6	16619.4	973.4	16649.6	973.4	16802.2	973.6	16847.8	974.3
16927.3	974.4	16967.8	974.4	17063.1	975.3	17138.5	975.2	17150.2	974.9
17158.9	972.7	17171.5	974	17175.5	975.3	17183.4	974.2	17268	973.7
17382	973.8	17583.9	974.5	17588.1	974.4	17656.3	973	17724.5	971.9
17787.2	966	17835	968.2	17878.2	968.6	17889.9	967.6	17960.8	969
18034.5	970.7	18151.5	966.1	18178.5	966.8	18202.2	966.1	18277.6	970
18313.5	969.4	18321.1	969.7	18364.1	965.2	18437	969.5	18507	971.4
18541.2	970.5	18605.3	962.2	18681.6	963	18770.4	960.8	18814.5	971
18875.7	969	18992.4	969.2	19035.2	968.4	19104.8	968.6	19136.4	968
19190.2	961.9	19211.5	961.8	19247.1	964	19266.9	960.3	19282.4	958.7
19461.8	959.9	19573.5	959.6	19585.9	960.2	19653.1	960.1	19682.3	962.4
19752.6	963.1	19757	963.1	19865.5	961.3	19934.1	962.2	20005.1	964.6
20113.7	965.7	20184.3	965.7	20264.8	966	20287.7	966.2	20364.7	966.6
20397.2	966.4	20469.2	966.1	20498.9	964.4	20517.6	961.6	20546.5	960.5
20610.5	960.6	20636.9	964.4	20681.6	965.4	20709.6	964.4	20742.1	962.1
20765.3	962.2	20780	963.2	20812.8	959.6	20837.9	961.3	20914.8	2973.8939
20917.3	974.3	20926.9	975.4	20942.8	974.2	20972.4	973.4	21023.3	975.3
21111.6	973.6	21171	974.1						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16077.3	.025	17588.1	.043	18507	.043	18814.5	.037	20917.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18507	20914.82	520	518	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev

16077.3 17583.9 976.1 20917.3 21171 976.1

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	972.42	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.83	Wt. n-Val.	0.043	0.038	
E.G. Elev (ft)	973.25	Reach Len. (ft)	520.00	518.00	500.00
Crit W.S. (ft)	969.11	Flow Area (sq ft)	3133.13	20204.47	
E.G. Slope (ft/ft)	0.002112	Area (sq ft)	3133.13	20204.47	
Q Total (cfs)	164000.00	Flow (cfs)	12200.67	151799.33	
Top Width (ft)	3213.89	Top Width (ft)	815.04	2398.85	
Vel Total (ft/s)	7.03	Avg. Vel. (ft/s)	3.89	7.51	
Max Chl Dpth (ft)	13.72	Hydr. Depth (ft)	3.84	8.42	
Conv. Total (cfs)	3568365.0	Conv. (cfs)	265466.2	3302898.8	
Length Wtd. (ft)	518.12	Wetted Per. (ft)	816.06	2403.51	
Min Ch El (ft)	958.70	Shear (lb/sq ft)	0.51	1.11	
Alpha	1.08	Stream Power (lb/ft s)	1.97	8.33	
Frctn Loss (ft)	0.99	Cum Volume (acre-ft)	4039.54	11596.20	945.51
C & E Loss (ft)	0.02	Cum SA (acres)	1112.71	1327.72	509.72

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	972.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.94	Wt. n-Val.	0.043	0.038	
E.G. Elev (ft)	973.69	Reach Len. (ft)	520.00	518.00	500.00
Crit W.S. (ft)	969.01	Flow Area (sq ft)	185.01	20978.70	
E.G. Slope (ft/ft)	0.002162	Area (sq ft)	185.01	20978.70	
Q Total (cfs)	164000.00	Flow (cfs)	516.88	163483.11	
Top Width (ft)	2475.85	Top Width (ft)	77.00	2398.85	
Vel Total (ft/s)	7.75	Avg. Vel. (ft/s)	2.79	7.79	
Max Chl Dpth (ft)	14.05	Hydr. Depth (ft)	2.40	8.75	
Conv. Total (cfs)	3526953.3	Conv. (cfs)	11115.9	3515837.3	
Length Wtd. (ft)	518.00	Wetted Per. (ft)	80.70	2403.84	
Min Ch El (ft)	958.70	Shear (lb/sq ft)	0.31	1.18	
Alpha	1.01	Stream Power (lb/ft s)	0.86	9.18	
Frctn Loss (ft)	0.98	Cum Volume (acre-ft)	301.18	12045.23	30.85
C & E Loss (ft)	0.04	Cum SA (acres)	49.13	1328.46	5.87

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17535.12	17697.10	0.04	0.21	5.14	0.00	0.04	0.19
17697.10	17859.08	2137.67	579.78	162.31	1.30	3.58	3.69
17859.08	18021.06	2155.98	582.38	162.05	1.31	3.60	3.70
18021.06	18183.04	2813.83	683.33	162.08	1.72	4.22	4.12
18183.04	18345.02	2656.73	660.42	162.23	1.62	4.08	4.02
18345.02	18507.00	2436.41	627.00	162.24	1.49	3.87	3.89
18507.00 LB	18988.56	16501.03	2935.87	483.34	10.06	6.10	5.62
18988.56	19470.13	34252.87	4400.31	482.42	20.89	9.14	7.78
19470.13	19951.69	47566.93	5355.37	481.70	29.00	11.12	8.88
19951.69	20433.26	21029.63	3281.48	481.60	12.82	6.81	6.41
20433.26	20914.82 RB	32448.87	4231.45	474.45	19.79	8.95	7.67

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18345.02	18507.00	516.88	185.01	80.70	0.32	2.40	2.79
18507.00 LB	18988.56	18128.73	3091.29	483.34	11.05	6.42	5.86
18988.56	19470.13	36812.07	4555.73	482.42	22.45	9.46	8.08
19470.13	19951.69	50603.52	5510.79	481.70	30.86	11.44	9.18
19951.69	20433.26	23040.71	3436.91	481.60	14.05	7.14	6.70
20433.26	20914.82 RB	34898.09	4383.98	474.77	21.28	9.28	7.96

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 202.99

INPUT
Description: 202.99
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17058.5	973.2	17114.3	973.5	17267.7	973.8	17289	973.9	17305.6	974.4
17316.7	973.3	17329.5	974.7	17397.2	973.4	17508.3	973.5	17530.6	972.5
17571.7	973.2	17646.3	973.1	17659.9	972.5	17696.1	969.8	17713.5	970
17723.9	969.1	17781.1	967.5	17850.9	965.7	17864.6	967.2	17879.9	968
17893	968.2	17922	965.3	17941	964	17984.7	968.4	18035.6	970
18091.7	969.9	18126.6	969.7	18186.5	969.9	18238.3	970	18288.7	964.3
18293.1	963.9	18346.5	968.2	18360.3	967.9	18420.8	969.3	18469.4	969.3
18497.6	968.2	18580.4	968.7	18586.2	968.9	18608.3	967.1	18619.4	964.4
18650.8	965	18666.5	962.2	18686.7	961.6	18748.1	962.5	18789.2	962.8
18875	962.8	18906.3	963.4	18945.7	961.5	18988.8	963.5	19005.4	963.6
19058	964.4	19119.4	964.2	19128.8	964.3	19182	965.3	19208.5	964.3
19269.4	961.7	19318.8	960.3	19334.7	959.8	19391.3	959.8	19415.3	959.6
19435.9	960	19527.6	959.5	19609.2	959.5	19725.7	959.2	19759.9	960.9
19828.4	961.4	19945.2	960.7	19948	960.7	20028.5	959.3	20090	960.7
20131.7	963.1	20172.8	964.1	20227.9	965.4	20241.1	965.3	20304	965
20364.7	965.9	20422.1	964.9	20460.6	964.9	20528.6	963.3	20552.5	959.7
20558.2	959.8	20619.9	962.6	20665.6	962	20682.4	960.6	20692.5	959.3
20713.5	960.1	20748.9	960	20773.8	959.3	20789	960.3	20808	960.6
20818.5	963.8	20841.7	963.9	20894.5	963.1	20926.9	970.2	20960.7	976.4
20976	975.9								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17058.5	.025	17646.3	.043	18469.4	.043	19058	.037	20926.9	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18469.4	20926.9	480	456	424	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
17058.5	17646.3	976

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	971.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.75	Wt. n-Val.	0.043	0.038	0.043
E.G. Elev (ft)	972.24	Reach Len. (ft)	480.00	456.00	424.00
Crit W.S. (ft)	967.55	Flow Area (sq ft)	2580.34	22030.56	4.58
E.G. Slope (ft/ft)	0.001726	Area (sq ft)	2580.34	22030.56	4.58
Q Total (cfs)	164000.00	Flow (cfs)	8104.63	155890.52	4.86
Top Width (ft)	3260.60	Top Width (ft)	796.04	2457.50	7.06
Vel Total (ft/s)	6.66	Avg. Vel. (ft/s)	3.14	7.08	1.06
Max Chl Dpth (ft)	12.30	Hydr. Depth (ft)	3.24	8.96	0.65
Conv. Total (cfs)	3947902.5	Conv. (cfs)	195099.2	3752686.3	117.1
Length Wtd. (ft)	457.42	Wetted Per. (ft)	797.26	2460.41	7.18
Min Ch El (ft)	959.20	Shear (lb/sq ft)	0.35	0.96	0.07
Alpha	1.08	Stream Power (lb/ft s)	1.10	6.83	0.07
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	4005.44	11345.08	945.49
C & E Loss (ft)	0.04	Cum SA (acres)	1103.09	1298.84	509.68

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	971.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.79	Wt. n-Val.		0.038	
E.G. Elev (ft)	972.66	Reach Len. (ft)	480.00	456.00	424.00
Crit W.S. (ft)	967.53	Flow Area (sq ft)		22949.57	
E.G. Slope (ft/ft)	0.001673	Area (sq ft)		22949.57	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2457.50	Top Width (ft)		2457.50	
Vel Total (ft/s)	7.15	Avg. Vel. (ft/s)		7.15	
Max Chl Dpth (ft)	12.67	Hydr. Depth (ft)		9.34	
Conv. Total (cfs)	4009683.3	Conv. (cfs)		4009683.3	
Length Wtd. (ft)	456.00	Wetted Per. (ft)		2464.65	
Min Ch El (ft)	959.20	Shear (lb/sq ft)		0.97	

Alpha	1.00	Stream Power (lb/ft s)		6.95	
Frctn Loss (ft)	0.67	Cum Volume (acre-ft)	300.08	11784.04	30.85
C & E Loss (ft)	0.04	Cum SA (acres)	48.67	1299.58	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17622.86	17716.92	77.68	52.66	43.63	0.05	1.21	1.48
17716.92	17810.98	982.59	328.32	94.12	0.60	3.49	2.99
17810.98	17905.04	1544.96	430.96	94.24	0.94	4.58	3.58
17905.04	17999.10	1933.98	493.50	94.42	1.18	5.25	3.92
17999.10	18093.16	310.92	164.58	94.08	0.19	1.75	1.89
18093.16	18187.22	295.32	159.57	94.06	0.18	1.70	1.85
18187.22	18281.28	613.31	247.67	94.33	0.37	2.63	2.48
18281.28	18375.34	1800.98	472.63	94.30	1.10	5.02	3.81
18375.34	18469.40	544.88	230.44	94.07	0.33	2.45	2.36
18469.40 LB	18960.90	18205.04	3472.85	492.26	11.10	7.07	5.24
18960.90	19452.40	30831.26	4405.19	491.65	18.80	8.96	7.00
19452.40	19943.90	46772.05	5586.64	491.55	28.52	11.37	8.37
19943.90	20435.40	27447.84	4057.86	491.64	16.74	8.26	6.76
20435.40	20926.90 RB	32634.33	4508.02	493.31	19.90	9.17	7.24
20926.90	20930.17	4.00	3.26	3.33	0.00	1.00	1.23
20930.17	20933.45	0.86	1.29	3.33	0.00	0.40	0.66
20933.45	20936.72	0.00	0.02	0.53	0.00	0.05	0.16

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18469.40 LB	18960.90	19475.49	3656.65	494.83	11.88	7.44	5.33
18960.90	19452.40	32501.04	4588.99	491.65	19.82	9.34	7.08
19452.40	19943.90	48628.61	5770.44	491.55	29.65	11.74	8.43
19943.90	20435.40	29110.39	4241.66	491.64	17.75	8.63	6.86
20435.40	20926.90 RB	34284.46	4691.82	494.98	20.91	9.55	7.31

CROSS SECTION RIVER: 1
REACH: 1 RS: 202.9

INPUT
Description: 202.9

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16149.3	972.1	16219	972.6	16381.4	973.3	16446.1	973.3	16495.7	974.5
16526.4	971.9	16579.2	972.6	16597.9	974.5	16618	973.6	16631.4	972.3
16699.5	972.9	16755	974.1	16804	971.3	16823.8	973.1	16887.1	972.5
16957.5	972.2	16968.8	972.6	17046.9	971.4	17089.7	971.9	17151.8	972
17172.3	972.1	17235.7	971.8	17304.6	971.3	17369.1	970.9	17440.5	971.3
17504.7	971	17572.9	970.6	17644	970	17676.2	972.2	17699.3	970.6
17772.5	968.5	17815	965.7	17875.4	965.2	17896.7	963.8	17966.8	965.8
18000.2	967.5	18046.2	967	18087.7	964.4	18148.3	968.4	18203.5	967.3
18258.7	965	18308.6	967.1	18383	966.5	18433.6	966.6	18455.6	968.2
18517.5	967.7	18563	962.4	18611.6	961.8	18646	958.2	18714	961.6
18808.1	961.6	18872.7	961.1	18917	963.4	18971.7	963.8	19054.2	965.2
19121.2	965.8	19211.2	964.4	19215.4	966	19303.3	961.5	19368.9	960.3
19378.2	959.7	19431.8	961.6	19460.5	960.1	19592.2	957.9	19666.6	958.3
19722.9	960.9	19833.6	959	19903.1	959.5	19944.9	961	20063.7	959.6
20145.5	959.8	20206.7	960.4	20250.7	959.4	20318.7	958.5	20412.7	962.7
20460.7	961.4	20488.5	963.8	20502.9	964	20545	960.1	20596	959.7
20624.3	960.6	20694.4	959	20754.9	958.5	20806.5	956.5	20831.6	957.9
20858.2	961.1	20861.7	962.3	20936.5	969.5	20988.5	971.9	20993.5	972.3
21011	973.7	21025.1	975.7	21027.9	980.1	21042.4	977	21052.5	978.4
21066.1	978.5	21080	974.2						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16149.3	.025	17815	.043	18455.6	.043	18872.7	.037	21011	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18455.6	20993.5	575	538	460	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16149.3	17500	980.1

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	970.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.60	Wt. n-Val.	0.041	0.038	
E.G. Elev (ft)	971.52	Reach Len. (ft)	575.00	538.00	460.00
Crit W.S. (ft)	966.30	Flow Area (sq ft)	3303.07	23985.62	
E.G. Slope (ft/ft)	0.001285	Area (sq ft)	3303.15	23985.62	
Q Total (cfs)	164000.00	Flow (cfs)	11302.49	152697.52	
Top Width (ft)	3419.55	Top Width (ft)	907.84	2511.71	
Vel Total (ft/s)	6.01	Avg. Vel. (ft/s)	3.42	6.37	
Max Chl Dpth (ft)	14.42	Hydr. Depth (ft)	3.67	9.55	
Conv. Total (cfs)	4574211.5	Conv. (cfs)	315243.7	4258968.0	
Length Wtd. (ft)	540.74	Wetted Per. (ft)	901.09	2514.33	
Min Ch El (ft)	956.50	Shear (lb/sq ft)	0.29	0.77	
Alpha	1.07	Stream Power (lb/ft s)	1.01	4.87	
Frctn Loss (ft)	0.66	Cum Volume (acre-ft)	3973.02	11104.22	945.47
C & E Loss (ft)	0.02	Cum SA (acres)	1093.70	1272.83	509.65

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	971.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.		0.038	
E.G. Elev (ft)	971.95	Reach Len. (ft)	575.00	538.00	460.00
Crit W.S. (ft)	966.23	Flow Area (sq ft)		24881.97	
E.G. Slope (ft/ft)	0.001315	Area (sq ft)		24881.97	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2511.71	Top Width (ft)		2511.71	
Vel Total (ft/s)	6.59	Avg. Vel. (ft/s)		6.59	
Max Chl Dpth (ft)	14.78	Hydr. Depth (ft)		9.91	
Conv. Total (cfs)	4523202.0	Conv. (cfs)		4523202.0	
Length Wtd. (ft)	538.00	Wetted Per. (ft)		2517.77	
Min Ch El (ft)	956.50	Shear (lb/sq ft)		0.81	
Alpha	1.00	Stream Power (lb/ft s)		5.35	
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	300.08	11533.68	30.85
C & E Loss (ft)	0.02	Cum SA (acres)	48.67	1273.57	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17379.33	17533.08	0.18	0.67	15.06	0.00	0.04	0.26
17533.08	17686.83	74.82	58.60	124.45	0.05	0.47	1.28
17686.83	17840.59	1447.08	399.91	146.07	0.88	2.74	3.62
17840.59	17994.34	3463.80	881.87	153.87	2.11	5.74	3.93
17994.34	18148.09	2245.08	680.05	153.98	1.37	4.42	3.30
18148.09	18301.85	2082.45	649.83	153.85	1.27	4.23	3.20
18301.85	18455.60	1989.08	632.14	153.82	1.21	4.11	3.15
18455.60 LB	18963.18	21804.12	4224.33	508.23	13.30	8.32	5.16
18963.18	19470.76	21072.15	3842.97	508.12	12.85	7.57	5.48
19470.76	19978.34	42589.79	5859.81	507.71	25.97	11.54	7.27
19978.34	20485.92	37294.71	5411.59	507.81	22.74	10.66	6.89
20485.92	20993.50 RB	29936.74	4646.90	482.46	18.25	9.65	6.44

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18455.60 LB	18963.18	23575.12	4405.47	511.31	14.38	8.68	5.35
18963.18	19470.76	23028.68	4024.12	508.12	14.04	7.93	5.72
19470.76	19978.34	45348.55	6040.95	507.71	27.65	11.90	7.51
19978.34	20485.92	39875.00	5592.73	507.81	24.31	11.02	7.13
20485.92	20993.50 RB	32172.64	4818.70	482.82	19.62	10.01	6.68

CROSS SECTION RIVER: 1
REACH: 1 RS: 202.8

INPUT
Description: 202.8

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16524.8	970.3	16556.4	971.5	16586.6	971.3	16591.4	972.2	16622.9	972.3
16660.4	974.1	16671.5	973.8	16699.8	970.7	16750	971.8	16768.2	970.7
16810	971.7	16908.3	970.6	16968.5	970.2	16997.3	973.4	17058.9	971.8
17081	970.9	17148.9	971	17188.6	970.2	17279.5	971.1	17348.6	971
17423	970.4	17488.6	969.6	17496.3	969.7	17556.3	970.2	17607.5	969.3
17662.7	971.7	17678.2	969.4	17755.1	968.2	17771.4	968.3	17836.1	965.5
17897.9	964.9	17974.2	962.8	18017.4	962.7	18037.3	963.4	18039.7	964
18135.1	964.3	18137.8	964.2	18205	963.3	18273.4	965.1	18313.6	965.5
18348.1	967.5	18390.8	968.8	18406.9	966.2	18434.5	959.9	18478	958.9
18492.5	956.4	18526.7	958.4	18618	960.3	18696.7	962.9	18716.3	963.1
18761.6	962.1	18858.8	963.6	18897.8	963.7	18966.5	960.9	18996.3	959.9
19072.2	959.5	19083	959.6	19151.4	960.5	19243.7	960.1	19333.5	960.5
19396.1	960.6	19435.5	960.4	19525.6	959.5	19621.8	960.4	19685.6	961.9
19750.9	962.5	19813.5	963.5	19828.2	963.6	19893.3	963.5	19985.3	961.5
20027.7	961	20127.3	961.5	20220.9	962	20261.5	962.8	20325.2	962.5
20339.8	963.1	20397.5	960.8	20461	959.3	20525.1	958.4	20576.6	957.1
20634.6	957.7	20682.6	958.4	20759.8	957.1	20823.5	956.8	20855.2	957.6
20859.5	958.4	20873	957.9	20906.1	958.3	20955.4	956.8	20983.8	959.2
20987.6	962.6	21013.7	97	121014.96	971.6	307 21019.3	973.8	21057.4	987.6
21082.8	986	21093	986.3						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16524.8	.025	17771.4	.043	18390.8	.043	19243.7	.037	21019.3	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18390.8	21014.96	600	555.5	450	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16524.8	17279.5	987.6

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	970.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.52	Wt. n-Val.	0.042	0.039	
E.G. Elev (ft)	970.84	Reach Len. (ft)	600.00	555.50	450.00
Crit W.S. (ft)	965.59	Flow Area (sq ft)	3650.92	25399.66	
E.G. Slope (ft/ft)	0.001157	Area (sq ft)	3653.05	25399.66	
Q Total (cfs)	164000.00	Flow (cfs)	13003.27	150996.73	
Top Width (ft)	3577.43	Top Width (ft)	956.66	2620.78	
Vel Total (ft/s)	5.65	Avg. Vel. (ft/s)	3.56	5.94	
Max Chl Dpth (ft)	13.92	Hydr. Depth (ft)	3.97	9.69	
Conv. Total (cfs)	4820983.0	Conv. (cfs)	382247.3	4438736.0	
Length Wtd. (ft)	558.84	Wetted Per. (ft)	920.28	2625.07	
Min Ch El (ft)	956.40	Shear (lb/sq ft)	0.29	0.70	
Alpha	1.05	Stream Power (lb/ft s)	1.02	4.16	
Frctn Loss (ft)	0.71	Cum Volume (acre-ft)	3927.11	10799.25	945.47
C & E Loss (ft)	0.01	Cum SA (acres)	1081.40	1241.14	509.65

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	970.64	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.61	Wt. n-Val.		0.039	
E.G. Elev (ft)	971.25	Reach Len. (ft)	600.00	555.50	450.00
Crit W.S. (ft)	965.53	Flow Area (sq ft)		26258.80	
E.G. Slope (ft/ft)	0.001223	Area (sq ft)		26258.80	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2620.78	Top Width (ft)		2620.78	
Vel Total (ft/s)	6.25	Avg. Vel. (ft/s)		6.25	
Max Chl Dpth (ft)	14.24	Hydr. Depth (ft)		10.02	
Conv. Total (cfs)	4688852.0	Conv. (cfs)		4688852.0	
Length Wtd. (ft)	555.50	Wetted Per. (ft)		2627.25	
Min Ch El (ft)	956.40	Shear (lb/sq ft)		0.76	
Alpha	1.00	Stream Power (lb/ft s)		4.77	

Frctn Loss (ft)	0.75	Cum Volume (acre-ft)	300.08	11217.87	30.85
C & E Loss (ft)	0.01	Cum SA (acres)	48.67	1241.88	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17395.60	17520.00	42.90	38.51	90.21	0.03	0.43	1.11
17520.00	17644.40	59.07	50.68	110.93	0.04	0.46	1.17
17644.40	17768.80	385.52	147.93	96.86	0.24	1.53	2.61
17768.80	17893.20	1539.46	517.25	124.46	0.94	4.16	2.98
17893.20	18017.60	3477.08	847.22	124.43	2.12	6.81	4.10
18017.60	18142.00	3090.31	789.50	124.49	1.88	6.35	3.91
18142.00	18266.40	3138.78	796.75	124.43	1.91	6.40	3.94
18266.40	18390.80	1270.15	463.08	124.48	0.77	3.72	2.74
18390.80 LB	18915.63	23030.03	4636.90	526.14	14.04	8.84	4.97
18915.63	19440.46	29776.08	5217.92	524.90	18.16	9.94	5.71
19440.46	19965.30	25900.54	4542.17	524.89	15.79	8.65	5.70
19965.30	20490.13	26860.95	4642.65	524.93	16.38	8.85	5.79
20490.13	21014.96 RB	45429.14	6360.02	524.22	27.70	12.20	7.14

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18390.80 LB	18915.63	25118.57	4808.96	527.98	15.32	9.16	5.22
18915.63	19440.46	32336.87	5389.97	524.90	19.72	10.27	6.00
19440.46	19965.30	28350.62	4714.22	524.89	17.29	8.98	6.01
19965.30	20490.13	29363.18	4814.70	524.93	17.90	9.17	6.10
20490.13	21014.96 RB	48830.77	6530.96	524.55	29.77	12.52	7.48

CROSS SECTION RIVER: 1
REACH: 1 RS: 202.69

INPUT
Description: 202.69

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17011.6	967.7	17023.5	967.7	17027.5	969.7	17103.8	970.9	17146.9	971.1
17176.2	972.4	17191.8	969.4	17194.6	968.5	17229	967.1	17294.2	968.5
17355.9	968.4	17445.9	967	17473.9	966.6	17539	968.1	17612.5	967.1
17670.9	967.5	17744.3	967.8	17814.2	967.3	17864	971	17864.9	969.3
17868	967.6	17892.1	965.9	17941.9	963.7	18000.1	961.6	18034.8	963.6
18086.5	962.2	18149.2	965.2	18155.1	964.6	18181.7	966.5	18238.5	967.5
18278.8	966.4	18296.3	967	18357.8	968.5	18371.8	972.9	18377.8	973.6
18394.4	971.5	18484.4	971	18522.7	971.5	18539.1	964.7	18552.9	960.1
18644.5	957.3	18707	953.7	18734.1	956.4	18813.8	956	18848.2	955.5
18893.1	956.3	18953	954.8	19004.8	957.3	19084.1	957.6	19157.7	958.3
19178.7	958.5	19240.7	959.5	19322.9	960.8	19365.9	962.7	19411.4	962.6
19474.6	962.5	19548.6	961.5	19628.5	961.4	19720.2	962.7	19779.3	961
19788.6	961.1	19848.4	962	19949.8	964.6	20005.6	961.1	20016.8	961.1
20083.2	961	20101.5	960.8	20164.7	959.6	20249.5	962.2	20340.4	963
20436.6	963.5	20463.4	963.4	20522.8	963.7	20592.1	963.4	20658.5	962.2
20698.9	961.2	20768.7	958.6	20856.6	958.8	20890.1	958.6	21023.8	956.8
21070.8	960.8	21077.4	967.1	21081.8	970.8	21085.4	973.9	21098	980.8
21103.6	981.6	21111.1	978.1	21139.5	981.1	21166.7	979.8	21198.8	976.9
21211.8	978.5	21216.7	978.5	21220.2	977.8	21223.7	977.9	21225.4	978.5
21238.2	975.1	21274	973.3						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17011.6	.025	17868	.043	18377.8	.043	19084.1	.037	21103.6	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18377.8	21081.8	585	566.1	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev

17011.6 17176.2 981.6 21274.4 21274 981.6

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	969.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.61	Wt. n-Val.	0.037	0.039	
E.G. Elev (ft)	970.12	Reach Len. (ft)	585.00	566.10	510.00
Crit W.S. (ft)	965.19	Flow Area (sq ft)	3370.75	23641.59	
E.G. Slope (ft/ft)	0.001416	Area (sq ft)	3395.45	23641.59	
Q Total (cfs)	164000.00	Flow (cfs)	11595.98	152404.03	
Top Width (ft)	3716.99	Top Width (ft)	1164.28	2552.71	
Vel Total (ft/s)	6.07	Avg. Vel. (ft/s)	3.44	6.45	
Max Chl Dpth (ft)	15.80	Hydr. Depth (ft)	2.93	9.26	
Conv. Total (cfs)	4357811.0	Conv. (cfs)	308128.6	4049682.5	
Length Wtd. (ft)	567.45	Wetted Per. (ft)	1150.25	2558.76	
Min Ch El (ft)	953.70	Shear (lb/sq ft)	0.26	0.82	
Alpha	1.07	Stream Power (lb/ft s)	0.89	5.27	
Frctn Loss (ft)	0.88	Cum Volume (acre-ft)	3878.57	10486.55	945.47
C & E Loss (ft)	0.01	Cum SA (acres)	1066.79	1208.15	509.65

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	969.79	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.70	Wt. n-Val.		0.039	
E.G. Elev (ft)	970.49	Reach Len. (ft)	585.00	566.10	510.00
Crit W.S. (ft)	965.25	Flow Area (sq ft)		24380.37	
E.G. Slope (ft/ft)	0.001483	Area (sq ft)		24380.37	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2553.41	Top Width (ft)		2553.41	
Vel Total (ft/s)	6.73	Avg. Vel. (ft/s)		6.73	
Max Chl Dpth (ft)	16.09	Hydr. Depth (ft)		9.55	
Conv. Total (cfs)	4259184.0	Conv. (cfs)		4259184.0	
Length Wtd. (ft)	566.10	Wetted Per. (ft)		2559.81	
Min Ch El (ft)	953.70	Shear (lb/sq ft)		0.88	
Alpha	1.00	Stream Power (lb/ft s)		5.93	
Frctn Loss (ft)	0.93	Cum Volume (acre-ft)	300.08	10894.98	30.85
C & E Loss (ft)	0.01	Cum SA (acres)	48.67	1208.88	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17102.68	17193.76	0.83	0.85	2.60	0.00	0.34	0.98
17193.76	17284.84	483.39	159.98	91.16	0.29	1.76	3.02
17284.84	17375.92	222.71	100.46	91.08	0.14	1.10	2.22
17375.92	17467.00	661.35	193.02	91.09	0.40	2.12	3.43
17467.00	17558.08	638.83	189.06	91.10	0.39	2.08	3.38
17558.08	17649.16	667.41	194.08	91.09	0.41	2.13	3.44
17649.16	17740.24	557.37	174.19	91.08	0.34	1.91	3.20
17740.24	17831.32	536.34	170.25	91.13	0.33	1.87	3.15
17831.32	17922.40	567.33	204.88	70.81	0.35	2.92	2.77
17922.40	18013.48	2573.81	604.15	91.16	1.57	6.63	4.26
18013.48	18104.56	2575.51	604.38	91.16	1.57	6.64	4.26
18104.56	18195.64	1360.11	412.17	91.23	0.83	4.53	3.30
18195.64	18286.72	508.81	228.37	91.11	0.31	2.51	2.23
18286.72	18377.80	242.19	134.93	74.45	0.15	1.82	1.79
18377.80 LB	18918.60	33727.04	4871.06	393.09	20.57	12.46	6.92
18918.60	19459.40	38377.68	5625.21	540.94	23.40	10.40	6.82
19459.40	20000.20	22343.09	3950.39	540.98	13.62	7.30	5.66
20000.20	20541.00	23060.85	4025.71	540.87	14.06	7.44	5.73
20541.00	21081.80 RB	34895.37	5169.23	542.89	21.28	9.59	6.75

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta	Right Sta	Flow	Area	W.P.	% Conv.	Hydr D.	Velocity

(ft)	(ft)	(cfs)	(sq ft)	(ft)		(ft)	(ft/s)
18377.80 LB	18918.60	35822.69	4984.33	393.84	21.84	12.72	7.19
18918.60	19459.40	41108.90	5781.70	540.94	25.07	10.69	7.11
19459.40	20000.20	24398.41	4106.88	540.98	14.88	7.59	5.94
20000.20	20541.00	25152.28	4182.20	540.87	15.34	7.73	6.01
20541.00	21081.80 RB	37517.71	5325.27	543.18	22.88	9.88	7.05

CROSS SECTION RIVER: 1
REACH: 1 RS: 202.59

INPUT
Description: 202.59

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17002.6	972.3	17024.4	972.3	17044.5	970.3	17059.2	968	17094.8	969.6
17174.4	971.6	17206.5	971.5	17240	970.3	17269.6	966.5	17294.8	968.3
17332.9	969.6	17346.3	969	17365.3	965.5	17382.1	965.5	17399.6	966.6
17456.2	967.4	17523.1	966.7	17531.4	966.1	17557.2	966	17651.6	966.7
17719.5	967.2	17792.8	966.6	17824.5	966	17874.3	968.6	17886.2	967.6
17905.4	963.2	17965.1	963.4	18022.2	961.6	18100.5	965.1	18174.1	965.7
18210.5	964.5	18233.1	965.7	18298.3	968.6	18346.1	966.9	18416.7	969.6
18505.8	969.5	18556.9	967.5	18622.3	970	18641.7	970	18695.8	961.6
18704.2	959.5	18757.3	962	18789.4	959.6	18857.2	957.4	18891.5	955.7
18960	953.7	18984.2	957.3	19041.9	957.5	19094.7	960.1	19217.7	959.4
19264.1	960.3	19322.3	963.2	19396.6	964.3	19407.1	961.9	19425.6	960
19426	960.9	19488.2	960.7	19564.4	961.7	19640.1	961.8	19698.4	962.2
19757.8	961.8	19850.5	959.2	19935.3	960.1	19956.2	961	19994.3	961.1
20000.8	960.6	20005.1	959.6	20026.1	957.7	20112.1	958.6	20156.3	960.2
20218.5	960.8	20291.8	962.8	20371.5	961.1	20441.9	962	20501.9	959.5
20592.8	959.1	20699	957.2	20711	957	20803.1	957	20825.8	957.1
20901.9	957.5	20941	958.6	20978.1	956.7	21025	956.8	21152.1	957.5
21195.0	9969.8993	21199.6	971.2	21234.1	969.1	21236.8	970.4	21264.7	967.7
21299.7	971.3	21305.5	967.6	21325.7	957.4	21362.7	958.8	21403.9	974
21429.1	977	21478	977.8						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17002.6	.025	18022.2	.043	18416.7	.043	19217.7	.037	21403.9	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18416.7	21195.09	400	561.2	640	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17002.6	17332.9	977.8	21200	21478	977.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	968.55	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.68	Wt. n-Val.	0.030	0.038	
E.G. Elev (ft)	969.23	Reach Len. (ft)	400.00	561.20	640.00
Crit W.S. (ft)	964.72	Flow Area (sq ft)	2690.81	22511.24	
E.G. Slope (ft/ft)	0.001710	Area (sq ft)	2741.21	22511.24	645.33
Q Total (cfs)	164000.00	Flow (cfs)	11763.36	152236.64	
Top Width (ft)	3795.69	Top Width (ft)	1100.12	2593.48	102.09
Vel Total (ft/s)	6.51	Avg. Vel. (ft/s)	4.37	6.76	
Max Chl Dpth (ft)	14.85	Hydr. Depth (ft)	2.60	8.68	
Conv. Total (cfs)	3966509.5	Conv. (cfs)	284508.9	3682000.5	
Length Wtd. (ft)	549.75	Wetted Per. (ft)	1037.32	2598.02	
Min Ch El (ft)	953.70	Shear (lb/sq ft)	0.28	0.92	
Alpha	1.03	Stream Power (lb/ft s)	1.21	6.25	
Frctn Loss (ft)	0.91	Cum Volume (acre-ft)	3837.36	10186.65	941.69
C & E Loss (ft)	0.01	Cum SA (acres)	1051.58	1174.71	509.05

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	968.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.78	Wt. n-Val.		0.038	
E.G. Elev (ft)	969.56	Reach Len. (ft)	400.00	561.20	640.00
Crit W.S. (ft)	964.70	Flow Area (sq ft)		23100.95	
E.G. Slope (ft/ft)	0.001831	Area (sq ft)		23100.95	

Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2606.67	Top Width (ft)		2606.67	
Vel Total (ft/s)	7.10	Avg. Vel. (ft/s)		7.10	
Max Chl Dpth (ft)	15.07	Hydr. Depth (ft)		8.86	
Conv. Total (cfs)	3832167.0	Conv. (cfs)		3832167.0	
Length Wtd. (ft)	561.08	Wetted Per. (ft)		2611.46	
Min Ch El (ft)	953.70	Shear (lb/sq ft)		1.01	
Alpha	1.00	Stream Power (lb/ft s)		7.18	
Frctn Loss (ft)	1.02	Cum Volume (acre-ft)	300.08	10586.45	30.85
C & E Loss (ft)	0.00	Cum SA (acres)	48.67	1175.35	5.87

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17285.42	17379.69	282.44	69.05	31.21	0.17	2.23	4.09
17379.69	17473.97	551.77	160.61	94.31	0.34	1.70	3.44
17473.97	17568.24	717.56	188.02	94.30	0.44	1.99	3.82
17568.24	17662.51	791.77	199.44	94.28	0.48	2.12	3.97
17662.51	17756.79	463.42	144.62	94.27	0.28	1.53	3.20
17756.79	17851.06	700.04	185.27	94.32	0.43	1.97	3.78
17851.06	17945.33	1484.74	289.50	93.19	0.91	3.13	5.13
17945.33	18039.61	4049.89	561.82	94.32	2.47	5.96	7.21
18039.61	18133.88	1487.84	403.29	94.34	0.91	4.28	3.69
18133.88	18228.15	958.42	309.73	94.32	0.58	3.29	3.09
18228.15	18322.43	187.23	114.96	91.67	0.11	1.26	1.63
18322.43	18416.70	88.23	64.48	66.78	0.05	0.97	1.37
18416.70 LB	18972.38	18086.99	3127.17	376.68	11.03	8.33	5.78
18972.38	19528.05	27986.59	4523.89	556.92	17.06	8.14	6.19
19528.05	20083.73	28623.07	4397.77	555.97	17.45	7.91	6.51
20083.73	20639.41	29440.54	4472.23	555.82	17.95	8.05	6.58
20639.41	21195.09 RB	48099.45	5990.17	552.63	29.33	10.87	8.03

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18416.70 LB	18972.38	19153.95	3213.82	389.90	11.68	8.27	5.96
18972.38	19528.05	30325.22	4649.92	556.92	18.49	8.37	6.52
19528.05	20083.73	31064.23	4523.80	555.97	18.94	8.14	6.87
20083.73	20639.41	31926.72	4598.26	555.82	19.47	8.28	6.94
20639.41	21195.09 RB	51529.88	6115.14	552.86	31.42	11.10	8.43

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 202.48

INPUT
Description: 202.48

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17009.6	967.6	17022.6	967.5	17087.4	968.9	17103.6	970.4	17112.7	969.9
17147.3	972	17156.9	971.8	17158.2	972.3	17178.9	971	17194.4	968
17247.5	968.9	17346.9	969.1	17398.9	969.9	17439.3	968.6	17487.9	968.6
17510.1	966.5	17588.4	966.2	17656.6	965	17699.5	965.1	17766.7	963.2
17818.3	961.3	17890	963.8	17903.9	964.7	17928.8	961.3	17945.4	959.8
17990.2	960.1	18038.4	959.4	18049.4	960.1	18123	963.9	18190.8	965.8
18202.9	966.1	18268.8	964.1	18281.9	963.4	18373.9	966.8	18446.2	967.8
18518.9	965.4	18575.8	971.2	18611.2	970.9	18639.1	969.5	18713	961.6
18741.6	959.3	18784.7	961.7	18862.1	959	18930.8	954.4	19044.5	952.5
19074.6	956.5	19142.6	957.5	19190.4	959.1	19212.4	958.4	19300.6	961.8
19319.9	962.4	19391.1	961.2	19413.8	960.8	19449.5	958.2	19532.2	958.9

19643.4	959	19750	959.8	19755	959.8	19836.5	958.7	19940.1	961.4
20015	957.1	20042.9	956.5	20093.3	957.6	20148	959.8	20169.8	958.7
20238.1	957.7	20350.9	956.9	20382.1	955.8	20443.3	956.5	20518.7	957.1
20582.5	957.3	20605	956.3	20635.4	956.3	20720.3	959.3	20738.9	959.4
20761.4	962.7	20791.3	965.4	20855.9	962.6	20874.6	962	20962.4	963.2
21037.1	963.2	21067	962.7	21100.7	957.5	21141.9	956.9	21226.2	955.6
21274.2	959.7	21307.36	968.958	21309.3	969.5	21365.5	967.8	21385.7	965.3
21411.6	965.6	21424.5	960.8	21433.2	956.4	21477.4	957.2	21505.2	969
21532	978.5	21590.9	977.9						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17009.6	.043	18575.8	.043	19074.6	.037	21532	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18575.8	21307.36	700	576.2	385	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17009.6	17398.9	978.5	21309.3	21590.9	978.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	967.66	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.65	Wt. n-Val.	0.043	0.038	
E.G. Elev (ft)	968.30	Reach Len. (ft)	700.00	576.20	385.00
Crit W.S. (ft)	963.72	Flow Area (sq ft)	3546.72	22957.39	
E.G. Slope (ft/ft)	0.001617	Area (sq ft)	3548.66	22957.39	824.42
Q Total (cfs)	164000.00	Flow (cfs)	11540.17	152459.83	
Top Width (ft)	3830.27	Top Width (ft)	1048.56	2646.34	135.37
Vel Total (ft/s)	6.19	Avg. Vel. (ft/s)	3.25	6.64	
Max Chl Dpth (ft)	15.16	Hydr. Depth (ft)	3.45	8.68	
Conv. Total (cfs)	4078961.5	Conv. (cfs)	287023.8	3791937.8	
Length Wtd. (ft)	585.03	Wetted Per. (ft)	1029.27	2650.03	
Min Ch El (ft)	952.50	Shear (lb/sq ft)	0.35	0.87	
Alpha	1.09	Stream Power (lb/ft s)	1.13	5.81	
Frctn Loss (ft)	0.91	Cum Volume (acre-ft)	3808.48	9893.75	930.89
C & E Loss (ft)	0.02	Cum SA (acres)	1041.72	1140.96	507.31

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	967.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.77	Wt. n-Val.	0.043	0.038	
E.G. Elev (ft)	968.54	Reach Len. (ft)	700.00	576.20	385.00
Crit W.S. (ft)	963.77	Flow Area (sq ft)	163.28	23253.68	
E.G. Slope (ft/ft)	0.001788	Area (sq ft)	163.28	23253.68	
Q Total (cfs)	164000.00	Flow (cfs)	236.25	163763.75	
Top Width (ft)	2826.21	Top Width (ft)	178.82	2647.39	
Vel Total (ft/s)	7.00	Avg. Vel. (ft/s)	1.45	7.04	
Max Chl Dpth (ft)	15.27	Hydr. Depth (ft)	0.91	8.78	
Conv. Total (cfs)	3878357.3	Conv. (cfs)	5587.1	3872770.3	
Length Wtd. (ft)	576.90	Wetted Per. (ft)	180.47	2651.20	
Min Ch El (ft)	952.50	Shear (lb/sq ft)	0.10	0.98	
Alpha	1.01	Stream Power (lb/ft s)	0.15	6.90	
Frctn Loss (ft)	1.00	Cum Volume (acre-ft)	299.33	10287.84	30.85
C & E Loss (ft)	0.02	Cum SA (acres)	47.85	1141.51	5.87

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17427.25	17531.67	38.07	32.88	33.84	0.02	0.97	1.16
17531.67	17636.08	266.46	165.84	104.42	0.16	1.59	1.61
17636.08	17740.49	680.60	291.11	104.43	0.42	2.79	2.34
17740.49	17844.91	1921.77	542.76	104.47	1.17	5.20	3.54
17844.91	17949.32	1793.37	521.29	104.77	1.09	4.99	3.44
17949.32	18053.73	3782.77	814.76	104.45	2.31	7.80	4.64

18053.73	18158.15	1668.36	498.69	104.52	1.02	4.78	3.35
18158.15	18262.56	503.62	243.01	104.46	0.31	2.33	2.07
18262.56	18366.97	719.61	301.08	104.49	0.44	2.88	2.39
18366.97	18471.39	28.08	40.44	89.64	0.02	0.45	0.69
18471.39	18575.80	137.44	94.88	69.78	0.08	1.36	1.45
18575.80 LB	19122.11	28866.98	4528.78	466.73	17.60	9.72	6.37
19122.11	19668.42	28440.36	4422.47	546.54	17.34	8.10	6.43
19668.42	20214.74	31872.11	4735.46	546.58	19.43	8.67	6.73
20214.74	20761.05	42986.33	5666.82	546.65	26.21	10.37	7.59
20761.05	21307.36 RB	20294.08	3603.86	543.53	12.37	6.65	5.63

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18262.56	18366.97	13.76	9.43	8.46	0.01	1.35	1.46
18366.97	18471.39	44.00	51.12	101.12	0.03	0.51	0.86
18471.39	18575.80	178.49	102.73	70.89	0.11	1.45	1.74
18575.80 LB	19122.11	30908.14	4580.97	467.78	18.85	9.81	6.75
19122.11	19668.42	30612.71	4483.62	546.54	18.67	8.21	6.83
19668.42	20214.74	34255.07	4796.62	546.58	20.89	8.78	7.14
20214.74	20761.05	46039.02	5727.97	546.65	28.07	10.48	8.04
20761.05	21307.36 RB	21948.81	3664.49	543.65	13.38	6.77	5.99

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 202.37

INPUT
Description: 202.37

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17046.5	966	17144.2	966.4	17159.7	966.4	17174.6	968.6	17199.8	968.8
17234.1	972.8	17240.1	970.8	17243.5	970.9	17244.9	973.1	17262.2	972
17288.2	966.3	17339.4	966.6	17390.7	968.1	17480.2	967.1	17572.6	967.5
17609.6	965.2	17687.4	964.4	17729	964.2	17762.4	962.8	17818.6	964.2
17908.4	962.3	17967.5	961.6	18000.2	964	18038.7	964.1	18072.2	959.7
18099.8	957.9	18104.7	958.4	18151.6	958.4	18194.7	959.1	18243.6	962.8
18315.7	961.8	18394.4	965.8	18412.7	966.2	18470.8	964.2	18481.7	964.7
18501.3	969.1	18508.1	970	18598.8	969.5	18602.7	969.6	18648.3	963.8
18679.8	963.2	18704	957.9	18743.6	960.5	18769.5	961.1	18842.5	955.2
18917.4	955.9	18993.6	955.2	19026.1	956.5	19078.6	954.6	19116.4	956.7
19134.5	956.6	19275.2	955.9	19317.5	959.5	19392.9	961.2	19411.7	961.2
19457.9	957.5	19505.5	956.4	19577.4	956.1	19580.5	956.2	19670.2	956.8
19746.9	961.5	19839.2	958.9	19936.5	957.1	20045	956.9	20086.7	957.3
20169.3	956.2	20237.2	955.3	20328.5	958	20334.1	957.4	20399.8	957
20463.4	959.2	20513.6	962	20602.6	959.9	20704.3	960.7	20742.9	961
20844.4	960.5	20908.1	960.2	20950.1	961.7	21049.7	960.9	21054.1	960.9
21135.1	960.3	21179.1	960.2	21212.7	956.8	21338.5	957.1	21366.3	957.1
21382.6	961.2	21402.5	967.3	21411.9	966.7	21431.9	963.9	21452.4	962.7
21480	964.4	21496.8	956	21544.1	956.6	21581.78	968.008	21601.9	974.1
21642.4	975	21693	974.4						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17046.5	.025	17390.7	.043	18508.1	.043	18743.6	.037	21601.9	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18508.12	21581.78	430	400.7	360	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
17046.5	17390.7	975

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	966.79	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.58	Wt. n-Val.	0.043	0.037	
E.G. Elev (ft)	967.38	Reach Len. (ft)	430.00	400.70	360.00
Crit W.S. (ft)	962.95	Flow Area (sq ft)	3570.77	24156.70	
E.G. Slope (ft/ft)	0.001486	Area (sq ft)	3654.31	24156.70	
Q Total (cfs)	164000.00	Flow (cfs)	11850.86	152149.14	
Top Width (ft)	4026.49	Top Width (ft)	1083.05	2943.44	
Vel Total (ft/s)	5.91	Avg. Vel. (ft/s)	3.32	6.30	
Max Chl Dpth (ft)	12.19	Hydr. Depth (ft)	3.94	8.21	
Conv. Total (cfs)	4253721.5	Conv. (cfs)	307379.6	3946341.8	
Length Wtd. (ft)	401.97	Wetted Per. (ft)	908.20	2950.77	
Min Ch El (ft)	954.60	Shear (lb/sq ft)	0.36	0.76	
Alpha	1.07	Stream Power (lb/ft s)	1.21	4.78	
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	3750.61	9582.15	927.25
C & E Loss (ft)	0.06	Cum SA (acres)	1024.59	1103.99	506.71

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	966.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.	0.043	0.037	
E.G. Elev (ft)	967.52	Reach Len. (ft)	430.00	400.70	360.00
Crit W.S. (ft)	963.03	Flow Area (sq ft)	598.71	24247.26	
E.G. Slope (ft/ft)	0.001673	Area (sq ft)	598.71	24247.26	
Q Total (cfs)	164000.00	Flow (cfs)	1620.31	162379.69	
Top Width (ft)	3165.43	Top Width (ft)	221.17	2944.27	
Vel Total (ft/s)	6.60	Avg. Vel. (ft/s)	2.71	6.70	
Max Chl Dpth (ft)	12.23	Hydr. Depth (ft)	2.71	8.24	
Conv. Total (cfs)	4009838.3	Conv. (cfs)	39617.0	3970221.3	
Length Wtd. (ft)	400.85	Wetted Per. (ft)	225.95	2951.63	
Min Ch El (ft)	954.60	Shear (lb/sq ft)	0.28	0.86	
Alpha	1.02	Stream Power (lb/ft s)	0.75	5.75	
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	293.21	9973.68	30.85
C & E Loss (ft)	0.09	Cum SA (acres)	44.64	1104.53	5.87

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17533.70	17631.14	76.72	57.18	47.24	0.05	1.21	1.34
17631.14	17728.58	451.09	221.11	97.44	0.28	2.27	2.04
17728.58	17826.02	818.13	316.10	97.49	0.50	3.24	2.59
17826.02	17923.46	1051.79	367.48	97.46	0.64	3.77	2.86
17923.46	18020.90	1237.12	405.18	97.53	0.75	4.16	3.05
18020.90	18118.34	2308.79	589.83	97.81	1.41	6.05	3.91
18118.34	18215.78	3617.73	771.29	97.51	2.21	7.92	4.69
18215.78	18313.22	1485.05	452.10	97.53	0.91	4.64	3.28
18313.22	18410.66	595.40	261.29	97.55	0.36	2.68	2.28
18410.66	18508.10	209.03	129.21	80.65	0.13	1.61	1.62
18508.10 LB	19122.84	30538.44	4508.54	499.30	18.62	9.05	6.77
19122.84	19737.57	37630.38	5639.23	615.20	22.95	9.17	6.67
19737.57	20352.31	38456.95	5712.08	614.89	23.45	9.29	6.73
20352.31	20967.04	22031.58	4089.24	614.91	13.43	6.65	5.39
20967.04	21581.78 RB	23491.83	4207.60	606.46	14.32	7.00	5.58

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18215.78	18313.22	702.40	202.74	47.61	0.43	4.69	3.46
18313.22	18410.66	677.36	264.28	97.55	0.41	2.71	2.56

18410.66	18508.10	240.54	131.69	80.79	0.15	1.64	1.83
18508.10 LB	19122.84	32568.11	4523.87	499.55	19.86	9.08	7.20
19122.84	19737.57	40144.66	5658.14	615.20	24.48	9.20	7.10
19737.57	20352.31	41023.56	5730.99	614.89	25.01	9.32	7.16
20352.31	20967.04	23553.28	4108.15	614.91	14.36	6.68	5.73
20967.04	21581.78 RB	25090.08	4226.10	607.08	15.30	7.02	5.94

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 202.29

INPUT
Description: 202.29
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17300	969.4	17300.2	969.4	17310.5	971.8	17342.5	971.5	17346.7	971.3
17352.1	970.9	17359.3	970.4	17377.2	970.2	17388.5	970.1	17410.3	969.8
17443.6	969.4	17469.5	969.2	17494.3	969	17512.1	968.3	17537.2	968.2
17551.3	968.6	17580.1	968.2	17588.6	968.1	17610.9	968	17662.1	967.6
17695.1	967.2	17731.2	966.7	17756	966.3	17772.6	965.6	17783.7	965.5
17806	965.9	17845.1	965.4	17859.1	965.2	17870.8	965.1	17909	964.8
17939.7	964.2	17948.3	964	17978	963.3	17983.9	963.1	18035.9	962.8
18043.8	962.7	18050.9	962.7	18093.6	962.3	18093.8	962.8	18107.2	962.7
18151	961.8	18180	961.8	18197.4	961.8	18203.9	961.7	18212.7	961.5
18297.3	960.6	18444	959	18520.4	958	18577.3	957.8	18667.8	958.1
18744.1	957.7	18943.8	956.4	18989.6	956.6	19224.4	957.4	19228.7	957.4
19485.5	956.7	19523.1	956.9	19553.4	956.9	19827.7	956.8	19864.8	956.1
19898	956.1	20171.5	956.3	20383.2	955.7	20442.4	955.9	20499.8	957.2
20499.9	957.2	20696.8	957.3	20777.7	957.4	20879.1	956.5	20964	956.5
21129.5	956.9	21176.5	956.6	21222.8	956.1	21262.9	955.8	21273.6	955.5
21305.8	956.3	21343.7	957	21400.4	957.2	21410.8	957.3	21495.3	956.7
21550.9	957.9	21563.4	959.3	21703.1	961	21803	962.3	21973.7	964.9
22093.3	966.9	22138.1	968.1	22178	968.7	22302.7	970.7	22344.1	970.7
22388.8	970.9	22553.3	971.9	22676.5	971.2	22717.7	971.3	22766.5	972.1
22785.4	971.9								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17300	.025	17469.5	.043	18197.4	.043	18989.6	.037	21563.4	.043
21803	.043								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18197.4	21803	590	583.1	600	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21803	22785.4	972.1

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	966.51	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.	0.043	0.038	
E.G. Elev (ft)	966.88	Reach Len. (ft)	590.00	583.10	600.00
Crit W.S. (ft)	961.29	Flow Area (sq ft)	1223.85	33005.45	
E.G. Slope (ft/ft)	0.000809	Area (sq ft)	1223.85	33005.45	575.46
Q Total (cfs)	164000.00	Flow (cfs)	2326.57	161673.42	
Top Width (ft)	4327.56	Top Width (ft)	454.71	3605.60	267.25
Vel Total (ft/s)	4.79	Avg. Vel. (ft/s)	1.90	4.90	
Max Chl Dpth (ft)	11.01	Hydr. Depth (ft)	2.69	9.15	
Conv. Total (cfs)	5764990.0	Conv. (cfs)	81784.4	5683205.5	
Length Wtd. (ft)	583.21	Wetted Per. (ft)	455.10	3605.80	
Min Ch El (ft)	955.50	Shear (lb/sq ft)	0.14	0.46	
Alpha	1.03	Stream Power (lb/ft s)	0.26	2.27	
Frctn Loss (ft)	0.64	Cum Volume (acre-ft)	3726.53	9319.23	924.87
C & E Loss (ft)	0.02	Cum SA (acres)	1017.00	1073.87	505.60

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	966.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.38	Wt. n-Val.		0.038	
E.G. Elev (ft)	966.97	Reach Len. (ft)	590.00	583.10	600.00

Crit W.S. (ft)	961.29	Flow Area (sq ft)		33284.94		
E.G. Slope (ft/ft)	0.000812	Area (sq ft)		33284.94		
Q Total (cfs)	164000.00	Flow (cfs)		164000.00		
Top Width (ft)	3605.60	Top Width (ft)		3605.60		
Vel Total (ft/s)	4.93	Avg. Vel. (ft/s)		4.93		
Max Chl Dpth (ft)	11.09	Hydr. Depth (ft)		9.23		
Conv. Total (cfs)	5756790.0	Conv. (cfs)		5756790.0		
Length Wtd. (ft)	583.10	Wetted Per. (ft)		3614.88		
Min Ch El (ft)	955.50	Shear (lb/sq ft)		0.47		
Alpha	1.00	Stream Power (lb/ft s)		2.30		
Frctn Loss (ft)	0.64	Cum Volume (acre-ft)	290.25	9709.07	30.85	
C & E Loss (ft)	0.02	Cum SA (acres)	43.55	1074.40	5.87	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17718.79	17778.61	8.25	16.46	35.93	0.01	0.46	0.50
17778.61	17838.44	37.24	49.87	59.83	0.02	0.83	0.75
17838.44	17898.27	85.18	81.93	59.83	0.05	1.37	1.04
17898.27	17958.09	175.27	126.32	59.84	0.11	2.11	1.39
17958.09	18017.92	371.90	198.38	59.84	0.23	3.32	1.87
18017.92	18077.75	470.60	228.46	59.83	0.29	3.82	2.06
18077.75	18137.57	516.80	242.22	60.17	0.32	4.05	2.13
18137.57	18197.40	661.33	280.20	59.83	0.40	4.68	2.36
18197.40 LB	18918.52	22170.20	5692.88	721.15	13.52	7.89	3.89
18918.52	19639.64	35005.07	6903.12	721.12	21.34	9.57	5.07
19639.64	20360.76	39395.14	7344.65	721.13	24.02	10.19	5.36
20360.76	21081.88	36349.99	6998.60	721.14	22.16	9.71	5.19
21081.88	21803.00 RB	28753.04	6066.20	721.26	17.53	8.41	4.74

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18197.40 LB	18918.52	22466.59	5748.78	725.94	13.70	7.97	3.91
18918.52	19639.64	35529.11	6959.02	721.12	21.66	9.65	5.11
19639.64	20360.76	39952.44	7400.54	721.13	24.36	10.26	5.40
20360.76	21081.88	36887.17	7054.50	721.14	22.49	9.78	5.23
21081.88	21803.00 RB	29164.70	6122.09	725.55	17.78	8.49	4.76

CROSS SECTION RIVER: 1
REACH: 1 RS: 202.18

INPUT
Description: 202.18

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17052.9	966.6	17168.5	966	17288.7	965.2	17328.5	965.5	17342.3	968
17346	967	17354.3	968	17364.1	966.7	17396.2	967.4	17415.4	969
17507.1	967.7	17613.8	965.1	17631.5	964.7	17747.4	962.9	17748.5	962.9
17865.9	962.4	17961.7	963.1	18017.5	963.4	18100.5	963.8	18139.7	964.7
18194.4	960.2	18256	959.9	18292.6	958.2	18331.5	958.9	18344.2	960.8
18389	961.7	18415.9	960.6	18473.5	964.7	18525.3	966.1	18612.9	966.4
18643.2	962.4	18672.1	961.3	18707.1	957.3	18769	952.6	18804.3	955.4
18910.2	957.1	18976	956.3	19019.3	958.4	19048.9	958.7	19085.4	956.1
19142.3	957	19169.3	958.6	19183.3	960.5	19235.6	960.8	19285.1	963
19369.7	960.1	19472.8	957.3	19559.8	955.6	19630.4	954.7	19686.5	951.8
19727.7	955.4	19747.8	950.7	19844.5	951.9	19893.9	954	19954	950
20009	954	20067.8	952	20110.4	954.4	20177.3	963.5	20231.5	963.4
20240.9	962.3	20277.5	960.8	20351.6	962	20380	959.9	20405.9	959.3
20492.4	961.5	20578.7	962.9	20684.9	962.3	20769.5	960.5	20826.3	963.1
20876.8	962.2	20900.3	963.5	20997.2	958.5	21014.5	957.4	21075.2	957.9
21127.2	959.8	21207.6	957.2	21255	956.2	21287.8	957.6	21353.8	957.8
21374.8	961.6	21414.6	960.9	21415.3	960.1	21444.1	956.6	21527.2	959.6
21591.2	960.1	21643.6	958.8	21685.6	954	21737.8	955.1	21787.2	954.7
21808.8	955.3	21829.3	951.8	21869.4	951.7	21919.3	955.9	21938.4	1966.7695
21957.1	977.4	21992	978.3						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

17052.9 .025 17415.4 .043 18139.7 .043 18976 .037 21957.1 .043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18139.72	1938.41	525	511.84	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
17052.9	17415.4	978.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	965.70	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.53	Wt. n-Val.	0.043	0.038	
E.G. Elev (ft)	966.23	Reach Len. (ft)	525.00	511.84	500.00
Crit W.S. (ft)	961.77	Flow Area (sq ft)	1254.74	27387.30	
E.G. Slope (ft/ft)	0.001544	Area (sq ft)	1287.86	27387.30	
Q Total (cfs)	164000.00	Flow (cfs)	2950.26	161049.73	
Top Width (ft)	4356.29	Top Width (ft)	667.04	3689.25	
Vel Total (ft/s)	5.73	Avg. Vel. (ft/s)	2.35	5.88	
Max Chl Dpth (ft)	15.70	Hydr. Depth (ft)	2.28	7.42	
Conv. Total (cfs)	4173587.8	Conv. (cfs)	75080.3	4098507.5	
Length Wtd. (ft)	512.05	Wetted Per. (ft)	550.67	3697.88	
Min Ch El (ft)	950.00	Shear (lb/sq ft)	0.22	0.71	
Alpha	1.04	Stream Power (lb/ft s)	0.52	4.20	
Frctn Loss (ft)	1.19	Cum Volume (acre-ft)	3709.52	8915.02	920.91
C & E Loss (ft)	0.04	Cum SA (acres)	1009.40	1025.04	503.76

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	965.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.55	Wt. n-Val.		0.038	
E.G. Elev (ft)	966.31	Reach Len. (ft)	525.00	511.84	500.00
Crit W.S. (ft)	961.77	Flow Area (sq ft)		27622.02	
E.G. Slope (ft/ft)	0.001558	Area (sq ft)		27622.02	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	3692.09	Top Width (ft)		3692.09	
Vel Total (ft/s)	5.94	Avg. Vel. (ft/s)		5.94	
Max Chl Dpth (ft)	15.77	Hydr. Depth (ft)		7.48	
Conv. Total (cfs)	4154761.5	Conv. (cfs)		4154761.5	
Length Wtd. (ft)	511.84	Wetted Per. (ft)		3701.86	
Min Ch El (ft)	950.00	Shear (lb/sq ft)		0.73	
Alpha	1.00	Stream Power (lb/ft s)		4.31	
Frctn Loss (ft)	1.19	Cum Volume (acre-ft)	290.25	9301.41	30.85
C & E Loss (ft)	0.04	Cum SA (acres)	43.55	1025.56	5.87

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17560.07	17632.53	18.78	22.69	43.47	0.01	0.52	0.83
17632.53	17704.98	198.48	114.55	72.46	0.12	1.58	1.73
17704.98	17777.43	464.77	190.86	72.46	0.28	2.63	2.44
17777.43	17849.89	603.14	223.16	72.45	0.37	3.08	2.70
17849.89	17922.34	620.97	227.09	72.45	0.38	3.13	2.73
17922.34	17994.79	466.48	191.28	72.45	0.28	2.64	2.44
17994.79	18067.25	354.56	162.25	72.45	0.22	2.24	2.19
18067.25	18139.70	223.06	122.87	72.46	0.14	1.70	1.82
18139.70 LB	18899.44	17636.39	4001.46	653.48	10.75	6.14	4.41
18899.44	19659.18	33794.89	5796.37	760.27	20.61	7.63	5.83
19659.18	20418.93	52009.23	7438.50	761.72	31.71	9.79	6.99
20418.93	21178.67	15519.89	3597.55	760.13	9.46	4.74	4.31

21178.67	21938.41 RB	42089.32	6553.41	762.28	25.66	8.65	6.42

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18139.70 LB	18899.44	17960.99	4043.03	657.39	10.95	6.17	4.44
18899.44	19659.18	34437.31	5844.69	760.27	21.00	7.69	5.89
19659.18	20418.93	52836.39	7486.82	761.72	32.22	9.85	7.06
20418.93	21178.67	15948.21	3645.87	760.13	9.72	4.80	4.37
21178.67	21938.41 RB	42817.11	6601.61	762.34	26.11	8.71	6.49

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 202.09

INPUT
Description: 202.09

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12423.7	965.6	17099.8	965.6	17186	965.4	17264.6	965.3	17349.3	965
17358.9	964.8	17418	967.1	17422.9	965.6	17428.2	966.9	17452	965.9
17476.4	966.1	17491.8	967.5	17574.4	967	17614.9	967.2	17693.5	967.2
17814.7	961.1	17920.2	960.8	17951.8	961.2	18050.9	963.8	18132.1	964.1
18212.9	964.4	18247.5	964.7	18306	959.3	18322.2	960.3	18340.5	958.1
18363.8	957.3	18389.5	962.4	18475.1	961.1	18485.9	960.9	18523.3	964.1
18558.3	962.3	18573.3	963.2	18621.2	963.3	18652.7	957.8	18708.8	958.1
18748.7	952.2	18769.9	955.2	18859.3	957.7	18962.1	957.3	18975.3	957.3
19086	957.5	19165.3	959.6	19217.9	961	19287.9	955.2	19344.8	963
19434.4	961.7	19513.8	958.9	19564.6	953.8	19623.2	957.6	19686.2	956.9
19738.7	957.5	19783.4	954.5	19908.5	952.6	19947.2	952	20093.1	950
20106.3	950	20143.3	952.6	20167.6	955.5	20187.3	956.2	20207.9	958
20254	956.6	20271.4	957.6	20297.7	960.4	20396.6	960.4	20472.8	959.6
20529.3	963.3	20613.6	962.6	20698	962.2	20720.5	961.5	20787.7	964.2
20816.2	959.4	20866.2	961.1	20916.3	960.7	20996.8	963.3	21047.5	963.6
21101.6	961.6	21155	960.7	21221.6	961.5	21280.8	956.9	21370.9	957.5
21444.4	956.7	21456.1	957.6	21466.3	959.4	21503.9	959	21516.7	956.6
21530.5	955.5	21561.3	958	21627.9	959.2	21709	959.7	21751.4	954.3
21825.3	953.8	21856.2	951.2	21912.9	951.7	21928.2	955.7	21938.26	965.332
21947	973.7	21985	973.7						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12423.7	.025	17491.8	.043	18212.9	.043	19086	.037	21947	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18212.92	21938.26	510	509.32	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
12423.7	17491.8	973.7

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	964.09	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.92	Wt. n-Val.	0.043	0.038	
E.G. Elev (ft)	965.01	Reach Len. (ft)	510.00	509.32	500.00
Crit W.S. (ft)	961.97	Flow Area (sq ft)	685.44	20909.31	
E.G. Slope (ft/ft)	0.003848	Area (sq ft)	685.44	20909.31	
Q Total (cfs)	164000.00	Flow (cfs)	2203.35	161796.66	

Top Width (ft)	4052.05	Top Width (ft)	373.14	3678.91	
Vel Total (ft/s)	7.59	Avg. Vel. (ft/s)	3.21	7.74	
Max Chl Dpth (ft)	14.09	Hydr. Depth (ft)	1.84	5.68	
Conv. Total (cfs)	2643854.8	Conv. (cfs)	35520.3	2608334.5	
Length Wtd. (ft)	509.33	Wetted Per. (ft)	373.25	3688.94	
Min Ch El (ft)	950.00	Shear (lb/sq ft)	0.44	1.36	
Alpha	1.03	Stream Power (lb/ft s)	1.42	10.54	
Frctn Loss (ft)	1.03	Cum Volume (acre-ft)	3697.63	8631.27	920.91
C & E Loss (ft)	0.10	Cum SA (acres)	1003.14	981.75	503.76

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	964.16	Element			
Vel Head (ft)	0.93	Wt. n-Val.		0.038	
E.G. Elev (ft)	965.09	Reach Len. (ft)	510.00	509.32	500.00
Crit W.S. (ft)	961.93	Flow Area (sq ft)		21163.39	
E.G. Slope (ft/ft)	0.003803	Area (sq ft)		21163.39	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	3682.20	Top Width (ft)		3682.20	
Vel Total (ft/s)	7.75	Avg. Vel. (ft/s)		7.75	
Max Chl Dpth (ft)	14.16	Hydr. Depth (ft)		5.75	
Conv. Total (cfs)	2659472.0	Conv. (cfs)		2659472.0	
Length Wtd. (ft)	509.32	Wetted Per. (ft)		3692.31	
Min Ch El (ft)	950.00	Shear (lb/sq ft)		1.36	
Alpha	1.00	Stream Power (lb/ft s)		10.54	
Frctn Loss (ft)	1.02	Cum Volume (acre-ft)	290.25	9014.79	30.85
C & E Loss (ft)	0.11	Cum SA (acres)	43.55	982.23	5.87

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17441.01	17826.95	390.34	125.43	71.67	0.24	1.75	3.11
17826.95	18212.90	1813.01	560.01	301.58	1.11	1.86	3.24
18212.90 LB	18957.97	18015.89	3288.83	705.69	10.99	4.68	5.48
18957.97	19703.04	28196.15	4089.72	746.33	17.19	5.49	6.89
19703.04	20448.12	64970.29	6633.02	745.76	39.62	8.90	9.79
20448.12	21193.19	6111.37	1603.07	742.28	3.73	2.16	3.81
21193.19	21938.26 RB	44502.96	5294.67	748.87	27.14	7.12	8.41

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18212.90 LB	18957.97	18363.96	3337.44	706.86	11.20	4.74	5.50
18957.97	19703.04	28668.17	4141.15	746.33	17.48	5.56	6.92
19703.04	20448.12	65535.21	6684.46	745.76	39.96	8.97	9.80
20448.12	21193.19	6401.19	1654.34	744.41	3.90	2.22	3.87
21193.19	21938.26 RB	45031.45	5346.01	748.94	27.46	7.19	8.42

Warning - Divided flow computed for this cross-section.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.99

INPUT
Description: 201.99

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12423.7	962.9	12792.3	963.8	13061.9	964.2	13286.8	963.1	13510.3	962
13746.9	961.3	13984	962.2	14217.9	962.9	14443.4	963.1	14690.7	964.7
14908.9	964.6	14956.9	968.1	14966.2	964.3	15216	964.5	15450.3	964.3
15717.5	963.6	15947.7	963	16170.3	962.3	16226.7	962.5	16243.5	964.4
16481.8	963.7	16706	964.8	16931.9	964.5	17163.9	965	17409.1	965.4
17507.7	965.1	17760.7	967.9	18000.5	959.7	18235.1	962.5	18353.1	960.5
18417.7	956.5	18440	960.5	18639.2	962	18674	954.8	18737.7	957.9
18818.4	957.6	18843.9	951.9	18894.5	956	19104.7	956.3	19162.4	959.4
19182	952.7	19244.4	958.4	19290	953.9	19357.8	953.9	19392.3	959.4
19476.2	956.3	19599.7	958.8	19757.3	956.9	19806.8	958.1	19854.1	952.5
20078.1	951.3	20095.8	953	20192.9	950.6	20250.9	959.6	20290.2	950.4
20347.4	962.9	20368.6	965.8	20433.1	963	20465.1	950.1	20577.2	949.5
20589	951.7	20619.5	951.7	20638.1	949.5	20700.3	949.5	20727.6	954.8
20735.3	964.1	20750.8	961.1	20862.1	965.2	20904	975.7	20956.4	975.3
20989.8	964.1	21038.3	963.3	21074.1	972.2	21105.1	970	21109	967.5
21138.5	968.2	21163.6	953.1	21180.4	949.1	21267.5	949.1	21538.3	949.1
21555.3	949.1	21578	958.4	21595.4	955.8	21617.3	955.7	21641.7	951.9
21676.1	954.4	21726.5	948.7	21821.2	953.2	21862.8	963.6	21892.7	1964.4166
21991	967.1	22006.5	964	22019.9	967.9	22243.3	966.9	22585.6	967
22917.2	966.9	23024.3	966.9						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12423.7	.025	17507.7	.043	17760.7	.043	19357.8	.032	20250.9	.037
21991	.037	22006.5	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18235.1	21892.71	470	477.46	490	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12423.7	17760.7	975.7	21990.9	23024.3	975.7

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	963.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.58	Wt. n-Val.	0.043	0.036	
E.G. Elev (ft)	963.87	Reach Len. (ft)	470.00	477.46	490.00
Crit W.S. (ft)	958.62	Flow Area (sq ft)	702.50	26531.65	
E.G. Slope (ft/ft)	0.001252	Area (sq ft)	2110.20	26531.65	
Q Total (cfs)	164000.00	Flow (cfs)	1394.28	162605.73	
Top Width (ft)	5331.46	Top Width (ft)	2122.37	3209.09	
Vel Total (ft/s)	6.02	Avg. Vel. (ft/s)	1.98	6.13	
Max Chl Dpth (ft)	14.59	Hydr. Depth (ft)	2.07	8.27	
Conv. Total (cfs)	4634981.0	Conv. (cfs)	39405.2	4595576.0	
Length Wtd. (ft)	477.43	Wetted Per. (ft)	339.69	3231.97	
Min Ch El (ft)	948.70	Shear (lb/sq ft)	0.16	0.64	
Alpha	1.03	Stream Power (lb/ft s)	0.32	3.93	
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	3681.26	8353.92	920.91
C & E Loss (ft)	0.05	Cum SA (acres)	988.53	941.48	503.76

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	963.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.58	Wt. n-Val.		0.036	
E.G. Elev (ft)	963.96	Reach Len. (ft)	470.00	477.46	490.00
Crit W.S. (ft)	958.62	Flow Area (sq ft)		26811.01	

E.G. Slope (ft/ft)	0.001241	Area (sq ft)			26811.01	
Q Total (cfs)	164000.00	Flow (cfs)			164000.00	
Top Width (ft)	3219.77	Top Width (ft)			3219.77	
Vel Total (ft/s)	6.12	Avg. Vel. (ft/s)			6.12	
Max Chl Dpth (ft)	14.68	Hydr. Depth (ft)			8.33	
Conv. Total (cfs)	4655852.5	Conv. (cfs)			4655852.5	
Length Wtd. (ft)	477.46	Wetted Per. (ft)			3243.71	
Min Ch El (ft)	948.70	Shear (lb/sq ft)			0.64	
Alpha	1.00	Stream Power (lb/ft s)			3.92	
Frctn Loss (ft)	0.46	Cum Volume (acre-ft)	290.25		8734.32	30.85
C & E Loss (ft)	0.05	Cum SA (acres)	43.55		941.88	5.87

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17847.67	18235.10	1394.28	702.50	339.69	0.85	2.07	1.98
18235.10 LB	18966.62	10778.02	3306.20	733.63	6.57	4.52	3.26
18966.62	19698.14	22535.63	4775.20	733.73	13.74	6.53	4.72
19698.14	20429.67	42587.53	6067.62	658.98	25.97	9.26	7.02
20429.67	21161.19	23666.27	3800.93	400.31	14.43	9.74	6.23
21161.19	21892.71 RB	63038.27	8581.70	705.33	38.44	12.25	7.35

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18235.10 LB	18966.62	11060.78	3369.78	734.51	6.74	4.61	3.28
18966.62	19698.14	22925.71	4838.78	733.73	13.98	6.61	4.74
19698.14	20429.67	42971.57	6124.70	661.62	26.20	9.31	7.02
20429.67	21161.19	23583.19	3835.18	408.44	14.38	9.63	6.15
21161.19	21892.71 RB	63458.74	8642.57	705.41	38.69	12.34	7.34

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.9

INPUT
Description: 201.9

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12498	962.4	12680.7	963	12847.7	963.1	13015.1	963.3	13199.8	963.2
13361.7	963.7	13371.9	960.2	13574.5	962.7	13724.8	961.4	13908.8	961.8
14082.1	962.6	14282	963.2	14504.3	963.3	14674.9	963	14875.2	963.6
15026	967.2	15036.6	963.6	15225.9	964.3	15398.3	964.4	15600.8	964.2
15790.8	963.8	15996.8	963.9	16181.7	962.7	16294.9	962.8	16309.4	964.3
16331.6	962	16525.6	962.6	16699.1	963.6	16881.9	964.4	17117.4	963.7
17353.6	965.3	17563.8	966.2	17569	964.3	17769.9	966.6	17941.7	966
17954.3	963.8	18181.9	958.7	18226.6	955.3	18260.2	960.7	18291.8	960.5
18303.9	958.6	18480.2	961.7	18648.9	961.8	18745.5	962	18798.7	956.2
18820.8	957.2	18854.3	951.8	18909.2	955.3	19138.4	956.3	19200	953.3
19336.3	962.3	19389.1	958.9	19449.9	951.5	19624.1	955.9	19782.3	957.2
19911.4	951.6	20081.9	950.6	20221.5	952.6	20269.4	959.3	20331.6	955.1
20356	957.7	20398.9	948.7	20567.7	948.5	20744.7	949.1	20888.3	947.2
20954.4	949.9	21000.8	949	21037.1	957.5	21099.1	956	21139.7	949.7
21300.7	952.4	21411.2	949.7	21444.1	955.9	21487.9	956.1	21503.4	949
21546.8	949	21556.2	952.2	21567.4	960.5	21588	955.9	21628.6	952.2
21667.7	955.7	21698.6	949	21736.9	950	21748.7	952.4	21786.7	952.8
21827.4	1963.9898	21842	968	21955.2	963.2	21982.2	967.4	22181.8	966
22228.4	965.8	22400.7	965.8	22432.3	965.9	22634.3	966.5	22801.2	966.1
23008.7	966	23096	965.3						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

12498 .025 17569 .043 17769.9 .043 19389.1 .032 20331.6 .037
21842 .037 21982.2 .025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17954.3	21827.41	500	495.8	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12498	17769.9	968	21842.1	23096	968

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	962.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.41	Wt. n-Val.		0.036	
E.G. Elev (ft)	963.35	Reach Len. (ft)	500.00	495.80	500.00
Crit W.S. (ft)	957.26	Flow Area (sq ft)		31873.70	
E.G. Slope (ft/ft)	0.000785	Area (sq ft)	1051.08	31873.70	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	5241.54	Top Width (ft)	1410.58	3830.96	
Vel Total (ft/s)	5.15	Avg. Vel. (ft/s)		5.15	
Max Chl Dpth (ft)	15.74	Hydr. Depth (ft)		8.32	
Conv. Total (cfs)	5852611.0	Conv. (cfs)		5852611.0	
Length Wtd. (ft)	495.80	Wetted Per. (ft)		3845.63	
Min Ch El (ft)	947.20	Shear (lb/sq ft)		0.41	
Alpha	1.00	Stream Power (lb/ft s)		2.09	
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	3664.21	8033.84	920.91
C & E Loss (ft)	0.02	Cum SA (acres)	969.47	902.90	503.76

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	963.05	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.		0.036	
E.G. Elev (ft)	963.45	Reach Len. (ft)	500.00	495.80	500.00
Crit W.S. (ft)	957.26	Flow Area (sq ft)		32284.29	
E.G. Slope (ft/ft)	0.000756	Area (sq ft)		32284.29	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	3830.97	Top Width (ft)		3830.97	
Vel Total (ft/s)	5.08	Avg. Vel. (ft/s)		5.08	
Max Chl Dpth (ft)	15.85	Hydr. Depth (ft)		8.43	
Conv. Total (cfs)	5964132.0	Conv. (cfs)		5964132.0	
Length Wtd. (ft)	495.80	Wetted Per. (ft)		3845.85	
Min Ch El (ft)	947.20	Shear (lb/sq ft)		0.40	
Alpha	1.00	Stream Power (lb/ft s)		2.01	
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	290.25	8410.45	30.85
C & E Loss (ft)	0.02	Cum SA (acres)	43.55	903.24	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17954.30 LB	18728.92	2893.20	1725.64	737.08	1.76	2.34	1.68
18728.92	19503.54	19102.69	5167.16	776.45	11.65	6.67	3.70
19503.54	20278.17	39875.23	7117.63	775.29	24.31	9.19	5.60
20278.17	21052.79	61275.29	9965.21	776.88	37.36	12.86	6.15
21052.79	21827.41 RB	40853.59	7898.06	779.93	24.91	10.25	5.17

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17954.30 LB	18728.92	3059.81	1804.56	737.18	1.87	2.45	1.70
18728.92	19503.54	19240.81	5250.18	776.45	11.73	6.78	3.66
19503.54	20278.17	39910.73	7200.65	775.29	24.34	9.30	5.54
20278.17	21052.79	60983.61	10048.23	776.88	37.19	12.97	6.07
21052.79	21827.41 RB	40805.04	7980.67	780.04	24.88	10.35	5.11

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.81

INPUT
Description: 201.81

Left and Right Channel Bank Staions Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12574.1	961.8	12761.8	962	12923.9	962.6	13108.8	962.8	13276.3	963
13435.2	962.8	13461.6	960.9	13640.2	962.7	13758.3	961.2	13887.4	962.7
14049.5	962.4	14230.8	962.1	14408	962.7	14585.1	963.8	14774.2	962.7
14940.9	962.1	15056.2	964.1	15099	967.8	15104.2	963.1	15275.2	964.2
15444.5	964.1	15610.6	963.9	15771.8	963.8	15946.1	963.3	16142.1	962.7
16322.1	962	16382.5	963.6	16475.3	960.8	16709.7	962.1	16947.6	962.4
17136	963	17301	963.8	17538.6	963.1	17700.9	964.2	17890.2	965.6
17935.7	965.6	17946.8	9963.6227	17964	960.6	18130	958	18246.7	956.1
18277.1	959.5	18483.2	960.9	18556.4	960.8	18619.6	964.6	18716.1	963.4
18765	964.3	18860.5	957.6	18955	958.4	19006.4	951.6	19072.9	957.9
19139.8	953.9	19294.5	954.6	19378.9	957.7	19550.9	954.4	19605.4	951.1
19693.5	953.4	19720.4	950.1	19883.7	950.2	20049.4	953	20182.8	953.5
20285.8	953.2	20377.1	957.6	20392.1	962.6	20421.1	948.6	20597	946.8
20665	946.7	20832.3	946.1	20846.8	951.1	20855.6	956.4	20869.8	954.4
20881.2	950.3	20908.5	949.6	20924	952.5	20962.6	950.9	21000.7	946.6
21169.8	946	21187.6	953.2	21244.2	956.3	21263.5	960.4	21295.1	951.3
21322.9	946.6	21496.1	948.5	21522.9	951.7	21690.5	950.7	21775	950.9
21803.2	7963.6213	21811	967.1	21860	969.2	21904.1	961.6	21929.9	965
21975.7	963.6	22175.4	965.3	22352.1	965	22654	963.5	22715.1	963.5
22875.2	962.8	23093.9	964.4	23169.5	964.2				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12574.1	.025	17700.9	.065	17935.7	.065	19378.9	.032	20392.1	.037
21860	.025	21975.7	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17946.8	921803.27	535	511.61	515	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12574.1	17935.7	969.2	21859.6	23169.5	969.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	962.64	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.36	Wt. n-Val.		0.037	
E.G. Elev (ft)	962.99	Reach Len. (ft)	535.00	511.61	515.00
Crit W.S. (ft)	955.82	Flow Area (sq ft)		34251.95	
E.G. Slope (ft/ft)	0.000619	Area (sq ft)	1201.75	34251.95	7.18
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	5916.44	Top Width (ft)	2255.78	3646.79	13.87
Vel Total (ft/s)	4.79	Avg. Vel. (ft/s)		4.79	
Max Chl Dpth (ft)	16.64	Hydr. Depth (ft)		9.39	
Conv. Total (cfs)	6592084.0	Conv. (cfs)		6592084.0	
Length Wtd. (ft)	511.64	Wetted Per. (ft)		3662.92	
Min Ch El (ft)	946.00	Shear (lb/sq ft)		0.36	
Alpha	1.00	Stream Power (lb/ft s)		1.73	
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	3651.28	7657.51	920.87
C & E Loss (ft)	0.02	Cum SA (acres)	948.42	860.35	503.68

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	962.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.35	Wt. n-Val.		0.037	
E.G. Elev (ft)	963.10	Reach Len. (ft)	535.00	511.61	515.00
Crit W.S. (ft)	955.82	Flow Area (sq ft)		34684.20	
E.G. Slope (ft/ft)	0.000597	Area (sq ft)		34684.20	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	

Top Width (ft)	3650.46	Top Width (ft)		3650.46	
Vel Total (ft/s)	4.73	Avg. Vel. (ft/s)		4.73	
Max Chl Dpth (ft)	16.75	Hydr. Depth (ft)		9.50	
Conv. Total (cfs)	6711267.0	Conv. (cfs)		6711267.0	
Length Wtd. (ft)	511.61	Wetted Per. (ft)		3666.82	
Min Ch El (ft)	946.00	Shear (lb/sq ft)		0.35	
Alpha	1.00	Stream Power (lb/ft s)		1.67	
Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	290.25	8029.33	30.85
C & E Loss (ft)	0.03	Cum SA (acres)	43.55	860.66	5.87

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17946.89 LB	18718.17	2468.90	2024.80	634.91	1.51	3.19	1.22
18718.17	19489.44	9992.51	4493.50	701.84	6.09	6.41	2.22
19489.44	20260.72	43994.51	8056.46	771.65	26.83	10.45	5.46
20260.72	21031.99	56457.63	10044.14	779.12	34.43	13.02	5.62
21031.99	21803.27 RB	51086.46	9633.05	775.40	31.15	12.53	5.30

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17946.89 LB	18718.17	2572.15	2100.08	637.00	1.57	3.30	1.22
18718.17	19489.44	10110.02	4576.61	703.53	6.16	6.52	2.21
19489.44	20260.72	44043.87	8147.83	771.65	26.86	10.56	5.41
20260.72	21031.99	56294.07	10135.51	779.12	34.33	13.14	5.55
21031.99	21803.27 RB	50979.89	9724.16	775.52	31.09	12.64	5.24

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.71

INPUT
Description: 201.71

Left Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12659.2	961.6	12855.6	961	13000	961	13129.9	960.8	13180.2	962.1
13187.7	959.3	13371.2	960	13521.5	960.3	13689.3	960.5	13844.9	960.6
13979.7	960.3	14193.8	960.9	14324.5	960.9	14461	961	14593.2	960.9
14774.5	961.4	14909.4	960.6	15132.5	961.7	15192.9	963.1	15384.5	962.1
15537.8	962.3	15716.6	961.2	15856.1	961.1	16082.6	960.9	16210.7	961.2
16383	961	16543.7	961	16684.4	961.3	16813.5	961.2	16941.4	961.7
17106.2	961.5	17255.2	962	17388.3	961.5	17585.2	961.5	17706.7	962.1
17766.4	963.8	17769.2	962.5	17794.4	964.5	17957.8	964.3	18096.3	964.8
18107.05	962.8899	18140.2	957	18197.6	953.2	18356.6	956.6	18441.5	961.3
18556.1	957.7	18600.1	958.6	18651.3	956.4	18676.1	956.9	18707	951.3
18764	957	18831.5	958.2	19007.5	955.3	19076.4	952	19279.5	954.1
19409.2	953.7	19475.6	949.9	19555.7	955.6	19660.9	959	19739.3	954.2
19763.1	949.4	19910.3	951	19978.4	951.1	20023.1	954.8	20199	956
20304.5	951.4	20347.1	954.9	20447.3	951.1	20499.8	956.3	20554.9	954.5
20692.6	956.1	20848.5	954.8	20899.8	950.2	20984.5	949.7	21011.3	946
21148.8	948.4	21186.8	951.7	21268.1	954.5	21355	953.1	21433.7	954.9
21490.6	959.4	21528.5	960.3	21661.1	959.7	21837.7	959.7	21975.8	962.2

22098	963.6	22111.4	961.1	22160.6	964.1	22190.7	962.9	22353.1	963.4
22385.7	963.3	22516.6	964.2	22615.8	964.3	22832.1	963.4	22981.6	963.4
23127.8	962.8	23246	962						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12659.2	.025	17706.7	.065	18096.3	.065	19660.9	.032	20554.9	.037
21355	.025	21528.5	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18107.05	21528.5	505	489.63	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12659.2	18096.3	966	22098	23246	966

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	961.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.		0.040	0.025
E.G. Elev (ft)	962.46	Reach Len. (ft)	505.00	489.63	495.00
Crit W.S. (ft)	958.14	Flow Area (sq ft)		25898.07	759.82
E.G. Slope (ft/ft)	0.001826	Area (sq ft)	3860.69	25898.07	766.22
Q Total (cfs)	164000.00	Flow (cfs)		161174.92	2825.08
Top Width (ft)	8308.13	Top Width (ft)	4446.86	3415.69	445.57
Vel Total (ft/s)	6.15	Avg. Vel. (ft/s)		6.22	3.72
Max Chl Dpth (ft)	15.87	Hydr. Depth (ft)		7.58	1.77
Conv. Total (cfs)	3838366.3	Conv. (cfs)		3772246.3	66120.1
Length Wtd. (ft)	489.70	Wetted Per. (ft)		3420.11	428.91
Min Ch El (ft)	946.00	Shear (lb/sq ft)		0.86	0.20
Alpha	1.01	Stream Power (lb/ft s)		5.37	0.75
Frctn Loss (ft)	0.78	Cum Volume (acre-ft)	3620.19	7304.28	916.29
C & E Loss (ft)	0.02	Cum SA (acres)	907.26	818.87	500.97

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	961.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.60	Wt. n-Val.		0.040	
E.G. Elev (ft)	962.58	Reach Len. (ft)	505.00	489.63	495.00
Crit W.S. (ft)	958.14	Flow Area (sq ft)		26277.08	
E.G. Slope (ft/ft)	0.001807	Area (sq ft)		26277.08	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	3415.69	Top Width (ft)		3415.69	
Vel Total (ft/s)	6.24	Avg. Vel. (ft/s)		6.24	
Max Chl Dpth (ft)	15.98	Hydr. Depth (ft)		7.69	
Conv. Total (cfs)	3858247.5	Conv. (cfs)		3858247.5	
Length Wtd. (ft)	489.63	Wetted Per. (ft)		3421.90	
Min Ch El (ft)	946.00	Shear (lb/sq ft)		0.87	
Alpha	1.00	Stream Power (lb/ft s)		5.41	
Frctn Loss (ft)	0.76	Cum Volume (acre-ft)	290.25	7671.34	30.85
C & E Loss (ft)	0.03	Cum SA (acres)	43.55	819.17	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18107.05 LB	18791.34	9570.92	3404.36	680.16	5.84	5.02	2.81
18791.34	19475.63	18820.84	5121.02	684.52	11.48	7.48	3.68
19475.63	20159.92	40782.88	5618.33	685.34	24.87	8.21	7.26
20159.92	20844.21	35391.50	5015.28	684.91	21.58	7.33	7.06
20844.21	21528.50 RB	56608.76	6739.09	685.18	34.52	9.85	8.40
21528.50	21643.00	755.78	209.05	114.50	0.46	1.83	3.62
21643.00	21757.50	1000.36	247.34	114.50	0.61	2.16	4.04
21757.50	21872.00	934.44	237.44	114.51	0.57	2.07	3.94
21872.00	21986.50	134.50	66.00	85.40	0.08	0.77	2.04

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18107.05 LB	18791.34	9878.37	3479.65	680.27	6.02	5.13	2.84
18791.34	19475.63	19197.15	5196.95	684.52	11.71	7.59	3.69
19475.63	20159.92	41473.75	5694.26	685.34	25.29	8.32	7.28
20159.92	20844.21	36105.86	5091.21	684.91	22.02	7.44	7.09
20844.21	21528.50 RB	57344.88	6815.02	686.86	34.97	9.96	8.41

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.62

INPUT
Description: 201.62

Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12723.6	960.1	12862.6	960.3	13017.9	960.4	13156.4	960.4	13253.3	961.5
13267.4	959	13436.1	959.9	13621.5	960.4	13766.2	960.5	13909.8	960.4
14075.1	960.4	14269.1	960.4	14410.3	960.9	14542.3	960.9	14677.4	961
14845.4	961.8	15072.7	961	15207.9	961.9	15344.9	961.6	15510.2	961.6
15676.2	961	15821	960.6	15995.5	960.4	16157.9	960.8	16296	961.1
16491.6	961.1	16630.4	960.7	16799.9	960.5	16987.6	960.1	17022.4	962
17197.5	958.5	17331.6	959.3	17350.4	962.3	17555	961.1	17693.7	961.5
17788.7	963.5	17792.9	962.2	17963.6	963.3	18107	962.8	18229.7	963.9
18233.5	962.1533	18253.2	953.1	18417.5	953.4	18563.5	953.4	18723.5	952.3
18864.3	951.9	18956.1	956.6	19045.2	956.9	19129.4	952.1	19159.3	954.5
19237.7	952.1	19435.3	953.3	19483	951.6	19522	953.4	19577	948.8
19677.3	954.6	19737.2	953.8	19772.7	949.2	19918.1	949.3	20064.6	953.2
20213.3	953.8	20358.7	952.9	20472.9	952	20509.2	950	20584.5	955.3
20619.5	953.2	20653.6	948.7	20723.6	953.3	20794.2	955.3	20904.8	954.6
20962.2	949.9	20990.6	945.6	21150.5	945.9	21165.2	946.9	21199.1	955.3
21351	951.4	21457.3	955.6	21477.5	960.2	21514.2	959.4	21654.6	959.9
21824	959.8	21964.5	960.6	22074.2	961	22085	959.8	22090.5	961.3
22197.1	961.9	22233.4	963.7	22249.4	962.1	22301	963.2	22456.6	963.4
22491.4	963.3	22714.7	962.8	22775.6	962.8	22945.1	962.7	23131.5	962.5
23268.1	960.6	23318.4	961.5						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12723.6	.025	16799.9	.15	17197.5	.025	17792.9	.065	18229.7	.065
19577	.032	20509.2	.037	21351	.025	21477.5	.025		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18233.5	21477.5	485	486.48	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12723.6	18229.7	965	22233.4	23318.4	963.9

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	961.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.51	Wt. n-Val.		0.041	0.025
E.G. Elev (ft)	961.66	Reach Len. (ft)	485.00	486.48	510.00
Crit W.S. (ft)	956.72	Flow Area (sq ft)		28110.59	662.31
E.G. Slope (ft/ft)	0.001385	Area (sq ft)	2551.32	28110.59	681.48
Q Total (cfs)	164000.00	Flow (cfs)		162456.77	1543.23
Top Width (ft)	7614.59	Top Width (ft)	3690.33	3241.81	682.44
Vel Total (ft/s)	5.70	Avg. Vel. (ft/s)		5.78	2.33
Max Chl Dpth (ft)	15.55	Hydr. Depth (ft)		8.67	1.08
Conv. Total (cfs)	4406241.5	Conv. (cfs)		4364779.0	41462.5
Length Wtd. (ft)	486.98	Wetted Per. (ft)		3247.77	612.70
Min Ch El (ft)	945.60	Shear (lb/sq ft)		0.75	0.09
Alpha	1.02	Stream Power (lb/ft s)		4.33	0.22
Frctn Loss (ft)	0.78	Cum Volume (acre-ft)	3583.02	7000.75	908.07
C & E Loss (ft)	0.02	Cum SA (acres)	860.10	781.46	494.56

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	961.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.51	Wt. n-Val.		0.041	
E.G. Elev (ft)	961.80	Reach Len. (ft)	485.00	486.48	510.00
Crit W.S. (ft)	956.72	Flow Area (sq ft)		28552.42	
E.G. Slope (ft/ft)	0.001343	Area (sq ft)		28552.42	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	3241.81	Top Width (ft)		3241.81	
Vel Total (ft/s)	5.74	Avg. Vel. (ft/s)		5.74	
Max Chl Dpth (ft)	15.68	Hydr. Depth (ft)		8.81	
Conv. Total (cfs)	4475756.5	Conv. (cfs)		4475756.5	
Length Wtd. (ft)	486.48	Wetted Per. (ft)		3248.99	
Min Ch El (ft)	945.60	Shear (lb/sq ft)		0.74	
Alpha	1.00	Stream Power (lb/ft s)		4.23	
Frctn Loss (ft)	0.77	Cum Volume (acre-ft)	290.25	7363.19	30.85
C & E Loss (ft)	0.01	Cum SA (acres)	43.55	781.75	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18233.50 LB	18882.30	17982.40	5258.98	648.40	10.96	8.13	3.42
18882.30	19531.10	15279.67	4771.94	649.27	9.32	7.36	3.20
19531.10	20179.90	46730.71	6254.46	649.48	28.49	9.64	7.47
20179.90	20828.70	35306.54	5371.46	649.59	21.53	8.28	6.57
20828.70	21477.50 RB	47157.45	6453.75	651.03	28.75	9.95	7.31
21477.50	21600.23	505.20	186.64	122.74	0.31	1.52	2.71
21600.23	21722.95	389.94	159.77	122.73	0.24	1.30	2.44
21722.95	21845.68	395.16	161.05	122.73	0.24	1.31	2.45
21845.68	21968.41	201.12	107.40	122.73	0.12	0.88	1.87
21968.41	22091.13	51.81	47.45	121.78	0.03	0.39	1.09

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18233.50 LB	18882.30	18200.21	5347.11	648.54	11.10	8.27	3.40
18882.30	19531.10	15511.86	4860.36	649.27	9.46	7.49	3.19
19531.10	20179.90	47103.51	6342.89	649.48	28.72	9.78	7.43
20179.90	20828.70	35721.38	5459.88	649.59	21.78	8.42	6.54
20828.70	21477.50 RB	47463.04	6542.18	652.11	28.94	10.08	7.25

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.52

INPUT
Description: 201.52

Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12786.6	960.2	12939.6	960.1	13099	960.1	13244.9	960.2	13300.5	962.8
13357.3	959.7	13501.3	960.4	13678.7	959.8	13830.9	960	14035.1	959.9
14185.2	959.4	14386.6	959.8	14539	959.6	14722.7	959.3	14894.1	959.5
15114.2	959.2	15254.5	962.1	15427.2	959.8	15592.7	959.9	15779.1	959.7
15959.1	959.6	16138.8	959.3	16313.2	960.4	16492.7	958.5	16665.8	959
16834.1	958	17009.5	957.5	17081.3	959.5	17261.7	956	17408.3	957.9
17566	960	17731.1	959.6	17842.3	960.3	17845.2	962.9	17943.7	3961.3971
18009.1	960.4	18087.6	959.9	18104.5	954	18264.9	951.7	18427.6	949.5
18577.1	948.4	18651.6	946.4	18699.1	952.7	18753.8	949	18784.8	949.1
18848.6	953.1	18893.8	954	18925.3	958	19065.9	958.5	19153	954.3
19223.7	956.3	19377	949.7	19404.1	948.6	19480.7	949.5	19540.9	947.7
19607.6	951.7	19748	954.6	19781.1	954.1	19818.6	949.6	19876.6	948.4
19936	956.7	20100.5	954.2	20244	952.7	20403.3	950.4	20550.4	948.2
20608.4	948	20715.6	953.3	20891.6	948.2	20923.4	941.8	20972.4	940.9
20990.6	945.3	21048.3	948	21178	947.3	21216.5	954.8	21254.9	957
21391.4	958.4	21554.4	958	21596.8	958.1	21777.9	958.2	21934.4	958.6
21995.7	958.3	22004.2	960.1	22157.3	959.4	22212.5	961.1	22218.9	959.2
22225.8	961.6	22299.7	963.1	22311.3	960.4	22338.4	962.5	22478.8	962.4

22674.4	962.5	22848.1	961.1	22905.9	961.6	23058.8	963.2	23081.5	963.2
23263.4	961.3	23370	959.8						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12786.6	.025	17009.5	.15	17261.7	.025	17845.2	.15	19480.7	.032
20244	.037	21391.4	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17943.73	21391.4	495	492.06	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12786.6	17845.2	963.2	22212.5	23370	963.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	960.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.		0.049	0.025
E.G. Elev (ft)	960.87	Reach Len. (ft)	495.00	492.06	495.00
Crit W.S. (ft)	955.35	Flow Area (sq ft)		28831.32	1430.95
E.G. Slope (ft/ft)	0.001854	Area (sq ft)	4788.19	28831.32	1448.66
Q Total (cfs)	164000.00	Flow (cfs)		158598.61	5401.40
Top Width (ft)	8984.44	Top Width (ft)	4752.01	3382.85	849.58
Vel Total (ft/s)	5.42	Avg. Vel. (ft/s)		5.50	3.77
Max Chl Dpth (ft)	19.51	Hydr. Depth (ft)		8.52	1.79
Conv. Total (cfs)	3808791.3	Conv. (cfs)		3683347.5	125443.9
Length Wtd. (ft)	492.14	Wetted Per. (ft)		3388.48	798.85
Min Ch El (ft)	940.90	Shear (lb/sq ft)		0.98	0.21
Alpha	1.01	Stream Power (lb/ft s)		5.42	0.78
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	3542.16	6682.78	895.60
C & E Loss (ft)	0.01	Cum SA (acres)	813.10	744.46	485.59

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	960.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.49	Wt. n-Val.		0.049	
E.G. Elev (ft)	961.02	Reach Len. (ft)	495.00	492.06	495.00
Crit W.S. (ft)	955.35	Flow Area (sq ft)		29242.21	
E.G. Slope (ft/ft)	0.001898	Area (sq ft)		29242.21	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	3382.85	Top Width (ft)		3382.85	
Vel Total (ft/s)	5.61	Avg. Vel. (ft/s)		5.61	
Max Chl Dpth (ft)	19.63	Hydr. Depth (ft)		8.64	
Conv. Total (cfs)	3764058.8	Conv. (cfs)		3764058.8	
Length Wtd. (ft)	492.06	Wetted Per. (ft)		3390.73	
Min Ch El (ft)	940.90	Shear (lb/sq ft)		1.02	
Alpha	1.00	Stream Power (lb/ft s)		5.73	
Frctn Loss (ft)	0.86	Cum Volume (acre-ft)	290.25	7040.46	30.85
C & E Loss (ft)	0.01	Cum SA (acres)	43.55	744.76	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17943.73 LB	18633.26	9399.58	5316.76	625.77	5.73	8.51	1.77
18633.26	19322.80	6222.29	4318.16	690.69	3.79	6.26	1.44
19322.80	20012.33	39568.36	6113.85	690.66	24.13	8.87	6.47
20012.33	20701.87	48462.88	6189.76	689.70	29.55	8.98	7.83
20701.87	21391.40 RB	54945.48	6892.80	691.65	33.50	10.00	7.97
21391.40	21523.31	1153.54	286.27	131.91	0.70	2.17	4.03
21523.31	21655.21	1300.30	307.60	131.91	0.79	2.33	4.23
21655.21	21787.12	1215.18	295.36	131.91	0.74	2.24	4.11
21787.12	21919.03	1020.41	265.97	131.91	0.62	2.02	3.84
21919.03	22050.93	521.22	177.84	132.10	0.32	1.35	2.93
22050.93	22182.84	190.32	97.11	131.92	0.12	0.74	1.96
22182.84	22314.75	0.44	0.80	7.21	0.00	0.11	0.55

Warning - Divided flow computed for this cross-section.

Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17943.73 LB	18633.26	9738.42	5392.64	625.89	5.94	8.63	1.81
18633.26	19322.80	6501.78	4401.91	690.69	3.96	6.38	1.48
19322.80	20012.33	41002.84	6197.60	690.66	25.00	8.99	6.62
20012.33	20701.87	50138.10	6273.51	689.70	30.57	9.10	7.99
20701.87	21391.40 RB	56618.86	6976.55	693.78	34.52	10.12	8.12

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.43

INPUT
Description: 201.43

Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12790.4	959.2	12931.7	959.4	13106.1	959.5	13261.9	959.6	13426.6	960.3
13574.8	960.1	13719.2	960	13863.6	960.3	14015.4	959.4	14162.1	960.1
14260	960.7	14418.2	961.9	14556.8	961.4	14697.8	960.6	14846.1	959.1
15008.5	959.1	15194.6	958.6	15331.7	959.1	15511.6	959.4	15657.5	959.5
15799.1	959.9	15827.9	961.5	15973.4	960.8	16110.8	960.5	16254.2	959.9
16478.5	958.1	16617.9	958	16780.3	959.8	16924.1	959.3	17061.9	956
17202.1	956.4	17374.3	959	17594.2	959.4	17734	959.4	17844.3	960.3
17853.5	961.9	17859.2	959.6	18001.4	960.7	18014.9	960.4907	18053	959.9
18066.9	952.8	18179.7	952.8	18317	950.6	18459.7	949.9	18597.4	947.5
18738.8	948.8	18799.8	954.8	18924.3	958	19076.8	958.9	19195.5	956.6
19253.6	950.7	19403.4	947	19416.1	948.3	19450.8	947.6	19528.4	954.4
19671.9	955.8	19712.9	955.8	19744.1	948.3	19847.5	947.6	19851.7	953.1
19996.8	955.1	20141.7	954.2	20303.2	954.8	20474.6	951.5	20649	946.3
20689.8	947.9	20719.5	943.8	20747.5	947.5	20911.6	947	20951.8	947.8
20976.3	941.3	21080.6	942.7	21100.4	945.1	21136.4	946.2	21179.1	944.6
21271.5	950.5	21342.1	957.5	21353.3	959.8	21363.1	957.2	21516.4	957.7
21676.7	958.3	21814.1	958.7	21883	958.4	22035.4	957.9	22182.8	959.4
22322.3	960.9	22328.9	958.7	22340	962.3	22362.8	960.4	22606.3	961.2
22648.5	961.2	22787	960.2	22945.6	960.3	23094.6	961.1	23289.3	961
23341.9	960.2	23387.4	958.8						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12790.4	.043	15827.9	.065	17202.1	.025	17853.5	.15	19253.6	.032
20649	.037	21342.1	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18014.9	21342.1	555	519.88	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12790.4	18000	962.3	22322.3	23387.4	962.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	959.46	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.55	Wt. n-Val.		0.042	0.025
E.G. Elev (ft)	960.01	Reach Len. (ft)	555.00	519.88	505.00
Crit W.S. (ft)	954.84	Flow Area (sq ft)		26894.28	1076.26
E.G. Slope (ft/ft)	0.001619	Area (sq ft)	1819.48	26894.28	1085.13
Q Total (cfs)	164000.00	Flow (cfs)		160972.09	3027.90
Top Width (ft)	6525.63	Top Width (ft)	2367.76	3288.24	869.63
Vel Total (ft/s)	5.86	Avg. Vel. (ft/s)		5.99	2.81
Max Chl Dpth (ft)	18.16	Hydr. Depth (ft)		8.18	1.28
Conv. Total (cfs)	4075948.0	Conv. (cfs)		4000694.5	75253.5
Length Wtd. (ft)	519.63	Wetted Per. (ft)		3296.86	844.01
Min Ch El (ft)	941.30	Shear (lb/sq ft)		0.82	0.13
Alpha	1.03	Stream Power (lb/ft s)		4.93	0.36
Frctn Loss (ft)	0.94	Cum Volume (acre-ft)	3504.62	6368.04	881.20
C & E Loss (ft)	0.01	Cum SA (acres)	772.64	706.78	475.82

Warning - Divided flow computed for this cross-section.

Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	959.60	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.56	Wt. n-Val.		0.042	
E.G. Elev (ft)	960.15	Reach Len. (ft)	555.00	519.88	505.00
Crit W.S. (ft)	954.84	Flow Area (sq ft)		27333.41	
E.G. Slope (ft/ft)	0.001604	Area (sq ft)		27333.41	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	3288.24	Top Width (ft)		3288.24	
Vel Total (ft/s)	6.00	Avg. Vel. (ft/s)		6.00	
Max Chl Dpth (ft)	18.30	Hydr. Depth (ft)		8.31	
Conv. Total (cfs)	4094557.5	Conv. (cfs)		4094557.5	
Length Wtd. (ft)	519.88	Wetted Per. (ft)		3299.09	
Min Ch El (ft)	941.30	Shear (lb/sq ft)		0.83	
Alpha	1.00	Stream Power (lb/ft s)		4.98	
Frctn Loss (ft)	0.92	Cum Volume (acre-ft)	290.25	6720.92	30.85
C & E Loss (ft)	0.01	Cum SA (acres)	43.55	707.08	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18014.90 LB	18680.34	9566.29	5617.34	628.13	5.83	8.97	1.70
18680.34	19345.78	9895.96	3095.15	666.13	6.03	4.65	3.20
19345.78	20011.22	34931.19	4960.43	669.46	21.30	7.45	7.04
20011.22	20676.66	32109.95	4707.73	665.57	19.58	7.07	6.82
20676.66	21342.10 RB	74468.70	8513.62	667.57	45.41	12.79	8.75
21342.10	21478.45	902.23	258.18	133.92	0.55	1.93	3.49
21478.45	21614.81	705.75	224.42	136.35	0.43	1.65	3.14
21614.81	21751.16	391.08	157.48	136.35	0.24	1.15	2.48
21751.16	21887.51	253.21	121.33	136.35	0.15	0.89	2.09
21887.51	22023.87	476.34	177.26	136.35	0.29	1.30	2.69
22023.87	22160.22	296.68	133.43	136.36	0.18	0.98	2.22
22160.22	22296.57	2.61	4.16	28.30	0.00	0.15	0.63

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18014.90 LB	18680.34	9761.42	5701.01	628.26	5.95	9.10	1.71
18680.34	19345.78	10152.48	3184.02	666.13	6.19	4.78	3.19
19345.78	20011.22	35825.81	5049.30	669.46	21.85	7.59	7.10
20011.22	20676.66	32974.53	4796.59	665.57	20.11	7.21	6.87
20676.66	21342.10 RB	75285.76	8602.48	669.66	45.91	12.93	8.75

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.33

INPUT
Description: 201.33

Left ChannelBank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12785.7	957.8	12951.9	958.1	13134.4	958.1	13293.5	958.1	13493.4	958.4
13649.5	958.9	13744.1	960.9	13758.6	959.4	13925.5	959	14085.7	958.6
14255.8	961.3	14420.6	961.4	14593.6	961.2	14794.8	960.7	14992.6	959.3
15164	957.6	15345.7	958.5	15520.6	959.3	15694.3	959.9	15854.4	959.9
16014.9	960.3	16184.1	960.4	16362.7	960.3	16517.9	960.6	16680.1	958.6
16837.4	958.7	16937	956.7	17109.2	956.2	17266.3	958.7	17288.5	957.8
17465.9	959.2	17667.7	959	17831.2	959.5	17862	961.6	17929.5	961.8
17948.2	960.4	18049.5	2959.5	026 18072.4	959.3	18086.6	953	18242.2	954.4
18398.7	954.5	18556.7	954.3	18607.2	952.5	18626.2	948.5	18634.2	950
18715.7	949.6	18791	954.8	18874.7	955.9	18937.2	954.7	18984.3	948
19116.8	949.1	19140.9	943	19269.7	945.9	19315	948.3	19489.9	950.7
19565.6	952.4	19588.8	955.2	19608.2	948.1	19752.9	948	19806.6	953

19969.5	952.2	20134.6	953.3	20171.4	952.2	20226.7	955.4	20293.9	954.2
20341.3	955.5	20424.9	951.7	20512.5	950.6	20548.8	944.7	20652.6	950
20769.7	946.7	20843.2	955	21006.1	948.3	21057.8	946.6	21076.8	943.6
21236.1	944.8	21304.1	946.3	21310.7	945	21357	957.5	21381.8	958.1
21545.7	957.7	21548.3	957.8	21799.8	956.8	21810.6	956.8	22056.9	957.1
22107.8	957.3	22115	958.6	22356.1	957.9	22513.8	959.5	22624.6	962.2
22794.7	960.7	22966.1	961	23037.1	962.1	23192.4	961.3	23366.6	961.5
23397.6	960.4	23444	960.7						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12785.7	.043	15854.4	.065	17266.3	.025	17929.5	.15	19116.8	.032
19315	.037	21381.8	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18049.52	21381.8	515	514.62	515	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12785.7	17929.5	962.2	22624.6	23444	962.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	958.44	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.63	Wt. n-Val.		0.042	0.025
E.G. Elev (ft)	959.06	Reach Len. (ft)	515.00	514.62	515.00
Crit W.S. (ft)	954.84	Flow Area (sq ft)		25244.51	889.29
E.G. Slope (ft/ft)	0.002024	Area (sq ft)	943.70	25244.51	889.29
Q Total (cfs)	164000.00	Flow (cfs)		161538.09	2461.90
Top Width (ft)	5744.84	Top Width (ft)	1467.58	3307.45	969.81
Vel Total (ft/s)	6.28	Avg. Vel. (ft/s)		6.40	2.77
Max Chl Dpth (ft)	15.44	Hydr. Depth (ft)		7.63	0.92
Conv. Total (cfs)	3645555.0	Conv. (cfs)		3590829.3	54725.7
Length Wtd. (ft)	514.63	Wetted Per. (ft)		3316.00	969.92
Min Ch El (ft)	943.00	Shear (lb/sq ft)		0.96	0.12
Alpha	1.03	Stream Power (lb/ft s)		6.15	0.32
Frctn Loss (ft)	0.99	Cum Volume (acre-ft)	3487.02	6056.91	869.76
C & E Loss (ft)	0.01	Cum SA (acres)	748.21	667.43	465.16

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	958.60	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.63	Wt. n-Val.		0.042	
E.G. Elev (ft)	959.23	Reach Len. (ft)	515.00	514.62	515.00
Crit W.S. (ft)	954.84	Flow Area (sq ft)		25784.52	
E.G. Slope (ft/ft)	0.001959	Area (sq ft)		25784.52	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	3307.45	Top Width (ft)		3307.45	
Vel Total (ft/s)	6.36	Avg. Vel. (ft/s)		6.36	
Max Chl Dpth (ft)	15.60	Hydr. Depth (ft)		7.80	
Conv. Total (cfs)	3705169.8	Conv. (cfs)		3705169.8	
Length Wtd. (ft)	514.62	Wetted Per. (ft)		3316.67	
Min Ch El (ft)	943.00	Shear (lb/sq ft)		0.95	
Alpha	1.00	Stream Power (lb/ft s)		6.05	
Frctn Loss (ft)	0.96	Cum Volume (acre-ft)	290.25	6403.94	30.85
C & E Loss (ft)	0.01	Cum SA (acres)	43.55	667.72	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18049.52 LB	18715.98	4140.54	3216.69	643.38	2.52	5.01	1.29
18715.98	19382.43	39187.77	5830.88	667.99	23.89	8.75	6.72
19382.43	20048.89	34425.62	5024.97	668.15	20.99	7.54	6.85
20048.89	20715.34	28818.22	4514.30	667.32	17.57	6.77	6.38
20715.34	21381.80 RB	54965.91	6657.68	669.16	33.52	9.99	8.26
21381.80	21519.28	111.62	69.28	137.48	0.07	0.50	1.61
21519.28	21656.76	251.39	112.77	137.48	0.15	0.82	2.23
21656.76	21794.24	570.20	184.33	137.48	0.35	1.34	3.09

21794.24	21931.72	742.37	215.95	137.48	0.45	1.57	3.44
21931.72	22069.20	615.31	192.94	137.48	0.38	1.40	3.19
22069.20	22206.68	99.58	52.16	80.25	0.06	0.65	1.91
22206.68	22344.16	47.52	41.51	137.48	0.03	0.30	1.14
22344.16	22481.64	23.94	20.36	64.79	0.01	0.31	1.18

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18049.52 LB	18715.98	4298.87	3321.45	643.54	2.62	5.18	1.29
18715.98	19382.43	39500.13	5939.69	667.99	24.09	8.91	6.65
19382.43	20048.89	35120.55	5133.78	668.15	21.41	7.70	6.84
20048.89	20715.34	29517.54	4623.11	667.32	18.00	6.94	6.38
20715.34	21381.80 RB	55562.91	6766.49	669.66	33.88	10.15	8.21

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.24

INPUT
Description: 201.24

Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12806	955.8	12962.7	956.3	13145.6	957.3	13331.4	956.5	13517.2	956.2
13697.1	957.3	13855.5	957.4	14010.3	957	14164.7	956.7	14318.4	958.2
14482	958.5	14660	956.8	14688.4	957.7	14821.8	955.2	14989	957.8
15156	956.9	15324.8	957.6	15476.8	959	15632.7	959.6	15787	959.8
15939.5	959	16132.2	958.4	16296.2	957.9	16464.6	957.9	16632.1	958.1
16801.9	956.7	16986.8	954.6	17117.8	954.3	17180.2	958.7	17353.5	957.6
17566.1	957.4	17719.1	957.9	17947.6	957.8	18063.5	959.9	18067.36	958.4367
18084.6	951.9	18123.2	954.4	18273.7	954.7	18463.7	954.1	18640.4	954.1
18769.1	951.5	18834.7	946.6	18852.7	947.7	18957	944.8	19101.5	944.9
19190.4	949.6	19365.4	949.8	19479.4	950.7	19501.5	945.5	19659.5	947.2
19709.9	951	19861.9	951.5	20036.3	950.6	20116.5	953	20174.4	956.4
20272.4	956.3	20322.3	953.3	20397.8	952.3	20534.1	946.8	20728.3	949.3
20901.9	952.6	21060.4	953.1	21108.8	948.4	21143.3	943.1	21322.6	943
21477	945.1	21515.7	945.4	21547.4	956.4	21570	957.6	21573.6	955.3
21742.9	955.8	21840.8	955.8	22073.6	956.2	22315.2	956.6	22474.6	957.8
22660.5	959.5	22837.1	960.3	23006	960.7	23189	960.3	23372.7	959.3
23535.3	958.6	23693.7	960.2	23701.8	958.7	23728.6	959.3	23733.9	957.9
23745.1	960.6	23895.9	959.5	24055.3	959.7	24212	959	24364.3	958.6
24523.2	960	24683.9	959.1	24867.9	960.4	25044.2	960.6	25240.9	961.6
25449.6	962.7	25490	964.7						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12806	.043	16132.2	.065	17180.2	.025	17947.6	.15	18063.5	.15
18957	.037	19659.5	.032	20174.4	.037	21570	.025		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18067.36	21570	485	488.56	490	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12806	18063.5	964.7	23006	25490	964.7

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	957.46	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.		0.040	0.025
E.G. Elev (ft)	958.06	Reach Len. (ft)	485.00	488.56	490.00
Crit W.S. (ft)	953.56	Flow Area (sq ft)		25746.25	1138.86
E.G. Slope (ft/ft)	0.001852	Area (sq ft)	2208.10	25746.25	1138.86
Q Total (cfs)	164000.00	Flow (cfs)		160488.89	3511.10
Top Width (ft)	6935.04	Top Width (ft)	2577.63	3497.54	859.88
Vel Total (ft/s)	6.10	Avg. Vel. (ft/s)		6.23	3.08
Max Chl Dpth (ft)	14.46	Hydr. Depth (ft)		7.36	1.32

Conv. Total (cfs)	3811226.8	Conv. (cfs)		3729631.5	81595.2
Length Wtd. (ft)	488.58	Wetted Per. (ft)		3502.73	860.52
Min Ch El (ft)	943.00	Shear (lb/sq ft)		0.85	0.15
Alpha	1.03	Stream Power (lb/ft s)		5.30	0.47
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	3468.38	5755.70	857.77
C & E Loss (ft)	0.05	Cum SA (acres)	724.30	627.23	454.34

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	957.66	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.60	Wt. n-Val.		0.040	
E.G. Elev (ft)	958.26	Reach Len. (ft)	485.00	488.56	490.00
Crit W.S. (ft)	953.56	Flow Area (sq ft)		26419.43	
E.G. Slope (ft/ft)	0.001790	Area (sq ft)		26419.43	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	3500.08	Top Width (ft)		3500.08	
Vel Total (ft/s)	6.21	Avg. Vel. (ft/s)		6.21	
Max Chl Dpth (ft)	14.66	Hydr. Depth (ft)		7.55	
Conv. Total (cfs)	3876243.0	Conv. (cfs)		3876243.0	
Length Wtd. (ft)	488.56	Wetted Per. (ft)		3505.53	
Min Ch El (ft)	943.00	Shear (lb/sq ft)		0.84	
Alpha	1.00	Stream Power (lb/ft s)		5.23	
Frctn Loss (ft)	0.65	Cum Volume (acre-ft)	290.25	6095.57	30.85
C & E Loss (ft)	0.06	Cum SA (acres)	43.55	627.51	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18067.36 LB	18767.89	2309.46	2416.16	699.09	1.41	3.46	0.96
18767.89	19468.42	40415.19	6752.17	700.91	24.64	9.64	5.99
19468.42	20168.94	36868.32	5130.65	701.41	22.48	7.32	7.19
20168.94	20869.47	26162.88	4471.55	700.79	15.95	6.38	5.85
20869.47	21570.00 RB	54733.05	6975.73	700.52	33.37	9.99	7.85
21570.00	21831.33	1692.19	475.10	261.76	1.03	1.82	3.56
21831.33	22092.67	1170.59	380.61	261.33	0.71	1.46	3.08
22092.67	22354.00	625.66	261.36	261.34	0.38	1.00	2.39
22354.00	22615.33	22.67	21.79	76.09	0.01	0.29	1.04

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18067.36 LB	18767.89	2487.21	2550.43	699.29	1.52	3.65	0.98
18767.89	19468.42	41130.73	6886.94	700.91	25.08	9.83	5.97
19468.42	20168.94	37846.85	5265.42	701.41	23.08	7.52	7.19
20168.94	20869.47	27054.18	4606.32	700.79	16.50	6.58	5.87
20869.47	21570.00 RB	55481.03	7110.33	703.13	33.83	10.15	7.80

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.14

INPUT
Description: 201.14

Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12823.9	955.7	12999.4	956.2	13212.7	955.6	13428.9	956	13645.2	955.7
13816.9	955.8	13992.2	956	14163.4	956.5	14335.2	955.8	14527.3	956.5
14708.6	956.3	14909.6	955.2	15093.8	955.5	15267	954.8	15439.6	956.4
15609.9	956.4	15791	956.8	15950.3	959	16129.2	957.7	16303.6	956
16475	953.7	16660.8	955	16839.9	953.5	17004.5	951.4	17082.5	958.8
17162.8	956.1	17184.4	958.7	17362.4	957.4	17598.4	957.1	17832.2	956.8

18017.1	960	18032	960.2	18037.8	6957.9083	18056.8	950.5	18241.1	949.4
18415.6	950.8	18585.7	951.8	18725.4	952.4	18733.1	949.9	18790.6	949.1
18818.8	941.6	18850.4	943.3	18986.4	943.9	19077.9	949.8	19149.1	948.9
19305.2	951	19389.8	945.3	19562.7	946.4	19610	949.5	19790.7	949.7
19961	950.3	20069.8	955.8	20203.6	953.6	20241.8	949.2	20445.4	947.5
20553.6	952	20738.9	949.5	20840.4	947.3	20887.4	943.5	20941.4	948.4
20992.7	949.8	21019.8	942	21063.4	942.9	21079.7	945.4	21128.6	946
21160	941.1	21202.5	940.4	21278.6	945.6	21455.1	945.3	21569.3	940.9
21644.4	944.5	21697.9	954.5	21721	955.2	21725.6	953.1	21741.2	955
22051.3	955.9	22155.8	956.1	22389.7	956.4	22512.4	956.8	22725.1	956.9
22832.8	959	22857.1	957	23030.8	959	23238.6	958.8	23414	958.9
23606.9	957.7	23803.1	958	24052.9	958.2	24291.1	958.1	24471.3	958.5
24625.1	958.9	24632.8	957.3	24637.8	958.9	24815.7	959.6	25013.4	960.6
25215.4	961.6	25365.2	962.4						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12823.9	.043	16303.6	.065	17184.4	.025	18032	.15	18850.4	.037
19610	.032	20553.6	.037	21721	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18037.86	21721	480	481.53	485	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12823.9	18032	962.4	22832.8	25365.2	962.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	956.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.42	Wt. n-Val.		0.040	0.025
E.G. Elev (ft)	957.32	Reach Len. (ft)	480.00	481.53	485.00
Crit W.S. (ft)	952.04	Flow Area (sq ft)		31263.01	806.62
E.G. Slope (ft/ft)	0.001090	Area (sq ft)	5151.01	31263.01	806.62
Q Total (cfs)	164000.00	Flow (cfs)		162632.72	1367.27
Top Width (ft)	8631.40	Top Width (ft)	3946.40	3680.58	1004.42
Vel Total (ft/s)	5.11	Avg. Vel. (ft/s)		5.20	1.70
Max Chl Dpth (ft)	16.51	Hydr. Depth (ft)		8.49	0.80
Conv. Total (cfs)	4966452.5	Conv. (cfs)		4925047.0	41405.4
Length Wtd. (ft)	481.58	Wetted Per. (ft)		3687.66	1005.00
Min Ch El (ft)	940.40	Shear (lb/sq ft)		0.58	0.05
Alpha	1.03	Stream Power (lb/ft s)		3.00	0.09
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	3427.42	5436.00	846.83
C & E Loss (ft)	0.03	Cum SA (acres)	687.98	586.97	443.86

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	957.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.		0.040	
E.G. Elev (ft)	957.55	Reach Len. (ft)	480.00	481.53	485.00
Crit W.S. (ft)	952.04	Flow Area (sq ft)		32149.23	
E.G. Slope (ft/ft)	0.001017	Area (sq ft)		32149.23	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	3680.58	Top Width (ft)		3680.58	
Vel Total (ft/s)	5.10	Avg. Vel. (ft/s)		5.10	
Max Chl Dpth (ft)	16.75	Hydr. Depth (ft)		8.73	
Conv. Total (cfs)	5142709.0	Conv. (cfs)		5142709.0	
Length Wtd. (ft)	481.53	Wetted Per. (ft)		3689.85	
Min Ch El (ft)	940.40	Shear (lb/sq ft)		0.55	
Alpha	1.00	Stream Power (lb/ft s)		2.82	
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	290.25	5767.13	30.85
C & E Loss (ft)	0.03	Cum SA (acres)	43.55	587.24	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18037.86 LB	18774.49	4839.05	4493.50	735.69	2.95	6.12	1.08
18774.49	19511.12	40048.07	7362.36	738.06	24.42	9.99	5.44
19511.12	20247.74	22034.65	4441.53	737.14	13.44	6.03	4.96
20247.74	20984.37	33288.34	5947.34	737.16	20.30	8.07	5.60

20984.37	21721.00 RB	62422.62	9018.28	739.61	38.06	12.24	6.92
21721.00	21963.95	873.75	409.86	243.52	0.53	1.69	2.13
21963.95	22206.89	341.91	233.21	242.95	0.21	0.96	1.47
22206.89	22449.84	143.54	138.54	242.95	0.09	0.57	1.04
22449.84	22692.79	8.03	24.56	242.95	0.00	0.10	0.33
22692.79	22935.73	0.04	0.45	32.63	0.00	0.01	0.09

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18037.86 LB	18774.49	4986.88	4670.25	735.93	3.04	6.36	1.07
18774.49	19511.12	40301.58	7539.73	738.06	24.57	10.24	5.35
19511.12	20247.74	22702.34	4618.89	737.14	13.84	6.27	4.92
20247.74	20984.37	33791.02	6124.71	737.16	20.60	8.31	5.52
20984.37	21721.00 RB	62218.16	9195.64	741.55	37.94	12.48	6.77

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.05

INPUT
Description: 201.05

Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12848.3	954.5	13055.4	953.7	13276.2	955.4	13483.1	957.1	13684.3	954.7
13886.2	954.5	14079.9	955	14267.8	955.7	14489.3	955.5	14686	954.3
14893.9	954.8	15093.5	953.8	15286.8	955	15508	955.8	15694.8	955.4
15890.9	955.3	16093.3	955.3	16296.5	955.9	16489.7	956.3	16687.2	954.3
16876.1	953.1	17029.6	951.4	17090	955.6	17177.7	953.2	17211.7	959.1
17239.8	956.7	17474.3	956.9	17712.8	956.3	17920.1	957.3	17947.8	957.7
17948.21	957.514	17963.9	950.4	18149.7	948.9	18366.7	949.3	18552.6	947.7
18642	947.2	18662.5	941.8	18877.7	942.9	18965.7	942.8	19025.5	948.9
19069.3	949.7	19115	948	19146.2	943.8	19305.4	944.7	19341.4	942.6
19450.5	944.4	19486	951.1	19656.3	948.4	19742.2	949.2	19800.5	946.7
19926.9	951	19979.4	950.2	20027.5	955.4	20105.3	953.3	20157.5	947.1
20233.6	946.1	20272.3	948.2	20302.6	946.7	20402.5	950.2	20615.4	948.5
20746.4	950.2	20793.3	949	20816.3	941.7	20964.1	941.5	20993.4	945.9
21193.9	949.2	21384.8	948.9	21582.1	946	21750.2	942.4	21815.9	945.1
21849	955.5	21881.2	953.7	21901.6	955.1	21907	953.3	21990.8	953.6
22189.8	954.8	22244.5	955.2	22537.9	955.5	22570.5	955.5	22835	955.8
22894.6	957.1	22905.9	959	22934.1	957.4	23165.2	957.6	23380	958
23414	957	23451.8	959.3	23684.3	956.6	23933.2	957	24126.1	957.5
24400	957.7	24595.1	958.4	24603.3	957.1	24622.7	959.8	24638.5	957.6
24836.5	959.9	24997.1	961.2						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12848.3	.043	16687.2	.15	17177.7	.025	17947.8	.15	18965.7	.037
19486	.032	20402.5	.037	21849	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17948.21	21849	520	512.89	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12848.3	17947.8	961.2	22905.9	24997.1	961.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	956.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.31	Wt. n-Val.		0.045	0.025
E.G. Elev (ft)	956.80	Reach Len. (ft)	520.00	512.89	510.00
Crit W.S. (ft)	950.96	Flow Area (sq ft)		35608.34	1503.01
E.G. Slope (ft/ft)	0.000974	Area (sq ft)	6744.07	35608.34	1503.01
Q Total (cfs)	164000.00	Flow (cfs)		160384.52	3615.49
Top Width (ft)	9250.10	Top Width (ft)	4334.15	3898.52	1017.42
Vel Total (ft/s)	4.42	Avg. Vel. (ft/s)		4.50	2.41
Max Chl Dpth (ft)	14.99	Hydr. Depth (ft)		9.13	1.48
Conv. Total (cfs)	5254731.5	Conv. (cfs)		5138887.5	115844.2

Length Wtd. (ft)	512.83	Wetted Per. (ft)		3906.12	1017.83
Min Ch El (ft)	941.50	Shear (lb/sq ft)		0.55	0.09
Alpha	1.02	Stream Power (lb/ft s)		2.50	0.22
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	3361.88	5066.39	833.97
C & E Loss (ft)	0.01	Cum SA (acres)	642.36	545.08	432.60

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	956.74	Element			
Vel Head (ft)	0.31	Wt. n-Val.		0.045	
E.G. Elev (ft)	957.06	Reach Len. (ft)	520.00	512.89	510.00
Crit W.S. (ft)	950.96	Flow Area (sq ft)		36618.42	
E.G. Slope (ft/ft)	0.000928	Area (sq ft)		36618.42	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	3898.52	Top Width (ft)		3898.52	
Vel Total (ft/s)	4.48	Avg. Vel. (ft/s)		4.48	
Max Chl Dpth (ft)	15.24	Hydr. Depth (ft)		9.39	
Conv. Total (cfs)	5383547.0	Conv. (cfs)		5383547.0	
Length Wtd. (ft)	512.89	Wetted Per. (ft)		3907.62	
Min Ch El (ft)	941.50	Shear (lb/sq ft)		0.54	
Alpha	1.00	Stream Power (lb/ft s)		2.43	
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	290.25	5387.03	30.85
C & E Loss (ft)	0.01	Cum SA (acres)	43.55	545.35	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17948.21 LB	18728.37	8038.70	6407.67	779.92	4.90	8.24	1.25
18728.37	19508.53	42152.43	9177.66	781.50	25.70	11.76	4.59
19508.53	20288.68	28139.15	5381.04	781.07	17.16	6.90	5.23
20288.68	21068.84	41173.89	7293.44	781.74	25.11	9.35	5.65
21068.84	21849.00 RB	40880.36	7348.54	781.89	24.93	9.42	5.56
21849.00	22058.87	1740.34	552.41	210.27	1.06	2.63	3.15
22058.87	22268.75	952.44	384.47	209.88	0.58	1.83	2.48
22268.75	22478.62	440.46	242.05	209.87	0.27	1.15	1.82
22478.62	22688.49	322.37	200.71	209.88	0.20	0.96	1.61
22688.49	22898.37	159.88	123.36	177.94	0.10	0.69	1.30

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17948.21 LB	18728.37	8261.61	6609.21	780.18	5.04	8.50	1.25
18728.37	19508.53	42743.89	9379.79	781.50	26.06	12.02	4.56
19508.53	20288.68	29211.98	5583.17	781.07	17.81	7.16	5.23
20288.68	21068.84	42071.18	7495.57	781.74	25.65	9.61	5.61
21068.84	21849.00 RB	41711.33	7550.67	783.13	25.43	9.68	5.52

CROSS SECTION RIVER: 1
REACH: 1 RS: 200.95

INPUT
Description: 200.95

Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12874.8	952.5	13039.9	952	13212.3	952.3	13372.8	953.5	13537.8	953.7
13708.5	953.7	13872.8	954	14042.5	953.4	14205.3	953.3	14401.9	953.5
14603.1	953.1	14762	954.2	14934	952.2	15127.8	952.8	15312.6	953.8
15422.3	957.2	15583	954.7	15746.4	955	15906.8	956.3	15988.2	955.4
16164.6	957.4	16332.4	957.6	16504.4	956.6	16673	957.2	16861.4	956.7
17049	953.4	17207.8	951.7	17274	955.6	17440.2	954.4	17613.5	957.4

17631.7	953.8	17653.9	958.1	17824.4	958	17905.8	956.9189	17952.4	956.3
17964.6	951.3	18135.4	946.6	18219.9	947	18317.2	949.6	18410.9	946.7
18428.8	949	18651.9	947.8	18690.8	946.2	18729.3	940.1	18914	943.4
19040.9	943.9	19102.9	941.9	19126.2	943.3	19190.9	941.9	19216.4	943.8
19237.2	941.5	19420.9	944.3	19517.6	943.7	19555.3	947.7	19758.1	946.5
19818.9	950.2	19947.1	951.5	20006.8	955.9	20184.2	954.1	20323.1	951.3
20414.3	945.7	20527.8	944.2	20653.3	949.4	20684.2	940.5	20842.4	942.7
20989.1	947.8	21069.4	948.4	21262.3	947.7	21448.8	948.8	21631.4	946.7
21802	942.6	21869.1	939.8	21909.3	943.4	21954	953.2	22148.5	954.1
22306.3	954	22378	955.4	22594.8	954	22757.8	954.9	22935.8	954.8
23107.3	956.2	23275.4	955.9	23411.6	954.8	23573.4	957.7	23629.1	956.7
23796.3	955.8	23971.7	955.8	24129.8	956	24294.4	955.8	24466.5	955.4
24623.6	955.4	24630	955.3	24639.7	957.8	24648.4	954.6	24662.5	958.2
24836.4	959.8	24988.3	960.7						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12874.8	.043	17824.4	.15	18729.3	.037	19517.6	.032	20323.1	.037
21954	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17905.8	21954	475	474.38	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12874.8	17824.4	960.7	23100	24988.3	960.7

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	956.09	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.29	Wt. n-Val.		0.041	0.035
E.G. Elev (ft)	956.38	Reach Len. (ft)	475.00	474.38	480.00
Crit W.S. (ft)	949.86	Flow Area (sq ft)		37268.98	1789.10
E.G. Slope (ft/ft)	0.000668	Area (sq ft)	8740.28	37268.98	2274.19
Q Total (cfs)	164000.00	Flow (cfs)		161348.41	2651.59
Top Width (ft)	10045.49	Top Width (ft)	3688.08	4001.09	2356.32
Vel Total (ft/s)	4.20	Avg. Vel. (ft/s)		4.33	1.48
Max Chl Dpth (ft)	16.29	Hydr. Depth (ft)		9.31	1.57
Conv. Total (cfs)	6344227.0	Conv. (cfs)		6241652.0	102575.1
Length Wtd. (ft)	474.50	Wetted Per. (ft)		4006.71	1140.03
Min Ch El (ft)	939.80	Shear (lb/sq ft)		0.39	0.07
Alpha	1.05	Stream Power (lb/ft s)		1.68	0.10
Frctn Loss (ft)	0.44	Cum Volume (acre-ft)	3269.46	4637.35	811.86
C & E Loss (ft)	0.00	Cum SA (acres)	594.47	498.58	412.85

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	956.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.		0.041	
E.G. Elev (ft)	956.66	Reach Len. (ft)	475.00	474.38	480.00
Crit W.S. (ft)	949.86	Flow Area (sq ft)		38407.23	
E.G. Slope (ft/ft)	0.000629	Area (sq ft)		38407.23	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	4001.09	Top Width (ft)		4001.09	
Vel Total (ft/s)	4.27	Avg. Vel. (ft/s)		4.27	
Max Chl Dpth (ft)	16.58	Hydr. Depth (ft)		9.60	
Conv. Total (cfs)	6536738.0	Conv. (cfs)		6536738.0	
Length Wtd. (ft)	474.38	Wetted Per. (ft)		4010.18	
Min Ch El (ft)	939.80	Shear (lb/sq ft)		0.38	
Alpha	1.00	Stream Power (lb/ft s)		1.61	
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	290.25	4945.35	30.85
C & E Loss (ft)	0.00	Cum SA (acres)	43.55	498.84	5.87

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17905.80 LB	18715.44	6132.31	6044.09	764.11	3.74	7.93	1.01
18715.44	19525.08	61433.74	10738.66	810.19	37.46	13.26	5.72
19525.08	20334.72	14658.34	4135.42	810.15	8.94	5.11	3.54
20334.72	21144.36	42324.37	8518.84	811.27	25.81	10.52	4.97
21144.36	21954.00 RB	36799.64	7831.98	810.99	22.44	9.67	4.70
21954.00	22156.29	905.35	490.39	202.29	0.55	2.42	1.85
22156.29	22358.57	616.10	389.26	202.30	0.38	1.92	1.58
22358.57	22560.86	297.51	251.51	202.29	0.18	1.24	1.18
22560.86	22763.15	494.60	341.19	202.29	0.30	1.69	1.45
22763.15	22965.43	293.14	249.28	202.29	0.18	1.23	1.18
22965.43	23167.72	44.91	67.47	128.57	0.03	0.52	0.67

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17905.80 LB	18715.44	6310.86	6261.02	764.40	3.85	8.21	1.01
18715.44	19525.08	61779.04	10968.99	810.19	37.67	13.55	5.63
19525.08	20334.72	15572.78	4365.75	810.15	9.50	5.39	3.57
20334.72	21144.36	42948.65	8749.17	811.27	26.19	10.81	4.91
21144.36	21954.00 RB	37388.69	8062.31	814.16	22.80	9.96	4.64

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 200.86

INPUT
Description: 200.86

Left Channel Bank Station Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12893	952.7	13071.4	952.1	13217.7	954.6	13366.3	951.7	13513.8	953.9
13666	954.4	13820.1	953.4	13963.2	953.3	14149	953.3	14333.5	952.5
14509.1	952.1	14688.3	953.1	14861.7	952.4	15054.1	951.6	15210.6	951.7
15424.6	955	15571.3	952.8	15782.9	955.2	16020.2	955.6	16192.2	953.9
16399.2	952.8	16559.9	953	16714.8	953.3	16760.5	954.7	16916.6	953.9
17003.1	954.6	17168.1	950.1	17285.1	949.5	17360.5	954.6	17520.2	953
17694.7	956	17869.8	957	17934.1	958.1	17992.44	956.5	698 17995.1	956.5
17996	956.3	408 18052.8	946.3	18288.3	948.1	18449.5	947.1	18628.5	947.7
18762	951.3	18912.7	950.4	19061.6	946.8	19092	945.3	19141.3	938.5
19175.6	940.7	19336.6	941.9	19619.6	944.7	19730.8	944.7	19826.2	949.9
19922.8	951.3	20011.5	955.4	20112.1	951.4	20184.7	943.1	20254	952.1
20308.4	952.8	20438.4	949.3	20464.9	944.1	20568.6	943.9	20744.1	941.1
20840.6	941.3	20896.7	945.9	20979.1	947.3	21100	946.2	21279.3	951.2
21459.1	946.8	21602.1	945.3	21642.4	941.5	21792.5	940.9	21831.9	940.3
21865.4	942.7	21898	952	22032	954.1	22187.6	953.7	22377.3	953.4
22522.7	953.4	22725.4	952.8	22947.9	954.9	23137.5	955	23294.6	956.1
23413.1	955.8	23420	954.5	23482.2	956.5	23641.6	956.7	23647.7	954.4
23806	955.4	23951.6	954.9	24112	954.8	24269.9	954.6	24426.7	954.8
24604.6	954.9	24656.8	954.3	24670.5	956.8	24680.8	954	24693.9	958.2
24856.4	958.5	25029.7	959	25175	960.2				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12893	.043	17934.1	.15	19619.6	.032	20308.4	.037	21898	.035
22032	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17996	22032	525	523.32	525	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12893	17750	960.2	23360	25175	960.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	955.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.31	Wt. n-Val.		0.053	0.035
E.G. Elev (ft)	955.94	Reach Len. (ft)	525.00	523.32	525.00
Crit W.S. (ft)	949.69	Flow Area (sq ft)		35548.94	2059.34
E.G. Slope (ft/ft)	0.001346	Area (sq ft)	11395.13	35548.94	2898.87
Q Total (cfs)	164000.00	Flow (cfs)		159392.78	4607.21
Top Width (ft)	11080.63	Top Width (ft)	4780.43	4032.00	2268.19
Vel Total (ft/s)	4.36	Avg. Vel. (ft/s)		4.48	2.24
Max Chl Dpth (ft)	17.13	Hydr. Depth (ft)		8.82	1.72
Conv. Total (cfs)	4470580.5	Conv. (cfs)		4344989.5	125590.9
Length Wtd. (ft)	523.36	Wetted Per. (ft)		4037.41	1196.11
Min Ch El (ft)	938.50	Shear (lb/sq ft)		0.74	0.14
Alpha	1.03	Stream Power (lb/ft s)		3.32	0.32
Frctn Loss (ft)	0.59	Cum Volume (acre-ft)	3159.67	4240.84	783.35
C & E Loss (ft)	0.00	Cum SA (acres)	548.30	454.83	387.37

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	955.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.31	Wt. n-Val.		0.053	
E.G. Elev (ft)	956.24	Reach Len. (ft)	525.00	523.32	525.00
Crit W.S. (ft)	949.69	Flow Area (sq ft)		36762.42	
E.G. Slope (ft/ft)	0.001276	Area (sq ft)		36762.42	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	4032.00	Top Width (ft)		4032.00	
Vel Total (ft/s)	4.46	Avg. Vel. (ft/s)		4.46	
Max Chl Dpth (ft)	17.44	Hydr. Depth (ft)		9.12	
Conv. Total (cfs)	4591583.5	Conv. (cfs)		4591583.5	
Length Wtd. (ft)	523.32	Wetted Per. (ft)		4039.54	
Min Ch El (ft)	938.50	Shear (lb/sq ft)		0.72	
Alpha	1.00	Stream Power (lb/ft s)		3.23	
Frctn Loss (ft)	0.55	Cum Volume (acre-ft)	290.25	4536.04	30.85
C & E Loss (ft)	0.00	Cum SA (acres)	43.55	455.10	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17996.00 LB	18803.20	8227.34	6004.39	804.08	5.02	7.48	1.37
18803.20	19610.40	15511.43	8800.64	807.84	9.46	10.90	1.76
19610.40	20417.60	26117.76	4834.46	808.62	15.93	5.99	5.40
20417.60	21224.80	61931.75	8721.08	807.99	37.76	10.80	7.10
21224.80	22032.00 RB	47604.49	7188.36	808.87	29.03	8.91	6.62
22032.00	22241.53	787.51	376.49	209.53	0.48	1.80	2.09
22241.53	22451.07	1074.26	453.59	209.53	0.66	2.16	2.37
22451.07	22660.60	1248.13	496.31	209.53	0.76	2.37	2.51
22660.60	22870.13	1216.88	488.82	209.54	0.74	2.33	2.49
22870.13	23079.67	225.60	177.83	209.54	0.14	0.85	1.27
23079.67	23289.20	54.83	66.30	148.43	0.03	0.45	0.83

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17996.00 LB	18803.20	8560.31	6246.13	804.38	5.22	7.78	1.37
18803.20	19610.40	15817.21	9043.58	807.84	9.64	11.20	1.75
19610.40	20417.60	27605.40	5077.40	808.62	16.83	6.29	5.44
20417.60	21224.80	63178.41	8964.02	807.99	38.52	11.11	7.05
21224.80	22032.00 RB	48838.67	7431.30	810.70	29.78	9.21	6.57

CROSS SECTION RIVER: 1
REACH: 1 RS: 200.77

INPUT
Description: 200.77
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12925.1	950.1	13101.8	952.3	13250.4	951	13436.7	950.7	13651.1	951.4
13804.4	951.9	14027	953.4	14249.5	951.8	14401.1	950.7	14592.6	949.7
14752.3	950.6	14873.3	950.3	15006	952.1	15110.8	950.9	15249.1	953.3
15443.8	954.5	15631.2	955.3	15702.9	951.3	15936.9	951	16108.8	954.5
16172	955.8	16295.1	951.4	16462	950.7	16530.6	949.9	16652.3	952.8
16854.8	954	17022.2	952.1	17185.4	949.9	17349.4	948.1	17402.8	955.2
17473.6	951.6	17660.6	954.4	17828.8	955.3	17926.5	954	17969.3	948
18147.9	944.4	18302.9	946.4	18524.1	946.1	18650.9	949	18815.8	948.8
18902.5	949.8	18913.4	952	19097	950.8	19277	951.3	19280.8	951.9
19280.9	949.5	19321.8	951.3	19557.8	943.7	19720.4	945.1	19857.8	946.5
19911.9	942.9	19989.5	951.1	20140.5	950.2	20288.5	945.2	20339.4	948.6
20362.3	944.7	20388.7	942.6	20487.8	944	20788	936.9	20804.9	937.1
20829.2	942.4	20906.3	944.7	21056	944.4	21222.9	942.6	21375.1	940.2
21524.6	940.4	21559.7	941	21581	950.6	21785.8	951.3	21951	952.4
22102.3	952.1	22329.8	953.2	22461	953	22651.4	953.3	22824.9	954.7
23050.7	954.8	23217.5	954.9	23380.5	954.5	23421.7	954.3	23434.6	956
23439.7	954.3	23489.2	957.2	23506.4	952.5	23514.1	955.4	23706.9	954.3
23876.7	954.3	24057.8	954.4	24216.1	954.4	24385.4	954.2	24554.4	953.9
24685.3	953.1	24698.2	956.8	24704.7	952.7	24723.6	958.6	24886.7	958.9
24978	959.5								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12925.1	.043	17828.8	.15	19321.8	.032	19857.8	.037	21785.8	.025
21951	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17828.8	21951	500	495.64	520	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12925.1	17630	960	23630	24978	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	955.02	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.	0.043	0.043	0.035
E.G. Elev (ft)	955.35	Reach Len. (ft)	500.00	495.64	520.00
Crit W.S. (ft)	949.21	Flow Area (sq ft)	62.57	34827.44	1951.44
E.G. Slope (ft/ft)	0.000950	Area (sq ft)	14815.15	34827.44	2840.64
Q Total (cfs)	164000.00	Flow (cfs)	37.65	160935.91	3026.44
Top Width (ft)	11450.00	Top Width (ft)	4718.59	4101.50	2629.91
Vel Total (ft/s)	4.45	Avg. Vel. (ft/s)	0.60	4.62	1.55
Max Chl Dpth (ft)	18.12	Hydr. Depth (ft)	0.42	8.49	1.25
Conv. Total (cfs)	5320871.0	Conv. (cfs)	1221.6	5221458.5	98190.9
Length Wtd. (ft)	496.09	Wetted Per. (ft)	147.33	4108.73	1557.77
Min Ch El (ft)	936.90	Shear (lb/sq ft)	0.03	0.50	0.07
Alpha	1.06	Stream Power (lb/ft s)	0.02	2.32	0.12
Frctn Loss (ft)	0.55	Cum Volume (acre-ft)	3001.73	3818.10	748.77
C & E Loss (ft)	0.01	Cum SA (acres)	491.06	405.98	357.86

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	955.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.32	Wt. n-Val.		0.043	
E.G. Elev (ft)	955.70	Reach Len. (ft)	500.00	495.64	520.00
Crit W.S. (ft)	949.21	Flow Area (sq ft)		36283.11	
E.G. Slope (ft/ft)	0.000875	Area (sq ft)		36283.11	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	4122.20	Top Width (ft)		4122.20	
Vel Total (ft/s)	4.52	Avg. Vel. (ft/s)		4.52	
Max Chl Dpth (ft)	18.48	Hydr. Depth (ft)		8.80	
Conv. Total (cfs)	5545274.0	Conv. (cfs)		5545274.0	
Length Wtd. (ft)	495.65	Wetted Per. (ft)		4132.49	

Min Ch El (ft)	936.90	Shear (lb/sq ft)		0.48	
Alpha	1.00	Stream Power (lb/ft s)		2.17	
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	290.25	4097.26	30.85
C & E Loss (ft)	0.00	Cum SA (acres)	43.55	406.12	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17501.89	17828.80	37.65	62.57	147.33	0.02	0.42	0.60
17828.80 LB	18653.24	7184.79	6182.35	804.25	4.38	7.69	1.16
18653.24	19477.68	7196.20	4092.41	827.14	4.39	4.96	1.76
19477.68	20302.12	37986.88	6852.44	825.17	23.16	8.31	5.54
20302.12	21126.56	66152.05	10220.17	825.64	40.34	12.40	6.47
21126.56	21951.00 RB	42416.02	7480.07	826.54	25.86	9.07	5.67
21951.00	22152.80	1115.16	561.31	201.80	0.68	2.78	1.99
22152.80	22354.60	755.58	444.40	201.80	0.46	2.20	1.70
22354.60	22556.40	614.97	392.75	201.80	0.37	1.95	1.57
22556.40	22758.20	412.56	309.10	201.80	0.25	1.53	1.33
22758.20	22960.00	42.82	79.40	201.80	0.03	0.39	0.54
22960.00	23161.80	15.67	43.43	201.80	0.01	0.22	0.36
23161.80	23363.60	21.32	52.25	201.80	0.01	0.26	0.41
23363.60	23565.40	46.37	61.63	95.07	0.03	0.66	0.75
23565.40	23767.20	1.96	7.16	50.09	0.00	0.14	0.27

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17828.80 LB	18653.24	7326.92	6471.20	825.03	4.47	7.85	1.13
18653.24	19477.68	7666.65	4384.11	827.14	4.67	5.32	1.75
19477.68	20302.12	39048.71	7144.14	825.17	23.81	8.67	5.47
20302.12	21126.56	66642.99	10511.88	825.64	40.64	12.75	6.34
21126.56	21951.00 RB	43314.73	7771.77	829.52	26.41	9.43	5.57

CROSS SECTION RIVER: 1
REACH: 1 RS: 200.67

INPUT
Description: 200.67
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12952.7	947.8	13129.5	948.3	13308.2	948.8	13483.1	949.2	13641	952.6
13766	952	13870.6	949.3	14073.7	950.3	14282	951.5	14535.6	948.8
14746.4	948.7	14899.4	949.8	15045.4	950.6	15138.5	953.1	15312.3	952.8
15471.5	952.2	15651.1	951.4	15730.3	949.9	15964.5	954	16199.7	953.8
16438.6	948.9	16643.2	952.3	16796.2	954	17002.3	953.9	17133.8	952.2
17211.9	946.7	17315.9	947	17376.2	954.8	17384.7	952.3	17551.8	953.1
17732.2	954.1	17919.3	952.9	17950	943.8	18101.5	944.9	18330.6	947.4
18498.9	943.9	18565	943.8	18742.3	948.8	18888.2	952	18925.4	946.6
18962.8	948.9	19023.7	947.4	19040.9	949.6	19238.5	952.4	19366.3	948.8
19569.2	947.1	19719.3	940.8	19796.7	942.1	19832.7	943.8	19969	943
20047.1	949	20111	948.4	20263	939.8	20444.8	942.7	20609	942.6
20782.8	941.1	20963.8	942.2	20998.9	941.8	21090.6	944.3	21256.2	942.8
21298.3	943.3	21316	950.6	21367.7	945.7	21427.5	950.4	21604	951.9
21649.3	952.3	21939.5	952.7	21971.5	952.7	22194	953.4	22217.8	954.7
22233.1	953	22256.3	952.8	22476.8	953.9	22513.4	953.9	22711.5	955.1
22773.4	955.2	22873.4	959.1	23051.6	959.3	23158.6	956.6	23168.5	958.8
23393.6	957.5	23430	957.4	23431.7	955.9	23584.2	954.6	23749.1	953.9
23939.2	954	24125.4	954.8	24292.4	954.6	24492.9	954.3	24643.7	954.1
24725.3	954.1	24731.8	955.7	24741.4	953.7	24755.2	960.7	24923	959.7
24996.7	960								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12952.7	.043	17919.3	.15	18962.8	.032	19040.9	.15	19366.3	.032
20263	.043	21604	.025	21649.3	.025				

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

17919.3 21649.3 500 503.34 510 .1 .3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
12952.7	17540	960	22230	23500	960	23915	24996.7	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	954.42	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.38	Wt. n-Val.	0.043	0.047	0.025
E.G. Elev (ft)	954.80	Reach Len. (ft)	500.00	503.34	510.00
Crit W.S. (ft)	948.96	Flow Area (sq ft)	337.27	32402.47	1045.58
E.G. Slope (ft/ft)	0.001288	Area (sq ft)	15971.98	32402.47	1461.67
Q Total (cfs)	164000.00	Flow (cfs)	386.78	160715.97	2897.26
Top Width (ft)	10368.40	Top Width (ft)	4962.41	3730.00	1676.00
Vel Total (ft/s)	4.85	Avg. Vel. (ft/s)	1.15	4.96	2.77
Max Chl Dpth (ft)	14.62	Hydr. Depth (ft)	0.89	8.69	1.21
Conv. Total (cfs)	4569452.0	Conv. (cfs)	10776.7	4477950.5	80724.9
Length Wtd. (ft)	503.48	Wetted Per. (ft)	379.31	3734.79	862.44
Min Ch El (ft)	939.80	Shear (lb/sq ft)	0.07	0.70	0.10
Alpha	1.03	Stream Power (lb/ft s)	0.08	3.46	0.27
Frctn Loss (ft)	0.65	Cum Volume (acre-ft)	2825.03	3435.62	723.09
C & E Loss (ft)	0.00	Cum SA (acres)	435.50	361.42	332.16

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	954.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.36	Wt. n-Val.	0.043	0.047	
E.G. Elev (ft)	955.20	Reach Len. (ft)	500.00	503.34	510.00
Crit W.S. (ft)	948.96	Flow Area (sq ft)	341.25	33939.64	
E.G. Slope (ft/ft)	0.001158	Area (sq ft)	341.25	33939.64	
Q Total (cfs)	164000.00	Flow (cfs)	457.24	163542.75	
Top Width (ft)	4009.30	Top Width (ft)	279.30	3730.00	
Vel Total (ft/s)	4.78	Avg. Vel. (ft/s)	1.34	4.82	
Max Chl Dpth (ft)	15.04	Hydr. Depth (ft)	1.22	9.10	
Conv. Total (cfs)	4819626.0	Conv. (cfs)	13437.3	4806188.5	
Length Wtd. (ft)	503.33	Wetted Per. (ft)	280.55	3737.32	
Min Ch El (ft)	939.80	Shear (lb/sq ft)	0.09	0.66	
Alpha	1.01	Stream Power (lb/ft s)	0.12	3.16	
Frctn Loss (ft)	0.59	Cum Volume (acre-ft)	288.29	3697.75	30.85
C & E Loss (ft)	0.00	Cum SA (acres)	41.94	361.45	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17257.09	17588.19	86.05	60.44	48.19	0.05	1.25	1.42
17588.19	17919.30	300.73	276.82	331.11	0.18	0.84	1.09
17919.30 LB	18665.30	10130.54	6707.14	747.41	6.18	8.99	1.51
18665.30	19411.30	6629.26	3454.36	746.76	4.04	4.63	1.92
19411.30	20157.30	49906.64	6906.77	746.50	30.43	9.26	7.23
20157.30	20903.30	63715.16	9304.36	746.20	38.85	12.47	6.85
20903.30	21649.30 RB	30334.37	6029.84	747.92	18.50	8.08	5.03
21649.30	21872.46	1439.94	439.54	223.16	0.88	1.97	3.28
21872.46	22095.62	1048.98	363.45	223.16	0.64	1.63	2.89
22095.62	22318.78	278.00	130.73	126.91	0.17	1.03	2.13
22318.78	23434.58						
23434.58	23657.74	0.75	2.16	31.94	0.00	0.07	0.35
23657.74	23880.90	111.13	94.51	223.16	0.07	0.42	1.18
23880.90	24104.06	18.45	15.18	34.10	0.01	0.45	1.22

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17588.19	17919.30	457.24	341.25	280.55	0.28	1.22	1.34

17919.30 LB	18665.30	10363.20	7014.58	747.41	6.32	9.40	1.48
18665.30	19411.30	7128.76	3761.79	746.76	4.35	5.04	1.90
19411.30	20157.30	50945.09	7214.21	746.50	31.06	9.67	7.06
20157.30	20903.30	63863.46	9611.79	746.20	38.94	12.88	6.64
20903.30	21649.30 RB	31242.23	6337.27	750.45	19.05	8.50	4.93

CROSS SECTION RIVER: 1
REACH: 1 RS: 200.58

INPUT
Description: 200.58

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13004.2	946.1	13252.7	946	13406.6	945.2	13565.9	944.9	13774.2	944.6
13943.1	945.5	14116.9	945	14279.1	946.6	14438.8	947.7	14609	948.4
14768.3	947.1	14929	947.1	15050.5	947.2	15202.4	950.2	15286.6	950.1
15344.6	952	15501.3	950.2	15638.8	948.6	15758.4	951.1	15992.6	950.5
16109.8	952.6	16227.7	949.4	16451.3	948.4	16610.1	950.8	16708	953.4
16925.1	953.5	17149.3	953.1	17163.9	953.3	17234.2	944.5	17318.9	945.5
17387.8	953.1	17544.8	952.5	17768	953.3	17947	953.3	18120.4	944.7
18239.5	947	18479.6	944.5	18689.4	943	18899.8	947.1	18982.6	947.4
19060.5	950.5	19193.4	946.5	19239.2	951	19272	950.3	19281	947.8
19435	949.5	19481.5	950.8	19780.1	939.9	19839	939.1	20105.5	937.6
20341.3	941.2	20411.6	945.7	20456.8	943.9	20469.2	941.9	20590	941.2
20660	946.3	20712.1	943.5	20803.5	943.1	20830.7	941.2	21002.3	943.4
21117.8	946.3	21272	946.4	21425	950.4	21450	950.6778	21452	950.7
21643	952.3	21667.2	952.4	21820.3	952	21847.8	952	22017.1	952.7
22213.8	952.2	22244.2	960.6	22257.8	957.2	22270.2	958.5	22289.1	952.8
22392.9	953.3	22566.6	953.5	22797.3	954.2	22998.5	955.3	23151	955.4
23322.6	954.9	23399.1	953.2	23498	953.6	23506	952.3	23516.9	955.5
23555.1	955.9	23578.4	953.2	23779.1	953.4	23989.5	954.5	24174.8	954.3
24351.4	954.1	24538.2	953.8	24699.8	953.7	24771.3	955.3	24776.5	952.9
24795.5	960.4	24969.5	959.5						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
13004.2	.15	14609	.043	17947	.15	19481.5	.032	20105.5	.043
21425	.025	21643	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17947	21450	475	479.55	530	.1	.3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
13004.2	17460	960	22800	23380	960	24200	24969.5	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	953.76	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.39	Wt. n-Val.	0.043	0.048	0.025
E.G. Elev (ft)	954.14	Reach Len. (ft)	475.00	479.55	530.00
Crit W.S. (ft)	948.28	Flow Area (sq ft)	366.25	31612.91	1563.62
E.G. Slope (ft/ft)	0.001313	Area (sq ft)	23419.56	31612.91	1568.50
Q Total (cfs)	164000.00	Flow (cfs)	379.19	159404.66	4216.16
Top Width (ft)	10091.43	Top Width (ft)	4942.80	3503.00	1645.63
Vel Total (ft/s)	4.89	Avg. Vel. (ft/s)	1.04	5.04	2.70
Max Chl Dpth (ft)	16.16	Hydr. Depth (ft)	0.75	9.02	1.02
Conv. Total (cfs)	4526668.5	Conv. (cfs)	10466.4	4399829.5	116372.8
Length Wtd. (ft)	481.45	Wetted Per. (ft)	487.00	3505.02	1540.62
Min Ch El (ft)	937.60	Shear (lb/sq ft)	0.06	0.74	0.08
Alpha	1.04	Stream Power (lb/ft s)	0.06	3.73	0.22
Frctn Loss (ft)	0.53	Cum Volume (acre-ft)	2598.95	3065.77	705.35
C & E Loss (ft)	0.02	Cum SA (acres)	378.65	319.63	312.71

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	954.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.	0.043	0.048	
E.G. Elev (ft)	954.60	Reach Len. (ft)	475.00	479.55	530.00

Crit W.S. (ft)	948.28	Flow Area (sq ft)	521.69	33271.41	
E.G. Slope (ft/ft)	0.001187	Area (sq ft)	521.69	33271.41	
Q Total (cfs)	164000.00	Flow (cfs)	697.39	163302.63	
Top Width (ft)	3940.00	Top Width (ft)	437.00	3503.00	
Vel Total (ft/s)	4.85	Avg. Vel. (ft/s)	1.34	4.91	
Max Chl Dpth (ft)	16.63	Hydr. Depth (ft)	1.19	9.50	
Conv. Total (cfs)	4759275.0	Conv. (cfs)	20238.1	4739037.0	
Length Wtd. (ft)	479.52	Wetted Per. (ft)	438.60	3508.58	
Min Ch El (ft)	937.60	Shear (lb/sq ft)	0.09	0.70	
Alpha	1.02	Stream Power (lb/ft s)	0.12	3.45	
Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	283.34	3309.44	30.85
C & E Loss (ft)	0.01	Cum SA (acres)	37.83	319.66	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17287.96	17617.48	221.65	174.84	157.48	0.14	1.11	1.27
17617.48	17947.00	157.54	191.40	329.52	0.10	0.58	0.82
17947.00 LB	18647.60	7356.81	5345.57	700.85	4.49	7.63	1.38
18647.60	19348.20	5801.10	4636.67	701.34	3.54	6.62	1.25
19348.20	20048.80	56232.55	7128.26	700.83	34.29	10.17	7.89
20048.80	20749.40	59144.16	8579.11	701.23	36.06	12.25	6.89
20749.40	21450.00 RB	30870.03	5923.29	700.77	18.82	8.45	5.21
21450.00	21684.63	1756.28	495.47	234.64	1.07	2.11	3.54
21684.63	21919.27	1117.71	377.80	234.64	0.68	1.61	2.96
21919.27	22153.90	726.42	291.72	234.63	0.44	1.24	2.49
22153.90	22388.53	354.17	166.06	168.50	0.22	0.99	2.13
22388.53	22623.17	73.65	73.88	234.63	0.04	0.31	1.00
22623.17	22857.80	0.32	1.22	28.34	0.00	0.04	0.26
22857.80	23327.07						
23327.07	23561.70	60.49	52.05	131.28	0.04	0.40	1.16
23561.70	23796.33	123.26	98.57	222.78	0.08	0.44	1.25
23796.33	24030.97	3.86	6.84	51.17	0.00	0.13	0.56

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17287.96	17617.48	277.74	174.28	109.08	0.17	1.62	1.59
17617.48	17947.00	419.65	347.41	329.52	0.26	1.05	1.21
17947.00 LB	18647.60	7742.63	5677.27	700.85	4.72	8.10	1.36
18647.60	19348.20	6196.49	4968.37	701.34	3.78	7.09	1.25
19348.20	20048.80	57302.28	7459.96	700.83	34.94	10.65	7.68
20048.80	20749.40	59923.51	8910.81	701.23	36.54	12.72	6.72
20749.40	21450.00 RB	32137.73	6254.99	704.32	19.60	8.93	5.14

CROSS SECTION RIVER: 1
REACH: 1 RS: 200.49

INPUT
Description: 200.49
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13048.9	945.6	13261.8	944.9	13471.4	944.9	13640.6	945.6	13821.9	945.7
13998.1	945.5	14204.4	944.8	14399.4	943.8	14586.6	943.4	14763.6	943
14951.3	943.1	15156.1	943.2	15371.2	945.2	15548.1	948.1	15769.6	946.9
15979.3	948.4	16200.3	947.6	16375.3	947.1	16493.4	953	16719	952.8
16949.5	951	17106.4	951.7	17132.4	947.4	17168	952.5	17198.4	950.8
17234.4	945.1	17404.6	947.6	17536.5	952.7	17719.3	953.3	17750.3	952.7
17791.5	947.5	17816.7	949.6	17852.9	949	17862.5	950.8	18012.9	951.3
18153.1	947.1	18273.7	941.6	18480.3	943.2	18739.9	945	18856.4	944.7
19028.1	939.7	19085	944.7	19190.4	945.3	19261.7	948.1	19342.5	943.7
19490.6	939.8	19542	943.5	19650.1	948.1	19854.1	940.8	19947.1	937.5
20192	936.9	20201.4	940.9	20275.4	939.8	20324.1	944	20367.7	939.3
20425.1	937.8	20452	941.7	20573.6	946.4	20608.5	941.9	20627	944.1
20638.3	940.9	20706.1	939.4	20811.1	939.3	20837.1	942.5	20956.7	943.3
20975.1	941.9	21136.8	944.8	21171	950.3	21342.1	950.2	21559.3	950.8
21830.5	950.9	21861.8	951.1	21876.9	959.1	21891.8	959	21905.4	951.7

22133.6	952.2	22336	952.4	22590.8	952.7	22633.1	952.7	22813.2	952.3
23018.2	953.8	23185.8	954.6	23401.6	954.5	23519	954	23540.6	951.9
23589.4	954.7	23609.6	952	23780.4	952.4	23946.1	952.4	24145	952.4
24343.4	952.9	24514.6	953.3	24725.8	953.2	24810.9	953.5	24835.6	958
24956.8	957.1								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
13048.9	.15	15548.1	.043	17719.3	.043	18273.7	.15	19342.5	.032
20192	.043	21171	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17719.3	21171	510	497.59	510	.1	.3

Ineffective Flow num= 4

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
13048.9	17380	960	21840	22160	960	22950	23300	960
24485	24956.8	960						

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	953.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.32	Wt. n-Val.	0.043	0.047	0.025
E.G. Elev (ft)	953.59	Reach Len. (ft)	510.00	497.59	510.00
Crit W.S. (ft)	946.93	Flow Area (sq ft)	607.10	33689.22	3075.25
E.G. Slope (ft/ft)	0.000940	Area (sq ft)	29544.34	33689.22	3469.23
Q Total (cfs)	164000.00	Flow (cfs)	961.53	154776.16	8262.31
Top Width (ft)	10978.72	Top Width (ft)	4663.24	3450.48	2864.99
Vel Total (ft/s)	4.39	Avg. Vel. (ft/s)	1.58	4.59	2.69
Max Chl Dpth (ft)	16.38	Hydr. Depth (ft)	1.83	9.76	1.29
Conv. Total (cfs)	5348119.5	Conv. (cfs)	31355.9	5047325.5	269438.1
Length Wtd. (ft)	498.40	Wetted Per. (ft)	332.24	3455.47	2378.95
Min Ch El (ft)	936.90	Shear (lb/sq ft)	0.11	0.57	0.08
Alpha	1.05	Stream Power (lb/ft s)	0.17	2.63	0.20
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	2310.18	2706.31	674.70
C & E Loss (ft)	0.01	Cum SA (acres)	326.27	281.36	285.27

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	953.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.	0.043	0.047	
E.G. Elev (ft)	954.10	Reach Len. (ft)	510.00	497.59	510.00
Crit W.S. (ft)	946.93	Flow Area (sq ft)	775.40	35402.20	
E.G. Slope (ft/ft)	0.000893	Area (sq ft)	775.40	35402.20	
Q Total (cfs)	164000.00	Flow (cfs)	1371.67	162628.34	
Top Width (ft)	3791.00	Top Width (ft)	339.30	3451.70	
Vel Total (ft/s)	4.53	Avg. Vel. (ft/s)	1.77	4.59	
Max Chl Dpth (ft)	16.87	Hydr. Depth (ft)	2.29	10.26	
Conv. Total (cfs)	5486981.0	Conv. (cfs)	45892.1	5441089.0	
Length Wtd. (ft)	497.80	Wetted Per. (ft)	345.94	3460.15	
Min Ch El (ft)	936.90	Shear (lb/sq ft)	0.13	0.57	
Alpha	1.02	Stream Power (lb/ft s)	0.22	2.62	
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	276.27	2931.43	30.85
C & E Loss (ft)	0.01	Cum SA (acres)	33.60	281.38	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17096.58	17407.94	461.32	162.84	27.95	0.28	5.83	2.83
17407.94	17719.30	500.21	444.26	304.30	0.31	1.46	1.13
17719.30 LB	18409.64	8991.44	3933.61	689.91	5.48	5.71	2.29
18409.64	19099.98	9231.75	6755.16	690.64	5.63	9.79	1.37
19099.98	19790.32	28113.35	5999.96	690.89	17.14	8.69	4.69
19790.32	20480.66	71430.05	9651.59	692.02	43.55	13.98	7.40
20480.66	21171.00 RB	37009.58	7348.91	692.01	22.57	10.65	5.04
21171.00	21423.39	2839.94	758.78	252.39	1.73	3.01	3.74
21423.39	21675.77	2183.35	648.05	252.39	1.33	2.57	3.37
21675.77	21928.16	1270.87	394.41	164.23	0.77	2.40	3.22
21928.16	22180.55	39.43	21.37	20.55	0.02	1.04	1.84
22180.55	22432.93	381.76	227.62	252.39	0.23	0.90	1.68

22432.93	22685.32	219.25	163.19	252.39	0.13	0.65	1.34
22685.32	22937.71	238.35	171.58	252.39	0.15	0.68	1.39
22937.71	23190.09	0.05	0.29	8.95	0.00	0.03	0.18
23190.09	23442.48						
23442.48	23694.87	237.82	132.68	133.16	0.15	1.00	1.79
23694.87	23947.25	387.81	229.77	252.39	0.24	0.91	1.69
23947.25	24199.64	353.75	217.45	252.39	0.22	0.86	1.63
24199.64	24452.03	108.96	107.27	252.39	0.07	0.43	1.02
24452.03	24704.41	0.96	2.78	32.97	0.00	0.08	0.35

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17096.58	17407.94	496.59	176.70	34.48	0.30	6.32	2.81
17407.94	17719.30	875.08	598.70	311.46	0.53	1.92	1.46
17719.30 LB	18409.64	10222.55	4276.20	691.13	6.23	6.19	2.39
18409.64	19099.98	9784.37	7097.75	690.64	5.97	10.28	1.38
19099.98	19790.32	29952.90	6342.56	690.89	18.26	9.19	4.72
19790.32	20480.66	73827.98	9994.19	692.02	45.02	14.48	7.39
20480.66	21171.00 RB	38840.54	7691.51	695.48	23.68	11.14	5.05

CROSS SECTION RIVER: 1
REACH: 1 RS: 200.39

INPUT
Description: 200.39
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13083.9	945.2	13254.6	945.3	13486.8	945.5	13742.8	945.8	14008.5	946
14273.9	945.9	14454.3	945.6	14637.7	945.4	14834.7	945.2	15022.8	944.7
15192.5	944.4	15417.5	944.4	15642.9	944.4	15819.7	943.9	16016.8	943.5
16254.5	943.6	16478.3	943.8	16652.7	943.9	16819.7	947.8	16875.2	949.8
16928.9	948.8	16992.7	951.1	17168.8	950.1	17242.1	945	17439	948.6
17484.9	949	17507.9	946.2	17527.7	949.5	17682.5	952.2	17714.9	945.6
17726.7	949.9	17781	947.5	17966.7	946.8	18026.8	945.7	18050.3	941.5
18183	941.3	18379.8	942.6	18534.2	941	18751.2	942.5	18800.2	941.7
18918.7	944.9	19025.6	941.5	19161.9	944.8	19220.8	943.5	19267.5	947.7
19444.5	940.9	19506.7	939	19763.7	940.6	19785	940.5	20110.3	939.9
20152.6	937	20199	940.6	20240.6	941.7	20272.3	938.7	20460.6	948.4
20515.5	946.8	20585.3	946.5	20659.8	939.5	20714.2	938.7	20742	943.3
20788.5	938.9	20812.7	939.9	20854.3	937.8	20978.7	940.9	21041	951.3
21062	949.6	21134.2	949.8	21326.6	949.6	21342.1	949.6	21606.3	951
21865.7	950.7	21893.4	950.9	21911.5	958	21918.5	956.7	21925.9	957.8
21937.7	950.6	22152.6	950.7	22336.4	951.5	22566.3	951.6	22807.6	951.9
23031.4	952.1	23203.3	953.2	23429.6	953.3	23573.8	952	23600	955.9
23653.9	951.2	23829	950.5	24004.5	950.7	24185.9	951.4	24362.4	951.7
24572.6	951.5	24742.1	951.6	24842.9	953.7	24848.9	951.1	24857.3	956.6
24952.5	957.6								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
13083.9	.15	16875.2	.043	17682.5	.043	18751.2	.15	19506.7	.032
20199	.043	21041	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17682.5	21041	550	506.5	480	.1	.3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
13080	17300	960	21400	22680	960	24775	24952.5	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	952.89	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.	0.043	0.045	0.025
E.G. Elev (ft)	953.17	Reach Len. (ft)	550.00	506.50	480.00
Crit W.S. (ft)	946.22	Flow Area (sq ft)	1497.09	34888.50	3429.58
E.G. Slope (ft/ft)	0.000738	Area (sq ft)	33168.97	34888.50	5797.88
Q Total (cfs)	164000.00	Flow (cfs)	3488.57	151817.84	8693.58
Top Width (ft)	11315.80	Top Width (ft)	4598.60	3358.50	3358.71

Vel Total (ft/s)	4.12	Avg. Vel. (ft/s)	2.33	4.35	2.53
Max Chl Dpth (ft)	15.89	Hydr. Depth (ft)	3.91	10.39	1.65
Conv. Total (cfs)	6034976.5	Conv. (cfs)	128374.5	5586690.0	319912.0
Length Wtd. (ft)	507.09	Wetted Per. (ft)	382.99	3363.45	2078.64
Min Ch El (ft)	937.00	Shear (lb/sq ft)	0.18	0.48	0.08
Alpha	1.06	Stream Power (lb/ft s)	0.42	2.08	0.19
Frctn Loss (ft)	0.54	Cum Volume (acre-ft)	1943.06	2314.63	620.45
C & E Loss (ft)	0.02	Cum SA (acres)	272.05	242.47	248.84

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	953.40	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.29	Wt. n-Val.	0.043	0.045	
E.G. Elev (ft)	953.69	Reach Len. (ft)	550.00	506.50	480.00
Crit W.S. (ft)	946.22	Flow Area (sq ft)	1694.55	36622.27	
E.G. Slope (ft/ft)	0.000702	Area (sq ft)	1694.55	36622.27	
Q Total (cfs)	164000.00	Flow (cfs)	4129.89	159870.11	
Top Width (ft)	3741.00	Top Width (ft)	382.50	3358.50	
Vel Total (ft/s)	4.28	Avg. Vel. (ft/s)	2.44	4.37	
Max Chl Dpth (ft)	16.40	Hydr. Depth (ft)	4.43	10.90	
Conv. Total (cfs)	6188157.0	Conv. (cfs)	155831.8	6032325.0	
Length Wtd. (ft)	508.20	Wetted Per. (ft)	390.34	3365.56	
Min Ch El (ft)	937.00	Shear (lb/sq ft)	0.19	0.48	
Alpha	1.02	Stream Power (lb/ft s)	0.46	2.08	
Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	261.81	2520.05	30.85
C & E Loss (ft)	0.02	Cum SA (acres)	29.37	242.48	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17069.35	17375.93	1405.71	465.81	75.94	0.86	6.14	3.02
17375.93	17682.50	2082.86	1031.27	307.05	1.27	3.36	2.02
17682.50 LB	18354.20	20928.26	5511.40	673.56	12.76	8.21	3.80
18354.20	19025.90	23738.27	7098.21	671.82	14.47	10.57	3.34
19025.90	19697.60	23257.12	7041.36	672.11	14.18	10.48	3.30
19697.60	20369.30	54683.10	8504.74	672.23	33.34	12.66	6.43
20369.30	21041.00 RB	29211.11	6732.79	673.74	17.81	10.02	4.34
21041.00	21301.77	2752.21	813.37	260.84	1.68	3.12	3.38
21301.77	21562.53	1078.84	313.77	98.23	0.66	3.19	3.44
21562.53	22605.60						
22605.60	22866.37	312.30	192.67	186.37	0.19	1.03	1.62
22866.37	23127.13	240.24	188.29	260.77	0.15	0.72	1.28
23127.13	23387.90	0.75	2.40	27.38	0.00	0.09	0.31
23387.90	23648.67	52.31	55.06	118.69	0.03	0.46	0.95
23648.67	23909.43	1446.25	552.83	260.79	0.88	2.12	2.62
23909.43	24170.20	1317.26	522.68	260.77	0.80	2.00	2.52
24170.20	24430.97	654.80	343.64	260.77	0.40	1.32	1.91
24430.97	24691.73	669.25	348.17	260.77	0.41	1.34	1.92
24691.73	24952.50	169.39	96.71	83.27	0.10	1.16	1.75

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17069.35	17375.93	1503.27	505.01	83.28	0.92	6.65	2.98
17375.93	17682.50	2626.62	1189.54	307.05	1.60	3.88	2.21
17682.50 LB	18354.20	22602.80	5858.15	673.56	13.78	8.72	3.86
18354.20	19025.90	25019.09	7444.97	671.82	15.26	11.08	3.36
19025.90	19697.60	24323.02	7388.11	672.11	14.83	11.00	3.29
19697.60	20369.30	57003.76	8851.50	672.23	34.76	13.18	6.44
20369.30	21041.00 RB	30921.46	7079.55	675.84	18.85	10.54	4.37

CROSS SECTION RIVER: 1

REACH: 1 RS: 200.3

INPUT
Description: 200.3
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13125.5	945.5	13316	945.5	13495.7	945.7	13687.9	945.9	13882.5	945.7
14123.9	945.2	14361.2	945.8	14546.2	945.8	14737.5	945.3	14938.1	945.4
15122.2	945.1	15335	945.6	15433	945.6	15567.6	939.4	15743.1	943.1
15926.3	943.9	16194.5	945.4	16429.4	944.1	16628.2	944	16879.3	943.5
17113.8	942.4	17377.6	941.9	17498.6	943.3	17607.2	938.9	17628.8	936.3
17658.3	936.3	17675	944.5	17697.5	951.2	17780.4	950.6	17838.1	947
17867.7	942.5	17967.1	945	18084.3	942	18261.2	944.6	18437.1	945.1
18628.2	943.1	18829.4	943.7	19025	944.9	19214.9	946.9	19248.3	947.6
19276.7	941.7	19395.7	940.8	19474.4	946.5	19525.1	941.1	19863.4	942.3
20078.8	940.7	20263.9	939.9	20310.8	939.3	20322.1	942.6	20372.8	938
20488.5	939.3	20499.7	937.7	20594.1	938.9	20626.9	940.5	20657.3	939.8
20690.1	946.3	20711.8	945.7	20725.9	942.7	20819.1	942.7	20861.5	948.6
20879.4	947.5	20896	957	20906	955	20980	955.9	20990	954.6
21051.2	955.9	21071.8	953.9	21206.4	955	21247.3	956.9	21438.7	956
21607.6	952.1	21652.6	956.5	21832	957.6	22017.2	957.7	22136.9	954
22358.1	956.8	22480.5	957.8	22661.3	957.9	22684.8	957.8	22918.3	956.9
22985.5	956.5	23086.3	950.7	23165.3	950.8	23400.3	954	23576.8	954.1
23691	953.2	23717.5	950.5	23919.1	949.7	24108.8	949.5	24379.6	950.1
24590.3	950.3	24795.9	950.7	24878.3	952.9	24883.6	950.7	24903	957.1
24983.7	956.7								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
13125.5	.15	17780.4	.15	18261.2	.065	19395.7	.032	20263.9	.043
20896	.043	21206.4	.053						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17780.4	20896	520	515.72	560	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
13125	17205	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	952.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.49	Wt. n-Val.	0.150	0.046	0.053
E.G. Elev (ft)	952.61	Reach Len. (ft)	520.00	515.72	560.00
Crit W.S. (ft)	947.15	Flow Area (sq ft)	5257.93	28732.77	2497.59
E.G. Slope (ft/ft)	0.001603	Area (sq ft)	35713.65	28732.77	2497.59
Q Total (cfs)	179750.00	Flow (cfs)	9082.61	166346.31	4321.08
Top Width (ft)	9118.96	Top Width (ft)	4654.90	3107.07	1356.98
Vel Total (ft/s)	4.93	Avg. Vel. (ft/s)	1.73	5.79	1.73
Max Chl Dpth (ft)	15.82	Hydr. Depth (ft)	9.14	9.25	1.84
Conv. Total (cfs)	4489175.0	Conv. (cfs)	226834.1	4154424.0	107917.0
Length Wtd. (ft)	517.47	Wetted Per. (ft)	578.54	3112.25	1357.65
Min Ch El (ft)	937.70	Shear (lb/sq ft)	0.91	0.92	0.18
Alpha	1.29	Stream Power (lb/ft s)	1.57	5.35	0.32
Frctn Loss (ft)	0.93	Cum Volume (acre-ft)	1508.19	1944.75	574.75
C & E Loss (ft)	0.01	Cum SA (acres)	213.64	204.88	222.86

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	952.73	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.	0.150	0.046	
E.G. Elev (ft)	953.18	Reach Len. (ft)	520.00	515.72	560.00
Crit W.S. (ft)	947.16	Flow Area (sq ft)	5605.83	30611.67	
E.G. Slope (ft/ft)	0.001382	Area (sq ft)	5605.83	30611.67	
Q Total (cfs)	179750.00	Flow (cfs)	9271.09	170478.91	
Top Width (ft)	3683.53	Top Width (ft)	575.40	3108.13	
Vel Total (ft/s)	4.96	Avg. Vel. (ft/s)	1.65	5.57	
Max Chl Dpth (ft)	16.43	Hydr. Depth (ft)	9.74	9.85	
Conv. Total (cfs)	4835196.5	Conv. (cfs)	249388.4	4585808.0	
Length Wtd. (ft)	516.00	Wetted Per. (ft)	589.03	3113.47	
Min Ch El (ft)	937.70	Shear (lb/sq ft)	0.82	0.85	
Alpha	1.20	Stream Power (lb/ft s)	1.36	4.72	

Frctn Loss (ft)	0.80	Cum Volume (acre-ft)	215.72	2129.17	30.85
C & E Loss (ft)	0.01	Cum SA (acres)	23.33	204.89	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17159.75	17470.07	4801.94	2631.46	265.08	2.67	9.93	1.82
17470.07	17780.40	4280.67	2626.47	313.46	2.38	8.46	1.63
17780.40 LB	18403.52	9592.39	4853.94	623.66	5.34	7.79	1.98
18403.52	19026.64	18730.40	5066.11	623.14	10.42	8.13	3.70
19026.64	19649.76	30474.70	5272.55	624.24	16.95	8.46	5.78
19649.76	20272.88	61334.94	6764.85	623.13	34.12	10.86	9.07
20272.88	20896.00 RB	46213.90	6775.32	618.09	25.71	11.02	6.82
20896.00	21441.03						
21441.03	21713.54	0.00	0.01	1.09	0.00	0.01	0.05
21713.54	22803.59						
22803.59	23076.11	3.70	6.04	14.51	0.00	0.42	0.61
23076.11	23348.62	200.08	183.78	186.19	0.11	0.99	1.09
23348.62	23621.13						
23621.13	23893.65	600.55	359.88	192.13	0.33	1.87	1.67
23893.65	24166.16	1391.12	685.11	272.51	0.77	2.51	2.03
24166.16	24438.67	1113.36	599.41	272.51	0.62	2.20	1.86
24438.67	24711.19	803.27	492.79	272.51	0.45	1.81	1.63
24711.19	24983.70	208.99	170.58	146.18	0.12	1.17	1.23

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17159.75	17470.07	4803.64	2791.73	275.58	2.67	10.53	1.72
17470.07	17780.40	4467.46	2814.10	313.46	2.49	9.07	1.59
17780.40 LB	18403.52	10104.59	5230.69	623.66	5.62	8.39	1.93
18403.52	19026.64	19600.54	5442.86	623.14	10.90	8.73	3.60
19026.64	19649.76	31588.75	5649.29	624.24	17.57	9.07	5.59
19649.76	20272.88	62337.74	7141.60	623.13	34.68	11.46	8.73
20272.88	20896.00 RB	46847.28	7147.23	619.30	26.06	11.61	6.55

CROSS SECTION RIVER: 1
REACH: 1 RS: 200.2

INPUT
Description: 200.2

Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13153.3	944.6	13349.8	941	13453.5	941.7	13506.2	944.4	13667.2	944.5
13896.4	944.4	14116.1	944.3	14330.9	944.2	14491.6	944.1	14677.3	943.8
14757.1	939.6	14939.8	944.1	15110.7	943.8	15278.6	943.3	15461.1	943.2
15632.4	943.3	15866.9	943.9	16084.9	943.3	16260.8	943.4	16458.2	942.6
16696.4	943.8	16928.4	942.2	17115	942.0292	17146.9	942	17406.4	942.7
17643.4	942.6	17703.7	941.7	17728.1	936.2	17754.7	936.2	17774.2	941
17960.5	949.6	18052.3	948	18086.8	939.2	18113.1	940.7	18233.7	939.8
18402.1	943	18511.7	944.8	18531.7	941.8	18707.3	944.7	18794.8	941.3
19017.2	943.2	19081.1	945.2	19247.5	944.2	19313.2	945.7	19482.3	942.9
19591.6	942.6	20062.3	940.4	20235.8	940	20296.5	940.6	20329.2	937.6
20402.2	940.4	20578.4	937.9	20633	938.7	20676	937	20686.1	939.7
20744	948	20822.3	948	20949.1	954.9	21027.6	947.5	21215	947.3
21338.5	947.2	21527.5	948.5	21746	948.8	21841.7	948.3	22059	949.1
22185.4	949.1	22507.1	948.8	22551.2	949	22836.7	949.8	22992.3	949.2
23156.3	950.7	23327.5	950.2	23492.3	951.2	23633.4	950.7	23641.6	948.8
23667.9	953.3	23785.4	949.4	23980	949	24145.7	948.5	24326	947.5
24336.6	946.6	24353.9	949.4	24529.6	949.2	24626.1	949.5	24679.5	947.3
24861.6	949.3	24983.4	948.5	24990.2	949.6	24999.2	947	25138.6	950
25169.5	955.5	25202.4	950.9	25239.2	950	25434.2	953.6	25474.7	955.9
25481.6	954.7	25498.7	958.4						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
13153.3	.15	17960.5	.15	18233.7	.065	19482.3	.032	20235.8	.043
20744	.043	21215	.025	23667.9	.053				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17960.5	20744	535	525.73	515	.1	.3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
13150	17115	960	20744	23100	960	25169.5	25498.7	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	951.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.56	Wt. n-Val.	0.150	0.046	0.051
E.G. Elev (ft)	951.67	Reach Len. (ft)	535.00	525.73	515.00
Crit W.S. (ft)	946.76	Flow Area (sq ft)	7123.41	24953.69	3542.48
E.G. Slope (ft/ft)	0.002027	Area (sq ft)	37700.66	24953.69	9020.27
Q Total (cfs)	179750.00	Flow (cfs)	13140.98	158890.64	7718.37
Top Width (ft)	11857.73	Top Width (ft)	4807.20	2783.50	4267.03
Vel Total (ft/s)	5.05	Avg. Vel. (ft/s)	1.84	6.37	2.18
Max Chl Dpth (ft)	14.90	Hydr. Depth (ft)	8.43	8.96	1.84
Conv. Total (cfs)	3992119.3	Conv. (cfs)	291851.9	3528847.8	171419.5
Length Wtd. (ft)	525.91	Wetted Per. (ft)	846.90	2786.31	1924.34
Min Ch El (ft)	937.00	Shear (lb/sq ft)	1.06	1.13	0.23
Alpha	1.43	Stream Power (lb/ft s)	1.96	7.22	0.51
Frctn Loss (ft)	0.98	Cum Volume (acre-ft)	1070.00	1626.94	500.71
C & E Loss (ft)	0.03	Cum SA (acres)	157.16	170.01	186.70

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	951.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.55	Wt. n-Val.	0.150	0.046	
E.G. Elev (ft)	952.38	Reach Len. (ft)	535.00	525.73	515.00
Crit W.S. (ft)	946.76	Flow Area (sq ft)	7740.51	26985.25	
E.G. Slope (ft/ft)	0.001732	Area (sq ft)	7740.51	26985.25	
Q Total (cfs)	179750.00	Flow (cfs)	13843.60	165906.41	
Top Width (ft)	3629.00	Top Width (ft)	845.50	2783.50	
Vel Total (ft/s)	5.18	Avg. Vel. (ft/s)	1.79	6.15	
Max Chl Dpth (ft)	15.63	Hydr. Depth (ft)	9.15	9.69	
Conv. Total (cfs)	4319022.0	Conv. (cfs)	332633.1	3986389.0	
Length Wtd. (ft)	526.30	Wetted Per. (ft)	856.71	2790.14	
Min Ch El (ft)	937.00	Shear (lb/sq ft)	0.98	1.05	
Alpha	1.31	Stream Power (lb/ft s)	1.75	6.43	
Frctn Loss (ft)	0.81	Cum Volume (acre-ft)	136.06	1788.21	30.85
C & E Loss (ft)	0.04	Cum SA (acres)	14.85	170.01	5.87

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16999.06	17319.54	3487.48	1821.50	204.54	1.94	8.91	1.91
17319.54	17640.02	5028.25	2715.07	320.48	2.80	8.47	1.85
17640.02	17960.50	4625.28	2586.85	321.88	2.57	8.07	1.79
17960.50 LB	18517.20	14210.86	4533.48	557.97	7.91	8.14	3.13
18517.20	19073.90	19108.47	4574.49	556.99	10.63	8.22	4.18
19073.90	19630.60	20309.54	3912.21	556.75	11.30	7.03	5.19
19630.60	20187.30	53449.81	5541.51	556.71	29.74	9.95	9.65
20187.30	20744.00 RB	51811.96	6391.98	557.90	28.82	11.48	8.11
20744.00	22962.86						
22962.86	23279.84	208.56	109.47	179.84	0.12	0.61	1.91
23279.84	23596.82	177.88	117.78	274.15	0.10	0.43	1.51
23596.82	23913.80	548.29	318.54	238.43	0.31	1.34	1.72
23913.80	24230.78	1727.96	766.52	316.98	0.96	2.42	2.25
24230.78	24547.76	1724.25	765.78	317.25	0.96	2.42	2.25
24547.76	24864.74	1839.77	795.96	317.04	1.02	2.51	2.31
24864.74	25181.72	1491.64	668.43	280.65	0.83	2.39	2.23

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16999.06	17319.54	3564.88	1970.78	214.34	1.98	9.64	1.81
17319.54	17640.02	5337.12	2948.98	320.48	2.97	9.20	1.81
17640.02	17960.50	4941.61	2820.75	321.88	2.75	8.80	1.75
17960.50 LB	18517.20	15103.79	4939.79	557.97	8.40	8.87	3.06
18517.20	19073.90	20362.14	4980.80	556.99	11.33	8.95	4.09
19073.90	19630.60	21966.53	4318.53	556.75	12.22	7.76	5.09
19630.60	20187.30	55611.65	5947.82	556.71	30.94	10.68	9.35
20187.30	20744.00 RB	52862.27	6798.30	561.73	29.41	12.21	7.78

CROSS SECTION RIVER: 1
REACH: 1 RS: 200.1

INPUT
Description: 200.1
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13401.5	961.6	13404.9	959.9	13406.7	957.2	13436.1	949.3	13438.3	947.2
13608.9	944.8	13771.4	944.1	13861.6	946.2	14093.6	944.2	14363	943.5
14599.1	944	14804.9	943.5	14985.6	943.6	15188.8	942.7	15425.2	942.8
15650.8	942.8	15834.1	942.9	16015.4	942.8	16214.7	941.9	16467.4	941.6
16641.3	942.8	16821.1	944	17077.9	942.2	17313	941.7	17523.7	941.6
17672.5	940.7	17733.3	943.5	17903.5	943	18097	942	18197	940.9
18244	934.9	18278.2	934.7	18280	936.9	18289	936.2	18327.6	941.8
18505.3	941.8	18602	941.2	18752.8	944.8	18927.6	940.3	19044.3	938.9
19072.3	941.3	19130.7	943	19301.3	943.1	19402.1	944.8	19524.2	937.7
19631.9	945.9	19875.1	939.3	20104.9	934.9	20306.5	934.5	20329.5	935.2
20520.9	935.5	20604.1	936.7	20643	947.2	20857.2	946.5	21112.6	946.5
21165.6	945.5	21339.7	946.3	21499.9	947.4	21673.2	947.4	21692.7	947.4
21938.1	947.6	21976.2	947.6	22310	947.7	22366.6	947.7	22620.5	948
22748	948.7	23104.3	950.4	23323.4	950.8	23521	950.1	23671.5	950.7
23677.2	948.1	23730.1	951.6	23754.2	948.1	23760.8	950.1	23949.5	948.5
24132.7	948.8	24309.4	949	24354.9	949.5	24372.1	946.9	24561.3	948.7
24717.9	946.9	24773.6	949.1	24952.8	948.5	25016.6	946.2	25028.8	948.4
25039.1	944.7	25073.4	947.5	25256.1	949.3	25287.2	954.4	25301	949.1
25375.9	953.1	25528.9	956	25539.2	957.4	25551.8	955.4	25735.3	957.8
25963	960								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
13401.5	.15	15425.2	.043	16821.1	.15	18752.8	.15	19524.2	.032
20643	.043	21165.6	.025	23730.1	.053				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17733.3	20643	490	491.65	495	.1	.3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
13400	17030	960	20800	23000	960	25287.2	25965	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	950.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.47	Wt. n-Val.	0.150	0.050	0.050
E.G. Elev (ft)	950.66	Reach Len. (ft)	490.00	491.65	495.00
Crit W.S. (ft)	945.21	Flow Area (sq ft)	5946.08	28462.42	3251.01
E.G. Slope (ft/ft)	0.001730	Area (sq ft)	30238.28	28462.42	9247.00
Q Total (cfs)	179750.00	Flow (cfs)	10167.66	163284.14	6298.19
Top Width (ft)	11254.10	Top Width (ft)	4300.50	2909.70	4043.89
Vel Total (ft/s)	4.77	Avg. Vel. (ft/s)	1.71	5.74	1.94
Max Chl Dpth (ft)	15.69	Hydr. Depth (ft)	8.45	9.78	1.79
Conv. Total (cfs)	4321296.0	Conv. (cfs)	244436.5	3925447.0	151412.3
Length Wtd. (ft)	491.84	Wetted Per. (ft)	703.37	2913.88	1823.03
Min Ch El (ft)	934.50	Shear (lb/sq ft)	0.91	1.06	0.19
Alpha	1.33	Stream Power (lb/ft s)	1.56	6.05	0.37
Frctn Loss (ft)	0.58	Cum Volume (acre-ft)	652.79	1304.60	392.73
C & E Loss (ft)	0.06	Cum SA (acres)	101.23	135.65	137.58

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	951.11	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.42	Wt. n-Val.	0.150	0.051	0.043
E.G. Elev (ft)	951.53	Reach Len. (ft)	490.00	491.65	495.00
Crit W.S. (ft)	945.19	Flow Area (sq ft)	6594.26	31144.08	653.90
E.G. Slope (ft/ft)	0.001392	Area (sq ft)	6594.26	31144.08	653.90
Q Total (cfs)	179750.00	Flow (cfs)	10748.50	166859.25	2142.24
Top Width (ft)	3770.00	Top Width (ft)	703.30	2909.70	157.00
Vel Total (ft/s)	4.68	Avg. Vel. (ft/s)	1.63	5.36	3.28
Max Chl Dpth (ft)	16.61	Hydr. Depth (ft)	9.38	10.70	4.16
Conv. Total (cfs)	4818061.0	Conv. (cfs)	288105.3	4472534.5	57421.1
Length Wtd. (ft)	491.67	Wetted Per. (ft)	711.94	2913.88	161.42
Min Ch El (ft)	934.50	Shear (lb/sq ft)	0.80	0.93	0.35
Alpha	1.23	Stream Power (lb/ft s)	1.31	4.98	1.15
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	48.03	1437.43	26.99
C & E Loss (ft)	0.04	Cum SA (acres)	5.33	135.65	4.95

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16866.94	17155.73	1647.99	1002.55	125.73	0.92	7.97	1.64
17155.73	17444.51	4136.46	2428.69	288.79	2.30	8.41	1.70
17444.51	17733.30	4383.22	2514.84	288.85	2.44	8.71	1.74
17733.30 LB	18315.24	8768.01	5111.13	583.67	4.88	8.78	1.72
18315.24	18897.18	7301.86	4574.94	582.16	4.06	7.86	1.60
18897.18	19479.12	7663.26	4709.71	582.23	4.26	8.09	1.63
19479.12	20061.06	44346.71	5607.77	582.45	24.67	9.64	7.91
20061.06	20643.00 RB	95204.27	8458.86	583.36	52.96	14.54	11.25
20643.00	20997.67	1570.52	509.21	157.00	0.87	3.24	3.08
20997.67	22771.00						
22771.00	23125.67	5.59	8.48	59.62	0.00	0.14	0.66
23125.67	23480.33						
23480.33	23835.00	98.31	91.65	178.56	0.05	0.52	1.07
23835.00	24189.67	709.04	496.28	354.67	0.39	1.40	1.43
24189.67	24544.33	1117.01	652.01	354.87	0.62	1.84	1.71
24544.33	24899.00	1212.52	684.79	354.72	0.67	1.93	1.77
24899.00	25253.67	1581.59	804.02	355.67	0.88	2.27	1.97
25253.67	25608.33	3.64	4.59	7.91	0.00	0.58	0.79

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16866.94	17155.73	1695.78	1118.43	134.30	0.94	8.90	1.52
17155.73	17444.51	4408.04	2694.84	288.79	2.45	9.33	1.64
17444.51	17733.30	4644.68	2780.99	288.85	2.58	9.63	1.67
17733.30 LB	18315.24	9313.90	5647.47	583.67	5.18	9.70	1.65
18315.24	18897.18	7900.89	5111.27	582.16	4.40	8.78	1.55
18897.18	19479.12	8250.49	5246.05	582.23	4.59	9.01	1.57
19479.12	20061.06	46517.79	6144.10	582.45	25.88	10.56	7.57
20061.06	20643.00 RB	94876.18	8995.19	583.36	52.78	15.46	10.55
20643.00	20997.67	2142.24	653.90	161.42	1.19	4.16	3.28

CROSS SECTION RIVER: 1
REACH: 1 RS: 200

INPUT
Description: 200
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13751.9	957.5	13774.9	950.4	13899.2	945.3	14075.2	943.6	14247.4	943.4
14390.2	944.1	14410.8	941.9	14489.5	944.7	14707.6	944.7	14871.6	945
15032.5	944.4	15300.2	944.1	15460.8	944.8	15628	944.3	15784.9	944.2
15958.7	943.4	16114	943.3	16279	942.4	16452	942.3	16652.4	942.7
16843.9	942.3	17008.1	943.8	17197.2	943.5	17388.9	942.5	17552.5	941.8

17738.6	942.2	17904	942.1	18074.8	942.9	18250.5	943.4	18433.6	942.2
18601	942.2	18626	940.2	18638.8	934	18658.5	933.4	18693.5	940.2
18768.9	944.3	18874.7	940.2	19043.7	940.6	19233.3	941.2	19416.4	942.6
19566.9	941.6	19720.1	935.8	19796.8	938.8	19975	934.4	20272.3	934.1
20276.6	934.2	20626.2	936.3	20790.5	935.3	20829	944.5	21085.6	944
21172.7	942.8	21329.4	945.1	21406.2	952.7	21433.8	946.6	21513.2	947.1
21713.7	947	21747.4	947	21906.5	946.8	21920.3	946.8	22147.8	946
22206.3	945.8	22451.9	946.8	22701.3	947.9	22901.9	948.3	23151.7	949.3
23234.2	950.1	23323.5	948.7	23510.9	949.9	23672.1	949.6	23707.3	949.9
23712.7	946.9	23720.9	949.2	23769.1	950.4	23820.8	947.8	23989.1	947.8
24020.6	947.1	24029.2	945.6	24038	947.6	24198.6	947	24361	947.2
24513.5	945.6	24672.5	946.4	24863.2	946.6	25018.9	946.3	25064.3	946
25075.8	943.9	25087.5	947.1	25163.5	947.5	25181.3	953.2	25200.7	953.7
25211	947.8	25384.8	952.1	25573.3	956	25602.8	956.1	25616.3	960.7
25622.7	961.4								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
13751.9	.15	15628	.043	17008.1	.15	18601	.15	19566.9	.032
20829	.032	21329.4	.043	21713.7	.025	23769.1	.053		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17008.1	20829	520	521.67	525	.1	.3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
13751	16950	960	21350	23200	960	25200.7	25625	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	949.74	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.27	Wt. n-Val.	0.043	0.049	0.039
E.G. Elev (ft)	950.01	Reach Len. (ft)	520.00	521.67	525.00
Crit W.S. (ft)	944.16	Flow Area (sq ft)	360.81	37062.06	7114.48
E.G. Slope (ft/ft)	0.000864	Area (sq ft)	18898.55	37062.06	11612.06
Q Total (cfs)	179750.00	Flow (cfs)	1238.45	158884.03	19627.52
Top Width (ft)	11193.60	Top Width (ft)	3217.23	3820.90	4155.47
Vel Total (ft/s)	4.04	Avg. Vel. (ft/s)	3.43	4.29	2.76
Max Chl Dpth (ft)	16.34	Hydr. Depth (ft)	6.21	9.70	3.14
Conv. Total (cfs)	6113840.0	Conv. (cfs)	42123.4	5404125.5	667591.2
Length Wtd. (ft)	521.96	Wetted Per. (ft)	58.10	3824.60	2271.73
Min Ch El (ft)	933.40	Shear (lb/sq ft)	0.34	0.52	0.17
Alpha	1.05	Stream Power (lb/ft s)	1.15	2.24	0.47
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)	376.42	934.82	274.21
C & E Loss (ft)	0.02	Cum SA (acres)	58.95	97.67	90.99

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	950.70	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.	0.043	0.050	0.032
E.G. Elev (ft)	950.98	Reach Len. (ft)	520.00	521.67	525.00
Crit W.S. (ft)	944.11	Flow Area (sq ft)	416.36	40715.75	1418.00
E.G. Slope (ft/ft)	0.000792	Area (sq ft)	416.36	40715.75	1418.00
Q Total (cfs)	179750.00	Flow (cfs)	1388.62	172089.52	6271.86
Top Width (ft)	4100.00	Top Width (ft)	58.10	3820.90	221.00
Vel Total (ft/s)	4.22	Avg. Vel. (ft/s)	3.34	4.23	4.42
Max Chl Dpth (ft)	17.30	Hydr. Depth (ft)	7.17	10.66	6.42
Conv. Total (cfs)	6388852.5	Conv. (cfs)	49355.8	6116576.0	222920.5
Length Wtd. (ft)	521.71	Wetted Per. (ft)	65.53	3824.60	227.63
Min Ch El (ft)	933.40	Shear (lb/sq ft)	0.31	0.53	0.31
Alpha	1.00	Stream Power (lb/ft s)	1.05	2.22	1.36
Frctn Loss (ft)	0.35	Cum Volume (acre-ft)	8.60	1031.90	15.22
C & E Loss (ft)	0.02	Cum SA (acres)	1.05	97.67	2.80

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16791.02	17008.10	1238.45	360.81	58.10	0.69	6.21	3.43
17008.10 LB	17772.28	5752.49	5383.73	764.18	3.20	7.05	1.07
17772.28	18536.46	5862.80	5445.45	764.19	3.26	7.13	1.08
18536.46	19300.64	8480.51	6803.91	766.54	4.72	8.90	1.25
19300.64	20064.82	49773.92	8400.14	764.41	27.69	10.99	5.93

20064.82	20829.00 RB	89014.29	11028.82	765.27	49.52	14.43	8.07
20829.00	21148.58	7709.81	1799.08	319.59	4.29	5.63	4.29
21148.58	21468.16	4928.62	1146.23	201.54	2.74	5.69	4.30
21468.16	23066.06						
23066.06	23385.64	116.92	87.37	128.79	0.07	0.68	1.34
23385.64	23705.22	23.58	39.53	195.78	0.01	0.20	0.60
23705.22	24024.80	593.61	476.97	279.05	0.33	1.72	1.24
24024.80	24344.38	1265.78	823.89	319.87	0.70	2.58	1.54
24344.38	24663.96	2110.31	1119.21	319.59	1.17	3.50	1.89
24663.96	24983.54	1867.10	1039.92	319.58	1.04	3.25	1.80
24983.54	25303.12	1011.80	582.28	187.94	0.56	3.11	1.74

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16791.02	17008.10	1388.62	416.36	65.53	0.77	7.17	3.34
17008.10 LB	17772.28	6807.30	6114.47	764.18	3.79	8.00	1.11
17772.28	18536.46	6922.19	6176.19	764.19	3.85	8.08	1.12
18536.46	19300.64	9621.82	7534.65	766.54	5.35	9.86	1.28
19300.64	20064.82	53920.32	9130.88	764.41	30.00	11.95	5.91
20064.82	20829.00 RB	94817.88	11759.55	765.27	52.75	15.39	8.06
20829.00	21148.58	6271.86	1418.00	227.63	3.49	6.42	4.42

CROSS SECTION RIVER: 1
REACH: 1 RS: 199.91

INPUT
Description: 199.91
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14357	952	14390.5	944.3	14519.8	944.3	14639.2	944	14799.9	943.3
14919	943.3	15064.9	943.3	15201.6	943.3	15338.6	943.4	15454.7	943.3
15584.5	943.3	15701.7	943.3	15826.7	943	15946.8	942.7	16066.9	942.8
16186	942.4	16318.5	941.2	16444.9	941.2	16595	941.2	16734.2	941.2
16862.4	941.9	16985.5	941.6	17123.4	941.2	17256.1	940.2	17418.5	940.8
17583.3	941.1	17747.3	940.1	17924.2	940.7	18048.2	942.2	18185	942.2
18189.1	942.2	18396.1	942.1	18544.2	943.4	18752.1	941	18756.5	940.1
18757.1	941.1	18776.4	938.5	18875.1	932.1	19009.5	940.1	19154.1	941.2
19274.4	940.6	19412.9	940.1	19433.2	938.2	19665	944.1	19683.4	944.3
20122	935.3	20357	935.3	20396.2	935.2	20513.6	938.9	20603.3	938.2
20817.6	934.9	20841.2	934.9	21013	935.1	21078.3	935.1	21141.2	941.5
21181.1	941.5	21315.9	945	21377.5	952.3	21405.6	945.7	21555.3	946.7
21673.9	946.5	21886.3	946.2	22065.2	946.2	22189.8	945.7	22354.3	945.2
22462	946.4	22675.7	948.1	22731	948.3	22992.2	947.3	23079.5	947.2
23195.8	947.1	23332.1	947.2	23499	947.4	23628.6	947.3	23678.5	948.1
23685.3	950.9	23692.1	948.2	23702.9	950.2	23747.7	949.7	23766.7	947.4
23890.2	946.9	24000	946.9	24127.8	946.1	24323.2	945.3	24446.3	945.3
24602.1	944.4	24749.8	944.2	24887.7	943.5	25018.7	945.8	25033.6	942.4
25046.9	947.2	25137.9	947.1	25214.4	951.6	25285.5	947.1	25444.7	950.8
25559.1	953.2								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14357	.15	16318.5	.043	17747.3	.15	18544.2	.15	19433.2	.032
21013	.043	21315.9	.043	21377.5	.025	23702.9	.053	25018.7	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
16862.4	21315.9	465	466.41	465	.1	.3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
14357	16800	960	21330	23050	960	25200	25559.1	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	949.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.21	Wt. n-Val.	0.043	0.046	0.044
E.G. Elev (ft)	949.60	Reach Len. (ft)	465.00	466.41	465.00
Crit W.S. (ft)	943.35	Flow Area (sq ft)	477.76	43007.52	6769.67
E.G. Slope (ft/ft)	0.000668	Area (sq ft)	16319.12	43007.52	11526.39
Q Total (cfs)	179750.00	Flow (cfs)	1657.71	164523.08	13569.20
Top Width (ft)	10846.61	Top Width (ft)	2494.03	4453.50	3899.08

Vel Total (ft/s)	3.58	Avg. Vel. (ft/s)	3.47	3.83	2.00
Max Chl Dpth (ft)	17.29	Hydr. Depth (ft)	7.66	9.66	3.25
Conv. Total (cfs)	6954198.0	Conv. (cfs)	64133.8	6365096.5	524967.6
Length Wtd. (ft)	466.19	Wetted Per. (ft)	62.40	4455.54	2083.72
Min Ch El (ft)	932.10	Shear (lb/sq ft)	0.32	0.40	0.14
Alpha	1.08	Stream Power (lb/ft s)	1.11	1.54	0.27
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	166.22	455.37	134.77
C & E Loss (ft)	0.01	Cum SA (acres)	24.86	48.12	42.45

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	950.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.22	Wt. n-Val.	0.043	0.046	0.043
E.G. Elev (ft)	950.61	Reach Len. (ft)	465.00	466.41	465.00
Crit W.S. (ft)	943.35	Flow Area (sq ft)	540.67	47497.17	64.28
E.G. Slope (ft/ft)	0.000573	Area (sq ft)	540.67	47497.17	64.28
Q Total (cfs)	179750.00	Flow (cfs)	1727.01	177898.42	124.56
Top Width (ft)	4530.00	Top Width (ft)	62.40	4453.50	14.10
Vel Total (ft/s)	3.74	Avg. Vel. (ft/s)	3.19	3.75	1.94
Max Chl Dpth (ft)	18.29	Hydr. Depth (ft)	8.66	10.67	4.56
Conv. Total (cfs)	7510251.5	Conv. (cfs)	72157.5	7432889.5	5204.4
Length Wtd. (ft)	466.37	Wetted Per. (ft)	71.24	4455.54	17.92
Min Ch El (ft)	932.10	Shear (lb/sq ft)	0.27	0.38	0.13
Alpha	1.00	Stream Power (lb/ft s)	0.87	1.43	0.25
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	2.89	503.68	6.28
C & E Loss (ft)	0.00	Cum SA (acres)	0.33	48.12	1.38

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16695.37	16862.40	1657.71	477.76	62.40	0.92	7.66	3.47
16862.40 LB	17753.10	27596.83	7522.03	890.71	15.35	8.45	3.67
17753.10	18643.80	6504.25	6666.61	890.72	3.62	7.48	0.98
18643.80	19534.50	15042.65	8991.61	892.11	8.37	10.09	1.67
19534.50	20425.20	54713.68	9469.00	890.85	30.44	10.63	5.78
20425.20	21315.90 RB	60665.69	10358.28	891.14	33.75	11.63	5.86
21315.90	21598.78	100.70	50.06	14.20	0.06	3.55	2.01
21598.78	23013.18						
23013.18	23296.06	1402.41	549.57	246.06	0.78	2.23	2.55
23296.06	23578.94	1432.99	588.66	282.88	0.80	2.08	2.43
23578.94	23861.82	667.66	417.89	224.32	0.37	1.87	1.60
23861.82	24144.70	1050.31	766.86	282.88	0.58	2.71	1.37
24144.70	24427.58	1889.20	1090.66	282.88	1.05	3.86	1.73
24427.58	24710.46	2634.33	1331.45	282.88	1.47	4.71	1.98
24710.46	24993.34	3178.38	1490.25	282.90	1.77	5.27	2.13
24993.34	25276.22	1213.22	484.26	184.72	0.67	2.64	2.51

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16695.37	16862.40	1727.01	540.67	71.24	0.96	8.66	3.19
16862.40 LB	17753.10	30861.31	8419.96	890.71	17.17	9.45	3.67
17753.10	18643.80	7439.70	7564.54	890.72	4.14	8.49	0.98
18643.80	19534.50	16349.19	9889.54	892.11	9.10	11.10	1.65
19534.50	20425.20	58961.47	10366.93	890.85	32.80	11.64	5.69
20425.20	21315.90 RB	64286.75	11256.21	891.14	35.76	12.64	5.71
21315.90	21598.78	124.56	64.28	17.92	0.07	4.56	1.94

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 199.82

INPUT
Description: 199.82

Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14626.5	957.7	14665	955.3	14714.8	947.7	14731.9	943.6	14878.2	942.2
15038.4	942.1	15177.1	942.1	15312	942.9	15442.8	943.5	15572.5	942.6
15710.4	942.1	15843.3	942.2	15981.6	942	16111.7	941.9	16269.4	941.3
16337.7	941.1	16490	941.8	16647.8	941.2	16807.1	940.1	16870	940.1
16937.5	940.1	17070.8	940.1	17202.5	940.1	17339.2	940.1	17503.8	940.1
17635.5	940.1	17774.7	939.1	17955.5	939.8	18107	939.8	18236.3	940.2
18376.6	941.1	18554.9	941.8	18684.9	940.6	18768.3	940	18787.7	931.4
18818.1	931.2	18845.4	938.1	18894.5	940	19032.4	940.6	19165.1	939.3
19236.6	938.1	19354.5	941.6	19458.6	938.6	20124.2	939.3	20322.3	939.2
20533.6	938.6	20766.2	939.3	20910.7	936.7	20926	937.9	21009.9	936.6
21146.9	939.7	21241.8	942.2	21405.4	944.5	21551.8	945.7	21756.1	945.8
21937.2	945.7	22121.7	945.7	22347.1	945.6	22491.6	945.9	22657.2	946.2
22790.5	945.6	22925.1	946.5	23055.8	946.4	23218.3	946.1	23364.5	946.1
23514.8	945.8	23642	948.2	23655.7	947.2	23663.6	949.2	23669.7	947
23724.8	949.5	23780.9	946.5	23947	945	24077.1	944.4	24199.5	945.5
24210.3	943.6	24214.2	944.9	24354.9	943.6	24545.8	943	24742.9	943.3
24928.6	944	25002.7	943.7	25010.2	942.2	25023.6	945.4	25153.6	945.8
25304.8	946.9	25434.7	948.1	25588.5	950.5	25663.5	951.7	25798.3	956.3
25810.1	957.9	25834.3	954.9	25859.3	957.7	25991.9	960.7	26149.5	962.1
26241.6	962.1	26277	964.4						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14626.5	.15	18554.9	.15	19165.1	.065	21405.4	.025	23724.8	.053
25002.7	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
16870	21405.4	0	0	0	.1	.3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
14626.5	16870	960	21650	22900	960	25350	26127	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	948.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.19	Wt. n-Val.		0.089	0.039
E.G. Elev (ft)	949.09	Reach Len. (ft)			
Crit W.S. (ft)	943.28	Flow Area (sq ft)		42049.83	9729.14
E.G. Slope (ft/ft)	0.002007	Area (sq ft)	14822.50	42049.83	13723.95
Q Total (cfs)	179750.00	Flow (cfs)		138919.58	40830.43
Top Width (ft)	10752.57	Top Width (ft)	2163.06	4535.40	4054.11
Vel Total (ft/s)	3.47	Avg. Vel. (ft/s)		3.30	4.20
Max Chl Dpth (ft)	17.70	Hydr. Depth (ft)		9.27	3.65
Conv. Total (cfs)	4012367.5	Conv. (cfs)		3100953.5	911414.0
Length Wtd. (ft)		Wetted Per. (ft)		4538.41	2669.79
Min Ch El (ft)	931.20	Shear (lb/sq ft)		1.16	0.46
Alpha	1.03	Stream Power (lb/ft s)		3.84	1.92
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	949.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.		0.089	0.025
E.G. Elev (ft)	950.14	Reach Len. (ft)			
Crit W.S. (ft)	943.25	Flow Area (sq ft)		46585.23	1112.80
E.G. Slope (ft/ft)	0.002185	Area (sq ft)		46585.23	1112.80
Q Total (cfs)	179750.00	Flow (cfs)		171357.03	8392.96

1	211.89	1050.98	1048.11	2.87	0.82	0.00		166000.00		564.99
1	211.99	1051.83	1048.63	3.20	0.82	0.09		166000.00		1311.41
1	211.99	1051.89	1048.71	3.17	0.81	0.09		166000.00		549.87
1	212.08	1052.71	1050.10	2.61	0.82	0.06		166000.00		2181.45
1	212.08	1052.76	1050.17	2.59	0.81	0.06		166000.00	0.00	589.81
1	212.18	1053.98	1050.31	3.67	0.95	0.32		166000.00		2343.04
1	212.18	1054.01	1050.37	3.64	0.94	0.32		166000.00		627.72
1	212.27	1056.36	1050.72	5.64	1.79	0.59		166000.00		2802.81
1	212.27	1056.37	1050.77	5.60	1.77	0.59		166000.00		606.04
1	212.37	1058.81	1053.10	5.71	2.43	0.02		166000.00		573.64
1	212.37	1058.81	1053.11	5.70	2.42	0.03		166000.00		573.69
1	212.46	1060.77	1056.23	4.54	1.85	0.12		166000.00		1555.15
1	212.46	1060.80	1056.29	4.51	1.87	0.12		166000.00		557.66
1	212.56	1063.23	1056.87	6.35	1.91	0.54		166000.00		521.49
1	212.56	1063.25	1056.98	6.27	1.92	0.53		166000.00		521.09
1	212.67	1064.77	1062.53	2.24	1.13	0.41		166000.00		626.50
1	212.67	1064.77	1062.54	2.24	1.12	0.40		166000.00		626.51
1	212.675	Bridge								
1	212.68	1065.16	1063.02	2.14	0.00	0.03		166000.00		629.02
1	212.68	1065.17	1063.03	2.14	0.00	0.03		166000.00		629.03
1	212.74	1065.57	1063.06	2.51	0.30	0.11		166000.00		721.70
1	212.74	1065.57	1063.07	2.51	0.29	0.11		166000.00		676.59
1	212.84	1066.65	1063.54	3.11	0.90	0.18		166000.00		635.75
1	212.84	1066.65	1063.55	3.10	0.90	0.18		166000.00		635.75
1	212.93	1067.55	1065.48	2.06	0.79	0.10		166000.00		850.10
1	212.93	1067.55	1065.49	2.06	0.79	0.10		166000.00		798.99
1	213.03	1068.17	1066.57	1.60	0.57	0.05	9.00	165991.00		965.54
1	213.03	1068.17	1066.58	1.60	0.57	0.05		166000.00		919.74
1	213.11	1068.63	1067.16	1.47	0.45	0.01		166000.00		927.79
1	213.11	1068.63	1067.16	1.47	0.45	0.01		166000.00		927.79
1	213.21	1069.02	1067.99	1.04	0.36	0.04	38.68	165961.31		1540.71
1	213.21	1069.03	1068.00	1.04	0.36	0.04		166000.00		928.20
1	213.25	1069.14	1067.95	1.19	0.07	0.05		169000.00		880.24
1	213.25	1069.15	1067.96	1.19	0.07	0.05		169000.00		880.24

1	210.46	1038.40	1038.08	0.33	0.15	0.01		166000.00		2074.95
1	210.46	1038.63	1038.31	0.32	0.14	0.01		166000.00		1907.00
1	210.55	1038.76	1037.82	0.94	0.17	0.18		158174.88	7825.13	3103.29
1	210.55	1038.98	1038.04	0.94	0.17	0.19		159792.56	6207.44	1763.14
1	210.64	1039.09	1038.32	0.77	0.31	0.02	3.77	144352.89	21643.35	3011.65
1	210.64	1039.36	1038.31	1.05	0.35	0.03		161141.09	4858.91	1384.51
1	210.74	1039.47	1038.47	1.00	0.31	0.07		152539.30	13460.71	2337.38
1	210.74	1039.80	1038.54	1.26	0.37	0.06		165662.42	337.57	1102.73
1	210.83	1039.88	1038.81	1.08	0.40	0.02		139926.77	26073.24	2276.87
1	210.83	1040.43	1038.72	1.72	0.50	0.14		164489.34	1510.65	1040.74
1	210.93	1040.38	1039.25	1.12	0.48	0.01		136464.55	29535.45	2682.27
1	210.93	1041.16	1039.29	1.86	0.68	0.04		164150.11	1849.88	1008.62
1	211.02	1041.09	1039.37	1.71	0.54	0.18		163717.95	2282.03	1794.36
1	211.02	1041.78	1040.16	1.62	0.60	0.02		165598.02	401.98	1023.90
1	211.12	1041.56	1040.58	0.99	0.40	0.07		165915.48	84.51	1554.03
1	211.12	1042.21	1041.29	0.92	0.36	0.07		165981.19	18.81	1085.78
1	211.21	1042.40	1040.21	2.19	0.47	0.36		166000.00		992.51
1	211.21	1042.94	1040.97	1.97	0.41	0.31		166000.00		992.50
1	211.31	1043.89	1040.76	3.13	1.21	0.28		166000.00		824.88
1	211.31	1044.24	1041.37	2.88	1.03	0.27		166000.00		824.88
1	211.41	1045.05	1041.78	3.28	1.12	0.05		166000.00		567.96
1	211.41	1045.34	1042.19	3.15	1.01	0.08		166000.00		567.96
1	211.51	1046.67	1042.20	4.47	1.26	0.36		166000.00		522.21
1	211.51	1046.87	1042.56	4.30	1.18	0.35		166000.00		522.20
1	211.525	Bridge								
1	211.54	1047.58	1043.70	3.88	0.00	0.09		166000.00		525.99
1	211.54	1047.72	1043.93	3.79	0.00	0.08		166000.00		525.99
1	211.64	1048.68	1045.60	3.08	1.02	0.08		166000.00		857.09
1	211.64	1048.79	1045.75	3.04	0.99	0.08		166000.00		562.10
1	211.71	1049.36	1046.47	2.89	0.65	0.02		166000.00		644.81
1	211.71	1049.45	1046.59	2.86	0.64	0.02		166000.00		569.41
1	211.79	1050.08	1047.18	2.89	0.72	0.00		166000.00		1191.04
1	211.79	1050.16	1047.29	2.87	0.71	0.00		166000.00		567.83
1	211.89	1050.91	1048.02	2.89	0.84	0.00		166000.00		564.99

1	209.04	1031.36	1030.49	0.86	0.78	0.25	10615.30	136742.50	18642.20	4634.40
1	209.04	1031.39	1030.44	0.95	0.82	0.24	5449.30	141520.64	19030.06	1980.00
1	209.14	1031.97	1030.73	1.23	0.50	0.11	13592.06	141725.30	10682.64	3565.39
1	209.14	1032.10	1030.65	1.45	0.55	0.15	5116.70	149900.53	10982.76	1899.79
1	209.24	1032.61	1031.38	1.23	0.64	0.00	10837.45	146752.06	8410.49	3674.06
1	209.24	1032.83	1031.37	1.45	0.73	0.00	1068.06	156062.97	8868.98	1637.72
1	209.33	1033.29	1032.01	1.27	0.66	0.01	0.00	166000.00		3444.06
1	209.33	1033.53	1032.32	1.21	0.68	0.02		166000.00		1592.93
1	209.42	1034.19	1032.75	1.44	0.85	0.05		166000.00		3517.10
1	209.42	1034.37	1032.99	1.37	0.79	0.05		166000.00		1652.63
1	209.53	1035.48	1032.53	2.95	0.84	0.45	2021.08	163978.91		2757.01
1	209.53	1035.63	1032.73	2.89	0.80	0.46	2283.77	163716.22		830.63
1	209.535	Bridge								
1	209.54	1035.72	1033.17	2.56	0.00	0.03	1306.13	164693.86		2865.75
1	209.54	1035.87	1033.35	2.51	0.00	0.03	1491.99	164508.02		840.07
1	209.6	1036.21	1035.16	1.04	0.33	0.15	208.30	148474.11	17317.59	2531.34
1	209.6	1036.34	1035.31	1.03	0.32	0.15		148868.13	17131.89	1656.01
1	209.69	1036.64	1035.94	0.70	0.40	0.03		64420.82	101579.18	1874.85
1	209.69	1036.76	1036.08	0.68	0.39	0.03		64806.16	101193.84	1874.84
1	209.79	1036.91	1036.46	0.44	0.24	0.03		72428.23	93571.77	1858.60
1	209.79	1037.03	1036.57	0.46	0.24	0.02		74235.56	91764.45	1806.96
1	209.88	1037.22	1036.53	0.70	0.24	0.08	1212.17	104575.56	60212.27	1889.70
1	209.88	1037.40	1036.56	0.83	0.26	0.11		113943.50	52056.50	1698.51
1	209.98	1037.48	1036.91	0.57	0.25	0.01		84561.76	81438.24	2011.88
1	209.98	1037.71	1037.07	0.65	0.30	0.02		94404.92	71595.08	1868.53
1	210.07	1037.68	1037.31	0.37	0.18	0.02		151132.45	14867.55	2402.36
1	210.07	1037.94	1037.56	0.38	0.19	0.03		153874.48	12125.51	2015.00
1	210.17	1037.88	1037.42	0.46	0.18	0.03		166000.00		2336.50
1	210.17	1038.13	1037.68	0.44	0.17	0.02		166000.00		1980.12
1	210.26	1038.06	1037.67	0.40	0.17	0.01		166000.00		1983.15
1	210.26	1038.30	1037.91	0.38	0.16	0.01		166000.00		1954.72
1	210.36	1038.24	1037.78	0.46	0.16	0.02		166000.00		1915.99
1	210.36	1038.47	1038.02	0.45	0.15	0.02		166000.00		1915.99

1	207.49	1012.92	1012.07	0.85	0.00	0.01		166000.00		3807.62
1	207.49	1013.14	1012.32	0.82	0.00	0.01		166000.00		1579.37
1	207.53	1013.25	1012.09	1.16	0.23	0.09	6639.81	159360.20		4480.12
1	207.53	1013.50	1012.24	1.26	0.23	0.13		166000.00		1672.10
1	207.62	1014.28	1012.76	1.51	0.92	0.11	4528.28	161471.72	0.00	4261.90
1	207.62	1014.53	1012.97	1.56	0.94	0.09	56.08	165943.92		1962.23
1	207.71	1015.43	1014.41	1.03	1.11	0.05	6418.17	159581.83	0.00	3875.09
1	207.71	1015.67	1014.58	1.09	1.10	0.05		166000.00		2344.11
1	207.8	1016.32	1015.41	0.91	0.88	0.01	1634.70	164365.30		4716.85
1	207.8	1016.54	1015.66	0.88	0.85	0.02		166000.00		2617.37
1	207.9	1017.07	1016.38	0.69	0.73	0.02	48.27	165951.73		3677.89
1	207.9	1017.24	1016.58	0.66	0.68	0.02		166000.00		3016.24
1	207.99	1017.87	1016.92	0.95	0.73	0.08		166000.00		3550.29
1	207.99	1017.99	1017.08	0.91	0.68	0.07		166000.00		2749.15
1	208.1	1018.84	1018.03	0.81	0.95	0.01		166000.00		3169.07
1	208.1	1018.91	1018.12	0.79	0.91	0.01		166000.00		2944.81
1	208.19	1019.66	1018.79	0.87	0.81	0.02		166000.00		2675.20
1	208.19	1019.71	1018.85	0.86	0.78	0.02		166000.00		2664.02
1	208.29	1020.55	1019.52	1.03	0.84	0.05		166000.00		2550.02
1	208.29	1020.58	1019.57	1.02	0.82	0.05		166000.00		2381.47
1	208.39	1021.56	1020.44	1.12	0.98	0.03		166000.00		2917.03
1	208.39	1021.58	1020.47	1.11	0.96	0.03		166000.00		2285.85
1	208.48	1022.45	1021.36	1.09	0.89	0.00		166000.00		2170.30
1	208.48	1022.46	1021.38	1.08	0.88	0.00		166000.00		2170.30
1	208.57	1023.98	1021.84	2.14	1.21	0.32		166000.00		1901.92
1	208.57	1023.99	1021.86	2.13	1.21	0.31		166000.00		1552.87
1	208.67	1025.37	1023.94	1.43	1.32	0.07		166000.00		2277.36
1	208.67	1025.38	1023.95	1.43	1.32	0.07		166000.00		1776.29
1	208.75	1026.30	1024.77	1.53	0.90	0.03		166000.00		3136.98
1	208.75	1026.30	1024.78	1.52	0.90	0.03		166000.00		1606.30
1	208.85	1027.72	1025.83	1.89	1.31	0.11	26.38	154015.53	11958.10	2707.19
1	208.85	1027.72	1025.84	1.89	1.32	0.11		154107.27	11892.72	1950.30
1	208.95	1030.33	1026.98	3.35				155774.88	10225.12	3473.24
1	208.95	1030.33	1026.98	3.35				155797.94	10202.05	2058.95

1	206.03	999.15	997.37	1.78	1.16	0.28	23329.40	142670.61		2131.13
1	206.13	999.71	998.84	0.86	1.19	0.04	57076.93	108923.07		3610.68
1	206.13	1000.65	999.43	1.23	1.44	0.06	35563.52	130436.48		2386.30
1	206.22	1000.70	999.83	0.87	0.99	0.00	53201.16	112798.84		3819.70
1	206.22	1001.72	1000.69	1.03	1.05	0.02	38880.90	127119.09		2441.69
1	206.32	1001.56	1000.76	0.80	0.85	0.01	61168.81	104831.18		3961.08
1	206.32	1002.55	1001.56	0.99	0.83	0.00	46124.84	119875.16		2377.93
1	206.41	1002.32	1001.41	0.91	0.72	0.03	63303.46	102696.55		3862.04
1	206.41	1003.30	1002.21	1.09	0.72	0.03	50716.00	115283.98		2190.50
1	206.51	1003.04	1002.02	1.02	0.69	0.03	49264.98	116735.02		4076.31
1	206.51	1004.02	1002.84	1.18	0.69	0.03	36246.82	129753.19		2060.75
1	206.6	1003.56	1002.90	0.66	0.48	0.04	26458.74	139541.25		3305.87
1	206.6	1004.54	1003.79	0.75	0.48	0.04	12208.75	153791.25		2185.34
1	206.7	1003.85	1003.32	0.53	0.28	0.01	15340.47	150657.39	2.15	3518.91
1	206.7	1004.82	1004.25	0.58	0.27	0.02	3212.35	162787.66		2093.11
1	206.79	1004.13	1003.43	0.69	0.23	0.05	15594.92	150405.08		3026.58
1	206.79	1005.10	1004.34	0.76	0.22	0.06	4403.64	161596.36		1934.30
1	206.88	1004.41	1003.59	0.83	0.25	0.04	13323.65	152676.34		2551.49
1	206.88	1005.39	1004.48	0.91	0.25	0.05	2573.39	163426.61		1800.83
1	206.97	1004.80	1003.73	1.07	0.31	0.07	11556.15	154443.86		2153.05
1	206.97	1005.77	1004.63	1.14	0.31	0.07	1714.47	164285.53		1567.62
1	207.07	1007.37	1004.30	3.07	0.83	0.60	29853.11	136146.89		2120.20
1	207.07	1008.25	1004.75	3.49	0.83	0.71	17709.58	148290.42		1711.46
1	207.16	1008.85	1007.64	1.21	1.29	0.19	41169.60	124830.40		2942.53
1	207.16	1009.81	1008.32	1.48	1.36	0.20	22772.33	143227.66		1734.50
1	207.27	1010.28	1008.39	1.89	1.23	0.20	61252.95	104603.35	143.69	2022.03
1	207.27	1010.93	1009.39	1.54	1.10	0.02	59640.09	106359.92		1617.90
1	207.34	1011.35	1009.51	1.84	1.06	0.01		166000.00		3295.01
1	207.34	1011.77	1010.15	1.62	0.82	0.02		166000.00	0.00	1568.77
1	207.43	1012.48	1010.99	1.49	1.09	0.03	0.00	166000.00		3420.48
1	207.43	1012.73	1011.34	1.39	0.94	0.02	0.01	165999.98		1686.77
1	207.48	1012.83	1011.97	0.86	0.29	0.06		166000.00		3764.72
1	207.48	1013.05	1012.22	0.83	0.27	0.06		166000.00		1578.87
1	207.485	Bridge								

1	204.53	989.02	987.68	1.35	1.21	0.01	8107.38	155892.63		1610.90
1	204.61	989.64	988.59	1.05	0.69	0.02	34890.96	129109.04		7282.55
1	204.61	989.78	988.61	1.17	0.74	0.02	29699.95	134300.05		1602.90
1	204.68	990.10	989.36	0.73	0.43	0.03	31210.81	132789.19		3375.80
1	204.68	990.31	989.32	0.99	0.51	0.02	14830.20	149169.80		1586.28
1	204.78	990.45	990.01	0.45	0.33	0.03	29110.95	134889.06		4837.50
1	204.78	990.77	990.13	0.63	0.42	0.04	9302.94	154697.06		1620.43
1	204.87	990.80	990.19	0.61	0.30	0.05	21030.20	142969.80		3635.73
1	204.87	991.20	990.36	0.84	0.37	0.06	2378.67	161621.33		1542.20
1	204.97	991.30	990.56	0.74	0.47	0.04	31809.95	132110.56	79.49	3736.07
1	204.97	991.87	990.76	1.11	0.59	0.08	8955.40	155044.61		1516.30
1	205.06	992.22	990.84	1.37	0.73	0.19	8132.39	155867.59	0.01	2210.49
1	205.06	992.79	991.36	1.43	0.82	0.10	1508.46	162491.55		1435.30
1	205.15	993.21	991.75	1.46	0.97	0.02	23073.87	137855.30	3070.83	3049.13
1	205.15	993.69	992.25	1.44	0.90	0.00	23552.77	138039.66	2407.58	1445.00
1	205.25	993.82	993.26	0.57	0.52	0.09	33461.84	126168.16	4370.00	4512.59
1	205.25	994.34	993.49	0.85	0.59	0.06	16866.26	147133.73		1482.30
1	205.34	994.20	993.64	0.57	0.38	0.00	16574.65	134496.09	12929.26	7349.09
1	205.34	994.85	993.98	0.87	0.51	0.00	3238.53	160761.48		1562.96
1	205.4	994.40	993.99	0.41	0.18	0.02	11964.65	145097.92	6937.42	4097.72
1	205.4	995.10	994.56	0.54	0.21	0.03		164000.00		1747.80
1	205.43	994.50	994.00	0.51	0.07	0.03	12628.40	142594.56	10777.03	3841.72
1	205.43	995.24	994.53	0.71	0.09	0.05		166000.00		1842.37
1	205.52	994.75	994.29	0.46	0.24	0.01	6878.48	146271.84	12849.68	4244.93
1	205.52	995.53	994.95	0.58	0.28	0.01		166000.00		2019.90
1	205.62	995.07	994.55	0.52	0.30	0.02	2083.10	151545.33	12371.57	4036.29
1	205.62	995.85	995.25	0.59	0.31	0.00		166000.00		2234.10
1	205.75	995.78	995.10	0.68	0.66	0.05	1.21	160405.86	5592.93	3323.81
1	205.75	996.48	995.83	0.65	0.62	0.02		166000.00		2402.30
1	205.84	996.43	995.78	0.64	0.65	0.00	22730.27	141072.88	2196.85	3933.87
1	205.84	997.06	996.39	0.67	0.58	0.01	16967.52	149032.47		2435.70
1	205.94	997.17	996.28	0.89	0.66	0.07	26725.79	137949.17	1325.04	3972.72
1	205.94	997.71	996.85	0.86	0.59	0.06	24792.00	141208.00		2567.00
1	206.03	998.47	997.19	1.28	1.19	0.12	38067.04	125045.94	2887.02	3627.32

1	202.9	971.95	971.28	0.67	0.68	0.02		164000.00		2511.71
1	202.99	972.24	971.50	0.75	0.68	0.04	8104.63	155890.52	4.86	3260.60
1	202.99	972.66	971.87	0.79	0.67	0.04		164000.00		2457.50
1	203.09	973.25	972.42	0.83	0.99	0.02	12200.67	151799.33		3213.89
1	203.09	973.69	972.75	0.94	0.98	0.04	516.88	163483.11		2475.85
1	203.19	974.28	973.59	0.69	1.01	0.01	13926.43	150073.56		3491.38
1	203.19	974.74	973.95	0.79	1.04	0.02	118.21	163881.80		2689.14
1	203.29	975.20	974.46	0.73	0.91	0.01	7692.92	156307.08		4967.77
1	203.29	975.63	974.88	0.75	0.88	0.00		164000.00		3009.26
1	203.39	975.93	975.22	0.70	0.73	0.00	4866.54	159133.47		4207.55
1	203.39	976.32	975.62	0.69	0.69	0.01		164000.00		2930.04
1	203.48	976.58	975.92	0.67	0.65	0.00	6814.83	157185.16		4863.74
1	203.48	976.94	976.25	0.69	0.62	0.00		164000.00		2911.71
1	203.58	977.14	976.47	0.68	0.56	0.00	1531.70	162468.31		4630.90
1	203.58	977.46	976.81	0.65	0.52	0.00	360.44	163639.56		2676.39
1	203.67	977.61	976.93	0.67	0.46	0.00	5175.86	158824.14		3648.90
1	203.67	977.89	977.23	0.66	0.43	0.01	2635.68	161364.31		2567.43
1	203.77	978.06	977.43	0.63	0.45	0.00		164000.00		2518.53
1	203.77	978.32	977.72	0.60	0.42	0.01		164000.00		2511.27
1	203.86	978.53	977.81	0.72	0.44	0.03		164000.00		2201.57
1	203.86	978.75	978.06	0.69	0.41	0.03		164000.00		2191.78
1	203.96	979.86	977.71	2.15	0.90	0.43		164000.00		2225.52
1	203.96	979.97	977.98	1.99	0.83	0.39		164000.00		2050.76
1	204.05	981.39	980.27	1.12	1.42	0.10		164000.00		2116.76
1	204.05	981.41	980.29	1.11	1.35	0.09		164000.00		2116.76
1	204.15	982.09	981.17	0.93	0.68	0.02		164000.00		2149.48
1	204.15	982.11	981.18	0.92	0.68	0.02		164000.00		1831.89
1	204.25	984.46	980.90	3.56	1.15	0.79		164000.00		1993.71
1	204.25	984.46	980.90	3.56	1.15	0.79		164000.00		1517.18
1	204.34	986.65	985.28	1.37	1.97	0.22		164000.00		2452.20
1	204.34	986.65	985.28	1.37	1.97	0.22		164000.00		1701.97
1	204.42	987.76	986.40	1.36	1.11	0.00	2577.06	161422.94		2778.70
1	204.42	987.80	986.38	1.42	1.13	0.02		164000.00		1653.56
1	204.53	988.93	987.68	1.25	1.15	0.01	12439.19	151560.81		4061.33

1	201.24	958.26	957.66	0.60	0.65	0.06		164000.00		3500.08
1	201.33	959.06	958.44	0.63	0.99	0.01		161538.09	2461.90	5744.84
1	201.33	959.23	958.60	0.63	0.96	0.01		164000.00		3307.45
1	201.43	960.01	959.46	0.55	0.94	0.01		160972.09	3027.90	6525.63
1	201.43	960.15	959.60	0.56	0.92	0.01		164000.00		3288.24
1	201.52	960.87	960.41	0.46	0.85	0.01		158598.61	5401.40	8984.44
1	201.52	961.02	960.53	0.49	0.86	0.01		164000.00		3382.85
1	201.62	961.66	961.15	0.51	0.78	0.02		162456.77	1543.23	7614.59
1	201.62	961.80	961.28	0.51	0.77	0.01		164000.00		3241.81
1	201.71	962.46	961.87	0.59	0.78	0.02		161174.92	2825.08	8308.13
1	201.71	962.58	961.98	0.60	0.76	0.03		164000.00		3415.69
1	201.81	962.99	962.64	0.36	0.51	0.02		164000.00		5916.44
1	201.81	963.10	962.75	0.35	0.49	0.03		164000.00		3650.46
1	201.9	963.35	962.94	0.41	0.34	0.02		164000.00		5241.54
1	201.9	963.45	963.05	0.40	0.33	0.02		164000.00		3830.97
1	201.99	963.87	963.29	0.58	0.47	0.05	1394.28	162605.73		5331.46
1	201.99	963.96	963.38	0.58	0.46	0.05		164000.00		3219.77
1	202.09	965.01	964.09	0.92	1.03	0.10	2203.35	161796.66		4052.05
1	202.09	965.09	964.16	0.93	1.02	0.11		164000.00		3682.20
1	202.18	966.23	965.70	0.53	1.19	0.04	2950.26	161049.73		4356.29
1	202.18	966.31	965.77	0.55	1.19	0.04		164000.00		3692.09
1	202.29	966.88	966.51	0.37	0.64	0.02	2326.57	161673.42		4327.56
1	202.29	966.97	966.59	0.38	0.64	0.02		164000.00		3605.60
1	202.37	967.38	966.79	0.58	0.43	0.06	11850.86	152149.14		4026.49
1	202.37	967.52	966.83	0.69	0.45	0.09	1620.31	162379.69		3165.43
1	202.48	968.30	967.66	0.65	0.91	0.02	11540.17	152459.83		3830.27
1	202.48	968.54	967.77	0.77	1.00	0.02	236.25	163763.75		2826.21
1	202.59	969.23	968.55	0.68	0.91	0.01	11763.36	152236.64		3795.69
1	202.59	969.56	968.77	0.78	1.02	0.00		164000.00		2606.67
1	202.69	970.12	969.50	0.61	0.88	0.01	11595.98	152404.03		3716.99
1	202.69	970.49	969.79	0.70	0.93	0.01		164000.00		2553.41
1	202.8	970.84	970.32	0.52	0.71	0.01	13003.27	150996.73		3577.43
1	202.8	971.25	970.64	0.61	0.75	0.01		164000.00		2620.78
1	202.9	971.52	970.92	0.60	0.66	0.02	11302.49	152697.52		3419.55

Profile Output Table - Standard Table 2

Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
1	199.82	949.09	948.90	0.19				138919.58	40830.43	10752.57
1	199.82	950.14	949.90	0.24				171357.03	8392.96	4780.00
1	199.91	949.60	949.39	0.21	0.50	0.01	1657.71	164523.08	13569.20	10846.61
1	199.91	950.61	950.39	0.22	0.47	0.00	1727.01	177898.42	124.56	4530.00
1	200	950.01	949.74	0.27	0.40	0.02	1238.45	158884.03	19627.52	11193.60
1	200	950.98	950.70	0.28	0.35	0.02	1388.62	172089.52	6271.86	4100.00
1	200.1	950.66	950.19	0.47	0.58	0.06	10167.66	163284.14	6298.19	11254.10
1	200.1	951.53	951.11	0.42	0.51	0.04	10748.50	166859.25	2142.24	3770.00
1	200.2	951.67	951.10	0.56	0.98	0.03	13140.98	158890.64	7718.37	11857.73
1	200.2	952.38	951.83	0.55	0.81	0.04	13843.60	165906.41		3629.00
1	200.3	952.61	952.12	0.49	0.93	0.01	9082.61	166346.31	4321.08	9118.96
1	200.3	953.18	952.73	0.46	0.80	0.01	9271.09	170478.91		3683.53
1	200.39	953.17	952.89	0.28	0.54	0.02	3488.57	151817.84	8693.58	11315.80
1	200.39	953.69	953.40	0.29	0.49	0.02	4129.89	159870.11		3741.00
1	200.49	953.59	953.28	0.32	0.41	0.01	961.53	154776.16	8262.31	10978.72
1	200.49	954.10	953.77	0.33	0.39	0.01	1371.67	162628.34		3791.00
1	200.58	954.14	953.76	0.39	0.53	0.02	379.19	159404.66	4216.16	10091.43
1	200.58	954.60	954.23	0.37	0.49	0.01	697.39	163302.63		3940.00
1	200.67	954.80	954.42	0.38	0.65	0.00	386.78	160715.97	2897.26	10368.40
1	200.67	955.20	954.84	0.36	0.59	0.00	457.24	163542.75		4009.30
1	200.77	955.35	955.02	0.33	0.55	0.01	37.65	160935.91	3026.44	11450.00
1	200.77	955.70	955.38	0.32	0.50	0.00		164000.00		4122.20
1	200.86	955.94	955.63	0.31	0.59	0.00		159392.78	4607.21	11080.63
1	200.86	956.24	955.94	0.31	0.55	0.00		164000.00		4032.00
1	200.95	956.38	956.09	0.29	0.44	0.00		161348.41	2651.59	10045.49
1	200.95	956.66	956.38	0.28	0.41	0.00		164000.00		4001.09
1	201.05	956.80	956.49	0.31	0.41	0.01		160384.52	3615.49	9250.10
1	201.05	957.06	956.74	0.31	0.39	0.01		164000.00		3898.52
1	201.14	957.32	956.91	0.42	0.50	0.03		162632.72	1367.27	8631.40
1	201.14	957.55	957.15	0.40	0.47	0.03		164000.00		3680.58
1	201.24	958.06	957.46	0.59	0.68	0.05		160488.89	3511.10	6935.04

1	213.255	Bridge									
1	213.26	169000.00	1040.40	1068.15	1055.56	1069.32	0.000569	8.67	19486.07	881.21	0.33
1	213.26	169000.00	1040.40	1068.16	1055.56	1069.33	0.000568	8.67	19495.54	881.21	0.32
1	213.33	169000.00	1045.40	1068.56	1057.67	1069.52	0.000607	7.87	21471.41	1370.78	0.33
1	213.33	169000.00	1045.40	1068.57	1057.67	1069.53	0.000609	7.87	21484.29	1185.62	0.33
1	213.38	169000.00	1045.40	1068.59	1059.33	1069.80	0.000810	8.83	19129.90	1251.64	0.37
1	213.38	169000.00	1045.40	1068.60	1059.33	1069.81	0.000812	8.83	19142.95	1101.75	0.37
1	213.47	169000.00	1045.80	1068.59	1061.30	1070.60	0.001697	11.36	14877.93	1418.72	0.52
1	213.47	169000.00	1045.80	1068.61	1061.30	1070.61	0.001695	11.35	14892.05	1023.12	0.52
1	213.57	169000.00	1046.70	1069.18	1063.01	1071.60	0.001833	12.49	13529.99	1273.72	0.55
1	213.57	169000.00	1046.70	1069.19	1063.01	1071.61	0.001830	12.48	13540.81	852.16	0.55
1	213.66	169000.00	1047.60	1069.25	1063.58	1072.98	0.002201	15.51	10895.83	586.02	0.62
1	213.66	169000.00	1047.60	1069.26	1063.58	1072.99	0.002196	15.50	10902.25	565.99	0.62
1	213.74	169000.00	1044.60	1071.65	1060.88	1073.67	0.000959	11.41	14815.19	654.73	0.42
1	213.74	169000.00	1044.60	1071.66	1060.88	1073.68	0.000958	11.40	14821.02	654.73	0.42
1	213.745	Bridge									
1	213.75	169000.00	1044.60	1071.95	1060.87	1073.92	0.000921	11.26	15011.57	656.36	0.41
1	213.75	169000.00	1044.60	1071.96	1060.87	1073.93	0.000920	11.25	15017.17	656.35	0.41
1	213.85	169000.00	1048.10	1071.64	1065.13	1075.07	0.002237	15.00	11752.62	1017.51	0.58
1	213.85	169000.00	1048.10	1071.65	1065.13	1075.08	0.002235	14.99	11757.42	702.59	0.58
1	213.95	169000.00	1049.30	1074.15	1063.64	1076.04	0.001219	11.05	15299.30	776.02	0.43
1	213.95	169000.00	1049.30	1074.15	1063.64	1076.05	0.001218	11.04	15304.93	745.19	0.43
1	214.04	169000.00	1048.80	1075.03	1062.61	1076.57	0.000847	9.96	16971.35	813.47	0.36
1	214.04	169000.00	1048.80	1075.04	1062.61	1076.58	0.000846	9.96	16976.01	733.89	0.36
1	214.14	169000.00	1048.70	1075.49	1062.65	1077.00	0.000805	9.84	17174.59	1271.14	0.36
1	214.14	169000.00	1048.70	1075.50	1062.65	1077.00	0.000804	9.84	17178.85	726.86	0.36

1	211.89	166000.00	1024.19	1048.11	1039.98	1050.98	0.001558	13.59	12216.30	564.99	0.51
1	211.99	166000.00	1025.39	1048.63	1041.14	1051.83	0.001803	14.35	11567.96	1311.41	0.55
1	211.99	166000.00	1025.39	1048.71	1041.14	1051.89	0.001780	14.29	11613.13	549.87	0.55
1	212.08	166000.00	1025.90	1050.10	1041.41	1052.71	0.001403	12.96	12809.28	2181.45	0.49
1	212.08	166000.00	1025.90	1050.17	1041.39	1052.76	0.001389	12.92	12847.08	589.81	0.49
1	212.18	166000.00	1030.80	1050.31	1045.83	1053.98	0.002663	15.37	10798.63	2343.04	0.65
1	212.18	166000.00	1030.80	1050.37	1045.84	1054.01	0.002633	15.32	10836.17	627.72	0.65
1	212.27	166000.00	1035.10	1050.72	1049.53	1056.36	0.005181	19.06	8710.84	2802.81	0.89
1	212.27	166000.00	1035.10	1050.77	1049.53	1056.37	0.005126	18.99	8740.42	606.04	0.88
1	212.37	166000.00	1036.60	1053.10	1051.67	1058.81	0.004646	19.17	8658.17	573.64	0.87
1	212.37	166000.00	1036.60	1053.11	1051.69	1058.81	0.004634	19.16	8665.10	573.69	0.87
1	212.46	166000.00	1037.20	1056.23	1052.72	1060.77	0.003034	17.11	9703.67	1555.15	0.72
1	212.46	166000.00	1037.20	1056.29	1052.72	1060.80	0.003114	17.05	9738.17	557.66	0.72
1	212.56	166000.00	1039.30	1056.87	1055.70	1063.23	0.004887	20.23	8207.39	521.49	0.90
1	212.56	166000.00	1039.30	1056.98	1055.70	1063.25	0.004781	20.09	8264.06	521.09	0.89
1	212.67	166000.00	1036.90	1062.53	1052.64	1064.77	0.001102	12.00	13830.45	626.50	0.45
1	212.67	166000.00	1036.90	1062.54	1052.64	1064.77	0.001101	12.00	13834.20	626.51	0.45
1	212.675	Bridge									
1	212.68	166000.00	1036.90	1063.02	1052.63	1065.16	0.001030	11.74	14139.23	629.02	0.44
1	212.68	166000.00	1036.90	1063.03	1052.69	1065.17	0.001029	11.74	14142.60	629.03	0.44
1	212.74	166000.00	1041.60	1063.06	1055.49	1065.57	0.001466	12.71	13063.85	721.70	0.51
1	212.74	166000.00	1041.60	1063.07	1055.49	1065.57	0.001464	12.70	13067.49	676.59	0.51
1	212.84	166000.00	1043.10	1063.54	1057.53	1066.65	0.001931	14.14	11736.64	635.75	0.58
1	212.84	166000.00	1043.10	1063.55	1057.53	1066.65	0.001929	14.14	11739.66	635.75	0.58
1	212.93	166000.00	1045.40	1065.48	1057.98	1067.55	0.001316	11.53	14401.40	850.10	0.48
1	212.93	166000.00	1045.40	1065.49	1057.98	1067.55	0.001316	11.52	14404.13	798.99	0.48
1	213.03	166000.00	1046.70	1066.57	1058.28	1068.17	0.001032	10.14	16390.75	965.54	0.42
1	213.03	166000.00	1046.70	1066.58	1058.28	1068.17	0.001032	10.14	16378.19	919.74	0.42
1	213.11	166000.00	1047.60	1067.16	1058.35	1068.63	0.000913	9.73	17065.84	927.79	0.40
1	213.11	166000.00	1047.60	1067.16	1058.35	1068.63	0.000913	9.73	17068.22	927.79	0.40
1	213.21	166000.00	1044.90	1067.99	1055.85	1069.02	0.000510	8.17	20358.42	1540.71	0.31
1	213.21	166000.00	1044.90	1068.00	1055.85	1069.03	0.000528	8.17	20311.62	928.20	0.31
1	213.25	169000.00	1040.40	1067.95	1055.57	1069.14	0.000585	8.75	19309.64	880.24	0.33
1	213.25	169000.00	1040.40	1067.96	1055.57	1069.15	0.000584	8.75	19319.43	880.24	0.33

1	210.46	166000.00	1016.30	1038.08	1025.03	1038.40	0.000227	4.59	36203.79	2074.95	0.19
1	210.46	166000.00	1016.30	1038.31	1025.03	1038.63	0.000222	4.53	36640.04	1907.00	0.18
1	210.55	166000.00	1018.00	1037.82	1028.53	1038.76	0.000667	7.93	23013.20	3103.29	0.34
1	210.55	166000.00	1018.00	1038.04	1028.53	1038.98	0.000654	7.91	22610.09	1763.14	0.33
1	210.64	166000.00	1017.70	1038.32	1028.99	1039.09	0.000552	7.45	26701.86	3011.65	0.31
1	210.64	166000.00	1017.70	1038.31	1028.97	1039.36	0.000690	8.32	20956.64	1384.51	0.34
1	210.74	166000.00	1018.20	1038.47	1029.76	1039.47	0.000687	8.33	23480.88	2337.38	0.34
1	210.74	166000.00	1018.20	1038.54	1029.46	1039.80	0.000801	9.02	18562.76	1102.73	0.37
1	210.83	166000.00	1019.10	1038.81	1032.16	1039.88	0.000898	8.93	22682.30	2276.87	0.39
1	210.83	166000.00	1019.10	1038.72	1031.94	1040.43	0.001262	10.55	15996.32	1040.74	0.46
1	210.93	166000.00	1018.70	1039.25	1034.19	1040.38	0.000996	9.17	21805.22	2682.27	0.41
1	210.93	166000.00	1018.70	1039.29	1033.14	1041.16	0.001429	11.00	15334.68	1008.62	0.49
1	211.02	166000.00	1019.40	1039.37	1032.08	1041.09	0.001191	10.58	16765.23	1794.36	0.45
1	211.02	166000.00	1019.40	1040.16	1032.05	1041.78	0.001055	10.23	16392.94	1023.90	0.43
1	211.12	166000.00	1015.70	1040.58	1029.81	1041.56	0.000570	7.98	20951.97	1554.03	0.32
1	211.12	166000.00	1015.70	1041.29	1029.81	1042.21	0.000508	7.71	21560.80	1085.78	0.30
1	211.21	166000.00	1021.10	1040.21	1035.52	1042.40	0.001956	11.86	13992.95	992.51	0.56
1	211.21	166000.00	1021.10	1040.97	1035.52	1042.94	0.001646	11.26	14744.23	992.50	0.51
1	211.31	166000.00	1020.80	1040.76	1037.18	1043.89	0.002759	14.19	11698.88	824.88	0.66
1	211.31	166000.00	1020.80	1041.37	1037.18	1044.24	0.002405	13.61	12197.81	824.88	0.62
1	211.41	166000.00	1018.30	1041.78		1045.05	0.001843	14.53	11426.47	567.96	0.57
1	211.41	166000.00	1018.30	1042.19		1045.34	0.001725	14.23	11663.09	567.96	0.55
1	211.51	166000.00	1021.80	1042.20	1037.90	1046.67	0.002770	16.97	9779.93	522.21	0.69
1	211.51	166000.00	1021.80	1042.56	1037.90	1046.87	0.002603	16.65	9969.95	522.20	0.67
1	211.525	Bridge									
1	211.54	166000.00	1021.90	1043.70	1038.03	1047.58	0.002210	15.81	10501.56	525.99	0.62
1	211.54	166000.00	1021.90	1043.93	1038.03	1047.72	0.002132	15.63	10618.67	525.99	0.61
1	211.64	166000.00	1022.58	1045.60	1038.21	1048.68	0.001744	14.09	11783.58	857.09	0.54
1	211.64	166000.00	1022.58	1045.75	1038.21	1048.79	0.001705	13.99	11866.33	562.10	0.54
1	211.71	166000.00	1023.19	1046.47	1038.49	1049.36	0.001593	13.64	12171.85	644.81	0.52
1	211.71	166000.00	1023.19	1046.59	1038.49	1049.45	0.001564	13.56	12241.98	569.41	0.52
1	211.79	166000.00	1023.84	1047.18	1039.19	1050.08	0.001594	13.65	12157.43	1191.04	0.52
1	211.79	166000.00	1023.84	1047.29	1039.19	1050.16	0.001568	13.59	12218.77	567.83	0.52
1	211.89	166000.00	1024.19	1048.02	1039.98	1050.91	0.001579	13.65	12164.79	564.99	0.52

1	209.04	166000.00	1012.20	1030.49	1023.82	1031.36	0.000805	7.98	24184.19	4634.40	0.36
1	209.04	166000.00	1012.20	1030.44	1024.28	1031.39	0.000873	8.29	22795.18	1980.00	0.38
1	209.14	166000.00	1010.60	1030.73	1025.72	1031.97	0.001259	9.46	20506.87	3565.39	0.45
1	209.14	166000.00	1010.60	1030.65	1025.98	1032.10	0.001438	10.07	18668.10	1899.79	0.48
1	209.24	166000.00	1008.90	1031.38	1026.03	1032.61	0.001227	9.33	20229.02	3674.06	0.44
1	209.24	166000.00	1008.90	1031.37	1025.96	1032.83	0.001390	9.92	18113.97	1637.72	0.47
1	209.33	166000.00	1012.00	1032.01	1027.34	1033.29	0.001515	9.05	18335.40	3444.06	0.47
1	209.33	166000.00	1012.00	1032.32	1027.34	1033.53	0.001390	8.82	18829.09	1592.93	0.45
1	209.42	166000.00	1019.60	1032.75	1028.88	1034.19	0.001853	9.62	17253.24	3517.10	0.52
1	209.42	166000.00	1019.60	1032.99	1028.88	1034.37	0.001721	9.40	17654.70	1652.63	0.51
1	209.53	166000.00	992.82	1032.53	1021.67	1035.48	0.001314	13.87	12618.67	2757.01	0.49
1	209.53	166000.00	992.82	1032.73	1021.67	1035.63	0.001295	13.74	12789.59	830.63	0.48
1	209.535	Bridge									
1	209.54	166000.00	992.31	1033.17	1020.15	1035.72	0.000916	12.88	13468.79	2865.75	0.44
1	209.54	166000.00	992.31	1033.35	1020.15	1035.87	0.000907	12.78	13625.48	840.07	0.44
1	209.6	166000.00	1016.40	1035.16	1028.98	1036.21	0.000976	8.49	21081.84	2531.34	0.40
1	209.6	166000.00	1016.40	1035.31	1028.95	1036.34	0.000948	8.42	21173.26	1656.01	0.39
1	209.69	166000.00	1019.40	1035.94	1025.98	1036.64	0.000665	5.63	25358.06	1874.85	0.31
1	209.69	166000.00	1019.40	1036.08	1026.00	1036.76	0.000644	5.59	25614.16	1874.84	0.31
1	209.79	166000.00	1020.80	1036.46	1026.08	1036.91	0.000358	5.09	31103.87	1858.60	0.24
1	209.79	166000.00	1020.80	1036.57	1026.19	1037.03	0.000367	5.18	30614.92	1806.96	0.24
1	209.88	166000.00	1019.30	1036.53	1027.52	1037.22	0.000670	7.30	25545.53	1889.70	0.33
1	209.88	166000.00	1019.30	1036.56	1027.96	1037.40	0.000788	7.93	23336.61	1698.51	0.36
1	209.98	166000.00	1020.90	1036.91	1028.12	1037.48	0.000395	4.65	29373.24	2011.88	0.22
1	209.98	166000.00	1020.90	1037.07	1028.53	1037.71	0.000474	5.14	27472.13	1868.53	0.24
1	210.07	166000.00	1018.70	1037.31	1026.27	1037.68	0.000333	4.95	33837.15	2402.36	0.21
1	210.07	166000.00	1018.70	1037.56	1026.26	1037.94	0.000333	4.97	33560.89	2015.00	0.21
1	210.17	166000.00	1014.70	1037.42	1027.93	1037.88	0.000373	5.44	30534.52	2336.50	0.24
1	210.17	166000.00	1014.70	1037.68	1027.94	1038.13	0.000355	5.35	31046.71	1980.12	0.24
1	210.26	166000.00	1016.90	1037.67	1026.44	1038.06	0.000308	5.05	32878.57	1983.15	0.22
1	210.26	166000.00	1016.90	1037.91	1026.45	1038.30	0.000293	4.98	33360.09	1954.72	0.21
1	210.36	166000.00	1017.40	1037.78	1027.52	1038.24	0.000357	5.46	30410.01	1915.99	0.24
1	210.36	166000.00	1017.40	1038.02	1027.52	1038.47	0.000340	5.38	30870.54	1915.99	0.24

1	207.49	166000.00	992.20	1012.07	1004.70	1012.92	0.000745	7.40	22425.63	3807.62	0.35
1	207.49	166000.00	992.20	1012.32	1004.70	1013.14	0.000704	7.28	22815.94	1579.37	0.34
1	207.53	166000.00	999.10	1012.09	1008.06	1013.25	0.001487	8.78	19695.68	4480.12	0.47
1	207.53	166000.00	999.10	1012.24	1007.97	1013.50	0.001558	9.02	18411.17	1672.10	0.48
1	207.62	166000.00	1000.20	1012.76	1010.41	1014.28	0.002780	9.99	17275.70	4261.90	0.61
1	207.62	166000.00	1000.20	1012.97	1010.37	1014.53	0.002704	10.01	16587.59	1962.23	0.61
1	207.71	166000.00	1000.30	1014.41	1011.58	1015.43	0.001885	8.24	20769.38	3875.09	0.50
1	207.71	166000.00	1000.30	1014.58	1011.45	1015.67	0.001906	8.39	19781.23	2344.11	0.51
1	207.8	166000.00	999.10	1015.41	1011.91	1016.32	0.001667	7.69	21968.54	4716.85	0.47
1	207.8	166000.00	999.10	1015.66	1011.89	1016.54	0.001545	7.54	22027.76	2617.37	0.46
1	207.9	166000.00	1000.80	1016.38	1012.11	1017.07	0.001249	6.69	24841.00	3677.89	0.41
1	207.9	166000.00	1000.80	1016.58	1012.11	1017.24	0.001159	6.53	25411.26	3016.24	0.40
1	207.99	166000.00	999.90	1016.92	1013.04	1017.87	0.001846	7.82	21223.83	3550.29	0.49
1	207.99	166000.00	999.90	1017.08	1013.04	1017.99	0.001750	7.66	21658.35	2749.15	0.48
1	208.1	166000.00	1001.40	1018.03	1014.24	1018.84	0.001569	7.22	22975.85	3169.07	0.46
1	208.1	166000.00	1001.40	1018.12	1014.24	1018.91	0.001507	7.14	23256.96	2944.81	0.45
1	208.19	166000.00	1004.70	1018.79	1014.90	1019.66	0.001564	7.49	22151.23	2675.20	0.46
1	208.19	166000.00	1004.70	1018.85	1014.90	1019.71	0.001524	7.44	22324.40	2664.02	0.45
1	208.29	166000.00	1004.70	1019.52	1016.22	1020.55	0.001815	8.14	20401.16	2550.02	0.49
1	208.29	166000.00	1004.70	1019.57	1016.22	1020.58	0.001783	8.09	20507.99	2381.47	0.49
1	208.39	166000.00	1005.60	1020.44	1017.30	1021.56	0.002009	8.49	19556.15	2917.03	0.51
1	208.39	166000.00	1005.60	1020.47	1017.30	1021.58	0.001987	8.46	19621.86	2285.85	0.51
1	208.48	166000.00	1007.60	1021.36	1017.83	1022.45	0.001742	8.36	19846.32	2170.30	0.49
1	208.48	166000.00	1007.60	1021.38	1017.83	1022.46	0.001731	8.35	19884.20	2170.30	0.49
1	208.57	166000.00	1007.60	1021.84	1019.78	1023.98	0.003382	11.74	14140.69	1901.92	0.69
1	208.57	166000.00	1007.60	1021.86	1019.78	1023.99	0.003380	11.72	14163.44	1552.87	0.68
1	208.67	166000.00	1007.60	1023.94	1020.38	1025.37	0.002030	9.59	17307.31	2277.36	0.54
1	208.67	166000.00	1007.60	1023.95	1020.38	1025.38	0.002025	9.58	17320.43	1776.29	0.54
1	208.75	166000.00	1005.20	1024.77	1021.22	1026.30	0.002008	9.91	16750.51	3136.98	0.54
1	208.75	166000.00	1005.20	1024.78	1021.22	1026.30	0.002013	9.90	16762.08	1606.30	0.54
1	208.85	166000.00	1013.40	1025.83	1024.09	1027.72	0.003277	11.30	15515.18	2707.19	0.67
1	208.85	166000.00	1013.40	1025.84	1024.09	1027.72	0.003274	11.30	15511.35	1950.30	0.67
1	208.95	166000.00	1013.80	1026.98	1026.98	1030.33	0.004363	15.12	12615.76	3473.24	0.82
1	208.95	166000.00	1013.80	1026.98	1026.98	1030.33	0.004367	15.13	12611.74	2058.95	0.82

1	206.03	166000.00	984.50	997.37	995.37	999.15	0.003548	11.22	16111.43	2131.13	0.67
1	206.13	166000.00	984.60	998.84		999.71	0.002097	8.44	24241.28	3610.68	0.52
1	206.13	166000.00	984.60	999.43		1000.65	0.002540	9.44	19323.50	2386.30	0.57
1	206.22	166000.00	983.00	999.83	996.52	1000.70	0.001856	8.54	24921.60	3819.70	0.52
1	206.22	166000.00	983.00	1000.69	996.67	1001.72	0.001735	8.70	21234.64	2441.69	0.51
1	206.32	166000.00	982.80	1000.76	997.01	1001.56	0.001495	8.05	24553.13	3961.08	0.46
1	206.32	166000.00	982.80	1001.56	997.75	1002.55	0.001499	8.50	21188.61	2377.93	0.47
1	206.41	166000.00	982.50	1001.41	997.86	1002.32	0.001436	8.71	23370.73	3862.04	0.46
1	206.41	166000.00	982.50	1002.21	998.34	1003.30	0.001436	9.12	20568.72	2190.50	0.47
1	206.51	166000.00	981.80	1002.02	998.45	1003.04	0.001348	8.99	22110.89	4076.31	0.45
1	206.51	166000.00	981.80	1002.84	998.98	1004.02	0.001341	9.36	20115.41	2060.75	0.46
1	206.6	166000.00	981.80	1002.90	996.86	1003.56	0.000710	6.91	26877.89	3305.87	0.33
1	206.6	166000.00	981.80	1003.79	996.65	1004.54	0.000695	7.14	24927.43	2185.34	0.33
1	206.7	166000.00	981.80	1003.32	993.99	1003.85	0.000441	6.03	29832.40	3518.91	0.27
1	206.7	166000.00	981.80	1004.25	993.99	1004.82	0.000429	6.14	27986.00	2093.11	0.27
1	206.79	166000.00	981.80	1003.43	992.79	1004.13	0.000488	6.93	26344.34	3026.58	0.29
1	206.79	166000.00	981.80	1004.34	992.76	1005.10	0.000478	7.08	24759.74	1934.30	0.29
1	206.88	166000.00	981.80	1003.59	993.25	1004.41	0.000528	7.55	24355.01	2551.49	0.31
1	206.88	166000.00	981.80	1004.48	993.25	1005.39	0.000533	7.71	22621.96	1800.83	0.31
1	206.97	166000.00	981.70	1003.73	995.20	1004.80	0.000773	8.53	21353.06	2153.05	0.36
1	206.97	166000.00	981.70	1004.63	995.18	1005.77	0.000760	8.62	19950.23	1567.62	0.36
1	207.07	166000.00	992.80	1004.30	1004.30	1007.37	0.005285	15.05	12697.66	2120.20	0.86
1	207.07	166000.00	992.80	1004.75	1004.75	1008.25	0.005380	15.64	11761.96	1711.46	0.88
1	207.16	166000.00	992.70	1007.64	1004.53	1008.85	0.001701	9.41	19343.36	2942.53	0.50
1	207.16	166000.00	992.70	1008.32	1005.05	1009.81	0.001829	10.16	17440.53	1734.50	0.53
1	207.27	166000.00	993.30	1008.39	1006.05	1010.28	0.002803	10.35	15199.13	2022.03	0.62
1	207.27	166000.00	993.30	1009.39	1006.00	1010.93	0.002033	9.44	16771.91	1617.90	0.54
1	207.34	166000.00	995.90	1009.51	1006.68	1011.35	0.002647	10.88	15263.20	3295.01	0.61
1	207.34	166000.00	995.90	1010.15	1006.68	1011.77	0.002158	10.21	16261.88	1568.77	0.56
1	207.43	166000.00	999.00	1010.99	1007.62	1012.48	0.002056	9.80	16943.36	3420.48	0.54
1	207.43	166000.00	999.00	1011.34	1007.62	1012.73	0.001849	9.47	17532.76	1686.77	0.52
1	207.48	166000.00	992.20	1011.97	1004.71	1012.83	0.000763	7.46	22258.79	3764.72	0.35
1	207.48	166000.00	992.20	1012.22	1004.71	1013.05	0.000720	7.33	22658.14	1578.87	0.34
1	207.485	Bridge									

1	204.53	164000.00	972.70	987.68	982.93	989.02	0.001920	9.48	18002.63	1610.90	0.47
1	204.61	164000.00	972.60	988.59	983.50	989.64	0.001360	8.79	20900.50	7282.55	0.41
1	204.61	164000.00	972.60	988.61	983.45	989.78	0.001463	9.12	19538.66	1602.90	0.42
1	204.68	164000.00	971.40	989.36	982.88	990.10	0.000903	7.28	24862.18	3375.80	0.33
1	204.68	164000.00	971.40	989.32	982.76	990.31	0.001151	8.21	20999.34	1586.28	0.38
1	204.78	164000.00	967.60	990.01	980.95	990.45	0.000477	5.68	31874.44	4837.50	0.25
1	204.78	164000.00	967.60	990.13	980.72	990.77	0.000611	6.47	25927.86	1620.43	0.28
1	204.87	164000.00	968.10	990.19	982.85	990.80	0.000767	6.60	27860.37	3635.73	0.31
1	204.87	164000.00	968.10	990.36	982.79	991.20	0.000942	7.37	22408.61	1542.20	0.34
1	204.97	164000.00	973.30	990.56	984.94	991.30	0.001134	7.35	24818.70	3736.07	0.36
1	204.97	164000.00	973.30	990.76	985.03	991.87	0.001485	8.49	19456.22	1516.30	0.42
1	205.06	164000.00	970.50	990.84	984.94	992.22	0.001876	9.62	18538.21	2210.49	0.47
1	205.06	164000.00	970.50	991.36	984.91	992.79	0.001795	9.65	17327.86	1435.30	0.46
1	205.15	164000.00	973.10	991.75	987.56	993.21	0.002039	10.40	19447.44	3049.13	0.49
1	205.15	164000.00	973.10	992.25	987.59	993.69	0.001820	10.06	17454.16	1445.00	0.47
1	205.25	164000.00	973.40	993.26	985.26	993.82	0.000623	6.64	30541.56	4512.59	0.28
1	205.25	164000.00	973.40	993.49	985.17	994.34	0.000817	7.64	22668.04	1482.30	0.32
1	205.34	164000.00	975.57	993.64	986.68	994.20	0.001005	6.45	29524.11	7349.09	0.30
1	205.34	164000.00	975.57	993.98	986.65	994.85	0.001336	7.53	22084.44	1562.96	0.35
1	205.4	164000.00	975.50	993.99	984.66	994.40	0.000362	5.41	35918.83	4097.72	0.24
1	205.4	164000.00	975.50	994.56	984.66	995.10	0.000413	5.90	27793.38	1747.80	0.26
1	205.43	166000.00	976.10	994.00	986.90	994.50	0.000544	6.04	31497.52	3841.72	0.29
1	205.43	166000.00	976.10	994.53	986.93	995.24	0.000647	6.76	24572.33	1842.37	0.33
1	205.52	166000.00	975.90	994.29	987.04	994.75	0.000496	5.67	33142.91	4244.93	0.28
1	205.52	166000.00	975.90	994.95	987.25	995.53	0.000543	6.12	27121.30	2019.90	0.29
1	205.62	166000.00	976.00	994.55	988.64	995.07	0.000680	5.99	30115.46	4036.29	0.31
1	205.62	166000.00	976.00	995.25	988.61	995.85	0.000671	6.18	26878.26	2234.10	0.31
1	205.75	166000.00	973.90	995.10	989.65	995.78	0.001766	6.71	25677.48	3323.81	0.37
1	205.75	166000.00	973.90	995.83	989.63	996.48	0.001497	6.46	25689.30	2402.30	0.35
1	205.84	166000.00	979.50	995.78	991.08	996.43	0.001006	6.80	27802.29	3933.87	0.38
1	205.84	166000.00	979.50	996.39	991.09	997.06	0.000928	6.78	25656.90	2435.70	0.36
1	205.94	166000.00	981.00	996.28	992.59	997.17	0.001782	8.09	23804.44	3972.72	0.48
1	205.94	166000.00	981.00	996.85	992.21	997.71	0.001519	7.77	22932.78	2567.00	0.45
1	206.03	166000.00	984.50	997.19	995.38	998.47	0.002920	10.05	20468.49	3627.32	0.61

1	202.9	164000.00	956.50	971.28	966.23	971.95	0.001315	6.59	24881.97	2511.71	0.37
1	202.99	164000.00	959.20	971.50	967.55	972.24	0.001726	7.08	24615.47	3260.60	0.42
1	202.99	164000.00	959.20	971.87	967.53	972.66	0.001673	7.15	22949.57	2457.50	0.41
1	203.09	164000.00	958.70	972.42	969.11	973.25	0.002112	7.51	23337.60	3213.89	0.46
1	203.09	164000.00	958.70	972.75	969.01	973.69	0.002162	7.79	21163.71	2475.85	0.46
1	203.19	164000.00	956.70	973.59	969.95	974.28	0.001787	6.81	25046.62	3491.38	0.42
1	203.19	164000.00	956.70	973.95	970.00	974.74	0.001849	7.13	23041.46	2689.14	0.43
1	203.29	164000.00	960.70	974.46	970.77	975.20	0.001572	6.98	24302.16	4967.77	0.45
1	203.29	164000.00	960.70	974.88	970.68	975.63	0.001478	6.94	23633.34	3009.26	0.44
1	203.39	164000.00	959.90	975.22	971.09	975.93	0.001331	6.81	24861.02	4207.55	0.42
1	203.39	164000.00	959.90	975.62	971.08	976.32	0.001254	6.69	24519.97	2930.04	0.41
1	203.48	164000.00	962.20	975.92	972.02	976.58	0.001248	6.66	25617.02	4863.74	0.41
1	203.48	164000.00	962.20	976.25	971.95	976.94	0.001196	6.68	24567.62	2911.71	0.40
1	203.58	164000.00	962.10	976.47	971.51	977.14	0.000946	6.64	25339.57	4630.90	0.37
1	203.58	164000.00	962.10	976.81	971.51	977.46	0.000858	6.46	25596.50	2676.39	0.36
1	203.67	164000.00	962.30	976.93	971.55	977.61	0.000940	6.66	25645.00	3648.90	0.37
1	203.67	164000.00	962.30	977.23	971.55	977.89	0.000885	6.58	25406.98	2567.43	0.36
1	203.77	164000.00	963.30	977.43	971.55	978.06	0.000873	6.37	25745.47	2518.53	0.35
1	203.77	164000.00	963.30	977.72	971.55	978.32	0.000799	6.19	26473.22	2511.27	0.34
1	203.86	164000.00	962.30	977.81	971.81	978.53	0.000902	6.82	24032.46	2201.57	0.36
1	203.86	164000.00	962.30	978.06	971.81	978.75	0.000838	6.67	24588.70	2191.78	0.35
1	203.96	164000.00	964.10	977.71	976.68	979.86	0.005221	11.77	13938.40	2225.52	0.80
1	203.96	164000.00	964.10	977.98	976.68	979.97	0.004601	11.33	14478.25	2050.76	0.75
1	204.05	164000.00	965.00	980.27	976.82	981.39	0.001759	8.49	19320.24	2116.76	0.50
1	204.05	164000.00	965.00	980.29	976.82	981.41	0.001744	8.47	19370.37	2116.76	0.49
1	204.15	164000.00	966.00	981.17	975.80	982.09	0.001058	7.72	21240.53	2149.48	0.40
1	204.15	164000.00	966.00	981.18	975.80	982.11	0.001059	7.71	21274.52	1831.89	0.40
1	204.25	164000.00	969.22	980.90	980.90	984.46	0.007743	15.13	10836.17	1993.71	1.00
1	204.25	164000.00	969.22	980.90	980.90	984.46	0.007749	15.13	10836.17	1517.18	1.00
1	204.34	164000.00	969.30	985.28	981.49	986.65	0.002470	9.39	17463.06	2452.20	0.52
1	204.34	164000.00	969.30	985.28	981.49	986.65	0.002474	9.39	17469.40	1701.97	0.52
1	204.42	164000.00	971.40	986.40	982.73	987.76	0.002432	9.40	17715.45	2778.70	0.51
1	204.42	164000.00	971.40	986.38	982.70	987.80	0.002535	9.58	17122.72	1653.56	0.52
1	204.53	164000.00	972.70	987.68	983.01	988.93	0.001814	9.22	18845.59	4061.33	0.46

1	201.24	164000.00	943.00	957.66	953.56	958.26	0.001790	6.21	26419.43	3500.08	0.40
1	201.33	164000.00	943.00	958.44	954.84	959.06	0.002024	6.40	26133.80	5744.84	0.41
1	201.33	164000.00	943.00	958.60	954.84	959.23	0.001959	6.36	25784.52	3307.45	0.40
1	201.43	164000.00	941.30	959.46	954.84	960.01	0.001619	5.99	27970.54	6525.63	0.37
1	201.43	164000.00	941.30	959.60	954.84	960.15	0.001604	6.00	27333.41	3288.24	0.37
1	201.52	164000.00	940.90	960.41	955.35	960.87	0.001854	5.50	30262.27	8984.44	0.33
1	201.52	164000.00	940.90	960.53	955.35	961.02	0.001898	5.61	29242.21	3382.85	0.34
1	201.62	164000.00	945.60	961.15	956.72	961.66	0.001385	5.78	28772.90	7614.59	0.35
1	201.62	164000.00	945.60	961.28	956.72	961.80	0.001343	5.74	28552.42	3241.81	0.34
1	201.71	164000.00	946.00	961.87	958.14	962.46	0.001826	6.22	26657.90	8308.13	0.40
1	201.71	164000.00	946.00	961.98	958.14	962.58	0.001807	6.24	26277.08	3415.69	0.40
1	201.81	164000.00	946.00	962.64	955.82	962.99	0.000619	4.79	34251.95	5916.44	0.28
1	201.81	164000.00	946.00	962.75	955.82	963.10	0.000597	4.73	34684.20	3650.46	0.27
1	201.9	164000.00	947.20	962.94	957.26	963.35	0.000785	5.15	31873.70	5241.54	0.31
1	201.9	164000.00	947.20	963.05	957.26	963.45	0.000756	5.08	32284.29	3830.97	0.31
1	201.99	164000.00	948.70	963.29	958.62	963.87	0.001252	6.13	27234.15	5331.46	0.38
1	201.99	164000.00	948.70	963.38	958.62	963.96	0.001241	6.12	26811.01	3219.77	0.37
1	202.09	164000.00	950.00	964.09	961.97	965.01	0.003848	7.74	21594.75	4052.05	0.57
1	202.09	164000.00	950.00	964.16	961.93	965.09	0.003803	7.75	21163.39	3682.20	0.57
1	202.18	164000.00	950.00	965.70	961.77	966.23	0.001544	5.88	28642.05	4356.29	0.38
1	202.18	164000.00	950.00	965.77	961.77	966.31	0.001558	5.94	27622.02	3692.09	0.38
1	202.29	164000.00	955.50	966.51	961.29	966.88	0.000809	4.90	34229.30	4327.56	0.29
1	202.29	164000.00	955.50	966.59	961.29	966.97	0.000812	4.93	33284.94	3605.60	0.29
1	202.37	164000.00	954.60	966.79	962.95	967.38	0.001486	6.30	27727.47	4026.49	0.39
1	202.37	164000.00	954.60	966.83	963.03	967.52	0.001673	6.70	24845.97	3165.43	0.41
1	202.48	164000.00	952.50	967.66	963.72	968.30	0.001617	6.64	26504.11	3830.27	0.40
1	202.48	164000.00	952.50	967.77	963.77	968.54	0.001788	7.04	23416.96	2826.21	0.42
1	202.59	164000.00	953.70	968.55	964.72	969.23	0.001710	6.76	25202.05	3795.69	0.40
1	202.59	164000.00	953.70	968.77	964.70	969.56	0.001831	7.10	23100.95	2606.67	0.42
1	202.69	164000.00	953.70	969.50	965.19	970.12	0.001416	6.45	27012.35	3716.99	0.37
1	202.69	164000.00	953.70	969.79	965.25	970.49	0.001483	6.73	24380.37	2553.41	0.38
1	202.8	164000.00	956.40	970.32	965.59	970.84	0.001157	5.94	29050.58	3577.43	0.34
1	202.8	164000.00	956.40	970.64	965.53	971.25	0.001223	6.25	26258.80	2620.78	0.35
1	202.9	164000.00	956.50	970.92	966.30	971.52	0.001285	6.37	27288.69	3419.55	0.36

1	213.255	Bridge							
1	213.26	1069.32	1068.15	1.17	0.00	0.01		169000.00	881.21
1	213.26	1069.33	1068.16	1.17	0.00	0.01		169000.00	881.21
1	213.33	1069.52	1068.56	0.96	0.19	0.02		169000.00	1370.78
1	213.33	1069.53	1068.57	0.96	0.19	0.02		169000.00	1185.62
1	213.38	1069.80	1068.59	1.21	0.20	0.08		169000.00	1251.64
1	213.38	1069.81	1068.60	1.21	0.20	0.08		169000.00	1101.75
1	213.47	1070.60	1068.59	2.00	0.56	0.24		169000.00	1418.72
1	213.47	1070.61	1068.61	2.00	0.56	0.24		169000.00	1023.12
1	213.57	1071.60	1069.18	2.42	0.88	0.13		169000.00	1273.72
1	213.57	1071.61	1069.19	2.42	0.88	0.13		169000.00	852.16
1	213.66	1072.98	1069.25	3.74	0.98	0.39		169000.00	586.02
1	213.66	1072.99	1069.26	3.73	0.98	0.39		169000.00	565.99
1	213.74	1073.67	1071.65	2.02	0.52	0.17		169000.00	654.73
1	213.74	1073.68	1071.66	2.02	0.52	0.17		169000.00	654.73
1	213.745	Bridge							
1	213.75	1073.92	1071.95	1.97	0.00	0.02		169000.00	656.36
1	213.75	1073.93	1071.96	1.97	0.00	0.02		169000.00	656.35
1	213.85	1075.07	1071.64	3.43	0.71	0.44	3128.91	165871.08	1017.51
1	213.85	1075.08	1071.65	3.43	0.71	0.44	3088.43	165911.56	702.59
1	213.95	1076.04	1074.15	1.89	0.81	0.15		169000.00	776.02
1	213.95	1076.05	1074.15	1.89	0.81	0.15		169000.00	745.19
1	214.04	1076.57	1075.03	1.54	0.50	0.04		169000.00	813.47
1	214.04	1076.58	1075.04	1.54	0.50	0.04		169000.00	733.89
1	214.14	1077.00	1075.49	1.50	0.42	0.00		169000.00	1271.14
1	214.14	1077.00	1075.50	1.50	0.42	0.00		169000.00	726.86

Profile Output Table - Encroachment 3

Reach	River Sta	Top Wdth Act (ft)	Area (sq ft)	Vel Total (ft/s)	W.S. Elev (ft)	Base WS (ft)	Prof Delta WS (ft)
1	199.82	7203.54	70596.29	3.47	948.90	948.90	
1	199.82	4780.00	47698.04	3.77	949.90	948.90	1.00
1	199.91	6597.49	70853.03	3.58	949.39	949.39	

1	199.91	4530.00	48102.12	3.74	950.39	949.39	1.01
1	200	6148.14	67572.67	4.04	949.74	949.74	
1	200	4100.00	42550.11	4.22	950.70	949.74	0.96
1	200.1	5433.71	67947.70	4.77	950.19	950.19	
1	200.1	3770.00	38392.25	4.68	951.11	950.19	0.92
1	200.2	5551.98	71674.61	5.05	951.10	951.10	
1	200.2	3629.00	34725.75	5.18	951.83	951.10	0.73
1	200.3	5039.46	66944.02	4.93	952.12	952.12	
1	200.3	3683.53	36217.50	4.96	952.73	952.12	0.60
1	200.39	5819.42	73855.34	4.12	952.89	952.89	
1	200.39	3741.00	38316.82	4.28	953.40	952.89	0.52
1	200.49	6161.38	66702.79	4.39	953.28	953.28	
1	200.49	3791.00	36177.60	4.53	953.77	953.28	0.50
1	200.58	5529.90	56600.98	4.89	953.76	953.76	
1	200.58	3940.00	33793.10	4.85	954.23	953.76	0.47
1	200.67	4971.65	49836.13	4.85	954.42	954.42	
1	200.67	4009.30	34280.89	4.78	954.84	954.42	0.41
1	200.77	5805.59	52483.23	4.45	955.02	955.02	
1	200.77	4122.20	36283.11	4.52	955.38	955.02	0.35
1	200.86	5228.10	49842.94	4.36	955.63	955.63	
1	200.86	4032.00	36762.42	4.46	955.94	955.63	0.30
1	200.95	5141.09	48283.46	4.20	956.09	956.09	
1	200.95	4001.09	38407.23	4.27	956.38	956.09	0.28
1	201.05	4915.95	43855.41	4.42	956.49	956.49	
1	201.05	3898.52	36618.42	4.48	956.74	956.49	0.26
1	201.14	4685.00	37220.64	5.11	956.91	956.91	
1	201.14	3680.58	32149.23	5.10	957.15	956.91	0.24
1	201.24	4357.41	29093.20	6.10	957.46	957.46	
1	201.24	3500.08	26419.43	6.21	957.66	957.46	0.19
1	201.33	4277.26	27077.50	6.28	958.44	958.44	
1	201.33	3307.45	25784.52	6.36	958.60	958.44	0.16
1	201.43	4131.74	29798.89	5.86	959.46	959.46	
1	201.43	3288.24	27333.41	6.00	959.60	959.46	0.13
1	201.52	4181.50	35068.18	5.42	960.41	960.41	

1	201.52	3382.85	29242.21	5.61	960.53	960.41	0.12
1	201.62	3854.25	31343.38	5.70	961.15	961.15	
1	201.62	3241.81	28552.42	5.74	961.28	961.15	0.14
1	201.71	3844.58	30524.98	6.15	961.87	961.87	
1	201.71	3415.69	26277.08	6.24	961.98	961.87	0.11
1	201.81	3646.79	35460.88	4.79	962.64	962.64	
1	201.81	3650.46	34684.20	4.73	962.75	962.64	0.12
1	201.9	3830.96	32924.77	5.15	962.94	962.94	
1	201.9	3830.97	32284.29	5.08	963.05	962.94	0.11
1	201.99	3548.70	28641.85	6.02	963.29	963.29	
1	201.99	3219.77	26811.01	6.12	963.38	963.29	0.09
1	202.09	4052.05	21594.75	7.59	964.09	964.09	
1	202.09	3682.20	21163.39	7.75	964.16	964.09	0.07
1	202.18	4239.87	28675.16	5.73	965.70	965.70	
1	202.18	3692.09	27622.02	5.94	965.77	965.70	0.06
1	202.29	4060.30	34804.76	4.79	966.51	966.51	
1	202.29	3605.60	33284.94	4.93	966.59	966.51	0.08
1	202.37	3850.52	27811.01	5.91	966.79	966.79	
1	202.37	3165.43	24845.97	6.60	966.83	966.79	0.03
1	202.48	3674.69	27330.47	6.19	967.66	967.66	
1	202.48	2826.21	23416.96	7.00	967.77	967.66	0.11
1	202.59	3629.55	25897.78	6.51	968.55	968.55	
1	202.59	2606.67	23100.95	7.10	968.77	968.55	0.23
1	202.69	3701.48	27037.04	6.07	969.50	969.50	
1	202.69	2553.41	24380.37	6.73	969.79	969.50	0.29
1	202.8	3540.66	29052.71	5.65	970.32	970.32	
1	202.8	2620.78	26258.80	6.25	970.64	970.32	0.33
1	202.9	3412.13	27288.77	6.01	970.92	970.92	
1	202.9	2511.71	24881.97	6.59	971.28	970.92	0.36
1	202.99	3260.60	24615.47	6.66	971.50	971.50	
1	202.99	2457.50	22949.57	7.15	971.87	971.50	0.37
1	203.09	3213.89	23337.60	7.03	972.42	972.42	
1	203.09	2475.85	21163.71	7.75	972.75	972.42	0.32
1	203.19	3364.24	25188.23	6.55	973.59	973.59	

1	203.19	2689.14	23041.46	7.12	973.95	973.59	0.36
1	203.29	3441.30	26794.71	6.75	974.46	974.46	
1	203.29	3009.26	23633.34	6.94	974.88	974.46	0.41
1	203.39	3308.92	27231.00	6.60	975.22	975.22	
1	203.39	2930.04	24519.97	6.69	975.62	975.22	0.40
1	203.48	3454.83	27992.03	6.40	975.92	975.92	
1	203.48	2911.71	24567.62	6.68	976.25	975.92	0.33
1	203.58	2993.59	27754.01	6.47	976.47	976.47	
1	203.58	2676.39	25596.50	6.41	976.81	976.47	0.35
1	203.67	2860.23	27986.16	6.40	976.93	976.93	
1	203.67	2567.43	25406.98	6.45	977.23	976.93	0.29
1	203.77	2511.27	25747.12	6.37	977.43	977.43	
1	203.77	2511.27	26473.22	6.19	977.72	977.43	0.29
1	203.86	2191.78	24034.45	6.82	977.81	977.81	
1	203.86	2191.78	24588.70	6.67	978.06	977.81	0.25
1	203.96	2050.76	14140.71	11.77	977.71	977.71	
1	203.96	2050.76	14478.25	11.33	977.98	977.71	0.26
1	204.05	2116.76	19320.24	8.49	980.27	980.27	
1	204.05	2116.76	19370.37	8.47	980.29	980.27	0.02
1	204.15	1831.89	22729.27	7.72	981.17	981.17	
1	204.15	1831.89	21274.52	7.71	981.18	981.17	0.02
1	204.25	1517.18	11195.55	15.13	980.90	980.90	
1	204.25	1517.18	10836.17	15.13	980.90	980.90	0.00
1	204.34	1701.95	19581.09	9.39	985.28	985.28	
1	204.34	1701.97	17469.40	9.39	985.28	985.28	0.00
1	204.42	1804.93	19829.83	9.26	986.40	986.40	
1	204.42	1653.56	17122.72	9.58	986.38	986.40	-0.03
1	204.53	1765.90	24642.88	8.70	987.68	987.68	
1	204.53	1610.90	18002.63	9.11	987.68	987.68	0.00
1	204.61	1891.92	29433.43	7.85	988.59	988.59	
1	204.61	1602.90	19538.66	8.39	988.61	988.59	0.03
1	204.68	2091.37	28740.46	6.60	989.36	989.36	
1	204.68	1586.28	20999.34	7.81	989.32	989.36	-0.04
1	204.78	2430.43	36554.80	5.15	990.01	990.01	

1	204.78	1620.43	25927.86	6.33	990.13	990.01	0.13
1	204.87	2652.20	30063.28	5.89	990.19	990.19	
1	204.87	1542.20	22408.61	7.32	990.36	990.19	0.18
1	204.97	2834.15	25936.30	6.61	990.56	990.56	
1	204.97	1516.30	19456.22	8.43	990.76	990.56	0.20
1	205.06	2103.78	18669.51	8.85	990.84	990.84	
1	205.06	1435.30	17327.86	9.46	991.36	990.84	0.51
1	205.15	3035.64	19453.21	8.43	991.75	991.75	
1	205.15	1445.00	17454.16	9.40	992.25	991.75	0.49
1	205.25	3390.62	31833.26	5.37	993.26	993.26	
1	205.25	1482.30	22668.04	7.23	993.49	993.26	0.23
1	205.34	3427.47	36822.39	5.55	993.64	993.64	
1	205.34	1562.96	22084.44	7.43	993.98	993.64	0.34
1	205.4	3650.00	36209.96	4.57	993.99	993.99	
1	205.4	1747.80	27793.38	5.90	994.56	993.99	0.57
1	205.43	3335.93	31784.90	5.27	994.00	994.00	
1	205.43	1842.37	24572.33	6.76	994.53	994.00	0.53
1	205.52	3732.69	33595.39	5.01	994.29	994.29	
1	205.52	2019.90	27121.30	6.12	994.95	994.29	0.65
1	205.62	3845.50	30215.11	5.51	994.55	994.55	
1	205.62	2234.10	26878.26	6.18	995.25	994.55	0.71
1	205.75	3257.24	25688.91	6.46	995.10	995.10	
1	205.75	2402.30	25689.30	6.46	995.83	995.10	0.74
1	205.84	3746.64	28272.56	5.97	995.78	995.78	
1	205.84	2435.70	25656.90	6.47	996.39	995.78	0.61
1	205.94	3651.43	24153.77	6.97	996.28	996.28	
1	205.94	2567.00	22932.78	7.24	996.85	996.28	0.58
1	206.03	3627.32	20468.49	8.11	997.19	997.19	
1	206.03	2131.13	16111.43	10.30	997.37	997.19	0.18
1	206.13	3610.68	24241.28	6.85	998.84	998.84	
1	206.13	2386.30	19323.50	8.59	999.43	998.84	0.58
1	206.22	3772.19	24948.27	6.66	999.83	999.83	
1	206.22	2441.69	21234.64	7.82	1000.69	999.83	0.87
1	206.32	3656.32	25305.11	6.76	1000.76	1000.76	

1	206.32	2377.93	21188.61	7.83	1001.56	1000.76	0.79
1	206.41	3564.69	23456.64	7.10	1001.41	1001.41	
1	206.41	2190.50	20568.72	8.07	1002.21	1001.41	0.80
1	206.51	2915.00	23092.75	7.51	1002.02	1002.02	
1	206.51	2053.65	20141.33	8.25	1002.84	1002.02	0.82
1	206.6	2786.96	27532.60	6.18	1002.90	1002.90	
1	206.6	2185.34	24927.43	6.66	1003.79	1002.90	0.89
1	206.7	2572.15	31371.97	5.56	1003.32	1003.32	
1	206.7	2093.11	27986.00	5.93	1004.25	1003.32	0.92
1	206.79	2279.35	26973.39	6.30	1003.43	1003.43	
1	206.79	1934.30	24759.74	6.70	1004.34	1003.43	0.91
1	206.88	2078.43	30387.11	6.82	1003.59	1003.59	
1	206.88	1800.83	22621.96	7.34	1004.48	1003.59	0.89
1	206.97	1872.85	26759.09	7.77	1003.73	1003.73	
1	206.97	1567.62	19950.23	8.32	1004.63	1003.73	0.90
1	207.07	2120.20	12697.66	13.07	1004.30	1004.30	
1	207.07	1711.46	11761.96	14.11	1004.75	1004.30	0.46
1	207.16	2127.46	20002.10	8.58	1007.64	1007.64	
1	207.16	1734.50	17440.53	9.52	1008.32	1007.64	0.69
1	207.27	1628.70	15847.61	10.92	1008.39	1008.39	
1	207.27	1617.90	16771.91	9.90	1009.39	1008.39	0.99
1	207.34	1568.77	16333.33	10.88	1009.51	1009.51	
1	207.34	1568.77	16261.88	10.21	1010.15	1009.51	0.64
1	207.43	1686.77	19006.74	9.80	1010.99	1010.99	
1	207.43	1686.77	17532.76	9.47	1011.34	1010.99	0.35
1	207.48	1578.87	25113.96	7.46	1011.97	1011.97	
1	207.48	1578.87	22658.14	7.33	1012.22	1011.97	0.25
1	207.485 BR D	1518.63	21322.50	7.79	1011.91	1011.91	
1	207.485 BR D	1519.83	21709.91	7.65	1012.17	1011.91	0.26
1	207.485 BR U	1518.95	21426.50	7.75	1011.98	1011.98	
1	207.485 BR U	1520.13	21807.78	7.61	1012.23	1011.98	0.25
1	207.49	1579.37	25513.97	7.40	1012.07	1012.07	
1	207.49	1579.37	22815.94	7.28	1012.32	1012.07	0.25
1	207.53	2131.14	24264.16	8.43	1012.09	1012.09	

1	207.53	1672.10	18411.17	9.02	1012.24	1012.09	0.15
1	207.62	2471.21	20183.66	9.61	1012.76	1012.76	
1	207.62	1962.23	16587.59	10.01	1012.97	1012.76	0.21
1	207.71	2746.35	21864.60	7.99	1014.41	1014.41	
1	207.71	2344.11	19781.23	8.39	1014.58	1014.41	0.17
1	207.8	2917.76	24001.43	7.56	1015.41	1015.41	
1	207.8	2617.37	22027.76	7.54	1015.66	1015.41	0.25
1	207.9	3048.03	25428.30	6.68	1016.38	1016.38	
1	207.9	3016.24	25411.26	6.53	1016.58	1016.38	0.20
1	207.99	2720.90	23201.65	7.82	1016.92	1016.92	
1	207.99	2749.15	21658.35	7.66	1017.08	1016.92	0.16
1	208.1	2944.82	23014.87	7.22	1018.03	1018.03	
1	208.1	2944.81	23256.96	7.14	1018.12	1018.03	0.10
1	208.19	2664.04	22155.08	7.49	1018.79	1018.79	
1	208.19	2664.02	22324.40	7.44	1018.85	1018.79	0.07
1	208.29	2381.48	20552.81	8.14	1019.52	1019.52	
1	208.29	2381.47	20507.99	8.09	1019.57	1019.52	0.04
1	208.39	2285.86	20213.39	8.49	1020.44	1020.44	
1	208.39	2285.85	19621.86	8.46	1020.47	1020.44	0.03
1	208.48	2170.30	19846.32	8.36	1021.36	1021.36	
1	208.48	2170.30	19884.20	8.35	1021.38	1021.36	0.02
1	208.57	1552.88	15144.89	11.74	1021.84	1021.84	
1	208.57	1552.87	14163.44	11.72	1021.86	1021.84	0.01
1	208.67	1776.15	17531.91	9.59	1023.94	1023.94	
1	208.67	1776.29	17320.43	9.58	1023.95	1023.94	0.01
1	208.75	1606.30	20000.85	9.91	1024.77	1024.77	
1	208.75	1606.30	16762.08	9.90	1024.78	1024.77	0.01
1	208.85	1986.18	17700.33	10.70	1025.83	1025.83	
1	208.85	1950.30	15511.35	10.70	1025.84	1025.83	0.01
1	208.95	2058.96	14962.75	13.16	1026.98	1026.98	
1	208.95	2058.95	12611.74	13.16	1026.98	1026.98	0.00
1	209.04	2170.30	32434.58	6.86	1030.49	1030.49	
1	209.04	1980.00	22795.18	7.28	1030.44	1030.49	-0.05
1	209.14	2147.73	25191.42	8.09	1030.73	1030.73	

1	209.14	1899.79	18668.10	8.89	1030.65	1030.73	-0.09
1	209.24	1984.48	27506.74	8.21	1031.38	1031.38	
1	209.24	1637.72	18113.97	9.16	1031.37	1031.38	-0.01
1	209.33	1593.73	23007.36	9.05	1032.01	1032.01	
1	209.33	1592.93	18829.09	8.82	1032.32	1032.01	0.31
1	209.42	1652.63	20391.35	9.62	1032.75	1032.75	
1	209.42	1652.63	17654.70	9.40	1032.99	1032.75	0.24
1	209.53	824.33	15540.72	13.16	1032.53	1032.53	
1	209.53	830.63	12789.59	12.98	1032.73	1032.53	0.21
1	209.535 BR D	806.04	14618.30	13.73	1032.32	1032.32	
1	209.535 BR D	812.36	12257.47	13.54	1032.53	1032.32	0.21
1	209.535 BR U	811.62	16161.25	12.92	1032.89	1032.89	
1	209.535 BR U	818.30	13005.17	12.76	1033.08	1032.89	0.19
1	209.54	833.46	17335.38	12.32	1033.17	1033.17	
1	209.54	840.07	13625.48	12.18	1033.35	1033.17	0.19
1	209.6	1798.43	27331.69	7.87	1035.16	1035.16	
1	209.6	1656.01	21173.26	7.84	1035.31	1035.16	0.15
1	209.69	1874.85	25358.06	6.55	1035.94	1035.94	
1	209.69	1874.84	25614.16	6.48	1036.08	1035.94	0.14
1	209.79	1858.60	31103.87	5.34	1036.46	1036.46	
1	209.79	1806.96	30614.92	5.42	1036.57	1036.46	0.10
1	209.88	1883.46	25547.80	6.50	1036.53	1036.53	
1	209.88	1698.51	23336.61	7.11	1036.56	1036.53	0.04
1	209.98	2007.27	29374.18	5.65	1036.91	1036.91	
1	209.98	1868.53	27472.13	6.04	1037.07	1036.91	0.16
1	210.07	2123.90	38137.27	4.91	1037.31	1037.31	
1	210.07	2015.00	33560.89	4.95	1037.56	1037.31	0.25
1	210.17	1980.11	32632.44	5.44	1037.42	1037.42	
1	210.17	1980.12	31046.71	5.35	1037.68	1037.42	0.26
1	210.26	1954.72	32911.84	5.05	1037.67	1037.67	
1	210.26	1954.72	33360.09	4.98	1037.91	1037.67	0.25
1	210.36	1915.99	30410.01	5.46	1037.78	1037.78	
1	210.36	1915.99	30870.54	5.38	1038.02	1037.78	0.24
1	210.46	1907.00	38822.63	4.59	1038.08	1038.08	

1	210.46	1907.00	36640.04	4.53	1038.31	1038.08	0.23
1	210.55	1951.35	26447.04	7.21	1037.82	1037.82	
1	210.55	1763.14	22610.09	7.34	1038.04	1037.82	0.22
1	210.64	2390.35	30289.22	6.22	1038.32	1038.32	
1	210.64	1384.51	20956.64	7.92	1038.31	1038.32	-0.01
1	210.74	2337.38	23480.88	7.07	1038.47	1038.47	
1	210.74	1102.73	18562.76	8.94	1038.54	1038.47	0.07
1	210.83	2236.66	22815.08	7.32	1038.81	1038.81	
1	210.83	1040.74	15996.32	10.38	1038.72	1038.81	-0.09
1	210.93	2054.49	24770.74	7.61	1039.25	1039.25	
1	210.93	1008.62	15334.68	10.83	1039.29	1039.25	0.04
1	211.02	1794.36	16765.23	9.90	1039.37	1039.37	
1	211.02	1023.90	16392.94	10.13	1040.16	1039.37	0.79
1	211.12	1525.79	20961.92	7.92	1040.58	1040.58	
1	211.12	1085.78	21560.80	7.70	1041.29	1040.58	0.71
1	211.21	992.51	13992.95	11.86	1040.21	1040.21	
1	211.21	992.50	14744.23	11.26	1040.97	1040.21	0.76
1	211.31	824.88	11698.88	14.19	1040.76	1040.76	
1	211.31	824.88	12197.81	13.61	1041.37	1040.76	0.60
1	211.41	567.96	11426.47	14.53	1041.78	1041.78	
1	211.41	567.96	11663.09	14.23	1042.19	1041.78	0.42
1	211.51	522.21	9779.93	16.97	1042.20	1042.20	
1	211.51	522.20	9969.95	16.65	1042.56	1042.20	0.36
1	211.525 BR D	495.50	9064.27	18.31	1041.69	1041.69	
1	211.525 BR D	496.07	9262.35	17.92	1042.09	1041.69	0.40
1	211.525 BR U	494.25	9489.36	17.49	1042.75	1042.75	
1	211.525 BR U	495.04	9626.06	17.24	1043.02	1042.75	0.28
1	211.54	525.99	10501.56	15.81	1043.70	1043.70	
1	211.54	525.99	10618.67	15.63	1043.93	1043.70	0.22
1	211.64	562.10	12147.42	14.09	1045.60	1045.60	
1	211.64	562.10	11866.33	13.99	1045.75	1045.60	0.15
1	211.71	569.40	12304.15	13.64	1046.47	1046.47	
1	211.71	569.41	12241.98	13.56	1046.59	1046.47	0.12
1	211.79	567.83	16460.59	13.65	1047.18	1047.18	

1	211.79	567.83	12218.77	13.59	1047.29	1047.18	0.11
~~1~~	~~211.89~~	~~564.99~~	~~12164.79~~	~~13.65~~	~~1048.02~~	~~1048.02~~	
1	211.89	564.99	12216.30	13.59	1048.11	1048.02	0.09
1	211.99	549.87	33980.60	14.35	1048.63	1048.63	
1	211.99	549.87	11613.13	14.29	1048.71	1048.63	0.08
1	212.08	589.80	67178.20	12.96	1050.10	1050.10	
1	212.08	589.81	12847.08	12.92	1050.17	1050.10	0.06
1	212.18	627.72	64109.25	15.37	1050.31	1050.31	
1	212.18	627.72	10836.17	15.32	1050.37	1050.31	0.06
1	212.27	605.76	65359.38	19.06	1050.72	1050.72	
1	212.27	606.04	8740.42	18.99	1050.77	1050.72	0.05
1	212.37	573.64	8658.17	19.17	1053.10	1053.10	
1	212.37	573.69	8665.10	19.16	1053.11	1053.10	0.01
1	212.46	557.52	12974.73	17.11	1056.23	1056.23	
1	212.46	557.66	9738.17	17.05	1056.29	1056.23	0.06
1	212.56	520.87	8207.41	20.23	1056.87	1056.87	
1	212.56	521.09	8264.06	20.09	1056.98	1056.87	0.11
1	212.67	626.50	13830.45	12.00	1062.53	1062.53	
1	212.67	626.51	13834.20	12.00	1062.54	1062.53	0.01
1	212.675 BR D	601.63	13142.18	12.63	1062.36	1062.36	
1	212.675 BR D	601.66	13145.78	12.63	1062.37	1062.36	0.01
1	212.675 BR U	603.59	13372.53	12.41	1062.74	1062.74	
1	212.675 BR U	603.62	13375.84	12.41	1062.75	1062.74	0.01
1	212.68	629.02	14139.23	11.74	1063.02	1063.02	
1	212.68	629.03	14142.60	11.74	1063.03	1063.02	0.01
1	212.74	676.58	13083.04	12.71	1063.06	1063.06	
1	212.74	676.59	13067.49	12.70	1063.07	1063.06	0.01
1	212.84	635.75	11736.64	14.14	1063.54	1063.54	
1	212.84	635.75	11739.66	14.14	1063.55	1063.54	0.00
1	212.93	798.98	14416.32	11.53	1065.48	1065.48	
1	212.93	798.99	14404.13	11.52	1065.49	1065.48	0.00
1	213.03	965.54	16390.75	10.13	1066.57	1066.57	
1	213.03	919.74	16378.19	10.14	1066.58	1066.57	0.00
1	213.11	927.79	17065.84	9.73	1067.16	1067.16	

1	213.11	927.79	17068.22	9.73	1067.16	1067.16	0.00
1	213.21	1010.12	25006.99	8.15	1067.99	1067.99	
1	213.21	928.20	20311.62	8.17	1068.00	1067.99	0.01
1	213.25	880.24	19309.64	8.75	1067.95	1067.95	
1	213.25	880.24	19319.43	8.75	1067.96	1067.95	0.01
1	213.255 BR D	860.02	18796.29	8.99	1067.90	1067.90	
1	213.255 BR D	860.07	18805.95	8.99	1067.91	1067.90	0.01
1	213.255 BR U	860.85	18944.18	8.92	1068.07	1068.07	
1	213.255 BR U	860.72	18953.53	8.92	1068.08	1068.07	0.01
1	213.26	881.21	19486.07	8.67	1068.15	1068.15	
1	213.26	881.21	19495.54	8.67	1068.16	1068.15	0.01
1	213.33	1185.62	22058.44	7.87	1068.56	1068.56	
1	213.33	1185.62	21484.29	7.87	1068.57	1068.56	0.01
1	213.38	1101.75	19524.26	8.83	1068.59	1068.59	
1	213.38	1101.75	19142.95	8.83	1068.60	1068.59	0.01
1	213.47	1023.12	15216.71	11.36	1068.59	1068.59	
1	213.47	1023.12	14892.05	11.35	1068.61	1068.59	0.01
1	213.57	852.16	13716.61	12.49	1069.18	1069.18	
1	213.57	852.16	13540.81	12.48	1069.19	1069.18	0.01
1	213.66	565.98	10907.83	15.51	1069.25	1069.25	
1	213.66	565.99	10902.25	15.50	1069.26	1069.25	0.01
1	213.74	654.73	14815.19	11.41	1071.65	1071.65	
1	213.74	654.73	14821.02	11.40	1071.66	1071.65	0.01
1	213.745 BR D	634.08	14224.61	11.88	1071.53	1071.53	
1	213.745 BR D	634.13	14230.34	11.88	1071.54	1071.53	0.01
1	213.745 BR U	635.27	14364.15	11.77	1071.75	1071.75	
1	213.745 BR U	635.32	14369.74	11.76	1071.76	1071.75	0.01
1	213.75	656.36	15011.57	11.26	1071.95	1071.95	
1	213.75	656.35	15017.17	11.25	1071.96	1071.95	0.01
1	213.85	702.58	13011.91	14.38	1071.64	1071.64	
1	213.85	702.59	11757.42	14.37	1071.65	1071.64	0.01
1	213.95	745.19	15303.14	11.05	1074.15	1074.15	
1	213.95	745.19	15304.93	11.04	1074.15	1074.15	0.01
1	214.04	733.89	17114.08	9.96	1075.03	1075.03	

1	214.04	733.89	16976.01	9.96	1075.04	1075.03	0.01
1	214.14	726.87	17252.81	9.84	1075.49	1075.49	
1	214.14	726.86	17178.85	9.84	1075.50	1075.49	0.01

ERRORS WARNINGS AND NOTES
Errors Warnings and Notes for Plan : Plan 05

River: 1 Reach: 1 RS: 214.14 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 214.04 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 213.95 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 213.95 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 213.85 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 213.85 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 213.745 Profile: PF#1
Note - Yarnell answer is not valid if the water surface is above the low chord or if there is weir flow. The Yarnell answer has been disregarded.
Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir flow. The momentum answer has been disregarded.
River: 1 Reach: 1 RS: 213.745 Profile: PF#2
Note - Yarnell answer is not valid if the water surface is above the low chord or if there is weir flow. The Yarnell answer has been disregarded.
Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir flow. The momentum answer has been disregarded.
River: 1 Reach: 1 RS: 213.74 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

River: 1 Reach: 1 RS: 213.74 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 213.66 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 213.66 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 213.57 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 213.57 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 213.47 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 213.47 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 213.33 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 213.03 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 212.93 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 212.93 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 212.84 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 212.84 Profile: PF#2

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 212.74 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 212.68 Profile: PF#2
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.
River: 1 Reach: 1 RS: 212.675 Profile: PF#2 Upstream
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.
River: 1 Reach: 1 RS: 212.675 Profile: PF#2 Downstream
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.
River: 1 Reach: 1 RS: 212.67 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 212.67 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 212.56 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 212.56 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 212.46 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 212.46 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 212.37 Profile: PF#1
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: 1 Reach: 1 RS: 212.37 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 212.27 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 212.27 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 212.18 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 212.18 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 212.08 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 212.08 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 211.99 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 211.79 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 211.71 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 211.64 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 211.64 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 211.54 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross

sections.
River: 1 Reach: 1 RS: 211.54 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 211.525 Profile: PF#1 Downstream
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 211.525 Profile: PF#2 Downstream
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 211.51 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 211.51 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 211.41 Profile: PF#1
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 211.41 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 211.31 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 211.31 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 211.21 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 211.21 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 211.12 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 211.12 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 211.02 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 211.02 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 210.93 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 210.93 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 210.83 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 210.83 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 210.74 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 210.74 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 210.64 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 210.64 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 210.55 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 210.55 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 210.26 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 210.17 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 210.07 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 209.98 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 209.88 Profile: PF#1
Warning - Divided flow computed for this cross-section.

```
River: 1  Reach: 1     RS: 209.88     Profile: PF#2
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: 1  Reach: 1     RS: 209.6     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
River: 1  Reach: 1     RS: 209.6     Profile: PF#2
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
River: 1  Reach: 1     RS: 209.54     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 209.54     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 209.535     Profile: PF#1
      Note -    Yarnell answer is not valid if the water surface is above the low chord or if there is weir flow.  The Yarnell
                answer has been disregarded.
      Note -    Momentum answer is not valid if the water surface is above the low chord or if there is weir flow.  The momentum
                answer has been disregarded.
River: 1  Reach: 1     RS: 209.535     Profile: PF#2
      Note -    Yarnell answer is not valid if the water surface is above the low chord or if there is weir flow.  The Yarnell
                answer has been disregarded.
      Note -    Momentum answer is not valid if the water surface is above the low chord or if there is weir flow.  The momentum
                answer has been disregarded.
River: 1  Reach: 1     RS: 209.53     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
      Note -    Manning's n values were composited to a single value in the main channel.
River: 1  Reach: 1     RS: 209.53     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
      Note -    Manning's n values were composited to a single value in the main channel.
River: 1  Reach: 1     RS: 209.42     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 209.33     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 209.24     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 209.14     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 209.04     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
```

sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 209.04 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 208.95 Profile: PF#1
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 208.95 Profile: PF#2
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 208.85 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 208.85 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 208.75 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1 Reach: 1 RS: 208.67 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 208.67 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

```
River: 1  Reach: 1     RS: 208.57     Profile: PF#1
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
      Note -    Manning's n values were composited to a single value in the main channel.
River: 1  Reach: 1     RS: 208.57     Profile: PF#2
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
      Note -    Manning's n values were composited to a single value in the main channel.
River: 1  Reach: 1     RS: 208.39     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
      Note -    Manning's n values were composited to a single value in the main channel.
River: 1  Reach: 1     RS: 208.39     Profile: PF#2
      Note -    Manning's n values were composited to a single value in the main channel.
River: 1  Reach: 1     RS: 208.29     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Note -    Manning's n values were composited to a single value in the main channel.
River: 1  Reach: 1     RS: 208.29     Profile: PF#2
      Note -    Manning's n values were composited to a single value in the main channel.
River: 1  Reach: 1     RS: 208.19     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Note -    Manning's n values were composited to a single value in the main channel.
River: 1  Reach: 1     RS: 208.19     Profile: PF#2
      Note -    Manning's n values were composited to a single value in the main channel.
River: 1  Reach: 1     RS: 208.1     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 207.99     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Note -    Manning's n values were composited to a single value in the main channel.
River: 1  Reach: 1     RS: 207.99     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Note -    Manning's n values were composited to a single value in the main channel.
River: 1  Reach: 1     RS: 207.9     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 207.9     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 207.8     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 207.8     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 207.71     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: 1  Reach: 1     RS: 207.71     Profile: PF#2
```

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 207.62 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 207.62 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 207.53 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1 Reach: 1 RS: 207.53 Profile: PF#2
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 207.49 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 207.48 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 207.48 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 207.43 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 207.34 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 207.27 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 207.27 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 207.16 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: 1 Reach: 1 RS: 207.16 Profile: PF#2

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: 1 Reach: 1 RS: 207.07 Profile: PF#1

Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.

Warning - Divided flow computed for this cross-section.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

River: 1 Reach: 1 RS: 207.07 Profile: PF#2

Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.

Warning - Divided flow computed for this cross-section.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

River: 1 Reach: 1 RS: 206.97 Profile: PF#1

Warning - Divided flow computed for this cross-section.

River: 1 Reach: 1 RS: 206.97 Profile: PF#2

Warning - Divided flow computed for this cross-section.

River: 1 Reach: 1 RS: 206.88 Profile: PF#1

Warning - Divided flow computed for this cross-section.

River: 1 Reach: 1 RS: 206.88 Profile: PF#2

Warning - Divided flow computed for this cross-section.

River: 1 Reach: 1 RS: 206.79 Profile: PF#1

Warning - Divided flow computed for this cross-section.

River: 1 Reach: 1 RS: 206.79 Profile: PF#2

Warning - Divided flow computed for this cross-section.

```
River: 1  Reach: 1     RS: 206.7     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 206.7     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 206.6     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 206.6     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 206.51     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 206.41     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 206.32     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 206.22     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 206.22     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: 1  Reach: 1     RS: 206.13     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: 1  Reach: 1     RS: 206.13     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: 1  Reach: 1     RS: 206.03     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: 1  Reach: 1     RS: 206.03     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: 1  Reach: 1     RS: 205.94     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 205.84     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 205.75     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: 1  Reach: 1     RS: 205.75     Profile: PF#2
```

```
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: 1  Reach: 1     RS: 205.62     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 205.52     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 205.43     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 205.4     Profile: PF#1
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: 1  Reach: 1     RS: 205.4     Profile: PF#2
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: 1  Reach: 1     RS: 205.34     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 205.25     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: 1  Reach: 1     RS: 205.25     Profile: PF#2
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: 1  Reach: 1     RS: 205.15     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 205.06     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
River: 1  Reach: 1     RS: 204.97     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 204.87     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 204.78     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 204.68     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 204.61     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 204.53     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
```

River: 1 Reach: 1 RS: 204.53 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 204.42 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 204.42 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 204.34 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 204.34 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 204.25 Profile: PF#1
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.
River: 1 Reach: 1 RS: 204.25 Profile: PF#2
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate

the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.
River: 1 Reach: 1 RS: 204.05 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 204.05 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 203.96 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 203.96 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: 1 Reach: 1 RS: 203.86 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 203.77 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 203.58 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 203.48 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 203.39 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1 Reach: 1 RS: 203.39 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 203.29 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: 1 Reach: 1 RS: 203.19 Profile: PF#1

```
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: 1  Reach: 1     RS: 203.19     Profile: PF#2
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: 1  Reach: 1     RS: 203.09     Profile: PF#1
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: 1  Reach: 1     RS: 203.09     Profile: PF#2
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: 1  Reach: 1     RS: 202.9     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 202.8     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 202.69     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 202.59     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 202.59     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: 1  Reach: 1     RS: 202.48     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 202.48     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: 1  Reach: 1     RS: 202.37     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 202.37     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: 1  Reach: 1     RS: 202.18     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: 1  Reach: 1     RS: 202.18     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
```

```
River: 1  Reach: 1     RS: 202.09     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: 1  Reach: 1     RS: 202.09     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: 1  Reach: 1     RS: 201.99     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 201.99     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 201.9     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 201.81     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: 1  Reach: 1     RS: 201.81     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: 1  Reach: 1     RS: 201.71     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 201.62     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 201.52     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 201.43     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 201.33     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: 1  Reach: 1     RS: 201.24     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 201.14     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
```

```
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 201.05     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 200.95     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: 1  Reach: 1     RS: 200.95     Profile: PF#2
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: 1  Reach: 1     RS: 200.86     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 200.77     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 200.67     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 200.58     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 200.49     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 200.39     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 200.3     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: 1  Reach: 1     RS: 200.2     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: 1  Reach: 1     RS: 200.1     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 200     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: 1  Reach: 1     RS: 199.91     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: 1  Reach: 1     RS: 199.91     Profile: PF#2
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: 1  Reach: 1     RS: 199.82     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
```

HEC-RAS Version 2.1 October 1997
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX        XX      XXXX
X     X  X        X    X       X   X      X  X    X
X     X  X        X            X   X     X    X   X
XXXXXXX  XXXX     X       XXX  XXXX      XXXXXX    XXXX
X     X  X        X            X  X      X    X       X
X     X  X        X    X       X   X     X    X       X
X     X  XXXXXX    XXXX        X    X    X    X   XXXXX
```

PROJECT DATA
Project Title: Reach 3 with Levees
Project File : r3wlevee.prj
Run Date and Time: 3/26/98 11:02:28 AM

Project in English units

PLAN DATA

Plan Title: Reach 3 - Method 1 Floodway
Plan File : C:\HEC\RAS\Data\Final2\r3wlevee.p01

Geometry Title: with landfill
Geometry File : C:\HEC\RAS\Data\Final2\r3wlevee.g02

Flow Title : Reach 3 - Floodway
Flow File : C:\HEC\RAS\Data\Final2\r3wlevee.f01

Plan Summary Information:
Number of: Cross Sections = 161 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 6

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computational Flow Regime: Subcritical Flow

Encroachment Data
Equal Conveyance = True
Left Offset = 0
Right Offset = 0

River = 1 Reach = 1

RS	Profile	Method	Value1	Value2
214.14	PF#2		119654.9	720381.83
214.04	PF#2		119637.8	820371.77
213.95	PF#2		119586.5	420331.73
213.85	PF#2		119618.3	320320.92
213.75	PF#2		1	1964120297.35
213.74	PF#2		119641.87	20296.6
213.66	PF#2		119687.5	720253.56
213.57	PF#2		1	19484.520336.66
213.47	PF#2		1	19243.320266.42
213.38	PF#2		1	19346.120447.85
213.33	PF#2		1	19328.920514.52
213.26	PF#2		119497.1	820378.39
213.255	PF#2		119497.3	720378.09
213.25	PF#2		119497.5	520377.79
213.21	PF#2		1	19490.3 20418.5
213.11	PF#2		119616.8	820544.67

213.03	PF#2	1 1967220591.83
212.93	PF#2	119690.7620489.75
212.84	PF#2	1 19711.520347.25
212.74	PF#2	119690.61 20367.2
212.68	PF#2	119501.07 20130.1
212.675	PF#2	119492.8920137.19
212.67	PF#2	119502.3320128.84
212.56	PF#2	119731.0520252.14
212.46	PF#2	119743.34 20301
212.37	PF#2	119744.0620320.69
212.27	PF#2	119715.2520330.35
212.18	PF#2	119706.8520334.57
212.08	PF#2	119681.09 20270.9
211.99	PF#2	119699.7720249.64
211.89	PF#2	119685.7520250.74
211.79	PF#2	119649.87 20217.7
211.71	PF#2	119628.4320197.84
211.64	PF#2	1 19657.7 20219.8
211.54	PF#2	119603.6520129.64
211.51	PF#2	119615.1920137.39
211.41	PF#2	1 19638.120206.06
211.31	PF#2	119531.2120356.09
211.21	PF#2	119528.7520521.25
211.12	PF#2	119498.47 20610
211.02	PF#2	119487.12 20550
210.93	PF#2	119479.13 20530
210.83	PF#2	119450.42 20530
210.74	PF#2	119426.13 20560
210.64	PF#2	1 19388.6 20800
210.55	PF#2	119322.17 21110
210.46	PF#2	1 19377 21284
210.36	PF#2	119375.1721291.16
210.26	PF#2	119377.08 21331.8
210.17	PF#2	1 19354.621334.72
210.07	PF#2	1 19210 21225
209.98	PF#2	119338.5921207.12
209.88	PF#2	1 19513 21188
209.79	PF#2	119483.0421202.96
209.69	PF#2	119460.1721216.07
209.6	PF#2	1 19341.420579.07
209.54	PF#2	1 19130 20521
209.535	PF#2	1 19130 20521
209.53	PF#2	1 19130 20521
209.42	PF#2	1 1900020652.63
209.33	PF#2	119122.27 20715.2
209.24	PF#2	119212.28 20465
209.14	PF#2	119200.21 20418.3
209.04	PF#2	1 19220 20461.4
208.95	PF#2	1 19137.7 20550
208.85	PF#2	1 19199.7 20745.6
208.75	PF#2	1 19192.9 20799.2
208.67	PF#2	119118.2220908.11
208.57	PF#2	119087.13 20640
208.48	PF#2	118510.5620680.86
208.39	PF#2	118462.9420748.79
208.29	PF#2	1 18562.620944.07
208.19	PF#2	118679.18 21343.2
208.1	PF#2	118822.3721767.18
207.99	PF#2	119093.0321934.42
207.9	PF#2	1 19104.722137.55
207.8	PF#2	1 19249.521871.22
207.71	PF#2	1 1936021704.11
207.62	PF#2	1 19510.121472.33
207.53	PF#2	1 19502.9 21175
207.49	PF#2	119473.8521053.12
207.48	PF#2	1 19474.221052.99
207.43	PF#2	119253.31 20940
207.34	PF#2	1 1923020798.77
207.27	PF#2	1 18980 20597.9
207.16	PF#2	1 19000 20734.5
207.07	PF#2	118857.5720748.18
206.97	PF#2	1 18850 20800
206.88	PF#2	118838.93 20800
206.79	PF#2	118806.0120895.15
206.7	PF#2	118784.84 21138.8
206.6	PF#2	118675.5821066.25
206.51	PF#2	118561.35 20622.1

206.41	PF#2	1	18494.7	120685.22	
206.32	PF#2	1	18476.94	20854.9	
206.22	PF#2	1	18	43520977.34	
206.13	PF#2	1	18	37020914.99	
206.03	PF#2	1	18320	20772.6	
205.94	PF#2	1	18200	20767	
205.84	PF#2	1	18100	20535.7	
205.75	PF#2	1	18048	20450.3	
205.62	PF#2	1	18216	20450.1	
205.52	PF#2	1	18591.6	20611.5	
205.43	PF#2	1	18917.5	20770.4	
205.4	PF#2	1	19020	20767.8	
205.34	PF#2	1	19	18020742.96	
205.25	PF#2	1	19300	20782.3	
205.15	PF#2	1	19385	20830	
205.06	PF#2	1	19470	20905.3	
204.97	PF#2	1	19445	20961.3	
204.87	PF#2	1	19462.8	20954.34	
204.78	PF#2	1	19398.6	20832.33	
204.68	PF#2	1	19321.8	20548.61	
204.61	PF#2	1	19260	20482.9	
204.53	PF#2	1	19185.4	20495.9	
204.42	PF#2	1	19025.4	20682.09	
204.34	PF#2	1	19	10020816.23	
204.25	PF#2	1	19	30020818.53	
204.15	PF#2	1	19	20021033.38	
204.05	PF#2	1	18962.5	921081.76	
203.96	PF#2	1	18730.8	20790.38	
203.86	PF#2	1	18488.1	20735.9	
203.77	PF#2	1	18222.6	120745.61	
203.67	PF#2	1	18130	20699.3	
203.58	PF#2	1	18	02520704.98	
203.48	PF#2	1	17932.6	20856.76	
203.39	PF#2	1	17970.8	21038.8	
203.29	PF#2	1	18065.6	21082.58	
203.19	PF#2	1	18262.1	20965.39	
203.09	PF#2	1	18	43020914.82	
202.99	PF#2	1	18469.4	20926.9	
202.9	PF#2	1	18455.6	20993.5	
202.8	PF#2	1	18390.8	21014.96	
202.69	PF#2	1	18377.8	21081.8	
202.59	PF#2	1	18416.7	21195.09	
202.48	PF#2	1	18	36021307.36	
202.37	PF#2	1	18	27021581.78	
202.29	PF#2	1	18197.4	21803	
202.18	PF#2	1	18139.7	21938.4	
202.09	PF#2	1	18212.9	21938.26	
201.99	PF#2	1	18235.1	21892.71	
201.9	PF#2	1	17954.3	21827.38	
201.81	PF#2	1	17946.9	521803.25	
201.71	PF#2	1	18107.13	21528.5	
201.62	PF#2	1	18233.54	21477.5	
201.52	PF#2	1	17945.31	21391.4	
201.43	PF#2	1	18017.18	21342.1	
201.33	PF#2	1	18055.8	21381.8	
201.24	PF#2	1	18067.6	21570	
201.14	PF#2	1	18038.16	21721	
201.05	PF#2	1	17948.51	21849	
200.95	PF#2	1	17905.8	21954	
200.86	PF#2	1	17996	22032	
200.77	PF#2	1	17828.8	21951	
200.67	PF#2	1	17640	21649.3	
200.58	PF#2	1	17510	21450	
200.49	PF#2	1	17380	21171	
200.39	PF#2	1	17300	21041	
200.3	PF#2	1	17205	20896	
200.2	PF#2	1	17115	20744	
200.1	PF#2	1	17030	20900	
200	PF#2	1	16950	21150	
199.91	PF#2	1	16800	22250	
199.82	PF#2	1	16870	22750	

FLOW DATA

Flow Title: Reach 3 - Floodway
Flow File : C:\HEC\RAS\Data\Final2\r3wlevee.f01

Flow Data (cfs)

River	Reach	RS	PF#1	PF#2
1	1	214.14	169000	169000
1	1	213.21	166000	166000
1	1	205.4	164000	164000
1	1	200.3	179750	179750

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
1	1	PF#1	Known WS =	949.63
1	1	PF#2	Known WS =	949.88

GEOMETRY DATA

Geometry Title: with landfill
Geometry File : C:\HEC\RAS\Data\Final2\r3wlevee.g02

CROSS SECTION RIVER: 1
REACH: 1 RS: 214.14

INPUT
Description: 214.14
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18555.4	1082.6	18577.7	1082.5	18586.5	1082.5	18650.6	1082	18678.8	1082.1
18707.4	1081.7	18729.5	1082	18771.6	1082.1	18793.7	1081.8	18836	1080.9
18859.7	1080.3	18935.6	1078.9	19050.6	1077.2	19056.7	1077.2	19059.9	1077.1
19062.9	1076.9	19063.3	1077	19067.8	1077.1	19071.9	1077.1	19078.2	1077.1
19188.3	1078.1	19249.7	1079.4	19290.2	1080.1	19298.1	1080.2	19313.1	1080.4
19327.5	1080.7	19358.6	1080.6	19391.6	1080.5	19412.8	1080.3	19520.8	1077.9
19554.8	1077.5	19580.2	1077.3	19610.8	1076.5	19651.9	1076.7	19697.7	1058.7
19715.9	1051.7	19732.8	1050.2	19750.7	1048.7	20032.7	1049	20292.3	1049.2
20350.9	1065.9	20388.3	1077.5	20405.5	1075.6	20406	1075.6	20439.7	1075.6
20637.3	1075.5	20899.6	1075.4	20920.6	1075.5	20941.8	1075.4	20947.4	1075.5
20962	1075.5	20980	1075.4	20989.9	1075.4	21074.1	1075.4	21119.6	1075.7
21168.7	1076.8	21222	1076.6	21326.8	1076.2	21327.4	1076.2	21342.2	1075
21390.6	1075	21428.8	1075	21455.3	1075.3	21502.1	1076.4	21502.4	1076.2
21505.4	1076.4	21551.9	1077.5	21591.8	1077.6	21726.3	1078.4	21759.2	1078.5
21766.3	1078.3	21792.4	1078.4	21884.6	1078.9	22013	1079.1	22034.3	1079.5
22101.6	1079.7	22156.1	1080.1	22201.4	1080	22204.6	1079.9	22217.3	1080.5
22235	1081.3	22238.1	1081.3	22264.5	1081	22267.7	1080.9	22269.4	1080.7
22269.9	1080.6	22272.4	1080.4	22280.3	1079.8	22341.9	1080.2	22431	1080.6
22501.3	1081.2	22591.2	1081.8	22602.9	1082	22619.7	1083	22686.6	1082.9
22710.3	1082.5								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18555.4	.04	19651.9	.035	20388.3	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19651.9	20388.3	475	510.51	570	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18555.4	19651.9	1082	20388.3	22710.3	1082

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1075.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.50	Wt. n-Val.		0.035	
E.G. Elev (ft)	1077.00	Reach Len. (ft)	475.00	510.51	570.00
Crit W.S. (ft)	1062.65	Flow Area (sq ft)		17174.59	
E.G. Slope (ft/ft)	0.000805	Area (sq ft)		17174.59	78.22
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1271.14	Top Width (ft)		726.87	544.28
Vel Total (ft/s)	9.84	Avg. Vel. (ft/s)		9.84	
Max Chl Dpth (ft)	26.79	Hydr. Depth (ft)		23.63	
Conv. Total (cfs)	5958120.5	Conv. (cfs)		5958120.5	
Length Wtd. (ft)	510.51	Wetted Per. (ft)		735.26	
Min Ch El (ft)	1048.70	Shear (lb/sq ft)		1.17	
Alpha	1.00	Stream Power (lb/ft s)		11.54	
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	9621.41	35235.39	3757.95
C & E Loss (ft)	0.00	Cum SA (acres)	2210.81	3226.77	1081.03

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19651.90 LB	19799.18	24991.55	2906.87	148.82	14.79	20.16	8.60
19799.18	19946.46	41548.26	3927.13	147.28	24.58	26.66	10.58
19946.46	20093.74	41151.21	3904.54	147.28	24.35	26.51	10.54
20093.74	20241.02	40839.63	3886.80	147.28	24.17	26.39	10.51
20241.02	20388.30 RB	20469.34	2549.25	144.60	12.11	18.10	8.03

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 214.04

INPUT
Description: 214.04
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19072.9	1079.7	19093.4	1080.3	19132.2	1080.8	19189.9	1082.5	19193.8	1082.6
19198.4	1082.5	19239.2	1081	19288.1	1081.2	19324.4	1080.7	19371.7	1079.1
19395.9	1078.4	19428.8	1078	19449.6	1077.2	19490.6	1077.5	19513.1	1077.7
19544.1	1077.9	19555.9	1077.7	19588.8	1076.5	19610.7	1075.7	19613.2	1075.7
19632.1	1075.8	19635.6	1075.8	19636.8	1075.4	19702.8	1053	19711.2	1052.5
19718.8	1052.3	19726.8	1051.2	19735.4	1048.8	20175.7	1049	20286.6	1049
20298.5	1052.8	20376.6	1076.5	20387.2	1075.5	20390.3	1075.2	20574.2	1076
20667.2	1076.1	20825.6	1075.6	20839.5	1075.5	20839.8	1075.5	20855.8	1073
20864.2	1073.4	20909.3	1072.6	20914.5	1072.6	20915.6	1072.9	20928.6	1077
20951.8	1077	20990.8	1076.9	20996.8	1076.9	21016.8	1077.3	21040.9	1077.5
21130.4	1077.3	21234.3	1076.9	21246.3	1076.9	21256.8	1076.2	21294.9	1076.5
21366.4	1076.6	21461.4	1076.5	21539.2	1076.3	21557.9	1076.3	21565.1	1076.3
21586.9	1076.6	21607.7	1076.8	21639.2	1077.1	21662.1	1077.5	21690.5	1078.1
21711.2	1078.3	21774.8	1078.5	21799.9	1079.2	21800.4	1079.3	21942.9	1079.4
21971	1079.3	22001.7	1079.3	22020.7	1079.3	22177.7	1078.3	22203.1	1078.1
22217.2	1078.1	22226.8	1078	22231.1	1078	22238.5	1078	22248	1077.8
22357.9	1076.9	22384.7	1077.9	22394.1	1078.2	22399.6	1078.1	22400.9	1078.1
22428.8	1077.9	22430.1	1077.9	22450.6	1078.2	22542.8	1078.3	22554	1078.5
22667.1	1079.2	22667.7	1079.3	22717.7	1081.1	22725.6	1081.1	22727.3	1081.2
22747.1	1084								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19072.9	.04	19636.8	.035	20376.6	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19636.8	20376.6	495	493.12	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19072.9	19636.8	1083	20376.6	22747.1	1083

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1075.03	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.54	Wt. n-Val.		0.035	
E.G. Elev (ft)	1076.57	Reach Len. (ft)	495.00	493.12	480.00
Crit W.S. (ft)	1062.61	Flow Area (sq ft)		16971.35	
E.G. Slope (ft/ft)	0.000847	Area (sq ft)		16971.35	142.73
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	813.47	Top Width (ft)		733.89	79.58
Vel Total (ft/s)	9.96	Avg. Vel. (ft/s)		9.96	
Max Chl Dpth (ft)	26.23	Hydr. Depth (ft)		23.13	
Conv. Total (cfs)	5806517.5	Conv. (cfs)		5806517.5	
Length Wtd. (ft)	493.12	Wetted Per. (ft)		741.84	
Min Ch El (ft)	1048.80	Shear (lb/sq ft)		1.21	
Alpha	1.00	Stream Power (lb/ft s)		12.05	
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	9621.41	35035.30	3756.51
C & E Loss (ft)	0.04	Cum SA (acres)	2210.81	3218.21	1076.95

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19636.80 LB	19784.76	23425.97	2770.27	150.94	13.86	18.86	8.46
19784.76	19932.72	41500.32	3873.25	147.96	24.56	26.18	10.71
19932.72	20080.68	41322.37	3863.25	147.96	24.45	26.11	10.70
20080.68	20228.64	41157.18	3854.00	147.96	24.35	26.05	10.68
20228.64	20376.60 RB	21594.17	2610.57	147.02	12.78	18.24	8.27

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.95

INPUT
Description: 213.95
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19012.2	1082.3	19071.8	1081.2	19072.8	1081.2	19073.5	1081.2	19172.6	1080
19176.1	1079.9	19177	1079.9	19191.6	1079.8	19233.8	1079.1	19245.6	1079.2
19283.7	1079.1	19366	1078.5	19459.9	1077.8	19508.7	1075.2	19510	1075.1
19510.4	1075.2	19511.8	1075.3	19534.7	1076.7	19583.1	1074.4	19622.2	1071.5
19627.4	1072.4	19631.4	1072.9	19699.3	1056.7	19729	1049.4	19783.8	1049.5
20255.4	1049.3	20277.7	1056.5	20337.1	1075.9	20360.3	1074.9	20361.6	1074.8
20403.2	1074.5	20653.5	1075.3	20691.9	1075.3	20740	1075.5	20772	1075.4
20775.5	1075.1	20784.4	1073.9	20808.5	1074.1	20840.9	1074.4	20844.2	1074.5
20853.7	1075.1	20870	1074.8	20875	1074.6	20914.9	1075.6	20922.3	1075.7
20949.7	1076.5	20960.6	1076.8	20964.2	1076.9	20966.3	1078.4	20973	1080.1
21108.8	1079.4	21171.4	1079.5	21176.1	1079.5	21183	1079.7	21200.9	1076.8
21203.1	1076.6	21232.6	1076.3	21271.1	1076	21272.6	1076	21274.1	1076
21377.7	1076.7	21386.9	1076.7	21400.8	1076.7	21470.9	1077.6	21502.4	1077.7
21528	1077.6	21534	1077.9	21534.2	1077.9	21537	1078	21542.7	1077.4
21542.9	1077.8	21554.1	1077.4	21695.2	1077.7	21731.7	1077.2	21736.1	1076.3
21743.3	1075.1	21752	1076.3	21753.2	1076.5	21753.7	1076.6	21759.1	1078.6
21760.3	1079.1	21763.3	1079.6	21764.1	1079.5	21772.7	1079.3	21784.7	1079.3
21791.6	1079.5	21806.1	1079.6	21832.6	1079.8	21918.1	1079.8	21918.4	1080.2
22000.8	1079.8	22342	1078.4	22351.4	1078.4	22362.3	1078.4	22373.8	1078.7
22391.3	1078.7								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19012.2	.04	19534.7	.035	20337.1	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19534.7	20337.1	500	504.25	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19012.2	19534.7	1082.3	20337.1	22391.3	1082.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1074.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.89	Wt. n-Val.		0.035	
E.G. Elev (ft)	1076.04	Reach Len. (ft)	500.00	504.25	500.00
Crit W.S. (ft)	1063.64	Flow Area (sq ft)		15299.30	
E.G. Slope (ft/ft)	0.001219	Area (sq ft)		15299.30	3.84
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	776.02	Top Width (ft)		745.19	30.82
Vel Total (ft/s)	11.05	Avg. Vel. (ft/s)		11.05	
Max Chl Dpth (ft)	24.85	Hydr. Depth (ft)		20.53	
Conv. Total (cfs)	4840055.5	Conv. (cfs)		4840055.5	
Length Wtd. (ft)	504.21	Wetted Per. (ft)		752.13	
Min Ch El (ft)	1049.30	Shear (lb/sq ft)		1.55	
Alpha	1.00	Stream Power (lb/ft s)		17.10	
Frctn Loss (ft)	0.81	Cum Volume (acre-ft)	9621.41	34852.64	3755.70
C & E Loss (ft)	0.15	Cum SA (acres)	2210.81	3209.84	1076.34

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19534.70 LB	19695.18	2797.75	629.26	110.64	1.66	5.79	4.45
19695.18	19855.66	43961.71	3821.81	161.48	26.01	23.81	11.50
19855.66	20016.14	46943.38	3965.41	160.48	27.78	24.71	11.84
20016.14	20176.62	47159.44	3976.37	160.48	27.90	24.78	11.86
20176.62	20337.10 RB	28137.73	2906.45	159.05	16.65	18.74	9.68

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.85

INPUT

Description: 213.85

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17827.8	1078.7	17849.3	1078.5	17962.5	1078	17983.6	1077.8	18087.6	1077.7
18117.7	1077.6	18209	1077.4	18245.6	1077.6	18313.2	1077.9	18389.3	1078.8
18415.4	1078.8	18437.5	1078.2	18449	1078.3	18463.7	1078.2	18513.6	1077.6
18548.9	1077.6	18753.1	1077.6	18798.9	1077.6	18834.2	1077.6	18917.4	1077
19257.5	1075.3	19264.9	1075.1	19293.5	1075.6	19308	1069.8	19333.3	1060.1
19342.5	1063.1	19360.7	1068.8	19366.6	1068.9	19391	1069.1	19423.4	1069.4
19453.2	1068.8	19469.5	1068.4	19505	1067.4	19506.5	1067.3	19507.3	1067.3
19507.8	1067.3	19547.4	1067.3	19584.5	1067.6	19698.5	1068	19698.6	1068
19700.1	1067.8	19706.3	1067	19707.5	1066.9	19732.9	1066.7	19742.3	1067
19770.4	1067.6	19785.4	1067.6	19789.2	1066.5	19853.9	1048.1	19906.4	1048.1
20083.9	1048.2	20249.9	1048.3	20313.2	1069.1	20328.7	1074.2	20334.9	1074.2
20586	1074.1	20640.3	1074.2	20781.1	1074.5	20824.2	1074.1	20842	1073.7
20852.3	1073.7	20870.3	1073.9	20934.9	1073.8	20979.5	1074.4	21111.7	1075.1
21125.5	1075	21144.4	1074.8	21152.1	1075.1	21185.5	1076.2	21224.6	1075.6
21230.8	1075.4	21246.8	1077.2	21248.3	1077.3	21269	1076.4	21270.4	1076.3
21272.5	1076.3	21337.9	1076.3	21381.5	1076.2	21384.6	1076.3	21498.8	1077.1
21503.7	1077.1	21545.5	1077.1	21557.5	1077.1	21587	1077.2	21625.9	1077.3
21671.9	1077.5	21707.6	1077.4	21723.9	1077.4	21767.4	1077.3	21770.2	1077.3
21773.6	1077.4	21774.6	1077.4	21801.1	1079.6	21831.2	1078.8	21907.4	1079.1
21970.5	1078.8								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17827.8	.04	19785.4	.035	20328.7	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19785.4	20328.7	521	520.04	541	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17827.8	19618.33	1078	20328.7	21970.5	1078

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1071.64	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.43	Wt. n-Val.	0.040	0.035	
E.G. Elev (ft)	1075.07	Reach Len. (ft)	521.00	520.04	541.00
Crit W.S. (ft)	1065.13	Flow Area (sq ft)	691.24	11061.37	
E.G. Slope (ft/ft)	0.002237	Area (sq ft)	1950.54	11061.37	
Q Total (cfs)	169000.00	Flow (cfs)	3128.91	165871.08	
Top Width (ft)	1017.51	Top Width (ft)	482.00	535.51	
Vel Total (ft/s)	14.38	Avg. Vel. (ft/s)	4.53	15.00	
Max Chl Dpth (ft)	23.54	Hydr. Depth (ft)	4.14	20.66	
Conv. Total (cfs)	3573334.5	Conv. (cfs)	66157.6	3507176.8	
Length Wtd. (ft)	520.05	Wetted Per. (ft)	167.15	541.97	
Min Ch El (ft)	1048.10	Shear (lb/sq ft)	0.58	2.85	
Alpha	1.07	Stream Power (lb/ft s)	2.61	42.74	
Frctn Loss (ft)	0.71	Cum Volume (acre-ft)	9610.22	34700.07	3755.68
C & E Loss (ft)	0.44	Cum SA (acres)	2208.05	3202.42	1076.16

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19524.39	19654.89	608.57	140.98	36.56	0.36	3.86	4.32
19654.89	19785.40	2520.31	550.26	130.59	1.49	4.22	4.58
19785.40 LB	19894.06	24586.11	1890.45	111.38	14.55	17.40	13.01
19894.06	20002.72	41296.86	2555.08	108.66	24.44	23.51	16.16
20002.72	20111.38	41117.87	2548.41	108.66	24.33	23.45	16.13
20111.38	20220.04	40930.84	2541.47	108.66	24.22	23.39	16.11
20220.04	20328.70 RB	17939.45	1525.96	104.61	10.62	15.13	11.76

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less

than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.75

INPUT
Description: 213.75
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18435	1076	19470	1076	19600	1080	19633.4	1080.84	19633.5	1074.13
19633.6	1073.5	19636.5	1073.5	19709	1048.55	19764	1047	19769.5	1047
19834.5	1047.15	19899	1046.6	19904	1046.6	19959	1047	20034	1044.61
20039	1044.6	20104	1045	20169	1045.5	20174	1045.5	20240.5	1049.35
20302	1073.8	20305	1073.8	20305.1	1074.8	20305.2	1081.5	20340	1080
20490	1076	20925	1075	21465	1076				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18435	.037	19633.5	.032	20305.1	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19633.5	20305.1	125	115.36	120	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18435	19633.5	1074.13	20305.1	21465	1074.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1071.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.97	Wt. n-Val.		0.032	
E.G. Elev (ft)	1073.92	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1060.87	Flow Area (sq ft)		15011.57	
E.G. Slope (ft/ft)	0.000921	Area (sq ft)		15011.57	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	656.36	Top Width (ft)		656.36	
Vel Total (ft/s)	11.26	Avg. Vel. (ft/s)		11.26	
Max Chl Dpth (ft)	27.35	Hydr. Depth (ft)		22.87	
Conv. Total (cfs)	5568933.0	Conv. (cfs)		5568933.0	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		664.78	
Min Ch El (ft)	1044.60	Shear (lb/sq ft)		1.30	
Alpha	1.00	Stream Power (lb/ft s)		14.62	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	9598.55	34544.43	3755.68
C & E Loss (ft)	0.02	Cum SA (acres)	2205.16	3195.31	1076.16

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19633.50 LB	19767.82	20291.24	2220.81	130.76	12.01	17.51	9.14
19767.82	19902.14	39663.39	3356.06	134.32	23.47	24.99	11.82
19902.14	20036.46	41700.86	3458.82	134.36	24.68	25.75	12.06
20036.46	20170.78	44937.85	3617.12	134.32	26.59	26.93	12.42
20170.78	20305.10 RB	22406.64	2358.77	131.01	13.26	18.64	9.50

BRIDGE RIVER: 1
REACH: 1 RS: 213.745

INPUT
Description: 7th Street Bridge
Distance from Upstream XS = 0
Deck/Roadway Width = 115.36
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 6

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19633.5	1080.84	1074.13	19764	1084.56	1077.81	19899	1085.96	1079.23
20039	1085.95	1079.2	20174	1084.45	1077.7	20305	1081.53	1074.82

Upstream Bridge Cross Section Data
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

```
   18435    1076   19470    1076   19600    1080 19633.4 1080.84 19633.5 1074.13
 19633.6  1073.5 19636.5  1073.5   19709 1048.55   19764    1047 19769.5    1047
 19834.5 1047.15   19899  1046.6   19904  1046.6   19959    1047   20034 1044.61
   20039  1044.6   20104    1045   20169  1045.5   20174  1045.5 20240.5 1049.35
   20302  1073.8   20305  1073.8 20305.1  1074.8 20305.2  1081.5   20340    1080
   20490    1076   20925    1075   21465    1076

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   18435    .037 19633.5    .032 20305.1    .037

Bank Sta: Left   Right    Coeff Contr.   Expan.
       19633.5 20305.1             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   18435 19633.5 1074.13 20305.1   21465  1074.8

Downstream  Deck/Roadway Coordinates
    num=       6
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
 19633.5 1080.84 1074.13   19764 1084.56 1077.81   19899 1085.96 1079.23
   20039 1085.95  1079.2   20174 1084.45  1077.7   20305 1081.53 1074.82

Downstream Bridge Cross Section Data
Station Elevation Data    num=      28
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   18435    1076   19470    1076   19600    1080 19633.4 1080.84 19633.5 1074.13
 19633.6  1073.5 19636.5  1073.5   19709 1048.55   19764    1047 19769.5    1047
 19834.5 1047.15   19899  1046.6   19904  1046.6   19959    1047   20034 1044.61
   20039  1044.6   20104    1045   20169  1045.5   20174  1045.5 20240.5 1049.35
   20302  1073.8   20305  1073.8 20305.1  1074.8 20305.2  1081.5   20340    1080
   20490    1076   20925    1075   21465    1076

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   18435    .037 19633.5    .032 20305.1    .037

Bank Sta: Left   Right    Coeff Contr.   Expan.
       19633.5 20305.1             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   18435 19633.5 1074.13 20305.1   21465  1074.8

Upstream Embankment side slope              =         horiz. to 1.0 vertical
Downstream Embankment side slope            =         horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  4

Pier Data
Pier Station     Upstream= 19766.5    Downstream= 19766.5
Upstream     num=       2
    Width   Elev    Width   Elev
        5    1047       5 1077.88
Downstream     num=       2
    Width   Elev    Width   Elev
        5    1047       5 1077.88

Pier Data
Pier Station     Upstream= 19901.5    Downstream= 19901.5
Upstream     num=       2
    Width   Elev    Width   Elev
        5  1046.6       5  1079.2
Downstream     num=       2
    Width   Elev    Width   Elev
        5  1046.6       5  1079.2

Pier Data
Pier Station     Upstream= 20036.5    Downstream= 20036.5
Upstream     num=       2
    Width   Elev    Width   Elev
        5  1044.6       5  1079.2
Downstream     num=       2
```

```
    Width   Elev    Width   Elev
       5  1044.6       5  1079.2

Pier Data
Pier Station     Upstream= 20171.5    Downstream= 20171.5
Upstream     num=       2
    Width   Elev    Width   Elev
       5  1045.5       5  1077.7
Downstream     num=       2
    Width   Elev    Width   Elev
       5  1045.5       5  1077.7

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
       Momentum                Cd   =     1.2
       Yarnell                 KVal =    1.05
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the downstream end
       Criteria to check for pressure flow = Upstream water surface

CROSS SECTION          RIVER: 1
REACH: 1                  RS: 213.74

INPUT
Description: 213.74
Station Elevation Data    num=      28
     Sta     Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   18435     1076   19470    1076   19600    1080 19633.4 1080.84 19633.5 1074.13
 19633.6  1073.5 19636.5  1073.5   19709 1048.55   19764    1047 19769.5    1047
 19834.5 1047.15   19899  1046.6   19904  1046.6   19959    1047   20034 1044.61
   20039  1044.6   20104    1045   20169  1045.5   20174  1045.5 20240.5 1049.35
   20302  1073.8   20305  1073.8 20305.1  1074.8 20305.2  1081.5   20340    1080
   20490    1076   20925    1075   21465    1076

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   18435    .037 19633.5    .032 20305.1    .037

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       19633.5 20305.1              391  373.47     361             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   18435 19633.5 1074.13 20305.1   21465  1074.8

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)           1071.65   Element                    Left OB    Channel   Right OB
  Vel Head (ft)               2.02   Wt. n-Val.                            0.032
  E.G. Elev (ft)           1073.67   Reach Len. (ft)             391.00     373.47     361.00
  Crit W.S. (ft)           1060.88   Flow Area (sq ft)                   14815.19
  E.G. Slope (ft/ft)      0.000959   Area (sq ft)                        14815.19
  Q Total (cfs)          169000.00   Flow (cfs)                         169000.00
  Top Width (ft)             654.73   Top Width (ft)                        654.73
  Vel Total (ft/s)            11.41   Avg. Vel. (ft/s)                      11.41
  Max Chl Dpth (ft)           27.05   Hydr. Depth (ft)                      22.63
  Conv. Total (cfs)       5457516.0   Conv. (cfs)                        5457516.0
  Length Wtd. (ft)           373.47   Wetted Per. (ft)                      663.05
  Min Ch El (ft)           1044.60   Shear (lb/sq ft)                       1.34
  Alpha                       1.00   Stream Power (lb/ft s)                15.26
  Frctn Loss (ft)             0.52   Cum Volume (acre-ft)      9598.55   34506.58    3755.68
  C & E Loss (ft)             0.17   Cum SA (acres)            2205.16    3193.63    1076.16


Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
```

than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19633.50 LB	19767.82	20219.00	2182.94	129.84	11.96	17.33	9.26
19767.82	19902.14	39674.55	3315.82	134.32	23.48	24.69	11.97
19902.14	20036.46	41737.68	3418.58	134.36	24.70	25.45	12.21
20036.46	20170.78	45016.13	3576.89	134.32	26.64	26.63	12.59
20170.78	20305.10 RB	22352.64	2320.97	130.20	13.23	18.45	9.63

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.66

INPUT
Description: 213.66
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17026.7	1076.4	17035.9	1076.4	17047	1076.4	17057.3	1076.5	17212.3	1077.3
17306.5	1077.8	17311.3	1077.7	17325.2	1077.3	17326.2	1077.3	17343.4	1077.3
17442.9	1076.7	17474.5	1076.6	17571	1076	17573.6	1076	17595.6	1076.1
17610	1076.1	17705.1	1075	17741.5	1075.1	17947.8	1075.4	17953.1	1075.5
18038.8	1075.4	18185.8	1075.6	18234.4	1076.1	18300.9	1076.4	18318.8	1076.5
18414	1075.5	18414.6	1075.5	18415.1	1075.5	18415.7	1075.5	18448.6	1075.8
18455.1	1075.4	18472.5	1073.3	18527.9	1073.3	18683	1073	18718.7	1073
18832.1	1073.3	18873.8	1073.2	18878.4	1072.9	18881.8	1072.9	18892.6	1074.2
18901.3	1075.2	19033.1	1075.2	19131.6	1074.9	19140.9	1074.8	19157.1	1074.8
19235.1	1073.7	19291.4	1073.4	19291.9	1073.4	19292.2	1073.4	19391.8	1069.9
19418.5	1069.7	19442.4	1069.3	19496.9	1070	19532.6	1070.6	19537.6	1070.2
19543	1070.6	19572.3	1071.8	19605.3	1068.7	19616.1	1068.2	19621.3	1069.8
19633.2	1073.3	19663.1	1073.7	19675.2	1073.6	19689.7	1068.5	19748.8	1047.6
19750.4	1047.6	20010.7	1047.7	20194.9	1047.9	20235	1062.5	20260.3	1071.7
20270.2	1073.7	20288.3	1076.6	20297.7	1078.3	20387.2	1078.5	20416.3	1078.5
20457.1	1078.5	20464.9	1076.1	20469.4	1075.3	20825.5	1074.4	20828.5	1074.4
20828.8	1074.4	20830.9	1074.4	20837.2	1074.9	20839.2	1074.9	20870.3	1074.9
20871.4	1074.9	20872.6	1074.6	20872.8	1074.7	20900.8	1074.1	20901.5	1074
20908.4	1073.9	20912.4	1073.9	20915.4	1074	20927	1075.1	20951.2	1077.5
20999.4	1077.6								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17026.7	.037	19675.2	.032	20297.7	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19675.2	20297.7	490	491.08	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17026.7	19675.2	1078.5	20297.7	20999.4	1078.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1069.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.74	Wt. n-Val.		0.032	
E.G. Elev (ft)	1072.98	Reach Len. (ft)	490.00	491.08	495.00
Crit W.S. (ft)	1063.58	Flow Area (sq ft)		10895.83	
E.G. Slope (ft/ft)	0.002201	Area (sq ft)	12.00	10895.83	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	586.02	Top Width (ft)	20.04	565.98	
Vel Total (ft/s)	15.51	Avg. Vel. (ft/s)		15.51	
Max Chl Dpth (ft)	21.65	Hydr. Depth (ft)		19.25	
Conv. Total (cfs)	3602538.0	Conv. (cfs)		3602538.0	
Length Wtd. (ft)	491.08	Wetted Per. (ft)		573.46	
Min Ch El (ft)	1047.60	Shear (lb/sq ft)		2.61	
Alpha	1.00	Stream Power (lb/ft s)		40.49	
Frctn Loss (ft)	0.98	Cum Volume (acre-ft)	9598.50	34396.36	3755.68
C & E Loss (ft)	0.39	Cum SA (acres)	2205.07	3188.39	1076.16

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19675.20 LB	19799.70	23156.46	1763.99	115.84	13.70	15.73	13.13
19799.70	19924.20	44584.45	2689.84	124.50	26.38	21.61	16.58
19924.20	20048.70	44406.11	2683.37	124.50	26.28	21.55	16.55
20048.70	20173.20	44014.91	2669.17	124.50	26.04	21.44	16.49
20173.20	20297.70 RB	12838.07	1089.46	84.12	7.60	13.56	11.78

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.57

INPUT
Description: 213.57
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17508.1	1075.8	17669.7	1076	17677.2	1076	17679.4	1076	17681.9	1075.9
17685.3	1075.9	17879.1	1077.7	17883.6	1077.7	17891.2	1077.7	17899.7	1077.7
17907.2	1077.7	18293.4	1077.1	18302.2	1077.1	18305.6	1077.2	18335	1077.2
18409.4	1076.8	18482.1	1076	18487.1	1075.3	18493.2	1074.6	18496.9	1074.6
18674	1073.2	18717	1073	18743.5	1072.8	18755.4	1072.8	18802	1072.6
18832.6	1072.6	18934.4	1072.7	18941.7	1072.7	18977	1069	18979.3	1068.7
18979.7	1068.7	18981.1	1068.6	19032.8	1069.7	19078.3	1069.3	19123.5	1069
19190.3	1068.3	19211.6	1068.4	19212.3	1068.4	19245	1068.5	19287.9	1069
19318.4	1068.9	19384.7	1069.1	19398.3	1068.6	19484.5	1068.5	19514.1	1067.2
19542.6	1063.6	19548	1062.9	19575	1062.8	19586.3	1062.5	19595.5	1063.8
19603.2	1064.4	19612.3	1065.2	19617.4	1064.5	19668.9	1061.9	19672.3	1061.7
19674.3	1061.7	19711.7	1060.1	19720	1057.4	19743.1	1047.9	20035.4	1047
20123.9	1046.7	20135.8	1048.3	20147.5	1050.1	20202.7	1051.3	20261.3	1052.3
20286.6	1053	20301.2	1052.6	20302.5	1052.5	20345.5	1073.5	20347.7	1074.6
20347.8	1074.6	20348.2	1074.6	20373.8	1075.7	20384.8	1075.5	20390.6	1075.6
20426.7	1075.7	20435.9	1075.7	20452.6	1075.3	20481.8	1075.4	20485.6	1075.2
20501.3	1076.7	20634	1076	20804.5	1073.3	20853.6	1072.8	20858.1	1072.8
20865.8	1073.1	20870.9	1073	20902.9	1071.5	20922.6	1075.2	20923.6	1075.4
20925.3	1075.3	20936.8	1075.1	20950.5	1074.7	21085.5	1074.8	21211.9	1075.1
21311.2	1074.8								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17508.1	.037	19484.5	.032	20373.8	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19484.5	20373.8	650	500.37	390	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17508.1	19484.5	1077.7	20373.8	21311.2	1077.7

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1069.18	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.42	Wt. n-Val.		0.032	
E.G. Elev (ft)	1071.60	Reach Len. (ft)	650.00	500.37	390.00
Crit W.S. (ft)	1063.01	Flow Area (sq ft)		13529.99	
E.G. Slope (ft/ft)	0.001833	Area (sq ft)	186.63	13529.99	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1273.72	Top Width (ft)	421.56	852.16	
Vel Total (ft/s)	12.49	Avg. Vel. (ft/s)		12.49	
Max Chl Dpth (ft)	22.48	Hydr. Depth (ft)		15.88	
Conv. Total (cfs)	3947055.8	Conv. (cfs)		3947055.8	
Length Wtd. (ft)	500.37	Wetted Per. (ft)		859.21	
Min Ch El (ft)	1046.70	Shear (lb/sq ft)		1.80	
Alpha	1.00	Stream Power (lb/ft s)		22.51	
Frctn Loss (ft)	0.88	Cum Volume (acre-ft)	9597.38	34258.68	3755.68

C & E Loss (ft)	0.13	Cum SA (acres)	2202.59	3180.40	1076.16

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19484.50 LB	19662.36	4311.71	842.10	178.42	2.55	4.73	5.12
19662.36	19840.22	34534.63	2946.24	180.22	20.43	16.56	11.72
19840.22	20018.08	55290.48	3887.05	177.86	32.72	21.85	14.22
20018.08	20195.94	52046.40	3750.73	178.12	30.80	21.09	13.88
20195.94	20373.80 RB	22816.78	2103.88	144.60	13.50	14.95	10.85

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.47

INPUT
Description: 213.47
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17897	1072.3	17950.9	1072.3	17955.5	1073.1	17972.5	1074.8	18140.3	1074.1
18179.1	1074.1	18193.1	1074	18207.9	1073.9	18257.4	1074	18402.2	1073.7
18450.1	1073.2	18519.9	1072.6	18592.3	1071.7	18600.6	1071.6	18625.8	1071.9
18741.5	1071.7	18784.9	1071.7	18805.1	1070.7	18823.4	1069.4	18880.6	1067
18888.4	1066.7	18938.9	1066.6	18942.7	1066.6	18948.4	1066.6	18970.5	1067.2
19008	1068.2	19008.9	1068.2	19041.7	1068.5	19057.6	1068.6	19057.8	1068.6
19058.1	1068.6	19060.2	1068.6	19154.7	1068.1	19202.4	1067.9	19243.3	1067
19289	1066	19306.6	1065.6	19313.9	1065.3	19357.8	1064.8	19392.5	1064.4
19420.7	1063.8	19432.7	1063.5	19483.4	1062	19493.9	1061.7	19499.6	1061.8
19534.7	1062.6	19536.4	1062.5	19585.4	1061.2	19586.6	1061.2	19587.5	1061.2
19588.9	1061.1	19593.6	1060.6	19689.9	1051.5	19699.6	1050.5	19735.3	1047
19807.1	1046.8	19827.4	1046.8	19970.4	1046.6	19993.9	1046.3	20037.8	1046.2
20146.5	1045.8	20205.3	1048.7	20214.8	1049.3	20219.4	1049	20220.8	1048.9
20255.2	1063.1	20274.2	1072.4	20283.3	1072.6	20341.6	1072.5	20362.6	1072.6
20428.7	1074.9	20446.8	1074.9	20469.6	1074.9	20474.3	1074.9	20476.7	1075
20483.2	1074.9	20484.1	1074.9	20486.3	1074.9	20488.6	1074.7	20489.3	1074.7
20515.7	1073.2	20526.3	1073.3	20537.5	1073.5	20540.5	1073.4	20545	1073.8
20567.4	1075.2	20569.1	1075.4	20578.4	1075	20619.2	1074.5	20621.6	1074.4
20649.8	1074	20700.8	1074	20735.1	1074.2	20751.5	1074.5	20765.2	1074.8
20783.9	1075.1								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17897	.037	19243.3	.032	20274.2	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19243.3	20274.2	500	493.66	485	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17897	19243.3	1075.4	20274.2	20783.9	1075.4

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1068.59	Element			
Vel Head (ft)	2.00	Wt. n-Val.		0.032	
E.G. Elev (ft)	1070.60	Reach Len. (ft)	500.00	493.66	485.00
Crit W.S. (ft)	1061.30	Flow Area (sq ft)		14877.93	
E.G. Slope (ft/ft)	0.001697	Area (sq ft)	338.78	14877.93	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1418.72	Top Width (ft)	395.60	1023.12	
Vel Total (ft/s)	11.36	Avg. Vel. (ft/s)		11.36	
Max Chl Dpth (ft)	22.79	Hydr. Depth (ft)		14.54	
Conv. Total (cfs)	4102624.8	Conv. (cfs)		4102624.8	
Length Wtd. (ft)	493.66	Wetted Per. (ft)		1028.09	
Min Ch El (ft)	1045.80	Shear (lb/sq ft)		1.53	
Alpha	1.00	Stream Power (lb/ft s)		17.41	
Frctn Loss (ft)	0.56	Cum Volume (acre-ft)	9593.46	34095.52	3755.68
C & E Loss (ft)	0.24	Cum SA (acres)	2196.49	3169.63	1076.16

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19243.30 LB	19449.48	2866.82	737.47	206.22	1.70	3.58	3.89
19449.48	19655.66	10651.31	1621.83	206.54	6.30	7.87	6.57
19655.66	19861.84	51194.97	4160.22	206.56	30.29	20.18	12.31
19861.84	20068.02	59702.32	4558.91	206.18	35.33	22.11	13.10
20068.02	20274.20 RB	44584.59	3799.51	202.59	26.38	19.15	11.73

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.38

INPUT
Description: 213.38
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17634.6	1070.7	17652.1	1070.7	17729.5	1071.2	17747.9	1072.2	17763.8	1073.1
17893.9	1073.4	17976.4	1073.1	18006.5	1072.7	18006.7	1072.7	18008	1072.7
18197.8	1072.8	18341.3	1071.5	18390.9	1071.3	18419.4	1070.9	18420.4	1070.9
18423.8	1070.9	18431	1071	18656.8	1070.5	18735	1070.6	18756.6	1070.9
18796.6	1071.1	18974.7	1070.8	19012.6	1070.8	19073.3	1070.8	19129.4	1069.7
19192.7	1068.9	19195.5	1068.8	19196.5	1068.5	19204.6	1068.3	19213.9	1068.2
19225.5	1067.5	19242.1	1066.8	19303.8	1064.4	19303.9	1064.4	19304.2	1064.4
19346.1	1064.6	19365.3	1061.2	19365.5	1061.2	19401.7	1061	19405.7	1060.8
19411.2	1060.6	19452.9	1058.9	19499.7	1059.7	19523.7	1060.4	19526.3	1060.4
19530.8	1060.5	19534.1	1060.4	19575.5	1058.6	19625.5	1054.4	19648.5	1052.9
19678.5	1053.7	19684.4	1053.8	19732.6	1049.4	19735.1	1049.2	19761.4	1050.8
19767.8	1050.7	19771.9	1050.2	19796.5	1046.2	19864.4	1045.8	20277.6	1045.7
20311.6	1045.6	20311.7	1045.4	20329.1	1049.4	20361.7	1051.6	20363.3	1052.8
20364.3	1052.8	20374	1053.5	20405.3	1054.8	20417	1056.5	20434.2	1065
20473	1075.2	20473.5	1075.2	20515.6	1074.3	20532	1073.2	20533.3	1073
20535.9	1073	20539.6	1072.9	20569.9	1072.5	20578	1072.1	20607.5	1072.2
20652.6	1074	20655.9	1074.1	20722.7	1075.3	20793.4	1076	20804.4	1076.4
20831.2	1076.4	20834	1075.7	20842.3	1072.9	20845.3	1072.1	20848.9	1072.1
20860.3	1072.3	20875.9	1072.3	20895.1	1072.4	20963.7	1072.4	20982.3	1071.9
20996.7	1072.4								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17634.6	.037	19346.1	.032	20473	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19346.1	20473	210	290.06	395	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17634.6	19346.1	1076.4	20473	20996.7	1076.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1068.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.21	Wt. n-Val.		0.032	
E.G. Elev (ft)	1069.80	Reach Len. (ft)	210.00	290.06	395.00
Crit W.S. (ft)	1059.33	Flow Area (sq ft)		19129.90	
E.G. Slope (ft/ft)	0.000810	Area (sq ft)	394.36	19129.90	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1251.64	Top Width (ft)	149.89	1101.75	
Vel Total (ft/s)	8.83	Avg. Vel. (ft/s)		8.83	
Max Chl Dpth (ft)	23.19	Hydr. Depth (ft)		17.36	
Conv. Total (cfs)	5938642.0	Conv. (cfs)		5938642.0	

Length Wtd. (ft)	290.06	Wetted Per. (ft)		1106.67	
Min Ch El (ft)	1045.40	Shear (lb/sq ft)		0.87	
Alpha	1.00	Stream Power (lb/ft s)		7.72	
Frctn Loss (ft)	0.20	Cum Volume (acre-ft)	9589.26	33902.81	3755.68
C & E Loss (ft)	0.08	Cum SA (acres)	2193.36	3157.59	1076.16

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19346.10 LB	19571.48	9711.92	1885.13	225.78	5.75	8.36	5.15
19571.48	19796.86	28349.89	3587.87	226.23	16.78	15.92	7.90
19796.86	20022.24	51498.73	5125.44	225.38	30.47	22.74	10.05
20022.24	20247.62	51921.05	5150.59	225.38	30.72	22.85	10.08
20247.62	20473.00 RB	27518.42	3380.87	203.90	16.28	16.89	8.14

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.33

INPUT
Description: 213.33
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17662.6	1072.6	17668	1072.6	17677	1072.6	17679.2	1072.7	17685.5	1072.7
17890.3	1072	17891.3	1072	17919.8	1071.9	18055.2	1071.9	18114.9	1071.9
18241.8	1071.2	18279.3	1070.9	18302.9	1070.9	18305.8	1070.8	18316.6	1070.7
18337.3	1070.5	18464.8	1070.6	18565.2	1070.8	18644.2	1071	18654.1	1071
18680.7	1070.7	18888.5	1070	18954.5	1069.6	19002.1	1069.7	19091.3	1069
19104.2	1069	19104.4	1069	19107.7	1069	19109.5	1068.5	19112.3	1067.7
19112.4	1067.7	19123.4	1067.3	19136.1	1067.1	19144.4	1069.1	19147.5	1069.9
19163.9	1070.3	19173.4	1070.7	19184.4	1069.5	19203.3	1068.1	19209.7	1067.1
19222.7	1066	19244.2	1064.1	19272.3	1063	19328.9	1063.5	19336.9	1063.4
19344.3	1063.4	19367.2	1062.3	19389	1062	19396.3	1061.9	19416.7	1061.3
19418.1	1060.9	19453.8	1059.7	19472.5	1059.2	19476.7	1057.5	19530.4	1058.7
19538.8	1058.7	19541	1058.6	19590	1056.9	19629.4	1054.2	19644.5	1053.7
19671.3	1051.4	19710.3	1047.2	19715.9	1046.8	19755.6	1046.4	19757.3	1046.3
19759.3	1046.3	19761.3	1046.3	19780.3	1046.2	20358.7	1045.4	20444.8	1048.7
20449.3	1048.9	20508	1066.2	20514.9	1068.7	20553.2	1069.1	20640.2	1069.7
20662.5	1069.4	20704	1068.4	20729.7	1068.7	20782.7	1069.1	20784.7	1069.2
20789.1	1069.5	20821.1	1071.4	20854.7	1073	20856.9	1073.1	20859.1	1073.1
20896	1072.7	20902.1	1072.7	20919.8	1072.5	20932.4	1072.6	20967.3	1072.5
21012.3	1072.8	21051.5	1073	21059.7	1073	21066	1073.1	21092.4	1073
21244.4	1073.1								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17662.6	.037	19328.9	.032	20514.9	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19328.9	20514.9	266	316.41	426	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17662.6	19328.9	1073.1	20640.2	21244.4	1073.1

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1068.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.96	Wt. n-Val.		0.032	
E.G. Elev (ft)	1069.52	Reach Len. (ft)	266.00	316.41	426.00
Crit W.S. (ft)	1057.67	Flow Area (sq ft)		21471.41	
E.G. Slope (ft/ft)	0.000607	Area (sq ft)	585.39	21471.41	1.65
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1370.78	Top Width (ft)	164.70	1185.62	20.46
Vel Total (ft/s)	7.87	Avg. Vel. (ft/s)		7.87	
Max Chl Dpth (ft)	23.16	Hydr. Depth (ft)		18.11	
Conv. Total (cfs)	6860576.0	Conv. (cfs)		6860576.0	
Length Wtd. (ft)	316.41	Wetted Per. (ft)		1189.54	
Min Ch El (ft)	1045.40	Shear (lb/sq ft)		0.68	
Alpha	1.00	Stream Power (lb/ft s)		5.38	
Frctn Loss (ft)	0.19	Cum Volume (acre-ft)	9586.89	33767.63	3755.67
C & E Loss (ft)	0.02	Cum SA (acres)	2192.60	3149.97	1076.07

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19328.90 LB	19566.10	8916.01	1985.83	237.68	5.28	8.37	4.49
19566.10	19803.30	31571.05	4240.29	237.66	18.68	17.88	7.45
19803.30	20040.50	46577.47	5350.46	237.20	27.56	22.56	8.71
20040.50	20277.70	47712.14	5428.31	237.20	28.23	22.88	8.79
20277.70	20514.90 RB	34223.32	4466.52	239.79	20.25	18.86	7.66

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.26

INPUT
Description: 213.26
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17300	1071.7	17670	1072	17850	1073.6	18250	1075.5	19180	1078.2
19488.1	1078.1	19488.2	1072.97	19495.2	1069.2	19517.2	1057.5	19564.2	1055.45
19584.2	1051.3	19586.9	1051	19589.4	1051	19638.2	1048.1	19686.9	1047.3
19689.4	1047.3	19704.2	1047.2	19743.2	1042.2	19786.9	1042.15	19789.4	1042.2
19838.2	1042.8	19871.7	1042.9	19886.9	1043.85	19889.4	1043.8	19938.2	1044.1
19986.9	1042.7	19989.4	1042.7	20038.2	1042.3	20086.9	1042.85	20089.4	1042.8
20121.7	1043.3	20171.2	1041.05	20188.2	1040.9	20189.4	1040.9	20223.2	1040.4
20248.7	1042.2	20286.9	1043.4	20289.4	1043.4	20307.7	1044.35	20382.7	1069.6
20387.9	1070.4	20387.9	1072.9	20388	1078.19	20790	1078.3	21330	1075.5

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17300	.037	19488.2	.032	20387.9	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19488.2	20387.9	155	151.22	155	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17300	19488.2	1072.97	20387.9	21330	1070.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1068.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.17	Wt. n-Val.		0.032	
E.G. Elev (ft)	1069.32	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1055.56	Flow Area (sq ft)		19486.07	
E.G. Slope (ft/ft)	0.000569	Area (sq ft)		19486.07	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	881.21	Top Width (ft)		881.21	
Vel Total (ft/s)	8.67	Avg. Vel. (ft/s)		8.67	
Max Chl Dpth (ft)	27.75	Hydr. Depth (ft)		22.11	
Conv. Total (cfs)	7087382.5	Conv. (cfs)		7087382.5	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		888.89	
Min Ch El (ft)	1040.40	Shear (lb/sq ft)		0.78	
Alpha	1.00	Stream Power (lb/ft s)		6.75	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	9585.11	33618.88	3755.66
C & E Loss (ft)	0.01	Cum SA (acres)	2192.10	3142.47	1075.97

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19488.20 LB	19668.14	16606.42	2554.70	174.20	9.83	14.94	6.50
19668.14	19848.08	39652.89	4366.08	180.27	23.46	24.26	9.08
19848.08	20028.02	41330.27	4473.24	179.99	24.46	24.86	9.24
20028.02	20207.96	44414.86	4670.77	180.00	26.28	25.96	9.51
20207.96	20387.90 RB	26995.57	3421.28	174.43	15.97	20.07	7.89

BRIDGE RIVER: 1
REACH: 1 RS: 213.255

INPUT
Description: Central Avenue Bridge
Distance from Upstream XS = 0
Deck/Roadway Width = 151.22

Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 10

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19488.2	1078.14	1072.97	19586.9	1078.5	1073.28	19686.9	1078.86	1073.64
19786.9	1079.15	1073.93	19886.9	1079.37	1074.2	19989.4	1079.38	1074.2
20086.9	1079.13	1073.93	20188.2	1078.89	1073.7	20286.9	1078.53	1073.32
20387.9	1078.19	1072.98						

Upstream Bridge Cross Section Data
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17300	1071.7	17670	1072	17850	1073.6	18250	1075.5	19180	1078.2
19488.1	1078.1	19488.2	1072.97	19495.2	1069.2	19517.2	1057.5	19564.2	1055.45
19584.2	1051.3	19586.9	1051	19589.4	1051	19638.2	1048.1	19686.9	1047.3
19689.4	1047.3	19704.2	1047.2	19743.2	1042.2	19786.9	1042.15	19789.4	1042.2
19838.2	1042.8	19871.7	1042.9	19886.9	1043.85	19889.4	1043.8	19938.2	1044.1
19986.9	1042.7	19989.4	1042.7	20038.2	1042.3	20086.9	1042.85	20089.4	1042.8
20121.7	1043.3	20171.2	1041.05	20188.2	1040.9	20189.4	1040.9	20223.2	1040.4
20248.7	1042.2	20286.9	1043.4	20289.4	1043.4	20307.7	1044.35	20382.7	1069.6
20387.9	1070.4	20387.9	1072.9	20388	1078.19	20790	1078.3	21330	1075.5

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17300	.037	19488.2	.032	20387.9	.037

Bank Sta: Left	Right	Coeff Contr.	Expan.
19488.2	20387.9	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17300	19488.2	1072.97	20387.9	21330	1070.4

Downstream Deck/Roadway Coordinates
num= 10

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19488.2	1078.14	1072.97	19586.9	1078.5	1073.28	19686.9	1078.86	1073.64
19786.9	1079.15	1073.93	19886.9	1079.37	1074.2	19989.4	1079.38	1074.2
20086.9	1079.13	1073.93	20188.2	1078.89	1073.7	20286.9	1078.53	1073.32
20387.9	1078.19	1072.98						

Downstream Bridge Cross Section Data
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17300	1071.7	17670	1072	17850	1073.6	18250	1075.5	19180	1078.2
19488.1	1078.1	19488.2	1072.97	19495.2	1069.2	19517.2	1057.5	19564.2	1055.45
19584.2	1051.3	19586.9	1051	19589.4	1051	19638.2	1048.1	19686.9	1047.3
19689.4	1047.3	19704.2	1047.2	19743.2	1042.2	19786.9	1042.15	19789.4	1042.2
19838.2	1042.8	19871.7	1042.9	19886.9	1043.85	19889.4	1043.8	19938.2	1044.1
19986.9	1042.7	19989.4	1042.7	20038.2	1042.3	20086.9	1042.85	20089.4	1042.8
20121.7	1043.3	20171.2	1041.05	20188.2	1040.9	20189.4	1040.9	20223.2	1040.4
20248.7	1042.2	20286.9	1043.4	20289.4	1043.4	20307.7	1044.35	20382.7	1069.6
20387.9	1070.4	20387.9	1072.9	20388	1078.19	20790	1078.3	21330	1075.5

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17300	.037	19488.2	.032	20387.9	.037

Bank Sta: Left	Right	Coeff Contr.	Expan.
19488.2	20387.9	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17300	19488.2	1072.97	20387.9	21330	1070.4

Upstream Embankment side slope = horiz. to 1.0 vertical
Downstream Embankment side slope = horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins =
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Piers = 8

Pier Data
Pier Station Upstream=19588.15 Downstream=19588.15
Upstream num= 2

```
    Width   Elev    Width   Elev
     2.5    1051     2.5 1073.28
Downstream     num=       2
    Width   Elev    Width   Elev
     2.5    1051     2.5 1073.28

Pier Data
Pier Station     Upstream=19688.15    Downstream=19688.15
Upstream     num=       2
    Width   Elev    Width   Elev
     2.5  1047.3     2.5  1073.7
Downstream     num=       2
    Width   Elev    Width   Elev
     2.5  1047.3     2.5  1073.7

Pier Data
Pier Station     Upstream=19788.15    Downstream=19788.15
Upstream     num=       2
    Width   Elev    Width   Elev
     2.5 1042.15     2.5  1073.9
Downstream     num=       2
    Width   Elev    Width   Elev
     2.5 1042.15     2.5  1073.9

Pier Data
Pier Station     Upstream=19888.15    Downstream=19888.15
Upstream     num=       2
    Width   Elev    Width   Elev
     2.5  1043.8     2.5  1074.2
Downstream     num=       2
    Width   Elev    Width   Elev
     2.5  1043.8     2.5  1074.2

Pier Data
Pier Station     Upstream=19988.15    Downstream=19988.15
Upstream     num=       2
    Width   Elev    Width   Elev
     2.5  1042.7     2.5  1074.2
Downstream     num=       2
    Width   Elev    Width   Elev
     2.5  1042.7     2.5  1074.2

Pier Data
Pier Station     Upstream=20088.15    Downstream=20088.15
Upstream     num=       2
    Width   Elev    Width   Elev
     2.5  1042.8     2.5  1073.9
Downstream     num=       2
    Width   Elev    Width   Elev
     2.5  1042.8     2.5  1073.9

Pier Data
Pier Station     Upstream=20189.45    Downstream=20189.45
Upstream     num=       2
    Width   Elev    Width   Elev
     2.5  1040.9     2.5  1073.7
Downstream     num=       2
    Width   Elev    Width   Elev
     2.5  1040.9     2.5  1073.7

Pier Data
Pier Station     Upstream=20288.15    Downstream=20288.15
Upstream     num=       2
    Width   Elev    Width   Elev
     2.5  1043.4     2.5  1073.3
Downstream     num=       2
    Width   Elev    Width   Elev
     2.5  1043.4     2.5  1073.3

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
       Momentum                Cd   =     1.2
       Yarnell                 KVal =    1.05
Selected Low Flow Methods = Highest Energy Answer
```

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Add Weight component to Momentum
Class B flow critical depth computations use critical depth inside the bridge at the downstream end
Criteria to check for pressure flow = Upstream water surface

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.25

INPUT
Description: 213.25
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17300	1071.7	17670	1072	17850	1073.6	18250	1075.5	19180	1078.2
19488.1	1078.1	19488.2	1072.97	19495.2	1069.2	19517.2	1057.5	19564.2	1055.45
19584.2	1051.3	19586.9	1051	19589.4	1051	19638.2	1048.1	19686.9	1047.3
19689.4	1047.3	19704.2	1047.2	19743.2	1042.2	19786.9	1042.15	19789.4	1042.2
19838.2	1042.8	19871.7	1042.9	19886.9	1043.85	19889.4	1043.8	19938.2	1044.1
19986.9	1042.7	19989.4	1042.7	20038.2	1042.3	20086.9	1042.85	20089.4	1042.8
20121.7	1043.3	20171.2	1041.05	20188.2	1040.9	20189.4	1040.9	20223.2	1040.4
20248.7	1042.2	20286.9	1043.4	20289.4	1043.4	20307.7	1044.35	20382.7	1069.6
20387.9	1070.4	20387.9	1072.9	20388	1078.19	20790	1078.3	21330	1075.5

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17300	.037	19488.2	.032	20387.9	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19488.2	20387.9	121	123.36	121	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17300	19488.2	1072.97	20387.9	21330	1070.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1067.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.19	Wt. n-Val.		0.032	
E.G. Elev (ft)	1069.14	Reach Len. (ft)	121.00	123.36	121.00
Crit W.S. (ft)	1055.57	Flow Area (sq ft)		19309.64	
E.G. Slope (ft/ft)	0.000585	Area (sq ft)		19309.64	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	880.24	Top Width (ft)		880.24	
Vel Total (ft/s)	8.75	Avg. Vel. (ft/s)		8.75	
Max Chl Dpth (ft)	27.55	Hydr. Depth (ft)		21.94	
Conv. Total (cfs)	6986288.0	Conv. (cfs)		6986288.0	
Length Wtd. (ft)	123.36	Wetted Per. (ft)		887.84	
Min Ch El (ft)	1040.40	Shear (lb/sq ft)		0.79	
Alpha	1.00	Stream Power (lb/ft s)		6.95	
Frctn Loss (ft)	0.07	Cum Volume (acre-ft)	9585.11	33553.37	3755.66
C & E Loss (ft)	0.05	Cum SA (acres)	2192.10	3139.48	1075.97

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19488.20 LB	19668.14	16497.59	2520.49	173.77	9.76	14.78	6.55
19668.14	19848.08	39670.40	4330.04	180.27	23.47	24.06	9.16
19848.08	20028.02	41362.28	4437.19	179.99	24.47	24.66	9.32
20028.02	20207.96	44474.70	4634.73	180.00	26.32	25.76	9.60
20207.96	20387.90 RB	26995.03	3387.20	173.81	15.97	19.94	7.97

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.21

INPUT
Description: 213.21

Right Channel Bank Station Interpolated
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18330.9	1072.8	18364	1072.8	18412.8	1073.1	18447.9	1073	18475.1	1072.3

18506.2	1072	18530.5	1071.1	18588.6	1070	18604.7	1069.8	18607.3	1070
18638.6	1069.9	18645.2	1070	18646.8	1070	18647	1070	18648.3	1070
18679.6	1070.4	18691	1070.2	18696.8	1070.3	18826.1	1070.2	18853.1	1069.7
18879.8	1069.1	18990	1068.8	19004.3	1068.6	19030.8	1069	19071.8	1069.5
19171.4	1069.4	19189.5	1069.4	19238.8	1069.2	19251.2	1070	19253.8	1070
19283.8	1069	19284.7	1069	19384	1068.2	19385.3	1068.1	19387.8	1068.1
19391.2	1068.1	19421.7	1067.9	19486.6	1066.6	19490.3	1065.6	19518.8	1054.9
19533.4	1049	19535.9	1049.5	19545.6	1052	19551.4	1054.2	19576.8	1051.8
19595.9	1047.4	19611.2	1046.8	19618.6	1046.7	19619.1	1046.6	19626.3	1045.5
19627	1045.3	19697	1045.2	19802.7	1045.1	20377.2	1044.9	20380.6	1045
20387.2	1045.1	20389.8	1045.1	20418.5	1045.3	20484.9	1046.3	20500.9	1046.4
20506.4	1046.3	20545.8	1046.4	20547	1046.4	20573.1	1046	20581	1046
20584	1054.4	20584.6	1058.9	20634.9	1062.9	20654.9	1064.2	20663	1064.8
20687	1065.1	20732.3	1064.9	20749.5	1065.1	20761.2	1066	20787.8	1066.2
20803.3	1066.3	20840	1066.3	20853.8	1066.3	20900.8	1066.8	20929.7	1067.2
20948.4	1067.8	20957.7	1070.3	20963.6	1072.1	20965.8	1071.9	20972.5	1072.2
20980.1	1072.5	21025.3	1072.2	21041.7	1072.4	21049	1072.4	21083	1072.6
21094.6	1072.7	21137.7	1072.7	21224.3	1073.6	21258.5	1074.2	21274.1	1074.3
21278.4	1074.5								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18330.9	.037	19490.3	.032	20418.5	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19490.3	20418.5	450	531.57	745	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18330.9	19253.8	1074	20418.5	21278.4	1074

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1067.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.04	Wt. n-Val.	0.037	0.032	
E.G. Elev (ft)	1069.02	Reach Len. (ft)	450.00	531.57	745.00
Crit W.S. (ft)	1055.85	Flow Area (sq ft)	55.42	20303.01	
E.G. Slope (ft/ft)	0.000510	Area (sq ft)	55.42	20303.01	4648.56
Q Total (cfs)	166000.00	Flow (cfs)	38.68	165961.31	
Top Width (ft)	1540.71	Top Width (ft)	81.92	928.20	530.60
Vel Total (ft/s)	8.15	Avg. Vel. (ft/s)	0.70	8.17	
Max Chl Dpth (ft)	23.09	Hydr. Depth (ft)	0.68	21.87	
Conv. Total (cfs)	7351092.5	Conv. (cfs)	1713.1	7349379.5	
Length Wtd. (ft)	531.56	Wetted Per. (ft)	82.06	932.81	
Min Ch El (ft)	1044.90	Shear (lb/sq ft)	0.02	0.69	
Alpha	1.00	Stream Power (lb/ft s)	0.02	5.66	
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	9585.03	33497.28	3749.21
C & E Loss (ft)	0.04	Cum SA (acres)	2191.99	3136.92	1075.23

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19335.71	19413.01	0.00	0.07	4.62	0.00	0.02	0.05
19413.01	19490.30	38.68	55.35	77.44	0.02	0.72	0.70
19490.30 LB	19675.94	22573.79	3260.12	190.25	13.60	17.56	6.92
19675.94	19861.58	35580.25	4241.67	185.64	21.43	22.85	8.39
19861.58	20047.22	35817.27	4258.62	185.64	21.58	22.94	8.41
20047.22	20232.86	35985.09	4270.56	185.64	21.68	23.00	8.43
20232.86	20418.50 RB	36004.91	4272.02	185.64	21.69	23.01	8.43

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.11

INPUT
Description: 213.11
Station Elevation Data num= 85

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17566.5	1070.1	17705.4	1071.3	17742.2	1071.6	17814.3	1070.1	17888.9	1069.6
17929.2	1069.8	17996.1	1072.7	18084.9	1073.4	18245.7	1073.1	18304.6	1073.3
18312.5	1071.8	18319.5	1069.3	18320.2	1069.1	18324.7	1069.1	18353.4	1069.6
18382.1	1068.8	18390	1068.3	18395.2	1069.2	18399.3	1071.7	18472.2	1071.2
18480.8	1071.2	18492.7	1070.4	18507.8	1070	18517.1	1069.2	18520.7	1069.6
18584	1071.9	18596.8	1072.2	18606	1072.4	18609.2	1072.4	18753.6	1072
18759.6	1071.8	18769.2	1073.7	18780.8	1075.5	18785.7	1075	18793.4	1074.4
18863.8	1073.8	18931.9	1074.1	18960.3	1074.3	18976.4	1074.4	19015.9	1075

19047.7	1075	19171.5	1072.4	19275.4	1071	19456	1071.1	19523.2	1069.3
19575	1067.9	19589.1	1068.3	19601.9	1071.4	19606.1	1072.1	19616.1	1067.5
19661.3	1047.6	20012.6	1047.6	20486.9	1047.9	20586.5	1081.1	20599.1	1086
20638.9	1086.2	20743.9	1086.8	20798.9	1087.3	20849	1087.5	20878.6	1087.6
20889.5	1087.8	20899.2	1087.8	20922	1087.5	21000.4	1087.3	21062.3	1085.9
21080.5	1084.4	21100.6	1083.3	21131.5	1083	21372.7	1078.3	21390.1	1077.6
21449.7	1073.9	21464.1	1073.6	21478.8	1073.9	21484.8	1073.8	21573.7	1073.9
21602.4	1073.9	21694.6	1073.6	21800.6	1072.4	21943.2	1070.8	22180.4	1070.9
22217.7	1071	22268.3	1071.4	22474.2	1073.6	22486.2	1076.3	22488.2	1077

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17566.5	.037	19606.1	.032	20599.1	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19606.1	20599.1	425	459.38	565	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17566.5	18780.8	1087.8	20599.1	22488.2	1087.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1067.16	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.47	Wt. n-Val.		0.032	
E.G. Elev (ft)	1068.63	Reach Len. (ft)	425.00	459.38	565.00
Crit W.S. (ft)	1058.35	Flow Area (sq ft)		17065.84	
E.G. Slope (ft/ft)	0.000913	Area (sq ft)		17065.84	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	927.79	Top Width (ft)		927.79	
Vel Total (ft/s)	9.73	Avg. Vel. (ft/s)		9.73	
Max Chl Dpth (ft)	19.56	Hydr. Depth (ft)		18.39	
Conv. Total (cfs)	5493387.0	Conv. (cfs)		5493387.0	
Length Wtd. (ft)	459.38	Wetted Per. (ft)		935.03	
Min Ch El (ft)	1047.60	Shear (lb/sq ft)		1.04	
Alpha	1.00	Stream Power (lb/ft s)		10.12	
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	9584.74	33269.27	3709.45
C & E Loss (ft)	0.01	Cum SA (acres)	2191.56	3125.59	1070.70

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19606.10 LB	19804.70	29752.72	3238.85	191.93	17.92	17.24	9.19
19804.70	20003.30	39366.91	3884.04	198.60	23.72	19.56	10.14
20003.30	20201.90	39176.02	3872.74	198.60	23.60	19.50	10.12
20201.90	20400.50	38756.36	3847.78	198.60	23.35	19.37	10.07
20400.50	20599.10 RB	18948.00	2222.43	147.30	11.41	15.42	8.53

CROSS SECTION RIVER: 1
REACH: 1 RS: 213.03

INPUT
Description: 213.03
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16056.5	1068.9	16069.1	1068.8	16071.5	1068.8	16197.1	1069.2	16383.9	1070
16409	1070	16413.8	1070	16414.4	1070	16428.8	1070	16501.9	1070.2
16550	1070.3	16603.1	1070.5	16734.3	1069.9	16759	1069.9	16800.6	1069.5
16821.1	1069.8	16943.1	1070.1	16956.6	1070.5	16985.9	1070.6	17193.9	1070.8
17238.8	1069.8	17263.2	1069.3	17296.6	1068.7	17461.4	1069.1	17486.5	1069.2
17576.5	1069.4	17728.6	1070.6	17908.4	1072	17938.3	1071.6	17974.7	1070.1
17987.3	1069.9	18028.7	1068.5	18086.7	1069.1	18107.5	1068.9	18113.8	1068.9
18246.2	1068.5	18370.2	1068.2	18382.5	1068.2	18389	1068.3	18394.9	1068.3
18496	1070.4	18502.4	1070.5	18521.4	1070.6	18643.8	1071	18700.9	1071.3
18708.1	1071.2	18723.6	1071.3	18831.5	1070.9	18846.4	1070.8	18847.1	1070.8
18848.3	1070.8	18969.8	1071.4	19007.8	1071.8	19178.9	1073.7	19181.7	1073.7
19324.1	1073.1	19588.8	1066.9	19627.1	1066	19640.5	1066.2	19662.1	1067.2
19666.3	1067.8	19672.1	1066.574	19703.2	1060	19755.3	1050.7	19776.1	1048.9
19807.6	1047.8	19807.9	1047.8	19808.6	1047.8	19883.7	1046.8	19936.5	1046.7
19974.6	1046.7	20168.5	1046.8	20481.5	1047.5	20531.6	1047.5	20536.3	1047.6
20551.1	1052.6	20591.83	1066.575	20595.4	1067.8	20639.6	1083	20645.8	1085
20668.5	1085.5	20744.1	1085.4	20806.7	1086.1	20879.4	1082	20936.8	1078.5
20990.3	1075.5	21125.9	1073.2	21137.8	1072.9	21183.6	1072.1	21221	1072
21240.8	1071.7	21303.4	1071.3	21328.8	1071.1	21394.9	1071.7	21406.3	1071.8
21439	1071.7	21481.2	1071.9						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
16056.5	.037	19672.1	.03	22059	1.83 .037

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

19672.1	20591.83	475	495	525	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16056.5	19178.9	1086.1	20645.8	21481.2	1086.1

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1066.57	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.60	Wt. n-Val.	0.037	0.032	
E.G. Elev (ft)	1068.17	Reach Len. (ft)	475.00	495.00	525.00
Crit W.S. (ft)	1058.28	Flow Area (sq ft)	14.82	16375.94	
E.G. Slope (ft/ft)	0.001032	Area (sq ft)	14.82	16375.94	
Q Total (cfs)	166000.00	Flow (cfs)	9.00	165991.00	
Top Width (ft)	965.54	Top Width (ft)	45.83	919.72	
Vel Total (ft/s)	10.13	Avg. Vel. (ft/s)	0.61	10.14	
Max Chl Dpth (ft)	19.87	Hydr. Depth (ft)	0.32	17.81	
Conv. Total (cfs)	5167475.5	Conv. (cfs)	280.2	5167195.5	
Length Wtd. (ft)	495.00	Wetted Per. (ft)	45.84	924.49	
Min Ch El (ft)	1046.70	Shear (lb/sq ft)	0.02	1.14	
Alpha	1.00	Stream Power (lb/ft s)	0.01	11.57	
Frctn Loss (ft)	0.57	Cum Volume (acre-ft)	9584.67	33092.94	3709.45
C & E Loss (ft)	0.05	Cum SA (acres)	2191.34	3115.85	1070.70

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19431.06	19672.10	9.00	14.82	45.84	0.01	0.32	0.61
19672.10 LB	19856.04	21360.18	2534.22	185.55	12.87	13.78	8.43
19856.04	20039.99	39354.45	3643.94	183.95	23.71	19.81	10.80
20039.99	20223.94	39246.75	3637.92	183.95	23.64	19.78	10.79
20223.94	20407.88	38148.29	3576.50	183.95	22.98	19.44	10.67
20407.88	20591.83 RB	27881.34	2983.36	187.09	16.80	16.22	9.35

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.93

INPUT
Description: 212.93

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 93

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18913.7	1067.5	18940.6	1066.4	18961.6	1067.4	18996.4	1069.5	19034.7	1069.3
19121.7	1070.2	19158.8	1070.2	19269.6	1071.2	19362.4	1070.3	19381.3	1070.6
19412.2	1072.5	19420.1	1072.9	19430.8	1073.3	19436.5	1073.5	19633.3	1068.7
19645	1068.3	19645.7	1068.4	19645.9	1068.4	19653.4	1069	19673.1	1070.5
19690.76	1065.485	19697.4	1063.6	19757.3	1046.7	19779.3	1046.4	19826.6	1046.3
19850.5	1046.5	19924.2	1047.4	19928.9	1047.5	19929.5	1047.4	19958.7	1045.5
20129.7	1045.4	20271.7	1045.6	20345.4	1045.6	20426.9	1045.5	20489.75	1065.484
20489.8	1065.5	20498.7	1068.1	20501.4	1068	20587.1	1066.5	20637	1066.5
20655.9	1066.4	20685.9	1065.7	20749.1	1064.9	20804.3	1071.3	20847	1074.9
20872.4	1075.1	20941	1074.1	20990.9	1073	21005.7	1072.8	21075.3	1071.3
21079.7	1071.2	21083	1071.2	21113	1071.3	21246.3	1072.7	21249.5	1072.8
21261.8	1072.9	21268.5	1072.9	21332.8	1073.1	21571.4	1072.7	21590.1	1072.7
21815.9	1071.3	21853.1	1071.3	21982.5	1070.6	22017.6	1070.5	22314.9	1070
22499	1068.8	22548.8	1068.9	22568.2	1068.4	22648.5	1068.9	22948.3	1069.7
23054.9	1071.1	23121.6	1072	23140.9	1076.4	23143.5	1077.2	23151.2	1077.1
23159.2	1077	23162.2	1077.3	23171	1077.8	23179.9	1081.1	23202.7	1089.6
23248.6	1089.5	23303.8	1089.6	23327.8	1082.2	23331.1	1081	23333.2	1080.6
23345.9	1077.9	23350.9	1077.9	23361.3	1078.1	23377.6	1073.6	23386.3	1070.8
23389.2	1071	23392	1071.2	23394	1070.7				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val

18913.7 .03719690.76 .03220489.75 .037

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
19690.7620489.75 495 501.9 535 .1 .3
Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18913.7	19673.1	1078	20498.7	23394	1078

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1065.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.06	Wt. n-Val.		0.032	
E.G. Elev (ft)	1067.55	Reach Len. (ft)	495.00	501.90	535.00
Crit W.S. (ft)	1057.98	Flow Area (sq ft)		14401.40	
E.G. Slope (ft/ft)	0.001316	Area (sq ft)		14401.40	14.91
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	850.10	Top Width (ft)		798.98	51.12
Vel Total (ft/s)	11.53	Avg. Vel. (ft/s)		11.53	
Max Chl Dpth (ft)	20.08	Hydr. Depth (ft)		18.02	
Conv. Total (cfs)	4575176.0	Conv. (cfs)		4575176.0	
Length Wtd. (ft)	501.90	Wetted Per. (ft)		804.76	
Min Ch El (ft)	1045.40	Shear (lb/sq ft)		1.47	
Alpha	1.00	Stream Power (lb/ft s)		16.95	
Frctn Loss (ft)	0.79	Cum Volume (acre-ft)	9584.59	32918.07	3709.36
C & E Loss (ft)	0.10	Cum SA (acres)	2191.09	3106.09	1070.39

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19690.76 LB	19850.56	24210.29	2403.96	162.40	14.58	15.04	10.07
19850.56	20010.36	36360.27	3049.18	159.87	21.90	19.08	11.92
20010.36	20170.15	39500.86	3203.98	159.80	23.80	20.05	12.33
20170.15	20329.95	39103.07	3184.57	159.80	23.56	19.93	12.28
20329.95	20489.75 RB	26825.52	2559.71	162.90	16.16	16.02	10.48

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.84

INPUT
Description: 212.84

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16284.9	1068.4	16487.1	1068.9	16606	1069.3	16985	1071.2	17015.9	1071.4
17038.7	1071.8	17089.2	1071.1	17339.8	1070.2	17519.4	1069.1	17554.9	1069.1
17652.7	1069	17900.6	1068.7	18109.2	1068.8	18133.9	1069	19053.9	1067.7
19203.8	1066	19229.6	1065.8	19232.1	1065.8	19238.5	1065.7	19242.2	1065.7
19244.8	1065.8	19286.8	1067.4	19292.2	1069.2	19450.5	1067.9	19498.7	1067.5
19560.8	1067	19586	1066.9	19671.4	1066.8	19692.2	1068.3	19695.5	1068.9
19711.5	1063.544	19765.4	1045.5	19772.2	1043.1	19790.5	1043.1	19811.3	1043.2
20298.7	1043.5	20314.2	1050.2	20347.25	1063.544	20367.7	1071.8	20367.9	1071.8
20405.2	1072.8	20416.8	1072.7	20424.4	1072.7	20490.9	1070.9	20522.9	1069.8
20629.8	1070.1	20679.7	1070.1	20767.5	1070.4	20793.1	1070.2	20818.2	1069.1
20874.5	1068.7	20940.7	1070.4	20979.1	1070.3	21186.4	1069.3	21242.6	1069.1
21449.2	1070.2	21488.8	1070.8	21502.4	1071	21582.5	1070.9	21684.9	1071.4
21805.3	1070.7	21883.6	1070.5	21943.6	1070.2	22187.5	1070.4	22226.7	1070.2
22398.2	1069.8								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
16284.9	.037	19711.5	.03	20347.25	.037

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
19711.520347.25 565 538.19 480 .1 .3
Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16284.9	19695.5	1072.8	20367.7	22398.2	1072.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1063.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.11	Wt. n-Val.		0.032	
E.G. Elev (ft)	1066.65	Reach Len. (ft)	565.00	538.19	480.00
Crit W.S. (ft)	1057.53	Flow Area (sq ft)		11736.64	
E.G. Slope (ft/ft)	0.001931	Area (sq ft)		11736.64	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	635.75	Top Width (ft)		635.75	
Vel Total (ft/s)	14.14	Avg. Vel. (ft/s)		14.14	
Max Chl Dpth (ft)	20.44	Hydr. Depth (ft)		18.46	
Conv. Total (cfs)	3777840.8	Conv. (cfs)		3777840.8	
Length Wtd. (ft)	538.19	Wetted Per. (ft)		643.08	
Min Ch El (ft)	1043.10	Shear (lb/sq ft)		2.20	
Alpha	1.00	Stream Power (lb/ft s)		31.11	
Frctn Loss (ft)	0.90	Cum Volume (acre-ft)	9584.59	32767.49	3709.27
C & E Loss (ft)	0.18	Cum SA (acres)	2191.09	3097.82	1070.07

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19711.50 LB	19838.65	24353.42	1971.53	130.50	14.67	15.51	12.35
19838.65	19965.80	38783.14	2579.51	127.15	23.36	20.29	15.04
19965.80	20092.95	38533.57	2569.52	127.15	23.21	20.21	15.00
20092.95	20220.10	38285.62	2559.60	127.15	23.06	20.13	14.96
20220.10	20347.25 RB	26044.26	2056.49	131.13	15.69	16.17	12.66

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.74

INPUT
Description: 212.74

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 70

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15451.4	1067.1	15456.2	1067.3	15464.1	1067.8	15467.8	1068.3	15480.9	1067.9
15619.6	1066.5	15997.3	1067	16142.7	1066.6	16235	1067.1	16317.5	1067.4
16486.7	1067.9	16644.3	1068.2	16906.1	1067.7	17106.4	1067.8	17312.1	1069.3
17351.4	1069.8	17392.8	1069.3	17578.5	1067.9	17799	1066.9	17906.3	1067
18021.4	1067.4	18082.2	1066.6	18121.5	1067.1	18128.7	1067	19421.5	1067
19430.3	1070.5	19440.7	1074.4	19464.5	1074.9	19479.6	1075	19498.8	1064.8
19504.9	1062.5	19514.1	1062.5	19546.7	1062.8	19569.3	1066	19571.5	1066.5
19577.2	1066.5	19641.5	1067.1	19653.8	1066.8	19678.6	1067.3	19690.61	1063.061
19709.2	1056.5	19745.4	1042.1	19776.5	1041.9	20081.3	1041.6	20297.5	1041.8
20311.1	1046.1	20335	1053.3	20367.2	1063.063	20372.6	1064.7	20387.5	1069
20400.7	1069	20436.3	1069	20477.6	1068.5	20512.4	1068.7	20545.9	1068.9
20612.1	1068.9	20630.4	1069.2	20677.9	1069.9	20719.8	1069.6	20764.1	1069.6
20802.7	1069.4	20847.1	1068.9	20916.2	1069.1	20977.1	1068.7	21027.9	1068.8
21126.4	1069.4	21156	1069.5	21203.9	1069.2	21326.9	1068.9	21421.2	1069.1

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
15451.4	.037	19690.61	.032	20367.2	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19690.61	20367.2	296	242.17	66	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15451.4	19678.6	1074	20387.5	21421.2	1074

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1063.06	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.51	Wt. n-Val.		0.032	
E.G. Elev (ft)	1065.57	Reach Len. (ft)	296.00	242.17	66.00
Crit W.S. (ft)	1055.49	Flow Area (sq ft)		13063.85	
E.G. Slope (ft/ft)	0.001466	Area (sq ft)	19.18	13063.85	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	721.70	Top Width (ft)	45.12	676.58	
Vel Total (ft/s)	12.71	Avg. Vel. (ft/s)		12.71	
Max Chl Dpth (ft)	21.46	Hydr. Depth (ft)		19.31	
Conv. Total (cfs)	4335926.5	Conv. (cfs)		4335926.5	
Length Wtd. (ft)	242.17	Wetted Per. (ft)		683.63	
Min Ch El (ft)	1041.60	Shear (lb/sq ft)		1.75	
Alpha	1.00	Stream Power (lb/ft s)		22.22	
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	9584.47	32614.28	3709.27
C & E Loss (ft)	0.11	Cum SA (acres)	2190.80	3089.72	1070.07

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19690.61 LB	19825.93	25492.37	2261.19	139.20	15.36	16.71	11.27
19825.93	19961.25	38853.83	2878.98	135.32	23.41	21.28	13.50
19961.25	20096.56	39254.44	2896.73	135.32	23.65	21.41	13.55
20096.56	20231.88	39183.02	2893.59	135.32	23.60	21.38	13.54
20231.88	20367.20 RB	23216.35	2133.37	138.48	13.99	15.77	10.88

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.68

INPUT
Description: 212.68

Upstream face of 7th Avenue bridge

Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18325	1064.21	19130.38	1068	19307.91	1072	19492.8	1073.03	19492.89	1066.21
19501.07	1063.02	19567.36	1037.21	9595.08	1037.51	9600.27	1037.51	9645.74	1037.8
19703.33	1037.88	19708.52	1037.88	19721.94	1039.11	9780.83	1037.61	9790.36	1040
19811.58	1039.41	9816.77	1039.41	9829.76	1037.21	9839.72	1038	19878.26	1039.3
19919.83	1037.51	9925.02	1037.51	9977.41	1036.92	0028.08	1038.12	0033.27	1038.1
20064.88	1037.5	20130.11	1063.02	520137.19	1065.82	0137.28	1072.66	20407.73	1072
20615.57	1068	20641.55	1067.62	0780.11	1068	21568.17	1069.3		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18325	.037	19501.07	.032	20130.1	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19501.07	20130.1	155	153.01	155	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18325	19492.89	1066.21	20137.19	21568.17	1065.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1063.02	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.14	Wt. n-Val.		0.032	
E.G. Elev (ft)	1065.16	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1052.63	Flow Area (sq ft)		14139.23	
E.G. Slope (ft/ft)	0.001030	Area (sq ft)		14139.23	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	629.02	Top Width (ft)		629.02	

Vel Total (ft/s)	11.74	Avg. Vel. (ft/s)		11.74		
Max Chl Dpth (ft)	26.12	Hydr. Depth (ft)		22.48		
Conv. Total (cfs)	5172716.5	Conv. (cfs)		5172716.5		
Length Wtd. (ft)	0.00	Wetted Per. (ft)		639.37		
Min Ch El (ft)	1036.90	Shear (lb/sq ft)		1.42		
Alpha	1.00	Stream Power (lb/ft s)		16.69		
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	9584.40	32538.66	3709.27	
C & E Loss (ft)	0.03	Cum SA (acres)	2190.65	3086.09	1070.07	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19501.07 LB	19626.88	24187.62	2376.66	130.66	14.57	18.89	10.18
19626.88	19752.68	39327.21	3134.31	125.87	23.69	24.91	12.55
19752.68	19878.49	37952.39	3072.88	126.36	22.86	24.43	12.35
19878.49	20004.29	40651.86	3197.07	125.85	24.49	25.41	12.72
20004.29	20130.10 RB	23880.92	2358.31	130.63	14.39	18.75	10.13

BRIDGE RIVER: 1
REACH: 1 RS: 212.675

INPUT
Description: 7th Avenue Bridge
Distance from Upstream XS = 0
Deck/Roadway Width = 153.01
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 11

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
18325	1064.2	1064.219	130.38	1068	1068	19307.91	1072	1072
19492.8	1073.03	1073.03	19492.89	1073.03	1066.21	19595.08	1073.9	1067.07
19703.34	1074.35	1067.52	19811.58	1074.48	1067.64	19925.02	1074.24	1067.41
20033.27	1073.6	1066.76	20137.19	1072.66	1065.84			

Upstream Bridge Cross Section Data
Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18325	1064.2	19130.38	1068	19307.91	1072	19492.8	1073.03	19492.89	1066.21
19501.07	1063.02	19567.36	1037.2	19595.08	1037.5	19600.27	1037.5	19645.74	1037.8
19703.33	1037.88	19708.52	1037.88	19721.94	1039.11	19780.83	1037.61	19790.36	1040
19811.58	1039.41	19816.77	1039.41	19829.76	1037.21	19839.72	1038	19878.26	1039.3
19919.83	1037.51	19925.02	1037.51	19977.41	1036.92	20028.08	1038.12	20033.27	1038.1
20064.88	1037.5	20130.1	1063.02	20137.19	1065.82	20137.28	1072.66	20407.73	1072
20615.57	1068	20641.55	1067.62	20780.11	1068	21568.17	1069.3		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18325	.037	19501.07	.032	20130.1	.037

Bank Sta: Left Right Coeff Contr. Expan.
19501.07 20130.1 .1 .3
Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18325	19492.89	1066.21	20137.19	21568.17	1065.8

Downstream Deck/Roadway Coordinates
num= 11

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
18325	1064.2	1064.219	130.38	1068	1068	19307.91	1072	1072
19492.8	1073.03	1073.03	19492.89	1073.03	1066.21	19595.08	1073.9	1067.07
19703.34	1074.35	1067.52	19811.58	1074.48	1067.64	19925.02	1074.24	1067.41
20033.27	1073.6	1066.76	20137.19	1072.66	1065.84			

Downstream Bridge Cross Section Data
Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18325	1064.2	19130.38	1068	19307.91	1072	19492.8	1073.03	19492.89	1066.21
19502.33	1062.53	19567.36	1037.2	19595.08	1037.5	19600.27	1037.5	19645.74	1037.8
19703.33	1037.88	19708.52	1037.88	19721.94	1039.11	19780.83	1037.61	19790.36	1040
19811.58	1039.41	19816.77	1039.41	19829.76	1037.21	19839.72	1038	19878.26	1039.3
19919.83	1037.51	19925.02	1037.51	19977.41	1036.92	20028.08	1038.12	20033.27	1038.1
20064.88	1037.52	20128.84	1062.53	20220137.19	1065.82	20137.28	1072.66	20407.73	1072
20615.57	1068	20641.55	1067.62	20780.11	1068	21568.17	1069.3		

```
Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   18325    .03719502.33    .03220128.84    .037

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19502.3320128.84             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1832519492.89 1066.2120137.1921568.17  1065.8

Upstream Embankment side slope              =         horiz. to 1.0 vertical
Downstream Embankment side slope            =         horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  5

Pier Data
Pier Station     Upstream=19597.67    Downstream=19597.67
Upstream     num=       2
    Width   Elev    Width   Elev
     4.8    1036     4.8    1068
Downstream     num=       2
    Width   Elev    Width   Elev
     4.8    1036     4.8    1068

Pier Data
Pier Station     Upstream=19705.06    Downstream=19705.06
Upstream     num=       2
    Width   Elev    Width   Elev
     4.8    1036     4.8    1068
Downstream     num=       2
    Width   Elev    Width   Elev
     4.8    1036     4.8    1068

Pier Data
Pier Station     Upstream=19814.17    Downstream=19814.17
Upstream     num=       2
    Width   Elev    Width   Elev
     4.8    1036     4.8    1068
Downstream     num=       2
    Width   Elev    Width   Elev
     4.8    1036     4.8    1068

Pier Data
Pier Station     Upstream=19922.42    Downstream=19922.42
Upstream     num=       2
    Width   Elev    Width   Elev
     4.8    1036     4.8    1068
Downstream     num=       2
    Width   Elev    Width   Elev
     4.8    1036     4.8    1068

Pier Data
Pier Station     Upstream=20030.67    Downstream=20030.67
Upstream     num=       2
    Width   Elev    Width   Elev
     4.8    1036     4.8    1068
Downstream     num=       2
    Width   Elev    Width   Elev
     4.8    1036     4.8    1068

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
       Momentum              Cd   =     1.2
       Yarnell               KVal =    1.05
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
       Energy Only
```

Additional Bridge Parameters
Add Friction component to Momentum
Add Weight component to Momentum
Class B flow critical depth computations use critical depth
inside the bridge at the downstream end
Criteria to check for pressure flow = Upstream water surface

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.67

INPUT
Description: 212.67

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18325	1064.21	19130.38	1068	19307.91	1072	19492.8	1073.03	19492.89	1066.21
19502.33	1062.53	19567.36	1037.21	9595.08	1037.51	9600.27	1037.51	9645.74	1037.8
19703.33	1037.88	19708.52	1037.88	19721.94	1039.11	9780.83	1037.61	9790.36	1040
19811.58	1039.41	9816.77	1039.41	9829.76	1037.21	9839.72	1038	19878.26	1039.3
19919.83	1037.51	9925.02	1037.51	9977.41	1036.92	0028.08	1038.12	0033.27	1038.1
20064.88	1037.52	0128.84	1062.53	220137.19	1065.82	0137.28	1072.66	20407.73	1072
20615.57	1068	20641.55	1067.62	0780.11	1068	21568.17	1069.3		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18325	.037	19502.33	.037	20128.84	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19502.33	20128.84	481	557.08	901	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18325	19492.89	1066.21	20137.19	21568.17	1065.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1062.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.24	Wt. n-Val.		0.032	
E.G. Elev (ft)	1064.77	Reach Len. (ft)	481.00	557.08	901.00
Crit W.S. (ft)	1052.64	Flow Area (sq ft)		13830.45	
E.G. Slope (ft/ft)	0.001102	Area (sq ft)		13830.45	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	626.50	Top Width (ft)		626.50	
Vel Total (ft/s)	12.00	Avg. Vel. (ft/s)		12.00	
Max Chl Dpth (ft)	25.63	Hydr. Depth (ft)		22.08	
Conv. Total (cfs)	4999937.5	Conv. (cfs)		4999937.5	
Length Wtd. (ft)	557.08	Wetted Per. (ft)		636.67	
Min Ch El (ft)	1036.90	Shear (lb/sq ft)		1.49	
Alpha	1.00	Stream Power (lb/ft s)		17.94	
Frctn Loss (ft)	1.13	Cum Volume (acre-ft)	9584.40	32492.09	3709.27
C & E Loss (ft)	0.41	Cum SA (acres)	2190.65	3083.97	1070.07

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19502.33 LB	19627.63	24363.23	2333.85	130.06	14.68	18.63	10.44
19627.63	19752.93	39209.34	3059.75	125.37	23.62	24.42	12.81
19752.93	19878.24	37822.88	2999.04	125.86	22.78	23.93	12.61
19878.24	20003.54	40554.56	3122.15	125.35	24.43	24.92	12.99
20003.54	20128.84 RB	24049.99	2315.65	130.04	14.49	18.48	10.39

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.56

INPUT
Description: 212.56

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 84

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18526.6	1067.7	18605.6	1068.5	18672.9	1069.1	18686.4	1060	19108.7	1062.5
19147.3	1066.2	19151.5	1066.4	19161.7	1067.6	19184.3	1068.9	19238.8	1068.8
19249.1	1068.8	19264.6	1065	19289.8	1059.5	19333	1060.5	19374.1	1060.3
19381.8	1063.3	19405.9	1071.5	19420.1	1070.7	19427.9	1069.3	19436.8	1069
19464.9	1070.8	19474	1071.7	19488.9	1073.8	19506.5	1072.1	19530.4	1065.8
19539	1066.2	19604	1065.9	19607.1	1065.3	19613.7	1065.3	19619.1	1065.7
19619.8	1066.4	19637.7	1068	19655.3	1067.8	19692.8	1068.8	19731.05	1056.917
19757.5	1048.7	19785.4	1039.9	19929	1039.8	20217.8	1039.3	20252.14	1056.916
20264	1063	20269.6	1061.5	20279.7	1059.4	20318.1	1058.6	20372.9	1059.3
20398.1	1060.1	20425.6	1066.2	20438.5	1062.1	20445.5	1059.5	20451.6	1056.8
20575.6	1077.4	20581.9	1078.8	20601.9	1079.3	20671.6	1080.6	20698.7	1080.1
20732.1	1079.9	20755.7	1079.5	20791.2	1077.6	20834.9	1075.6	20892.5	1079.5
20896	1079.6	20938.4	1078.1	20958.4	1077.9	21004.8	1078.7	21029.1	1078.1
21101.8	1077.3	21144.7	1078.4	21165.1	1078.9	21203.3	1079.8	21236.8	1080.1
21329	1071.7	21351.9	1069.5	21384.8	1066.8	21396.7	1060	21632.6	1060
21640.1	1063.9	21686.7	1065.4	21688.1	1065.4	21734.9	1066.2	21757.8	1066.7
21833.3	1068.7	21846.1	1068.8	21931.4	1069.9	21952.1	1069		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18526.6	.037	19731.05	.032	20252.14	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19731.05	20252.14	495	502.71	525	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18526.6	19692.8	1078	20301	21952.1	1078

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1056.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	6.35	Wt. n-Val.		0.032	
E.G. Elev (ft)	1063.23	Reach Len. (ft)	495.00	502.71	525.00
Crit W.S. (ft)	1055.70	Flow Area (sq ft)		8207.39	
E.G. Slope (ft/ft)	0.004887	Area (sq ft)		8207.39	0.02
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	521.49	Top Width (ft)		520.87	0.62
Vel Total (ft/s)	20.23	Avg. Vel. (ft/s)		20.23	
Max Chl Dpth (ft)	17.57	Hydr. Depth (ft)		15.76	
Conv. Total (cfs)	2374591.5	Conv. (cfs)		2374591.5	
Length Wtd. (ft)	502.71	Wetted Per. (ft)		527.71	
Min Ch El (ft)	1039.30	Shear (lb/sq ft)		4.75	
Alpha	1.00	Stream Power (lb/ft s)		95.97	
Frctn Loss (ft)	1.91	Cum Volume (acre-ft)	9584.40	32351.18	3709.27
C & E Loss (ft)	0.54	Cum SA (acres)	2190.65	3076.63	1070.07

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19731.05 LB	19835.27	22290.28	1305.74	106.68	13.43	12.55	17.07
19835.27	19939.49	37818.82	1776.47	104.22	22.78	17.05	21.29
19939.49	20043.71	38326.91	1790.76	104.22	23.09	17.18	21.40
20043.71	20147.92	38999.25	1809.53	104.22	23.49	17.36	21.55
20147.92	20252.14 RB	28564.74	1524.89	108.38	17.21	14.64	18.73

Warning - Divided flow computed for this cross-section.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.46

INPUT
Description: 212.46

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18753.5	1067.1	18827.8	1067.7	18877.5	1068.2	18898.4	1055	19357.3	1055.1
19382.1	1053.4	19409	1053.9	19429.7	1053.3	19445.8	1054.1	19481.5	1054.3
19531	1052.9	19550.5	1054.6	19656.6	1055	19684.4	1069.8	19700	1067.4
19714.7	1067.8	19743.34	1056.289	19787.6	1038.5	19877.7	1038.3	20214.4	1037.2
20270.9	1039.9	20290.3	1040.2	20301	1040.331	20380.4	1041.3	20415.6	1048.6
20422.7	1048.9	20436.9	1047.2	20446.3	1048.4	20484.2	1055.6	20494.5	1057
20510.9	1057.5	20553.9	1062.4	20563.5	1064	20616.9	1070.3	20661.5	1072.5
20691.8	1074.7	20705.2	1075.2	20771.8	1073.9	20836.5	1073.6	20841.8	1073.2
20893.4	1072.8	20932.3	1068.7	20999.5	1072.8	21028.4	1074	21091.5	1069.7
21143.4	1069.4	21187.1	1070.2	21222.4	1071.9	21234.8	1070.7	21242.4	1070.9
21265.3	1070.2	21277.9	1069.2	21302	1065.4	21326.5	1063.3	21392.1	1057.4
21427.4	1052.9	21482.8	1061.6	21523.6	1061.6	21591.7	1061.2	21609.9	1060.7
21657.5	1061.6	22674	1062	22695.3	1072.2	22728.6	1064.6	22746.1	1064.3
22917.1	1063.8								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18753.5	.037	19743.34	.032	20301	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19743.34	20301	495	497.81	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18753.5	19684.4	1075.2	20301	22917.1	1075.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1056.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	4.54	Wt. n-Val.		0.032	
E.G. Elev (ft)	1060.77	Reach Len. (ft)	495.00	497.81	510.00
Crit W.S. (ft)	1052.72	Flow Area (sq ft)		9703.67	
E.G. Slope (ft/ft)	0.003034	Area (sq ft)	1160.90	9703.67	2110.16
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1555.15	Top Width (ft)	762.46	557.52	235.17
Vel Total (ft/s)	17.11	Avg. Vel. (ft/s)		17.11	
Max Chl Dpth (ft)	19.03	Hydr. Depth (ft)		17.41	
Conv. Total (cfs)	3013622.8	Conv. (cfs)		3013622.8	
Length Wtd. (ft)	497.81	Wetted Per. (ft)		561.01	
Min Ch El (ft)	1037.20	Shear (lb/sq ft)		3.28	
Alpha	1.00	Stream Power (lb/ft s)		56.05	
Frctn Loss (ft)	1.85	Cum Volume (acre-ft)	9577.81	32247.82	3696.56
C & E Loss (ft)	0.12	Cum SA (acres)	2186.31	3070.41	1068.65

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19743.34 LB	19854.87	23282.32	1588.87	114.82	14.03	14.26	14.65
19854.87	19966.40	35185.66	2012.11	111.53	21.20	18.04	17.49
19966.40	20077.94	36369.35	2052.44	111.53	21.91	18.40	17.72
20077.94	20189.47	37578.35	2093.13	111.53	22.64	18.77	17.95
20189.47	20301.00 RB	33584.32	1957.11	111.60	20.23	17.55	17.16

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need

for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.37

INPUT
Description: 212.37

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 53

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18816.9	1066.3	18818.6	1066.2	18822.9	1066.3	18834	1066.3	18957.9	1066
18989.9	1065.8	19000	1065.6	19036.9	1065.2	19054.2	1064.9	19092.2	1064.1
19112.5	1063.4	19137.4	1064.7	19138.3	1064.8	19139.3	1064.8	19195.1	1066.9
19209.3	1061	19668.8	1061	19681.7	1066.2	19684.6	1067.4	19684.8	1067.3
19685.1	1067.2	19692.2	1064.6	19715.3	1065	19717.4	1065.1	19722.1	1063.2
19744.06	1053.778	19782.7	1037.2	19926.2	1036.9	20272.4	1037.1	20284.2	1036.6
20285.4	1036.6	20288.8	1038.6	20320.69	1053.776	20338.6	1062.3	20338.7	1062.3
20369.5	1065.2	20396.5	1069.4	20454.4	1070.1	20471.3	1070.1	20508.4	1061
22070.8	1061	22075.2	1062.9	22088.8	1064.3	22125.1	1067.6	22147.7	1068.9
22155.8	1069.3	22177.3	1071.8	22222.4	1065.3	22242.6	1063.6	22252.8	1063.9
22275.2	1064.6	22382.7	1065.6	22407.8	1066.1				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18816.9	.037	19744.06	.032	20320.69	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19744.06	20320.69	500	495.84	485	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18816.9	19684.6	1070	20396.5	22407.8	1070

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1053.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	5.71	Wt. n-Val.		0.032	
E.G. Elev (ft)	1058.81	Reach Len. (ft)	500.00	495.84	485.00
Crit W.S. (ft)	1051.67	Flow Area (sq ft)		8658.17	
E.G. Slope (ft/ft)	0.004646	Area (sq ft)		8658.17	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	573.64	Top Width (ft)		573.64	
Vel Total (ft/s)	19.17	Avg. Vel. (ft/s)		19.17	
Max Chl Dpth (ft)	16.50	Hydr. Depth (ft)		15.09	
Conv. Total (cfs)	2435396.0	Conv. (cfs)		2435396.0	
Length Wtd. (ft)	495.84	Wetted Per. (ft)		580.74	
Min Ch El (ft)	1036.60	Shear (lb/sq ft)		4.32	
Alpha	1.00	Stream Power (lb/ft s)		82.91	
Frctn Loss (ft)	2.43	Cum Volume (acre-ft)	9571.21	32142.90	3684.20
C & E Loss (ft)	0.02	Cum SA (acres)	2181.98	3063.95	1067.27

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19744.06 LB	19859.39	26449.78	1520.37	117.02	15.93	13.37	17.40
19859.39	19974.71	37482.55	1863.21	115.33	22.58	16.16	20.12
19974.71	20090.04	37424.03	1861.45	115.32	22.54	16.14	20.10
20090.04	20205.36	37167.69	1853.81	115.33	22.39	16.07	20.05
20205.36	20320.69 RB	27475.96	1559.32	117.74	16.55	13.69	17.62

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.27

INPUT
Description: 212.27

Left and Right Channel Bank Stations Interpolated

Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17693.1	1064.6	17697.9	1064.6	17734.8	1064	17740.4	1063.9	17785.6	1063.1
17796.2	1063.1	17827.6	1062.5	17846.2	1062.4	17893.5	1062.2	18008.4	1061.5
18061.8	1061.5	18108.5	1062.4	18180.8	1062.8	18221.3	1063	18239.7	1059
18264.8	1054.5	18285.2	1054	18326.7	1048.1	18342.3	1046.2	18362.6	1053.4
18380.3	1046.2	18395.3	1042.4	18405.4	1039	18415.2	1036.5	18431.2	1031.5
18465.3	1023.5	18544.4	1025.1	18579.3	1015.6	18586.4	1013.2	18615.7	1013
18649.7	1013	18693.4	1012.9	18782.3	1012.3	18931.2	1012.8	18976.1	1012.6
18981.9	1012.7	19083	1012.1	19110	1012.1	19284.8	1012.2	19302.3	1012.4
19314.3	1019	19342.1	1028.5	19385.1	1048.2	19442.6	1044.9	19457.4	1044.6
19509.8	1062.9	19515.4	1063	19561	1063.7	19676.4	1065.4	19715.25	1052.334
19754.6	1039.1	19765.4	1035.4	19935.2	1035.2	20003.5	1035.2	20097.2	1035.1
20281.9	1035.1	20330.35	1052.334	20337	1054.7	20351	1059.5	20416.4	1037.6
20457	1023.9	20721.5	1023.4	20766.6	1022.9	20810.1	1022.2	20848.4	1021.5
20878.3	1023.7	20909.5	1025.8	20935.1	1026.2	20970.3	1026.8	20984	1027.2
21016.1	1028	21073.4	1026.9	21105.5	1026.6	21138.2	1026.2	21189.1	1025.7
21190.6	1025.7	21248.8	1040.7	21294.4	1051.5	21328.2	1059.6	21333.8	1060.2
21373.3	1067.4	21415.5	1061.7	21426.9	1059.4	21439.1	1056.3	21473.7	1050
21501.4	1044.9	21538.1	1038.9	21543.5	1037.9	21579.4	1046.2	21617.1	1054.3
21626.5	1056.1	21660.7	1060	21745.2	1060.6	21930.8	1061.7	21968.2	1061.7

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17693.1	.045	19715.25	.033	20330.35	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19715.25	20330.35	510	495	475	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17693.1	19676.4	1065.4	20351	21968.2	1059.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1050.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	5.64	Wt. n-Val.		0.033	
E.G. Elev (ft)	1056.36	Reach Len. (ft)	510.00	495.00	475.00
Crit W.S. (ft)	1049.53	Flow Area (sq ft)		8710.84	
E.G. Slope (ft/ft)	0.005181	Area (sq ft)	34374.66	8710.84	22273.88
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2802.81	Top Width (ft)	1152.49	605.76	1044.56
Vel Total (ft/s)	19.06	Avg. Vel. (ft/s)		19.06	
Max Chl Dpth (ft)	38.62	Hydr. Depth (ft)		14.38	
Conv. Total (cfs)	2306225.3	Conv. (cfs)		2306225.3	
Length Wtd. (ft)	495.00	Wetted Per. (ft)		610.97	
Min Ch El (ft)	1035.10	Shear (lb/sq ft)		4.61	
Alpha	1.00	Stream Power (lb/ft s)		87.88	
Frctn Loss (ft)	1.79	Cum Volume (acre-ft)	9373.93	32044.05	3560.20
C & E Loss (ft)	0.59	Cum SA (acres)	2175.37	3057.23	1061.46

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19715.25 LB	19838.27	24914.73	1465.59	120.73	15.01	12.40	17.00
19838.27	19961.29	38045.57	1903.61	123.02	22.92	15.47	19.99
19961.29	20084.31	38347.11	1912.66	123.02	23.10	15.55	20.05
20084.31	20207.33	38638.59	1921.36	123.02	23.28	15.62	20.11
20207.33	20330.35 RB	26054.00	1507.62	121.17	15.70	12.72	17.28

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.18

INPUT
Description: 212.18

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16867.12	1065.21	6906.93	1063.91	17072.69	1063.62	17369.21	1062.48	17505.56	1062.52
17612.28	1062.91	7794.36	1062.33	17881.75	1062.58	17916.47	1062.32	17948.21	1065.69
18039.48	1010.81	8149.75	1011.69	18168.39	1016.64	18177.08	1014.6	18188	1020.06
18220.51	1027.21	8252.71	1039.34	18269.64	1041.16	18292.43	1036.71	8335.96	1016.75
18454.36	1016.21	8568.19	1014.72	18633.81	1016.11	18764.91	1017.46	18823.95	1017.09
19046.22	1017.71	9156.65	1019.37	19198.34	1018.44	19223.89	1018.49	19248.34	1016.23
19311.18	1015.1	19393.8	1012.98	19433	1012.52	19464.03	1021.81	19488.46	1011.1
19574.96	1010.61	9614.98	1037.42	19649.87	1059.81	19685.1	1058.81	19706.85	1050.309
19749.09	1033.81	9960.28	1030.82	20229.47	1031.72	20272.48	1032.67	20319.31	1039.88
20334.57	1050.30	720340.72	1054.51	20354.62	1060.32	20472.17	1061.55	20523.7	1061.62
20551.86	1053.04	20622.11	1048.82	0687.56	1052.22	0928.11	1055.29	21136.97	1058.41
21257.08	1058.69	21362.76	1060.71	21646.22	1067.22	1858.08	1068.11	22054.43	1067.43
22158.98	1065.96	22243.23	1064.32	22279.9	1062.82	2295.67	1065.59	22307.88	1060.91
22324.63	1061.39	22394.01	1058.43	22480.34	1058.92	2555.28	1058.92	22720.83	1059.92
22855.27	1061.54	22949.17	1061.49	22974.76	1060	23021.3	1058.52	3070.19	1058.44
23114.11	1060.29	23152.9	1060.08	23260.95	1061.42	3486.25	1061.05	23586.41	1061.15
23621.07	1061.47	23789.79	1060.37	23929.16	1060.4	24034.7	1061.82	4176.57	1062.42
24281.11	1062.33	24460.33	1061.22						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
16867.12	.045	19706.85	.033	20334.57	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19706.85	20334.57	500	502.53	485	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16867.12	19649.87	1068	20523.72	24460.33	1068

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1050.31	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.67	Wt. n-Val.		0.033	
E.G. Elev (ft)	1053.98	Reach Len. (ft)	500.00	502.53	485.00
Crit W.S. (ft)	1045.83	Flow Area (sq ft)		10798.63	
E.G. Slope (ft/ft)	0.002663	Area (sq ft)	53269.86	10798.63	40.76
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2343.04	Top Width (ft)	1661.28	627.72	54.04
Vel Total (ft/s)	15.37	Avg. Vel. (ft/s)		15.37	
Max Chl Dpth (ft)	39.71	Hydr. Depth (ft)		17.20	
Conv. Total (cfs)	3216692.3	Conv. (cfs)		3216692.3	
Length Wtd. (ft)	502.53	Wetted Per. (ft)		634.64	
Min Ch El (ft)	1030.80	Shear (lb/sq ft)		2.83	
Alpha	1.00	Stream Power (lb/ft s)		43.49	
Frctn Loss (ft)	0.95	Cum Volume (acre-ft)	8860.86	31933.20	3438.54
C & E Loss (ft)	0.32	Cum SA (acres)	2158.90	3050.23	1055.47

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19706.85 LB	19832.39	23437.74	1773.20	128.66	14.12	14.12	13.22
19832.39	19957.94	37636.32	2333.05	125.56	22.67	18.58	16.13
19957.94	20083.48	40109.93	2423.80	125.55	24.16	19.31	16.55
20083.48	20209.03	38668.04	2371.13	125.54	23.29	18.89	16.31
20209.03	20334.57 RB	26147.99	1897.44	129.33	15.75	15.11	13.78

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 212.08

INPUT
Description: 212.08

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 101

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17052.4	1065.11	7093.98	1063.21	7330.91	1062.59	17423.14	1062.21	17562.97	1062.23
17854.31	1061	17952.67	1061.39	17989.42	1061.1	18003.9	1064.72	18053.78	1032.77
18092.97	1010.31	8121.67	1010.42	18204.85	1011.49	18218.51	1014.53	18400.47	1013.68
18430.19	1013.71	8591.23	1012.73	18717.39	1012.55	18827.36	1012.71	18982.9	1014.44
19125.21	1014.11	9158.95	1014.27	19197.5	1013.72	19237.59	1014.05	19246.24	1012.73
19261.95	1013.81	9287.74	1011.52	19294.56	1009.44	19377.18	1009.88	19458.03	1009.79
19560.86	1055.91	9603.52	1052.77	19676.09	1052.94	19681.09	1050.10	19689.85	1045.14
19720.06	1031.74	19729.83	1028.61	9835.59	1026.98	19956.58	1026.45	20018.74	1026.48
20046.86	1026.71	20134.08	1025.92	0179.54	1025.99	20234.17	1026.65	20245.73	1033.13
20270.89	1050.12	0275.07	1052.92	20290.81	1060.92	0335.45	1060.37	20383.25	1044.65
20424.79	1044.38	20442.88	1052.79	20545.79	1055.72	0813.04	1061.38	20956.27	1063.95
21082.72	1065.98	21252.33	1068.16	21359.98	1067.92	1436.79	1067.76	21473.77	1066.77
21529.98	1066.48	21607.29	1070.32	1676.41	1072.82	1730.28	1073.84	21923.53	1073.03
22030.61	1073.76	22091.57	1073.13	22182.24	1073.62	2303.01	1072.05	22453.89	1069.64
22595.45	1068.22	22755.09	1066.86	22966.16	1063.92	3129.47	1061.46	23222.4	1059.05
23255.36	1058.64	23268.74	1055.51	23278.67	1058.32	3295.59	1055.54	23328.26	1058.3
23417.52	1058.42	3428.87	1058.12	3519.64	1059.32	3868.62	1059.17	24082.28	1059.08
24280.77	1060.12	24441.84	1061.91	24594.59	1060.92	4688.74	1061.74	24871.91	1061.24
24970.8	1060.33	25012.15	1058.26	25172.94	1060.8	25399.4	1060.14	25629.95	1059.85
25800.17	1059.41	25815.84	1060.07	25861.96	1079.72	5884.17	1080.26	25963.83	1080.96
26004.82	1061.65								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17052.4	.04	19681.09	.03	20270.89	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19681.09	20270.89	510	519.85	475	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17052.4	19560.86	1078	20290.82	6004.82	1078

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1050.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.61	Wt. n-Val.		0.033	
E.G. Elev (ft)	1052.71	Reach Len. (ft)	510.00	519.85	475.00
Crit W.S. (ft)	1041.41	Flow Area (sq ft)		12809.28	
E.G. Slope (ft/ft)	0.001403	Area (sq ft)	54056.34	12809.28	312.58
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2181.45	Top Width (ft)	1521.21	589.80	70.44
Vel Total (ft/s)	12.96	Avg. Vel. (ft/s)		12.96	
Max Chl Dpth (ft)	40.66	Hydr. Depth (ft)		21.72	
Conv. Total (cfs)	4432099.5	Conv. (cfs)		4432099.5	
Length Wtd. (ft)	519.85	Wetted Per. (ft)		601.34	
Min Ch El (ft)	1025.90	Shear (lb/sq ft)		1.87	
Alpha	1.00	Stream Power (lb/ft s)		24.18	
Frctn Loss (ft)	0.82	Cum Volume (acre-ft)	8244.89	31797.02	3436.57
C & E Loss (ft)	0.06	Cum SA (acres)	2140.63	3043.20	1054.77

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19681.09 LB	19799.05	23203.87	2094.00	122.60	13.98	17.75	11.08
19799.05	19917.01	37086.19	2731.90	117.96	22.34	23.16	13.58
19917.01	20034.97	38278.54	2784.24	117.96	23.06	23.60	13.75

20034.97	20152.93	38876.44	2810.27	117.96	23.42	23.82	13.83
20152.93	20270.89 RB	28554.97	2388.88	124.85	17.20	20.25	11.95

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.99

INPUT
Description: 211.99

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17386.75	106217	493.12	1060.36	17883.55	1058.91	8026.04	1059.08	18043.61	1064.43
18128.52	1011.91	8212.07	1010.04	18284.3	1009.41	18375.77	1031.99	18386.79	1034.99
18398.32	1031.61	8455.15	1010.42	18634.29	1010.15	18715.79	1026.17	18726.98	1025.43
18746.82	1028.91	8793.14	1039.11	18826.55	1047.22	18835.49	1050.27	18880.3	1056.14
18928.65	1059.61	9023.07	1060.47	19122.51	1058.69	19147.6	1056.98	19172.92	1053.9
19222.57	1059.71	9306.36	1064.75	19387.36	1066.26	19419.32	1065.73	19467.92	1063.3
19535.53	1055.9	19579.8	1052.51	9594.04	1050.01	19626.09	1059.75	19669.23	1060.17
19682.93	1052.11	9695.13	1051.71	9699.77	1048.63	19734.91	1025.39	19968.68	1025.66
20018.4	102620	129.78	1025.52	0175.87	1025.66	20205.91	1027.82	0236.81	1047.09
20249.65	1048.632	20249.8	1048.65	20268.39	1059.72	0319.37	1059.45	20355.66	1049.61
20366.72	1051.16	20380.34	1056.31	20536.66	1059.72	0697.58	1062.91	20861.07	1067.46
20969.05	1071.42	1086.46	1074.54	21220.77	1077.82	1348.89	1078.35	21519.24	1075.76
21606.23	1073.42	21740.53	1069.14	21834.91		106821936.77	1071.02	22068.74	1077.26
22189.17	1082.49	22398.45	1089.62	22486.87	1090.32	2515.75	1089.94	22616.83	1085.49
22698.81	1083.43	22757.86	1080.06	22899.81	1069.52	3059.97	1066.12	3300.96	1061.35
23457.95	1059.09	23578.87	1055.29	23592.8	1052.82	3611.42	1057.12	3707.16	1057.71
23758.72	1057.84	23837.72	1057.31	23902	1056.22	3950.13	1056.57	24182.97	1056.91
24332.01	1056.07	24582.04	1056.01	24636.44		105924704.95	1057.53	24865.28	1057.45
24966.74	1058.31	24996.3	1059.93	25064.88	1059.82	5072.86	1059.09	25171.62	1057.94
25224.27	1057.75	25467.18	1058.61						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17386.75	.04	19699.77	.03	320249.65	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19699.77	20249.65	740	489.19	710	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17386.75	19669.23	1078	20268.32	5467.18	1078

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1048.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.20	Wt. n-Val.		0.033	
E.G. Elev (ft)	1051.83	Reach Len. (ft)	740.00	489.19	710.00
Crit W.S. (ft)	1041.14	Flow Area (sq ft)		11567.96	
E.G. Slope (ft/ft)	0.001803	Area (sq ft)	22412.64	11567.96	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1311.41	Top Width (ft)	761.54	549.87	
Vel Total (ft/s)	14.35	Avg. Vel. (ft/s)		14.35	
Max Chl Dpth (ft)	39.22	Hydr. Depth (ft)		21.04	
Conv. Total (cfs)	3909571.3	Conv. (cfs)		3909571.3	
Length Wtd. (ft)	489.19	Wetted Per. (ft)		562.56	
Min Ch El (ft)	1025.39	Shear (lb/sq ft)		2.31	
Alpha	1.00	Stream Power (lb/ft s)		33.21	
Frctn Loss (ft)	0.82	Cum Volume (acre-ft)	7797.24	31651.56	3434.87
C & E Loss (ft)	0.09	Cum SA (acres)	2127.27	3036.40	1054.39

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19699.77 LB	19809.75	28178.13	2144.39	116.96	16.97	19.50	13.14
19809.75	19919.72	38918.52	2539.50	109.98	23.44	23.09	15.33
19919.72	20029.70	38310.88	2515.63	109.98	23.08	22.87	15.23
20029.70	20139.67	38453.04	2521.24	109.98	23.16	22.93	15.25

20139.67	20249.65 RB	22139.43	1847.21	115.67	13.34	16.80	11.99

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.89

INPUT
Description: 211.89

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17673.64	1059.91	7830.52	1057.81	8075.45	1057.59	18106.59	1061.39	18156.21	1060.92
18181.64	1057	18268.15	1057.41	8570.49	1056.27	18656.7	1057.37	18734.79	1059.4
18854.83	1058.1	18903.9	1058.62	18933.75	1056.26	18954.51	1054.31	9026.15	1059.53
19074.67	1064.51	9130.02	1067.66	19166.92	1067.82	19220.33	1064.25	19291.97	1056.93
19339.05	1053.2	19355.5	1049.41	19383.94	1051.77	19506.58	1049.73	19568.03	1052.09
19611.95	1052.41	9640.96	1059.45	19668.79	1059.33	19685.75	1048.02	319719.16	1025.75
19877.45	1024.19	19996	1024.82	0046.95	1024.94	20149.18	1025.34	20215.53	1026.87
20231.37	1035.86	20250.74	1048.02	20268.71	1059.32	0317.76	1059.25	20347.9	1053.02
20357.11	1053.87	20365.64	1057.46	20503.92	1061.22	0587.79	1062.32	20715.42	1064.82
20808.25	1066.48	20898.25	1068.17	21050.2		107021240.42	1069.72	1365.85	1067.31
21444.39	1066.67	21597.69	1066.81	21747.36	1066.62	1837.61	1066.01	22018.21	1062.79
22078.36	1061.76	22206.84	1065.22	2377.75	1068.12	2579.85	1068.75	22814.63	1068.78
22947.07	1067.96	23029.4	1068.09	23191.51	1066.42	3528.26	1059.52	3662.78	1056.72
23775.83	1055.54	23829.73	1054.15	23844.87	1051.22	3876.82	1056.09	23920.99	1057
23995.44	1056.47	24052.85	1056.12	4082.77	1056.62	4140.98	1058.27	24165.07	1058.25
24271.91	1056.45	24411.05	1053.17	24579.36	1053.32	4759.09	1054.04	24774.1	1055.28
24840.04	1057.69	24883.78	1058.26	24920.88	1055.82	5041.94	1055.29	25284.44	1056.1
25336.01	1057.13	25359.39	1058.32	25402.51	1057.3	25726.4	1058.23	26172.96	1058.11
26295.6	1059.62	6333.92	1078.17	26470.33	1078.82	6504.14	1058.92	6569.17	1059.94

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17673.64	.04	519685.75	.03	320250.74	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19685.75	20250.74	507	527.46	640	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17673.64	19640.96	1068	20268.72	6569.17	1068

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1048.02	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.89	Wt. n-Val.		0.033	
E.G. Elev (ft)	1050.91	Reach Len. (ft)	507.00	527.46	640.00
Crit W.S. (ft)	1039.98	Flow Area (sq ft)		12164.79	
E.G. Slope (ft/ft)	0.001579	Area (sq ft)		12164.79	0.00
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	564.99	Top Width (ft)		564.99	
Vel Total (ft/s)	13.65	Avg. Vel. (ft/s)		13.65	
Max Chl Dpth (ft)	23.83	Hydr. Depth (ft)		21.53	
Conv. Total (cfs)	4177220.5	Conv. (cfs)		4177220.5	
Length Wtd. (ft)	527.46	Wetted Per. (ft)		577.63	
Min Ch El (ft)	1024.19	Shear (lb/sq ft)		2.08	
Alpha	1.00	Stream Power (lb/ft s)		28.33	
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)	7606.87	31518.30	3434.87
C & E Loss (ft)	0.00	Cum SA (acres)	2120.80	3030.14	1054.39

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19685.75 LB	19798.75	26671.66	2175.85	119.74	16.07	19.26	12.26
19798.75	19911.75	38734.18	2659.44	113.00	23.33	23.54	14.56
19911.75	20024.74	38292.60	2641.18	113.00	23.07	23.37	14.50
20024.74	20137.74	37130.61	2592.79	113.00	22.37	22.95	14.32
20137.74	20250.74 RB	25170.95	2095.54	118.89	15.16	18.54	12.01

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.79

INPUT
Description: 211.79

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 85

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18158.31	1058.118	521.37	1057.921	8711.98	1053.291	8821.22	1049.971	9332.48	1038.9
19421.9	1034.719	443.13	1034.681	9494.83	1031.451	9529.82	1033.891	9593.73	1053.47
19613.84	1059.219	631.93	1059.121	9649.87	1047.18	219683.64	1024.711	9868.29	1023.84
19990.11	1024.452	0071.01	1024.2	20181	1025.03	20210.4	1042.542	0217.71	1047.186
20234.96	1058.152	0266.77	1058.962	0288.34	1058.22	0317.07	1049.642	0327.91	1051.41
20334.62	1054.862	0544.02	1058.112	0748.52	1061.32	0960.89	1062.192	1136.74	1063.31
21355.67	1062.99	21514.2	1062.922	1680.46	1061.62	1736.21	1061.762	1809.47	1060.69
21912.92	1059.542	2164.31	1055.862	2183.26	1055.42	2365.65	1059.352	2456.33	1059.66
22607.29	1061.072	2697.85	1061.242	2757.13		106222877.22	1061.982	2997.38	1061.21
23058.71	1061.692	3238.58	1060.292	3378.99	1059.62	3483.49	1059.372	3694.55	1056.44
23766.47	1056.352	3904.99	1053.872	3939.63	1052.52	3954.41	1049.732	3974.63	1054.92
24066.57	1057.012	4104.95	1055.722	4159.03	1054.92	4203.29	1053.77	24226.8	1054.13
24410.42	1054.11	24588.5	1054.812	4806.33	1056.92	4857.28	1056.922	4892.35	1056.25
24937.4	1056.272	4992.53	1057.912	5025.07	1054.52	5154.69	1054.632	5336.45	1057.87
25508.23	1059.012	5689.64	1058.182	5912.41	1058.82	6025.53	1058.462	6235.18	1058.51
26315.33		105826360.96	1059.142	6386.48	1071.42	6401.46	1071.61	26423.9	1078.8
26526.56	1078.922	6547.02	1071.322	6569.39	1067.82	6599.18	1058.282	6670.85	1059.87

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18158.31	.045	19649.87	.033	20217.71	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19649.87	20217.71	680	450.74	290	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18158.31	19613.84	1068	20266.72	6670.85	1068

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1047.18	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.89	Wt. n-Val.		0.033	
E.G. Elev (ft)	1050.08	Reach Len. (ft)	680.00	450.74	290.00
Crit W.S. (ft)	1039.19	Flow Area (sq ft)		12157.43	
E.G. Slope (ft/ft)	0.001594	Area (sq ft)	4303.15	12157.43	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1191.04	Top Width (ft)	623.20	567.83	
Vel Total (ft/s)	13.65	Avg. Vel. (ft/s)		13.65	
Max Chl Dpth (ft)	23.34	Hydr. Depth (ft)		21.41	
Conv. Total (cfs)	4157814.3	Conv. (cfs)		4157814.3	
Length Wtd. (ft)	450.74	Wetted Per. (ft)		580.80	
Min Ch El (ft)	1023.84	Shear (lb/sq ft)		2.08	
Alpha	1.00	Stream Power (lb/ft s)		28.44	
Frctn Loss (ft)	0.72	Cum Volume (acre-ft)	7581.82	31371.04	3434.87
C & E Loss (ft)	0.00	Cum SA (acres)	2117.17	3023.28	1054.39

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19649.87 LB	19763.44	26978.03	2187.61	120.36	16.25	19.26	12.33
19763.44	19877.01	37992.49	2624.77	113.57	22.89	23.11	14.47
19877.01	19990.57	37723.67	2613.61	113.57	22.73	23.01	14.43
19990.57	20104.14	37297.20	2595.84	113.57	22.47	22.86	14.37
20104.14	20217.71 RB	26008.62	2135.61	119.73	15.67	18.81	12.18

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.71

INPUT
Description: 211.71

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

```
18356.24  1056.618403.32 1056.5118836.53 1046.2619011.11 1054.3319170.81  1053.8
19462.94  1052.519478.82 1053.0919497.62 1060.06   19533 1043.2819551.37 1045.32
19595.29    105919611.46 1057.8119628.43 1046.4719661.32 1024.4919846.96 1023.81
19928.43 1023.1919998.17  1023.220045.76 1023.2120158.51 1023.3920197.84 1046.47
20216.14 1057.2120266.22 1057.7620314.99  1042.620325.03 1043.14 20337.2 1046.87
20568.24 1050.2520851.05 1051.3120962.88  1051.521206.35 1051.6421388.45 1051.42
21419.92 1051.2321727.44 1052.6221848.61  1053.521981.25 1052.7822130.55 1052.51
22220.26 1051.5322459.24 1054.3422578.82  1055.122876.18 1055.9323025.66 1056.21
23117.46 1056.8923238.24 1055.61 23357.2  1054.623446.32 1054.2323535.13 1054.99
23685.75 1053.2823748.15 1053.5423836.62  1056.423904.67 1055.7524029.98 1052.16
24046.15  1048.724064.65 1054.8424297.11  1054.624417.85 1054.0824709.66 1055.58
 24914.5 1057.2724949.53 1057.2425042.76  1055.725080.42 1056.7725117.12  1053.8
25243.64 1054.8825321.41 1057.3325361.74    105825507.43 1059.54 25610.8 1058.49
25724.65 1059.9825796.42 1060.0825841.82  1059.625987.23  1060.326062.01 1060.39
26081.09 1058.8926241.81 1058.1126377.22  1057.126422.65 1058.2926467.41 1067.88
26493.74 1078.7726570.07 1078.7926595.33    1080 26627.3 1065.29 26661.5 1058.87
26693.27 1058.2226725.34 1059.01

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
18356.24    .04519628.43    .03320197.84     .04

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19628.4320197.84              780  392.06     500             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
18356.24 19595.3    1068 20266.226725.34    1068

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1046.47   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.89   Wt. n-Val.                              0.033
  E.G. Elev (ft)            1049.36   Reach Len. (ft)            780.00     392.06     500.00
  Crit W.S. (ft)            1038.49   Flow Area (sq ft)                    12171.85
  E.G. Slope (ft/ft)       0.001593   Area (sq ft)                54.04    12171.85      78.25
  Q Total (cfs)           166000.00   Flow (cfs)                         166000.00
  Top Width (ft)             644.81   Top Width (ft)              42.07     569.40      33.34
  Vel Total (ft/s)            13.64   Avg. Vel. (ft/s)                       13.64
  Max Chl Dpth (ft)           23.28   Hydr. Depth (ft)                       21.38
  Conv. Total (cfs)       4158671.8   Conv. (cfs)                        4158671.8
  Length Wtd. (ft)           392.06   Wetted Per. (ft)                      582.35
  Min Ch El (ft)            1023.19   Shear (lb/sq ft)                       2.08
  Alpha                        1.00   Stream Power (lb/ft s)                28.35
  Frctn Loss (ft)              0.65   Cum Volume (acre-ft)      7547.81   31245.17    3434.61
  C & E Loss (ft)              0.02   Cum SA (acres)            2111.98    3017.40    1054.28


Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT    Profile #PF#1

  Left Sta      Right Sta        Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                (ft)      (ft/s)
  19628.43 LB   19742.31      26248.44    2153.47    120.55      15.81      18.91      12.19
  19742.31      19856.19      36383.74    2560.58    113.88      21.92      22.48      14.21
  19856.19      19970.08      38065.63    2630.99    113.88      22.93      23.10      14.47
  19970.08      20083.96      38478.95    2648.05    113.88      23.18      23.25      14.53
  20083.96      20197.84 RB   26823.24    2178.76    120.15      16.16      19.13      12.31


Warning - Divided flow computed for this cross-section.

CROSS SECTION          RIVER: 1
REACH: 1                  RS: 211.64

INPUT
Description: 211.63

Left and Right Channel Bank Stations Interpolated
Station Elevation Data    num=      74
     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev
18455.22  1055.618870.41 1054.6119083.17 1054.4919308.22 1054.2519426.55 1053.86
 19582.2  1054.119594.16 1050.2119604.79 1050.3319629.34 1057.4119639.51  1057.5
 19657.71045.60119689.19    102519804.58  1023.319911.42 1022.65 19986.5 1022.75
20036.19 1022.9320060.82  1023.620181.08 1022.5820196.63 1031.17 20219.81045.602
20238.13 1057.0220265.94 1057.5920288.34  1056.820321.05 1046.9420343.65 1039.08
20371.71 1043.95 20510.4 1045.0120712.01  1046.120789.36 1046.9121038.61 1047.48
```

21208.66	1048.1421454.04	1047.8221685.69	1048.521805.81	1048.0822092.18	1048.45
22242.98	1048.2222332.89	1048.1922513.12	1050.222770.05	1051.0723054.32	1051.7
23295.42	1051.6523472.95	1051.1123700.42	1052.523820.77	1054.7623926.54	1054.04
23949.21	1052.3623981.01	1052.4624008.88	1047.424037.13	1053.1124090.43	1054.01
24133.79	1054.5824302.75	1054.0624347.21	1053.624484.04	105424904.87	1055.84
25102.6	1055.6325165.57	1054.9925293.65	1054.325400.67	1057.0625522.25	1059.22
25597.17	1058.4125713.85	1057.9825824.69	1060.625850.02	1060.9225980.05	1061.02
26040.31	1060.2826085.96	1060.1626115.36	1058.626378.37	1057.1726385.52	1058.22
26496.95	1078.6826605.38	1079.6726703.24	1058.126712.22	1058.41	

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18455.22	.045	19657.7	.033	20219.8	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19657.7	20219.8	481	521.13	221	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18455.22	19639.51	1068	20265.92	6712.22	1068

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1045.60	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.08	Wt. n-Val.		0.033	
E.G. Elev (ft)	1048.68	Reach Len. (ft)	481.00	521.13	221.00
Crit W.S. (ft)	1038.21	Flow Area (sq ft)		11783.58	
E.G. Slope (ft/ft)	0.001744	Area (sq ft)		11783.58	363.84
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	857.09	Top Width (ft)		562.10	294.99
Vel Total (ft/s)	14.09	Avg. Vel. (ft/s)		14.09	
Max Chl Dpth (ft)	23.02	Hydr. Depth (ft)		20.96	
Conv. Total (cfs)	3975210.5	Conv. (cfs)		3975210.5	
Length Wtd. (ft)	521.13	Wetted Per. (ft)		574.61	
Min Ch El (ft)	1022.58	Shear (lb/sq ft)		2.23	
Alpha	1.00	Stream Power (lb/ft s)		31.45	
Frctn Loss (ft)	1.02	Cum Volume (acre-ft)	7547.33	31137.36	3432.07
C & E Loss (ft)	0.08	Cum SA (acres)	2111.60	3012.31	1052.39

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19657.70 LB	19770.12	25356.97	2039.95	118.57	15.28	18.15	12.43
19770.12	19882.54	37289.39	2516.92	112.43	22.46	22.39	14.82
19882.54	19994.96	38685.73	2573.03	112.42	23.30	22.89	15.04
19994.96	20107.38	37403.79	2521.60	112.43	22.53	22.43	14.83
20107.38	20219.80 RB	27264.11	2132.07	118.76	16.42	18.97	12.79

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.54

INPUT
Description: 211.54

Station Elevation Data num= 24

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18557	105619498.08	1062.8819570.11		1056.919585.13		1056.719633.01		1023.1	
19866.76	1021.920100.43	1023.220148.29		1056.820163.32		105720195.23		1056.3	
20223.6	1049.320265.59	1046.120326.25		1049.420339.59		1050.820360.21		1052.5	

```
20374.03  1055.420382.33  1055.9 20385.6  1055.9 20412.1  1057.320434.96  1056.7
20443.92  1057.120456.54  1061.420479.34  1060.721248.52  1053.6

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   18557    .03719498.08    .03220163.32    .037

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19498.0820163.32              125  124.49     120            .1        .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1855719498.08    107020163.3221248.52    1070

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1043.70   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                3.88   Wt. n-Val.                              0.032
  E.G. Elev (ft)            1047.58   Reach Len. (ft)               0.00       0.00       0.00
  Crit W.S. (ft)            1038.03   Flow Area (sq ft)                    10501.56
  E.G. Slope (ft/ft)       0.002210   Area (sq ft)                         10501.56
  Q Total (cfs)           166000.00   Flow (cfs)                          166000.00
  Top Width (ft)             525.99   Top Width (ft)                         525.99
  Vel Total (ft/s)            15.81   Avg. Vel. (ft/s)                        15.81
  Max Chl Dpth (ft)           21.80   Hydr. Depth (ft)                        19.97
  Conv. Total (cfs)       3530895.3   Conv. (cfs)                         3530895.3
  Length Wtd. (ft)             0.00   Wetted Per. (ft)                       538.98
  Min Ch El (ft)            1021.90   Shear (lb/sq ft)                        2.69
  Alpha                        1.00   Stream Power (lb/ft s)                 42.50
  Frcth Loss (ft)              0.00   Cum Volume (acre-ft)       7547.33   31004.06    3431.15
  C & E Loss (ft)              0.09   Cum SA (acres)             2111.60    3005.80    1051.64


Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF#1

  Left Sta      Right Sta        Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                 (ft)     (ft/s)
  19498.08 LB   19631.13       2249.91     264.97     33.57       1.36       9.64       8.49
  19631.13      19764.18      45194.36    2784.27    133.47      27.23      20.93      16.23
  19764.18      19897.22      47676.29    2871.45    133.05      28.72      21.58      16.60
  19897.22      20030.27      46513.56    2829.21    133.05      28.02      21.26      16.44
  20030.27      20163.32 RB   24365.89    1751.66    105.85      14.68      17.63      13.91


Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.

BRIDGE                    RIVER: 1
REACH: 1                     RS: 211.525

INPUT
Description: 19th Avenue Bridge
Distance from Upstream XS =       0
Deck/Roadway Width        =  124.49
Weir Coefficient          =     2.6
Bridge Deck/Roadway Skew  =
Upstream  Deck/Roadway Coordinates
    num=      11
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
   18557    1056    105619498.08 1062.88 1062.8819498.08 1062.88 1056.33
19617.96  1065.1 1058.4319732.91  1067.4 1060.6819853.66 1068.72 1062.03
19974.41 1069.18 1062.5120095.16 1068.67 1061.9720215.91 1067.18 1060.46
20336.66 1064.77 1058.0320456.45  1061.4 1054.73

Upstream Bridge Cross Section Data
Station Elevation Data    num=      24
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   18557    105619498.08 1062.8819570.11  1056.919585.13  1056.719633.01  1023.1
19866.76  1021.920100.43  1023.220148.29  1056.820163.32    105720195.23  1056.3
 20223.6  1049.320265.59  1046.120326.25  1049.420339.59  1050.820360.21  1052.5
20374.03  1055.420382.33  1055.9 20385.6  1055.9 20412.1  1057.320434.96  1056.7
20443.92  1057.120456.54  1061.420479.34  1060.721248.52  1053.6

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
```

```
   18557    .03719498.08    .03220163.32    .037

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19498.0820163.32              .1       .3
Ineffective Flow     num=        2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1855719498.08    107020163.3221248.52    1070

Downstream  Deck/Roadway Coordinates
    num=      11
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
   18557    1056    105619498.08 1062.88 1062.8819498.08 1062.88 1056.33
19617.96  1065.1 1058.4319732.91  1067.4 1060.6819853.66 1068.72 1062.03
19974.41 1069.18 1062.5120095.16 1068.67 1061.9720215.91 1067.18 1060.46
20336.66 1064.77 1058.0320456.45  1061.4 1054.73

Downstream Bridge Cross Section Data
Station Elevation Data    num=      22
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   18577    105619498.08 1062.8819510.11    105119579.82  1056.719594.75  1056.5
19642.62    102319876.38  1021.820110.04    102320157.91  1056.620172.93  1056.8
20204.85  1056.120210.17  1055.920249.54  1049.420344.26  1054.820347.44  1054.8
20366.65  1054.320380.75  1054.620418.55    105520428.15    105520456.54  1061.4
20479.34  1060.721248.52  1053.6

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   18577    .03719579.82    .03220172.93    .037

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19579.8220172.93              .1       .3
Ineffective Flow     num=        2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1857719579.82  1056.720172.9321248.52  1056.8

Upstream Embankment side slope              =         horiz. to 1.0 vertical
Downstream Embankment side slope            =         horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  7

Pier Data
Pier Station     Upstream=19615.06    Downstream=19615.06
Upstream     num=       2
    Width   Elev    Width   Elev
     5.8  1046.9     5.8 1058.51
Downstream     num=       2
    Width   Elev    Width   Elev
     5.8  1046.9     5.8 1058.51

Pier Data
Pier Station     Upstream=19735.81    Downstream=19735.81
Upstream     num=       2
    Width   Elev    Width   Elev
     5.8    1022     5.8 1060.77
Downstream     num=       2
    Width   Elev    Width   Elev
     5.8    1022     5.8 1060.77

Pier Data
Pier Station     Upstream=19856.56    Downstream=19856.56
Upstream     num=       2
    Width   Elev    Width   Elev
     5.8 1020.85     5.8 1062.07
Downstream     num=       2
    Width   Elev    Width   Elev
     5.8 1020.85     5.8 1062.07

Pier Data
Pier Station     Upstream=19977.31    Downstream=19977.31
Upstream     num=       2
    Width   Elev    Width   Elev
     5.8 1028.55     5.8 1062.51
```

```
Downstream     num=       2
    Width   Elev    Width   Elev
     5.8 1028.55     5.8 1062.51

Pier Data
Pier Station     Upstream=20098.06    Downstream=20098.06
Upstream     num=       2
    Width   Elev    Width   Elev
     5.8 1033.84     5.8 1062.02
Downstream     num=       2
    Width   Elev    Width   Elev
     5.8 1033.84     5.8 1062.02

Pier Data
Pier Station     Upstream=20218.81    Downstream=20218.81
Upstream     num=       2
    Width   Elev    Width   Elev
     5.8 1039.95     5.8 1060.55
Downstream     num=       2
    Width   Elev    Width   Elev
     5.8 1039.95     5.8 1060.55

Pier Data
Pier Station     Upstream=20339.56    Downstream=20339.56
Upstream     num=       2
    Width   Elev    Width   Elev
     5.8 1045.78     5.8 1058.17
Downstream     num=       2
    Width   Elev    Width   Elev
     5.8 1045.78     5.8 1058.17

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
       Momentum                Cd   =     1.2
       Yarnell                 KVal =    1.05
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the downstream end
       Criteria to check for pressure flow = Upstream water surface

CROSS SECTION          RIVER: 1
REACH: 1                  RS: 211.51

INPUT
Description: 211.51




            Begin 19th Ave Landfill channelization



Station Elevation Data    num=      22
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   18577    105619498.08 1062.8819510.11    105119579.82  1056.719594.75  1056.5
19642.62    102319876.38  1021.820110.04    102320157.91  1056.620172.93  1056.8
20204.85  1056.120210.17  1055.920249.54  1049.420344.26  1054.820347.44  1054.8
20366.65  1054.320380.75  1054.620418.55    105520428.15    105520456.54  1061.4
20479.34  1060.721248.52  1053.6

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   18577    .03719579.82    .03220172.93    .037

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19579.8220172.93              541  562.88     606             .1       .3
```

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
1857	19579.82	1056.72	0172.9	321248.52	1056.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1042.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	4.47	Wt. n-Val.		0.032	
E.G. Elev (ft)	1046.67	Reach Len. (ft)	541.00	562.88	606.00
Crit W.S. (ft)	1037.90	Flow Area (sq ft)		9779.93	
E.G. Slope (ft/ft)	0.002770	Area (sq ft)		9779.93	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	522.21	Top Width (ft)		522.21	
Vel Total (ft/s)	16.97	Avg. Vel. (ft/s)		16.97	
Max Chl Dpth (ft)	20.40	Hydr. Depth (ft)		18.73	
Conv. Total (cfs)	3154038.8	Conv. (cfs)		3154038.8	
Length Wtd. (ft)	562.88	Wetted Per. (ft)		534.33	
Min Ch El (ft)	1021.80	Shear (lb/sq ft)		3.17	
Alpha	1.00	Stream Power (lb/ft s)		53.73	
Frctn Loss (ft)	1.26	Cum Volume (acre-ft)	7547.33	30977.55	3431.15
C & E Loss (ft)	0.36	Cum SA (acres)	2111.60	3004.38	1051.64

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19579.82 LB	19698.44	19818.36	1343.02	89.31	11.94	16.13	14.76
19698.44	19817.06	41597.33	2347.45	118.62	25.06	19.79	17.72
19817.06	19935.69	43208.93	2401.59	118.62	26.03	20.25	17.99
19935.69	20054.31	41596.58	2347.42	118.62	25.06	19.79	17.72
20054.31	20172.93 RB	19778.80	1340.45	89.15	11.91	16.13	14.76

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.41

INPUT
Description: 211.41

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18573.85	1055.5	18621.78	1056.61	18655.14	1053.79	18722.99	1053.25	18902.93	1052.9
19132.77	1051.6	19320.33	1050.87	19480.47	1049.58	19533.31	1047.72	19566.92	1049.4
19611.4	1046.9	19634.53	1044.08	19638.09	1041.78	19668.43	1022.18	19702.69	1018.56
19754.63	1019.65	19786.92	1018.31	19889.98	1020.74	19930.16	1020.81	19994.45	1020.82
20076.61	1020.91	20167.45	1021.2	20192.38	1033.01	20195.55	1039.32	20206.06	1041.777
20220.36	1045.12	20236.46	1054.78	20293.62		105620331.24	1065.22	20351.37	1065.23
20357.03	1066.62	20414.04	1056.96	20436.1	1062.2	20445.88	1058.74	20504.13	1060.74
20521.21	1060.79	20557.16	1066.58	20578.69	1061.6	20603.37	1060.36	20654.05	1060.04
20689.25	1058.23	20722.97	1060.58	20735.67	1057.7	20828.84	1057.06	20846.13	1057.59
20898.33	1070.25	20938.86	1063.64	20980.02		106321017.32	1057.92	21060.66	1055.82
21097.07	1055.53	21119.44	1056.16	21132.9	1055.1	21181.47	1054.2	21283.06	1053.8
21298.44	1058.21	21320.94	1060.35	21339.43	1062.8	21380.38	1060.32	21406.09	1052.45
21459.74	1053.48	21477.97	1059.98	21533.47		106121555.62	1081.81	21619.68	1081.91
21644.09	1080.1	21655.42	1076.48	21707.29	1075.3	21720.18	1072.15	21749.96	1071.27
21770.47	1076.99	21793.84	1054.82	21802.85	1056.1	21842.36		105621864.05	1053.48
21891.41	1052.69	21905.23	1051.43	21991.71	1051.8	22210.76	1052.06	22373.03	1052.78
22531.21	1052.17	22650.75	1052.09	22819.43	1052.5	22919.43	1053.14	23211.23	1053.67
23252.71	1054.24	23349.12	1054.08	23463.55	1053.1	23574.33	1051.79	23680.61	1051.32
23891.22	1051.56	24133.09	1051.48	24212.43	1051.9	24237.65	1050.32	24284.73	1050.32
24320.22		105124361.59	1050.58	24444.1	1052				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18573.85	.037	19638.09	.032	20206.06	.037

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
19638.0920206.06 500 501.53 505 .1 .3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1041.78	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.28	Wt. n-Val.		0.032	
E.G. Elev (ft)	1045.05	Reach Len. (ft)	500.00	501.53	505.00
Crit W.S. (ft)		Flow Area (sq ft)		11426.47	
E.G. Slope (ft/ft)	0.001843	Area (sq ft)		11426.47	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	567.96	Top Width (ft)		567.96	
Vel Total (ft/s)	14.53	Avg. Vel. (ft/s)		14.53	
Max Chl Dpth (ft)	23.48	Hydr. Depth (ft)		20.12	
Conv. Total (cfs)	3866616.5	Conv. (cfs)		3866616.5	
Length Wtd. (ft)	501.53	Wetted Per. (ft)		580.83	
Min Ch El (ft)	1018.30	Shear (lb/sq ft)		2.26	
Alpha	1.00	Stream Power (lb/ft s)		32.89	
Frctn Loss (ft)	1.12	Cum Volume (acre-ft)	7547.33	30840.53	3431.15
C & E Loss (ft)	0.05	Cum SA (acres)	2111.60	2997.34	1051.64

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19638.09 LB	19751.68	29024.60	2142.88	119.57	17.48	18.87	13.54
19751.68	19865.28	40605.89	2568.40	113.64	24.46	22.61	15.81
19865.28	19978.87	36070.44	2391.86	113.60	21.73	21.06	15.08
19978.87	20092.47	35649.55	2375.01	113.59	21.48	20.91	15.01
20092.47	20206.06 RB	24649.52	1948.31	120.42	14.85	17.15	12.65

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.31

INPUT
Description: 211.31

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19209.8	1054	19309.4	1053.9	19371	1052.4	19415.6	1052	19462.5	1051.5
19496.2	1050.5	19510.1	1050.5	19528.9	1041.9	19531.2	1040.766	19571.7	1020.8
19614	1021.1	19677.8	1021.1	19724.1	1021.3	19888.2	1022	19928.3	1022.1
19954.9	1021.8	19973.9	1032	19980.4	1029.8	19994.7	1027.2	20059	1026.6
20112	1026.2	20123.3	1028	20158.9	1030.9	20198.7	1033.6	20212.5	1034.3
20267.3	1034.5	20269.1	1035.1	20281.8	1034.8	20323.2	1035.6	20338.5	1037.1
20343	1038	20356.1	1040.765	20425.9	1055.5	20434.4	1057.4	20457.3	1049
20499	1049.5	20549.5	1051.1	20551.5	1051	20571.1	1052.5	20575.3	1055.6
20584.2	1059.5	20614	1060.7	20625.4	1057	20636	1051.6	20682.5	1051.6
20692.1	1051.6	20699.2	1055	20718.1	1055.1	20723.4	1052.3	20725.3	1052.3
20778.6	1052.4	20806	1052.5	20808.3	1053.2	20835.4	1052.5	20836.7	1052.2
20884.1	1051.7	20893	1051.9	20922.6	1067.4	20930.4	1067.8	20944	1066.2
20964.4	1055.2	20970.5	1050.2	21010.5	1050.3	21036.1	1052	21040.8	1052.7
21082	1053.8	21083.4	1053.5	21093.1	1049.5	21124.5	1050.5	21134.6	1050.2
21141.3	1051.6	21160.1	1051.2	21201.6	1048.9	21204.4	1049.1	21219.3	1052.5
21236.3	1049.8	21240.9	1049.4	21293.9	1049	21338.4	1048.2	21394.2	1047.1
21457	1046.7	21459.4	1046.7	21510.1	1046.2	21538.8	1046.8	21571	1046.8
21576.7	1047.8	21607.4	1058.3	21626.3	1059.1	21651.1	1060.7	21661.7	1060.9
21672.8	1062	21684.6	1057.7	21696.7	1051.4	21740.6	1053.4	21745.1	1054.1
21754.3	1054.6	21757.7	1053	21786	1052.5				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19209.8	.037	19531.2	.032	20356.1	.037

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
19531.2 20356.1 540 523.28 460 .1 .3
Ineffective Flow num= 1

Sta L	Sta R	Elev
20434.4	21786	1060

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1040.76	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.13	Wt. n-Val.		0.032	
E.G. Elev (ft)	1043.89	Reach Len. (ft)	540.00	523.28	460.00
Crit W.S. (ft)	1037.18	Flow Area (sq ft)		11698.88	
E.G. Slope (ft/ft)	0.002759	Area (sq ft)		11698.88	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	824.88	Top Width (ft)		824.88	
Vel Total (ft/s)	14.19	Avg. Vel. (ft/s)		14.19	
Max Chl Dpth (ft)	19.96	Hydr. Depth (ft)		14.18	
Conv. Total (cfs)	3160580.8	Conv. (cfs)		3160580.8	
Length Wtd. (ft)	523.28	Wetted Per. (ft)		833.64	
Min Ch El (ft)	1020.80	Shear (lb/sq ft)		2.42	
Alpha	1.00	Stream Power (lb/ft s)		34.29	
Frctn Loss (ft)	1.21	Cum Volume (acre-ft)	7547.33	30707.41	3431.15
C & E Loss (ft)	0.28	Cum SA (acres)	2111.60	2989.32	1051.64

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19531.20 LB	19696.18	42931.32	2857.46	169.63	25.86	17.32	15.02
19696.18	19861.16	52065.17	3172.62	164.98	31.36	19.23	16.41
19861.16	20026.14	39136.02	2693.60	168.14	23.58	16.33	14.53
20026.14	20191.12	25341.59	2061.31	165.32	15.27	12.49	12.29
20191.12	20356.10 RB	6525.91	913.88	165.57	3.93	5.54	7.14

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.21

INPUT
Description: 211.21

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19418.7	1050	19432.3	1049.9	19486.6	1051	19504.4	1050.9	19507.4	1051.4
19520	1044.7	19528.74	1040.216	19566	1021.1	19781.8	1021.6	19997.4	1022.1
20060.3	1022.2	20076.2	1032.8	20080	1035	20082.4	1032.7	20093.4	1024.4
20174.8	1026.6	20183.9	1027.6	20204.6	1029.5	20217.4	1030.4	20229.3	1030.7
20232.4	1030.9	20272.7	1031.9	20335.2	1032.6	20395.1	1032	20413.6	1031.7
20425.2	1031.3	20429.3	1031.7	20447.4	1035.2	20472.4	1032.1	20501.4	1030.2
20521.26	1040.216	20521.28	1040.226	20524.4	1041.8	20544	1051.9	20563.3	1064.6
20571.8	1065.7	20580.9	1066	20589.3	1061.5	20605.5	1058.5	20622.4	1060.1
20646.3	1062.6	20659.3	1063.4	20674.4	1064.8	20683.8	1065.5	20692.9	1064.2
20760.3	1066	20772	1068	20791.6	1063.6	20814.8	1059	20846.6	1053
20876.7	1045.5	20891.6	1044.9	20916.6	1044.2	20944.9	1044.5	20964.5	1044.9
21002.8	1046.7	21028.1	1048.6	21034.5	1044.8	21035.5	1044	21113.8	1044.6
21130.1	1044.6	21249.3	1044	21250	1044.1	21260.5	1047.3	21288	1046.8
21324.8	1046.7	21359.3	1046.9	21432.1	1048	21449.9	1048.7	21452.1	1049.4
21462.5	1051.8	21469.8	1052.8	21533.8	1052	21595.7	1051.9	21614.5	1051.8
21642.6	1057.9	21645.8	1056.1	21673.8	1046.4	21698	1040.9	21967.4	1041
21972	1044.7	21983.2	1052.6	21984.7	1051.9	21991.1	1050.7	21999	1051.3
22028.7	1051	22088.3	1051.4	22171	1051.7				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19418.7	.037	19528.74	.032	20521.26	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19528.74	20521.26	495	493.11	475	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
20571.8	22171	1068

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1040.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.19	Wt. n-Val.		0.032	
E.G. Elev (ft)	1042.40	Reach Len. (ft)	495.00	493.11	475.00
Crit W.S. (ft)	1035.52	Flow Area (sq ft)		13992.95	
E.G. Slope (ft/ft)	0.001956	Area (sq ft)		13992.95	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	992.51	Top Width (ft)		992.51	
Vel Total (ft/s)	11.86	Avg. Vel. (ft/s)		11.86	
Max Chl Dpth (ft)	19.11	Hydr. Depth (ft)		14.10	
Conv. Total (cfs)	3753411.0	Conv. (cfs)		3753411.0	
Length Wtd. (ft)	493.11	Wetted Per. (ft)		1007.86	
Min Ch El (ft)	1021.10	Shear (lb/sq ft)		1.70	
Alpha	1.00	Stream Power (lb/ft s)		20.11	
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	7547.33	30553.09	3431.15
C & E Loss (ft)	0.36	Cum SA (acres)	2111.60	2978.41	1051.64

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19528.74 LB	19727.24	43680.50	3407.84	203.12	26.31	17.17	12.82
19727.24	19925.75	50282.89	3674.26	198.50	30.29	18.51	13.69
19925.75	20124.25	40694.89	3284.71	206.02	24.51	16.55	12.39
20124.25	20322.76	20033.94	2116.25	198.72	12.07	10.66	9.47
20322.76	20521.26 RB	11307.78	1509.90	201.50	6.81	7.61	7.49

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.12

INPUT
Description: 211.12

Left Channel Bank Station Interpolated
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19314	1050.6	19321.1	1050.6	19403.5	1050.4	19415.2	1050.5	19470.9	1050.5
19482.5	1051.2	19483.7	1050.5	19498.46	1040.58	19527.6	1021	19600.2	1021.1
20090.7	1021	20239.6	1020.4	20259	1020.1	20267	1022.5	20276.5	1019.8
20287.8	1020	20321.5	1020.6	20364.3	1020.4	20406.5	1019.8	20438.1	1015.7
20453.3	1015.7	20484.3	1015.7	20510.9	1015.7	20526.1	1023.8	20540.7	1029.4
20572.2	1046.4	20577.1	1044.9	20591.9	1040.2	21035.6	1040.2	21045.7	1040.3
21082.9	1041.6	21123	1041.5	21166	1041.6	21189.7	1041.5	21228.3	1041
21264.3	1041.1	21277.3	1040.7	21299.3	1040.6	21311.7	1043.9	21321.5	1044.1
21335.9	1046.9	21349.5	1046.7	21377.3	1046.7	21389.3	1045.7	21395.8	1044.6
21409	1041.7	21414.3	1040.2	21431.9	1040.1	21441.7	1040.6	21511.5	1043.7
21564.5	1044.7	21580.3	1044.8	21593	1044.6	21597	1042	22094.6	1042
22111.5	1053.1	22112.9	1051.5	22113.7	1050.9	22123	1051.4	22146.6	1051.4
22200.7	1051.7	22225.6	1051.6	22293.4	1051.7				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19314	.037	19498.46	.032	20572.2	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19498.46	20572.2	500	505.73	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev

21335.9 22293.4 1050

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1040.58	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.99	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1041.56	Reach Len. (ft)	500.00	505.73	500.00
Crit W.S. (ft)	1029.81	Flow Area (sq ft)		20780.88	171.08
E.G. Slope (ft/ft)	0.000570	Area (sq ft)		20780.88	181.03
Q Total (cfs)	166000.00	Flow (cfs)		165915.48	84.51
Top Width (ft)	1554.03	Top Width (ft)		1062.94	491.09
Vel Total (ft/s)	7.92	Avg. Vel. (ft/s)		7.98	0.49
Max Chl Dpth (ft)	24.88	Hydr. Depth (ft)		19.55	0.37
Conv. Total (cfs)	6950559.5	Conv. (cfs)		6947021.0	3538.4
Length Wtd. (ft)	505.69	Wetted Per. (ft)		1075.80	462.92
Min Ch El (ft)	1015.70	Shear (lb/sq ft)		0.69	0.01
Alpha	1.01	Stream Power (lb/ft s)		5.49	0.01
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)	7547.33	30356.27	3430.16
C & E Loss (ft)	0.07	Cum SA (acres)	2111.60	2966.77	1048.97

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19498.46 LB	19713.21	29372.06	3904.84	220.71	17.69	18.18	7.52
19713.21	19927.96	33667.11	4191.91	214.75	20.28	19.52	8.03
19927.96	20142.70	33862.07	4206.45	214.75	20.40	19.59	8.05
20142.70	20357.45	35142.50	4307.10	215.49	21.17	20.06	8.16
20357.45	20572.20 RB	33871.73	4170.58	210.11	20.40	20.45	8.12
20572.20	20686.95	17.79	35.89	96.28	0.01	0.37	0.50
20686.95	20801.69	21.44	43.06	114.75	0.01	0.38	0.50
20801.69	20916.44	21.44	43.06	114.75	0.01	0.38	0.50
20916.44	21031.19	21.44	43.06	114.75	0.01	0.38	0.50
21031.19	21145.93	2.40	6.02	22.39	0.00	0.27	0.40

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 211.02

INPUT
Description: 211.02

Left Channel Bank Station Interpolated
Station Elevation Data num= 58

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19239	1049.4	19253.3	1049.2	19318.8	1049.3	19330	1049.2	19381.9	1049.5
19409.6	1049.3	19472.3	1049	19487.12	1039.3	75 19515.1	1021.2	19977.7	1020.4
20111.7	1020.1	20119.2	1025.6	20133.2	1024.1	20136.2	1022.2	20140	1019.4
20202.9	1020.4	20228.3	1020.7	20238.9	1022.4	20243.6	1025.6	20270.1	1025.5
20279.9	1025.7	20343.8	1026.1	20394.3	1041.3	20424.2	1040	20434	1040.5
20448.3	1038.4	20459.5	1037.9	20468.8	1038.2	20484.1	1038	20494.6	1038.7
20501.7	1038.2	21087.6	1039.1	21102.9	1037.2	21124.7	1036.8	21132.2	1033
21144.9	1032.5	21184.2	1034.3	21243.7	1036.3	21300.5	1038.4	21315.9	1038.7
21353.2	1040	21399.5	1041.4	21439	1042.3	21480	1043.6	21514.7	1043.6
21524.4	1043.8	21535.1	1043.6	21559.7	1042.3	21570.6	1042.2	22151.3	1042
22163.4	1052.1	22174.7	1052.9	22226.3	1051.5	22239.2	1051.3	22318	1051.9
22324.3	1052	22393.8	1052.8	22399.8	1052.7				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19239	.037	19487.12	.032	20394.3	.037

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
19487.12 20394.3 485 493.19 495 .1 .3
Ineffective Flow num= 1
Sta L Sta R Elev
21500 22399.8 1050

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1039.37	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.71	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1041.09	Reach Len. (ft)	485.00	493.19	495.00
Crit W.S. (ft)	1032.08	Flow Area (sq ft)		15475.21	1290.02
E.G. Slope (ft/ft)	0.001191	Area (sq ft)		15475.21	1290.02
Q Total (cfs)	166000.00	Flow (cfs)		163717.95	2282.03
Top Width (ft)	1794.36	Top Width (ft)		900.78	893.58
Vel Total (ft/s)	9.90	Avg. Vel. (ft/s)		10.58	1.77
Max Chl Dpth (ft)	19.97	Hydr. Depth (ft)		17.18	1.44
Conv. Total (cfs)	4809078.5	Conv. (cfs)		4742967.0	66111.3
Length Wtd. (ft)	493.36	Wetted Per. (ft)		912.61	894.88
Min Ch El (ft)	1019.40	Shear (lb/sq ft)		1.26	0.11
Alpha	1.13	Stream Power (lb/ft s)		13.34	0.19
Frctn Loss (ft)	0.54	Cum Volume (acre-ft)	7547.33	30145.80	3421.72
C & E Loss (ft)	0.18	Cum SA (acres)	2111.60	2955.37	1041.02

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19487.12 LB	19668.55	31332.76	3063.54	186.82	18.88	16.89	10.23
19668.55	19849.99	37527.60	3374.11	181.44	22.61	18.60	11.12
19849.99	20031.43	38602.15	3431.73	181.44	23.25	18.91	11.25
20031.43	20212.87	37545.34	3399.93	184.80	22.62	18.74	11.04
20212.87	20394.30 RB	18710.08	2205.90	178.12	11.27	12.60	8.48
20394.30	20528.00	109.90	96.43	86.46	0.07	1.12	1.14
20528.00	20661.70	149.16	137.88	133.70	0.09	1.03	1.08
20661.70	20795.40	103.01	110.42	133.70	0.06	0.83	0.93
20795.40	20929.10	63.96	82.96	133.70	0.04	0.62	0.77
20929.10	21062.80	32.73	55.50	133.70	0.02	0.42	0.59
21062.80	21196.50	1228.29	490.11	134.79	0.74	3.67	2.51
21196.50	21330.20	594.93	316.29	133.78	0.36	2.37	1.88
21330.20	21463.90	0.09	0.44	5.05	0.00	0.09	0.21

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 210.93

INPUT
Description: 210.93

Left Channel Bank Station Interpolated
Station Elevation Data num= 50

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19200.1	1048.6	19256.6	1048.1	19323.4	1048.3	19376.7	1048.6	19414.5	1048
19464.2	1048.3	19479.12	1039.25	19508.9	1021.2	19821.8	1022.3	20131.9	1023.4
20138.8	1028	20162.4	1029.4	20166.3	1026.3	20172.8	1019.1	20212	1018.7
20278.3	1019.9	20290	1025.6	20331.4	1025	20349.2	1032.1	20351.6	1031.2
20355.1	1030.5	20397.8	1031.3	20406.9	1035.2	20414.8	1039.6	20431.2	1039.4
20455.9	1039.7	20458.7	1037.8	20465.5	1037.9	20470.4	1034.9	20474.7	1032.7
21343.1	1032.7	21350.5	1032.5	21376.3	1035.6	21390.1	1033.4	21395.9	1033.7
21424.3	1033.9	21484.4	1034.5	21494.9	1034.3	21537	1034.4	22171.3	1034.4
22195.5	1049.6	22217.9	1047.5	22260.9	1035	22263.6	1034.9	22291.1	1051
22312.1	1051.8	22326.6	1051.4	22375.7	1051.7	22388.8	1051.5	22397.4	1050.6

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19200.1	.037	19479.12	.032	20414.8	.037

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

19479.12	20414.8	505	505.14	505	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21576	22397.4	1048

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1039.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.12	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1040.38	Reach Len. (ft)	505.00	505.14	505.00
Crit W.S. (ft)	1034.19	Flow Area (sq ft)		14880.69	6924.53
E.G. Slope (ft/ft)	0.000996	Area (sq ft)		14880.69	9890.05
Q Total (cfs)	166000.00	Flow (cfs)		136464.55	29535.45
Top Width (ft)	2682.27	Top Width (ft)		935.05	1747.22
Vel Total (ft/s)	7.61	Avg. Vel. (ft/s)		9.17	4.27
Max Chl Dpth (ft)	20.55	Hydr. Depth (ft)		15.91	6.19
Conv. Total (cfs)	5259846.5	Conv. (cfs)		4323991.5	935854.9
Length Wtd. (ft)	505.12	Wetted Per. (ft)		950.60	1121.64
Min Ch El (ft)	1018.70	Shear (lb/sq ft)		0.97	0.38
Alpha	1.25	Stream Power (lb/ft s)		8.93	1.64
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	7547.33	29973.95	3358.19
C & E Loss (ft)	0.01	Cum SA (acres)	2111.60	2944.98	1026.02

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19479.12 LB	19666.26	28318.25	3065.68	192.18	17.06	16.38	9.24
19666.26	19853.39	31168.98	3212.96	187.14	18.78	17.17	9.70
19853.39	20040.53	29192.21	3089.08	187.14	17.59	16.51	9.45
20040.53	20227.66	28397.82	3075.19	192.86	17.11	16.43	9.23
20227.66	20414.80 RB	19387.29	2437.79	191.29	11.68	13.07	7.95
20414.80	20546.97	2089.49	521.98	92.24	1.26	5.77	4.00
20546.97	20679.15	3821.47	865.89	132.17	2.30	6.55	4.41
20679.15	20811.32	3821.53	865.91	132.17	2.30	6.55	4.41
20811.32	20943.49	3821.53	865.91	132.17	2.30	6.55	4.41
20943.49	21075.67	3821.53	865.91	132.17	2.30	6.55	4.41
21075.67	21207.84	3821.47	865.89	132.17	2.30	6.55	4.41
21207.84	21340.01	3821.53	865.91	132.17	2.30	6.55	4.41
21340.01	21472.19	2687.92	701.89	132.55	1.62	5.31	3.83
21472.19	21604.36	1828.98	505.24	103.82	1.10	4.87	3.62

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 210.83

INPUT
Description: 210.83

Left Channel Bank Station Interpolated
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19202.3	1047.9	19230.6	1048.2	19316.1	1047.1	19412.4	1046.5	19438.4	1046.4
19450.41	1038.8	19469.9	1026.5	19479.2	1021.2	19797.6	1021	19923.9	1020.9
19961.4	1020.6	19972.9	1027.1	19981.7	1030.2	20023.7	1029.7	20030.1	1028.5
20042.7	1023.3	20047.1	1022.6	20060.1	1021.5	20068	1019.1	20084.8	1019.4
20164.7	1020.3	20209.2	1020.4	20210.1	1020.8	20276.6	1019.8	20285.1	1022.2
20306.6	1025.2	20309	1026.8	20312.4	1026.3	20316.8	1024.7	20372.8	1023.5
20408.7	1043.6	20410.4	1042.5	20412	1040	20434.3	1040.8	20448.6	1034
21423.7	1034.1	21433.7	1033	21527.5	1031.1	21554.4	1029.7	21577.9	1029.4
21646.5	1030.2	21704.4	1029.9	21742.9	1046.2	21761.3	1040	21807.2	1041.3
21814	1044.7	21818.3	1046.4	21862.5	1045.9	21879.4	1037.5	21883.7	1035
21887.9	1033.8	21911.6	1035.9	21937.9	1050.1	21957.5	1042.6	22341.8	1042.6
22364.7	1049.8	22372.9	1048.2	22423	1049.3	22443.3	1049.3	22494.1	1045.8
22499.7	1044.9								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19202.3	.037	19450.41	.032	20410.4	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19450.41	20410.4	505	505.61	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21742.9	22499.7	1048

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1038.81	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.08	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1039.88	Reach Len. (ft)	505.00	505.61	500.00
Crit W.S. (ft)	1032.16	Flow Area (sq ft)		15672.01	7010.29
E.G. Slope (ft/ft)	0.000898	Area (sq ft)		15672.01	7143.08
Q Total (cfs)	166000.00	Flow (cfs)		139926.77	26073.24
Top Width (ft)	2276.87	Top Width (ft)		949.71	1327.15
Vel Total (ft/s)	7.32	Avg. Vel. (ft/s)		8.93	3.72
Max Chl Dpth (ft)	19.71	Hydr. Depth (ft)		16.50	5.45
Conv. Total (cfs)	5540507.0	Conv. (cfs)		4670272.5	870234.8
Length Wtd. (ft)	504.94	Wetted Per. (ft)		963.98	1289.96
Min Ch El (ft)	1019.10	Shear (lb/sq ft)		0.91	0.30
Alpha	1.30	Stream Power (lb/ft s)		8.13	1.13
Frcth Loss (ft)	0.40	Cum Volume (acre-ft)	7547.33	29796.80	3259.46
C & E Loss (ft)	0.02	Cum SA (acres)	2111.60	2934.05	1008.20

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19450.41 LB	19642.41	27576.42	3140.76	196.95	16.61	16.36	8.78
19642.41	19834.41	32196.36	3411.70	192.00	19.40	17.77	9.44
19834.41	20026.40	24856.83	2935.04	194.29	14.97	15.29	8.47
20026.40	20218.40	32836.30	3464.04	193.65	19.78	18.04	9.48
20218.40	20410.40 RB	22460.95	2720.48	187.09	13.53	14.97	8.26
20410.40	20549.69	1627.46	509.59	112.28	0.98	4.58	3.19
20549.69	20688.97	2207.54	666.97	139.29	1.33	4.79	3.31
20688.97	20828.26	2196.61	664.99	139.29	1.32	4.77	3.30
20828.26	20967.55	2185.66	663.00	139.29	1.32	4.76	3.30
20967.55	21106.83	2174.74	661.01	139.29	1.31	4.75	3.29
21106.83	21246.12	2163.82	659.01	139.29	1.30	4.73	3.28
21246.12	21385.41	2152.97	657.03	139.29	1.30	4.72	3.28
21385.41	21524.69	3273.45	845.02	139.37	1.97	6.07	3.87
21524.69	21663.98	6156.00	1234.23	139.33	3.71	8.86	4.99
21663.98	21803.27	1934.89	449.42	63.26	1.17	7.31	4.31

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 210.74

INPUT
Description: 210.74

Left Channel Bank Station Interpolated
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19243.9	1048.6	19252.9	1048.6	19306.8	1048.4	19320.5	1047.9	19400.4	1046.9
19417.4	1044.5	19426.12	1038.473	19455.3	1018.3	19887.7	1018.2	19910.2	1018.2
19912.1	1019.4	19926.7	1020.6	19947.1	1020.5	19971.2	1029.9	19999.5	1024.8
20005.9	1025.6	20026.7	1018.2	20095.6	1018.8	20149	1019.3	20154.3	1019.5
20159.1	1018.6	20206.5	1019.2	20250.3	1018.3	20256.9	1020.6	20263.3	1021.3
20281.7	1020.8	20318.1	1022	20333.5	1021.2	20349.8	1021.8	20361.7	1025.8
20373.2	1024.1	20404.6	1025.2	20432.5	1037.6	20433.7	1039.4	20462.4	1039.5
20468.2	1036.5	21389.5	1036.5	21394.6	1032.8	21404	1032.7	21513.7	1032
21520.3	1033.6	21537.2	1027.8	21587.9	1027.7	21638.9	1028.2	21695.6	1029
21747.1	1028.9	21771	1029.8	21801.8	1041	21813.2	1040.9	22057.2	1040.9
22066.5	1043.5	22085.1	1044.1	22096.2	1047.4	22123.7	1048.7	22156.7	1040.5
22272.5	1040.5	22293.7	1049.5	22308.5	1048.9	22356.6	1048.4	22365.3	1048.1
22369	1048.8	22377.5	1053.2	22399.8	1048.3				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19243.9	.037	19426.12	.032	20433.7	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19426.12	20433.7	495	503.39	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21801.8	22399.8	1048

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1038.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.00	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1039.47	Reach Len. (ft)	495.00	503.39	500.00
Crit W.S. (ft)	1029.76	Flow Area (sq ft)		18302.46	5178.42
E.G. Slope (ft/ft)	0.000687	Area (sq ft)		18302.46	5178.42
Q Total (cfs)	166000.00	Flow (cfs)		152539.30	13460.71
Top Width (ft)	2337.38	Top Width (ft)		1006.95	1330.43
Vel Total (ft/s)	7.07	Avg. Vel. (ft/s)		8.33	2.60
Max Chl Dpth (ft)	20.27	Hydr. Depth (ft)		18.18	3.89
Conv. Total (cfs)	6332068.5	Conv. (cfs)		5818610.0	513458.5
Length Wtd. (ft)	503.03	Wetted Per. (ft)		1021.67	1334.83
Min Ch El (ft)	1018.20	Shear (lb/sq ft)		0.77	0.17
Alpha	1.29	Stream Power (lb/ft s)		6.41	0.43
Frctn Loss (ft)	0.31	Cum Volume (acre-ft)	7547.33	29599.63	3188.74
C & E Loss (ft)	0.07	Cum SA (acres)	2111.60	2922.70	992.94

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19426.12 LB	19627.63	31518.35	3772.92	207.80	18.99	18.72	8.35
19627.63	19829.15	36599.66	4076.55	201.52	22.05	20.23	8.98
19829.15	20030.67	27473.06	3458.78	205.47	16.55	17.16	7.94
20030.67	20232.18	34794.03	3955.46	201.62	20.96	19.63	8.80
20232.18	20433.70 RB	22154.20	3038.75	205.28	13.35	15.13	7.29
20433.70	20564.77	241.01	193.63	100.85	0.15	1.93	1.24
20564.77	20695.85	325.93	257.73	131.07	0.20	1.97	1.26
20695.85	20826.92	325.94	257.73	131.07	0.20	1.97	1.26
20826.92	20957.99	325.93	257.73	131.07	0.20	1.97	1.26
20957.99	21089.07	325.94	257.73	131.07	0.20	1.97	1.26
21089.07	21220.14	325.94	257.73	131.07	0.20	1.97	1.26
21220.14	21351.21	325.93	257.73	131.07	0.20	1.97	1.26
21351.21	21482.29	1397.14	619.47	132.28	0.84	4.73	2.26
21482.29	21613.36	4107.10	1182.87	132.23	2.47	9.02	3.47
21613.36	21744.43	4769.75	1289.42	131.08	2.87	9.84	3.70
21744.43	21875.51	990.09	346.65	51.94	0.60	6.88	2.86

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 210.64

INPUT
Description: 210.64
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19062.1	1046.2	19142.3	1046.5	19216.9	1046.5	19239.3	1046.6	19313.3	1046.3
19339.3	1045.9	19359.9	1044.7	19388.6	1036.7	19405.4	1034.5	19435.6	1017.8
19522.4	1017.9	19688	1018.2	19812.5	1018.5	19845.7	1021.7	19854.2	1021.6
19868.7	1023.2	19885.6	1022.9	19894.1	1026.4	19926.9	1018.1	19954	1018.1
20029.3	1018.2	20100.6	1018.3	20159.1	1018.4	20163.7	1019.2	20174.9	1019.6
20183.1	1020.8	20192.3	1019.6	20214.4	1021.7	20234.8	1024.3	20242.8	1022.1
20298.5	1024	20323.5	1025.5	20335	1029.1	20359.6	1019.1	20427.6	1017.8
20430.1	1017.7	20460.6	1039.9	20483.4	1039.5	20493.5	1033.2	21394.6	1033.2
21442.1	1031.4	21449.1	1028.1	21453.5	1025.3	21460.9	1025.2	21472.1	1026
21483.6	1028.3	21519.7	1032.5	22411.4	1032.5	22434.2	1045.9	22446.8	1049.8
22496.5	1049.4	22507.7	1051.3	22521	1044.2	22524.9	1044.1	22586.3	1043
22591.1	1043.3								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19062.1	.037	19388.6	.032	20460.6	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19388.6	20460.6	520	515.29	495	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev

21800 22591.1 1048

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1038.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.77	Wt. n-Val.	0.037	0.032	0.037
E.G. Elev (ft)	1039.09	Reach Len. (ft)	520.00	515.29	495.00
Crit W.S. (ft)	1028.99	Flow Area (sq ft)	4.71	19380.09	7317.06
E.G. Slope (ft/ft)	0.000552	Area (sq ft)	4.71	19380.09	10904.42
Q Total (cfs)	166000.00	Flow (cfs)	3.77	144352.89	21643.35
Top Width (ft)	3011.65	Top Width (ft)	5.81	1069.83	1936.01
Vel Total (ft/s)	6.22	Avg. Vel. (ft/s)	0.80	7.45	2.96
Max Chl Dpth (ft)	20.62	Hydr. Depth (ft)	0.81	18.12	5.57
Conv. Total (cfs)	7065400.0	Conv. (cfs)	160.3	6144041.5	921198.4
Length Wtd. (ft)	513.49	Wetted Per. (ft)	6.03	1086.37	1318.26
Min Ch El (ft)	1017.70	Shear (lb/sq ft)	0.03	0.61	0.19
Alpha	1.28	Stream Power (lb/ft s)	0.02	4.58	0.57
Frctn Loss (ft)	0.31	Cum Volume (acre-ft)	7547.30	29381.89	3096.44
C & E Loss (ft)	0.02	Cum SA (acres)	2111.57	2910.70	974.20

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19366.83	19388.60	3.77	4.71	6.03	0.00	0.81	0.80
19388.60 LB	19603.00	28022.59	3830.06	218.85	16.88	17.86	7.32
19603.00	19817.40	34438.15	4299.04	214.42	20.75	20.05	8.01
19817.40	20031.80	29102.34	3899.92	216.35	17.53	18.19	7.46
20031.80	20246.20	31037.58	4044.95	215.21	18.70	18.87	7.67
20246.20	20460.60 RB	21752.22	3306.12	221.54	13.10	15.58	6.58
20460.60	20602.63	1557.11	579.82	118.81	0.94	4.94	2.69
20602.63	20744.67	2016.62	727.26	142.03	1.21	5.12	2.77
20744.67	20886.70	2016.62	727.26	142.03	1.21	5.12	2.77
20886.70	21028.73	2016.62	727.26	142.03	1.21	5.12	2.77
21028.73	21170.77	2016.62	727.26	142.03	1.21	5.12	2.77
21170.77	21312.80	2016.62	727.26	142.03	1.21	5.12	2.77
21312.80	21454.83	2511.42	833.30	143.62	1.51	5.87	3.01
21454.83	21596.87	3921.01	1085.35	142.54	2.36	7.64	3.61
21596.87	21738.90	2496.70	826.68	142.03	1.50	5.82	3.02
21738.90	21880.93	1074.03	355.62	61.10	0.65	5.82	3.02

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 210.55

INPUT
Description: 210.55

Left Channel Bank Station Interpolated
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19008	1045.1	19023.1	1045.1	19106.6	1045.2	19117.1	1045.2	19188.7	1045.4
19198.2	1045.3	19263.2	1046	19303.5	1044.21	9322.16	1037.828	19365	1023.2
19375.9	1018.6	19396.7	1018.7	19519.3	1018.6	19791	1018.3	19813.4	1028.8
19857.3	1026.7	19886.1	1038.1	19909.3	1027.2	19915.5	1030.7	19959.6	1020
20002.1	1018	20058.3	1018.1	20175.7	1018.1	20440.7	1018.3	20476.7	1037.4
20483.2	1040.3	20500.3	1039.7	20507.6	1034.3	21313.5	1033.6	21372.5	1032.4
21406.9	1033	21409.3	1032.1	21417.2	1027.2	21429	1026.3	21456.2	1025.4
21459.3	1026.4	21468.1	1028.2	21496.9	1030.2	21548.3	1034.3	21557.5	1034.9
21626.2	1036.3	21634.2	1035.7	21643.8	1035.7	21713	1035.7	21771.2	1036
22449.6	1036	22451.9	1037.8	22455.6	1040	22484.4	1044.7	22494.2	1046.8
22499.9	1046	22506.9	1046.2	22537.1	1043.6	22580.7	1043.5	22585	1043

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19008	.037	19322.16	.032	20483.2	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19322.16	20483.2	475	473.19	495	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21300	22585	1046.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1037.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.94	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1038.76	Reach Len. (ft)	475.00	473.19	495.00
Crit W.S. (ft)	1028.53	Flow Area (sq ft)		19940.31	3072.90
E.G. Slope (ft/ft)	0.000667	Area (sq ft)		19940.31	6506.73
Q Total (cfs)	166000.00	Flow (cfs)		158174.88	7825.13
Top Width (ft)	3103.29	Top Width (ft)		1154.19	1949.10
Vel Total (ft/s)	7.21	Avg. Vel. (ft/s)		7.93	2.55
Max Chl Dpth (ft)	19.82	Hydr. Depth (ft)		17.28	3.85
Conv. Total (cfs)	6429886.5	Conv. (cfs)		6126786.0	303100.7
Length Wtd. (ft)	473.70	Wetted Per. (ft)		1171.52	798.32
Min Ch El (ft)	1018.00	Shear (lb/sq ft)		0.71	0.16
Alpha	1.16	Stream Power (lb/ft s)		5.62	0.41
Frctn Loss (ft)	0.17	Cum Volume (acre-ft)	7547.28	29149.33	2997.51
C & E Loss (ft)	0.18	Cum SA (acres)	2111.53	2897.54	952.12

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19322.16 LB	19554.37	30183.38	3921.82	235.55	18.18	16.89	7.70
19554.37	19786.58	38358.50	4502.57	232.21	23.11	19.39	8.52
19786.58	20018.78	17612.38	2860.23	240.05	10.61	12.39	6.16
20018.78	20250.99	39452.27	4579.17	232.21	23.77	19.72	8.62
20250.99	20483.20 RB	32568.34	4076.52	231.50	19.62	17.99	7.99
20483.20	20623.32	1000.43	421.90	121.64	0.60	3.50	2.37
20623.32	20763.44	1274.60	516.29	140.12	0.77	3.68	2.47
20763.44	20903.56	1345.55	533.34	140.12	0.81	3.81	2.52
20903.56	21043.68	1418.04	550.40	140.12	0.85	3.93	2.58
21043.68	21183.80	1492.00	567.45	140.12	0.90	4.05	2.63
21183.80	21323.92	1294.53	483.52	116.20	0.78	4.16	2.68

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 210.46

INPUT
Description: 210.46

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18491.3	1044.8	18509.6	1044.4	18559.8	1045.8	18571.1	1045.5	18584.8	1043.3
18607.7	1045	18678	1044.8	18723.7	1044.2	18801	1044.1	18803.4	1044.1
18891.1	1043.9	18897.1	1043.9	18962.7	1043.6	19022.5	1043.3	19024.4	1043.3
19078.3	1042.4	19136.1	1042.2	19176.5	1042.5	19201.9	1040.9	19233.8	1028.3
19266.3	1021.8	19276.2	1021.1	19328.5	1018.7	19351.6	1018.1	19377	1018.33
19395.8	1018.5	19810.2	1018.3	19863.8	1018.1	19922	1018.2	20015.9	1018.2
20094.1	1018.1	20114.1	1018.1	20127.6	1022.4	20129.6	1023.9	20150.4	1023.9
20174.1	1021.6	20197.2	1018.1	20239.9	1018.1	20295.4	1018.2	20303	1018.6
20351.5	1018	20390.4	1018.4	20443.9	1018.4	20502.8	1018.5	20565.4	1018.8
20656.3	1018.8	20722.5	1019	20743	1019.6	20798.1	1019.8	20867.2	1019.1
20920.3	1019.3	20973.2	1019.2	21047.3	1019.3	21120.7	1021.1	21123	1021.2
21136.1	1016.3	21211.7	1018.4	21228.5	1018.3	21261.8	1036.3	21280.4	1034.9
21284	1038.08	21290.7	1044	21292.3	1046	21334.2	1043	21405.2	1043.3
21443.5	1044.5	21454	1047.4	21465.5	1044.1	22456.6	1042.9	22498.8	1045.3
22515	1046.9	22564.7	1048.3	22637.2	1048.5	22652	1048.3		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18491.3	.037	19176.5	.032	20150.4	.037	21292.3	.037	21454	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19377	21284	520	522.28	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18491.3	19377	1048	21292.3	22652	1048

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1038.08	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.		0.035	
E.G. Elev (ft)	1038.40	Reach Len. (ft)	520.00	522.28	505.00
Crit W.S. (ft)	1025.03	Flow Area (sq ft)		36203.79	
E.G. Slope (ft/ft)	0.000227	Area (sq ft)	2618.84	36203.79	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2074.95	Top Width (ft)	167.96	1907.00	
Vel Total (ft/s)	4.59	Avg. Vel. (ft/s)		4.59	
Max Chl Dpth (ft)	21.78	Hydr. Depth (ft)		18.98	
Conv. Total (cfs)	11010876.0	Conv. (cfs)		11010876.0	
Length Wtd. (ft)	522.28	Wetted Per. (ft)		1915.32	
Min Ch El (ft)	1016.30	Shear (lb/sq ft)		0.27	
Alpha	1.00	Stream Power (lb/ft s)		1.23	
Frctn Loss (ft)	0.15	Cum Volume (acre-ft)	7533.00	28844.38	2960.54
C & E Loss (ft)	0.01	Cum SA (acres)	2110.62	2880.92	941.05

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19377.00 LB	19758.40	38210.64	7500.38	381.40	23.02	19.67	5.09
19758.40	20139.80	38034.33	7488.75	382.57	22.91	19.63	5.08
20139.80	20521.20	32004.21	7344.00	381.79	19.28	19.26	4.36
20521.20	20902.60	31106.06	7232.97	381.41	18.74	18.96	4.30
20902.60	21284.00 RB	26644.77	6637.69	388.15	16.05	17.40	4.01

CROSS SECTION RIVER: 1
REACH: 1 RS: 210.36

INPUT
Description: 210.36

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 99

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19224.5	1050.4	19284.3	1050.7	19305	1051	19357.1	1049.61	9375.16	1037.787
19404.8	1018.4	19463.3	1018.3	19612.3	1018.1	19621.3	1018.1	19634.8	1021.9
19667.3	1022.1	19733.3	1021.4	19790.5	1022.1	19802.9	1021.9	19818.6	1026.5
19827	1026.5	19834.6	1028.4	19890.9	1029	19964.7	1027.7	19973.5	1027.6
19985.2	1023	19997.6	1019.2	20010.7	1019.2	20032.2	1022.5	20039.2	1024.8
20087.1	1023	20111.8	1024.6	20144.4	1023.1	20153.9	1025.4	20168.7	1024.3
20191.7	1024.2	20273.6	1021.2	20346.9	1017.4	20363.5	1017.6	20425.8	1018.5
20437.5	1019.6	20442.7	1017.4	20510.8	1017.5	20526.1	1018	20581.3	1024.2
20636.5	1025.3	20692.9	1026.1	20742.9	1025.6	20769.6	1031.4	20776.7	1032.1
20797.4	1031.2	20811.3	1023.1	20868.1	1020.3	20886.8	1019.8	21012.2	1019.3
21017.9	1019.4	21027	1020.7	21039.6	1017.6	21095.8	1017.7	21149.8	1018
21208.9	1018.7	21245	1019.62	1291.17	1037.78	621291.23	1037.81	21303.9	1042.8
21368	1043.7	21407.5	1045.3	21418.5	1048.3	21429.5	1045.3	21450.9	1041.3
21516.4	1042.2	21531.8	1042.1	21606.4	1042.3	21664.8	1042.2	21728.4	1042.1
21735.8	1042.3	21795.8	1042.1	21853	1041.4	21904.7	1040.9	21945.9	1041.5
22007.4	1043.5	22067.8	1044.3	22085.5	1044.9	22124.1	1042.5	22213.9	1042.6
22278	1043.1	22282.5	1043	22318.4	1050.8	22330.1	1051.8	22376	1061.9
22399.2	1062.6	22410.6	1059.4	22438.3	1043.7	22476	1043.3	22498.2	1043.9
22517.5	1047.5	22554.5	1047.8	22615.4	1044.3	22685.5	1043.5	22715.7	1043.9
22733.2	1052.6	22752.7	1056.6	22761.2	1057.6	22797.5	1059		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19224.5	.032	19357.1	.037	20776.7	.025	21303.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19375.16	21291.17	480	487.62	480	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev

21303.9 22797.5 1058

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1037.78	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.		0.032	
E.G. Elev (ft)	1038.24	Reach Len. (ft)	480.00	487.62	480.00
Crit W.S. (ft)	1027.52	Flow Area (sq ft)		30410.01	
E.G. Slope (ft/ft)	0.000357	Area (sq ft)		30410.01	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1915.99	Top Width (ft)		1915.99	
Vel Total (ft/s)	5.46	Avg. Vel. (ft/s)		5.46	
Max Chl Dpth (ft)	20.38	Hydr. Depth (ft)		15.87	
Conv. Total (cfs)	8781299.0	Conv. (cfs)		8781299.0	
Length Wtd. (ft)	487.62	Wetted Per. (ft)		1933.62	
Min Ch El (ft)	1017.40	Shear (lb/sq ft)		0.35	
Alpha	1.00	Stream Power (lb/ft s)		1.92	
Frctn Loss (ft)	0.16	Cum Volume (acre-ft)	7517.37	28445.04	2960.54
C & E Loss (ft)	0.02	Cum SA (acres)	2109.62	2858.00	941.05

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19375.16 LB	19758.36	33855.21	6736.25	389.50	20.39	17.58	5.03
19758.36	20141.56	19831.86	4871.09	386.29	11.95	12.71	4.07
20141.56	20524.77	34812.11	6812.33	384.19	20.97	17.78	5.11
20524.77	20907.97	25716.20	5136.30	386.51	15.49	13.40	5.01
20907.97	21291.17 RB	51784.62	6854.03	387.13	31.20	17.89	7.56

CROSS SECTION RIVER: 1
REACH: 1 RS: 210.26

INPUT
Description: 210.26

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 75

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18518	1039.8	18554.5	1039.8	18657.8	1042	18741.9	1041.6	18818	1041.2
18898.6	1041.1	18982.3	1040.1	19077.8	1039.4	19162	1039.9	19268.1	1040.3
19363.8	1039.3	19372.2	1040.4	19377.07	1037.672	19408.8	1019.9	19682.2	1018.6
19755.3	1018.2	19759.5	1026	19769	1023.5	19813.4	1021.7	19816	1022.7
19816.8	1022	19849.2	1020.9	19871.6	1022.5	19881.3	1022.3	19909.8	1024.5
19932.2	1024.7	19991.1	1027.6	20032.1	1025.3	20063.9	1021.9	20070.8	1022
20075.8	1024	20075.9	1020.9	20082.4	1025	20120.1	1032.8	20142.9	1027.4
20152.1	1027.4	20162	1021.5	20166.1	1020	20257.3	1025.2	20290.7	1026.3
20327.7	1020.7	20449	1018.6	20490.7	1017.8	20521.6	1018.3	20541.8	1020.7
20564.4	1016.9	20641.9	1017.2	20694.8	1022.3	20718.8	1018.4	20789.5	1018.3
20862.3	1019.1	20960	1018.2	20989.1	1018.9	21058.3	1018.1	21141	1018
21241.8	1017.5	21265.8	1018.4	21280.3	1023.5	21331.82	1037.672	21342.1	1040.5
21367.6	1040.4	21378.7	1044	21393.2	1047	21408.2	1043.8	21433.3	1036.1
21453.3	1036.5	21462.7	1039.8	21481.6	1041	22697.5	1041	22726.9	1046.8
22740.7	1043.8	22748.5	1041	22815.8	1041	22841.3	1048	22891	1057.7

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18518	.037	19372.2	.032	20694.8	.037	21342.1	.037	21393.2	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19377.072	1331.82	505	512.65	520	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18518	19162	1050	21393.2	22891	1050

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1037.67	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.		0.034	
E.G. Elev (ft)	1038.06	Reach Len. (ft)	505.00	512.65	520.00
Crit W.S. (ft)	1026.44	Flow Area (sq ft)		32878.57	
E.G. Slope (ft/ft)	0.000308	Area (sq ft)		32878.57	33.27
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1983.15	Top Width (ft)		1954.72	28.43
Vel Total (ft/s)	5.05	Avg. Vel. (ft/s)		5.05	

Max Chl Dpth (ft)	20.77	Hydr. Depth (ft)		16.82	
Conv. Total (cfs)	9463630.0	Conv. (cfs)		9463630.0	
Length Wtd. (ft)	512.65	Wetted Per. (ft)		1977.66	
Min Ch El (ft)	1016.90	Shear (lb/sq ft)		0.32	
Alpha	1.00	Stream Power (lb/ft s)		1.61	
Frotn Loss (ft)	0.17	Cum Volume (acre-ft)	7517.37	28090.80	2960.36
C & E Loss (ft)	0.01	Cum SA (acres)	2109.62	2836.33	940.89

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19377.07 LB	19768.02	37183.39	6899.55	400.53	22.40	17.65	5.39
19768.02	20158.97	21881.24	5012.16	399.08	13.18	12.82	4.37
20158.97	20549.92	34339.62	6525.42	392.59	20.69	16.69	5.26
20549.92	20940.87	39564.36	7477.89	391.72	23.83	19.13	5.29
20940.87	21331.82 RB	33031.40	6963.55	393.75	19.90	17.81	4.74

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 210.17

INPUT
Description: 210.17

Right Channel Bank Station Interpolated
Station Elevation Data num= 81

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18525.7	1038	18530.7	1038	18532.2	1038.8	18540.9	1039	18542.7	1038.3
18559.1	1038.3	18583.6	1039.8	18667.3	1040	18672.2	1040	18771.1	1039.9
18843.2	1039.2	18918.6	1039.2	18975.6	1038.6	19067.9	1036.2	19141.4	1035.5
19159.7	1029.9	19162.1	1028.2	19206.3	1023.5	19232.4	1025.6	19237.8	1026.9
19267.8	1029.3	19288.9	1028.6	19327.1	1031	19354.6	1031.5	19359.6	1019.6
19498.4	1019.3	19752.3	1018.6	19761.8	1021.9	19768.4	1019.7	19807.9	1021.1
19826.4	1023.3	19861.6	1026.2	19939.7	1026.1	20019.7	1026.2	20040.5	1026
20047	1026.8	20077	1025.5	20173.1	1021.8	20204.7	1022.1	20221.8	1027.9
20260.5	1027.9	20289.3	1020.1	20308.5	1019.1	20310	1020	20324.5	1021.7
20336.8	1017.9	20348.1	1016.4	20392.6	1014.7	20407.8	1014.9	20421.1	1019.4
20505.4	1021.6	20584.7	1020	20677.5	1020.6	20713	1019.7	20811.2	1021.5
20931.9	1023.3	20991.7	1025	21079.4	1022.7	21093.5	1022.3	21106.3	1024.9
21181.2	1023.5	21223	1023	21231	1018.7	21249.3	1020.1	21260.4	1023.1
21302.8	1025.1	21334.72	1037.43	21339.3	1039.2	21359.2	1038.4	21371.3	1044
21385.9	1046.9	21435.8	1035.7	21473.1	1040	22703.8	1040.5	22737.6	1046.8
22750.2	1044.1	22757.2	1040.5	22826.4	1040.5	22854	1049.8	22873.2	1052.2
22897.3	1057								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18525.7	.037	19354.6	.032	20991.7	.037	21339.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19354.6	21334.72	505	497.78	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18525.7	19354.6	1050	21385.9	22897.3	1050

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1037.42	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.		0.033	
E.G. Elev (ft)	1037.88	Reach Len. (ft)	505.00	497.78	495.00
Crit W.S. (ft)	1027.93	Flow Area (sq ft)		30534.52	
E.G. Slope (ft/ft)	0.000373	Area (sq ft)	2078.42	30534.52	19.51
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2336.50	Top Width (ft)	333.76	1980.11	22.63
Vel Total (ft/s)	5.44	Avg. Vel. (ft/s)		5.44	
Max Chl Dpth (ft)	22.72	Hydr. Depth (ft)		15.42	
Conv. Total (cfs)	8594446.0	Conv. (cfs)		8594446.0	
Length Wtd. (ft)	497.66	Wetted Per. (ft)		1997.47	
Min Ch El (ft)	1014.70	Shear (lb/sq ft)		0.36	
Alpha	1.00	Stream Power (lb/ft s)		1.94	

Frctn Loss (ft)	0.18	Cum Volume (acre-ft)	7505.32	27717.65	2960.05
C & E Loss (ft)	0.03	Cum SA (acres)	2107.68	2813.18	940.59

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19354.60 LB	19750.62	43875.45	7213.04	403.93	26.43	18.21	6.08
19750.62	20146.65	24537.69	5056.25	397.34	14.78	12.77	4.85
20146.65	20542.67	37411.39	6528.95	399.90	22.54	16.49	5.73
20542.67	20938.70	37158.69	6477.56	396.08	22.38	16.36	5.74
20938.70	21334.72 RB	23016.79	5258.71	400.22	13.87	13.28	4.38

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 210.07

INPUT
Description: 210.07

Left Channel Bank Station Interpolated
Station Elevation Data num= 71

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18501.7	1037.5	18541.3	1037.3	18564.5	1038.8	18619.1	1038.6	18704.2	1038.7
18760.6	1038.9	18769.9	1038.8	18829.1	1038.5	18842	1038.3	18894.1	1038.1
18959.6	1037.3	18970.3	1037	18978.8	1029.1	18997.2	1018.5	19080.1	1018.5
19143	1018.7	19188.2	1018.7	192101	018.946	19241.4	1019.3	19299.9	1019.1
19351.1	1019.1	20002.2	1019.3	20010.8	1019.3	20015.9	1021.6	20017.6	1021.9
20043.4	1020.3	20109.3	1021.6	20149.1	1018.8	20241.7	1019.6	20301.9	1019.6
20319.7	1020.4	20385.2	1020.2	20395	1020.3	20523.6	1020	20576	1020.4
20689.9	1019.9	20746.4	1020.1	20785.8	1020	20842.9	1018.9	20851.6	1018.9
20907.6	1018.8	20909.5	1018.7	20945.5	1031.5	20951.8	1031.4	21011.2	1029.6
21065.6	1030.2	21073.1	1030.3	21098.1	1026.3	21164.8	1026.1	21186.9	1026.4
21207.2	1024.8	21212.4	1026.6	21220.7	1028.3	21237.2	1024.7	21246.8	1023.1
21286.7	1032.7	21315.8	1034.4	21346.3	1039.3	21383.5	1047.6	21397.9	1044.6
21428.3	1035.2	21444.5	1036.3	21455.5	1040.2	21470	1040.9	22716.5	1040.5
22744.1	1046.7	22757.9	1043.7	22766.1	1040.5	22836.3	1040.5	22861.9	1049.1
22885.1	1052.1								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18501.7	.032	18959.6	.037	19241.4	.037	20945.5	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19210	20945.5	495	490.15	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18501.7	19210	1048	21383.5	22885.1	1048

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1037.31	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.		0.037	0.025
E.G. Elev (ft)	1037.68	Reach Len. (ft)	495.00	490.15	505.00
Crit W.S. (ft)	1026.27	Flow Area (sq ft)		30531.66	3305.49
E.G. Slope (ft/ft)	0.000333	Area (sq ft)	4266.28	30531.66	3339.33
Q Total (cfs)	166000.00	Flow (cfs)		151132.45	14867.55
Top Width (ft)	2402.36	Top Width (ft)	252.60	1735.50	414.26
Vel Total (ft/s)	4.91	Avg. Vel. (ft/s)		4.95	4.50
Max Chl Dpth (ft)	18.81	Hydr. Depth (ft)		17.59	8.51
Conv. Total (cfs)	9099727.0	Conv. (cfs)		8284723.0	815003.8
Length Wtd. (ft)	494.46	Wetted Per. (ft)		1738.43	391.23
Min Ch El (ft)	1018.70	Shear (lb/sq ft)		0.36	0.18
Alpha	1.00	Stream Power (lb/ft s)		1.81	0.79
Frctn Loss (ft)	0.18	Cum Volume (acre-ft)	7468.54	27368.74	2940.96
C & E Loss (ft)	0.02	Cum SA (acres)	2104.28	2791.95	938.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19210.00 LB	19557.10	31920.00	6306.73	347.10	19.23	18.17	5.06
19557.10	19904.20	31689.50	6279.35	347.10	19.09	18.09	5.05
19904.20	20251.30	29804.33	6057.27	347.79	17.95	17.45	4.92
20251.30	20598.40	29112.57	5967.94	347.12	17.54	17.19	4.88
20598.40	20945.50 RB	28606.08	5920.38	349.32	17.23	17.06	4.83
20945.50	21074.81	3541.29	909.36	129.36	2.13	7.03	3.89
21074.81	21204.11	7237.79	1397.66	129.66	4.36	10.81	5.18
21204.11	21333.42	4088.45	998.44	131.73	2.46	7.72	4.09
21333.42	21462.73	0.00	0.02	0.48	0.00	0.04	0.12

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.98

INPUT
Description: 209.98

Left Channel Bank Station Interpolated
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19210.8	1039.8	19216.4	1039.8	19229.3	1040.8	19256.1	1038.3	19270.9	1038.7
19289.9	1043.3	19303.8	1043.6	19320.1	1041.9	19336.2	1037.1	19338.51	1036.916
19338.7	1036.9	19361.5	1021.9	19388.1	1021.9	19515.6	1021.3	19713.1	1021.7
20015.3	1021.9	20072.9	1024.3	20080.8	1022.9	20118.2	1022	20369.3	1021.1
20445.2	1020.9	20458.4	1022.8	20481.8	1021.8	20518	1023.6	20568.6	1034.4
20571	1034.9	20616.8	1035.6	20623.9	1035.8	20628.3	1035.5	20657.3	1035.7
20663.4	1034.3	20694.7	1018.1	20723.3	1020.3	20793.2	1020.9	20799.7	1020.9
20854.2	1020.7	20860.4	1020.9	20904.8	1021.1	20914.5	1020.7	20955.4	1020.7
20961.5	1020.8	21001.9	1019.9	21007.1	1019.6	21059.6	1018.5	21066.6	1018.2
21088.4	1019.4	21090.3	1020.1	21106.6	1019.5	21139.4	1019.9	21169.2	1019.4
21191.2	1020.3	21230.7	1019.2	21293	1018.8	21312.7	1018.3	21356.9	1043.1
21366.5	1044.5	21383.9	1044.8	21395.6	1044.5	21426	1037.6	21435	1036.5
21453.5	1042.5	21466.6	1042.2	21474.1	1040	22740.4	1043	22767.4	1043
22845.4	1040	22872.1	1049.7						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19210.8	.032	19303.8	.037	20623.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19338.5	20623.9	500	502.4	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19210.8	19303.8	1045	21383.9	22872.1	1045

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1036.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.		0.037	0.025
E.G. Elev (ft)	1037.48	Reach Len. (ft)	500.00	502.40	480.00
Crit W.S. (ft)	1028.12	Flow Area (sq ft)		18181.79	11191.45
E.G. Slope (ft/ft)	0.000395	Area (sq ft)		18181.79	11192.39
Q Total (cfs)	166000.00	Flow (cfs)		84561.76	81438.24
Top Width (ft)	2011.88	Top Width (ft)		1285.31	726.57
Vel Total (ft/s)	5.65	Avg. Vel. (ft/s)		4.65	7.28
Max Chl Dpth (ft)	18.81	Hydr. Depth (ft)		14.15	15.50
Conv. Total (cfs)	8357637.0	Conv. (cfs)		4257448.5	4100188.5
Length Wtd. (ft)	492.83	Wetted Per. (ft)		1291.39	731.30
Min Ch El (ft)	1020.90	Shear (lb/sq ft)		0.35	0.38
Alpha	1.16	Stream Power (lb/ft s)		1.61	2.74
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	7444.30	27094.67	2856.73
C & E Loss (ft)	0.01	Cum SA (acres)	2102.85	2774.95	931.49

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19338.50 LB	19595.58	17626.45	3764.20	261.48	10.62	14.65	4.68
19595.58	19852.66	19052.58	3917.39	257.08	11.48	15.24	4.86
19852.66	20109.74	17831.11	3765.77	257.26	10.74	14.65	4.74

20109.74	20366.82	19257.51	3942.64	257.08	11.60	15.34	4.88
20366.82	20623.90 RB	10794.12	2791.78	258.48	6.50	10.86	3.87
20623.90	20773.78	10060.00	1724.28	154.08	6.06	11.50	5.83
20773.78	20923.66	17834.35	2404.44	149.89	10.74	16.04	7.42
20923.66	21073.54	19888.79	2567.25	149.93	11.98	17.13	7.75
21073.54	21223.42	20058.06	2581.34	150.07	12.08	17.22	7.77
21223.42	21373.30	13597.03	1914.14	127.32	8.19	15.63	7.10

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.88

INPUT
Description: 209.88
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18501.6	1042.1	18528.8	1043.1	18537.8	1042.9	18574.3	1040.8	18652	1040.5
18739.9	1040.3	18813.4	1040.8	18852.6	1040.6	18874.1	1040.1	18934.3	1040.2
18997.1	1040.3	19062.4	1039.9	19081	1040.1	19142.2	1041	19204	1042
19256.5	1042.2	19318.4	1040.5	19374.2	1039.8	19432.9	1040	19434	1040
19465.8	1025.8	19472.7	1026	19513	1039.1	19517.5	1038.2	19551.2	1024.4
19557.7	1019.9	19669.3	1020.3	19783.1	1020.9	20065	1021.8	20083.9	1021.8
20276.7	1020.6	20381.4	1019.6	20422	1019.3	20445.6	1026.2	20472.5	1035
20535.1	1035.1	20607	1034.4	20691	1033.1	20702.5	1033.3	20710.2	1031.7
20764.2	1029.4	20784.7	1021.7	20827.3	1021.8	20907.6	1017.4	20952.7	1017.1
20986.8	1017.4	21010.4	1016.5	21045.1	1016.6	21090.8	1018.4	21114.2	1018.7
21168.8	1021.5	21185.4	1014.7	21210.8	1016.2	21223.3	1019.8	21245.7	1019
21292.7	1018.9	21317.4	1019.5	21351	1043	21366.2	1042.6	21378.1	1042.9
21392.6	1042.6	21430.3	1035.8	21448.3	1041.7	21461.5	1041.4	22746.5	1041.7
22760	1042	22773.5	1041.7	22844.9	1040.4	22853.4	1040.1	22878.2	1047.9
22883.5	1049.9	22895.7	1051						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18501.6	.037	19513	.032	20472.5	.037	21351	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19513	20472.5	500	504.74	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18501.6	19256.5	1045	21351	22895.7	1045

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1036.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.70	Wt. n-Val.	0.037	0.032	0.037
E.G. Elev (ft)	1037.22	Reach Len. (ft)	500.00	504.74	500.00
Crit W.S. (ft)	1027.52	Flow Area (sq ft)	372.56	14327.53	10845.44
E.G. Slope (ft/ft)	0.000670	Area (sq ft)	372.56	14327.53	10847.70
Q Total (cfs)	166000.00	Flow (cfs)	1212.17	104575.56	60212.27
Top Width (ft)	1889.70	Top Width (ft)	63.30	950.91	875.48
Vel Total (ft/s)	6.50	Avg. Vel. (ft/s)	3.25	7.30	5.55
Max Chl Dpth (ft)	21.83	Hydr. Depth (ft)	5.89	15.07	12.48
Conv. Total (cfs)	6414574.0	Conv. (cfs)	46840.6	4041010.3	2326723.3
Length Wtd. (ft)	502.53	Wetted Per. (ft)	67.26	957.11	878.40
Min Ch El (ft)	1019.30	Shear (lb/sq ft)	0.23	0.63	0.52
Alpha	1.06	Stream Power (lb/ft s)	0.75	4.57	2.87
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	7442.16	26907.20	2735.29
C & E Loss (ft)	0.08	Cum SA (acres)	2102.48	2762.06	922.66

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19378.15	19445.57	2.73	3.21	4.16	0.00	0.85	0.85
19445.57	19513.00	1209.43	369.35	63.10	0.73	6.21	3.27
19513.00 LB	19704.90	18989.24	2680.47	187.11	11.44	14.62	7.08
19704.90	19896.80	22453.47	2994.14	191.90	13.53	15.60	7.50
19896.80	20088.70	20937.64	2871.15	191.90	12.61	14.96	7.29
20088.70	20280.60	21858.68	2946.31	191.90	13.17	15.35	7.42
20280.60	20472.50 RB	20336.54	2835.46	194.30	12.25	14.78	7.17
20472.50	20634.05	362.78	283.27	161.55	0.22	1.75	1.28

20634.05	20795.59	2700.17	948.38	163.17	1.63	5.87	2.85
20795.59	20957.14	16338.96	2782.79	161.67	9.84	17.23	5.87
20957.14	21118.69	19521.36	3095.89	161.61	11.76	19.16	6.31
21118.69	21280.23	17173.75	2880.32	163.52	10.35	17.83	5.96
21280.23	21441.78	4115.26	854.79	66.88	2.48	13.90	4.81

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.79

INPUT
Description: 209.79

Left Channel Bank Station Interpolated
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19302.1	1037	19390.4	1037.7	19422.4	1037.9	19450.6	1038.6	19469.8	1042
19475.2	1039.5	19483.02	1036.471	19511.6	1025.4	19544.2	1024.3	19568.5	1024
19585.1	1022.1	19604	1021.3	19652	1021.9	19659.2	1022.5	19704.1	1023.9
19743.6	1023.4	19758.3	1023.6	19804.1	1021.8	19848.4	1022	19854.6	1022.4
19903.2	1022.6	19907.9	1022.3	19977.4	1021.3	20009.8	1021.4	20048.6	1022.3
20058.7	1024	20073.2	1024.3	20081.6	1025.8	20102.4	1022	20112.8	1020.9
20156.2	1020.9	20256.4	1020.9	20405.6	1020.8	20467	1020.8	20496.1	1035.7
20514.4	1034.2	20550.2	1023.5	20623.5	1023.8	20694.6	1023.6	20727.9	1023.3
20733.7	1025.1	20747.4	1030.6	20772.1	1029.7	20812.6	1013.1	20821.9	1011.1
20921.1	1007.3	21031.7	1007.2	21102	1008.3	21146.2	1010.3	21153.2	1011.1
21167.6	1011.6	21181.9	1014.5	21219.7	1013.4	21280.6	1014.9	21300.5	1014.6
21345.1	1038.3	21349	1039.6	21388.2	1041.1	21398.1	1036.5	21724.8	1037
22053.9	1038.7	22084.9	1038.7	22412.8	1037.5	22736.4	1036.5	22750.8	1040.4
22851	1040	22880.8	1050.9	22891.5	1049.4	22896	1050.7		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19302.1	.037	19469.8	.032	20496.1	.037	21349	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19483.02	20496.1	500	500.44	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19302.1	19469.8	1048	21388.2	22896	1048

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1036.46	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1036.91	Reach Len. (ft)	500.00	500.44	510.00
Crit W.S. (ft)	1026.08	Flow Area (sq ft)		14219.94	16883.92
E.G. Slope (ft/ft)	0.000358	Area (sq ft)		14219.94	16883.92
Q Total (cfs)	166000.00	Flow (cfs)		72428.23	93571.77
Top Width (ft)	1858.60	Top Width (ft)		1013.06	845.54
Vel Total (ft/s)	5.34	Avg. Vel. (ft/s)		5.09	5.54
Max Chl Dpth (ft)	29.26	Hydr. Depth (ft)		14.04	19.97
Conv. Total (cfs)	8768003.0	Conv. (cfs)		3825607.8	4942395.0
Length Wtd. (ft)	506.06	Wetted Per. (ft)		1019.67	857.96
Min Ch El (ft)	1020.80	Shear (lb/sq ft)		0.31	0.44
Alpha	1.01	Stream Power (lb/ft s)		1.59	2.44
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	7440.02	26741.80	2576.14
C & E Loss (ft)	0.03	Cum SA (acres)	2102.12	2750.68	912.79

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19483.02 LB	19685.63	11705.13	2511.53	204.85	7.05	12.40	4.66
19685.63	19888.25	13866.86	2768.55	202.68	8.35	13.66	5.01
19888.25	20090.87	14658.47	2864.55	203.07	8.83	14.14	5.12
20090.87	20293.48	16939.77	3122.99	202.87	10.20	15.41	5.42
20293.48	20496.10 RB	15257.99	2952.31	206.21	9.19	14.57	5.17
20496.10	20656.09	5432.58	1653.47	161.62	3.27	10.33	3.29
20656.09	20816.09	7148.42	1964.22	164.70	4.31	12.28	3.64
20816.09	20976.08	28486.51	4452.88	160.20	17.16	27.83	6.40
20976.08	21136.07	29851.82	4577.85	160.04	17.98	28.61	6.52
21136.07	21296.07	20801.21	3689.03	160.39	12.53	23.06	5.64
21296.07	21456.06	1851.23	546.48	51.02	1.12	11.99	3.39

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.69

INPUT
Description: 209.69

Left Channel Bank Station Interpolated
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18487.6	1037.1	18511.5	1038.9	18512.2	1038.3	18570	1037.1	18609.5	1037.4
18675.1	1037.2	18686.5	1037.2	18757.5	1036.9	18831.1	1037	18905.3	1036.6
18942.8	1036.5	19014.6	1036.3	19080.4	1036.9	19089.1	1039.2	19093.3	1038.7
19097.6	1036	19108.2	1036.5	19117.9	1041	19129.1	1036.3	19223.8	1037
19236.2	1036.9	19306.7	1037.1	19377.2	1036.8	19448.9	1038.8	19451.6	1039.2
19460.14	1035.952	19494.2	1023	19567.3	1019.4	19601.3	1019.8	19663.7	1024.7
19744.5	1029.8	19834.4	1031.8	19911.5	1032.7	19977.6	1032.7	20055.2	1034
20101.5	1021.7	20107.4	1021.1	20162.6	1021	20498.8	1020.7	20560.9	1034.8
20578.5	1035.8	20646.6	1035.2	20702.4	1031.7	20717.4	1031.4	20730.1	1030.1
20773.2	1013.3	20782.5	1013.1	20845.5	1011.4	20929.9	1011.3	20963.9	1011.2
21028.3	1011.1	21095.9	1010.7	21179.3	1010.6	21186.8	1010.4	21201.5	1014.3
21206.7	1012.8	21290	1013.8	21325.4	1034	21344.7	1037.9	21377	1040.8
21396	1036	21716.5	1037	22044.5	1037.5	22075.5	1037.5	22405.9	1036.3
22732.5	1036	22744	1038.7	22773.1	1038.3	22776.8	1039	22845.1	1039
22868.7	1048.8	22887.2	1047.3						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18487.6	.037	19451.6	.032	20578.5	.037	21290	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19460.14	20578.5	495	494.38	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18487.6	19451.6	1046	21377	22887.2	1046

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1035.94	Element			
Vel Head (ft)	0.70	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1036.64	Reach Len. (ft)	495.00	494.38	510.00
Crit W.S. (ft)	1025.98	Flow Area (sq ft)		11449.30	13908.76
E.G. Slope (ft/ft)	0.000665	Area (sq ft)		11449.30	13908.76
Q Total (cfs)	166000.00	Flow (cfs)		64420.82	101579.18
Top Width (ft)	1874.85	Top Width (ft)		1118.33	756.51
Vel Total (ft/s)	6.55	Avg. Vel. (ft/s)		5.63	7.30
Max Chl Dpth (ft)	25.54	Hydr. Depth (ft)		10.24	18.39
Conv. Total (cfs)	6435780.0	Conv. (cfs)		2497579.8	3938200.3
Length Wtd. (ft)	499.97	Wetted Per. (ft)		1124.44	766.16
Min Ch El (ft)	1019.40	Shear (lb/sq ft)		0.42	0.75
Alpha	1.05	Stream Power (lb/ft s)		2.38	5.51
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)	7440.02	26594.35	2395.88
C & E Loss (ft)	0.03	Cum SA (acres)	2102.12	2738.44	903.41

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19460.14 LB	19683.81	17741.77	2921.28	226.35	10.69	13.06	6.07
19683.81	19907.48	4187.02	1222.83	223.82	2.52	5.47	3.42
19907.48	20131.16	4278.88	1242.17	225.32	2.58	5.55	3.44
20131.16	20354.83	22554.42	3357.75	223.67	13.59	15.01	6.72
20354.83	20578.50 RB	15658.70	2705.26	225.28	9.43	12.09	5.79
20578.50	20732.41	464.10	315.58	154.27	0.28	2.05	1.47
20732.41	20886.33	23017.81	3306.36	156.93	13.87	21.48	6.96
20886.33	21040.24	29478.67	3805.84	153.91	17.76	24.73	7.75
21040.24	21194.15	30364.61	3876.63	154.17	18.29	25.19	7.83
21194.15	21348.07	18253.98	2604.36	146.88	11.00	18.49	7.01

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.6

INPUT
Description: 209.6

Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18471.1	1035.6	18496.7	1038.3	18607.4	1038	18680.1	1039.8	18741.6	1037.7
18879.8	1037	19015.9	1036.1	19028.2	1034.8	19152.5	1033.5	19250.6	1034.5
19341.4	1037.2	19351.9	1034.1	19365.8	1031.7	19374.9	1033.6	19412.8	1028.7
19427.6	1022.5	19468.8	1016.4	19481.8	1016.4	19564.4	1022.8	19578.3	1019.6
19597.1	1016.9	19698.6	1019.2	19729.4	1022.5	19836.1	1021.7	19930.5	1022.3
19965.1	1019.8	19965.5	1020.6	19987.2	1019.5	20055.5	1019.5	20413.3	1020.2
20534.4	1020.5	20578	1028.4	20664.2	1027	20687	1029.2	20784.5	1026.4
20818.2	1025.3	20877.5	1031.3	20903.8	1029.2	20919.4	1025.4	20952.7	1027.2
21034.7	1012	21184.6	1013	21197.5	1013.3	21214.7	1021.1	21253.6	1021.8
21259.3	1025.3	21285	1031.8	21303.5	1032.2	21376.6	1040.1	21388.5	1035.5
21712.8	1036.1	22038.2	1036	22062	1038.1	22071.3	1037.9	22400.5	1035.8
22736.6	1038.6	22771.4	1038	22816.3	1035.5	22817.7	1036.3	22900.7	1032.1
23002.2	1032.7	23120.7	1033.1	23129.8	1033.1	23156.7	1038.2	23258.8	1038
23383.7	1037.9	23478.9	1038.9	23571.2	1038.9	23695.4	1038.7	23813	1038
23927.9	1038.6	23944.9	1036.6	24036	1038.4	24127.3	1038.3	24217.5	1039.5
24260.3	1040.4	24277.2	1039.6						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18471.1	.037	19341.4	.032	20578	.037	21376.6	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19341.4	20578	311	344.14	446	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18471.1	19130	1040	21003.8	24277.2	1040

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1035.16	Element			
Vel Head (ft)	1.04	Wt. n-Val.	0.037	0.032	0.037
E.G. Elev (ft)	1036.21	Reach Len. (ft)	311.00	344.14	446.00
Crit W.S. (ft)	1028.98	Flow Area (sq ft)	156.39	17486.04	3439.42
E.G. Slope (ft/ft)	0.000976	Area (sq ft)	248.25	17486.04	9597.39
Q Total (cfs)	166000.00	Flow (cfs)	208.30	148474.11	17317.59
Top Width (ft)	2531.34	Top Width (ft)	248.17	1229.70	1053.46
Vel Total (ft/s)	7.87	Avg. Vel. (ft/s)	1.33	8.49	5.04
Max Chl Dpth (ft)	23.16	Hydr. Depth (ft)	1.09	14.22	8.08
Conv. Total (cfs)	5314184.0	Conv. (cfs)	6668.2	4753125.0	554390.8
Length Wtd. (ft)	349.30	Wetted Per. (ft)	142.94	1234.60	427.74
Min Ch El (ft)	1016.40	Shear (lb/sq ft)	0.07	0.86	0.49
Alpha	1.08	Stream Power (lb/ft s)	0.09	7.33	2.47
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	7438.61	26430.15	2258.27
C & E Loss (ft)	0.15	Cum SA (acres)	2100.71	2725.11	892.81

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19109.32	19167.34	91.94	58.36	37.34	0.06	1.56	1.58
19167.34	19225.36	94.15	70.61	58.02	0.06	1.22	1.33
19225.36	19283.38	22.21	27.42	47.58	0.01	0.58	0.81
19283.38	19341.40						
19341.40 LB	19588.72	21719.81	2890.95	243.71	13.08	12.02	7.51
19588.72	19836.04	32702.22	3719.06	247.61	19.70	15.04	8.79
19836.04	20083.36	30538.48	3571.25	247.93	18.40	14.44	8.55
20083.36	20330.68	33933.93	3800.69	247.32	20.44	15.37	8.93
20330.68	20578.00 RB	29579.66	3504.10	248.03	17.82	14.17	8.44
20578.00	20824.61	9258.54	1897.49	246.82	5.58	7.69	4.88
20824.61	21071.23	8059.06	1541.92	180.92	4.85	8.61	5.23

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.54

INPUT

Description: 209.54
Station Elevation Data num= 31

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18558.3	1035.9	18953.3	1031	19413.3	1031	19568.3	1036	19713.3	1040
19863.3	1042	19945.14	1044.01	20000.32	1043.67	20022.38	1039.82	20036.91	1033.42
20102.91	1018.25	20139.23	1009.9	20153.9	1009.66	20165.29	1004.32	20283.58	998.4
20352.9	995.32	20409.65	992.312	20445.78	1004.752	20453.49	1008.732	20473.79	1014.13
20531.4	1031.982	20551.27	1040.692	20587.06	1042.78	20763.7	1040	20898.7	1036
21233.7	1031	22228.7	1031	22578.7	1031	22988.7	1036	23038.7	1037
23838.7	1038.3								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18558.3	.037	19945.14	.037	20102.9	.03	20220587.06	.037	20763.7	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19945.14	20587.06	46.58	46.58	46.58	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18558.3	19130	1050	20521	23838.7	1050

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1033.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.56	Wt. n-Val.	0.037	0.032	
E.G. Elev (ft)	1035.72	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1020.15	Flow Area (sq ft)	686.57	12782.22	
E.G. Slope (ft/ft)	0.000916	Area (sq ft)	1258.62	12812.93	3263.83
Q Total (cfs)	166000.00	Flow (cfs)	1306.13	164693.86	
Top Width (ft)	2865.75	Top Width (ft)	701.82	496.10	1667.83
Vel Total (ft/s)	12.32	Avg. Vel. (ft/s)	1.90	12.88	
Max Chl Dpth (ft)	40.86	Hydr. Depth (ft)	1.96	26.46	
Conv. Total (cfs)	5486060.5	Conv. (cfs)	43165.8	5442894.5	
Length Wtd. (ft)	0.00	Wetted Per. (ft)	350.50	493.08	
Min Ch El (ft)	992.31	Shear (lb/sq ft)	0.11	1.48	
Alpha	1.08	Stream Power (lb/ft s)	0.21	19.09	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	7433.23	26310.47	2192.43
C & E Loss (ft)	0.03	Cum SA (acres)	2097.32	2718.29	878.88

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19113.04	19205.49	326.74	163.56	75.49	0.20	2.17	2.00
19205.49	19297.95	400.17	200.32	92.46	0.24	2.17	2.00
19297.95	19390.40	400.16	200.32	92.46	0.24	2.17	2.00
19390.40	19482.86	179.05	122.37	90.10	0.11	1.36	1.46
19482.86	19945.14						
19945.14 LB	20073.53	423.31	144.95	36.44	0.26	4.08	2.92
20073.53	20201.91	29083.81	2763.64	131.33	17.52	21.53	10.52
20201.91	20330.29	61106.80	4345.38	128.53	36.81	33.85	14.06
20330.29	20458.68	67468.43	4656.71	131.71	40.64	36.27	14.49
20458.68	20587.06 RB	6611.50	871.53	65.06	3.98	13.98	7.59

Warning - Divided flow computed for this cross-section.

BRIDGE RIVER: 1
REACH: 1 RS: 209.535

INPUT
Description: 35th Avenue Bridge
Distance from Upstream XS = 0
Deck/Roadway Width = 46.58
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 18

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
18558.3	1035.9	1035.9	18953.3	1032	1032	19413.3	1032	1032
19568.3	1036	1036	19713.3	1040	1040	20020.9	1043.87	1037.09
20147.9	1043.74	1036.96	20272.9	1043.5	1036.72	20397.9	1043.02	1036.23
20521	1042.46	1035.68	20521.1	1042.42	1042.42	20763.7	1040	1040
20898.7	1036	1036	21233.7	1032	1032	22578.7	1032	1032

```
 22988.7    1036    1036 23038.7    1037    1037 23838.7  1038.3  1038.3

Upstream Bridge Cross Section Data
Station Elevation Data    num=      31
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 18558.3  1035.9 18953.3    1031 19413.3    1031 19568.3    1036 19713.3    1040
 19863.3    104219945.14 1044.0120000.32 1043.6720022.38  1039.820036.91 1033.42
 20102.91018.25120139.23  1009.9 20153.9 1009.6620165.29 1004.3220283.58   998.4
 20352.9   995.320409.65  992.3120445.78 1004.7520453.49 1008.7320473.79 1014.13
 20531.4 1031.9820551.27 1040.6920587.06 1042.78 20763.7    1040 20898.7    1036
 21233.7    1031 22228.7    1031 22578.7    1031 22988.7    1036 23038.7    1037
 23838.7  1038.3

Manning's n Values        num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 18558.3    .03719945.14    .037 20102.9    .03220587.06    .037 20763.7    .025

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19945.1420587.06             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 18558.3   19130    1050   20521 23838.7    1050

Downstream  Deck/Roadway Coordinates
    num=      18
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
 18558.3  1035.9  1035.9 18953.3    1032    1032 19413.3    1032    1032
 19568.3    1036    1036 19713.3    1040    1040 20020.9 1043.87 1037.09
 20147.9 1043.74 1036.96 20272.9  1043.5 1036.72 20397.9 1043.02 1036.23
   20521 1042.46 1035.68 20521.1 1042.42 1042.42 20763.7    1040    1040
 20898.7    1036    1036 21233.7    1032    1032 22578.7    1032    1032
 22988.7    1036    1036 23038.7    1037    1037 23838.7  1038.3  1038.3

Downstream Bridge Cross Section Data
Station Elevation Data    num=      33
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 18558.3  1035.9 18953.3    1030 19413.3    1030 19568.3    1036 19713.3    1040
 19863.3    104219967.01  1043.420002.05 1042.91 20020.91038.21120034.22 1034.89
 20102.91020.23520147.21 1010.7820164.84 1009.7320171.51 1007.4920222.65 1006.24
 20279.2 1001.7520351.65  995.9320410.25  992.8220447.48 1001.0320457.97 1008.48
20469.59 1010.87   20521 1027.9520536.71 1033.1720558.02 1040.2320593.88 1041.57
 20763.7    1040   20898    1036 21233.7    1031 22228.7    1031 22578.7    1031
 22988.7    1036 23038.7    1037 23838.7  1038.3

Manning's n Values        num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 18558.3    .03720002.05    .037 20102.9    .03220593.88    .037   20898    .025

Bank Sta: Left   Right    Coeff Contr.   Expan.
      20002.0520593.88             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 18558.3   19130    1048   20521 23838.7    1048

Upstream Embankment side slope              =         horiz. to 1.0 vertical
Downstream Embankment side slope            =         horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =    1032
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  3

Pier Data
Pier Station     Upstream= 20145.9    Downstream= 20145.9
Upstream     num=       2
    Width   Elev    Width   Elev
        4    990        4 1036.96
Downstream     num=       2
    Width   Elev    Width   Elev
        4    990        4 1036.96

Pier Data
Pier Station     Upstream= 20270.9    Downstream= 20270.9
Upstream     num=       2
    Width   Elev    Width   Elev
```

```
      4     990       4 1036.72
Downstream     num=       2
    Width   Elev    Width   Elev
      4     990       4 1036.72

Pier Data
Pier Station     Upstream= 20395.9    Downstream= 20395.9
Upstream     num=       2
    Width   Elev    Width   Elev
      4     990       410036.23
Downstream     num=       2
    Width   Elev    Width   Elev
      4     990       410036.23

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
       Momentum                Cd   =     1.2
       Yarnell                 KVal =    1.05
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the downstream end
       Criteria to check for pressure flow = Upstream energy grade line

CROSS SECTION          RIVER: 1
REACH: 1                  RS: 209.53

INPUT
Description: 209.53
Station Elevation Data    num=      33
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
 18558.3  1035.9 18953.3    1030 19413.3    1030 19568.3    1036 19713.3    1040
 19863.3    104219967.01  1043.420002.05 1042.91 20020.91038.21120034.22 1034.89
 20102.91020.23520147.21 1010.7820164.84 1009.7320171.51 1007.4920222.65 1006.24
 20279.2 1001.7520351.65  995.9320410.25  992.8220447.48 1001.0320457.97 1008.48
20469.59 1010.87   20521 1027.9520536.71 1033.1720558.02 1040.2320593.88 1041.57
 20763.7    1040   20898    1036 21233.7    1031 22228.7    1031 22578.7    1031
 22988.7    1036 23038.7    1037 23838.7  1038.3

Manning's n Values        num=       5
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
 18558.3    .03720002.05    .037 20102.9    .03220593.88    .037   20898    .025

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      20002.0520593.88              486  541.77     601             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 18558.3   19130    1048   20521 23838.7    1048

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)          1032.53   Element                  Left OB    Channel   Right OB
  Vel Head (ft)              2.95   Wt. n-Val.                 0.037      0.033
  E.G. Elev (ft)          1035.48   Reach Len. (ft)           486.00     541.77     601.00
  Crit W.S. (ft)          1021.67   Flow Area (sq ft)         798.84   11819.83
  E.G. Slope (ft/ft)     0.001314   Area (sq ft)             1459.58   11851.38    2229.77
  Q Total (cfs)         166000.00   Flow (cfs)               2021.08  163978.91
  Top Width (ft)          2757.01   Top Width (ft)            694.58     489.49    1572.93
  Vel Total (ft/s)          13.16   Avg. Vel. (ft/s)            2.53      13.87
  Max Chl Dpth (ft)         39.71   Hydr. Depth (ft)            2.29      24.85
  Conv. Total (cfs)      4579464.0  Conv. (cfs)              55755.9  4523708.0
  Length Wtd. (ft)          541.43   Wetted Per. (ft)          348.66     485.19
  Min Ch El (ft)            992.82   Shear (lb/sq ft)            0.19       2.00
  Alpha                       1.10   Stream Power (lb/ft s)      0.48      27.72
  Frctn Loss (ft)             0.84   Cum Volume (acre-ft)     7431.96   26297.81    2189.91
  C & E Loss (ft)             0.45   Cum SA (acres)           2096.60    2717.78     877.19

Warning - Divided flow computed for this cross-section.
```

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19039.55	19135.80	38.39	14.67	5.80	0.02	2.53	2.62
19135.80	19232.05	637.06	243.35	96.25	0.38	2.53	2.62
19232.05	19328.30	637.06	243.35	96.25	0.38	2.53	2.62
19328.30	19424.55	626.37	240.90	96.26	0.38	2.50	2.60
19424.55	19520.80	82.21	56.58	54.10	0.05	1.05	1.45
19520.80	20002.05						
20002.05 LB	20120.42	3691.98	602.18	76.82	2.22	8.02	6.13
20120.42	20238.78	34766.55	2805.21	119.43	20.94	23.70	12.39
20238.78	20357.15	58440.68	3821.87	118.73	35.21	32.29	15.29
20357.15	20475.52	62826.81	4038.67	122.27	37.85	34.12	15.56
20475.52	20593.88 RB	4252.88	551.91	47.93	2.56	12.13	7.71

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.42

INPUT
Description: 209.42

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18513.1	1035.5	18574.6	1035.9	18632.5	1034.6	18635.6	1035.4	18680.9	1036
18687.8	1038.5	18701.4	1035.2	18765.3	1035.2	18835.1	1035.1	18900.1	1034.7
18961.3	1033.7	19000	1032.138	19025.7	1031.1	19065.8	1027.8	19104.1	1022.3
19120.6	1022.6	19125.1	1023.7	19197.6	1025.3	19246	1026	19272.2	1027.8
19302.1	1027.8	19321.9	1026.7	19328.1	1029.6	19343.4	1022.9	19375.4	1021.5
19391.1	1023	19460.5	1022.9	19564.6	1022.1	19568.3	1022.2	19574.4	1019.8
19580.4	1022.5	19651.1	1021.3	19734.5	1021.9	19816.3	1021.1	19912.2	1021
19990.4	1020.5	20054.5	1019.6	20101.7	1020.2	20105.2	1019.7	20498.9	1020
20581.2	1020	20630.2	1030.4	20651.6	1032.2	20652.67	1032.771	20678.6	1046.6
20730.3	1043.9	20738.4	1042.7	20748.3	1044.1	20763.6	1040.6	20779.3	1040.7
20848.4	1041.7	20859.5	1041.4	20872	1043.7	20881.6	1043.1	20905.4	1030.8
20920.2	1032.2	21002.8	1031.3	21074.4	1031.3	21080.4	1031.3	21145.3	1031.6
21189.4	1031.7	21251.9	1031.7	21253.8	1031.7	21327.8	1030.8	21328.7	1030.8
21393	1029.7	21454.5	1029.5	21522.8	1029.1	21585.4	1028.8	21633.2	1028.1
21668.4	1029.3	21781.5	1029.2	21786.8	1029.4	21861.9	1030.7	21866.8	1030.8
21933.5	1032	21950.3	1032.1	22025.9	1032.4	22032.2	1032.3	22104.7	1032.3
22114.7	1032.3	22183.6	1032.3	22249.7	1032.4	22313.6	1032.4	22379.4	1031.3
22445.2	1031.7	22506.8	1031.2	22573.5	1031.3	22646.8	1031.1	22725.1	1032.8
22749.8	1033.1	22763.4	1030.6	22774	1030.6	22784.2	1034.4	22794.1	1035.3
22860.8	1035.8	22923.3	1036.2	22993	1036.4				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18513.1	.037	18900.1	.037	19197.6	.032	20581.2	.037	20678.6	.037
20872	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19000	20652.67	510	510.73	575	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18513.1	19000	1046.6	20678.6	22993	1046.6

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1032.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.44	Wt. n-Val.		0.032	
E.G. Elev (ft)	1034.19	Reach Len. (ft)	510.00	510.73	575.00
Crit W.S. (ft)	1028.88	Flow Area (sq ft)		17253.24	

E.G. Slope (ft/ft)	0.001853	Area (sq ft)	4.65	17253.24	3133.46
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	3517.10	Top Width (ft)	15.19	1652.63	1849.28
Vel Total (ft/s)	9.62	Avg. Vel. (ft/s)		9.62	
Max Chl Dpth (ft)	13.15	Hydr. Depth (ft)		10.44	
Conv. Total (cfs)	3856012.5	Conv. (cfs)		3856012.5	
Length Wtd. (ft)	510.73	Wetted Per. (ft)		1657.99	
Min Ch El (ft)	1019.60	Shear (lb/sq ft)		1.20	
Alpha	1.00	Stream Power (lb/ft s)		11.58	
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	7423.79	26116.82	2152.91
C & E Loss (ft)	0.05	Cum SA (acres)	2092.64	2704.46	853.58

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19000.00 LB	19330.53	12499.76	2059.15	332.20	7.53	6.23	6.07
19330.53	19661.07	31465.57	3401.74	332.87	18.96	10.29	9.25
19661.07	19991.60	38216.63	3811.82	330.54	23.02	11.53	10.03
19991.60	20322.14	46064.31	4264.04	330.58	27.75	12.90	10.80
20322.14	20652.67 RB	37753.73	3716.50	331.80	22.74	11.25	10.16

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.33

INPUT
Description: 209.33

Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18805.6	1034.2	18877.6	1035.1	18915.6	1036.2	18919.2	1035	18988.3	1034.4
19048	1034.3	19090.2	1033.6	19122.27	1031.97	2	1031.6	19136.7	1028.7
19151.1	1021.4	19214	1024.9	19263.6	1023.8	19325.2	1019.4	19353.4	1019.1
19384.8	1021.1	19397.4	1023.8	19407.5	1019.8	19479	1021.1	19544.8	1020.6
19627.3	1020.2	19659.1	1019.7	19722.2	1021.3	19783.5	1021.9	19849	1021.7
19908.4	1021.2	19998.6	1019.8	20012.1	1019.2	20028.7	1019.6	20037.7	1019.1
20132.6	1019	20227.8	1018.9	20304.8	1018.9	20368.5	1018.9	20451.7	1018.9
20508.2	1018.9	20535	1021.9	20556.6	1021.9	20587.2	1013.4	20625	1012
20631.7	1016.7	20643.4	1021.5	20674.2	1024.9	20676.3	1025.7	20686.3	1024.9
20715.2	1031	20732.6	1031	20771.2	1028.9	20789.7	1027.4	20819.3	1030.9
20832.1	1031.7	20895.5	1031.2	20926.6	1030.4	20939	1035.1	20961.5	1031.1
20974.4	1026.4	20989.2	1025.5	21018	1031.1	21089.8	1030.1	21150.5	1030.1
21211.3	1030	21276.9	1030	21335.5	1030.1	21401.9	1030.6	21492.3	1030.3
21555.6	1029.6	21661.6	1029.4	21712.9	1029.6	21772.4	1028.9	21843.8	1027.8
21878.8	1026.3	21894.4	1028.8	21895.8	1027.9	21909.1	1026.8	21928.4	1027.9
21993.8	1028.7	22054.9	1028.5	22110.2	1032.3	22203.3	1030.7	22272.4	1030.5
22282.8	1030.5	22295.7	1027.1	22353.6	1028.2	22386.4	1027.1	22399.1	1029.7
22428.3	1030.6	22439.8	1026.5	22461	1027.5	22530.6	1027.3	22561.2	1030.1
22572.6	1032.3	22585	1027.9	22616.3	1032.3	22642.1	1032.3	22728.7	1032.7
22817.3	1033.5	22913	1034.5						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18805.6	.037	19090.2	.037	19263.6	.032	20535	.037	20715.2	.037
21018	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19122.27	20715.2	485	487.54	495	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
20715.2	22913	1036.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1032.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.27	Wt. n-Val.	0.037	0.033	
E.G. Elev (ft)	1033.29	Reach Len. (ft)	485.00	487.54	495.00
Crit W.S. (ft)	1027.34	Flow Area (sq ft)	0.02	18335.38	
E.G. Slope (ft/ft)	0.001515	Area (sq ft)	0.02	18335.38	4671.95
Q Total (cfs)	166000.00	Flow (cfs)	0.00	166000.00	

Top Width (ft)	3444.06	Top Width (ft)	0.80	1592.93	1850.33
Vel Total (ft/s)	9.05	Avg. Vel. (ft/s)	0.12	9.05	
Max Chl Dpth (ft)	20.01	Hydr. Depth (ft)	0.02	11.51	
Conv. Total (cfs)	4264280.5	Conv. (cfs)	0.0	4264280.5	
Length Wtd. (ft)	487.65	Wetted Per. (ft)	0.80	1601.51	
Min Ch El (ft)	1012.00	Shear (lb/sq ft)	0.00	1.08	
Alpha	1.00	Stream Power (lb/ft s)	0.00	9.81	
Frctn Loss (ft)	0.66	Cum Volume (acre-ft)	7423.76	25908.18	2101.39
C & E Loss (ft)	0.01	Cum SA (acres)	2092.55	2685.43	829.16

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19101.16	19122.27	0.00	0.02	0.80	0.00	0.02	0.12
19122.27 LB	19440.86	24194.48	3048.93	322.30	14.57	9.57	7.94
19440.86	19759.44	33059.89	3624.21	318.62	19.92	11.38	9.12
19759.44	20078.03	32612.20	3594.74	318.63	19.65	11.28	9.07
20078.03	20396.61	41698.63	4165.69	318.59	25.12	13.08	10.01
20396.61	20715.20 RB	34434.78	3901.82	323.37	20.74	12.25	8.83

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.24

INPUT
Description: 209.24
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18800.9	1031.5	18845.2	1031.7	18853.7	1034.8	18869.6	1030.2	18915.9	1030.2
18963.2	1027.6	19026.2	1018.3	19072.6	1022.7	19145.5	1025.3	19204.5	1026.7
19228	1027.1	19267.6	1026.7	19336.8	1018.5	19401	1018	19469	1019
19559.6	1018.9	19600.3	1019	19664.3	1019	19693.2	1019.3	19751.6	1019.2
19788.9	1019.1	19833.6	1020.4	19858.1	1020.3	19886.4	1017.7	19971	1017.4
19982.5	1021.6	19990.5	1025.8	20018.6	1018.6	20042.8	1017.5	20058.4	1018.8
20077.7	1018.9	20090.4	1015.2	20111.7	1010.3	20135.2	1012.6	20140.8	1010.2
20203.6	1008.9	20268.9	1009.4	20288	1010.6	20307.3	1010.4	20312	1013.8
20352.1	1014.9	20376.3	1025.5	20383.4	1023.4	20390.2	1026.6	21913	1027.4
21918.5	1026.2	21937.9	1023.9	21950.8	1023.6	21971.5	1026.2	21995	1024
22089.4	1024.8	22140	1026	22164.3	1024.1	22247.4	1026.7	22301.3	1026.2
22321.1	1026.6	22357.4	1030.1	22379.9	1031.6	22389.9	1027.4	22399.6	1028.2
22408.1	1030.8	22473.3	1030.9	22546.1	1031.4	22631	1032.1	22690	1032.8

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18800.9	.037	19228	.032	19267.6	.032	20312	.037	20390.2	.037
21913	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19267.6	20390.2	510	515	525	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18800.9	18853.7	1034.8	20850	22690	1034.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1031.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.23	Wt. n-Val.	0.037	0.032	0.037
E.G. Elev (ft)	1032.61	Reach Len. (ft)	510.00	515.00	525.00
Crit W.S. (ft)	1026.03	Flow Area (sq ft)	2348.93	15737.16	2142.94
E.G. Slope (ft/ft)	0.001227	Area (sq ft)	2348.93	15737.16	9420.65
Q Total (cfs)	166000.00	Flow (cfs)	10837.45	146752.06	8410.49
Top Width (ft)	3674.06	Top Width (ft)	402.08	1122.60	2149.38
Vel Total (ft/s)	8.21	Avg. Vel. (ft/s)	4.61	9.33	3.92
Max Chl Dpth (ft)	22.48	Hydr. Depth (ft)	5.84	14.02	4.66
Conv. Total (cfs)	4739328.5	Conv. (cfs)	309411.2	4189796.5	240121.0
Length Wtd. (ft)	515.21	Wetted Per. (ft)	403.28	1132.10	459.80
Min Ch El (ft)	1008.90	Shear (lb/sq ft)	0.45	1.06	0.36
Alpha	1.17	Stream Power (lb/ft s)	2.06	9.93	1.40
Frctn Loss (ft)	0.64	Cum Volume (acre-ft)	7410.69	25717.51	2021.32
C & E Loss (ft)	0.00	Cum SA (acres)	2090.30	2670.24	806.43

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18863.13	18894.24	40.60	31.52	28.89	0.02	1.10	1.29
18894.24	18925.35	55.59	39.21	31.13	0.03	1.26	1.42
18925.35	18956.47	180.52	79.53	31.16	0.11	2.56	2.27
18956.47	18987.58	577.64	160.28	31.39	0.35	5.15	3.60
18987.58	19018.69	1649.74	301.08	31.45	0.99	9.68	5.48
19018.69	19049.81	2401.33	376.42	31.30	1.45	12.10	6.38
19049.81	19080.92	1588.86	293.50	31.22	0.96	9.43	5.41
19080.92	19112.03	1166.91	243.61	31.13	0.70	7.83	4.79
19112.03	19143.15	904.52	209.08	31.13	0.54	6.72	4.33
19143.15	19174.26	701.56	179.50	31.12	0.42	5.77	3.91
19174.26	19205.37	558.25	156.50	31.12	0.34	5.03	3.57
19205.37	19236.49	470.88	137.93	31.12	0.28	4.43	3.41
19236.49	19267.60	541.07	140.76	31.11	0.33	4.52	3.84
19267.60 LB	19492.12	21212.52	2613.18	225.01	12.78	11.64	8.12
19492.12	19716.64	23484.18	2775.23	224.52	14.15	12.36	8.46
19716.64	19941.16	23487.47	2776.15	224.66	14.15	12.36	8.46
19941.16	20165.68	31484.98	3335.12	228.98	18.97	14.85	9.44
20165.68	20390.20 RB	47082.91	4237.49	228.92	28.36	18.87	11.11
20390.20	20543.52	2885.36	726.91	153.32	1.74	4.74	3.97
20543.52	20696.84	2804.10	714.55	153.32	1.69	4.66	3.92
20696.84	20850.16	2721.00	701.48	153.16	1.64	4.58	3.88

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.14

INPUT
Description: 209.14
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18530.6	1030.2	18647.3	1030.8	18717.7	1031	18799.9	1030.8	18812.7	1030.6
18900	1029.5	18932.6	1029.3	18944.6	1034.8	18957.8	1027.8	18961.9	1027.7
19022.8	1026.2	19085	1025.9	19166	1017.5	19223.3	1022.8	19272.5	1024.6
19338.9	1024.1	19386.4	1017.7	19425.6	1016.4	19503.5	1016.6	19527.4	1016.6
19538.6	1021.6	19565.5	1014.5	19580.5	1016.2	19601.3	1015.8	19617.1	1017.3
19620.4	1016	19621.3	1017	19649.1	1016.3	19715.5	1017.1	19791	1016.6
19861	1016.8	19939.6	1017	20018.5	1017.5	20098.7	1018.4	20136.8	1016.4
20159	1021.8	20163.8	1021.6	20169.1	1022.8	20184	1018.8	20211.5	1019.1
20235.1	1012.1	20271.8	1010.6	20284.5	1010.9	20305.9	1016.4	20368.5	1013.7
20394.9	1013.1	20413.2	1023.8	20418.3	1025.4	20439.5	1025	20471.6	1026.6
21987.9	1026.6	21999.2	1033.7	22018.9	1024.5	22092.4	1030.2	22094.4	1030.3
22100.9	1026.3	22162.2	1027.1	22231.7	1027.3	22248.2	1030.6	22261	1029.5
22293.3	1030.2								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18530.6	.037	19338.9	.032	20418.3	.037	21999.2	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19338.9	20418.3	500	504.56	485	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18530.6	18944.6	1034	21100	22293.3	1034

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1030.73	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.23	Wt. n-Val.	0.037	0.032	0.037
E.G. Elev (ft)	1031.97	Reach Len. (ft)	500.00	504.56	485.00
Crit W.S. (ft)	1025.72	Flow Area (sq ft)	2650.29	14983.13	2873.44
E.G. Slope (ft/ft)	0.001259	Area (sq ft)	2784.02	14983.13	7424.27
Q Total (cfs)	166000.00	Flow (cfs)	13592.06	141725.30	10682.64
Top Width (ft)	3565.39	Top Width (ft)	622.06	1079.40	1863.93
Vel Total (ft/s)	8.09	Avg. Vel. (ft/s)	5.13	9.46	3.72
Max Chl Dpth (ft)	20.13	Hydr. Depth (ft)	6.85	13.88	4.22
Conv. Total (cfs)	4678927.0	Conv. (cfs)	383110.0	3994712.8	301104.3
Length Wtd. (ft)	502.50	Wetted Per. (ft)	388.10	1089.05	681.74
Min Ch El (ft)	1010.60	Shear (lb/sq ft)	0.54	1.08	0.33

Alpha	1.21	Stream Power (lb/ft s)	2.75	10.23	1.23
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	7380.64	25535.91	1919.81
C & E Loss (ft)	0.11	Cum SA (acres)	2084.31	2657.22	782.25

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18907.81	18961.69	40.52	19.72	10.16	0.02	2.09	2.05
18961.69	19015.58	627.31	198.97	53.90	0.38	3.69	3.15
19015.58	19069.47	911.33	248.93	53.89	0.55	4.62	3.66
19069.47	19123.35	1499.94	336.17	54.09	0.90	6.24	4.46
19123.35	19177.24	4078.54	612.98	54.16	2.46	11.38	6.65
19177.24	19231.13	3148.51	524.53	54.09	1.90	9.73	6.00
19231.13	19285.01	1704.04	362.44	53.91	1.03	6.73	4.70
19285.01	19338.90	1581.86	346.55	53.89	0.95	6.43	4.56
19338.90 LB	19554.78	24634.15	2762.79	217.95	14.84	12.80	8.92
19554.78	19770.66	29360.99	3064.97	217.12	17.69	14.20	9.58
19770.66	19986.54	28337.35	2993.53	215.88	17.07	13.87	9.47
19986.54	20202.42	23354.51	2672.32	217.25	14.07	12.38	8.74
20202.42	20418.30 RB	36038.30	3489.53	220.84	21.71	16.16	10.33
20418.30	20543.30	2244.41	572.10	125.04	1.35	4.58	3.92
20543.30	20668.30	1894.70	516.74	125.00	1.14	4.13	3.67
20668.30	20793.30	1894.70	516.74	125.00	1.14	4.13	3.67
20793.30	20918.30	1894.70	516.74	125.00	1.14	4.13	3.67
20918.30	21043.30	1894.70	516.74	125.00	1.14	4.13	3.67
21043.30	21168.30	859.42	234.39	56.70	0.52	4.13	3.67

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 209.04

INPUT
Description: 209.04
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17502.1	1032.3	17560.1	1032.9	17609.7	1031.6	17636.5	1033.4	17744.6	1031.9
17770	1031	17784.7	1027.9	17886.2	1029	17976	1029.5	18087	1029.7
18189.2	1028.4	18278	1028.5	18371.6	1028.9	18408.2	1029.7	18494.9	1028.9
18579.6	1028.4	18720.8	1029	18831.6	1028.7	18921.3	1028.4	19009.8	1028.1
19029.7	1029.9	19039.2	1026.5	19129.8	1025.1	19156.1	1023.5	19206.7	1017.7
19260.8	1016.5	19291.9	1022.9	19315.3	1025.6	19358.3	1024.5	19381.5	1014.5
19410.3	1014.2	19515.9	1015.1	19568.7	1015.3	19609.7	1014.2	19715.7	1014.2
19776	1013.5	19864.4	1016	19951.2	1016.3	20000.4	1015.1	20015.4	1013.4
20144.8	1012.2	20171.9	1012.3	20307.8	1014.7	20330.1	1015.1	20379.3	1022.7
20387.8	1020.9	20406	1020.1	20427.2	1023	20461.4	1023.2	20591	1024.2
22074.8	1024	22077.6	1027.6	22104.8	1036.3	22120.5	1030.7	22123.6	1027.7
22179.3	1027.5	22209.6	1031.1	22217	1033.3	22254	1026.2	22313.5	1029.2
22366.7	1029.7	22453.1	1030.2	22468	1030.4				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17502.1	.037	19315.3	.037	19410.3	.032	20461.4	.037	22254	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19315.3	20461.4	495	493.26	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17502.1	19029.7	1035	21200	22468	1035

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1030.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.86	Wt. n-Val.	0.037	0.032	0.037
E.G. Elev (ft)	1031.36	Reach Len. (ft)	495.00	493.26	500.00
Crit W.S. (ft)	1023.82	Flow Area (sq ft)	2316.94	17128.95	4738.30
E.G. Slope (ft/ft)	0.000805	Area (sq ft)	4389.45	17128.95	10916.17
Q Total (cfs)	166000.00	Flow (cfs)	10615.30	136742.50	18642.20

Top Width (ft)	4634.40	Top Width (ft)	1542.90	1146.10	1945.40
Vel Total (ft/s)	6.86	Avg. Vel. (ft/s)	4.58	7.98	3.93
Max Chl Dpth (ft)	18.29	Hydr. Depth (ft)	8.11	14.95	6.42
Conv. Total (cfs)	5850159.0	Conv. (cfs)	374103.5	4819068.5	656986.9
Length Wtd. (ft)	493.90	Wetted Per. (ft)	287.40	1149.37	738.60
Min Ch El (ft)	1012.20	Shear (lb/sq ft)	0.41	0.75	0.32
Alpha	1.18	Stream Power (lb/ft s)	1.86	5.98	1.27
Frctn Loss (ft)	0.78	Cum Volume (acre-ft)	7339.47	25349.93	1817.71
C & E Loss (ft)	0.25	Cum SA (acres)	2071.88	2644.33	761.04

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18952.66	19073.54	435.62	168.05	44.44	0.26	3.83	2.59
19073.54	19194.42	2969.16	794.04	121.19	1.79	6.57	3.74
19194.42	19315.30	7210.50	1354.85	121.78	4.34	11.21	5.32
19315.30 LB	19544.52	22299.19	3066.19	231.30	13.43	13.38	7.27
19544.52	19773.74	30996.22	3706.32	229.24	18.67	16.17	8.36
19773.74	20002.96	27406.65	3442.78	229.29	16.51	15.02	7.96
20002.96	20232.18	35961.30	4052.44	229.31	21.66	17.68	8.87
20232.18	20461.40 RB	20079.09	2861.21	230.22	12.10	12.48	7.02
20461.40	20595.17	3699.14	906.73	133.78	2.23	6.78	4.08
20595.17	20728.95	3277.50	843.21	133.77	1.97	6.30	3.89
20728.95	20862.72	3293.12	845.62	133.77	1.98	6.32	3.89
20862.72	20996.49	3308.82	848.04	133.77	1.99	6.34	3.90
20996.49	21130.27	3324.50	850.45	133.77	2.00	6.36	3.91
21130.27	21264.04	1739.19	444.27	69.73	1.05	6.37	3.91

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 208.95

INPUT
Description: 208.95
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17388.1	1030.8	17406	1030.7	17453.4	1039.3	17470.9	1039.4	17498	1031.1
17600.7	1030.9	17686	1030.7	17760.7	1027.3	17869.1	1027.3	17947.5	1027.5
18034.7	1027.8	18122.9	1027.9	18229.8	1028	18362.5	1027.6	18483.7	1027.2
18571	1026.4	18659.7	1025.6	18802.8	1026.1	18871.2	1029.7	18908.6	1028.7
18928.4	1025.8	19016.8	1024.1	19035.5	1027.7	19114.2	1024.9	19137.7	1030.4
19142.2	1025.8	19205.2	1023.5	19276.9	1018.7	19293.7	1013.8	19408.9	1014.5
19496.9	1014.1	19543	1014.4	19646.8	1014.7	19794.8	1014.5	19910.6	1015.8
19987.9	1016.6	20028.6	1018.7	20113.7	1020.6	20123.6	1024.6	21531.3	1025.2
22092	1024.6	22101.4	1027.9	22119.6	1027.7	22135	1034.4	22141.9	1036.4
22162.1	1026.4	22186	1026.7						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17388.1	.037	19137.7	.037	19276.9	.032	20123.6	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19137.7	20123.6	505	506.69	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17388.1	19137.7	1038	21200	22186	1038

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1026.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.35	Wt. n-Val.		0.032	0.037
E.G. Elev (ft)	1030.33	Reach Len. (ft)	505.00	506.69	505.00
Crit W.S. (ft)	1026.98	Flow Area (sq ft)		10301.74	2314.02
E.G. Slope (ft/ft)	0.004363	Area (sq ft)	549.71	10301.74	4111.30
Q Total (cfs)	166000.00	Flow (cfs)		155774.88	10225.12
Top Width (ft)	3473.24	Top Width (ft)	490.43	982.55	2000.25
Vel Total (ft/s)	13.16	Avg. Vel. (ft/s)		15.12	4.42
Max Chl Dpth (ft)	13.18	Hydr. Depth (ft)		10.48	2.15
Conv. Total (cfs)	2513025.8	Conv. (cfs)		2358230.5	154795.2
Length Wtd. (ft)		Wetted Per. (ft)		984.82	1076.40
Min Ch El (ft)	1013.80	Shear (lb/sq ft)		2.85	0.59
Alpha	1.25	Stream Power (lb/ft s)		43.09	2.59
Frctn Loss (ft)		Cum Volume (acre-ft)	7311.40	25194.62	1731.46
C & E Loss (ft)		Cum SA (acres)	2060.33	2632.28	738.40

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19137.70 LB	19334.88	15430.56	1286.75	195.23	9.30	6.64	11.99
19334.88	19532.06	41385.14	2504.92	197.18	24.93	12.70	16.52
19532.06	19729.24	39749.77	2445.05	197.18	23.95	12.40	16.26
19729.24	19926.42	37487.23	2360.60	197.19	22.58	11.97	15.88
19926.42	20123.60 RB	21722.08	1704.42	198.04	13.09	8.64	12.74
20123.60	20261.09	1511.78	323.09	137.49	0.91	2.35	4.68
20261.09	20398.59	1449.46	315.03	137.49	0.87	2.29	4.60
20398.59	20536.08	1388.23	306.98	137.49	0.84	2.23	4.52
20536.08	20673.57	1328.02	298.92	137.49	0.80	2.17	4.44
20673.57	20811.07	1268.93	290.87	137.49	0.76	2.12	4.36
20811.07	20948.56	1210.89	282.81	137.49	0.73	2.06	4.28
20948.56	21086.05	1153.93	274.75	137.49	0.70	2.00	4.20
21086.05	21223.55	913.97	221.59	113.95	0.55	1.94	4.12

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 208.85

INPUT
Description: 208.85
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17667	1028.3	17683.4	1029.5	17702	1037.2	17712.6	1036.7	17732.2	1028.9
17793.4	1029.3	17794.3	1028.1	17811.4	1029.7	17884.4	1029.8	17954.5	1029.5
18021.3	1029	18086.8	1028.4	18155.5	1027.6	18253.7	1026.5	18321.5	1026.3
18395.4	1025.8	18469.1	1025.7	18517	1025.4	18547.8	1030.6	18614.6	1029.1

18653.1	1029.8	18743.2	1028.7	18829.7	1028.9	18902.2	1028.7	18950.5	1028.5
18968.7	1029.4	19052.5	1028	19118	1027.5	19183.9	1025.1	19199.7	1025.2
19210.3	1021.6	19228.4	1014.1	19243.7	1013.4	19285.7	1013.5	19404.4	1013.7
19442.3	1013.8	19550.1	1014.4	19628.8	1015.9	19695.2	1016.5	19784.8	1017.1
19851.9	1017.7	19926.2	1019	20020.7	1019.9	20118.1	1019.8	20148.7	1019.8
20176.3	1018.8	20233.8	1020.2	20291.9	1019.7	20357.5	1017.6	20426	1016.4
20472.5	1017.1	20530.5	1016.5	20568.5	1021.6	20573.6	1019.4	20598	1014.9
20615.5	1016.2	20685.2	1014.7	20701.9	1014.6	20716.4	1019	20745.8	1021.2
21590.5	1021.2	21595.5	1023.1	21612.9	1023.6	21620.3	1024.7	21935.6	1028.7
21943	1025.9	22047.6	1025.8	22056.8	1030.6	22086	1042.9		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17667	.037	19199.7	.032	20701.9	.037	20745.8	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19199.7	20745.8	510	519.42	530	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17667	18968.7	1035	21150	22086	1035

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1025.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.89	Wt. n-Val.	0.037	0.032	0.037
E.G. Elev (ft)	1027.72	Reach Len. (ft)	510.00	519.42	530.00
Crit W.S. (ft)	1024.09	Flow Area (sq ft)	18.11	13625.11	1871.96
E.G. Slope (ft/ft)	0.003277	Area (sq ft)	38.20	13625.11	4037.03
Q Total (cfs)	166000.00	Flow (cfs)	26.38	154015.53	11958.10
Top Width (ft)	2707.19	Top Width (ft)	164.65	1546.10	996.43
Vel Total (ft/s)	10.70	Avg. Vel. (ft/s)	1.46	11.30	6.39
Max Chl Dpth (ft)	12.43	Hydr. Depth (ft)	0.50	8.81	4.63
Conv. Total (cfs)	2899597.0	Conv. (cfs)	460.8	2690258.8	208877.5
Length Wtd. (ft)	519.80	Wetted Per. (ft)	35.89	1550.34	404.20
Min Ch El (ft)	1013.40	Shear (lb/sq ft)	0.10	1.80	0.95
Alpha	1.06	Stream Power (lb/ft s)	0.15	20.33	6.05
Frctn Loss (ft)	1.31	Cum Volume (acre-ft)	7308.00	25055.46	1684.23
C & E Loss (ft)	0.11	Cum SA (acres)	2056.53	2617.57	721.03

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19097.52	19199.70	26.38	18.11	35.89	0.02	0.50	1.46
19199.70 LB	19508.92	47283.32	3574.00	311.33	28.48	11.56	13.23
19508.92	19818.14	36485.24	3050.94	309.24	21.98	9.87	11.96
19818.14	20127.36	19220.57	2076.92	309.24	11.58	6.72	9.25
20127.36	20436.58	20988.49	2189.71	309.30	12.64	7.08	9.59
20436.58	20745.80 RB	30037.90	2733.55	311.23	18.10	8.84	10.99
20745.80	20835.15	2643.26	413.79	89.35	1.59	4.63	6.39
20835.15	20924.49	2643.32	413.79	89.35	1.59	4.63	6.39
20924.49	21013.84	2643.26	413.79	89.35	1.59	4.63	6.39
21013.84	21103.19	2643.32	413.79	89.35	1.59	4.63	6.39
21103.19	21192.53	1384.93	216.80	46.81	0.83	4.63	6.39

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 208.75

INPUT
Description: 208.75
Station Elevation Data num= 81

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17694.2	1021.1	17763.9	1027.7	17785	1036	17797.3	1035.5	17818.9	1026.8
17862.3	1027.5	17876.4	1028.3	17879.6	1027	17887.5	1027.8	17976.5	1027.4
18069.6	1028.1	18129.1	1026.6	18227.5	1026	18358.7	1025	18492.4	1025.2
18601.8	1024.8	18699.9	1024.5	18819.7	1024.6	18852.6	1024.6	18949.1	1024.4
19044.9	1024	19145.7	1024.3	19192.9	1024.4	19220.5	1014.1	19251.3	1012.8

19259.2	1013.5	19469.4	1013.5	19559.7	1013.6	19581	1014.6	19605.6	1018.3
19624.1	1017.7	19644.9	1018.4	19739.6	1018.2	19808.7	1018.7	19912.6	1019.8
20031.3	1019	20124.1	1018.4	20199.4	1018.2	20239.9	1014.1	20370.8	1011.9
20423	1008.1	20441.8	1007.4	20459.1	1008.5	20487.2	1008.9	20517.6	1007.6
20545.9	1007.6	20574.1	1007.6	20616.3	1007.6	20685.5	1007.6	20704.1	1009.9
20720.5	1009	20737	1005.2	20763.6	1011.5	20774.6	1011	20799.2	1019.7
20826.5	1020	21626	1022.7	21706	1024.3	21714.3	1025.4	21770	1027.2
21800.9	1044.1	21813.2	1039.1	21842.4	1033.1	21857.2	1027.1	21893.8	1028.4
22015.3	1028.8	22117.6	1027.6	22189.1	1026	22214.4	1028.5	22251.7	1027.8
22282.9	1029.1	22304.2	1030.9	22314.1	1036.1	22336.1	1034.2	22354	1031.3
22395.9	1029.6	22417.9	1030.2	22426.2	1025.2	22438.2	1024.8	22447	1027
22490.7	1026.9								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17694.2	.037	19192.9	.032	20799.2	.037	22314.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19192.9	20799.2	440	443.83	450	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17694.2	19192.9	1038	20799.2	22490.7	1038

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1024.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.53	Wt. n-Val.		0.032	
E.G. Elev (ft)	1026.30	Reach Len. (ft)	440.00	443.83	450.00
Crit W.S. (ft)	1021.22	Flow Area (sq ft)		16750.51	
E.G. Slope (ft/ft)	0.002008	Area (sq ft)	278.51	16750.51	2971.83
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	3136.98	Top Width (ft)	620.33	1606.30	910.35
Vel Total (ft/s)	9.91	Avg. Vel. (ft/s)		9.91	
Max Chl Dpth (ft)	19.57	Hydr. Depth (ft)		10.43	
Conv. Total (cfs)	3704065.8	Conv. (cfs)		3704065.8	
Length Wtd. (ft)	443.83	Wetted Per. (ft)		1611.83	
Min Ch El (ft)	1005.20	Shear (lb/sq ft)		1.30	
Alpha	1.00	Stream Power (lb/ft s)		12.91	
Frctn Loss (ft)	0.90	Cum Volume (acre-ft)	7306.14	24874.36	1641.59
C & E Loss (ft)	0.03	Cum SA (acres)	2051.94	2598.78	709.43

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19192.90 LB	19514.16	32876.13	3465.38	323.18	19.80	10.79	9.49
19514.16	19835.42	18067.27	2414.90	321.58	10.88	7.52	7.48
19835.42	20156.68	11336.29	1825.05	321.27	6.83	5.68	6.21
20156.68	20477.94	39374.81	3854.28	321.67	23.72	12.00	10.22
20477.94	20799.20 RB	64345.49	5190.90	324.13	38.76	16.16	12.40

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 208.67

INPUT
Description: 208.67

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 88

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17786.1	1022.3	17843.6	1026.5	17855.3	1034.5	17872.2	1033.9	17892.4	1025.1
17923.9	1026.9	17935.3	1026.9	17946.1	1029.5	17954.2	1026.8	17960.6	1028.1
18085.3	1025.9	18175.8	1025.5	18284.1	1025.1	18393	1024.3	18536.6	1023.2
18662.6	1023.3	18777.1	1023.6	18913.6	1023.9	19013.8	1024.8	19102.8	1025.9
19116.6	1024.6	19118.22	1023.942	19145.2	1013	19150.7	1014.2	19263.7	1013.6
19374.5	1013.1	19435.1	1013.5	19572.8	1013.6	19645.9	1014.5	19689.8	1017.6
19797.8	1018.5	19923.6	1018.8	20022.9	1016	20112.6	1014.2	20119.4	1013.9

20139.2	1008.8	20180.9	1009.7	20203.7	1007.6	20293	1010.5	20307.2	1007.8
20372	1009.4	20399.2	1008.8	20452.2	1010.5	20523.1	1009.4	20536.1	1014.1
20548.6	1010.7	20639.2	1014.5	20652.7	1013.5	20665.3	1010.4	20713.7	1010.2
20725.6	1013.6	20738.6	1020.7	20826	1023.1	20841.3	1024.7	20857.6	1022.8
20866.3	1014.9	20871.8	1016.1	20881.2	1020.9	20902	1018.8	20908.11	1023.942
20912.1	1027.3	20915.2	1025.5	21808.2	1025.7	21897.3	1025.4	21995.2	1025.3
22131.2	1026.1	22205.3	1026.2	22276.6	1027.7	22393.1	1027.2	22428	1027.2
22464.1	1025.6	22496.5	1027	22518.1	1024.1	22529.5	1026	22649	1025.9
22747.7	1025.2	22864.8	1024.7	22963.7	1025.8	23106.8	1026.4	23231	1026.5
23328.6	1027.2	23422.1	1026.4	23522.3	1028.3	23562.9	1027.2	23612.4	1030.4
23634.1	1030.7	23767.5	1029.2	23789.9	1028.4				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17786.1	.037	19102.8	.037	19116.6	.032	20826	.037	20912.1	.037
22428	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19118.22	20908.11	495	511.45	475	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17786.1	19102.8	1033	21150	23789.9	1033

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1023.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.43	Wt. n-Val.		0.032	
E.G. Elev (ft)	1025.37	Reach Len. (ft)	495.00	511.45	475.00
Crit W.S. (ft)	1020.38	Flow Area (sq ft)		17307.31	
E.G. Slope (ft/ft)	0.002030	Area (sq ft)	224.60	17307.31	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2277.36	Top Width (ft)	501.21	1776.15	
Vel Total (ft/s)	9.59	Avg. Vel. (ft/s)		9.59	
Max Chl Dpth (ft)	16.34	Hydr. Depth (ft)		9.74	
Conv. Total (cfs)	3684594.8	Conv. (cfs)		3684594.8	
Length Wtd. (ft)	511.45	Wetted Per. (ft)		1790.24	
Min Ch El (ft)	1007.60	Shear (lb/sq ft)		1.23	
Alpha	1.00	Stream Power (lb/ft s)		11.75	
Frctn Loss (ft)	1.32	Cum Volume (acre-ft)	7303.60	24700.85	1626.24
C & E Loss (ft)	0.07	Cum SA (acres)	2046.27	2581.55	704.73

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19118.22 LB	19476.20	33651.89	3586.55	360.25	20.27	10.02	9.38
19476.20	19834.18	23778.77	2904.99	358.10	14.32	8.12	8.19
19834.18	20192.15	25166.41	3007.73	358.75	15.16	8.40	8.37
20192.15	20550.13	62429.20	5193.08	359.67	37.61	14.51	12.02
20550.13	20908.11 RB	20973.71	2614.96	353.48	12.63	7.60	8.02

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 208.57

INPUT
Description: 208.57

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17892.9	1023.8	17920.6	1025.8	17926.7	1033.6	17946	1032.8	17966.2	1024.2
18010.1	1026	18022	1028.4	18027.2	1025.8	18036.6	1027.8	18048.7	1025
18090.2	1023.6	18189.1	1023.8	18284.4	1023.8	18378.8	1023.6	18492.2	1023.9
18502.6	1023.9	18575.4	1024.1	18681.9	1023.6	18705.6	1023.6	18777.9	1023.5
18853.8	1023.6	18935.4	1023.8	19041.2	1023.8	19080.9	1025	19087.13	1021.839
19101.4	1014.6	19184.3	1012.9	19255.1	1011.9	19315.3	1011.9	19368.2	1010.4
19435.4	1013.3	19524.5	1013.8	19585.9	1012	19676.3	1014	19772.4	1014.4
19846.2	1014.8	19900.7	1016.3	19982.9	1016.5	20023.8	1014.7	20071.3	1014.9
20086.3	1012.9	20123	1013.5	20146	1011	20220.3	1007.6	20240.8	1007.6
20261.8	1009.9	20276.9	1008.4	20361	1010.1	20458.8	1010.7	20541.8	1012.1
20584.9	1012.3	20595.3	1014.5	20599.2	1013.9	20607.5	1016.1	20614.3	1015
20623.9	1016	20640	1016.203	20647.7	1016.3	20654.4	1017.4	20724.7	1017.3
20827.2	1020	20901.1	1020.7	20951.9	1021	20965.4	1016.5	20974.8	1017
21000.4	1025.7	21032.4	1026.3	21033.8	1024	21616	1024.8	21707.7	1024.4
21817.1	1024.3	21913.4	1023.7	21991.5	1023.8	22065.5	1024.5	22100	1024.9
22243.4	1025.1	22248	1025.1	22334.2	1026.7	22341.3	1026.8	22434.5	1027.5
22499.8	1026.8	22523.2	1026.9	22552.2	1028.3	22565.8	1024.5	22577.9	1025.6
22585	1027.8								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17892.9	.037	19080.9	.037	19101.4	.032	21000.4	.032	21032.4	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19087.13	20640	560	514.75	370	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17892.9	19080.9	1028	20640	22585	1028

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1021.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.14	Wt. n-Val.		0.032	
E.G. Elev (ft)	1023.98	Reach Len. (ft)	560.00	514.75	370.00
Crit W.S. (ft)	1019.78	Flow Area (sq ft)		14140.69	
E.G. Slope (ft/ft)	0.003382	Area (sq ft)	0.00	14140.69	1004.21
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	1901.92	Top Width (ft)		1552.87	349.05
Vel Total (ft/s)	11.74	Avg. Vel. (ft/s)		11.74	
Max Chl Dpth (ft)	14.24	Hydr. Depth (ft)		9.11	
Conv. Total (cfs)	2854606.8	Conv. (cfs)		2854606.8	
Length Wtd. (ft)	514.75	Wetted Per. (ft)		1556.11	
Min Ch El (ft)	1007.60	Shear (lb/sq ft)		1.92	
Alpha	1.00	Stream Power (lb/ft s)		22.52	
Frctn Loss (ft)	1.21	Cum Volume (acre-ft)	7302.32	24516.23	1620.77
C & E Loss (ft)	0.32	Cum SA (acres)	2043.43	2562.00	702.82

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19087.13 LB	19397.71	33844.88	2873.92	312.38	20.39	9.25	11.78
19397.71	19708.28	30018.42	2688.47	310.66	18.08	8.66	11.17
19708.28	20018.85	18810.47	2030.93	310.63	11.33	6.54	9.26
20018.85	20329.43	44236.65	3394.78	311.14	26.65	10.93	13.03
20329.43	20640.00 RB	39089.57	3152.58	311.30	23.55	10.15	12.40

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: 1
REACH: 1 RS: 208.48

INPUT
Description: 208.48

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18038.2	1024.5	18107.3	1024	18176.8	1026.3	18180.6	1023.6	18220	1024.2
18231.5	1030.8	18253	1040.2	18276.7	1045.8	18279.2	1045.4	18325.3	1023.2
18350.1	1034.9	18383.7	1036.5	18431.8	1022.6	18508.9	1022.11	8510.561	021.363
18528.5	1013.4	18574.3	1009.5	18585	1009.5	18656.1	1009.7	18723.8	1009.2
18751.4	1011.9	18757.6	1013.2	18773.9	1012	18790	1012.6	18811.4	1014.6
18894	1015.4	18935.3	1016.3	18976.7	1016	18993.7	1009.2	19033.2	1007.6
19073.1	1010.5	19142.7	1010.5	19210.3	1011.2	19297.6	1012.4	19357.3	1014.5
19432.9	1014	19515.6	1015.2	19565.3	1016.2	19630.9	1012.6	19702.1	1013.3
19791.9	1013	19865.2	1012.2	19956.6	1011.4	20027.1	1011	20099.9	1011
20112.3	1011	20178.6	1011.1	20248.4	1011.1	20312.8	1010.9	20383.8	1010.5
20479.2	1009.8	20529.6	1009.2	20545.1	1017	20627.3	1012.2	20656.3	1012
20680.86	1021.362	20694.6	1026.6	20705.7	1021.5	20806.1	1023.8	21024.6	1028.4
21084	1028.5	21102.7	1031.8	21472.3	1022.1	21971.9	1021.8	22046.1	1022.2
22091.6	1023	22109.6	1026.2	22178.4	1024.8	22198	1027	22264.7	1026.9
22377	1027.5	22430	1027.5						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18038.2	.043	18508.9	.043	18585	.032	20545.1	.037	20694.6	.037
22377	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18510.56	20680.86	500	476.54	525	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18038.2	18508.9	1038	20694.6	22430	1038

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1021.36	Element			
Vel Head (ft)	1.09	Wt. n-Val.		0.032	
E.G. Elev (ft)	1022.45	Reach Len. (ft)	500.00	476.54	525.00
Crit W.S. (ft)	1017.83	Flow Area (sq ft)		19846.32	
E.G. Slope (ft/ft)	0.001742	Area (sq ft)		19846.32	0.00
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2170.30	Top Width (ft)		2170.30	
Vel Total (ft/s)	8.36	Avg. Vel. (ft/s)		8.36	
Max Chl Dpth (ft)	13.76	Hydr. Depth (ft)		9.14	
Conv. Total (cfs)	3977140.0	Conv. (cfs)		3977140.0	
Length Wtd. (ft)	476.54	Wetted Per. (ft)		2177.94	
Min Ch El (ft)	1007.60	Shear (lb/sq ft)		0.99	
Alpha	1.00	Stream Power (lb/ft s)		8.29	
Frctn Loss (ft)	0.89	Cum Volume (acre-ft)	7302.32	24315.42	1616.50
C & E Loss (ft)	0.00	Cum SA (acres)	2043.43	2540.00	701.34

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18510.56 LB	18944.62	31016.14	3904.04	436.35	18.68	8.99	7.94
18944.62	19378.68	37209.67	4242.92	435.56	22.42	9.77	8.77
19378.68	19812.74	23304.59	3200.28	434.18	14.04	7.37	7.28
19812.74	20246.80	38473.65	4322.89	434.07	23.18	9.96	8.90
20246.80	20680.86 RB	35995.96	4176.18	437.78	21.68	9.62	8.62

CROSS SECTION RIVER: 1
REACH: 1 RS: 208.39

INPUT
Description: 208.39

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18033.7	1024.2	18048.9	1023.9	18052.4	1029.4	18060.9	1031.1	18078.5	1028.7
18083.6	1026.5	18089.9	1022.5	18176.1	1021.5	18253.5	1021.3	18379.7	1022.4
18417.8	1035.8	18447	1022.61	8462.94	1020.436	18469.1	1019.6	18494.4	1010.7
18597.1	1007.9	18699.5	1009.4	18760.1	1011.4	18779.9	1010	18820.5	1010.6
18843.1	1015.2	18914.5	1016.3	18932.1	1009.7	19018.2	1006.1	19063.1	1005.6
19094.9	1009.1	19184.7	1010.4	19213.8	1010.9	19266.1	1013.3	19343.9	1014.9
19411.9	1013.9	19452.4	1014.4	19493.3	1016.2	19593.6	1015.6	19647.5	1014.8

22310.7 1025.1 22415.4 1025 22486 1024.5

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16738.4	.025	17715.2	.043	18675.6	.043	18707.5	.032	21348.4	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18679.18	21343.2	550	514.57	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16738.4	18675.6	1024	21348.4	22486	1024

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1018.79	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.87	Wt. n-Val.		0.032	
E.G. Elev (ft)	1019.66	Reach Len. (ft)	550.00	514.57	505.00
Crit W.S. (ft)	1014.90	Flow Area (sq ft)		22151.23	
E.G. Slope (ft/ft)	0.001564	Area (sq ft)	3.84	22151.23	0.00
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	2675.20	Top Width (ft)	11.16	2664.02	0.01
Vel Total (ft/s)	7.49	Avg. Vel. (ft/s)		7.49	
Max Chl Dpth (ft)	14.09	Hydr. Depth (ft)		8.31	
Conv. Total (cfs)	4197599.0	Conv. (cfs)		4197599.0	
Length Wtd. (ft)	514.57	Wetted Per. (ft)		2670.29	
Min Ch El (ft)	1004.70	Shear (lb/sq ft)		0.81	
Alpha	1.00	Stream Power (lb/ft s)		6.07	
Frctn Loss (ft)	0.81	Cum Volume (acre-ft)	7302.13	23620.27	1607.37
C & E Loss (ft)	0.02	Cum SA (acres)	2042.69	2459.17	692.82

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18679.18 LB	19211.98	41844.68	5157.20	535.21	25.21	9.68	8.11
19211.98	19744.79	19716.24	3294.02	534.94	11.88	6.18	5.99
19744.79	20277.59	25031.25	3796.63	533.33	15.08	7.13	6.59
20277.59	20810.39	51638.92	5861.63	533.09	31.11	11.00	8.81
20810.39	21343.20 RB	27768.91	4041.75	533.71	16.73	7.59	6.87

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: 1
REACH: 1 RS: 208.1

INPUT
Description: 208.1

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16819.7	1020	16911.7	1020	16920.8	1021.8	17013.5	1018.3	17181.5	1017.7
17278.5	1017.9	17421.8	1018.4	17530.4	1018.9	17672.5	1019	17700.9	1021.1
17741	1041.2	17785.3	1019.8	17794.9	1019.4	18660.8	1020.4	18677.2	1019
18756.4	1019.4	18786.9	1024.5	18805.9	1022.2	18822.37	1018.025	18827.2	1016.8
18834.8	1016.8	18846	1012	18862.1	1009.8	18895.6	1011.5	18990.9	1008.1
19103.9	1008.1	19211.4	1009.5	19294.1	1007	19344.4	1005.3	19402.2	1005.6
19441.1	1001.9	19492.5	1001.4	19507.6	1005.4	19538.7	1004.2	19589.1	1004.9
19611.9	1009.1	19719.5	1009.4	19730.1	1011.2	19842.8	1011.2	19883.7	1010.5
19981.4	1014	20076.5	1014	20186.6	1011.8	20200.6	1004.4	20293.1	1005.3
20440	1005.6	20518.6	1005.6	20579.1	1016	20684.7	1017.1	20777.7	1016.5
20898.9	1016.6	20918.1	1016.7	20993	1011.1	21084.2	1010.3	21202.2	1009.9
21318.2	1011.4	21438.8	1010.4	21535.9	1009	21597.7	1011.1	21698.8	1010.3
21706.3	1012.8	21767.18	1018.025	21783.2	1019.4	21878.3	1019.5	21970.4	1019.6
22184.8	1019.5	22249.1	1022.6	22375.9	1023.7	22460	1023.8		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16819.7	.025	17741	.043	18786.9	.043	18805.9	.032	21783.2	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.

18822.3721767.18 640 558.37 480 .1 .3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16819.7	18786.9	1030	21783.2	22460	1030

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1018.03	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.81	Wt. n-Val.		0.032	
E.G. Elev (ft)	1018.84	Reach Len. (ft)	640.00	558.37	480.00
Crit W.S. (ft)	1014.24	Flow Area (sq ft)		22975.85	
E.G. Slope (ft/ft)	0.001569	Area (sq ft)	39.02	22975.85	0.00
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	3169.07	Top Width (ft)	224.25	2944.81	
Vel Total (ft/s)	7.22	Avg. Vel. (ft/s)		7.22	
Max Chl Dpth (ft)	16.63	Hydr. Depth (ft)		7.80	
Conv. Total (cfs)	4190747.5	Conv. (cfs)		4190747.5	
Length Wtd. (ft)	558.37	Wetted Per. (ft)		2951.27	
Min Ch El (ft)	1001.40	Shear (lb/sq ft)		0.76	
Alpha	1.00	Stream Power (lb/ft s)		5.51	
Frctn Loss (ft)	0.95	Cum Volume (acre-ft)	7301.86	23353.72	1607.37
C & E Loss (ft)	0.01	Cum SA (acres)	2041.20	2426.05	692.82

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18822.37 LB	19411.33	43549.06	5562.12	590.47	26.23	9.44	7.83
19411.33	20000.29	43683.69	5571.60	590.25	26.32	9.46	7.84
20000.29	20589.26	42812.32	5510.10	591.71	25.79	9.36	7.77
20589.26	21178.22	9109.45	2173.54	589.18	5.49	3.69	4.19
21178.22	21767.18 RB	26845.46	4158.49	589.66	16.17	7.06	6.46

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.99

INPUT
Description: 207.99

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17809.3	1018.5	17815.5	1018.4	17825.2	1016.2	17906.9	1016.7	18020.3	1016.6
18102.9	1017.1	18116.8	1017.8	18121.1	1019.2	18156	1021.3	18162.3	1018.5
18168.8	1017.5	18272.9	1016.7	18288.2	1016.8	18385.1	1017	18430.3	1017.1
18440.8	1018.3	18447.7	1016.2	18501.8	1016.4	18510.3	1018	18514.6	1015.5
18538.2	1015.7	18541.7	1014.1	18552.7	1006.7	18579.2	1006.9	18660.4	1004.5
18672.2	1007.9	18695.7	1012.5	18709.9	1013.9	18790.3	1015.9	18865.8	1016.8
18884.7	1023.5	18901.5	1024.9	18919.6	1017.9	18933.3	1017.3	19008	1016.5
19025.7	1016.3	19034.2	1018.6	19040.9	1016.9	19083.8	1019.8	19093.03	1016.923
19108.5	1012.1	19169.3	1009	19252	1007.4	19308	1009	19330.7	1003.7
19355.3	1004.7	19441.2	1004.1	19496.6	1000.7	19571.6	999.9	19628.3	1003.8
19657.1	1004.6	19679.9	1006.9	19709	1005.7	19786.5	1006.6	19863.9	1009.8
19926.2	1011	19969.4	1002.6	20043.2	1002.9	20123.4	1004.2	20199.1	1003.3
20291.6	1005.7	20354	1006.7	20409.8	1008.7	20448.4	1011.1	20498.1	1016.9
20579	1017.6	20660.5	1016.3	20726.3	1014.2	20743.2	1010.4	20801.5	1014.5
20874.6	1015.4	20955.4	1016	21051.7	1015.4	21137.2	1014.3	21215.8	1012.8
21233.3	1012.4	21267.9	1009.1	21316.4	1007.5	21351.9	1005.2	21379.5	1005.3
21468.2	1009.5	21567.9	1011.4	21676.9	1011.6	21738.1	1010.6	21759	1009.1
21849.9	1013.1	21881	1015.5	21934.42	1016.922	21967.4	1017.8	22054.7	1017.9
22077.8	1018	22085.6	1018.9	22160.9	1020.4	22188.5	1022.7	22281.8	1022.9
22357.5	1022.4	22442	1022.2	22476.6	1022.2				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17809.3	.043	19083.8	.043	19108.5	.032	22085.6	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19093.03	21934.42	475	482.29	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev

17809.3 19083.8 1021

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1016.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.95	Wt. n-Val.		0.032	
E.G. Elev (ft)	1017.87	Reach Len. (ft)	475.00	482.29	500.00
Crit W.S. (ft)	1013.04	Flow Area (sq ft)		21223.83	
E.G. Slope (ft/ft)	0.001846	Area (sq ft)	1977.81	21223.83	0.00
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	3550.29	Top Width (ft)	829.39	2720.83	0.06
Vel Total (ft/s)	7.82	Avg. Vel. (ft/s)		7.82	
Max Chl Dpth (ft)	17.02	Hydr. Depth (ft)		7.80	
Conv. Total (cfs)	3863446.0	Conv. (cfs)		3863446.0	
Length Wtd. (ft)	482.29	Wetted Per. (ft)		2725.38	
Min Ch El (ft)	999.90	Shear (lb/sq ft)		0.90	
Alpha	1.00	Stream Power (lb/ft s)		7.02	
Frctn Loss (ft)	0.73	Cum Volume (acre-ft)	7287.04	23070.44	1607.37
C & E Loss (ft)	0.08	Cum SA (acres)	2033.46	2389.73	692.82

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19093.03 LB	19661.31	61740.33	6587.09	570.04	37.19	11.59	9.37
19661.31	20229.59	58028.37	6386.03	569.32	34.96	11.24	9.09
20229.59	20797.86	17189.60	2798.21	448.79	10.36	6.25	6.14
20797.86	21366.14	8828.03	2062.25	568.58	5.32	3.63	4.28
21366.14	21934.42 RB	20213.67	3390.25	568.66	12.18	5.97	5.96

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.9

INPUT
Description: 207.9

Right Channel Bank Station Interpolated
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18318.7	1015.8	18394.8	1015.8	18463.1	1016.2	18469.7	1018.1	18472.9	1015
18724.1	1015	18761.1	1014.3	18777.9	1016.8	18795.6	1016.9	18860.1	1015.9
18896.1	1016.3	18904.8	1019.7	18929.3	1019.8	18940.1	1015.2	19033.5	1016.1
19047.9	1016	19059.8	1017.2	19066.9	1015.1	19104.7	1016	19116.7	1011.7
19126.7	1007.1	19193.6	1007.4	19285	1009.3	19371.2	1009	19445.7	1007.1
19492.9	1005.5	19566.8	1005.1	19594	1005.6	19624.6	1005.2	19638.3	1006.4
19689	1001.1	19766	1000.8	19843.4	1001.2	19860.6	1000.8	19947.8	1001.8
19955.3	1001.9	20050.4	1001.4	20071.1	1001.6	20089.1	1003.2	20118.3	1004.3
20156	1007.1	20190.3	1008	20289.9	1007.9	20381.4	1008.9	20427.9	1010.5
20531.5	1011.1	20544.8	1011.1	20560.1	1011.9	20586.4	1015.8	20608.7	1016.9
20680.6	1014.6	20727.2	1013.8	20735.8	1014.5	20764.9	1009.7	20788.6	1011.6
20822.1	1012.5	20927.9	1011.9	20963	1010.7	20994.1	1008.3	21051.7	1014.1
21082.2	1013.7	21131.1	1014.8	21213.2	1014.5	21238.4	1013.9	21256.2	1007.6
21259.2	1007.2	21307.5	1008.3	21334.5	1010	21416.2	1010.9	21507.7	1009.2
21598.5	1005.8	21681.1	1006.9	21719.6	1007.7	21776.6	1006.7	21793.9	1004.3
21872.6	1005.5	21939.8	1009	21972.8	1010.5	22032.5	1008.8	22046.3	1006.6
22111	1005.9	22137.55	1016.374	22143.7	1018.8	22212.8	1020.7	22232.2	1021.2
22300.9	1021	22378.9	1020.5	22421.5	1020.6	22488.9	1019.9		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18318.7	.043	19047.9	.032	19104.7	.032	22143.7	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19104.72	22137.55	505	509.52	585	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
18318.7	19059.8	1020

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1016.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1017.07	Reach Len. (ft)	505.00	509.52	585.00
Crit W.S. (ft)	1012.11	Flow Area (sq ft)	34.02	24806.98	
E.G. Slope (ft/ft)	0.001249	Area (sq ft)	621.32	24806.98	0.00
Q Total (cfs)	166000.00	Flow (cfs)	48.27	165951.73	
Top Width (ft)	3677.89	Top Width (ft)	671.98	3005.90	
Vel Total (ft/s)	6.68	Avg. Vel. (ft/s)	1.42	6.69	
Max Chl Dpth (ft)	15.58	Hydr. Depth (ft)	0.81	8.25	
Conv. Total (cfs)	4697757.0	Conv. (cfs)	1365.9	4696391.0	
Length Wtd. (ft)	509.50	Wetted Per. (ft)	42.31	3013.40	
Min Ch El (ft)	1000.80	Shear (lb/sq ft)	0.06	0.64	
Alpha	1.00	Stream Power (lb/ft s)	0.09	4.29	
Frctn Loss (ft)	0.73	Cum Volume (acre-ft)	7272.87	22815.62	1607.37
C & E Loss (ft)	0.02	Cum SA (acres)	2025.27	2358.03	692.81

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19052.30	19104.70	48.27	34.02	42.31	0.03	0.81	1.42
19104.70 LB	19711.27	38998.75	5744.07	608.73	23.49	9.47	6.79
19711.27	20317.84	65510.34	7831.06	606.79	39.46	12.91	8.37
20317.84	20924.41	10752.67	2601.69	580.52	6.48	4.49	4.13
20924.41	21530.98	13671.06	3061.40	608.21	8.24	5.05	4.47
21530.98	22137.55 RB	37018.92	5568.75	609.14	22.30	9.18	6.65

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.8

INPUT
Description: 207.8

Right Channel Bank Station Interpolated
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16720.8	1015.6	16820	1018	16844.2	1018.7	16848.8	1017.5	16856.8	1019
16867.4	1017.3	16875.2	1017.8	16895	1016.2	16996.6	1015.8	17124.1	1015.3
17221.3	1014.7	17233.7	1014.6	17327.7	1014.3	17428.5	1014.5	17461.8	1014.4
17509	1014.7	17520.5	1015.7	17546.1	1014.2	18739.7	1014.2	18794.2	1014.4
18801.9	1012.7	18900.8	1014.4	18913	1018.5	18934.2	1018.4	18945.1	1013.9
19039.6	1013.5	19178.5	1013.1	19235	1013.5	19249.5	1015	19270.9	1008.6
19304.9	1007.2	19435.5	1007.2	19520.8	1006.1	19559.8	1004.3	19673.3	1005.3
19780.3	1005.6	19820.2	1000.5	19919.9	1000.6	20045.1	1000.2	20073	1001.1
20160.5	1002.9	20209	1001.4	20279.2	1004.6	20310.6	1008.1	20429.9	1009.7
20529.9	1009.3	20571.6	1009.6	20646.2	1007	20667.3	1010.8	20787.7	1013.1
20898.5	1015.2	20915	1015.8	20928.8	1011.5	21033	1009.7	21101	1010.3
21126.1	1013.2	21165.5	1011.3	21182.3	1008.2	21287.6	1007.8	21332.6	1005.8
21365.6	1009.5	21456.3	1009.3	21581.9	1009	21695.3	1007.9	21776.1	1006.6
21795.3	1002.4	21834.5	999.1	21842.9	1003.5	21871.2	1015.4	21881.2	1019.6
21991.4	1019.8	22085.9	1019.5	22180	1020.6				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16720.8	.025	17520.5	.043	19039.6	.032	19249.5	.032	21881.2	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19249.5	21871.22	495	494.8	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16720.8	18913	1019	21881.2	22180	1019

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1015.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.91	Wt. n-Val.	0.034	0.032	

E.G. Elev (ft)	1016.32	Reach Len. (ft)	495.00	494.80	505.00
Crit W.S. (ft)	1011.91	Flow Area (sq ft)	593.05	21375.49	
E.G. Slope (ft/ft)	0.001667	Area (sq ft)	2625.94	21375.49	0.00
Q Total (cfs)	166000.00	Flow (cfs)	1634.70	164365.30	
Top Width (ft)	4716.85	Top Width (ft)	2107.14	2609.70	
Vel Total (ft/s)	7.56	Avg. Vel. (ft/s)	2.76	7.69	
Max Chl Dpth (ft)	16.31	Hydr. Depth (ft)	1.93	8.19	
Conv. Total (cfs)	4065414.0	Conv. (cfs)	40034.5	4025379.5	
Length Wtd. (ft)	494.80	Wetted Per. (ft)	308.43	2617.27	
Min Ch El (ft)	999.10	Shear (lb/sq ft)	0.20	0.85	
Alpha	1.03	Stream Power (lb/ft s)	0.55	6.54	
Frctn Loss (ft)	0.88	Cum Volume (acre-ft)	7254.05	22545.52	1607.37
C & E Loss (ft)	0.01	Cum SA (acres)	2009.17	2325.19	692.81

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18912.34	19080.92	567.98	245.55	139.77	0.34	1.76	2.31
19080.92	19249.50	1066.72	347.51	168.66	0.64	2.06	3.07
19249.50 LB	19773.84	36263.88	4756.08	525.36	21.85	9.07	7.62
19773.84	20298.19	72441.31	7201.27	524.92	43.64	13.73	10.06
20298.19	20822.53	15619.48	2868.10	524.85	9.41	5.47	5.45
20822.53	21346.88	13190.50	2569.11	513.59	7.95	5.01	5.13
21346.88	21871.22 RB	26850.13	3980.93	528.55	16.17	7.59	6.74

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.71

INPUT
Description: 207.71

Right Channel Bank Station Interpolated
Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16626.2	1015.3	16668.1	1016.9	16690.7	1017.7	16699.2	1016.4	16733.9	1017.7
16740.2	1016.3	16747.5	1017.3	16818.1	1015.6	16927.6	1015.4	17021	1015.3
17153.4	1014.4	17242.5	1014.4	17313.4	1014.7	17424.4	1012.2	17499	1011
17545	1013	17556.4	1015	18768.1	1013.7	18795	1011.6	18818.9	1011.4
18826.3	1012.5	18837.7	1011	18904.5	1010.8	18932.9	1017.1	18948.7	1016.5
18965.2	1012.7	18981.8	1010.9	19105.3	1010.4	19195.8	1010.5	19272.7	1010.8
19360	1012.7	19373.3	1012.3	19388.1	1010.3	19485.7	1009.8	19579.6	1007.5
19626	1005.9	19656.3	1007	19724.1	1004.1	19825	1001.9	19865.5	1001.1
20033.4	1000.7	20147.9	1000.3	20249.8	1001.7	20337.9	1005	20425.2	1009.8
20449	1011	20553.3	1008.9	20639.2	1006.4	20687.9	1004.5	20738.5	1010.7
20781.1	1011.2	20925.4	1010.6	21010.9	1010.5	21099.7	1007.8	21189.9	1007.3
21251.6	1004.6	21350.8	1006.6	21434.6	1006	21545.1	1002.4	21640.9	1004.3
21652.1	1006	21660.7	1004.2	21704.1	1014.399	21725.4	1019.4	21784.6	1016.6
21889.9	1018.1	21992.7	1019.3	22114.5	1018.7	22157	1018.7		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16626.2	.025	17556.4	.043	18981.8	.032	19360	.032	21725.4	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19360	21704.11	485	487.91	485	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16626.2	18932.9	1018	21725.4	22157	1018

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1014.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.03	Wt. n-Val.	0.032	0.032	0.000
E.G. Elev (ft)	1015.43	Reach Len. (ft)	485.00	487.91	485.00
Crit W.S. (ft)	1011.58	Flow Area (sq ft)	1392.19	19377.19	0.00
E.G. Slope (ft/ft)	0.001885	Area (sq ft)	2487.42	19377.19	0.00
Q Total (cfs)	166000.00	Flow (cfs)	6418.17	159581.83	0.00
Top Width (ft)	3875.09	Top Width (ft)	1530.95	2344.11	0.03
Vel Total (ft/s)	7.99	Avg. Vel. (ft/s)	4.61	8.24	0.05
Max Chl Dpth (ft)	14.11	Hydr. Depth (ft)	3.46	8.27	0.00

Conv. Total (cfs)	3823548.8	Conv. (cfs)	147832.5	3675716.3	0.0
Length Wtd. (ft)	487.81	Wetted Per. (ft)	402.52	2346.83	0.03
Min Ch El (ft)	1000.30	Shear (lb/sq ft)	0.41	0.97	
Alpha	1.03	Stream Power (lb/ft s)	1.88	8.00	
Frctn Loss (ft)	1.11	Cum Volume (acre-ft)	7224.99	22314.06	1607.37
C & E Loss (ft)	0.05	Cum SA (acres)	1988.49	2297.05	692.81

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18813.24	18995.49	344.65	97.97	37.99	0.21	2.60	3.52
18995.49	19177.75	3470.57	702.80	182.25	2.09	3.86	4.94
19177.75	19360.00	2602.95	591.42	182.28	1.57	3.25	4.40
19360.00 LB	19828.82	24485.31	3434.86	469.13	14.75	7.33	7.13
19828.82	20297.64	66707.19	6265.79	468.87	40.19	13.36	10.65
20297.64	20766.46	19973.44	3040.68	469.49	12.03	6.49	6.57
20766.46	21235.29	12886.95	2336.55	468.91	7.76	4.98	5.52
21235.29	21704.11 RB	35528.94	4299.31	470.43	21.40	9.17	8.26

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.62

INPUT
Description: 207.62

Right Channel Bank Station Interpolated
Station Elevation Data num= 85

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16251.6	1013	16315.4	1013.5	16374.7	1014.7	16377.5	1015.5	16395.5	1014.6
16421.5	1015.7	16422	1014.7	16556.1	1013.9	16632.1	1014	16716.9	1014
16809.1	1014.3	16813.5	1014.3	16896.9	1014.4	16907.1	1014.4	16991.8	1014.6
17078.6	1013.2	17168.3	1009.6	17287	1010.1	17414.8	1010.3	17522.4	1010.6
17591.1	1013.4	17609.8	1011.4	17662	1012.1	17679.1	1013.9	17688.4	1011.8
17788.8	1010.9	17868.6	1012.4	17910.4	1011.6	17996.3	1008.9	18009.6	1010.7
18035.1	1010.4	18045.1	1011.9	18138.2	1012.6	18185.4	1012.3	18195	1014.2
18263.6	1011.9	18647.5	1012.1	18732.3	1011.6	18815.2	1006.9	18891.8	1011.1
18961.7	1011	18978.7	1015.9	18991.8	1016.8	19005.5	1010.9	19115.1	1011.1
19173.3	1010.9	19236.3	1009.2	19351.7	1010.9	19441.1	1010.7	19518.1	1010.9
19536.8	1005.8	19551.7	1003.6	19572.3	1011.7	19592.2	1007	19618.9	1009.2
19629.6	1005.5	19641.4	1008.7	19649.6	1006.2	19667.1	1010.9	19710.7	1009
19801.1	1007.5	19885.1	1000.9	20012.8	1000.7	20210.2	1000.2	20295.5	1002.1
20395.7	1005.1	20429.1	1005.7	20464.4	1011.5	20549.3	1010.6	20664.2	1007.1
20756.4	1006	20844.7	1004.1	20964.8	1003.4	21097.7	1002.5	21189.6	1001.6
21272.9	1002.2	21361.2	1003.4	21445.5	1003.8	21449.7	1003.9	21472.33	1012.741
21484	1017.3	21597.8	1018	21670.5	1017.5	21682.6	1018.4	21786	1017.2

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16251.6	.025	17591.1	.043	19005.5	.032	19518.1	.032	21484	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19518.12	1472.33	460	465	515	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16251.6	18991.8	1018.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1012.76	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.51	Wt. n-Val.	0.032	0.032	0.000
E.G. Elev (ft)	1014.28	Reach Len. (ft)	460.00	465.00	515.00
Crit W.S. (ft)	1010.41	Flow Area (sq ft)	1110.05	16165.65	0.00
E.G. Slope (ft/ft)	0.002780	Area (sq ft)	4018.01	16165.65	0.00
Q Total (cfs)	166000.00	Flow (cfs)	4528.28	161471.72	0.00
Top Width (ft)	4261.90	Top Width (ft)	2307.61	1954.23	0.05
Vel Total (ft/s)	9.61	Avg. Vel. (ft/s)	4.08	9.99	0.11

Max Chl Dpth (ft)	12.56	Hydr. Depth (ft)	2.15	8.27	0.01
Conv. Total (cfs)	3148167.5	Conv. (cfs)	85878.3	3062289.3	0.0
Length Wtd. (ft)	464.83	Wetted Per. (ft)	517.34	1961.92	0.06
Min Ch El (ft)	1000.20	Shear (lb/sq ft)	0.37	1.43	
Alpha	1.06	Stream Power (lb/ft s)	1.52	14.29	
Frctn Loss (ft)	0.92	Cum Volume (acre-ft)	7188.78	22115.01	1607.37
C & E Loss (ft)	0.11	Cum SA (acres)	1967.13	2272.98	692.81

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18864.80	19082.57	502.05	142.11	81.77	0.30	1.75	3.53
19082.57	19300.33	2305.54	526.35	217.80	1.39	2.42	4.38
19300.33	19518.10	1720.68	441.59	217.77	1.04	2.03	3.90
19518.10 LB	19908.95	16955.38	2275.35	396.22	10.21	5.82	7.45
19908.95	20299.79	57539.51	4710.67	390.87	34.66	12.05	12.21
20299.79	20690.64	13949.56	2014.13	391.43	8.40	5.15	6.93
20690.64	21081.48	32128.05	3320.75	390.88	19.35	8.50	9.67
21081.48	21472.33 RB	40899.23	3844.75	392.53	24.64	9.84	10.64

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.53

INPUT
Description: 207.53

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16022.7	1011.1	16143.3	1011.7	16215.8	1011.5	16221.1	1014.1	16232.7	1013.9
16241.1	1012.7	16266.4	1013.7	16266.5	1014.9	16268.8	1013.2	16273.6	1014.2
16372.5	1014.1	16429	1014.9	16432.3	1013.6	16526.5	1013	16542.7	1012.9
16638.5	1012.9	16738.7	1012.6	16828.5	1012.8	16854.4	1014.1	16891.5	1014.1
16896.5	1014.8	17034.3	1011.1	17122	1009.6	17238.3	1009.7	17332.6	1009.9
17423.9	1010.1	17511.1	1010.4	17604.5	1010.7	17620.2	1013.7	17629.7	1010.7
17643.4	1009.3	17724	1010	17812.5	1010.1	17954	1010	18065.4	1010.1
18155.9	1010.1	18267.1	1010.5	18354.5	1010.5	18454.3	1011.5	18527.2	1011.5
18611.5	1010	18724.9	1010	18789.3	1010.5	18796.9	1011.3	18812.1	1007.4
18898.8	1008.9	18986.9	1010	18999.5	1010.7	19027.1	1017.5	19046.3	1011.3
19124.1	1011.5	19133.7	1010.3	19137.2	1008.4	19148.2	1008.1	19240.4	1009.9
19257.7	1010.8	19302.9	1009.2	19305.5	1008.3	19314.2	1008.5	19319	1010.3
19329.6	1007.9	19386.1	1006.6	19502.9	1006.4	19603.8	1004.2	19684.4	1002.8
19763.2	1001.2	19791	999.1	19817.3	1000.3	19986.4	1000.3	20057	1000.3
20190.1	1000.3	20256.8	1001.2	20303.8	999.8	20452.2	999.9	20549.1	1000.2
20636.9	1000.2	20732.4	1000.1	20823	1000.7	20885.5	1001.5	20917.4	1004.8
20933.9	1001.4	20947	1004	20965	1000.8	21002.6	1002.6	21159.7	1002.9
21175	1003.865	21269.1	1009.8	21336	1012.1	21366.8	1015.8	21376.8	1013.2
21407.7	1013.3	21446.9	1014.6	21511.1	1014.3	21572.1	1017.7	21609.7	1014
21754.4	1013.1	21798	1013.8						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16022.7	.025	17620.2	.043	19124.1	.032	19502.9	.032	21336	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19502.9	21175	231	227	201	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16022.7	19027.1	1015	21175	21798	1015

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1012.09	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.16	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1013.25	Reach Len. (ft)	231.00	227.00	201.00
Crit W.S. (ft)	1008.06	Flow Area (sq ft)	1537.92	18157.76	

E.G. Slope (ft/ft)	0.001487	Area (sq ft)	5535.82	18157.76	570.57
Q Total (cfs)	166000.00	Flow (cfs)	6639.81	159360.20	
Top Width (ft)	4480.12	Top Width (ft)	2647.39	1672.10	160.63
Vel Total (ft/s)	8.43	Avg. Vel. (ft/s)	4.32	8.78	
Max Chl Dpth (ft)	12.99	Hydr. Depth (ft)	3.35	10.86	
Conv. Total (cfs)	4304674.5	Conv. (cfs)	172182.0	4132492.8	
Length Wtd. (ft)	227.08	Wetted Per. (ft)	460.56	1673.42	
Min Ch El (ft)	999.10	Shear (lb/sq ft)	0.31	1.01	
Alpha	1.05	Stream Power (lb/ft s)	1.34	8.84	
Frctn Loss (ft)	0.23	Cum Volume (acre-ft)	7138.33	21931.81	1604.00
C & E Loss (ft)	0.09	Cum SA (acres)	1940.96	2253.62	691.86

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19038.87	19270.89	1390.88	452.39	227.76	0.84	1.99	3.07
19270.89	19502.90	5248.93	1085.53	232.80	3.16	4.68	4.84
19502.90 LB	19837.32	23865.97	3065.49	334.58	14.38	9.17	7.79
19837.32	20171.74	36301.98	3941.93	334.42	21.87	11.79	9.21
20171.74	20506.16	36984.54	3986.36	334.45	22.28	11.92	9.28
20506.16	20840.58	36488.82	3954.10	334.42	21.98	11.82	9.23
20840.58	21175.00 RB	25718.88	3209.88	335.55	15.49	9.60	8.01

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.49

INPUT
Description: 207.49
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16210	1013.8	17338.3	1010.47	18388.3	1010.34	18888.3	1010.64	18938.3	1011
18988.3	1011.5	19038.3	1012.3	19088.3	1013.2	19138.3	1014.3	19188.3	1015.6
19288.3	1018.2	19388.3	1020.56	19455	1022.05	19465.2	1020.4	19465.3	1014.7
19468.2	1013.7	19522.3	997.9	19560.3	997.3	19564.3	997.3	19660.3	997
19664.3	997	19760.3	996.4	19764.3	996.4	19860.3	999.5	19864.3	999.5
19960.3	997.4	19964.3	997.4	20060.3	994.6	20064.3	994.6	20160.3	995.5
20164.3	995.5	20260.3	999.6	20264.3	999.6	20360.3	998.5	20364.3	998.5
20460.3	998.9	20464.3	998.9	20560.3	996.7	20564.3	996.7	20660.3	997.9
20664.3	997.9	20760.3	998	20764.3	998	20860.3	999.9	20864.3	999.9
20960.3	998	20964.3	998	21027.8	992.2	21056.5	1014.7	21059.4	1014.7
21059.5	1020.4	21080	1020.7	21115	1020	21280	1016	21875	1013.8

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
16210	.032	19455	.032	21059.4	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19465.3	21059.4	50	53	35	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16210	19465.3	1020	21059.4	21875	1020

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1012.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.85	Wt. n-Val.		0.032	
E.G. Elev (ft)	1012.92	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1004.70	Flow Area (sq ft)		22425.63	
E.G. Slope (ft/ft)	0.000745	Area (sq ft)	3088.34	22425.63	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	3807.62	Top Width (ft)	2228.25	1579.37	
Vel Total (ft/s)	7.40	Avg. Vel. (ft/s)		7.40	
Max Chl Dpth (ft)	19.87	Hydr. Depth (ft)		14.20	
Conv. Total (cfs)	6081881.5	Conv. (cfs)		6081881.5	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		1588.81	
Min Ch El (ft)	992.20	Shear (lb/sq ft)		0.66	

Alpha	1.00	Stream Power (lb/ft s)		4.86	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	7115.46	21826.06	1602.68
C & E Loss (ft)	0.01	Cum SA (acres)	1928.03	2245.15	691.49

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19465.30 LB	19784.12	31135.11	4288.13	312.39	18.76	13.82	7.26
19784.12	20102.94	36401.14	4748.80	318.93	21.93	14.89	7.67
20102.94	20421.76	33939.67	4553.38	318.92	20.45	14.28	7.45
20421.76	20740.58	33872.14	4547.59	318.85	20.40	14.26	7.45
20740.58	21059.40 RB	30651.95	4287.73	319.73	18.47	13.72	7.15

Warning - Divided flow computed for this cross-section.

BRIDGE RIVER: 1
REACH: 1 RS: 207.485

INPUT
Description: 51st Avenue Bridge
Distance from Upstream XS = 0
Deck/Roadway Width = 50.71
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 28

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
17338.3	1010.47	1010.47	18388.3	1010.34	1010.34	18888.3	1010.64	1010.64
18938.3	1011	1011	18988.3	1011.5	1011.5	19038.3	1012.3	1012.3
19088.3	1013.2	1013.2	19138.3	1014.3	1014.3	19188.3	1015.6	1015.6
19288.3	1018.2	1018.2	19388.3	1020.56	1020.56	19445	1022.05	1020.2
19560.3	1023.4	1017.77	19660.3	1025.18	1019.47	19760.3	1026.58	1020.87
19860.3	1027.68	1022	19960.3	1028.58	1022.87	20060.3	1029.28	1023.59
20160.3	1029.68	1023.99	20260.3	1029.78	1024.09	20360.3	1029.68	1024
20460.3	1029.28	1023.59	20560.3	1028.68	1023.01	20660.3	1027.88	1022.21
20760.3	1026.68	1021	20860.3	1025.41	1019.67	20960.3	1023.68	1018.03
21059.4	1020.6	1014.92						

Upstream Bridge Cross Section Data
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16210	1013.8	17338.3	1010.47	18388.3	1010.34	18888.3	1010.64	18938.3	1011
18988.3	1011.5	19038.3	1012.3	19088.3	1013.2	19138.3	1014.3	19188.3	1015.6
19288.3	1018.2	19388.3	1020.56	19455	1022.05	19465.2	1020.4	19465.3	1014.7
19468.2	1013.7	19522.3	997.9	19560.3	997.3	19564.3	997.3	19660.3	997
19664.3	997	19760.3	996.4	19764.3	996.4	19860.3	999.5	19864.3	999.5
19960.3	997.4	19964.3	997.4	20060.3	994.6	20064.3	994.6	20160.3	995.5
20164.3	995.5	20260.3	999.6	20264.3	999.6	20360.3	998.5	20364.3	998.5
20460.3	998.9	20464.3	998.9	20560.3	996.7	20564.3	996.7	20660.3	997.9
20664.3	997.9	20760.3	998	20764.3	998	20860.3	999.9	20864.3	999.9
20960.3	998	20964.3	998	21027.8	992.2	21056.5	1014.7	21059.4	1014.7
21059.5	1020.4	21080	1020.7	21115	1020	21280	1016	21875	1013.8

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
16210	.032	19455	.032	21059.4	.032

Bank Sta: Left	Right	Coeff Contr.	Expan.
19465.3	21059.4	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16210	19465.3	1020	21059.4	21875	1020

Downstream Deck/Roadway Coordinates
num= 28

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
17338.3	1010.47	1010.47	18388.3	1010.34	1010.34	18888.3	1010.64	1010.64
18938.3	1011	1011	18988.3	1011.5	1011.5	19038.3	1012.3	1012.3
19088.3	1013.2	1013.2	19138.3	1014.3	1014.3	19188.3	1015.6	1015.6
19288.3	1018.2	1018.2	19388.3	1020.56	1020.56	19445	1022.05	1020.2
19560.3	1023.4	1017.77	19660.3	1025.18	1019.47	19760.3	1026.58	1020.87
19860.3	1027.68	1022	19960.3	1028.58	1022.87	20060.3	1029.28	1023.59

```
 20160.3 1029.68 1023.99 20260.3 1029.78 1024.09 20360.3 1029.68    1024
 20460.3 1029.28 1023.59 20560.3 1028.68 1023.01 20660.3 1027.88 1022.21
 20760.3 1026.68    1021 20860.3 1025.41 1019.67 20960.3 1023.68 1018.03
 21059.4  1020.6 1014.92

Downstream Bridge Cross Section Data
Station Elevation Data    num=      55
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   16210  1013.8 17338.3 1010.47 18388.3 1010.34 18888.3 1010.64 18938.3    1011
 18988.3  1011.5 19038.3  1012.3 19088.3  1013.2 19138.3  1014.3 19188.3  1015.6
 19288.3  1018.2 19388.3 1020.56   19455 1022.05 19465.2  1020.4 19465.3  1014.7
 19468.2  1013.7 19522.3   997.9 19560.3   997.3 19564.3   997.3 19660.3     997
 19664.3     997 19760.3   996.4 19764.3   996.4 19860.3   999.5 19864.3   999.5
 19960.3   997.4 19964.3   997.4 20060.3   994.6 20064.3   994.6 20160.3   995.5
 20164.3   995.5 20260.3   999.6 20264.3   999.6 20360.3   998.5 20364.3   998.5
 20460.3   998.9 20464.3   998.9 20560.3   996.7 20564.3   996.7 20660.3   997.9
 20664.3   997.9 20760.3     998 20764.3     998 20860.3   999.9 20864.3   999.9
 20960.3     998 20964.3     998 21027.8   992.2 21056.5  1014.7 21059.4  1014.7
 21059.5  1020.4   21080  1020.7   21115    1020   21280    1016   21875  1013.8

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
   16210    .032 21059.4    .032

Bank Sta: Left   Right    Coeff Contr.   Expan.
       19465.3 21059.4              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   16210 19465.3    1020 21059.4   21875    1020

Upstream Embankment side slope              =         horiz. to 1.0 vertical
Downstream Embankment side slope            =         horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         = 1010.34
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  15

Pier Data
Pier Station     Upstream= 19562.3    Downstream= 19562.3
Upstream     num=       2
    Width   Elev    Width   Elev
        4   997.3       4  1017.8
Downstream     num=       2
    Width   Elev    Width   Elev
        4   997.3       4  1017.8

Pier Data
Pier Station     Upstream= 19662.3    Downstream= 19662.3
Upstream     num=       2
    Width   Elev    Width   Elev
        4     997       4 1019.54
Downstream     num=       2
    Width   Elev    Width   Elev
        4     997       4 1019.54

Pier Data
Pier Station     Upstream= 19762.3    Downstream= 19762.3
Upstream     num=       2
    Width   Elev    Width   Elev
        4   996.4       4 1020.94
Downstream     num=       2
    Width   Elev    Width   Elev
        4   996.4       4 1020.94

Pier Data
Pier Station     Upstream= 19862.3    Downstream= 19862.3
Upstream     num=       2
    Width   Elev    Width   Elev
        4   999.5       4    1022
Downstream     num=       2
    Width   Elev    Width   Elev
        4   999.5       4    1022

Pier Data
```

```
Pier Station     Upstream= 19962.3    Downstream= 19962.3
Upstream     num=        2
    Width   Elev    Width   Elev
        4   997.4       4  1022.9
Downstream     num=        2
    Width   Elev    Width   Elev
        4   997.4       4  1022.9

Pier Data
Pier Station     Upstream= 20062.3    Downstream= 20062.3
Upstream     num=        2
    Width   Elev    Width   Elev
        4   994.6       4  1023.6
Downstream     num=        2
    Width   Elev    Width   Elev
        4   994.6       4  1023.6

Pier Data
Pier Station     Upstream= 20162.3    Downstream= 20162.3
Upstream     num=        2
    Width   Elev    Width   Elev
        4   995.5       4    1024
Downstream     num=        2
    Width   Elev    Width   Elev
        4   995.5       4    1024

Pier Data
Pier Station     Upstream= 20262.3    Downstream= 20262.3
Upstream     num=        2
    Width   Elev    Width   Elev
        4   999.6       4  1024.1
Downstream     num=        2
    Width   Elev    Width   Elev
        4   999.6       4  1024.1

Pier Data
Pier Station     Upstream= 20362.3    Downstream= 20362.3
Upstream     num=        2
    Width   Elev    Width   Elev
        4   998.5       4    1024
Downstream     num=        2
    Width   Elev    Width   Elev
        4   998.5       4    1024

Pier Data
Pier Station     Upstream= 20462.3    Downstream= 20462.3
Upstream     num=        2
    Width   Elev    Width   Elev
        4   998.9       4  1023.6
Downstream     num=        2
    Width   Elev    Width   Elev
        4   998.9       4  1023.6

Pier Data
Pier Station     Upstream= 20562.3    Downstream= 20562.3
Upstream     num=        2
    Width   Elev    Width   Elev
        4   996.7       4    1023
Downstream     num=        2
    Width   Elev    Width   Elev
        4   996.7       4    1023

Pier Data
Pier Station     Upstream= 20662.3    Downstream= 20662.3
Upstream     num=        2
    Width   Elev    Width   Elev
        4   997.9       4  1022.2
Downstream     num=        2
    Width   Elev    Width   Elev
        4   997.9       4  1022.2

Pier Data
Pier Station     Upstream= 20762.3    Downstream= 20762.3
Upstream     num=        2
    Width   Elev    Width   Elev
        4     998       4    1021
Downstream     num=        2
```

Width	Elev	Width	Elev
4	998	4	1021

Pier Data
Pier Station Upstream= 20862.3 Downstream= 20862.3
Upstream num= 2

Width	Elev	Width	Elev
4	999.9	4	1019.7

Downstream num= 2

Width	Elev	Width	Elev
4	999.9	4	1019.7

Pier Data
Pier Station Upstream= 20962.3 Downstream= 20962.3
Upstream num= 2

Width	Elev	Width	Elev
4	998	4	1018

Downstream num= 2

Width	Elev	Width	Elev
4	998	4	1018

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data
Energy
Momentum Cd = 1.2
Yarnell KVal = 1.05
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
Pressure and Weir flow
Submerged Inlet Cd =
Submerged Inlet + Outlet Cd = .8
Max Low Cord =

Additional Bridge Parameters
Add Friction component to Momentum
Add Weight component to Momentum
Class B flow critical depth computations use critical depth inside the bridge at the downstream end
Criteria to check for pressure flow = Upstream water surface

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.48

INPUT
Description: 207.48
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16210	1013.8	17338.3	1010.47	18388.3	1010.34	18888.3	1010.64	18938.3	1011
18988.3	1011.5	19038.3	1012.3	19088.3	1013.2	19138.3	1014.3	19188.3	1015.6
19288.3	1018.2	19388.3	1020.56	19455	1022.05	19465.2	1020.4	19465.3	1014.7
19468.2	1013.7	19522.3	997.9	19560.3	997.3	19564.3	997.3	19660.3	997
19664.3	997	19760.3	996.4	19764.3	996.4	19860.3	999.5	19864.3	999.5
19960.3	997.4	19964.3	997.4	20060.3	994.6	20064.3	994.6	20160.3	995.5
20164.3	995.5	20260.3	999.6	20264.3	999.6	20360.3	998.5	20364.3	998.5
20460.3	998.9	20464.3	998.9	20560.3	996.7	20564.3	996.7	20660.3	997.9
20664.3	997.9	20760.3	998	20764.3	998	20860.3	999.9	20864.3	999.9
20960.3	998	20964.3	998	21027.8	992.2	21056.5	1014.7	21059.4	1014.7
21059.5	1020.4	21080	1020.7	21115	1020	21280	1016	21875	1013.8

Manning's n Values num= 2

Sta	n Val	Sta	n Val
16210	.032	21059.4	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19465.3	21059.4	251	245.54	316	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16210	19465.3	1020	21059.4	21875	1020

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1011.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.86	Wt. n-Val.		0.032	
E.G. Elev (ft)	1012.83	Reach Len. (ft)	251.00	245.54	316.00
Crit W.S. (ft)	1004.71	Flow Area (sq ft)		22258.79	

E.G. Slope (ft/ft)	0.000763	Area (sq ft)	2855.17	22258.79	
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	3764.72	Top Width (ft)	2185.85	1578.87	
Vel Total (ft/s)	7.46	Avg. Vel. (ft/s)		7.46	
Max Chl Dpth (ft)	19.77	Hydr. Depth (ft)		14.10	
Conv. Total (cfs)	6008038.0	Conv. (cfs)		6008038.0	
Length Wtd. (ft)	245.54	Wetted Per. (ft)		1588.26	
Min Ch El (ft)	992.20	Shear (lb/sq ft)		0.67	
Alpha	1.00	Stream Power (lb/ft s)		4.98	
Frctn Loss (ft)	0.29	Cum Volume (acre-ft)	7115.39	21800.04	1602.68
C & E Loss (ft)	0.06	Cum SA (acres)	1927.98	2243.30	691.49

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19465.30 LB	19784.12	31142.55	4255.36	312.01	18.76	13.73	7.32
19784.12	20102.94	36414.11	4715.12	318.93	21.94	14.79	7.72
20102.94	20421.76	33934.42	4519.70	318.92	20.44	14.18	7.51
20421.76	20740.58	33866.36	4513.91	318.85	20.40	14.16	7.50
20740.58	21059.40 RB	30642.58	4254.71	319.56	18.46	13.62	7.20

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.43

INPUT
Description: 207.43

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16001	1012.1	16131.4	1012.2	16228.7	1013.1	16320.3	1013.5	16407.2	1012.9
16462.7	1013	16534.7	1009.5	16622	1009.9	16771.3	1010.1	16811.7	1010.1
16903.6	1009.9	17000.5	1009.7	17064.3	1009.5	17157.6	1009.6	17168	1009.6
17254.7	1009.5	17423.7	1009.1	17535	1009.1	17611.5	1010	17646.2	1011.6
17670.8	1009.4	17760.3	1009.7	17874.6	1010.1	17964.8	1011.6	17984.9	1012
17997.8	1016.3	18045.8	1011.1	18059.4	1010.8	18090.3	1019.1	18104.6	1011.8
18153.8	1012.3	18156.2	1012	18391.4	1012.4	18596.1	1016.3	18654.3	1014.9
18908.3	1012	19012	1011.9	19027.1	1014.5	19083.8	1014.7	19094.4	1012.4
19147.4	1018.1	19153.2	1017.8	19176.4	1012.1	19237.2	1010.4	19250.8	1011.8
19253.3	1010.962	19268.1	1006	19370.6	1006.3	19448.3	1005	19562.2	1000.2
19660.1	999.2	19729.8	999	19896.9	999.1	20054.8	999.2	20143.1	999.3
20241.9	1000.1	20361.6	1000.3	20453.3	1000.3	20539.4	999.9	20632.9	1001.1
20689.8	1003.1	20747.1	1003	20818	999.4	20892	1000.8	20911.4	1002.3
20940	1001.503	20940.1	1001.5	20958.5	1009.2	21053.7	1010.9	21146.5	1011.2
21244.1	1013	21380.1	1013.7	21490.2	1010.1	21618.6	1011	21731	1013.6
21751.5	1014.2	21777.8	1011.3	21912.6	1011.5	21985	1012.4		

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16001	.025	17611.5	.043	19012	.032	19250.8	.032	21053.7	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19253.3	20940	450	471	575	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16001	19250.8	1015	20940	21985	1015

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1010.99	Element	Left OB	Channel	Right OB

Vel Head (ft)	1.49	Wt. n-Val.	0.000	0.032	
E.G. Elev (ft)	1012.48	Reach Len. (ft)	450.00	471.00	575.00
Crit W.S. (ft)	1007.62	Flow Area (sq ft)	0.00	16943.36	
E.G. Slope (ft/ft)	0.002056	Area (sq ft)	1800.24	16943.36	263.14
Q Total (cfs)	166000.00	Flow (cfs)	0.00	166000.00	
Top Width (ft)	3420.48	Top Width (ft)	1439.59	1686.70	294.19
Vel Total (ft/s)	9.80	Avg. Vel. (ft/s)	0.11	9.80	
Max Chl Dpth (ft)	11.99	Hydr. Depth (ft)	0.01	10.05	
Conv. Total (cfs)	3661190.3	Conv. (cfs)	0.0	3661190.3	
Length Wtd. (ft)	471.00	Wetted Per. (ft)	0.08	1687.85	
Min Ch El (ft)	999.00	Shear (lb/sq ft)		1.29	
Alpha	1.00	Stream Power (lb/ft s)		12.62	
Frctn Loss (ft)	1.09	Cum Volume (acre-ft)	7101.98	21689.55	1601.73
C & E Loss (ft)	0.03	Cum SA (acres)	1917.53	2234.10	690.43

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19253.30 LB	19590.64	15971.67	2213.70	338.26	9.62	6.56	7.21
19590.64	19927.98	42648.21	3986.36	337.34	25.69	11.82	10.70
19927.98	20265.32	41223.33	3905.91	337.34	24.83	11.58	10.55
20265.32	20602.66	36479.73	3629.68	337.35	21.98	10.76	10.05
20602.66	20940.00 RB	29677.04	3207.71	337.55	17.88	9.51	9.25

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.34

INPUT
Description: 207.34

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16035.2	1011.8	16177.7	1012.1	16280.1	1013	16403.9	1013.3	16481.2	1012
16521.9	1009.6	16702.7	1009.6	16804.9	1009.5	16839.4	1009.4	16942.2	1010.3
16976.4	1010.3	17093.8	1008.9	17125.8	1008.8	17242.3	1008.6	17266.9	1008.4
17385.6	1008.6	17409.9	1008.6	17524	1008.8	17624.3	1009.1	17632.4	1009.2
17642.3	1011.1	17673.2	1011.4	17693.3	1008.6	17801.9	1009	17911.5	1008.1
17944	1007.7	17970.8	1008.9	18420.5	1010.8	18468.8	1010.2	18518.8	1009.3
19089.4	1009.3	19158.1	1010.6	19180.5	1009.1	19194.8	1003.1	19196.9	1003.1
19214.8	1010.1	19221.2	1005.7	19228.6	1002.1	19230	1001.961	19238.7	1001.1
19249	1002.5	19288.5	997	19326.4	995.9	19381	999.5	19392.5	1002.2
19404.7	999	19437.8	1000.9	19593.3	1002.4	19706.7	1001.8	19842	1000.3
19946.7	998.7	20191.8	998.9	20302.5	998.8	20382.5	998.4	20416.2	996.5
20521.3	998.7	20631.1	998.6	20696.7	998.2	20735.2	1000.8	20761.1	1007.9
20798.76	1009.511	20824.2	1010.6	20847.7	1013.3	20977	1014.8	20997	1014.1

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16035.2	.025	17693.3	.043	19196.9	.032	19214.8	.032	20847.7	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19230	20798.76	370	393.75	530	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16035.2	19230	1013

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1009.51	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.84	Wt. n-Val.		0.032	
E.G. Elev (ft)	1011.35	Reach Len. (ft)	370.00	393.75	530.00
Crit W.S. (ft)	1006.68	Flow Area (sq ft)		15263.20	
E.G. Slope (ft/ft)	0.002647	Area (sq ft)	1070.13	15263.20	0.00
Q Total (cfs)	166000.00	Flow (cfs)		166000.00	
Top Width (ft)	3295.01	Top Width (ft)	1726.23	1568.76	0.01

Vel Total (ft/s)	10.88	Avg. Vel. (ft/s)		10.88		
Max Chl Dpth (ft)	13.61	Hydr. Depth (ft)		9.73		
Conv. Total (cfs)	3226517.3	Conv. (cfs)		3226517.3		
Length Wtd. (ft)	389.43	Wetted Per. (ft)		1571.38		
Min Ch El (ft)	995.90	Shear (lb/sq ft)		1.61		
Alpha	1.00	Stream Power (lb/ft s)		17.46		
Frctn Loss (ft)	1.06	Cum Volume (acre-ft)	7087.15	21515.43	1599.99	
C & E Loss (ft)	0.01	Cum SA (acres)	1901.18	2216.50	688.48	

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19230.00 LB	19543.75	32972.79	3057.48	315.19	19.86	9.74	10.78
19543.75	19857.50	23554.54	2494.19	313.77	14.19	7.95	9.44
19857.50	20171.26	37764.42	3310.79	313.76	22.75	10.55	11.41
20171.26	20485.01	41890.14	3523.57	313.82	25.24	11.23	11.89
20485.01	20798.76 RB	29818.10	2877.17	314.84	17.96	9.17	10.36

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.27

INPUT
Description: 207.27
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16209.3	1012.6	16252.8	1013.2	16284.2	1012	16383.8	1012.6	16415.5	1012.9
16480.2	1009.2	16601.8	1009.4	16722.1	1009.3	16901.6	1009.1	17028	1008.9
17034.7	1008.9	17132.7	1008.7	17256.4	1008.5	17345.1	1009.7	17477.8	1009
17574.2	1008.9	17623.2	1008.9	17640.8	1010.6	17654.3	1009.2	17776.8	1009.2
17890	1009.9	18017.7	1009.2	18033.8	1009.3	18373.9	1009.8	18428.4	1009.8
18529.9	1009.9	18634.4	1008.2	18686.7	1008.6	18936.9	1006.8	18965	1004.2
18981	1000.1	18990.9	999.5	19008.8	996.4	19021	989.6	19047.9	988.8
19072	996.4	19107.5	995	19123.5	989.3	19162.8	987.6	19190	994.7
19301.3	1002.1	19428.8	1005	19561.5	1003.7	19676.8	1002	19820.6	999.3
19940.6	998.8	19971.8	997.8	19986.7	993.8	20109.9	993.3	20119.1	995.5
20215.4	998.5	20300.7	998.8	20305.8	1000.2	20322.6	1001.4	20345.1	998.6
20382.4	998.7	20402.9	1000.7	20414.9	1000.4	20429.2	1001.7	20526.1	1000.4
20597.9	1002.6	20662.2	1037.1	20670.6	1034	20727.4	1003.5	20805.4	1006.4
20813.3	1010.3	20822.2	1008.4	20916.8	1009.6	21025	1009.2	21122.8	1010.2
21233.4	1010.9	21356.4	1011	21463	1011.1				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16209.3	.025	17640.8	.043	19008.8	.032	19428.8	.032	20597.9	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19428.8	20597.9	575	572.72	585	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16209.3	18980	1037.1	20662.2	21463	1037.1

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1008.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.89	Wt. n-Val.	0.032	0.032	0.032
E.G. Elev (ft)	1010.28	Reach Len. (ft)	575.00	572.72	585.00
Crit W.S. (ft)	1006.05	Flow Area (sq ft)	5058.58	10109.26	31.29
E.G. Slope (ft/ft)	0.002803	Area (sq ft)	5412.04	10109.26	326.31
Q Total (cfs)	166000.00	Flow (cfs)	61252.95	104603.35	143.69
Top Width (ft)	2022.03	Top Width (ft)	750.98	1169.10	101.96
Vel Total (ft/s)	10.92	Avg. Vel. (ft/s)	12.11	10.35	4.59
Max Chl Dpth (ft)	20.79	Hydr. Depth (ft)	11.27	8.65	2.90
Conv. Total (cfs)	3135691.8	Conv. (cfs)	1157050.5	1975926.9	2714.3
Length Wtd. (ft)	573.43	Wetted Per. (ft)	454.31	1170.60	12.26
Min Ch El (ft)	993.30	Shear (lb/sq ft)	1.95	1.51	0.45
Alpha	1.02	Stream Power (lb/ft s)	23.59	15.63	2.05

Frctn Loss (ft)	1.23	Cum Volume (acre-ft)	7059.62	21400.75	1598.01
C & E Loss (ft)	0.20	Cum SA (acres)	1890.66	2204.13	687.86

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18784.90	18999.53	1272.98	176.50	19.71	0.77	9.04	7.21
18999.53	19214.17	48758.60	3463.53	219.74	29.37	16.14	14.08
19214.17	19428.80	11221.40	1418.55	214.86	6.76	6.61	7.91
19428.80 LB	19662.62	7049.30	1086.83	233.84	4.25	4.65	6.49
19662.62	19896.44	17955.73	1904.60	233.85	10.82	8.15	9.43
19896.44	20130.26	38667.29	3021.81	234.63	23.29	12.92	12.80
20130.26	20364.08	25164.51	2333.82	234.27	15.16	9.98	10.78
20364.08	20597.90 RB	15766.50	1762.19	234.02	9.50	7.54	8.95
20597.90	20655.57	143.69	31.29	12.26	0.09	2.90	4.59

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.16

INPUT
Description: 207.16
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16210.1	1011.7	16309.9	1011.9	16344.7	1012.7	16358.1	1011.8	16364.1	1013.5
16438.5	1011.6	16493.9	1011.9	16557.8	1010.7	16585.8	1008.3	16700.8	1008.1
16756.6	1008.6	16852.6	1008.6	16969	1008.6	17076	1008.4	17204.5	1008.7
17321.8	1008.1	17421.3	1007.7	17541.4	1007.5	17638.7	1007.7	17755.6	1007.6
17773.4	1007.2	17787.5	1009.2	17904.3	1007.5	17925	1006.5	18023.9	1007.4
18085.4	1008	18140	1009.4	18201.1	1007.7	18218.4	1008.1	18321.4	1005
18342.3	1005.4	18407.3	1003.8	18456.1	1009.9	18484.8	1008.2	18498.7	1005.3
18523.8	1008.7	18528.7	1008.4	18529.5	1007.2	18545.1	1003.7	18570.4	1008.1
18605.9	1007.9	18638.7	1000.3	18663.3	997.6	18680.3	997.7	18717	996.2
18733.2	994.8	18778.6	996.9	18811.7	999.5	18924.2	1002.3	19046.2	1002.4
19107	1000.2	19209.6	1000.7	19329.8	1002.2	19395.2	1003.5	19404.5	1002.1
19419.4	1003.2	19521.4	1003.3	19614.6	1002	19721.9	1001.4	19815.6	999.6
19920.9	996.2	19994.2	994.9	20008.7	992.7	20062.5	992.7	20094.8	994.3
20106.3	993.1	20160.3	993	20395.5	993	20413	995	20418.4	997.1
20436.9	1001.5	20463.3	996.6	20488.6	995.2	20609.4	995.2	20655.2	996
20660.9	995.4	20697	996.6	20734.5	1007.6	20838.6	1008.7	20985.3	1010.1
21116.5	1009.9	21223.5	1009.3	21316.4	1008.4	21471.6	1007.6	21595.3	1007.5
21624	1007.5	21725.6	1009.3	21731.8	1008.9	21782.9	1010.9	21783	1010.3
21812.5	1010	21872.1	1013.5	21911.2	1012.7	21930.8	1006	21952.5	1011.3
21998	1010.9								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16210.1	.025	17204.5	.043	18605.9	.032	19521.4	.032	20734.5	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19521.4	20734.5	475	463.31	475	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16210.1	18605.9	1013	20734.5	21998	1013

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1007.64	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.21	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1008.85	Reach Len. (ft)	475.00	463.31	475.00
Crit W.S. (ft)	1004.53	Flow Area (sq ft)	6083.54	13259.82	
E.G. Slope (ft/ft)	0.001701	Area (sq ft)	6717.75	13259.82	24.52
Q Total (cfs)	166000.00	Flow (cfs)	41169.60	124830.40	

Top Width (ft)	2942.53	Top Width (ft)	1547.71	1213.10	181.72
Vel Total (ft/s)	8.58	Avg. Vel. (ft/s)	6.77	9.41	
Max Chl Dpth (ft)	14.94	Hydr. Depth (ft)	6.65	10.93	
Conv. Total (cfs)	4024950.3	Conv. (cfs)	998226.5	3026723.8	
Length Wtd. (ft)	465.81	Wetted Per. (ft)	915.83	1216.61	
Min Ch El (ft)	992.70	Shear (lb/sq ft)	0.71	1.16	
Alpha	1.06	Stream Power (lb/ft s)	4.77	10.90	
Frctn Loss (ft)	1.29	Cum Volume (acre-ft)	6979.56	21247.13	1595.65
C & E Loss (ft)	0.19	Cum SA (acres)	1875.49	2188.47	685.96

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18417.63	18638.39	482.31	113.82	32.17	0.29	3.63	4.24
18638.39	18859.14	18286.43	2179.73	221.17	11.02	9.87	8.39
18859.14	19079.89	7164.83	1241.53	220.80	4.32	5.62	5.77
19079.89	19300.65	9876.61	1505.17	220.78	5.95	6.82	6.56
19300.65	19521.40	5359.42	1043.28	220.91	3.23	4.73	5.14
19521.40 LB	19764.02	8080.76	1381.16	242.64	4.87	5.69	5.85
19764.02	20006.64	21280.88	2470.07	242.84	12.82	10.18	8.62
20006.64	20249.26	38784.88	3540.34	242.74	23.36	14.59	10.96
20249.26	20491.88	31970.36	3160.01	244.13	19.26	13.02	10.12
20491.88	20734.50 RB	24713.52	2708.24	244.26	14.89	11.16	9.13

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 207.07

INPUT
Description: 207.07

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16445.4	1010.8	16477.5	1010.8	16492.9	1010.8	16495.3	1012.4	16612.3	1012.1
16706.3	1012.4	16731.4	1011.4	16754.5	1011.7	16775.6	1010.8	16823.5	1006
16897.1	1007.2	16996.9	1007.2	17084.4	1008.1	17118	1007.2	17130.1	1007.9
17215.3	1007.5	17296.8	1005.9	17391.8	1005.8	17473.1	1006.2	17581.5	1006.7
17688.2	1006.9	17793.8	1007.5	17860.3	1007.8	17918.6	1006.5	17937.7	1009.2
17950.5	1008.4	18054.6	1008.5	18145.7	1009.4	18249.2	1008.8	18339.2	1006.2
18409	1004.8	18416.3	1003.9	18490.8	1003.4	18511.6	998.8	18578.1	997.6
18602.7	998.8	18624	998.9	18705.2	1001.4	18768.4	1001.7	18825	999.3
18843.9	997.7	18938	998.1	19029.9	1000.3	19121	1004.5	19134.1	1007.4
19200.4	1009.2	19224.9	1008.7	19244.6	1006.5	19312.8	1004.4	19414.2	1003.2
19443.8	1001.8	19521.9	1001.9	19538.7	1003.4	19547.9	1003.2	19557.9	1004.4
19673.5	1001.7	19761.8	1001.1	19774.6	1001.9	19789.4	1004.7	19852.9	995.2
19935.8	993.4	19939.1	993.8	19945.4	992.8	19998	992.8	20099	992.9
20181.6	993	20237.1	993	20335	993.1	20381.8	993.2	20403	998.8
20417.1	996.1	20529.1	995.5	20635.3	995.9	20719.4	996.3	20720.5	998.7
20734.9	1003.5	20748.22	1004.3	20786.5	1006.6	20840.1	1007	20851.3	1007.9
20926.4	1009.4	21006.6	1009.9	21089.4	1010	21172.8	1009.7	21301.4	1008.9
21383.6	1008.7	21497.8	1007.9	21578.8	1007.1	21613.2	1007.3	21673.3	1011.2
21705.2	1010.3	21732.7	1013.7	21818.2	1013	21896.1	1014.4	21908.3	1013.5
21967.3	1014.4	21999.5	1014.1						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

16445.4 .043 18490.8 .032 19789.4 .032 20926.4 .032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19789.4	20748.22		510	514.11	520	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16445.4	18145.7	1013	20926.4	21999.5	1013

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1004.30	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.07	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1007.37	Reach Len. (ft)	510.00	514.11	520.00
Crit W.S. (ft)	1004.30	Flow Area (sq ft)	3654.06	9043.60	
E.G. Slope (ft/ft)	0.005285	Area (sq ft)	3654.06	9043.60	
Q Total (cfs)	166000.00	Flow (cfs)	29853.11	136146.89	
Top Width (ft)	2120.20	Top Width (ft)	1164.11	956.09	
Vel Total (ft/s)	13.07	Avg. Vel. (ft/s)	8.17	15.05	
Max Chl Dpth (ft)	11.50	Hydr. Depth (ft)	3.14	9.46	
Conv. Total (cfs)	2283500.5	Conv. (cfs)	410660.2	1872840.4	
Length Wtd. (ft)	513.60	Wetted Per. (ft)	1165.41	960.22	
Min Ch El (ft)	992.80	Shear (lb/sq ft)	1.03	3.11	
Alpha	1.16	Stream Power (lb/ft s)	8.45	46.78	
Frctn Loss (ft)	0.83	Cum Volume (acre-ft)	6923.01	21128.52	1595.52
C & E Loss (ft)	0.60	Cum SA (acres)	1860.70	2176.93	684.97

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18228.87	18451.80	29.37	18.98	38.75	0.02	0.49	1.55
18451.80	18674.73	9911.07	1002.14	223.50	5.97	4.50	9.89
18674.73	18897.67	8339.58	949.31	223.07	5.02	4.26	8.78
18897.67	19120.60	7654.37	895.20	219.06	4.61	4.09	8.55
19120.60	19343.53	2.48	2.88	22.08	0.00	0.13	0.86
19343.53	19566.47	1488.82	334.45	217.87	0.90	1.54	4.45
19566.47	19789.40	2427.42	451.09	221.09	1.46	2.04	5.38
19789.40 LB	19981.16	22489.13	1621.19	189.87	13.55	8.57	13.87
19981.16	20172.93	36853.40	2189.06	191.76	22.20	11.42	16.84
20172.93	20364.69	35978.06	2157.72	191.77	21.67	11.25	16.67
20364.69	20556.46	23011.90	1653.61	192.75	13.86	8.62	13.92
20556.46	20748.22 RB	17814.37	1422.03	194.07	10.73	7.42	12.53

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross

section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.97

INPUT
Description: 206.97

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16303.3	1009.9	16422	1010.3	16524.8	1010.6	16626.6	1010.6	16719.6	1011.3
16794.5	1009.6	16836.4	1004.7	16959	1004.6	17073.2	1004.7	17198.7	1004.8
17241.8	1005.5	17390.7	1004.8	17512.3	1005.1	17603.3	1005.3	17704.7	1005.3
17836.9	1005.5	17965	1005.2	18085.7	1005.8	18094.8	1005.9	18105	1008
18196	1007.4	18235.2	1007.2	18260.5	1005.9	18283.2	1007.6	18372.2	1006.3
18390.1	1005.1	18407.6	999.1	18518.7	997.7	18623.3	996.9	18669.1	995.6
18742.3	996.3	18834	1000.5	18925.1	1002.3	19025.7	1004.4	19072.3	1003.7
19086.7	1001.2	19181.7	1005.8	19197	1005.7	19217.7	1002.3	19234.5	1008.4
19316.9	1001.8	19405.1	1002.1	19456.4	1006.1	19566.5	1005.4	19666.3	1005.2
19736.5	1004.4	19776.5	998.7	19783.2	1000.5	19808.3	994.1	19822.1	992.8
19919.1	992.9	20108.8	993.1	20124.9	999	20128.8	998.6	20159.3	982.1
20170.6	981.8	20265.5	981.8	20360.8	981.8	20399.3	981.8	20400.1	981.8
20443.8	981.8	20457.3	981.8	20522.8	981.8	20543.7	981.8	20552.2	981.8
20558.1	981.8	20559.2	981.8	20645	981.8	20661.9	981.7	20684.6	981.8
20778.2	981.8	20792.8	981.8	20800	984.2432	20814.9	989.3	20826.8	991.9
20829.6	993.6	20832.1	993.2	20841.1	988	20882.9	981.8	20888	981.8
20995.1	981.8	21051.7	981.8	21053.6	981.8	21086.6	1009	21114.5	1010.4
21124.9	1008.4	21145.7	1009.1	21151.2	1011.2	21171.8	1014.5	21174	1009.3
21270.2	1009.8	21364.9	1009.2	21463.9	1009.1	21469.9	1008.9	21475.8	1010.8
21486.9	1008.5	21498	1009.8						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16303.3	.025	16719.6	.043	18407.6	.032	19736.5	.032	21086.6	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19736.5	20800	480	491.78	480	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
20800	21498	1010

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1003.73	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.07	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1004.80	Reach Len. (ft)	480.00	491.78	480.00
Crit W.S. (ft)	995.20	Flow Area (sq ft)	3249.21	18103.85	
E.G. Slope (ft/ft)	0.000773	Area (sq ft)	3249.21	18103.85	5406.03
Q Total (cfs)	166000.00	Flow (cfs)	11556.15	154443.86	
Top Width (ft)	2153.05	Top Width (ft)	814.05	1058.80	280.21
Vel Total (ft/s)	7.77	Avg. Vel. (ft/s)	3.56	8.53	
Max Chl Dpth (ft)	22.03	Hydr. Depth (ft)	3.99	17.10	
Conv. Total (cfs)	5970171.5	Conv. (cfs)	415615.5	5554556.0	
Length Wtd. (ft)	490.90	Wetted Per. (ft)	815.77	1065.91	
Min Ch El (ft)	981.70	Shear (lb/sq ft)	0.19	0.82	
Alpha	1.13	Stream Power (lb/ft s)	0.68	6.99	
Frctn Loss (ft)	0.31	Cum Volume (acre-ft)	6882.60	20968.31	1563.25
C & E Loss (ft)	0.07	Cum SA (acres)	1849.12	2165.04	683.30

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18363.22	18592.10	4003.65	1086.69	198.79	2.41	5.49	3.68
18592.10	18820.98	6603.28	1564.35	228.99	3.98	6.83	4.22

18820.98	19049.86	528.86	307.23	172.68	0.32	1.78	1.72
19049.86	19278.74	119.94	93.62	81.96	0.07	1.15	1.28
19278.74	19507.62	300.42	197.33	133.35	0.18	1.48	1.52
19507.62	19736.50						
19736.50 LB	19949.20	9099.42	1800.62	209.46	5.48	8.66	5.05
19949.20	20161.90	13493.49	2317.34	217.95	8.13	10.89	5.82
20161.90	20374.60	43993.57	4663.55	212.70	26.50	21.93	9.43
20374.60	20587.30	44010.19	4664.60	212.70	26.51	21.93	9.43
20587.30	20800.00 RB	43847.20	4657.74	213.10	26.41	21.90	9.41

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.88

INPUT
Description: 206.88

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16205.8	1008.1	16348.5	1008.4	16441.8	1008.4	16531.3	1008.2	16598.3	1009.2
16605	1008.5	16606.3	1010.2	16696.6	1005.4	16819.2	1004.3	16908.4	1004.4
17006	1004.7	17092.4	1003.2	17182	1004	17323.7	1003.7	17415.5	1003.8
17503.8	1003.9	17603.8	1003.9	17703.9	1004.6	17815.8	1005.9	17930.5	1006.3
18057.4	1006.3	18152.5	1006	18216	1005.3	18267.1	1005.9	18292.7	1007.3
18373.6	999.7	18386.3	996.3	18470	995.7	18533.8	995.1	18593.4	996.7
18657.8	996.4	18748.4	998	18835.7	998.9	18932.3	1000.4	18993.2	1000.9
19018.7	1003.6	19101.5	1004	19119.7	1002.9	19166.7	1006	19168.3	1006.9
19251.9	1004.5	19258.4	1005	19341.6	1001.3	19360.8	1001.1	19415.8	1004.9
19507.2	1001.3	19566.3	1004.7	19645.5	1003.4	19728.8	1003.5	19781.8	993.3
19833	992.7	19942.2	993	19947.1	996.6	19996.5	982.3	20008.3	981.8
20016.1	981.8	20105.7	981.8	20143	981.8	20146.6	981.8	20221.6	981.8
20334.4	981.8	20459.7	981.8	20546.8	981.8	20641.2	981.8	20760.8	981.8
20800	981.8	20820.9	981.8	20832	984	20842.1	983.1	20850.4	981.8
20851.4	981.8	20928.6	981.8	20948.4	981.8	21002.4	999.3	21012.9	997
21041.1	997	21047.1	998.2	21081.4	998.4	21113.7	986.4	21142	981.7
21162.6	990	21181.8	991.8	21199.6	1001.3	21208.2	1003.8	21233.9	1006.9
21251.5	1012.2	21270.1	1006.2	21313.5	1006.5	21327.6	1009.1	21361.8	1011.6
21394.4	1008.9	21440.9	1009.7	21454	1011.6	21546.5	1009	21569.8	1012.6
21605	1009.6	21674.6	1010.5						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16205.8	.025	16696.6	.043	18386.3	.032	19728.8	.032	21251.5	.032
21605	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19728.8	20800	480	487.71	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16205.8	18292.7	1007.3	20800	21674.6	1012

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1003.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.83	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1004.41	Reach Len. (ft)	480.00	487.71	505.00
Crit W.S. (ft)	993.25	Flow Area (sq ft)	4121.46	20233.55	
E.G. Slope (ft/ft)	0.000528	Area (sq ft)	4134.14	20233.55	6019.41
Q Total (cfs)	166000.00	Flow (cfs)	13323.65	152676.34	
Top Width (ft)	2551.49	Top Width (ft)	1072.83	1071.20	407.47
Vel Total (ft/s)	6.82	Avg. Vel. (ft/s)	3.23	7.55	
Max Chl Dpth (ft)	21.89	Hydr. Depth (ft)	4.09	18.89	
Conv. Total (cfs)	7226420.0	Conv. (cfs)	580013.8	6646406.0	
Length Wtd. (ft)	487.04	Wetted Per. (ft)	1008.35	1075.39	
Min Ch El (ft)	981.80	Shear (lb/sq ft)	0.13	0.62	
Alpha	1.15	Stream Power (lb/ft s)	0.44	4.68	
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	6841.92	20751.90	1500.30
C & E Loss (ft)	0.04	Cum SA (acres)	1838.73	2153.02	679.51

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18319.60	18554.47	5582.59	1478.36	222.88	3.36	6.65	3.78
18554.47	18789.33	5496.08	1540.34	234.90	3.31	6.56	3.57
18789.33	19024.20	1958.86	821.62	229.40	1.18	3.58	2.38
19024.20	19259.07	3.73	7.48	21.82	0.00	0.34	0.50
19259.07	19493.93	222.78	188.89	151.58	0.13	1.25	1.18
19493.93	19728.80	59.62	84.78	147.77	0.04	0.57	0.70
19728.80 LB	19943.04	9056.29	1998.04	215.42	5.46	9.33	4.53
19943.04	20157.28	31466.90	4232.73	217.26	18.96	19.76	7.43
20157.28	20371.52	37384.16	4667.57	214.24	22.52	21.79	8.01
20371.52	20585.76	37384.50	4667.61	214.24	22.52	21.79	8.01
20585.76	20800.00 RB	37384.50	4667.61	214.24	22.52	21.79	8.01

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.79

INPUT
Description: 206.79

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16211.1	1006.9	16286.9	1006.9	16364.1	1007.5	16379.7	1007.6	16449.9	1007.6
16525.2	1007.8	16538.6	1008.9	16619.3	1008.5	16666.4	1006.2	16699.6	1001.9
16769.7	1002.3	16840	1002.4	16905.7	1002.4	16989.2	1002.5	17055.4	1002.7
17133	1002.7	17230.9	1002.5	17245.4	1002.4	17322.6	1003	17404	1003.7
17419.6	1003.8	17484.7	1004.3	17553	1004.8	17588.7	1004.8	17631.2	1003
17670.6	1002.9	17748.9	1006.3	17834.7	1006.5	17871.1	1006.6	17919.1	1005.8
17921.7	1005.2	17948.4	1004.4	18036.8	1004.9	18106	1004.9	18182.5	1004.5
18301.7	1004.4	18337	1004.5	18378.4	997.7	18439.7	995.6	18517.1	995.3
18604.7	996.5	18674.2	996.8	18740.3	995.7	18770.1	994.8	18841.6	996.3
18882	997.5	18920.6	1006.8	19010.4	1005.9	19096.2	1003.2	19138.3	1000.6
19186.5	1000.9	19206.9	1002.3	19281.9	1002	19360.7	1002.6	19391.1	1000
19450.2	1002.2	19485	1002.5	19519.3	1004	19570	1004.1	19626.2	1001.8
19645.2	1001.4	19653.2	1002.5	19663.1	1005.3	19671.5	1001	19690.4	994.6
19711.8	993	19766	993.3	19929.9	994	19943.3	996.8	19952.4	996.3
19962.3	992.6	19991	990.7	20007.7	991.1	20032.9	987.2	20042.3	985
20082.5	982.2	20100.2	981.8	20136.1	981.8	20140	981.8	20180.6	981.8
20309.2	981.8	20331	981.8	20390.5	981.8	20420.7	981.8	20422.7	981.8
20425	981.8	20501.8	981.8	20576.6	981.8	20625.3	981.8	20832.1	981.8
20847	981.8	20851.9	981.8	20865.4	988.82	20895.15	1003.436	20902.8	1007.2
20935.6	1019.6	20986	1019.6						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16211.1	.025	16525.2	.043	18378.4	.032	19663.1	.032	20935.6	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19663.12	20895.15	495	489.96	520	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16211.1	17871.1	1015

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1003.43	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1004.13	Reach Len. (ft)	495.00	489.96	520.00
Crit W.S. (ft)	992.79	Flow Area (sq ft)	4633.99	21710.35	
E.G. Slope (ft/ft)	0.000488	Area (sq ft)	5263.04	21710.35	
Q Total (cfs)	166000.00	Flow (cfs)	15594.92	150405.08	
Top Width (ft)	3026.58	Top Width (ft)	1798.18	1228.40	
Vel Total (ft/s)	6.30	Avg. Vel. (ft/s)	3.37	6.93	
Max Chl Dpth (ft)	21.63	Hydr. Depth (ft)	4.41	17.67	
Conv. Total (cfs)	7514667.5	Conv. (cfs)	705967.6	6808700.0	
Length Wtd. (ft)	490.43	Wetted Per. (ft)	1052.77	1236.91	
Min Ch El (ft)	981.80	Shear (lb/sq ft)	0.13	0.53	
Alpha	1.12	Stream Power (lb/ft s)	0.45	3.70	
Frctn Loss (ft)	0.23	Cum Volume (acre-ft)	6790.15	20517.10	1465.41
C & E Loss (ft)	0.05	Cum SA (acres)	1822.91	2140.14	677.15

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18282.30	18512.43	4034.37	1095.97	169.45	2.43	6.49	3.68
18512.43	18742.57	6356.26	1661.81	230.15	3.83	7.22	3.82
18742.57	18972.70	4157.09	1127.00	164.81	2.50	6.87	3.69
18972.70	19202.83	367.55	227.03	114.19	0.22	1.99	1.62
19202.83	19432.97	512.26	366.82	230.29	0.31	1.59	1.40
19432.97	19663.10	167.39	155.35	143.89	0.10	1.08	1.08
19663.10 LB	19909.51	10013.55	2286.14	244.47	6.03	9.42	4.38
19909.51	20155.92	24201.55	3905.02	248.11	14.58	15.85	6.20
20155.92	20402.33	40842.38	5330.80	246.41	24.60	21.63	7.66
20402.33	20648.74	40842.38	5330.80	246.41	24.60	21.63	7.66
20648.74	20895.15 RB	34505.21	4857.59	251.52	20.79	19.71	7.10

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.7

INPUT
Description: 206.7
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16235.4	1006.6	16247.5	1006.6	16320.8	1007.1	16332.7	1007	16402.3	1007.2
16479.2	1008	16505.8	1007.5	16527.3	1008	16552.4	1002	16640.8	1001.4
16727.5	1001.8	16815.4	1001.7	16889.1	1001.5	16902.1	1001.5	16968.1	1001.2
17043.4	1001.3	17155	1000.9	17251.1	1001.1	17317.4	1002.1	17335.4	1002.3
17401.1	1002.9	17430.7	1003.1	17519.9	1003.5	17616.5	1003.3	17699.9	1004
17823.5	1005.8	17891.6	1004.8	17962.7	1005.6	18043.4	1006.2	18125.2	1006.2
18207.9	1005.3	18257.6	1003	18280.3	995.2	18285.8	995.2	18301.4	997.1
18329.6	998.9	18423.4	998.8	18488.5	996	18559.6	995.2	18629.1	994.8
18690.8	994.6	18728.6	993.3	18746.4	994.2	18779.5	994.4	18815.2	996.6
18848.2	1004.6	18945.8	1005	19021.2	1004.8	19092.1	1004.4	19150.1	1003.8
19192.4	1001.5	19285.5	1002.1	19293.9	1002.1	19370.4	999.7	19431.5	999.7
19468.9	1000.2	19510.1	1003.7	19543.9	1002.8	19624.5	994.6	19647.2	992.9
19711.3	993.2	19814.1	993.4	19871.2	993.4	19882.5	995.3	19901.9	992.6
19941.1	991.3	20015.4	991.6	20098.2	993.9	20143.5	994	20167.9	992.9
20185.2	1000.4	20197.8	994.4	20212.7	993.7	20259.6	993.7	20275.9	991.3
20314.8	981.8	20318.5	981.8	20393.8	981.8	20691.8	981.8	20713.3	981.8
20963.1	981.8	21002.8	981.8	21076.8	981.8	21102.7	981.8	21120	988.8
21131	999.6	21138.8	1004.7	21146.9	1002.8	21207	1004.5	21234.3	1006.1
21262.4	1006.4	21329	1008.1	21422.5	1007.5	21452.5	1018.4	21484.3	1017.2
21488	1018.6								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16235.4	.025	16640.8	.043	18329.6	.032	19510.1	.032	21138.8	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19510.1	21138.8	500	500.23	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16235.4	18110	1015

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1003.32	Element			
Vel Head (ft)	0.53	Wt. n-Val.	0.033	0.032	0.032
E.G. Elev (ft)	1003.85	Reach Len. (ft)	500.00	500.23	500.00
Crit W.S. (ft)	993.99	Flow Area (sq ft)	4836.44	24990.56	5.40
E.G. Slope (ft/ft)	0.000441	Area (sq ft)	6376.01	24990.56	5.40
Q Total (cfs)	166000.00	Flow (cfs)	15340.47	150657.39	2.15
Top Width (ft)	3518.91	Top Width (ft)	1885.82	1612.40	20.69
Vel Total (ft/s)	5.56	Avg. Vel. (ft/s)	3.17	6.03	0.40
Max Chl Dpth (ft)	21.52	Hydr. Depth (ft)	5.15	15.50	0.26
Conv. Total (cfs)	7908947.5	Conv. (cfs)	730885.3	7177960.0	102.2
Length Wtd. (ft)	500.20	Wetted Per. (ft)	941.75	1624.45	20.76
Min Ch El (ft)	981.80	Shear (lb/sq ft)	0.14	0.42	0.01
Alpha	1.10	Stream Power (lb/ft s)	0.45	2.55	0.00
Frctn Loss (ft)	0.28	Cum Volume (acre-ft)	6724.02	20254.45	1465.38
C & E Loss (ft)	0.01	Cum SA (acres)	1801.98	2124.17	677.02

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18200.22	18418.53	1872.03	801.11	169.38	1.13	4.77	2.34
18418.53	18636.85	5774.73	1601.08	218.38	3.48	7.33	3.61
18636.85	18855.16	6366.34	1661.62	207.00	3.84	8.06	3.83
18855.16	19073.47						
19073.47	19291.79	210.40	179.94	132.95	0.13	1.35	1.17
19291.79	19510.10	1116.95	592.69	214.04	0.67	2.77	1.88
19510.10 LB	19835.84	9152.31	2499.39	312.04	5.51	8.02	3.66
19835.84	20161.58	15116.84	3437.81	326.16	9.11	10.55	4.40
20161.58	20487.32	31702.44	5386.31	329.99	19.10	16.54	5.89
20487.32	20813.06	49616.67	7010.65	325.74	29.89	21.52	7.08
20813.06	21138.80 RB	45069.14	6656.40	330.52	27.15	20.57	6.77
21138.80	21162.08	2.13	5.25	17.47	0.00	0.30	0.41
21162.08	21185.36	0.02	0.15	3.28	0.00	0.05	0.12

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.6

INPUT
Description: 206.6

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15752.8	1005.9	15777	1004.9	15795.8	1006	15801	1003.8	15809.3	1007.3
15819.9	1006.1	15842.8	1009.5	15850.1	1008	15855.5	1009.8	15868.1	1009.5
15879.9	1006.9	15895.6	1008.4	15904.2	1005.4	15941.1	1007.3	16035.3	1006.2
16155.5	1005.7	16243.9	1005.6	16347.4	1004.9	16444.6	1004.9	16555.6	1004.8
16645	1004.4	16756.4	1003.6	16845.8	1003.1	16944.2	1003.4	17049.2	1002.3
17143.6	1001.7	17249.3	1001.2	17366.6	1001	17501.5	1003.7	17624.2	1003.7
17723.3	1004.1	17790.8	1004	17818	998.9	17847.9	1003.1	17937.7	1002.9
17956.2	1002.7	17971.4	998.8	17988.6	1001.2	18083.6	1001.7	18173.1	1001.7
18217.2	1001.9	18242.2	997.1	18334.4	996.5	18436.5	995	18542.1	993.8
18633.3	993.9	18742.2	997.5	18817.7	997.8	18852.6	1003.9	18965.8	1004.2
19055.2	1003.8	19184.3	1003.1	19243.2	1000	19325.9	998.4	19358	993.4
19395.9	993.2	19452.5	996.6	19546.1	997.7	19580.1	996.6	19611.2	993.1
19679	993.4	19778	993.3	19846.4	993.3	19854.8	995.6	19874.7	992.9
19953.8	992.1	20043.5	994.5	20146.1	995.4	20262.3	995.5	20371.5	995.1
20435.5	995.1	20475.7	981.8	20489.7	981.8	20608.9	981.8	20609	981.8
20738.4	981.8	20854.4	981.8	20866.2	981.8	20903.7	981.8	20931.2	981.8
20996	981.8	21003.4	981.8	21042	988.8	21050.2	995	21066.25	1002.898
21069.1	1004.3	21182.2	1006.4	21270.7	1006.8	21401.9	1007.6	21495.5	1008
21503.1	1008	21594.4	1008.1	21688	1008.4	21840.4	1008.8	21940.4	1009.3
21957.8	1009.5	21998	1007.2						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15752.8	.025	16944.2	.043	18334.4	.032	19546.1	.032	21069.1	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19546.12	21066.25	515	504.63	520	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
15752.8	17847.9	1009

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1002.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.66	Wt. n-Val.	0.033	0.032	
E.G. Elev (ft)	1003.56	Reach Len. (ft)	515.00	504.63	520.00
Crit W.S. (ft)	996.86	Flow Area (sq ft)	6694.76	20183.13	
E.G. Slope (ft/ft)	0.000710	Area (sq ft)	7349.47	20183.13	
Q Total (cfs)	166000.00	Flow (cfs)	26458.74	139541.25	
Top Width (ft)	3305.87	Top Width (ft)	1785.72	1520.15	
Vel Total (ft/s)	6.18	Avg. Vel. (ft/s)	3.95	6.91	
Max Chl Dpth (ft)	21.10	Hydr. Depth (ft)	5.28	13.28	
Conv. Total (cfs)	6231049.0	Conv. (cfs)	993166.9	5237882.0	
Length Wtd. (ft)	507.00	Wetted Per. (ft)	1269.03	1527.59	
Min Ch El (ft)	981.80	Shear (lb/sq ft)	0.23	0.59	

Alpha	1.12	Stream Power (lb/ft s)	0.92	4.05	
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	6645.24	19995.07	1465.34
C & E Loss (ft)	0.04	Cum SA (acres)	1780.90	2106.18	676.90

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17775.89	18028.78	180.27	148.18	91.45	0.11	1.63	1.22
18028.78	18281.67	807.72	547.78	253.35	0.49	2.17	1.47
18281.67	18534.55	8235.47	1886.91	252.91	4.96	7.46	4.36
18534.55	18787.44	8766.30	1917.23	252.95	5.28	7.58	4.57
18787.44	19040.33	670.35	230.36	59.86	0.40	3.88	2.91
19040.33	19293.21	523.54	248.80	105.14	0.32	2.37	2.10
19293.21	19546.10	7275.09	1715.50	253.39	4.38	6.78	4.24
19546.10 LB	19850.13	13302.85	2735.16	304.38	8.01	9.00	4.86
19850.13	20154.16	13569.78	2768.12	304.43	8.17	9.10	4.90
20154.16	20458.19	10645.69	2395.57	305.24	6.41	7.88	4.44
20458.19	20762.22	54270.90	6363.39	304.96	32.69	20.93	8.53
20762.22	21066.25 RB	47752.02	5920.90	308.57	28.77	19.47	8.06

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.51

INPUT
Description: 206.51
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15913.8	1005.6	15956.7	1007.2	15960.5	1006.2	15969.2	1008	16053.6	1008.2
16067.4	1005.5	16150.9	1004.8	16244	1004.8	16317.6	1004.8	16358.5	1004.6
16454.2	1004.5	16463	1004.5	16544	1004.3	16655.6	1003.2	16728.4	1002.6
16756.4	1002.5	16830	1001.9	16942.4	1001.6	16965.9	1001.5	17053.8	1001.7
17131.5	1001.6	17218.7	1001.1	17306.1	1000.9	17382.1	1001.5	17467	1001.9
17537	1002.2	17549.6	1001.2	17642.5	1001.4	17732.1	999	17805.5	999.3
17867.7	1000	17906.8	1001.8	17982.4	1001.1	18024.8	1000	18113.4	1001
18197.5	1001.3	18210.2	1000.8	18235.8	995.8	18284.9	994.8	18353.6	996.2
18430.7	989.4	18472.3	992.6	18563.8	993.1	18633.6	994.5	18690.9	995.9
18720.1	998	18725.5	999	18780.9	997.9	18793	996.9	18839.1	995.7
18912.5	997.1	18936.6	997.3	18950.4	998.8	18982	1000.3	19017.4	998.8
19041	995.2	19046.4	993.8	19117.4	994.6	19184.9	992.6	19190.6	992.6
19209.6	996.5	19283.6	998.8	19380.8	997	19450	996.8	19458	996.8
19546.2	997.4	19586.4	996.5	19645.9	993.2	19653.5	993.3	19813.4	992.5
19869.8	992.3	19881.5	997.9	19911.8	995.3	19937.5	994.2	19964.8	991.9
19978.6	992.1	20019.7	990.5	20038.1	988.7	20070.3	987.9	20113.5	982.4
20192.5	982	20272.4	981.8	20353.1	981.8	20395.6	982.6	20485.4	993.1
20530.4	997	20546.7	997.4	20554.3	995.6	20599.9	998.6	20622.1	999.3
20634.8	998.6	20716.6	1000	20819.1	1001.3	20897.8	1001.5	20989.4	1002.8
21021	1008								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15913.8	.025	17218.7	.043	18235.8	.032	19546.2	.032	20622.1	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19546.2	20622.1	495	496.45	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15913.8	17700	1008	20615	21021	1008

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1002.02	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.02	Wt. n-Val.	0.032	0.032	
E.G. Elev (ft)	1003.04	Reach Len. (ft)	495.00	496.45	500.00
Crit W.S. (ft)	998.45	Flow Area (sq ft)	9128.09	12982.80	
E.G. Slope (ft/ft)	0.001348	Area (sq ft)	9628.56	13002.93	461.25
Q Total (cfs)	166000.00	Flow (cfs)	49264.98	116735.02	
Top Width (ft)	4076.31	Top Width (ft)	2687.84	1075.90	312.57
Vel Total (ft/s)	7.51	Avg. Vel. (ft/s)	5.40	8.99	
Max Chl Dpth (ft)	20.22	Hydr. Depth (ft)	4.94	12.15	
Conv. Total (cfs)	4521027.0	Conv. (cfs)	1341736.8	3179290.0	

Length Wtd. (ft)	495.96	Wetted Per. (ft)	1848.59	1072.00	
Min Ch El (ft)	981.80	Shear (lb/sq ft)	0.42	1.02	
Alpha	1.16	Stream Power (lb/ft s)	2.24	9.17	
Frctn Loss (ft)	0.69	Cum Volume (acre-ft)	6544.88	19802.85	1462.59
C & E Loss (ft)	0.03	Cum SA (acres)	1754.46	2091.14	675.04

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17608.92	17851.08	963.12	406.58	151.10	0.58	2.69	2.37
17851.08	18093.24	416.47	296.94	242.22	0.25	1.23	1.40
18093.24	18335.40	4233.56	872.93	242.67	2.55	3.60	4.85
18335.40	18577.56	16212.70	2239.28	242.59	9.77	9.25	7.24
18577.56	18819.72	7514.94	1411.32	242.42	4.53	5.83	5.32
18819.72	19061.88	5354.55	1152.30	242.78	3.23	4.76	4.65
19061.88	19304.04	9134.04	1587.16	242.63	5.50	6.55	5.75
19304.04	19546.20	5435.60	1161.57	242.18	3.27	4.80	4.68
19546.20 LB	19761.38	10201.94	1667.60	215.28	6.15	7.75	6.12
19761.38	19976.56	11823.35	1826.64	216.68	7.12	8.49	6.47
19976.56	20191.74	33589.92	3411.24	215.66	20.23	15.85	9.85
20191.74	20406.92	49660.04	4309.94	215.26	29.92	20.03	11.52
20406.92	20622.10 RB	11459.77	1767.38	209.10	6.90	8.49	6.48

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.41

INPUT
Description: 206.41

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16072.3	1004.6	16106.4	1006.4	16110	1005.1	16145.4	1008.7	16171	1008.7
16201.9	1005.9	16207.2	1004	16245.8	1004.3	16311.3	1003.5	16339	1003.3
16410.7	1003.1	16479.2	1003.2	16504.4	1003.2	16587.4	1003	16660.5	1002.5
16723.1	1001.7	16801.8	1001.5	16828.5	1001.3	16901.2	1001.1	16957.6	1001.1
17046.4	1001	17111	1001.2	17185.4	1001	17248.3	1000.1	17325.6	999.8
17339.6	999.7	17404.5	999.4	17486.4	999.7	17508.2	999.5	17572.4	999.3
17623.9	997.5	17651.1	1000.3	17677.5	1000.2	17744.8	1000	17841.4	1000
17924.2	1000	17975.5	1001.6	18054.4	997.3	18144.7	995.9	18247.4	997.4
18279.8	997.6	18300.2	993.9	18302.9	992.5	18313.4	993.5	18405.6	991.3
18469.8	989.6	18495.7	988.3	18533.5	989.6	18556.8	987.7	18575.5	988.9
18582.4	987.8	18584.3	989.6	18620.5	992.5	18634.5	992.5	18697.7	996.9
18786	998.9	18861.4	999.4	18929.1	999.3	18999.1	996.6	19037	995.4
19069.4	992.6	19082.5	992.4	19169.3	990.8	19285.4	995	19369.2	996.5
19395.7	996.5	19466.6	996.5	19539.8	996.4	19622.9	997.3	19694.4	996.7
19720.5	996.5	19730.2	994.5	19748.7	992.6	19835.1	990.8	19895.8	991.8
19904.5	990.4	19996.1	990.2	20002.5	990.4	20015.5	997.7	20035	990
20091.8	991.6	20171.9	991.2	20269.1	991.6	20343.1	990.4	20356.9	990
20360	988.9	20373.3	988	20379.2	986.7	20421	985.4	20490.4	985.8
20544.3	985.8	20576.7	983.8	20636.9	982.5	20685.22	1001.416	20690.8	1003.6
20719.8	1001.5	20729	1007.4						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16072.3	.025	17185.4	.043	18300.2	.032	19622.9	.032	20690.8	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19622.92	20685.22	495	494.64	490	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16072.3	17111	1008

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1001.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.91	Wt. n-Val.	0.033	0.032	
E.G. Elev (ft)	1002.32	Reach Len. (ft)	495.00	494.64	490.00
Crit W.S. (ft)	997.86	Flow Area (sq ft)	11582.02	11788.71	
E.G. Slope (ft/ft)	0.001436	Area (sq ft)	11667.93	11788.71	

Q Total (cfs)	166000.00	Flow (cfs)	63303.46	102696.55	
Top Width (ft)	3862.04	Top Width (ft)	2799.73	1062.31	
Vel Total (ft/s)	7.10	Avg. Vel. (ft/s)	5.47	8.71	
Max Chl Dpth (ft)	18.91	Hydr. Depth (ft)	4.63	11.10	
Conv. Total (cfs)	4380580.0	Conv. (cfs)	1670517.3	2710063.0	
Length Wtd. (ft)	494.77	Wetted Per. (ft)	2505.07	1070.20	
Min Ch El (ft)	982.50	Shear (lb/sq ft)	0.41	0.99	
Alpha	1.16	Stream Power (lb/ft s)	2.27	8.60	
Frctn Loss (ft)	0.72	Cum Volume (acre-ft)	6423.88	19661.57	1459.94
C & E Loss (ft)	0.03	Cum SA (acres)	1723.28	2078.96	673.24

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17019.13	17255.83	95.33	87.31	144.84	0.06	0.60	1.09
17255.83	17492.54	717.79	410.12	236.71	0.43	1.73	1.75
17492.54	17729.25	928.07	478.61	236.88	0.56	2.02	1.94
17729.25	17965.95	441.74	306.49	236.73	0.27	1.29	1.44
17965.95	18202.66	2655.30	884.60	227.32	1.60	3.89	3.00
18202.66	18439.37	10789.30	1734.13	237.47	6.50	7.33	6.22
18439.37	18676.07	20980.73	2607.90	237.91	12.64	11.02	8.05
18676.07	18912.78	2348.80	699.65	236.78	1.41	2.96	3.36
18912.78	19149.49	8216.48	1483.47	236.91	4.95	6.27	5.54
19149.49	19386.19	10852.12	1752.65	236.80	6.54	7.40	6.19
19386.19	19622.90	5277.82	1137.09	236.71	3.18	4.80	4.64
19622.90 LB	19835.37	9236.74	1485.61	212.79	5.56	6.99	6.22
19835.37	20047.83	17287.50	2176.74	215.97	10.41	10.25	7.94
20047.83	20260.29	17080.61	2147.07	212.48	10.29	10.11	7.96
20260.29	20472.76	26040.16	2767.18	212.86	15.69	13.02	9.41
20472.76	20685.22 RB	33051.52	3212.10	216.10	19.91	15.12	10.29

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.32

INPUT
Description: 206.32

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16817.7	1002.2	16831.7	1004.4	16847.7	1000.1	16903	997.6	16998.5	999.5
17015.9	999.8	17073.2	995.7	17113.2	998.3	17193.6	998.2	17277.8	999.4
17336.8	998.4	17343.9	998.8	17416.7	997.2	17461	999.1	17530.2	1000
17612	1000.6	17634.8	999.5	17703.3	1001.3	17735.8	1000.4	17761.4	998.4
17843.7	998.5	17853.7	998	17875.9	994.2	17903.4	993.9	17962.9	996.3
18028.7	995.2	18096.2	993.6	18102.6	993.3	18134.8	1001.1	18154.4	1000.2
18192.6	1000.1	18243.3	992.5	18301.4	992.6	18329.8	993.4	18404.3	989.6
18429.4	987.7	18495.6	987.8	18512.7	986.5	18544.6	986.5	18577	989.5
18647	992.5	18707.1	997.1	18782.1	996.8	18869.6	997.5	18885	997.8
18895.7	996.8	18922.1	996.8	18939.9	995.3	18961.5	991.6	18990.7	990
19055.1	991.9	19120.2	992.7	19199.6	995.3	19288	998.1	19351.7	998.3
19433.6	998.5	19488.7	998.2	19527.8	996.5	19535	995.3	19546.5	994.9
19619.6	996.5	19696.3	996.5	19801.3	996.5	19818	996	19830.1	994.5
19917.7	993.3	19992.8	991.2	20076.4	989.2	20107.3	989	20181.4	989.5
20194.5	994.9	20217.3	987.2	20265.3	989.9	20314.9	990.8	20362.4	989.9
20372.9	988.8	20409.1	988.6	20435	986.4	20447.1	986.7	20565.6	989.2
20589.2	986.1	20647.7	982.8	20703.3	983.2	20732.7	988.7	20805.2	991
20816.2	997.6	20847.3	998.3	20854.91	1000.773	20855.6	1001	20889.3	1002
20959.7	1001.8	20988.9	1002.7	21076.4	1002.8	21150.5	1002.8	21226.3	1002.8
21295.2	1002.7	21368	1003.3						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16817.7	.043	18404.3	.032	19488.7	.032	20889.3	.032	20988.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19488.7	20854.9	515	513.83	520	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16817.7	17150	1004	20899.3	21368	1004

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1000.76	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.80	Wt. n-Val.	0.035	0.032	
E.G. Elev (ft)	1001.56	Reach Len. (ft)	515.00	513.83	520.00
Crit W.S. (ft)	997.01	Flow Area (sq ft)	11528.30	13024.82	
E.G. Slope (ft/ft)	0.001495	Area (sq ft)	12280.28	13024.82	
Q Total (cfs)	166000.00	Flow (cfs)	61168.81	104831.18	
Top Width (ft)	3961.08	Top Width (ft)	2594.91	1366.17	
Vel Total (ft/s)	6.76	Avg. Vel. (ft/s)	5.31	8.05	
Max Chl Dpth (ft)	17.96	Hydr. Depth (ft)	5.03	9.53	
Conv. Total (cfs)	4293483.5	Conv. (cfs)	1582092.1	2711391.3	
Length Wtd. (ft)	514.23	Wetted Per. (ft)	2293.46	1372.17	
Min Ch El (ft)	982.80	Shear (lb/sq ft)	0.47	0.89	
Alpha	1.12	Stream Power (lb/ft s)	2.49	7.13	
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	6287.81	19520.69	1459.94
C & E Loss (ft)	0.01	Cum SA (acres)	1692.63	2065.17	673.24

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16995.77	17173.83	130.69	60.14	23.83	0.08	2.52	2.17
17173.83	17351.90	666.55	357.39	178.10	0.40	2.01	1.87
17351.90	17529.97	752.09	384.27	178.13	0.45	2.16	1.96
17529.97	17708.03	66.92	84.67	152.95	0.04	0.55	0.79
17708.03	17886.10	936.20	423.80	163.83	0.56	2.59	2.21
17886.10	18064.17	3678.90	996.12	178.13	2.22	5.59	3.69
18064.17	18242.23	1732.70	623.48	170.81	1.04	3.68	2.78
18242.23	18420.30	8408.78	1584.77	178.23	5.07	8.90	5.31
18420.30	18598.37	20063.42	2309.37	178.30	12.09	12.97	8.69
18598.37	18776.43	5605.65	1074.52	178.29	3.38	6.03	5.22
18776.43	18954.50	2809.30	710.07	178.40	1.69	3.99	3.96
18954.50	19132.57	11239.31	1630.98	178.25	6.77	9.16	6.89
19132.57	19310.63	3857.74	858.42	178.15	2.32	4.82	4.49
19310.63	19488.70	1220.58	430.29	178.07	0.74	2.42	2.84
19488.70 LB	19761.94	5512.89	1210.50	273.40	3.32	4.43	4.55
19761.94	20035.18	12488.85	1977.17	273.39	7.52	7.24	6.32
20035.18	20308.42	25455.92	3041.22	275.67	15.33	11.13	8.37
20308.42	20581.66	30099.17	3352.56	273.57	18.13	12.27	8.98
20581.66	20854.90 RB	31274.34	3443.37	276.14	18.84	12.60	9.08

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.22

INPUT
Description: 206.22

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16557.5	1004.3	16639.4	1004	16713.7	1003.6	16806.6	1001.8	16878.4	999
16892.3	998.9	16946.1	1002.9	16955.9	1004.8	16975.7	997.5	16981.9	999.4
16987.4	998.1	17046.8	996.8	17159.7	997	17260.1	998.5	17320.1	997.5
17343.9	994.5	17380.4	994.5	17400.6	996.8	17408	996.8	17477.4	998.9
17541.1	999.5	17596.5	998.4	17631.6	996.8	17724.8	998.9	17740.4	998.5
17771.5	991.4	17846.4	992.8	17904.5	993.5	17940	995.6	18004.2	995.6
18016.1	997.5	18035.4	995.9	18079.4	996.3	18103.6	997.7	18147.1	997.6
18161.3	993.8	18238.9	993.7	18321.5	992.4	18333.6	991.4	18443.6	991.4
18455.9	991.4	18507.4	994.4	18550.2	989.5	18634.4	989.6	18723.2	987.6
18759.4	986.3	18833.1	991.5	18933.1	991.9	18987.8	992.5	19058	994.5
19110.4	996.4	19138.8	999.5	19223.6	1000.6	19278.4	1001.5	19361.2	1000.2
19370.9	998.6	19381.6	1000.1	19456.3	999.5	19512.1	996.4	19583	994.5
19660.7	994.4	19691.9	994.4	19781.3	994.4	19826.6	994.4	19870	992.6
19877.4	990.6	19912.2	990	20004.6	991.9	20079	991.3	20117.2	990.7
20188.2	986.9	20282	986.7	20306.6	994.7	20332.7	985.9	20338.2	985.9
20423.1	985.1	20525.8	983	20611.1	984.7	20700.7	989.7	20755.5	992.3
20766.6	995.9	20807.8	996.5	20844.2	994.9	20887.6	996.6	20898.1	998.3
20968.3	999	20974.6	999.12	0977.35	999.8423	20990.9	1003.5	21017.9	1001.7
21148.3	1002.6	21222.8	1003.1	21294.4	1003.3	21307.8	1003.3	21385.2	1003.5

21467.9 1003.9 21480 1004

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16557.5	.043	19278.4	.043	19583	.032	20990.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19278.4	20977.35	500	502.44	460	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16557.5	16955.9	1004	21480	21480	1004

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	999.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.87	Wt. n-Val.	0.043	0.032	
E.G. Elev (ft)	1000.70	Reach Len. (ft)	500.00	502.44	460.00
Crit W.S. (ft)	996.52	Flow Area (sq ft)	11714.82	13206.79	
E.G. Slope (ft/ft)	0.001856	Area (sq ft)	11741.48	13206.79	
Q Total (cfs)	166000.00	Flow (cfs)	53201.16	112798.84	
Top Width (ft)	3819.70	Top Width (ft)	2242.02	1577.69	
Vel Total (ft/s)	6.66	Avg. Vel. (ft/s)	4.54	8.54	
Max Chl Dpth (ft)	16.83	Hydr. Depth (ft)	5.34	8.37	
Conv. Total (cfs)	3853684.5	Conv. (cfs)	1235063.1	2618621.5	
Length Wtd. (ft)	501.63	Wetted Per. (ft)	2198.34	1582.26	
Min Ch El (ft)	983.00	Shear (lb/sq ft)	0.62	0.97	
Alpha	1.27	Stream Power (lb/ft s)	2.80	8.26	
Frctn Loss (ft)	0.99	Cum Volume (acre-ft)	6145.81	19365.98	1459.94
C & E Loss (ft)	0.00	Cum SA (acres)	1664.03	2047.81	673.24

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16920.29	17101.68	750.59	326.25	133.15	0.45	2.47	2.30
17101.68	17283.07	894.35	410.15	181.41	0.54	2.26	2.18
17283.07	17464.47	1634.83	589.44	181.74	0.98	3.25	2.77
17464.47	17645.86	321.00	221.81	181.45	0.19	1.22	1.45
17645.86	17827.25	2455.28	753.15	182.23	1.48	4.15	3.26
17827.25	18008.65	3958.69	1001.55	181.52	2.38	5.52	3.95
18008.65	18190.04	1879.15	641.32	182.10	1.13	3.54	2.93
18190.04	18371.43	5898.35	1272.07	181.44	3.55	7.01	4.64
18371.43	18552.83	7181.43	1432.52	181.76	4.33	7.90	5.01
18552.83	18734.22	12246.94	1971.83	181.42	7.38	10.87	6.21
18734.22	18915.61	10589.33	1807.74	181.59	6.38	9.97	5.86
18915.61	19097.01	5207.80	1180.52	181.45	3.14	6.51	4.41
19097.01	19278.40	183.43	106.48	67.07	0.11	1.59	1.72
19278.40 LB	19618.19	2112.84	619.58	218.89	1.27	2.83	3.41
19618.19	19957.98	14387.04	2224.71	340.11	8.67	6.55	6.47
19957.98	20297.77	30756.44	3512.09	340.72	18.53	10.34	8.76
20297.77	20637.56	54617.45	4962.93	341.77	32.90	14.61	11.01
20637.56	20977.35 RB	10925.07	1887.47	340.77	6.58	5.56	5.79

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.13

INPUT
Description: 206.13

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16722.1	1002.8	16785.1	1002.2	16877.3	1002.1	16908.3	1000.9	16979.6	1000.9
17014.5	1000.3	17057.5	998.5	17070.3	997.5	17183.2	997.5	17222.6	994.5
17342.3	992.1	17417.8	994.4	17490.8	994.6	17494	994.7	17613.2	996.3
17668.4	995.8	17699.1	991.3	17790.1	992.3	17861.7	993.7	17934.2	993.6
17996.1	993.2	18017.5	997.2	18080.8	996.1	18121.2	996.9	18147.1	992.3
18166.8	991.3	18235.4	991.3	18302.6	991.3	18386	991.3	18421.8	989.5
18432	988.4	18469.5	988.4	18475.1	989.5	18500.2	989.3	18504.2	988.4
18568.5	987.1	18688.1	988.4	18765.4	989.5	18782.8	992.5	18860.9	996.5
18915	999.2	18980.4	995.4	19020.4	994.5	19089.1	997.3	19153.9	1000.5

19162	1001.6	19203	1003.8	19205.7	1003.2	19223.2	1003	19263.9	1000.5
19294	999.3	19352.5	999.3	19369.3	998.5	19381.9	996.4	19450.5	995.7
19547.3	995.6	19615.3	994.4	19675.1	990.6	19753.3	990.5	19774.8	990.4
19852.5	988.3	19926.3	986.6	19938.1	987.1	19943.1	987.8	19956	986.6
19959	986.7	20036.9	986.5	20105.4	986.3	20129.5	986.8	20164.8	990.8
20183.5	987.1	20270.6	987.9	20276.8	988.6	20297.8	988.6	20342.4	987.5
20366.8	987.4	20431.3	985.5	20458.7	984.6	20505.9	984.6	20523.1	985.6
20557.7	986.6	20563.2	987.2	20637	987.5	20656	988.4	20660.4	988
20685	996.6	20699.6	998	20710.6	997.6	20766.4	997.9	20788.2	997
20848.3	996.7	20868.5	996	20903.4	995.7	20914.9	9998.8	7 12	20934.1	1004.1
20964.8	1000.3	20989.1	1000.6						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
16722.1	.043	19203	.033	20934.1	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19203	20914.99	490	483.44	540	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	998.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.86	Wt. n-Val.	0.043	0.033	
E.G. Elev (ft)	999.71	Reach Len. (ft)	490.00	483.44	540.00
Crit W.S. (ft)		Flow Area (sq ft)	11342.92	12898.36	
E.G. Slope (ft/ft)	0.002097	Area (sq ft)	11342.92	12898.36	
Q Total (cfs)	166000.00	Flow (cfs)	57076.93	108923.07	
Top Width (ft)	3610.68	Top Width (ft)	2057.86	1552.82	
Vel Total (ft/s)	6.85	Avg. Vel. (ft/s)	5.03	8.44	
Max Chl Dpth (ft)	14.24	Hydr. Depth (ft)	5.51	8.31	
Conv. Total (cfs)	3625219.5	Conv. (cfs)	1246484.3	2378735.3	
Length Wtd. (ft)	485.81	Wetted Per. (ft)	2060.22	1556.11	
Min Ch El (ft)	984.60	Shear (lb/sq ft)	0.72	1.09	
Alpha	1.18	Stream Power (lb/ft s)	3.63	9.16	
Frctn Loss (ft)	1.19	Cum Volume (acre-ft)	6013.32	19215.42	1459.94
C & E Loss (ft)	0.04	Cum SA (acres)	1639.36	2029.75	673.24

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16887.49	17052.89	0.07	0.27	3.62	0.00	0.08	0.25
17052.89	17218.28	492.31	257.75	165.54	0.30	1.56	1.91
17218.28	17383.67	4215.53	934.70	165.45	2.54	5.65	4.51
17383.67	17549.07	2652.70	707.84	165.42	1.60	4.28	3.75
17549.07	17714.46	2136.71	622.16	165.73	1.29	3.76	3.43
17714.46	17879.85	5025.40	1038.54	165.41	3.03	6.28	4.84
17879.85	18045.25	2918.96	750.29	165.77	1.76	4.54	3.89
18045.25	18210.64	2986.35	760.77	165.84	1.80	4.60	3.93
18210.64	18376.03	6824.50	1247.79	165.39	4.11	7.54	5.47
18376.03	18541.43	10372.60	1605.34	165.71	6.25	9.71	6.46
18541.43	18706.82	12924.51	1830.48	165.41	7.79	11.07	7.06
18706.82	18872.21	5281.71	1070.93	165.77	3.18	6.48	4.93
18872.21	19037.61	901.17	358.33	152.32	0.54	2.36	2.51
19037.61	19203.00	344.42	157.71	82.85	0.21	1.91	2.18
19203.00 LB	19545.40	1902.49	513.56	183.52	1.15	2.80	3.70
19545.40	19887.80	18735.57	2600.34	342.57	11.29	7.59	7.21
19887.80	20230.19	38687.32	4020.23	343.12	23.31	11.74	9.62
20230.19	20572.59	41525.25	4191.98	342.57	25.02	12.24	9.91
20572.59	20914.99 RB	8072.42	1572.26	344.33	4.86	4.59	5.13

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 206.03

INPUT
Description: 206.03
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16802.9	1002.4	16810.4	1002	16813.6	1000.9	16824	1002.4	16844.6	1000.6
16890.3	1000.8	16957.6	998.6	16974.2	996.3	17051	996.3	17118.7	996
17158.8	996.3	17238.1	994.4	17268.4	993.9	17337.7	992.2	17429.7	992.2
17531.5	992.2	17538.3	993.5	17547.2	994.4	17602.5	996.5	17662	996.6
17711.8	998.8	17753.6	997.9	17811.8	999.7	17868.4	998.8	17876	996.8
17888.6	992.2	17921.7	991.3	17955.9	991.3	18046.3	991.3	18129	992.2
18208.5	993.4	18309.7	993.6	18420.9	993.3	18447.9	989.4	18457.8	986.4
18517.5	985.1	18549.4	986.9	18588	984	18644.4	992.4	18712.4	995.4
18774.2	998.9	18830	995.4	18904.6	994.2	18908.3	994.2	18995.9	996.3
19086.5	1000.5	19177	1002.9	19201.9	1004.4	19226.8	1002.9	19249.6	1003.2
19274.5	1000.5	19281.8	998.5	19300.1	995.7	19315.7	994.3	19390.1	994.3
19400.5	994.3	19413.5	991.2	19424.9	989.1	19482.5	986.8	19510.1	986.8
19554.4	985.8	19658.8	985.8	19753.3	985.9	19822.1	985.9	19854.2	986.9
19870.5	986.6	19902.2	987.2	19919.6	986.6	19994.1	987.8	20078.9	988.1
20133.4	987.5	20176.6	991.9	20201.4	992.1	20216.4	992.9	20292.1	994.2
20354	993	20378.4	992	20392	989.3	20410.4	989.1	20427.7	986.6
20479.5	986.9	20548	985.1	20601.3	984.5	20610.2	984.8	20660.5	989.4
20711.9	992.7	20772.6	995.4	20851.6	995.1	20876.8	995	20972.6	994.7
21099.7	995.7	21122.5	995.9	21132.1	998.6	21160.4	1005.3	21175.8	999.9
21184.2	999.9								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
16802.9	.043	19201.9	.033	20772.6	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19201.9	20772.6	590	513.6	510	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16802.9	16900	1003

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	997.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.28	Wt. n-Val.	0.043	0.033	0.032
E.G. Elev (ft)	998.47	Reach Len. (ft)	590.00	513.60	510.00
Crit W.S. (ft)	995.38	Flow Area (sq ft)	7301.46	12448.49	718.55
E.G. Slope (ft/ft)	0.002920	Area (sq ft)	7301.46	12448.49	718.55
Q Total (cfs)	166000.00	Flow (cfs)	38067.04	125045.94	2887.02
Top Width (ft)	3627.32	Top Width (ft)	1790.61	1482.23	354.48
Vel Total (ft/s)	8.11	Avg. Vel. (ft/s)	5.21	10.05	4.02
Max Chl Dpth (ft)	13.19	Hydr. Depth (ft)	4.08	8.40	2.03
Conv. Total (cfs)	3071732.3	Conv. (cfs)	704408.1	2313901.5	53422.6
Length Wtd. (ft)	528.46	Wetted Per. (ft)	1793.58	1484.21	354.67
Min Ch El (ft)	984.50	Shear (lb/sq ft)	0.74	1.53	0.37
Alpha	1.25	Stream Power (lb/ft s)	3.87	15.36	1.48
Frctn Loss (ft)	1.19	Cum Volume (acre-ft)	5908.46	19074.77	1455.49
C & E Loss (ft)	0.12	Cum SA (acres)	1617.71	2012.91	671.05

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16962.83	17122.77	240.67	146.23	155.05	0.14	0.94	1.65
17122.77	17282.70	889.14	324.33	159.97	0.54	2.03	2.74
17282.70	17442.63	3682.30	760.78	159.95	2.22	4.76	4.84
17442.63	17602.57	2462.44	597.89	160.14	1.48	3.74	4.12
17602.57	17762.50	49.61	41.89	72.78	0.03	0.58	1.18
17762.50	17922.43	1016.11	218.52	48.79	0.61	4.56	4.65
17922.43	18082.37	5190.48	934.76	159.94	3.13	5.84	5.55
18082.37	18242.30	3361.88	720.33	159.95	2.03	4.50	4.67
18242.30	18402.23	2410.83	590.03	159.93	1.45	3.69	4.09
18402.23	18562.17	11365.29	1499.05	160.76	6.85	9.37	7.58
18562.17	18722.10	6389.44	1060.94	160.71	3.85	6.63	6.02
18722.10	18882.03	345.39	153.93	102.54	0.21	1.50	2.24
18882.03	19041.97	663.47	252.78	133.09	0.40	1.90	2.62
19041.97	19201.90						
19201.90 LB	19516.04	9823.77	1305.34	226.45	5.92	5.78	7.53
19516.04	19830.18	41802.33	3547.66	314.15	25.18	11.29	11.78
19830.18	20144.32	32852.80	3070.53	314.24	19.79	9.77	10.70
20144.32	20458.46	12920.06	1755.28	314.82	7.78	5.59	7.36

20458.46	20772.60 RB	27646.96	2769.67	314.55	16.65	8.82	9.98
20772.60	20800.04	187.62	50.52	27.44	0.11	1.84	3.71
20800.04	20827.48	205.67	53.38	27.44	0.12	1.95	3.85
20827.48	20854.92	224.36	56.24	27.44	0.14	2.05	3.99
20854.92	20882.36	244.14	59.16	27.44	0.15	2.16	4.13
20882.36	20909.80	261.98	61.72	27.44	0.16	2.25	4.24
20909.80	20937.24	278.90	64.08	27.44	0.17	2.34	4.35
20937.24	20964.68	296.19	66.43	27.44	0.18	2.42	4.46
20964.68	20992.12	298.14	66.70	27.44	0.18	2.43	4.47
20992.12	21019.56	257.75	61.12	27.44	0.16	2.23	4.22
21019.56	21047.00	217.48	55.20	27.44	0.13	2.01	3.94
21047.00	21074.44	179.97	49.27	27.44	0.11	1.80	3.65
21074.44	21101.88	145.36	43.34	27.44	0.09	1.58	3.35
21101.88	21129.32	89.46	31.40	25.38	0.05	1.25	2.85

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 205.94

INPUT
Description: 205.94
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16903.8	1000.5	16909.4	1000	16920.9	1001.6	16972.5	1001.2	16975.5	1000.3
16985.1	1001.6	17007.6	998.7	17082.9	996.3	17151.6	996.3	17234	996.3
17267.9	996.3	17336.5	996.2	17426	996.4	17508.2	996.2	17592.3	996.3
17688.9	994.4	17733.4	994	17754.7	991.9	17830.3	991.2	17928	993.4
17928.3	993.4	18000.5	993.2	18041.8	993.1	18116.7	993.3	18216.4	993.4
18279.7	991.1	18294.7	987.3	18302.5	986.7	18362.5	986.9	18376.8	985.1
18407.6	986.2	18496.1	984.1	18565.5	985.4	18614.9	987.2	18629.5	988.4
18642.1	988.5	18669.8	994.1	18756.5	994.7	18817.1	995.6	18869.8	993.4
18916.1	992.8	18941.2	994.2	19004.1	991	19053.5	981.9	19123.4	981.8
19199.3	982	19250	981.9	19337.5	981.5	19354.9	982.2	19448.6	985
19535.3	985	19613.6	984.8	19703.6	985.4	19775.9	989.5	19831.1	990.2
19926.3	989.4	19994.7	989.1	20082.6	988.9	20106.6	989.1	20111.2	988.5
20149.5	990.4	20183.7	994.3	20237	990.7	20262.2	991.4	20291.7	989.3
20345	989.3	20445.6	986.5	20507.2	982.5	20519.9	982.9	20520.2	982.1
20569.1	981	20589.6	984	20612	989.6	20643	991.1	20662.1	992.9
20686.6	992.8	20704.4	994.4	20767	996.6	20871.9	997.4	20903.2	996.9
20938.8	991.7	20969.6	993.5	21038.9	995.4	21103	995.9	21150.3	993.9
21195.3	994.9	21265.8	994.7	21288.8	994	21309.9	995.5	21385.6	995.9
21402.4	995.6	21473.1	995.1	21527.7	994.8	21551	998.8	21641.3	999.1
21683	1001.6								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16903.8	.043	18817.1	.033	20767	.032	20938.8	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18817.1	20767	505	506.69	510	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21215	21683	999

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	996.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.89	Wt. n-Val.	0.043	0.033	0.036
E.G. Elev (ft)	997.17	Reach Len. (ft)	505.00	506.69	510.00
Crit W.S. (ft)	992.59	Flow Area (sq ft)	6215.90	17060.02	528.52
E.G. Slope (ft/ft)	0.001782	Area (sq ft)	6215.90	17060.02	877.85
Q Total (cfs)	166000.00	Flow (cfs)	26725.79	137949.17	1325.04
Top Width (ft)	3972.72	Top Width (ft)	1403.24	1940.66	628.82
Vel Total (ft/s)	6.97	Avg. Vel. (ft/s)	4.30	8.09	2.51
Max Chl Dpth (ft)	15.28	Hydr. Depth (ft)	4.43	8.79	1.72
Conv. Total (cfs)	3932508.3	Conv. (cfs)	633128.8	3267989.5	31389.9
Length Wtd. (ft)	506.47	Wetted Per. (ft)	1404.75	1944.24	307.99
Min Ch El (ft)	981.00	Shear (lb/sq ft)	0.49	0.98	0.19
Alpha	1.18	Stream Power (lb/ft s)	2.12	7.89	0.48
Frctn Loss (ft)	0.66	Cum Volume (acre-ft)	5816.91	18900.81	1446.15
C & E Loss (ft)	0.07	Cum SA (acres)	1596.08	1992.73	665.29

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17158.91	17286.46	0.00	0.00	1.64	0.00	0.00	0.01
17286.46	17414.01	0.43	3.21	83.74	0.00	0.04	0.13
17414.01	17541.57	0.46	3.02	64.32	0.00	0.05	0.15
17541.57	17669.12	44.17	56.69	105.57	0.03	0.54	0.78
17669.12	17796.67	961.12	388.23	127.66	0.58	3.04	2.48
17796.67	17924.23	1680.99	542.81	127.58	1.01	4.26	3.10
17924.23	18051.78	957.92	387.32	127.55	0.58	3.04	2.47
18051.78	18179.33	940.89	383.18	127.55	0.57	3.00	2.46
18179.33	18306.89	1885.88	582.52	128.09	1.14	4.57	3.24
18306.89	18434.44	7015.83	1279.71	127.69	4.23	10.03	5.48
18434.44	18561.99	8816.76	1467.23	127.58	5.31	11.50	6.01
18561.99	18689.55	4131.16	932.81	128.20	2.49	7.31	4.43
18689.55	18817.10	290.17	189.18	127.56	0.17	1.48	1.53
18817.10 LB	19207.08	24356.80	3237.33	390.98	14.67	8.30	7.52
19207.08	19597.06	50479.68	5008.00	390.04	30.41	12.84	10.08
19597.06	19987.04	24302.74	3230.11	390.11	14.64	8.28	7.52
19987.04	20377.02	14968.68	2416.09	390.51	9.02	6.20	6.20
20377.02	20767.00 RB	23841.27	3168.48	382.61	14.36	8.32	7.52
20767.00	20889.13						
20889.13	20950.20	407.01	120.02	43.07	0.25	2.81	3.39
20950.20	21011.27	443.37	156.68	61.12	0.27	2.57	2.83
21011.27	21072.33	88.48	59.56	61.08	0.05	0.98	1.49
21072.33	21133.40	57.77	46.12	61.09	0.03	0.76	1.25
21133.40	21194.47	273.90	117.34	61.09	0.16	1.92	2.33
21194.47	21255.53	54.51	28.80	20.53	0.03	1.40	1.89

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 205.84

INPUT
Description: 205.84
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17154.7	999.5	17167.6	998.3	17173.7	999	17242.7	999.3	17319.2	999.3
17395.4	998.8	17445.8	998.6	17482.3	997.2	17534.1	997.5	17544.3	997.1
17572.5	997.3	17612.4	996.5	17644.3	993.7	17719.4	994.2	17735.7	993.6
17775	993.6	17842.8	992.3	17862.2	987.5	17958.9	987.6	17969.5	989.4
18029.4	989.1	18042.3	990.1	18085.3	986.5	18121.7	984.6	18194.4	985
18242.1	986.4	18267.7	987.9	18304.8	988.6	18343.6	988.3	18423.5	987.9
18487.6	987.3	18519.2	980.3	18575.4	985.3	18594.1	984.3	18599.2	983
18611.3	981.7	18624.5	979.5	18698.1	979.6	18782.8	980.6	18852.2	980.4
18868.5	982.8	18970.3	982.9	19086.6	984.3	19137.9	986	19161.5	987.5
19244.2	986.1	19262.6	985.8	19339.3	985.7	19420.2	986.1	19521.7	987.3
19606.4	989.5	19664.7	990.4	19734.4	992	19762.4	991.1	19876.6	990.8
19965.5	989.4	20028.7	988.2	20132.7	984.3	20147.5	983.5	20176	983
20199.7	984.8	20287.6	984.2	20364.3	982.3	20417.7	981.2	20446.2	981.5
20481.4	989.8	20508	994.7	20535.7	996	20575.3	996.4	20613.9	995.2
20691.5	994.7	20737.2	994.6	20809.8	995.7	20816.4	996	20875	995.1
20909.1	992.8	20953.5	994.7	21021.3	995.7	21074.7	995.5	21087.2	993.8
21126.7	992.2	21139.8	993.2	21222.1	993.7	21281.4	994.3	21334.2	993
21367.3	994.1	21398.1	992.4	21450.5	994.8	21460	991.6	21508.8	993.1
21563.2	993.7	21607.4	993.3	21622.3	993.7	21634.1	995.7	21671.2	996.7
21696	999.5								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17154.7	.043	18487.6	.043	18575.4	.032	20535.7	.032	20875	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18487.6	20535.7	495	496	480	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21450	21696	999

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	995.78	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.64	Wt. n-Val.	0.043	0.033	0.036

E.G. Elev (ft)	996.43	Reach Len. (ft)	495.00	496.00	480.00
Crit W.S. (ft)	991.08	Flow Area (sq ft)	5827.63	20747.79	1226.87
E.G. Slope (ft/ft)	0.001006	Area (sq ft)	5827.63	20747.79	1697.14
Q Total (cfs)	166000.00	Flow (cfs)	22730.27	141072.88	2196.85
Top Width (ft)	3933.87	Top Width (ft)	867.04	2043.50	1023.32
Vel Total (ft/s)	5.97	Avg. Vel. (ft/s)	3.90	6.80	1.79
Max Chl Dpth (ft)	16.28	Hydr. Depth (ft)	6.72	10.15	1.47
Conv. Total (cfs)	5233179.5	Conv. (cfs)	716575.7	4447347.5	69256.1
Length Wtd. (ft)	495.56	Wetted Per. (ft)	868.21	2046.96	836.58
Min Ch El (ft)	979.50	Shear (lb/sq ft)	0.42	0.64	0.09
Alpha	1.16	Stream Power (lb/ft s)	1.64	4.33	0.16
Frctn Loss (ft)	0.65	Cum Volume (acre-ft)	5747.10	18680.92	1431.07
C & E Loss (ft)	0.00	Cum SA (acres)	1582.92	1969.56	655.62

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17599.00	17687.86	149.15	109.22	67.40	0.09	1.62	1.37
17687.86	17776.72	268.57	173.62	88.87	0.16	1.95	1.55
17776.72	17865.58	781.96	330.53	89.46	0.47	3.72	2.37
17865.58	17954.44	2953.76	731.74	88.86	1.78	8.23	4.04
17954.44	18043.30	2063.81	590.63	89.05	1.24	6.65	3.49
18043.30	18132.16	3460.00	805.32	89.06	2.08	9.06	4.30
18132.16	18221.02	4631.86	958.54	88.87	2.79	10.79	4.83
18221.02	18309.88	3018.27	741.49	88.92	1.82	8.34	4.07
18309.88	18398.74	2539.17	668.27	88.86	1.53	7.52	3.80
18398.74	18487.60	2863.71	718.28	88.86	1.73	8.08	3.99
18487.60 LB	18897.22	47581.12	5926.41	411.23	28.66	14.47	8.03
18897.22	19306.84	31271.17	4486.92	409.72	18.84	10.95	6.97
19306.84	19716.46	18380.95	3261.85	409.68	11.07	7.96	5.64
19716.46	20126.08	12637.32	2605.31	409.73	7.61	6.36	4.85
20126.08	20535.70 RB	31202.33	4467.30	406.60	18.80	11.03	6.98
20535.70	20613.05	2.85	5.01	17.95	0.00	0.28	0.57
20613.05	20690.41	75.33	64.04	77.36	0.05	0.83	1.18
20690.41	20767.76	114.04	82.13	77.36	0.07	1.06	1.39
20767.76	20845.11	11.61	18.66	58.57	0.01	0.32	0.62
20845.11	20922.47	195.76	112.21	77.45	0.12	1.45	1.74
20922.47	20999.82	111.99	88.65	77.39	0.07	1.15	1.26
20999.82	21077.17	6.57	16.17	77.38	0.00	0.21	0.41
21077.17	21154.53	437.16	200.84	77.51	0.26	2.60	2.18
21154.53	21231.88	346.69	174.61	77.36	0.21	2.26	1.99
21231.88	21309.23	230.69	136.75	77.36	0.14	1.77	1.69
21309.23	21386.59	359.64	178.54	77.41	0.22	2.31	2.01
21386.59	21463.94	304.52	149.26	63.49	0.18	2.35	2.04

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 205.75

INPUT
Description: 205.75
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17305.3	998.9	17323.7	996.7	17395.5	996.8	17486.9	996.4	17509.8	996.4
17581.1	996.2	17666.5	995.9	17680.3	996	17753.1	996.5	17853.4	996.5
17864.9	996.5	17966.3	996	18048	994.8	18136.2	989.8	18199.9	985.9
18204.5	985.7	18238.3	975.2	18303	975.1	18340.9	977.7	18362.6	983.3
18414.2	984.2	18425.5	978.9	18465.2	978.9	18482	983.4	18487.5	980.6
18502.7	981.5	18551.9	977.5	18634.1	978.7	18705.8	979.9	18783.7	983.6
18852.2	983.7	18938.1	983.3	19031.5	983.4	19132.6	984.5	19156	984.8
19231.1	986.4	19292.3	989.2	19362.3	991.3	19410.6	989.7	19510.1	990.4
19547	990.4	19564.3	991.1	19608.3	991.1	19685.9	990.7	19759.4	989.7
19806.7	989.9	19819.8	990.5	19830.2	990.2	19906.7	988.4	19984.6	988.8
20051.4	988.1	20065.4	987.5	20101.2	975.7	20131.5	973.9	20148.4	974.7
20183.3	981	20265.9	982.2	20296.1	983.6	20320.1	985.5	20338.8	985.9
20373.3	988.6	20450.3	990	20500.5	990.7	20583.6	992.4	20674.8	995.6
20691.1	996.1	20754.7	995.2	20833.9	994.8	20900.7	994.8	20927.8	993.3
20929.3	994.1	20943.9	991.9	20951.5	991.7	20989	994	21037.1	991.6
21060.1	993.2	21120.9	992.7	21131.3	991.3	21198.6	991.5	21306.4	993.9
21377	994.4	21386.2	994.7	21449.8	995	21502.3	995.3	21567.5	995.7
21648.1	996.3	21682	996.5	21789	996.8	21807.7	996.8	21902.8	997.4

21921	997.6	22001	997.7	22076.6	997.7	22142.9	997.7	22143.7	999
22145	998.9								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17305.3	.043	18048	.043	20583.6	.043	21131.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18048	20450.3	825	642	490	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21400	22145	999

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	995.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.68	Wt. n-Val.	0.043	0.043	0.035
E.G. Elev (ft)	995.78	Reach Len. (ft)	825.00	642.00	490.00
Crit W.S. (ft)	989.65	Flow Area (sq ft)	2.98	23920.42	1754.08
E.G. Slope (ft/ft)	0.001766	Area (sq ft)	2.98	23920.42	1765.51
Q Total (cfs)	166000.00	Flow (cfs)	1.21	160405.86	5592.93
Top Width (ft)	3323.81	Top Width (ft)	20.14	2402.30	901.37
Vel Total (ft/s)	6.46	Avg. Vel. (ft/s)	0.41	6.71	3.19
Max Chl Dpth (ft)	21.20	Hydr. Depth (ft)	0.15	9.96	2.10
Conv. Total (cfs)	3950022.3	Conv. (cfs)	28.8	3816908.0	133085.4
Length Wtd. (ft)	634.93	Wetted Per. (ft)	20.14	2410.71	835.60
Min Ch El (ft)	973.90	Shear (lb/sq ft)	0.02	1.09	0.23
Alpha	1.05	Stream Power (lb/ft s)	0.01	7.34	0.74
Frctn Loss (ft)	0.66	Cum Volume (acre-ft)	5713.97	18426.61	1411.99
C & E Loss (ft)	0.05	Cum SA (acres)	1577.88	1944.25	645.01

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17998.49	18048.00	1.21	2.98	20.14	0.00	0.15	0.41
18048.00 LB	18528.46	42196.18	5840.25	485.68	25.42	12.16	7.23
18528.46	19008.92	51731.48	6572.17	480.64	31.16	13.68	7.87
19008.92	19489.38	20394.84	3759.72	480.61	12.29	7.83	5.42
19489.38	19969.84	9844.34	2428.42	480.52	5.93	5.05	4.05
19969.84	20450.30 RB	36239.03	5319.86	483.25	21.83	11.07	6.81
20450.30	20563.28	1611.84	473.89	113.00	0.97	4.19	3.40
20563.28	20676.26	299.55	162.56	97.20	0.18	1.67	1.84
20676.26	20789.24	0.07	0.49	13.91	0.00	0.04	0.14
20789.24	20902.22	14.84	28.45	112.98	0.01	0.25	0.52
20902.22	21015.20	432.61	215.63	113.49	0.26	1.91	2.01
21015.20	21128.18	662.37	278.07	113.13	0.40	2.46	2.38
21128.18	21241.16	2002.85	392.79	113.02	1.21	3.48	5.10
21241.16	21354.14	524.01	174.41	113.00	0.32	1.54	3.00
21354.14	21467.12	44.76	27.79	45.86	0.03	0.61	1.61

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 205.62

INPUT
Description: 205.62
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16987.1	998.1	17010.8	998	17131	997.7	17220.3	997.9	17312.3	997.2
17337.5	997.1	17349.7	993.8	17415.9	993.4	17452.1	994.5	17456	993.6
17462.6	995.4	17470.7	993.9	17481.8	995.3	17536.8	995.9	17541.4	995
17548.6	996.6	17570.5	992.9	17606.9	994.3	17705.6	994.3	17778.6	994
17854.3	993.6	17935.8	992.6	18000.5	991.8	18066.9	989.1	18154.7	990.1
18182.6	989.5	18216	991.5	18272.9	988.7	18345.5	987	18362.3	985.3
18364.3	986.4	18412.4	980.4	18471.7	977.8	18582.6	976.6	18682.4	977.6

18758.9	978.6	18831.8	982	18915	981.6	18928.4	981.8	18994.8	981.7
19088.8	983.1	19188.8	983.9	19260.2	983.8	19272.1	983.6	19307.3	987.6
19315.9	987.5	19391.2	986.5	19461.1	986.8	19526.5	987.3	19591.7	987.7
19623.7	987.9	19690.2	986.9	19701.7	986.9	19732.4	983.9	19808.3	985.5
19928.6	988.8	19968.4	987.6	20009.8	976	20075.5	976.6	20117.2	979
20204.9	979.7	20242.3	978.4	20253.8	980.5	20285.7	981	20339.5	984.7
20409.9	988.4	20450.1	989.3	20468.3	987	20504.3	986.9	20542.3	986
20605.7	986.7	20698.9	989.9	20708.2	990.1	20715.6	995	20780.9	994.9
20847	991.9	20932.4	991	21003.2	991.1	21102.3	991.6	21194.4	992
21286.6	992.7	21318.6	992.9	21388	993.6	21473.6	994.3	21596.5	994.7
21668.5	995	21758.9	995.6	21817	996.1	21920.7	996.9	21963.3	997.1
22043.7	997.1	22107.3	997.1	22215.9	997.1	22261	998.1	22277.9	997.6
22288.5	999.4								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16987.1	.025	17481.8	.043	18216	.043	18471.7	.032	20715.6	.032
20847	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18216	20450.1	560	523	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16987.1	17548.6	999.4	21480	22288.5	999.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	994.55	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.52	Wt. n-Val.	0.043	0.033	0.030
E.G. Elev (ft)	995.07	Reach Len. (ft)	560.00	523.00	510.00
Crit W.S. (ft)	988.64	Flow Area (sq ft)	1396.47	25301.67	3417.31
E.G. Slope (ft/ft)	0.000680	Area (sq ft)	1488.23	25301.67	3425.20
Q Total (cfs)	166000.00	Flow (cfs)	2083.10	151545.33	12371.57
Top Width (ft)	4036.29	Top Width (ft)	776.42	2234.10	1025.77
Vel Total (ft/s)	5.51	Avg. Vel. (ft/s)	1.49	5.99	3.62
Max Chl Dpth (ft)	18.55	Hydr. Depth (ft)	2.13	11.33	3.57
Conv. Total (cfs)	6366568.5	Conv. (cfs)	79892.7	5812191.0	474484.8
Length Wtd. (ft)	523.01	Wetted Per. (ft)	655.56	2237.69	957.78
Min Ch El (ft)	976.00	Shear (lb/sq ft)	0.09	0.48	0.15
Alpha	1.11	Stream Power (lb/ft s)	0.13	2.87	0.55
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	5699.85	18063.88	1382.80
C & E Loss (ft)	0.02	Cum SA (acres)	1570.34	1910.08	634.18

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17560.59	17642.51	24.51	51.33	81.93	0.01	0.63	0.48
17642.51	17724.44	5.53	21.00	81.93	0.00	0.26	0.26
17724.44	17806.37	16.76	40.86	81.93	0.01	0.50	0.41
17806.37	17888.29	49.90	78.64	81.93	0.03	0.96	0.63
17888.29	17970.22	151.34	153.03	81.93	0.09	1.87	0.99
17970.22	18052.15	398.58	273.65	81.97	0.24	3.34	1.46
18052.15	18134.07	801.83	416.18	81.94	0.48	5.08	1.93
18134.07	18216.00	634.67	361.79	81.99	0.38	4.42	1.75
18216.00 LB	18662.82	35101.17	5681.32	447.72	21.15	12.72	6.18
18662.82	19109.64	40603.71	6091.80	446.92	24.46	13.63	6.67
19109.64	19556.46	19810.83	3960.97	447.06	11.93	8.86	5.00
19556.46	20003.28	16921.62	3607.82	448.40	10.19	8.07	4.69
20003.28	20450.10 RB	39108.00	5959.75	447.60	23.56	13.34	6.56
20450.10	20572.66	4346.87	952.06	122.72	2.62	7.77	4.57
20572.66	20695.22	3461.85	830.22	122.61	2.09	6.77	4.17
20695.22	20817.78	165.81	93.79	50.18	0.10	1.92	1.77
20817.78	20940.34	1041.40	350.62	122.60	0.63	2.86	2.97
20940.34	21062.90	1402.91	416.32	122.56	0.85	3.40	3.37
21062.90	21185.46	1051.26	350.13	122.56	0.63	2.86	3.00
21185.46	21308.02	655.34	263.69	122.56	0.39	2.15	2.49
21308.02	21430.58	230.17	140.75	122.57	0.14	1.15	1.64
21430.58	21553.14	15.95	19.73	49.42	0.01	0.40	0.81

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1

REACH: 1 RS: 205.52

INPUT
Description: 205.52
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17458.9	998.2	17496.2	998.1	17528.6	993.9	17537	994	17538.2	993.3
17605.2	993.8	17611.5	994.9	17615.9	993.3	17622.8	995	17635.1	992.9
17665.3	993	17698.1	994.2	17701.5	993.5	17707.3	995.3	17718.9	995
17731.8	991.3	17820.7	991.9	17894	991.4	17966.9	990.6	18049.9	988.1
18115.3	988.8	18176.3	990.1	18241.5	990	18289.2	989.7	18376.9	989.8
18458.3	990.2	18560.9	990.7	18591.6	991.1	18628.8	988.9	18702.3	978.1
18778	976.8	18843.9	975.9	18919.8	976.6	19003.3	977.9	19078	982
19149.6	982.2	19216.6	981.8	19294.8	981.6	19381.8	980.6	19438.9	979.8
19513.6	979.7	19597.1	981.3	19627.4	982.2	19649.8	981.4	19768.3	982.9
19791.5	982.7	19851.9	983.6	19974.7	981.4	20083.4	978.3	20118	977.6
20126.6	978.1	20161.7	976.5	20215.1	976.5	20237.4	983.2	20307.8	986.1
20375.9	986.4	20411.3	986.8	20436.2	983.2	20454.8	985.7	20472.6	986.8
20567.5	986.1	20573.3	986	20590.7	989.7	20611.5	992.8	20623.9	992.6
20656.5	990.1	20672.2	990.7	20688.3	988.5	20695.2	989.1	20701.5	986.9
20769.2	978.7	20789.2	977.6	20827.6	986.2	20844.7	988.1	20936.4	989.8
21007.2	990.9	21024.7	991.2	21032.1	992.9	21046.7	990.6	21139.1	991.6
21236.4	992	21330.9	992.2	21420.6	992.8	21530.8	993.2	21637.9	993.3
21722.2	993.8	21801	994.3	21909.2	994.5	22026.9	995.2	22127.5	995.8
22175.4	995.9	22246.4	996.2	22303.2	996.7	22383	996.1	22389.5	996.1
22400	997.5								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17458.9	.043	18591.6	.043	18628.8	.032	20611.5	.032	21032.1	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18591.6	20611.5	430	470	400	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17458.9	17650	998.2	21400	22400	998.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	994.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.46	Wt. n-Val.	0.043	0.032	0.031
E.G. Elev (ft)	994.75	Reach Len. (ft)	430.00	470.00	400.00
Crit W.S. (ft)	987.04	Flow Area (sq ft)	3557.27	25803.39	3782.25
E.G. Slope (ft/ft)	0.000496	Area (sq ft)	3641.47	25803.39	4150.54
Q Total (cfs)	166000.00	Flow (cfs)	6878.48	146271.84	12849.68
Top Width (ft)	4244.93	Top Width (ft)	1036.58	2019.90	1188.45
Vel Total (ft/s)	5.01	Avg. Vel. (ft/s)	1.93	5.67	3.40
Max Chl Dpth (ft)	18.39	Hydr. Depth (ft)	3.85	12.77	4.80
Conv. Total (cfs)	7454359.5	Conv. (cfs)	308883.5	6568451.0	577025.0
Length Wtd. (ft)	462.67	Wetted Per. (ft)	925.00	2023.22	791.15
Min Ch El (ft)	975.90	Shear (lb/sq ft)	0.12	0.39	0.15
Alpha	1.17	Stream Power (lb/ft s)	0.23	2.24	0.50
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	5666.88	17757.09	1338.45
C & E Loss (ft)	0.01	Cum SA (acres)	1558.68	1884.54	621.21

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17609.93	17685.44	30.84	38.80	35.45	0.02	1.09	0.79
17685.44	17760.95	118.68	106.65	58.83	0.07	1.83	1.11
17760.95	17836.47	271.46	193.62	75.52	0.16	2.56	1.40
17836.47	17911.98	308.26	208.97	75.52	0.19	2.77	1.48
17911.98	17987.49	468.76	268.74	75.53	0.28	3.56	1.74
17987.49	18063.01	940.37	408.10	75.54	0.57	5.40	2.30
18063.01	18138.52	1001.27	423.71	75.52	0.60	5.61	2.36
18138.52	18214.03	670.00	332.96	75.52	0.40	4.41	2.01
18214.03	18289.55	663.11	330.89	75.51	0.40	4.38	2.00
18289.55	18365.06	706.06	343.58	75.51	0.43	4.55	2.06
18365.06	18440.57	658.23	329.42	75.51	0.40	4.36	2.00
18440.57	18516.09	568.64	301.74	75.51	0.34	4.00	1.88
18516.09	18591.60	472.77	270.10	75.52	0.28	3.58	1.75
18591.60 LB	18995.58	38540.72	6076.11	404.86	23.22	15.04	6.34
18995.58	19399.56	29621.42	5273.20	404.10	17.84	13.05	5.62

19399.56	19803.54	29889.98	5301.48	404.04	18.01	13.12	5.64
19803.54	20207.52	33442.52	5671.42	404.11	20.15	14.04	5.90
20207.52	20611.50 RB	14777.19	3481.18	406.11	8.90	8.62	4.24
20611.50	20730.73	1614.85	597.83	120.10	0.97	5.01	2.70
20730.73	20849.97	7160.75	1463.50	120.60	4.31	12.27	4.89
20849.97	20969.20	1617.18	596.64	119.25	0.97	5.00	2.71
20969.20	21088.43	915.98	395.37	119.62	0.55	3.32	2.32
21088.43	21207.67	753.51	325.36	119.24	0.45	2.73	2.32
21207.67	21326.90	540.23	266.47	119.23	0.33	2.23	2.03
21326.90	21446.13	247.19	137.07	73.10	0.15	1.88	1.80

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 205.43

INPUT
Description: 205.43
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17577.6	999	17651.4	999	17676.6	993.3	17745.1	993.5	17753.8	994.9
17756.2	993	17761.9	994.1	17779.1	992.9	17827.8	993.4	17837	994.7
17842	993.6	17850.1	995.1	17856.3	994.6	17874.1	989.8	17945.8	990.5
18015.5	989.2	18089	988.6	18171.5	988.1	18272	989	18345.2	989.6
18417.8	988.9	18513.1	989.6	18555.5	988.8	18590.9	983.9	18653.7	980.2
18675.6	981.9	18718.1	992.1	18755	996.2	18831.5	994	18917.5	994.6
18981	993.6	18995.7	991.7	19013.2	983.5	19029.3	979.6	19078	977.3
19159.1	977.1	19235.8	977	19329.8	976.7	19401.3	976.1	19408.1	977.1
19408.2	976.1	19472.5	977.8	19481.8	976.1	19482.8	979.9	19504.5	976.3
19572.1	976.7	19685.1	976.7	19752	976.5	19776.2	976.6	19871.8	985.4
19922.1	984.5	19948.6	982.8	19969.8	979	19994.4	976.5	20009.7	976.5
20115.4	976.5	20173.1	982	20198.5	982.2	20281.7	985.3	20371.1	985.5
20444.6	985.5	20542.7	985.9	20552.8	986	20628.8	985.9	20672.4	986.4
20739.7	988.8	20745.5	988.9	20770.4	996.3	20821.2	987.3	20830.8	986.4
20857.3	988.8	20888.7	988.5	20910.3	984	20959.4	986.1	21024	983.6
21078.8	987.2	21088.9	990.3	21171.4	991.7	21190.4	992.1	21193.4	991.5
21282.9	992	21368	992.7	21454.5	993.1	21528.9	993.3	21613.1	993.6
21695.1	993.6	21768.9	993.9	21849.3	994.3	21923.6	994.4	21927.2	994.4
21997.3	994.6	22016.9	994.6	22089.4	994.6	22155	995.4	22231.3	997.7
22285	998.6								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17577.6	.043	18917.5	.043	18981	.032	20770.4	.032	21088.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18917.5	20770.4	175	171.89	125	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17577.6	17800	999	21400	22285	999

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	994.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.51	Wt. n-Val.	0.043	0.032	0.031
E.G. Elev (ft)	994.50	Reach Len. (ft)	175.00	171.89	125.00
Crit W.S. (ft)	986.90	Flow Area (sq ft)	4969.12	23600.91	2927.49
E.G. Slope (ft/ft)	0.000544	Area (sq ft)	5044.20	23600.91	3139.79
Q Total (cfs)	166000.00	Flow (cfs)	12628.40	142594.56	10777.03
Top Width (ft)	3841.72	Top Width (ft)	1030.25	1806.77	1004.71
Vel Total (ft/s)	5.27	Avg. Vel. (ft/s)	2.54	6.04	3.68
Max Chl Dpth (ft)	17.90	Hydr. Depth (ft)	5.45	13.06	4.75
Conv. Total (cfs)	7116403.0	Conv. (cfs)	541378.3	6113014.5	462010.0
Length Wtd. (ft)	169.60	Wetted Per. (ft)	915.11	1815.67	618.55
Min Ch El (ft)	976.10	Shear (lb/sq ft)	0.18	0.44	0.16
Alpha	1.18	Stream Power (lb/ft s)	0.47	2.67	0.59
Frctn Loss (ft)	0.07	Cum Volume (acre-ft)	5624.01	17490.56	1304.98
C & E Loss (ft)	0.03	Cum SA (acres)	1548.48	1863.90	611.14

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

17756.25	17845.58	12.54	22.56	36.07	0.01	0.63	0.56
17845.58	17934.91	473.03	269.71	76.92	0.28	3.53	1.75
17934.91	18024.23	724.45	369.80	89.34	0.44	4.14	1.96
18024.23	18113.56	1067.76	466.69	89.33	0.64	5.22	2.29
18113.56	18202.89	1246.31	512.05	89.33	0.75	5.73	2.43
18202.89	18292.21	1064.97	465.95	89.33	0.64	5.22	2.29
18292.21	18381.54	862.29	410.52	89.33	0.52	4.60	2.10
18381.54	18470.87	962.44	438.50	89.33	0.58	4.91	2.19
18470.87	18560.19	900.51	421.43	89.38	0.54	4.72	2.14
18560.19	18649.52	3406.67	937.77	89.72	2.05	10.50	3.63
18649.52	18738.85	1907.46	654.14	87.03	1.15	7.64	2.92
18738.85	18917.50						
18917.50 LB	19288.08	29564.54	4648.87	334.67	17.81	13.99	6.36
19288.08	19658.66	44312.25	6392.21	374.97	26.69	17.25	6.93
19658.66	20029.24	32643.34	5301.59	371.51	19.66	14.31	6.16
20029.24	20399.82	25099.64	4525.26	370.90	15.12	12.21	5.55
20399.82	20770.40 RB	10974.81	2732.97	363.62	6.61	7.53	4.02
20770.40	20871.37	1336.49	438.68	88.71	0.81	4.99	3.05
20871.37	20972.35	3366.00	805.80	101.49	2.03	7.98	4.18
20972.35	21073.32	4194.39	918.15	101.12	2.53	9.09	4.57
21073.32	21174.29	1009.07	344.90	101.46	0.61	3.42	2.93
21174.29	21275.27	517.17	225.44	101.04	0.31	2.23	2.29
21275.27	21376.24	310.51	165.95	100.98	0.19	1.64	1.87
21376.24	21477.21	43.41	28.57	23.76	0.03	1.20	1.52

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 205.4

INPUT
Description: 205.4
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17511.1	996.9	17519.9	996.9	17605.2	997.3	17609	997.3	17712.9	997.8
17756.7	992.2	17854.3	993.8	17914.6	991.3	17916.5	991.2	17968.9	990.2
18031	989.2	18084.1	988.8	18154.5	988.3	18213.4	988.3	18281.7	988.2
18304.7	988.2	18362.5	988.2	18388.7	988.6	18461.3	988.1	18529.4	988.4
18564.6	988.5	18633.4	988.7	18712.8	988.5	18774.2	988.2	18787.4	988.1
18843.8	987.9	18915.9	985.1	18943.3	984.3	19013.3	982.5	19020	982.2985
19079.8	980.5	19133	979.1	19154.8	978.5	19196.1	978.7	19231.1	977.1
19260.1	977.2	19291.7	976.5	19304.1	976.8	19364.1	975.5	19377.1	975.5
19436	975.7	19498.9	975.9	19564	975.7	19635.3	976.2	19694.9	976.3
19718.4	976.2	19774.1	976.1	19840.5	976	19902.9	976	19988.4	976
20047.6	976.1	20060.4	976.2	20120.1	976.4	20173.6	976.9	20230.4	977.5
20290.1	977.8	20348.4	979	20391.6	980.6	20448.9	982.1	20522.8	983.7
20592.3	985.3	20647.3	986.7	20692.4	987.2	20767.8	987.4	20829.1	987.4
20894.3	987.9	20922.5	988.1	20978.2	988.9	21055.7	989.4	21057.2	989.4
21142	989.4	21212	990.9	21270.2	991	21321.8	991.1	21338.9	991.2
21394.1	991.7	21407.6	991.9	21469.8	992.7	21547.3	993.5	21598.6	992.6
21619.5	993.7	21690.3	993.7	21721.2	993.7	21811.7	993.8	21872.4	994.2
21923.6	995.3	21941	995.5	22005.1	996.1	22017	996.2	22078.7	996.7
22181.1	997.7	22194.2	997.8	22249.3	998.6	22318.8	999	22386.3	999.2
22404.4	998.5	22455.6	999.3						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17511.1	.043	18843.8	.043	19079.8	.032	20767.8	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19020	20767.8	305	315	370	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17511.1	17800	999.3	21450	22455.6	999.3

Blocked Obstructions num= 1

Sta L	Sta R	Elev
17511.1	19020	988

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	993.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.41	Wt. n-Val.	0.043	0.032	0.032
E.G. Elev (ft)	994.40	Reach Len. (ft)	305.00	315.00	370.00
Crit W.S. (ft)	984.66	Flow Area (sq ft)	6163.33	26799.90	2955.60
E.G. Slope (ft/ft)	0.000362	Area (sq ft)	6237.96	26799.90	3172.11
Q Total (cfs)	164000.00	Flow (cfs)	11964.65	145097.92	6937.42

Top Width (ft)	4097.72	Top Width (ft)	1277.29	1747.80	1072.63
Vel Total (ft/s)	4.57	Avg. Vel. (ft/s)	1.94	5.41	2.35
Max Chl Dpth (ft)	18.49	Hydr. Depth (ft)	5.05	15.33	4.33
Conv. Total (cfs)	8622105.0	Conv. (cfs)	629027.2	7628351.0	364726.5
Length Wtd. (ft)	317.46	Wetted Per. (ft)	1220.09	1753.75	682.23
Min Ch El (ft)	975.50	Shear (lb/sq ft)	0.11	0.35	0.10
Alpha	1.27	Stream Power (lb/ft s)	0.22	1.87	0.23
Frctn Loss (ft)	0.18	Cum Volume (acre-ft)	5601.35	17391.12	1295.92
C & E Loss (ft)	0.02	Cum SA (acres)	1543.85	1856.89	608.16

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17712.29	17812.88	7.75	12.54	12.88	0.00	0.97	0.62
17812.88	17913.47	68.71	105.69	100.65	0.04	1.05	0.65
17913.47	18014.07	550.07	368.14	100.61	0.34	3.66	1.49
18014.07	18114.66	933.58	505.63	100.60	0.57	5.03	1.85
18114.66	18215.25	1128.93	566.68	100.59	0.69	5.63	1.99
18215.25	18315.85	1170.59	579.12	100.59	0.71	5.76	2.02
18315.85	18416.44	1135.58	568.68	100.60	0.69	5.65	2.00
18416.44	18517.03	1168.99	578.66	100.60	0.71	5.75	2.02
18517.03	18617.63	1078.79	551.44	100.59	0.66	5.48	1.96
18617.63	18718.22	1046.68	541.53	100.59	0.64	5.38	1.93
18718.22	18818.81	1174.32	580.24	100.59	0.72	5.77	2.02
18818.81	18919.41	1250.33	602.49	100.59	0.76	5.99	2.08
18919.41	19020.00	1250.33	602.49	100.59	0.76	5.99	2.08
19020.00 LB	19369.56	28330.90	5453.86	355.38	17.27	15.60	5.19
19369.56	19719.12	37444.63	6323.93	349.56	22.83	18.09	5.92
19719.12	20068.68	36915.63	6270.14	349.56	22.51	17.94	5.89
20068.68	20418.24	30891.43	5634.86	349.62	18.84	16.12	5.48
20418.24	20767.80 RB	11515.35	3117.10	349.63	7.02	8.92	3.69
20767.80	20880.32	2114.25	731.37	112.52	1.29	6.50	2.89
20880.32	20992.84	1667.73	634.34	112.53	1.02	5.64	2.63
20992.84	21105.36	1232.76	529.14	112.52	0.75	4.70	2.33
21105.36	21217.88	958.59	455.03	112.54	0.58	4.04	2.11
21217.88	21330.40	575.60	335.05	112.52	0.35	2.98	1.72
21330.40	21442.92	375.76	259.42	112.53	0.23	2.31	1.45
21442.92	21555.44	12.72	11.25	7.08	0.01	1.59	1.13

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 205.34

INPUT
Description: 205.34
Station Elevation Data num= 268

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13687.27	990.71	3918.08	990.68	13941.26	990.71	4074.31	990.74	14097.95	990.77
14379.8	991.21	4502.02	991.27	14504.17	991.32	14654.78	991.45	14667.42	991.12
14692.66	99	314709.75	992.96	14715.8	991.19	14721	993.28	14723.16	993.14
14738.13	990.91	4750.87	991.89	14755.59	992.51	4795.12	991.61	4806.23	991.16
14847.09	991.61	5017.82	991.67	15028.83	991.05	15074.2	990.91	5389.93	990.38
15426.63	990.41	5457.08	991.76	15497.69	991.91	15548.79	991.74	15599.83	990.06
15624.82	992.51	5632.81	992.18	15645.65	991.27	15655.09	992.74	15660.02	991.59
15665.1	993.61	5682.98	994.84	15701.37	993.32	15707.96	993.32	15720.14	993.51
15863.53	993.41	5962.36	993.78	16143.17	993.71	6302.48	993.53	16434.69	994
16540.11	994.5	16630.9	994.03	16710.83	993.42	16732.11	994.29	16741.14	994.53
16755.65	994.81	6763.06	993.99	16780.42	993.76	16789.57	993.41	6811.41	992.38
16945.01	992.91	7037.42	993.38	17118.17	992.91	7138.04	992.78	17279.36	992.27
17420.37	992.11	7527.98	992.75	17560.1	992.78	17728.5	991.33	17729.54	991.26
17753.81	988.51	7789.02	988.81	7833.72	989.11	7845.57	991.95	17853.64	990.8
17860.73	99	217869.58	99	217881.45	991.84	17895.69	992.13	17897.64	994.57
17904.21	994.51	7909.94	991.82	17920.11	988.79	17940.57	989.61	17986.35	989.54
18002.56	989.71	8065.95	989.16	18080.07	988.83	18116.41	988.38	18122.12	987.76
18187.93	987.41	8195.48	987.36	18246.02	987.58	18264.37	987.64	18314.54	986.65
18327.91	986.81	8350.36	988.11	18365.79	988.58	18392.98	988.65	18415.65	990.57
18418	99	118432.37	990.82	18481.36	991.38	18548.7	990.72	18596.12	990.95

18645.9	99518660.36	994.9818676.98	995.0618724.18	991.4718772.07	990.61
18787.28	990.318822.48	988.85 18833.8	988.7918853.31	988.4818883.89	988.52
18895.6	987.7 18912.2	992.1218970.58	990.1619022.37	991.3519035.55	989.07
19043.96	988.619066.14	988.56 19076.9	991.3319096.79	993.0719099.41	993.11
19116.55	988.419170.12	987.719232.28	987.219252.59	986.66 19258.9	986.61
19276.73	986.119284.34	985.9919293.57	985.3919297.05	984.9419318.57	978.71
19328.6	976.919337.34	97619422.11	976.1819470.05	976.22 19524.9	976.33
19562.89	976.719632.66	976.0919705.72	976.4319754.05	976.6319843.53	976.95
19853.47	97719865.48	976.519880.46	976.3619890.89	975.8119912.96	977.83
19933.5	976.919947.42	976.619979.26	976.26 20010.7	976.0820051.63	975.84
20062.33	975.720073.85	975.5720119.54	976.87 20199.2	978.2920212.26	978.81
20258.32	980.920264.39	980.66 20329.9	980.6420332.62	980.4120369.18	979.74
20375	980.1 20380.1	980.6320381.06	981.0320388.75	983.0320395.38	983.51
20436.76	985.120502.38	985.6120525.59	985.520561.61	985.7420587.94	985.95
20626.14	985.820644.89	985.7420678.28	985.5520707.29	986.1820742.96	987
20746.96	986.620752.64	985.5420762.54	985.0520787.99	983.0120822.69	985.52
20836.01	987.120844.69	986.9620890.92	987.1920931.14	987.6220978.97	988.36
21006.5	988.721057.23	989.3821083.41	989.721100.77	990.25 21161.6	990.89
21172.71	99121247.07	990.97 21252.7	990.9921266.22	990.7621277.98	990.73
21290.76	992.8 21299	991.1421333.63	991.1321435.22	991.221524.43	991.65
21554.31	991.6 21567.7	991.7221625.82	992.321657.32	992.4221684.03	992.58
21782.19	993.421851.31	993.7221863.14	993.921872.38	994.1621891.44	994.52
21949.81	994.621975.44	994.9221995.48	994.9122007.76	995.2522037.54	996.24
22051.44	996.622075.07	997.6322125.13	998.6122139.54	998.9522159.57	998.78
22179.58	998.822264.13	998.322280.55	998.0322353.16	997.9122369.37	997.91
22404.01	99822463.45	998.2722491.06	998.822531.57	998.5222560.64	998.76
22593.64	998.8 22617.2	999.0722646.25	999.1222676.56	998.9422686.88	999.19
22731.76	1000.522770.23	1000.7922779.44	1001.3422789.67	1000.9722824.65	1001.12
22886.17	1001.722901.04	1001.6722978.01	1002.0623003.78	1002.23 23080.5	1002.51
23154.45	1002.823270.34	1003.4323291.75	1003.5623364.66	1004.1223410.89	1004.31
23481.28	1004.623504.95	1004.7623548.34	1004.8523582.71	1004.8423645.08	1005.05
23678.1	1005.223738.97	1005.2323762.47	1005.11 23813.7	1005.1223872.53	1005.28
23908.97	1005.423920.45	1005.5423934.72	1004.9423951.14	1004.4623976.71	1005.57
23998.12	1003.624004.04	1002.9424049.64	1002.74		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
13687.27	.04318481.36	.04320931.14	.025		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19284.3420742.96		485	492	450	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
13687.27	17900	1000	2140024049.64		1000

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	993.64	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.	0.043	0.043	0.033
E.G. Elev (ft)	994.20	Reach Len. (ft)	485.00	492.00	450.00
Crit W.S. (ft)	986.68	Flow Area (sq ft)	5631.82	20855.17	3037.12
E.G. Slope (ft/ft)	0.001005	Area (sq ft)	12324.10	20855.17	3643.13
Q Total (cfs)	164000.00	Flow (cfs)	16574.65	134496.09	12929.26
Top Width (ft)	7349.09	Top Width (ft)	4799.50	1458.62	1090.97
Vel Total (ft/s)	5.55	Avg. Vel. (ft/s)	2.94	6.45	4.26
Max Chl Dpth (ft)	18.07	Hydr. Depth (ft)	4.29	14.30	4.62
Conv. Total (cfs)	5172364.0	Conv. (cfs)	522744.8	4241846.0	407773.3
Length Wtd. (ft)	488.72	Wetted Per. (ft)	1315.08	1460.47	657.80
Min Ch El (ft)	975.57	Shear (lb/sq ft)	0.27	0.90	0.29
Alpha	1.18	Stream Power (lb/ft s)	0.79	5.78	1.23
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)	5536.36	17218.81	1266.98
C & E Loss (ft)	0.00	Cum SA (acres)	1522.57	1845.29	598.97

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17791.79	18164.93	3588.76	1183.39	259.78	2.19	4.57	3.03
18164.93	18538.06	5631.67	1792.80	373.32	3.43	4.80	3.14
18538.06	18911.20	2379.33	989.25	307.47	1.45	3.23	2.41
18911.20	19284.34	4974.88	1666.37	374.51	3.03	4.47	2.99
19284.34 LB	19576.06	32937.25	4816.83	292.87	20.08	16.51	6.84

19576.06	19867.79	35043.80	4991.66	291.74	21.37	17.11	7.02
19867.79	20159.51	35285.45	5013.27	291.88	21.52	17.19	7.04
20159.51	20451.24	21662.10	3742.76	292.23	13.21	12.83	5.79
20451.24	20742.96 RB	9567.49	2290.66	291.75	5.83	7.85	4.18
20742.96	20963.41	7033.13	1618.22	220.85	4.29	7.34	4.35
20963.41	21183.85	4043.63	875.07	220.47	2.47	3.97	4.62
21183.85	21404.30	1852.49	543.83	216.48	1.13	2.52	3.41

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 205.25

INPUT
Description: 205.25
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16580.4	994	16657.1	994	16708.3	993.9	16776.5	993.6	16819.1	994.5
16845.8	992.8	16892.9	992.2	16971.6	992.3	17154.1	993.1	17172.8	993.1
17289.2	992.5	17431.5	991.8	17455.8	991.6	17644.6	992.5	17718.9	992.3
17808.9	991.8	17842.7	989.1	17907.9	989.9	17920.6	992.1	17926.4	990.6
17933.2	992.4	17964.3	990.4	17989.2	990.3	17999.1	987.6	18061	989.2
18108.7	990.1	18179	988.3	18216.3	987	18244.2	987.5	18311.6	987.2
18329.2	987.8	18392.2	987.8	18457.1	988.6	18493.2	989.2	18509.7	988.5
18583.8	989	18614.2	989.1	18647.4	988	18708.8	987.6	18775.5	989.5
18807.1	990	18886.3	989.2	18946.4	989	18990.4	988.1	19012.5	989.2
19101	990.2	19156.3	989.9	19179.1	987.1	19186.7	985.4	19228.7	983.3
19242.4	982	19306.5	983.4	19368.3	983.9	19442.9	983.5	19503.3	984.6
19563	981.8	19581.1	985.9	19632.5	986.1	19671.9	987.3	19726.2	975.8
19815.7	975.6	19878.1	976.2	19957	975.9	20042	975.5	20112.8	975.3
20121.8	975.7	20160.5	973.8	20242	973.4	20260.5	974.6	20329.5	975
20404.8	975.5	20471.4	978.3	20486.8	979.5	20522.9	977.9	20526	975.8
20552.9	975.9	20584.6	974.1	20632.4	973.9	20697	975.7	20712	975.7
20738.9	981.7	20741.5	980.7	20782.3	986.4	20848.1	987.4	20923.8	989.9
21014.3	990.6	21121.3	991.6	21201.7	992.1	21283.6	992.1	21338.5	993.1
21347.9	993.8	21358.2	992.2	21370.3	995.6	21409.5	995.7	21424	994.5
21499.5	993.3								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16580.4	.025	18108.7	.037	19671.9	.037	20782.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19671.9	20782.3	505	506	485	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16580.4	17950	995.7	21347.9	21499.5	995.7

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	993.26	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.	0.036	0.037	0.025
E.G. Elev (ft)	993.82	Reach Len. (ft)	505.00	506.00	485.00
Crit W.S. (ft)	985.26	Flow Area (sq ft)	10028.46	18998.39	1514.71
E.G. Slope (ft/ft)	0.000623	Area (sq ft)	11314.56	18998.39	1520.31
Q Total (cfs)	164000.00	Flow (cfs)	33461.84	126168.16	4370.00
Top Width (ft)	4512.59	Top Width (ft)	2833.29	1110.40	568.90
Vel Total (ft/s)	5.37	Avg. Vel. (ft/s)	3.34	6.64	2.89
Max Chl Dpth (ft)	19.86	Hydr. Depth (ft)	5.82	17.11	2.71
Conv. Total (cfs)	6571643.5	Conv. (cfs)	1340849.3	5055684.0	175110.3
Length Wtd. (ft)	505.35	Wetted Per. (ft)	1723.55	1113.81	558.40
Min Ch El (ft)	973.40	Shear (lb/sq ft)	0.23	0.66	0.11
Alpha	1.26	Stream Power (lb/ft s)	0.75	4.40	0.30
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)	5404.76	16993.74	1240.31
C & E Loss (ft)	0.09	Cum SA (acres)	1480.08	1830.78	590.40

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17817.00	18023.10	949.00	277.71	73.50	0.58	3.80	3.42
18023.10	18229.20	2772.48	918.19	206.17	1.69	4.46	3.02
18229.20	18435.30	3471.17	1155.59	206.12	2.12	5.61	3.00
18435.30	18641.40	2381.72	921.87	206.14	1.45	4.47	2.58
18641.40	18847.50	2420.46	930.84	206.14	1.48	4.52	2.60
18847.50	19053.60	2145.98	865.99	206.14	1.31	4.20	2.48
19053.60	19259.70	3730.77	1207.79	206.58	2.27	5.86	3.09
19259.70	19465.80	8737.86	2010.77	206.12	5.33	9.76	4.35
19465.80	19671.90	6852.41	1739.69	206.65	4.18	8.44	3.94
19671.90 LB	19893.98	22569.58	3561.72	223.29	13.76	16.04	6.34
19893.98	20116.06	26365.29	3901.46	222.08	16.08	17.57	6.76
20116.06	20338.14	29891.34	4207.31	222.17	18.23	18.94	7.10
20338.14	20560.22	23887.06	3682.35	222.88	14.57	16.58	6.49
20560.22	20782.30 RB	23454.88	3645.55	223.39	14.30	16.42	6.43
20782.30	20830.11	1296.49	310.53	47.82	0.79	6.49	4.18
20830.11	20877.93	1013.23	267.87	47.83	0.62	5.60	3.78
20877.93	20925.74	598.34	195.29	47.84	0.36	4.08	3.06
20925.74	20973.55	389.88	151.01	47.82	0.24	3.16	2.58
20973.55	21021.37	316.63	133.28	47.81	0.19	2.79	2.38
21021.37	21069.18	241.38	113.25	47.81	0.15	2.37	2.13
21069.18	21116.99	170.37	91.89	47.82	0.10	1.92	1.85
21116.99	21164.81	117.38	73.48	47.81	0.07	1.54	1.60
21164.81	21212.62	82.82	59.61	47.82	0.05	1.25	1.39
21212.62	21260.43	73.25	55.37	47.81	0.04	1.16	1.32
21260.43	21308.25	61.46	49.84	47.82	0.04	1.04	1.23
21308.25	21356.06	8.80	13.29	32.39	0.01	0.41	0.66

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 205.15

INPUT
Description: 205.15
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18001.2	994	18008.5	992.8	18015.6	994.9	18038.3	990.9	18047.4	991.8
18061.5	992.1	18077.6	991.6	18146.4	988.8	18170.1	988.9	18200.6	988.3
18243	988.8	18269.7	988.5	18292.3	988.8	18341.7	989.8	18374.9	990.2
18415.6	990.6	18438.3	991.1	18547.3	991	18558.8	991.1	18618.4	991.8
18625.4	991.9	18687.7	991.3	18696.2	991.3	18745.4	991.4	18794.1	991.1
18810	991.2	18866.4	991	18894.1	991.2	18920.9	990.7	18973.2	990.3
19018.9	989.8	19055.8	989.7	19109.2	989.4	19141.8	988.8	19181.8	988.8
19228.5	988.7	19285.2	989.2	19335.5	988.1	19346.3	987.8	19386.8	986.1
19394.2	985.9	19440.1	984.4	19443.6	984.3	19490	983.7	19506.7	983.8
19532.2	982.8	19587.2	983.3	19612.4	983.6	19619.1	984.1	19660.7	983.9
19705.1	983.1	19747.1	983.7	19787.1	984.9	19805.2	976.8	19822.3	973.4
19827.6	974.7	19829.5	974.2	19853	974.2	19880.4	973.6	19881.2	973.1
19908.4	980	19918.9	982.2	19934	984.3	19978.1	984.9	20006.4	984.1
20054.3	983.8	20064.2	983.5	20106.6	982	20110.7	981.8	20166.7	979
20196.8	978.1	20246.3	976.6	20250.4	976.4	20298.9	975.4	20340.8	975.5
20371.6	975.7	20436.2	974	20495	974.1	20608.2	975.2	20651	975.7
20691.5	977.2	20705.2	979.5	20746.3	987.3	20793.1	987.9	20838	988.7
20896.6	989.6	20910.7	990.1	20968.3	990.3	20999	990.6	21039.8	990.8
21107	991.7	21127.2	991.3	21170.3	994.1	21206.9	995.7	21258.6	996.3
21293	996.4								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18001.2	.025	18146.4	.037	19787.1	.037	20746.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19787.1	20746.3	495	495.39	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18001.2	18061.5	995	21293	21293	996.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	991.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.46	Wt. n-Val.	0.037	0.037	0.025
E.G. Elev (ft)	993.21	Reach Len. (ft)	495.00	495.39	495.00
Crit W.S. (ft)	987.56	Flow Area (sq ft)	5456.13	13248.98	742.33
E.G. Slope (ft/ft)	0.002039	Area (sq ft)	5461.90	13248.98	742.33
Q Total (cfs)	164000.00	Flow (cfs)	23073.87	137855.30	3070.83
Top Width (ft)	3049.13	Top Width (ft)	1702.03	959.20	387.90
Vel Total (ft/s)	8.43	Avg. Vel. (ft/s)	4.23	10.40	4.14
Max Chl Dpth (ft)	18.65	Hydr. Depth (ft)	3.23	13.81	1.91
Conv. Total (cfs)	3631815.3	Conv. (cfs)	510975.8	3052835.3	68004.3
Length Wtd. (ft)	495.35	Wetted Per. (ft)	1688.81	964.03	387.95
Min Ch El (ft)	973.10	Shear (lb/sq ft)	0.41	1.75	0.24
Alpha	1.32	Stream Power (lb/ft s)	1.74	18.20	1.01
Frctn Loss (ft)	0.97	Cum Volume (acre-ft)	5307.52	16806.45	1227.71
C & E Loss (ft)	0.02	Cum SA (acres)	1453.79	1818.76	585.07

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18001.20	18120.26	85.06	44.02	47.68	0.05	0.92	1.93
18120.26	18239.32	1085.49	353.31	119.09	0.66	2.97	3.07
18239.32	18358.38	835.06	316.21	119.08	0.51	2.66	2.64
18358.38	18477.44	188.20	129.33	119.07	0.11	1.09	1.46
18477.44	18596.50	75.77	74.93	119.06	0.05	0.63	1.01
18596.50	18715.56	14.26	24.93	93.12	0.01	0.27	0.57
18715.56	18834.62	52.93	60.41	119.06	0.03	0.51	0.88
18834.62	18953.68	123.77	100.58	119.07	0.08	0.84	1.23
18953.68	19072.74	437.12	214.43	119.06	0.27	1.80	2.04
19072.74	19191.80	836.39	316.50	119.06	0.51	2.66	2.64
19191.80	19310.86	953.75	342.45	119.07	0.58	2.88	2.79
19310.86	19429.92	2371.85	591.66	119.13	1.45	4.97	4.01
19429.92	19548.98	5289.00	957.17	119.09	3.22	8.04	5.53
19548.98	19668.04	5433.47	972.74	119.08	3.31	8.17	5.59
19668.04	19787.10	5291.74	957.46	119.09	3.23	8.04	5.53
19787.10 LB	19978.94	24273.21	2500.52	195.52	14.80	13.03	9.71
19978.94	20170.78	13736.59	1763.98	191.96	8.38	9.20	7.79
20170.78	20362.62	31936.73	2926.03	191.89	19.47	15.25	10.91
20362.62	20554.46	39228.21	3310.08	191.87	23.92	17.25	11.85
20554.46	20746.30 RB	28680.56	2748.37	192.80	17.49	14.33	10.44
20746.30	20782.75	864.61	153.85	36.45	0.53	4.22	5.62
20782.75	20819.19	696.31	135.11	36.45	0.42	3.71	5.15
20819.19	20855.64	510.09	112.10	36.45	0.31	3.08	4.55
20855.64	20892.09	362.07	91.26	36.45	0.22	2.50	3.97
20892.09	20928.53	209.33	65.69	36.45	0.13	1.80	3.19
20928.53	20964.98	159.24	55.75	36.45	0.10	1.53	2.86
20964.98	21001.43	122.77	47.69	36.45	0.07	1.31	2.57
21001.43	21037.87	85.54	38.40	36.45	0.05	1.05	2.23
21037.87	21074.32	47.05	26.83	36.45	0.03	0.74	1.75
21074.32	21110.77	8.03	9.29	36.45	0.00	0.25	0.86
21110.77	21147.21	5.78	6.39	23.45	0.00	0.27	0.90

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 205.06

INPUT
Description: 205.06
Station Elevation Data num= 129

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17971	990.9	18065.3	988.6	18104.6	990.4	18115.6	988.2	18128.9	991.2
18143.2	991.5	18167.1	990.4	18222.4	988.9	18239	988.9	18268	988.1
18295.2	989	18314.3	988.5	18358.9	987.5	18410.5	986.7	18435.8	988.1
18478.4	994.2	18515	994	18541.2	993.6	18567.7	993	18668.2	993.4
18694.6	996.3	18716.8	994.1	18733	990.9	18773.1	991.2	18799	993.8
18844	996.4	18879.8	994	18912.8	991.3	18929.6	990.6	18948.8	990.9
18974.6	992.4	18989	991.8	18996.9	990.8	19026.5	996.8	19033.3	997.5
19038.3	998.5	19071.8	995.8	19078.5	994.1	19097.2	986.1	19133.8	987
19136.4	990.2	19142.8	992.6	19151.6	994.3	19202.7	994.1	19217.4	994.9
19226.3	988.3	19230.3	986.5	19252.3	985.8	19287.1	985.9	19329.2	986.2

19380.3	987.3	19388.1	987.3	19434.5	987.8	19445.1	987.8	19500.6	988.4
19538.9	988.7	19598.7	988.7	19648.7	990	19669.4	989.9	19722.7	988.3
19771.5	986.5	19803.6	986.4	19827.5	985.6	19841.3	984.7	19887	983.6
19904.2	973.1	19931.3	971.2	19981.6	971.1	19982.8	971.1	20027.4	970.5
20053.2	971.3	20073.5	976.1	20120.4	976.2	20137.3	976.4	20147.5	981
20155.4	983.6	20196	987.3	20208.9	986.1	20221.7	985.3	20253.8	981
20275.4	981	20301.5	975.4	20306.9	975.1	20315.2	975.1	20365	974.5
20425.5	974.6	20470.1	974.5	20497.9	974.4	20563.5	973.5	20601.9	973.2
20671.9	974	20850.2	976	20856.8	977.9	20880.3	977.7	20892.4	984.3
20905.3	990.8	20927.2	991.2	20971.3	992	21020.6	993	21062.7	993.2
21101.6	993.3	21146	993.7	21204.6	993.9	21256.1	994.5	21300.3	994.8
21336.3	994.9	21378.2	995	21414.7	995.2	21457.8	995.2	21484.8	995.4
21512.4	994.7	21514.5	995.9	21516.2	996.3	21518.9	995.5	21525.9	994.3
21532.1	994.6	21537.4	995.2	21546	995	21560.5	995.3	21575	995
21602.5	996.4	21628.8	996.3	21672.8	996.3	21709.9	996.5	21754.4	996.4
21826.9	996.1	21895.5	996.5	21951.4	996.6	21997.9	996.4		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17971	.037	19026.5	.037	19669.4	.037	20905.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19669.4	20905.3	505	505	530	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17971	18080	998.5	21997.9	21997.9	998.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	990.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.37	Wt. n-Val.	0.037	0.037	0.025
E.G. Elev (ft)	992.22	Reach Len. (ft)	505.00	505.00	530.00
Crit W.S. (ft)	984.94	Flow Area (sq ft)	2334.82	16203.33	0.05
E.G. Slope (ft/ft)	0.001876	Area (sq ft)	2466.12	16203.33	0.05
Q Total (cfs)	164000.00	Flow (cfs)	8132.39	155867.59	0.01
Top Width (ft)	2210.49	Top Width (ft)	972.16	1235.90	2.43
Vel Total (ft/s)	8.85	Avg. Vel. (ft/s)	3.48	9.62	0.20
Max Chl Dpth (ft)	20.34	Hydr. Depth (ft)	2.70	13.11	0.02
Conv. Total (cfs)	3786910.3	Conv. (cfs)	187784.4	3599125.5	0.3
Length Wtd. (ft)	505.01	Wetted Per. (ft)	870.21	1245.68	2.43
Min Ch El (ft)	970.50	Shear (lb/sq ft)	0.31	1.52	0.00
Alpha	1.13	Stream Power (lb/ft s)	1.09	14.65	0.00
Frctn Loss (ft)	0.73	Cum Volume (acre-ft)	5262.47	16638.97	1223.49
C & E Loss (ft)	0.19	Cum SA (acres)	1438.60	1806.28	582.86

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17971.00	18084.23	13.14	6.23	4.23	0.01	1.47	2.11
18084.23	18197.45	124.31	79.17	83.66	0.08	0.95	1.57
18197.45	18310.68	620.15	234.41	113.27	0.38	2.07	2.65
18310.68	18423.91	1381.00	378.96	113.27	0.84	3.35	3.64
18423.91	18537.13	163.07	62.85	31.27	0.10	2.02	2.59
18537.13	18876.81						
18876.81	18990.04	1.05	2.63	21.51	0.00	0.12	0.40
18990.04	19103.27	181.97	54.66	18.71	0.11	3.08	3.33
19103.27	19216.49	527.44	135.23	36.50	0.32	3.88	3.90
19216.49	19329.72	2257.29	499.47	108.09	1.38	4.67	4.52
19329.72	19442.95	1594.22	413.02	113.24	0.97	3.65	3.86
19442.95	19556.17	852.91	283.77	113.23	0.52	2.51	3.01
19556.17	19669.40	415.83	184.41	113.24	0.25	1.63	2.25
19669.40 LB	19916.58	6720.74	1342.36	250.28	4.10	5.43	5.01
19916.58	20163.76	45757.85	4236.16	249.23	27.90	17.14	10.80
20163.76	20410.94	23469.96	2833.61	248.29	14.31	11.46	8.28
20410.94	20658.12	44874.19	4173.12	247.19	27.36	16.88	10.75
20658.12	20905.30 RB	35044.84	3618.08	250.69	21.37	14.64	9.69
20905.30	20978.14	0.01	0.05	2.43	0.00	0.02	0.20

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need

for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.97

INPUT
Description: 204.97

Left Channel Bank Station Interpolated
Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16000	993.3	16025.7	992.1	16060.7	991.7	16273.1	992.3	16303.1	992.4
16597.7	992.1	16613.7	992	16818.7	992	16912.8	992.3	17061.4	992.3
17169.3	991.7	17232.9	991.8	17259.7	989	17316.4	990.2	17470.6	990.2
17483.4	990.2	17700.5	989.9	17786.2	989.2	17832.4	989	17894.5	988.9
17924.8	989.2	17933.3	990.5	17979.7	992.1	17985.3	991.5	17994.8	988.7
18008.6	988.7	18105.1	987.6	18137.2	986.9	18189.2	987.8	18201.2	986.8
18216.4	989.2	18243.6	989.2	18301.9	989	18377.5	989.6	18462.9	990.2
18523.7	988.6	18573.9	986	18643	986.6	18672	985.8	18672.9	984.9
18697.7	984.3	18729.6	988.3	18807.2	987.9	18833	984	18865.3	987.3
18888.3	985.4	18917	987.8	18955.4	987.9	18987.3	984.9	19046.8	987.1
19093.5	986.8	19152.6	983.5	19285.8	983.8	19317.6	981.5	19332.9	979.1
19418.6	978	19438.3	978.8	19545	978.843	19934.7	979	19938.2	981.1
19945.9	981.9	20008.7	980.8	20068.2	980.2	20091.8	979.6	20151.8	979.3
20225.8	978.1	20300.7	979	20367.2	979.3	20442.3	978.7	20509.6	977.2
20568	974.8	20659.1	973.3	20662.9	973.3	20925.5	975.4	20961.3	988.6
20999.4	990.2	21056.8	990.8	21126.2	991.7	21187	992.8	21200.2	992.9
21265.2	993	21340.5	993	21356.1	993	21427.5	993.4	21492.8	993.1
21496	993.1								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16000	.025	18301.9	.037	19046.8	.037	20961.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19545	20961.3	510	503	550	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16000	18200	993.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	990.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.74	Wt. n-Val.	0.037	0.037	0.025
E.G. Elev (ft)	991.30	Reach Len. (ft)	510.00	503.00	550.00
Crit W.S. (ft)	984.94	Flow Area (sq ft)	6790.38	17977.70	50.63
E.G. Slope (ft/ft)	0.001134	Area (sq ft)	7907.97	17977.70	50.63
Q Total (cfs)	164000.00	Flow (cfs)	31809.95	132110.56	79.49
Top Width (ft)	3736.07	Top Width (ft)	2246.92	1416.30	72.85
Vel Total (ft/s)	6.61	Avg. Vel. (ft/s)	4.68	7.35	1.57
Max Chl Dpth (ft)	17.26	Hydr. Depth (ft)	5.05	12.69	0.69
Conv. Total (cfs)	4869885.0	Conv. (cfs)	944578.1	3922946.5	2360.3
Length Wtd. (ft)	504.14	Wetted Per. (ft)	1347.14	1419.41	72.89
Min Ch El (ft)	973.30	Shear (lb/sq ft)	0.36	0.90	0.05
Alpha	1.09	Stream Power (lb/ft s)	1.67	6.59	0.08
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	5202.34	16440.84	1223.18
C & E Loss (ft)	0.04	Cum SA (acres)	1419.94	1790.91	582.40

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18127.00	18363.33	555.32	246.86	163.53	0.34	1.51	2.25
18363.33	18599.67	784.65	420.32	236.42	0.48	1.78	1.87
18599.67	18836.00	2911.36	924.40	237.29	1.78	3.91	3.15
18836.00	19072.33	3046.15	949.15	236.85	1.86	4.02	3.21
19072.33	19308.67	6484.04	1492.54	236.48	3.95	6.32	4.34
19308.67	19545.00	18028.45	2757.11	236.57	10.99	11.67	6.54
19545.00 LB	19828.26	22735.44	3303.70	283.26	13.86	11.66	6.88
19828.26	20111.52	19178.68	2985.82	283.90	11.69	10.54	6.42
20111.52	20394.78	22691.73	3299.98	283.28	13.84	11.65	6.88
20394.78	20678.04	32373.04	4084.49	283.34	19.74	14.42	7.93
20678.04	20961.30 RB	35131.67	4303.70	285.62	21.42	15.19	8.16
20961.30	20996.95	75.58	43.30	35.68	0.05	1.21	1.75

20996.95	21032.59	3.90	7.32	35.65	0.00	0.21	0.53
21032.59	21068.24	0.00	0.01	1.56	0.00	0.01	0.06

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.87

INPUT
Description: 204.87

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17067.4	991.5	17111.3	991.5	17255	990.6	17291.2	991.6	17298.2	992.1
17315.9	991	17328.2	990.9	17345.3	988.6	17426.3	988	17520.6	988.2
17594.7	988.5	17781.4	988.6	17822.3	988.5	17925.1	988.2	18001	987.2
18108.5	987.1	18221.3	987.3	18261.7	986.3	18269.2	986.9	18279.6	985.4
18296.9	986.8	18325.5	986.8	18352.2	985.5	18429.1	985.3	18501.3	985.6
18553	984.4	18559.8	986.3	18565.9	988.9	18578.6	987.7	18604.1	983.9
18645.9	981.4	18657.3	984	18678.8	986.2	18730	987.6	18832.5	987.5
18855.2	985.7	18859.7	984.6	18874.5	986.6	18920.1	984.6	18942.9	980.4
18960	980.8	18970.7	982.4	19015.9	985.9	19104.6	986.7	19209.9	985.7
19234.9	985	19264.2	982.7	19275.4	983.5	19297.4	981	19382.3	981.4
19462.8	981	19532.8	979	19555.4	979.1	19566	978.5	19579.4	978.5
19588.4	976.2	19598.7	976.3	19623.4	978.5	19628	979.5	19642.3	981
19714.7	981	19730.8	981	19759.9	975.9	19765	976.4	19772.7	975.9
19854.5	975.9	19859.5	975.9	19861.3	977.3	19877.6	980.8	19890	975.9
19903.3	969.9	19909.9	970	19919.2	968.1	20001	968.1	20022.9	968.1
20059.2	975.3	20126.4	976.2	20213.9	975.3	20298.1	974.9	20351	974.8
20377.2	977.3	20393.3	977.5	20505.4	975.8	20559.1	974.3	20612	976.5
20624.2	974.6	20654.3	973.2	20826.7	974.3	20919.3	974.9	20939.9	984.7
20954.34	991.1405	20961.2	994.2	20981.5	994.3	21037.9	989.4	21047	990.3
21137.3	991.2	21197.6	991.4						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17067.4	.025	18221.3	.037	19462.8	.037	20961.2	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19462.82	20954.34		495	499	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17067.4	18300	994.3	20961.2	21197.6	994.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	990.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.61	Wt. n-Val.	0.037	0.037	
E.G. Elev (ft)	990.80	Reach Len. (ft)	495.00	499.00	505.00
Crit W.S. (ft)	982.85	Flow Area (sq ft)	6202.73	21657.64	
E.G. Slope (ft/ft)	0.000767	Area (sq ft)	8398.93	21657.64	6.71
Q Total (cfs)	164000.00	Flow (cfs)	21030.20	142969.80	
Top Width (ft)	3635.73	Top Width (ft)	2129.30	1489.40	17.03
Vel Total (ft/s)	5.89	Avg. Vel. (ft/s)	3.39	6.60	
Max Chl Dpth (ft)	22.09	Hydr. Depth (ft)	5.33	14.54	
Conv. Total (cfs)	5920435.5	Conv. (cfs)	759194.9	5161240.5	
Length Wtd. (ft)	498.39	Wetted Per. (ft)	1165.78	1498.26	
Min Ch El (ft)	968.10	Shear (lb/sq ft)	0.25	0.69	
Alpha	1.14	Stream Power (lb/ft s)	0.86	4.57	
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	5106.88	16212.00	1222.82
C & E Loss (ft)	0.05	Cum SA (acres)	1394.32	1774.13	581.83

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18185.25	18344.95	398.72	161.47	44.97	0.24	3.59	2.47
18344.95	18504.64	2256.36	758.39	159.70	1.38	4.75	2.98
18504.64	18664.33	2865.61	878.70	161.24	1.75	5.50	3.26
18664.33	18824.03	1068.26	484.33	159.79	0.65	3.03	2.21
18824.03	18983.72	3157.23	929.88	160.62	1.93	5.82	3.40
18983.72	19143.41	1813.71	665.41	159.80	1.11	4.17	2.73

19143.41	19303.11	2944.82	890.36	159.97	1.80	5.58	3.31
19303.11	19462.80	6525.49	1434.19	159.70	3.98	8.98	4.55
19462.80 LB	19761.11	16897.15	3182.53	299.38	10.30	10.67	5.31
19761.11	20059.42	39035.33	5280.29	302.32	23.80	17.70	7.39
20059.42	20357.72	29205.29	4413.32	298.35	17.81	14.79	6.62
20357.72	20656.03	27794.70	4285.91	298.66	16.95	14.37	6.49
20656.03	20954.34 RB	30037.33	4495.59	299.56	18.32	15.18	6.68

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.78

INPUT
Description: 204.78

Right Channel Bank Station Interpolated
Station Elevation Data num= 87

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16026.1	987.6	16094.8	987.3	16113.5	986.9	16143.6	989.2	16147.7	990.2
16176.4	990.8	16200.6	988.8	16231.8	988.4	16338.9	988.8	16416.1	988.9
16579.2	988.9	16686	989.1	16786.7	989.1	16866.8	989.3	17093.1	989.3
17192.6	989.3	17283.5	988	17369.3	988	17407.5	989.7	17420.2	988
17479.3	987	17521.2	986.9	17670.9	988	17754.2	987.8	17912.8	987.4
17952.6	987.1	18028.5	987	18174.7	986.5	18221.6	986.3	18279.6	986.1
18350.4	984.9	18361.8	983	18373.6	985.9	18402.3	985.9	18413.2	983.6
18427.5	987.2	18487.5	986.4	18504	984.4	18585.3	983.7	18598.2	984.9
18667.6	983.9	18753.3	984.6	18756.1	984.9	18767.8	981.3	18836.7	981
19173.1	979.8	19219.1	979.8	19295.8	977.2	19323.7	977.5	19337.5	981
19356.4	981	19398.6	983	19409.2	982.4	19419.8	979.2	19429.6	977.4
19432.3	975.9	19489.4	975.9	19561.1	974.8	19621.6	973	19660.7	972.1
19667.7	970.8	19677.1	967.6	19767.4	968.8	19768	968.8	19935.5	968
19986.5	968	20033.8	975.7	20056.9	977.8	20073.7	975.3	20160.4	975
20170.8	975.3	20229.5	975	20246.7	975	20324.8	974.9	20340	975
20452	975.9	20510.9	973	20530.9	973.1	20662.3	973.7	20706.1	973.8
20782.6	974.9	20801.8	975.1	20832.33	990.9	976 20840.4	995.2	20866.6	994.5
20921.2	988.9	20982.7	988.3						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16026.1	.025	18427.5	.037	19398.6	.037	20840.4	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19398.6	20832.33	505	515	550	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16026.1	18400	995.2	20840.4	20982.7	995.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	990.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.45	Wt. n-Val.	0.037	0.037	
E.G. Elev (ft)	990.45	Reach Len. (ft)	505.00	515.00	550.00
Crit W.S. (ft)	980.95	Flow Area (sq ft)	8139.73	23734.71	
E.G. Slope (ft/ft)	0.000477	Area (sq ft)	12727.67	23734.71	92.42
Q Total (cfs)	164000.00	Flow (cfs)	29110.95	134889.06	
Top Width (ft)	4837.50	Top Width (ft)	3333.40	1431.83	72.28
Vel Total (ft/s)	5.15	Avg. Vel. (ft/s)	3.58	5.68	
Max Chl Dpth (ft)	22.41	Hydr. Depth (ft)	8.15	16.58	
Conv. Total (cfs)	7511922.5	Conv. (cfs)	1333409.6	6178513.0	
Length Wtd. (ft)	513.16	Wetted Per. (ft)	1000.57	1438.22	
Min Ch El (ft)	967.60	Shear (lb/sq ft)	0.24	0.49	
Alpha	1.09	Stream Power (lb/ft s)	0.87	2.79	
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	4986.84	15952.00	1222.25
C & E Loss (ft)	0.03	Cum SA (acres)	1363.28	1757.40	581.31

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18274.43	18499.27	926.42	375.76	100.04	0.56	3.79	2.47

18499.27	18724.10	3547.08	1303.98	224.94	2.16	5.80	2.72
18724.10	18948.93	6635.08	1900.25	225.39	4.05	8.45	3.49
18948.93	19173.77	8515.79	2204.98	224.83	5.19	9.81	3.86
19173.77	19398.60	9486.61	2354.76	225.36	5.78	10.47	4.03
19398.60 LB	19685.35	22959.00	4348.77	288.48	14.00	15.17	5.28
19685.35	19972.09	41872.74	6221.71	286.76	25.53	21.70	6.73
19972.09	20258.84	24018.80	4462.99	287.65	14.65	15.56	5.38
20258.84	20545.58	23110.07	4355.84	286.82	14.09	15.19	5.31
20545.58	20832.33 RB	22928.42	4345.40	288.50	13.98	15.26	5.28

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.68

INPUT
Description: 204.68

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17501.1	986.1	17554.2	985.7	17607.9	985.5	17645.5	987.6	17657	986.8
17668.8	987.1	17674.9	990.2	17682.2	987.8	17691	985.7	17742.4	986.2
17748.2	986.3	17778	988.7	17792.2	990.8	17806.1	988.7	17807.3	988.9
17839.5	987.8	17848.5	986.9	17867.4	986.8	17881.2	986.2	17970.4	985.8
18016.4	985.9	18087.9	985.4	18189.8	985	18231.2	984.8	18295.5	984.9
18354.5	984.6	18412.6	984.3	18437.1	982.9	18472.2	984	18491.1	983.4
18518.9	981.6	18530.8	984.6	18531.9	985.1	18550.1	982.9	18601.2	983.1
18621.4	983.6	18662.6	982.9	18685.1	983	18736.6	981.7	18767.6	980.4
18849.4	980.3	18886.2	980.2	18950.6	980	19029.6	979.9	19057.5	983
19071.2	980.7	19099.7	980.9	19114	981.6	19143.3	981.3	19197.1	981.7
19249.9	983.3	19284.9	981.9	19308.1	982.1	19314.7	984.6	19321.8	985
19357.4	981	19361.7	979.6	19368.2	980.1	19394.4	978.2	19398.6	975.9
19415.9	975.9	19458.6	973.3	19479.3	973.1	19513.5	971.9	19564.9	971.9
19621.8	972.2	19668.2	973.2	19691.4	975.5	19719	976.9	19734.6	976.2
19779.1	971.8	19814.3	971.4	19869.4	971.6	19901	972.5	19927.9	972.8
19942.8	973.9	20011.2	975.3	20053.7	976.3	20121.8	976.1	20137.2	975.6
20206.4	975.5	20256.1	973.7	20273.3	974.7	20295	973	20348.3	973.2
20369.6	973.3	20516.3	974.1	20548.6	1990.5	028 20548.8	990.6	20582.8	991.5
20647	987.5	20715.7	987.8	20786.9	988	20814	988	20872.4	988.2
20904.2	988.1	20971	988.4						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17501.1	.025	18472.2	.037	19321.8	.037	20548.8	.037	20582.8	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19321.8	20548.61		325	407	570	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17501.1	18455	991.5	20582.8	20971	991.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	989.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.73	Wt. n-Val.	0.037	0.037	
E.G. Elev (ft)	990.10	Reach Len. (ft)	325.00	407.00	570.00
Crit W.S. (ft)	982.88	Flow Area (sq ft)	6628.25	18233.93	
E.G. Slope (ft/ft)	0.000903	Area (sq ft)	10032.64	18233.93	473.90
Q Total (cfs)	164000.00	Flow (cfs)	31210.81	132789.19	
Top Width (ft)	3375.80	Top Width (ft)	1797.31	1224.57	353.93
Vel Total (ft/s)	6.60	Avg. Vel. (ft/s)	4.71	7.28	
Max Chl Dpth (ft)	17.96	Hydr. Depth (ft)	7.65	14.89	
Conv. Total (cfs)	5457463.5	Conv. (cfs)	1038608.9	4418854.5	
Length Wtd. (ft)	390.47	Wetted Per. (ft)	868.45	1230.06	
Min Ch El (ft)	971.40	Shear (lb/sq ft)	0.43	0.84	
Alpha	1.08	Stream Power (lb/ft s)	2.03	6.09	
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	4854.91	15703.91	1218.67
C & E Loss (ft)	0.03	Cum SA (acres)	1333.54	1741.70	578.62

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18350.76	18472.14	539.32	96.59	17.15	0.33	5.64	5.58
18472.14	18593.52	3015.00	752.37	122.06	1.84	6.20	4.01
18593.52	18714.90	3123.00	766.85	121.40	1.90	6.32	4.07
18714.90	18836.28	5161.61	1036.71	121.42	3.15	8.54	4.98
18836.28	18957.66	5846.19	1117.02	121.38	3.56	9.20	5.23
18957.66	19079.04	5423.32	1069.10	121.74	3.31	8.81	5.07
19079.04	19200.42	4641.80	972.70	121.40	2.83	8.01	4.77
19200.42	19321.80	3460.56	816.90	121.90	2.11	6.73	4.24
19321.80 LB	19567.16	23069.07	3358.68	246.59	14.07	13.69	6.87
19567.16	19812.52	29756.94	3907.68	245.76	18.14	15.93	7.61
19812.52	20057.89	29592.64	3892.74	245.44	18.04	15.87	7.60
20057.89	20303.25	24453.15	3472.03	245.50	14.91	14.15	7.04
20303.25	20548.61 RB	25917.41	3602.79	246.77	15.80	14.82	7.19

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.61

INPUT
Description: 204.61
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14501.4	987.8	14573.3	990	14582.2	987.6	14618.2	988.2	14777.3	988.3
14862.5	988	15060	988.1	15169	988.1	15293.6	988.1	15349.5	988
15354.3	989.1	15407.2	987.7	15581	987.7	15683.1	987.7	15895.1	987.7
15973.3	987.8	16138.5	987.8	16253	987.3	16305.2	988.9	16356.5	986.6
16502.7	987	16642.3	986.6	16753.7	986.8	16913.6	986.7	17015.2	986.4
17201.6	986.5	17292.3	986.1	17385	986.2	17492.5	986.6	17525.7	986
17544.8	987	17555.9	984.9	17607.1	987.6	17733.4	988	17760.1	988.2
17907	986.4	17945.4	985.9	18071.1	985.8	18171.7	984.9	18250.5	986.1
18300.1	984.4	18402.9	984.9	18466.2	984.6	18493.6	983.5	18498.9	981.8
18563.6	983.3	18578.3	983	18591.3	980.7	18665.2	981.8	18677.5	983.2
18687.3	985.4	18775.1	988.2	18821.3	988.9	18834.2	979.9	18973.9	980.4
19090.8	980.1	19180.1	979.7	19288	980.1	19386.4	980.8	19428.1	982.7
19471.3	983.1	19479.7	979.4	19500.4	973.3	19642.8	973.3	19760.9	972.7
19781	972.7	19928.9	973.4	20022	973.4	20085.3	975.2	20097.7	972.6
20188.3	973	20275.9	973.4	20374.8	973.9	20426.1	974.2	20456.1	987.8
20482.9	988.5	20507	986.5	20620.9	986.8	20726.9	987	20849.8	987.1
20944.2	987.1	21033.3	987.2	21060.5	987.3	21176.6	986.9	21261.7	986.8
21362.3	986.7	21489.6	987	21584.7	987.7	21599.3	987.7	21697.6	987.5
21835.5	987.5	21887.1	988.6	21890.1	987.2	21897.8	989.2	21930.6	990.8
21963.1	990.8								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14501.4	.025	18498.9	.037	19471.3	.037	20482.9	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19471.3	20482.9	395	449	545	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14501.4	18570	990.8	20482.9	21963.1	990.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	988.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.05	Wt. n-Val.	0.037	0.037	
E.G. Elev (ft)	989.64	Reach Len. (ft)	395.00	449.00	545.00
Crit W.S. (ft)	983.50	Flow Area (sq ft)	6207.74	14692.76	
E.G. Slope (ft/ft)	0.001360	Area (sq ft)	12681.26	14692.76	2059.41
Q Total (cfs)	164000.00	Flow (cfs)	34890.96	129109.04	
Top Width (ft)	7282.55	Top Width (ft)	4858.94	1011.60	1412.01
Vel Total (ft/s)	7.85	Avg. Vel. (ft/s)	5.62	8.79	
Max Chl Dpth (ft)	15.99	Hydr. Depth (ft)	7.05	14.52	
Conv. Total (cfs)	4447459.0	Conv. (cfs)	946195.9	3501263.3	
Length Wtd. (ft)	441.21	Wetted Per. (ft)	883.69	1016.51	
Min Ch El (ft)	972.60	Shear (lb/sq ft)	0.60	1.23	
Alpha	1.10	Stream Power (lb/ft s)	3.35	10.78	

Frctn Loss (ft)	0.69	Cum Volume (acre-ft)	4770.17	15550.09	1202.10
C & E Loss (ft)	0.02	Cum SA (acres)	1308.71	1731.25	567.07

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18477.32	18808.65	3636.33	954.62	231.35	2.22	4.14	3.81
18808.65	19139.97	15834.67	2630.70	320.96	9.66	8.27	6.02
19139.97	19471.30	15419.99	2622.42	331.37	9.40	7.91	5.88
19471.30 LB	19673.62	26013.25	2965.77	203.98	15.86	14.66	8.77
19673.62	19875.94	29286.36	3173.97	202.32	17.86	15.69	9.23
19875.94	20078.26	27173.34	3034.63	202.34	16.57	15.00	8.95
20078.26	20280.58	28537.24	3126.69	202.59	17.40	15.45	9.13
20280.58	20482.90 RB	18098.83	2391.70	205.27	11.04	11.82	7.57

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.53

INPUT
Description: 204.53
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17504.9	987.8	17516.3	987.9	17522.8	987.1	17597	987.9	17615.7	987.3
17634.6	987.5	17637.7	988.1	17645.9	986.3	17657.9	988	17704.2	989.7
17740.1	1006.3	17784.7	1004.7	17850.8	1006.5	17875.5	988.5	17970.4	986.9
18011.9	987.2	18027.9	986.1	18091.1	986.1	18155.5	985.2	18204.4	984.7
18283.5	984.5	18320.2	984.4	18443	984.3	18501.9	983.9	18579.8	983.6
18647	982.6	18678.7	980.4	18706.4	982.9	18747	982.6	18757	983.3
18815.9	983.6	18827.1	980.6	18916.2	981.2	18927.3	982	19007.2	982.5
19073.9	982.8	19175.3	983.2	19185.4	983.5	19240.3	981	19276	975.9
19293	975	19359.2	979.5	19386	976	19409.2	976.4	19468.7	973.1
19520.6	973	19547.6	973.9	19571.2	975.5	19585.1	972.9	19610.7	972.7
19729.3	972.9	19787.3	973	19805.5	973.5	19860.6	976.1	19930.7	975.8
19979.8	973.4	19994.9	973.6	20150.7	974	20174.8	974	20434.3	974.4
20443.5	974.5	20465.7	985.2	20495.9	987.1	20550.8	986.4	20566	984.8
20629.6	984.7	20701.1	984.8	20780.4	985	20872.2	985	20943	985.1
21022.1	985.1	21052.3	985	21118.4	984.9	21183.9	984.8	21260.2	985
21337.7	986.1	21351.7	986.3	21381.4	984.7	21472.3	984.9	21564.8	985.3
21626.7	986.2	21653.6	986.5	21678.1	985.5	21716.4	985.3	21781	984.7
21817.6	987.6	21875.1	987.3	21880.1	988.5	21884.2	988.1	21885	988.9
21887.9	987.2	21894.1	988.4	21914.7	989.1	21935.1	988.6	21999.2	989.8
22011	990.1								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17504.9	.025	18647	.037	19185.4	.037	20495.9	.037	20566	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19185.4	20495.9	570	552	525	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17504.9	18730	1000	20495.9	22011	1000

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	987.68	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.25	Wt. n-Val.	0.037	0.037	
E.G. Elev (ft)	988.93	Reach Len. (ft)	570.00	552.00	525.00
Crit W.S. (ft)	983.01	Flow Area (sq ft)	2401.96	16443.62	
E.G. Slope (ft/ft)	0.001814	Area (sq ft)	4933.04	16443.62	3266.22
Q Total (cfs)	164000.00	Flow (cfs)	12439.19	151560.81	
Top Width (ft)	4061.33	Top Width (ft)	1366.78	1310.50	1384.04
Vel Total (ft/s)	8.70	Avg. Vel. (ft/s)	5.18	9.22	
Max Chl Dpth (ft)	14.98	Hydr. Depth (ft)	5.27	12.55	
Conv. Total (cfs)	3850961.5	Conv. (cfs)	292090.4	3558871.0	
Length Wtd. (ft)	552.83	Wetted Per. (ft)	455.86	1314.36	

Min Ch El (ft)	972.70	Shear (lb/sq ft)	0.60	1.42	
Alpha	1.06	Stream Power (lb/ft s)	3.09	13.06	
Frctn Loss (ft)	1.15	Cum Volume (acre-ft)	4690.31	15389.62	1168.78
C & E Loss (ft)	0.01	Cum SA (acres)	1280.48	1719.28	549.58

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18625.23	18737.27	179.05	36.18	7.27	0.11	4.98	4.95
18737.27	18849.30	2798.68	563.19	112.45	1.71	5.03	4.97
18849.30	18961.33	4082.36	705.38	112.06	2.49	6.30	5.79
18961.33	19073.37	2918.74	576.70	112.03	1.78	5.15	5.06
19073.37	19185.40	2460.35	520.52	112.04	1.50	4.65	4.73
19185.40 LB	19447.50	19362.92	2530.29	262.99	11.81	9.65	7.65
19447.50	19709.60	37973.16	3787.17	262.44	23.15	14.45	10.03
19709.60	19971.70	32805.30	3467.74	262.22	20.00	13.23	9.46
19971.70	20233.80	35314.62	3623.94	262.11	21.53	13.83	9.74
20233.80	20495.90 RB	26104.82	3034.49	264.60	15.92	11.58	8.60

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.42

INPUT
Description: 204.42

Right Channel Bank Station Interpolated
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17576	985.4	17608.5	985.2	17708	984.7	17783.2	985.9	17832.4	987.2
17853.5	986.1	17871.5	986.6	17926.9	986	17956.8	985.7	18023.8	985.6
18149.3	988.2	18169.7	988.1	18191.3	988.5	18226.7	987.2	18239	992.9
18240.3	993.2	18241.4	992.8	18249.3	987	18255.2	986.8	18279.8	990.2
18308.3	987.7	18322.1	985.5	18347.4	985.3	18488.4	983.7	18517.8	983
18560.8	983.8	18635.1	982.4	18650.1	983	18667.7	983	18723.8	982.5
18733.2	982.4	18795.2	981.7	18839.1	981.2	18874.1	983.2	18899.1	981.9
18955.6	982.5	18998.6	983.3	19025.4	984.6	19040.4	981.3	19045	980.6
19052.9	980.4	19095.4	981.9	19166.1	982.1	19255.9	982	19280.2	982
19341.8	981.8	19381.9	981.6	19437	981.1	19475.3	981	19500.2	980.6
19543.1	978.9	19552.9	979.1	19561.9	978.3	19576.9	979.5	19599.7	980.5
19616.5	980.7	19649.2	979.5	19653	978.6	19672.9	972.5	19732	972.5
19781.3	972.6	19794.7	975.8	19805.4	972.9	19824.4	972.6	19905.9	971.4
19930	972.8	19954.4	972.4	19966.8	973.5	19992	972.4	20006.4	972.1
20057.7	972.3	20101.5	973	20150.5	972	20162.2	972.1	20303.9	972.1
20322.7	972.1	20397.5	972.3	20434.6	971.9	20454.2	972.5	20468.3	973.3
20548.4	973.9	20577.1	973.9	20609.6	973.2	20616.9	972.5	20646	972.8
20682.0	9987.6656	20689.7	990.8	20701.7	992.2	20714.4	988.5	20967	988.5

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17576	.025	18839.1	.037	19025.4	.037	20689.7	.037	20701.7	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19025.4	20682.09	430	453	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17576	18874.1	993.2	20689.7	20967	993.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	986.40	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.36	Wt. n-Val.	0.037	0.037	
E.G. Elev (ft)	987.76	Reach Len. (ft)	430.00	453.00	500.00
Crit W.S. (ft)	982.73	Flow Area (sq ft)	550.34	17165.11	
E.G. Slope (ft/ft)	0.002432	Area (sq ft)	2664.73	17165.11	
Q Total (cfs)	164000.00	Flow (cfs)	2577.06	161422.94	
Top Width (ft)	2778.70	Top Width (ft)	1125.08	1653.63	

Vel Total (ft/s)	9.26	Avg. Vel. (ft/s)	4.68	9.40	
Max Chl Dpth (ft)	15.00	Hydr. Depth (ft)	3.64	10.38	
Conv. Total (cfs)	3325542.5	Conv. (cfs)	52256.9	3273285.5	
Length Wtd. (ft)	452.82	Wetted Per. (ft)	151.38	1658.94	
Min Ch El (ft)	971.40	Shear (lb/sq ft)	0.55	1.57	
Alpha	1.02	Stream Power (lb/ft s)	2.58	14.77	
Frctn Loss (ft)	1.11	Cum Volume (acre-ft)	4640.60	15176.67	1149.10
C & E Loss (ft)	0.00	Cum SA (acres)	1264.18	1700.50	541.24

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18832.15	18928.77	1140.39	225.33	54.71	0.70	4.12	5.06
18928.77	19025.40	1436.67	325.01	96.67	0.88	3.36	4.42
19025.40 LB	19356.74	7508.62	1503.04	331.78	4.58	4.54	5.00
19356.74	19688.08	14007.36	2186.95	332.53	8.54	6.60	6.40
19688.08	20019.41	48338.22	4596.70	332.23	29.47	13.87	10.52
20019.41	20350.75	50082.77	4690.56	331.35	30.54	14.16	10.68
20350.75	20682.09 RB	41485.98	4187.85	331.05	25.30	12.76	9.91

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.34

INPUT
Description: 204.34

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18066.2	985.2	18081.3	985	18158.1	983.7	18200	983.2	18226	984
18228.2	983.4	18283.2	983.4	18339.1	987.8	18395.4	986.8	18498.7	986.6
18514.4	986.2	18516	986.7	18586.8	985.6	18638.2	981.3	18678.3	981
18721.9	979.9	18774.5	984.6	18806.4	982.8	18806.6	981.1	18864.9	982.2
18888.3	975.4	18906.9	980.7	18919.1	979.8	18932.5	981.8	18936.3	983.3
18988.6	982.9	19004.9	982.1	19086.4	981.7	19100	981.6	19184.5	981.5
19245.5	981	19310.8	980.7	19329.3	980.7	19389.4	980.3	19453.4	979.8
19487.9	979.5	19552	979.2	19615.6	978.7	19689.1	978.5	19736.5	978.7
19757.1	988.9	19782.1	971.2	19783.9	970.6	19819.5	969.3	19835.1	971.8
19891	971	19954.9	970.8	20009.4	971.2	20054.1	972.9	20100.5	973.1
20107.5	972.7	20175.2	972.5	20253	971.7	20324.6	971.9	20395.6	971.7
20465.2	971.4	20539.7	971.3	20603.2	971.5	20661.9	971.9	20671.8	972
20743.2	970.2	20773.2	970	20795.3	976.9	20816.23	986.09	35 20827.4	991
20878.6	990.5	20887.2	987	22239.1	987.1	22248.4	987.2	22254.3	988.2
22259.5	985.8	22266.1	987.7	22287.1	988.3	22317.8	988		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18066.2	.025	18774.5	.037	20827.4	.037	20878.6	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19100	20816.23	495	488	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18066.2	19100	991	20827.4	22317.8	991

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	985.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.37	Wt. n-Val.		0.037	
E.G. Elev (ft)	986.65	Reach Len. (ft)	495.00	488.00	480.00
Crit W.S. (ft)	981.49	Flow Area (sq ft)		17463.06	
E.G. Slope (ft/ft)	0.002470	Area (sq ft)	2118.03	17463.06	

Q Total (cfs)	164000.00	Flow (cfs)		164000.00		
Top Width (ft)	2452.20	Top Width (ft)	750.25	1701.95		
Vel Total (ft/s)	9.39	Avg. Vel. (ft/s)		9.39		
Max Chl Dpth (ft)	15.98	Hydr. Depth (ft)		10.26		
Conv. Total (cfs)	3299596.5	Conv. (cfs)		3299596.5		
Length Wtd. (ft)	488.00	Wetted Per. (ft)		1711.20		
Min Ch El (ft)	969.30	Shear (lb/sq ft)		1.57		
Alpha	1.00	Stream Power (lb/ft s)		14.78		
Frctn Loss (ft)	1.97	Cum Volume (acre-ft)	4616.99	14996.61	1149.10	
C & E Loss (ft)	0.22	Cum SA (acres)	1254.92	1683.05	541.24	

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19100.00 LB	19443.25	7328.71	1498.59	343.25	4.47	4.37	4.89
19443.25	19786.49	12890.99	2087.45	336.94	7.86	6.31	6.18
19786.49	20129.74	49897.43	4738.58	343.52	30.43	13.81	10.53
20129.74	20472.98	47327.23	4589.15	343.25	28.86	13.37	10.31
20472.98	20816.23 RB	46555.64	4549.29	344.23	28.39	13.33	10.23

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.25

INPUT
Description: 204.25

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 202

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13993.51	986.914	130.56	987.41	14486.44	987.43	14755.8	987.03	14937.72	987.04
15050.6	988.115	090.94	987.57	15102.07	987.57	15109.44	988.64	15116.98	989.38
15128.77	988.115	132.01	987.97	15140	988.47	15148.98	986.93	15153.86	985.73
15173.36	986.215	690.75	986.18	15878.25	985.18	15889.67	986.28	15904.51	988.05
15907.38	988.115	919.42	987.92	15924.1	987.47	15931.02	985.83	15970.22	986.25
16049	986.116	175.22	986.02	16450.56	986.16	16463.91	986.29	16480.31	987.87
16486.56	987.416	495.93	987.11	16504.19	987.79	16511.66	987.91	16518.49	987.78
16535.99	985.816	542.09	985.62	16555	985.55	16564.89	984.28	16584.86	984.26
16687.99	984.816	810.65	985.29	16823.94	985.32	16873.9	984.73	16893.09	984.53
16922.74	984.6	16941.4	984.26	16960.75	984.66	16990.05	984.33	17020.18	984.79
17048.94	986.617	091.64	985.28	17177.92		98517208.14	985.11	7249.69	984.95
17398.31	984.317	414.87	984.49	17522.6	984.39	17556.82	984.21	17600.03	984.35
17721.19	984.217	812.48	984.25	17851.5	984.81	17861.89	984.59	17867.1	984.93
17880.92		98517892.56	984.35	17898.26	983.92	17932.23	986.49	17944.09	986.98
17988.7	986.718	005.49	986.89	18050.6	987.57	18083.28	987.62	18106.23	986.76
18158.97	986.818	174.45	987.11	8185.88	987.12	18240.34	986.92	18277.05	986.27
18300.85	986.118	323.52	985.55	18372.65	985.14	18410.49	985.08	18449.87	985.08
18490.27	985.5	18520.4	985.15	18569.61	985.8	18587.9	985.76	18609.93	985.4
18633.73	984.818	652.28	984.25	18660.4	983.85	18672.96	983.41	18703.66	978.51
18719.46	976.218	724.94	975.71	8730.59	976.28	18765.73	981.38	18788.83	981.86
18812.39		98218851.86	982.67	18856.84	982.02	18876.79	980.93	18917.58	980.72
18958.37	980.818	990.64	980.15	19005.3	981.3	19038	982.55	19054.34	981.71
19061.47	981.919	088.33	981.03	19097.24	980.61	19117.27	982.08	19126.5	981.53

```
19134.63   980.819139.73  980.7919178.34  980.9919189.92  980.9119237.27  980.78
19263.33   980.219297.08  979.95   19300 979.93619332.52  979.7819361.32  979.52
19438.75  979.41 19458.3   979.519506.35   978.719519.13  978.8519527.66  978.72
19542.19  978.7319623.64   978.619631.41   978.619649.23  978.6319696.73  978.82
19703.53  975.7119717.53   970.2   19739   971.319747.27  974.51 19771.1  974.27
20035.47  970.8820227.56   972.420273.64  972.3620297.51  972.19 20307.7  971.98
20309.92  971.7420357.54   969.8 20436.7  969.4420448.29  969.4520499.51  969.22
20526.05  969.29 20588.3   969.720612.99  970.1420643.57  971.0820655.61  971.37
20680.85  971.2420705.02   971.520710.67  971.3720740.01  974.1420776.89  977.31
20818.53981.025320830.46  982.09 20922.2   989.620964.06  989.9520995.89  990.41
21004.86  987.3921018.73  981.0821052.72   981.121087.73  980.7921108.33  980.92
21157.66   981.421178.54  981.5221210.73   981.221262.99  982.6321279.42  982.45
21290.06  979.4521361.92  980.42 21408.6   981.221446.51   981.421456.08  981.58
21481.84  981.6121499.03  981.7121649.19   981.921681.55  982.0721787.28  982.66
21862.63   982.921876.61  982.9521939.71   983.421983.01  983.3822043.39  983.78
22083.67  984.1722130.05  984.4322172.04   984.422225.83  984.5822265.02  984.87
22339.34  986.3522389.33  985.4622416.26   985.922438.79  986.0322474.98  986.32
22486.29  987.5222500.35  987.24

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
13993.51    .03518812.39    .03221290.06    .025

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         1930020818.53              510     508     500            .1        .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
13993.51   19300     990 20922.222500.35     990
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	980.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.56	Wt. n-Val.		0.032	
E.G. Elev (ft)	984.46	Reach Len. (ft)	510.00	508.00	500.00
Crit W.S. (ft)	980.90	Flow Area (sq ft)		10836.17	
E.G. Slope (ft/ft)	0.007743	Area (sq ft)	277.17	10836.17	82.22
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	1993.71	Top Width (ft)	339.45	1517.18	137.09
Vel Total (ft/s)	15.13	Avg. Vel. (ft/s)		15.13	
Max Chl Dpth (ft)	11.68	Hydr. Depth (ft)		7.14	
Conv. Total (cfs)	1863777.4	Conv. (cfs)		1863777.4	
Length Wtd. (ft)	508.00	Wetted Per. (ft)		1520.08	
Min Ch El (ft)	969.22	Shear (lb/sq ft)		3.45	
Alpha	1.00	Stream Power (lb/ft s)		52.15	
Frctn Loss (ft)	1.15	Cum Volume (acre-ft)	4603.38	14838.09	1148.65
C & E Loss (ft)	0.79	Cum SA (acres)	1248.73	1665.02	540.48

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19300.00 LB	19603.71	2653.76	510.41	303.72	1.62	1.68	5.20
19603.71	19907.41	21707.48	1806.80	306.07	13.24	5.95	12.01
19907.41	20211.12	45748.31	2817.28	303.72	27.90	9.28	16.24
20211.12	20514.82	54503.68	3129.57	303.76	33.23	10.30	17.42

20514.82 20818.53 RB 39386.77 2572.11 302.80 24.02 8.51 15.31

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.15

INPUT
Description: 204.15

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 80

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16507.2	984.4	16600	985	16650.2	986.1	16657.8	983.8	16666.8	986
16708.7	983.2	16800.2	983.6	16895.3	983.8	16963.7	983.3	17111.7	982.5
17141.8	982.4	17289.1	982.7	17397	983.7	17427.8	983.8	17571.9	983.4
17609.8	983.3	17719.7	983.5	17833.6	983	17949.9	982.8	18031.8	984.3
18081.2	983.6	18087	981.9	18093.6	985.1	18094.5	983.7	18130.3	986
18214.6	985.6	18280.4	986.6	18357.2	984.7	18446.1	985.5	18578.2	984.4
18725.8	984.7	18824.1	985.3	18862.3	983.1	18888.3	980.6	18907	981.1
18955.1	980	19045.1	979.6	19065.5	979.9	19074.1	976.8	19104	969
19192.6	971.7	19200	971.7	19310.3	971.7	19331.3	970.9	19446.3	971.9
19486.8	971.6	19501.3	966.1	19595	966	19644.2	966.2	19661	973.6
19681	970.2	19769.8	971.6	19860.6	972.7	19968.4	974.8	20027.5	972.3
20066.1	967.9	20074.7	967.9	20209.5	968	20337.2	968.2	20441.7	967.7
20540.9	966.7	20554.5	966.5	20580.4	968.8	20679.7	967.8	20753.2	967.1
20790.2	968.9	20795.8	969.9	20814.5	969.5	20911.6	969.2	20940	967.1
20986.5	968.3	21033.38	981.5	872	21042.6	984.2	21131.4	985.3	21379.2	985.3
22652.4	985.2	22684.9	986.3	22693	983.9	22700.1	985.5	22708.9	985.4

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16507.2	.035	18824.1	.032	21131.4	.025	21379.2	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19200	21033.38	510	509	510	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16507.2	19200	986.6

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	981.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.93	Wt. n-Val.		0.032	
E.G. Elev (ft)	982.09	Reach Len. (ft)	510.00	509.00	510.00
Crit W.S. (ft)	975.80	Flow Area (sq ft)		21240.53	
E.G. Slope (ft/ft)	0.001058	Area (sq ft)	1488.74	21240.53	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2149.48	Top Width (ft)	317.59	1831.89	
Vel Total (ft/s)	7.72	Avg. Vel. (ft/s)		7.72	
Max Chl Dpth (ft)	15.17	Hydr. Depth (ft)		11.59	
Conv. Total (cfs)	5042849.5	Conv. (cfs)		5042849.5	
Length Wtd. (ft)	509.00	Wetted Per. (ft)		1837.25	
Min Ch El (ft)	966.00	Shear (lb/sq ft)		0.76	
Alpha	1.00	Stream Power (lb/ft s)		5.89	
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	4593.05	14651.05	1148.17
C & E Loss (ft)	0.02	Cum SA (acres)	1244.88	1645.49	539.69

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19200.00 LB	19566.68	28562.18	3921.51	367.70	17.42	10.69	7.28
19566.68	19933.35	27532.34	3839.59	368.55	16.79	10.47	7.17
19933.35	20300.03	31980.11	4193.41	366.99	19.50	11.44	7.63
20300.03	20666.71	41505.86	4902.44	366.79	25.31	13.37	8.47
20666.71	21033.38 RB	34419.51	4383.58	367.21	20.99	12.00	7.85

CROSS SECTION RIVER: 1
REACH: 1 RS: 204.05

INPUT
Description: 204.05

Left and Right Channel Bank Stations Interpolated
Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18304.1	982.1	18322.9	981.3	18412.7	981.2	18490.1	981.1	18499.9	981.4
18523	980.8	18527.4	981.7	18530.5	980.8	18552.5	980.6	18585.3	987.2
18649.8	986.5	18710.4	987.1	18782.2	985.8	18858.9	986.9	18882.3	985.9
18903.8	986.2	18952	984.5	18962.59	980.697	18970.1	978	18992.5	968.5
19020.9	971.4	19097.5	973.6	19099.9	973.6	19168.9	971.6	19234.1	970.7
19315.1	973.1	19401.3	974.1	19432.4	974.2	19453	972.9	19510.9	971.5
19570.9	965.6	19644.7	967.7	19662	968.9	19741.3	971.7	19784.3	975.1
19860.9	975.2	19946.2	976.1	20026.3	975.5	20061.6	973.5	20142.4	974.9
20200.7	974.3	20222.7	972.5	20272.6	972.8	20286.9	973.4	20327.7	971.7
20354.5	969.2	20434.3	970.9	20491.6	971.4	20536	969.7	20605	969.1
20618.5	968.7	20679.5	965	20701.3	965.4	20715.6	967	20746.4	966
20828.1	965.9	20914.2	966.5	20930	968.1	20994	968.4	21024.5	966.7
21045.1	967	21067.8	975.8	21081.76	980.6	981 21090.6	983.8	21160.1	983.8
22668.7	984.2	22676.7	984.2	22773.1	984.3	22829	984.6	22836.3	985.6
22843	983.5	22852.2	986	22860.7	985.9				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18304.1	.05	18552.5	.035	18858.9	.032	21090.6	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18962.59	21081.76	510	505	520	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
18304.1	18750	987.2

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	980.27	Element			
Vel Head (ft)	1.12	Wt. n-Val.		0.032	
E.G. Elev (ft)	981.39	Reach Len. (ft)	510.00	505.00	520.00
Crit W.S. (ft)	976.82	Flow Area (sq ft)		19320.24	
E.G. Slope (ft/ft)	0.001759	Area (sq ft)		19320.24	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2116.76	Top Width (ft)		2116.76	
Vel Total (ft/s)	8.49	Avg. Vel. (ft/s)		8.49	
Max Chl Dpth (ft)	15.27	Hydr. Depth (ft)		9.13	
Conv. Total (cfs)	3910394.8	Conv. (cfs)		3910394.8	
Length Wtd. (ft)	505.00	Wetted Per. (ft)		2123.09	
Min Ch El (ft)	965.00	Shear (lb/sq ft)		1.00	
Alpha	1.00	Stream Power (lb/ft s)		8.48	
Frctn Loss (ft)	1.42	Cum Volume (acre-ft)	4584.33	14414.08	1148.17
C & E Loss (ft)	0.10	Cum SA (acres)	1243.03	1622.42	539.69

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18962.59 LB	19386.42	24823.52	3352.55	425.23	15.14	7.93	7.40
19386.42	19810.26	33699.30	4024.45	424.44	20.55	9.50	8.37
19810.26	20234.09	13030.04	2274.66	423.99	7.95	5.37	5.73
20234.09	20657.93	35478.80	4149.46	424.13	21.63	9.79	8.55
20657.93	21081.76 RB	56968.35	5519.11	425.30	34.74	13.06	10.32

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 203.96

INPUT
Description: 203.96

Right Channel Bank Staion Interpolated
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16511.6	983.5	16713.4	983.8	16774.3	983.9	16908.7	984.4	16963.5	986.3
16968.1	982.5	16973.8	984.3	17039.3	980.6	17126.9	980	17138.9	980
17175.8	974.9	17222.8	980.2	17277.4	983.2	17284.8	982.3	17330	982.5
17366.5	984.4	17465.6	982.2	17576.8	981.2	17680.4	980.6	17774.7	979.6
17869.9	981.4	17958.4	981.2	18010.3	980.8	18015.8	982.2	18024.6	982.8
18047.1	980.2	18070.6	981.5	18128.1	982.9	18242.5	983.3	18284.4	984.3
18384	982.4	18469.6	983.6	18481.1	980.9	18496.2	979.1	18583.4	978
18607.3	975.5	18626.7	976.9	18657.9	976	18690	978.1	18723.2	976.2
18730.8	978.5	18760	974.5	18783.2	969.3	18801.2	968.9	18811.7	967.4
18891.8	971.9	18902.5	971.8	18997.2	971.4	19057.4	972	19069.5	973.6
19145.7	973.5	19201.5	971.8	19284.9	973.5	19375	977.1	19427.1	976
19471.7	976.7	19531.2	976.1	19556.4	976.8	19606.4	965.6	19696.9	968.3
19784.2	968.9	19847.3	971.5	19965.6	970.7	19998.5	972.3	20089.8	973.2
20179.8	972.3	20254.9	970.6	20367	970.8	20411.5	970.7	20421.4	969.4
20435.9	965.4	20451.7	964.7	20529.6	965	20554.9	967	20642.7	965.7
20735.2	964.2	20738.9	964.1	20767.7	971.2	20790.3	8978.7	3393 20803.5	983.1
20835.5	994.9	20850.3	995.2	20872.5	997.5	20910.1	984.2	20997.3	981.9
21108.2	981.9	21539.6	982	21552	986.1	21559.4	984.2	21657.7	986.4
21694	988.5								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16511.6	.025	17175.8	.043	18469.6	.043	18902.5	.032	20835.5	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18730.8	20790.38	495	502	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16511.6	18730.8	997.5	20835.5	21694	997.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	977.71	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.15	Wt. n-Val.		0.033	
E.G. Elev (ft)	979.86	Reach Len. (ft)	495.00	502.00	505.00
Crit W.S. (ft)	976.68	Flow Area (sq ft)		13938.40	
E.G. Slope (ft/ft)	0.005221	Area (sq ft)	202.32	13938.40	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2225.52	Top Width (ft)	174.76	2050.76	
Vel Total (ft/s)	11.77	Avg. Vel. (ft/s)		11.77	
Max Chl Dpth (ft)	13.61	Hydr. Depth (ft)		6.80	
Conv. Total (cfs)	2269793.8	Conv. (cfs)		2269793.8	
Length Wtd. (ft)	502.00	Wetted Per. (ft)		2056.11	
Min Ch El (ft)	964.10	Shear (lb/sq ft)		2.21	
Alpha	1.00	Stream Power (lb/ft s)		26.00	
Frctn Loss (ft)	0.90	Cum Volume (acre-ft)	4583.15	14221.29	1148.17
C & E Loss (ft)	0.43	Cum SA (acres)	1242.00	1598.27	539.69

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need

for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18730.80 LB	19142.72	21710.98	2442.08	407.32	13.24	6.01	8.89
19142.72	19554.63	7150.86	1164.96	412.06	4.36	2.83	6.14
19554.63	19966.55	41719.32	3360.47	413.26	25.44	8.16	12.41
19966.55	20378.46	24421.30	2434.02	411.98	14.89	5.91	10.03
20378.46	20790.38 RB	68997.53	4536.87	411.49	42.07	11.10	15.21

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 203.86

INPUT
Description: 203.86

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17504.9	979.4	17555	980.7	17589.4	982.1	17613.5	980.8	17620.6	979.8
17657.6	978.3	17694.3	979.8	17718.4	978.9	17729	980.8	17762.1	977.4
17780.7	978.7	17821.9	984.3	17861.6	984.2	17888.2	982.4	17897.5	983.2
17930.6	983.2	17969.6	984.1	17989.1	983.6	18013.3	984	18044.9	981.7
18064.4	979.2	18096.7	981.5	18136.8	979.8	18171.7	980	18207.5	982
18243.1	982.7	18290.8	981.3	18353.7	982	18421.5	981.7	18458.6	982.1
18488.1	978.2	18540.3	978.5	18564	971	18599.5	968.8	18660.4	971
18700.2	971.8	18760.2	970	18806.7	971.3	18853.4	969.4	18891.2	969
18974.3	973.5	19064.8	976.5	19077.3	975.8	19161.8	973.4	19223.1	970.5
19246.5	967.4	19268.5	965.8	19288.8	962.4	19365.2	962.6	19365.7	962.6
19450.7	962.8	19451.6	962.8	19539.2	963.1	19611.5	963	19690.6	962.4
19743.6	962.3	19811.2	962.7	19858.2	963.1	19928.9	963.6	19992.8	963.8
20013.5	963.8	20076.4	964	20099.2	964	20196.1	964.2	20254.4	964.2
20298.4	964.5	20318.1	968.2	20429.2	967.6	20486.9	967.6	20543.1	968.6
20555	966.5	20576	964.2	20634.3	964.2	20650.7	964.2	20663.3	965.7
20676.9	965.8	20697.7	967.2	20730.9	976.1	20735.9	978.6323	20761.9	991.8
20803.3	981	20878.5	982.5	20946.4	982.5	20965.7	981.1	21031.2	980.5
21099.9	980.6	21167.6	980.7	21198.2	981	21258.8	981.1	21324.9	981
21359.8	980.5	21368.4	981	21395.8	980.4	21405.9	982.4	21411.7	980.4
21482.6	980.2	21488.8	980.2						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17504.9	.043	18243.1	.043	18891.2	.032	20761.9	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18488.1	20735.9	505	498	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17504.9	18243.1	991.8	20761.9	21488.8	991.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	977.81	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.72	Wt. n-Val.		0.033	
E.G. Elev (ft)	978.53	Reach Len. (ft)	505.00	498.00	480.00
Crit W.S. (ft)	971.81	Flow Area (sq ft)		24032.46	
E.G. Slope (ft/ft)	0.000902	Area (sq ft)	1.99	24032.46	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2201.57	Top Width (ft)	9.79	2191.78	
Vel Total (ft/s)	6.82	Avg. Vel. (ft/s)		6.82	

Max Chl Dpth (ft)	15.51	Hydr. Depth (ft)		10.96	
Conv. Total (cfs)	5460354.5	Conv. (cfs)		5460354.5	
Length Wtd. (ft)	498.00	Wetted Per. (ft)		2196.26	
Min Ch El (ft)	962.30	Shear (lb/sq ft)		0.62	
Alpha	1.00	Stream Power (lb/ft s)		4.21	
Frctn Loss (ft)	0.44	Cum Volume (acre-ft)	4581.99	14002.50	1148.17
C & E Loss (ft)	0.03	Cum SA (acres)	1240.95	1573.82	539.69

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18488.10 LB	18937.66	11177.53	2862.13	396.49	6.82	7.24	3.91
18937.66	19387.22	17059.54	3334.93	450.33	10.40	7.42	5.12
19387.22	19836.78	55613.65	6772.03	449.56	33.91	15.06	8.21
19836.78	20286.34	48950.15	6272.82	449.56	29.85	13.95	7.80
20286.34	20735.90 RB	31199.12	4790.54	450.31	19.02	10.69	6.51

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 203.77

INPUT
Description: 203.77

Left and Right Channel Bank Staions Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15516.5	980.4	15611.3	979.8	15668.7	980.9	15700.1	979.6	15734.7	982.9
15797.9	987.2	15835	986	15865.2	981.2	15920	981.4	15937.6	976.9
15947.6	978.2	15969.6	982.9	15985.2	984.3	16056.9	984.3	16076.8	983.7
16103.9	981.6	16184.4	981.2	16265.9	982.1	16312.5	981.7	16348.3	982.1
16366.7	978.9	16400.4	980.3	16452.6	980.5	16569.1	980.4	16622.2	980.5
16857.6	980.3	17032.7	979.9	17052.5	979.9	17220.4	979.9	17326.1	979.2
17424.8	979	17450	979.3	17461.6	980.3	17495.9	980.1	17515.6	978.2
17558.9	979.2	17678.1	978.7	17709.3	979.1	17747.1	977.4	17826.8	982.9
17879.9	983.7	17902.1	982.1	17924.4	981.6	18003.9	982.8	18091.9	980.7
18117.2	979.8	18191	981.8	18222.6	1978.2	686 18227.7	977.7	18281.9	974.6
18343.8	974.4	18371.2	970.5	18451.7	968.1	18515.7	969.6	18591.7	968.7
18603.5	969.7	18721.8	967.3	18770.9	970.5	18803.6	971.5	18834.8	974.6
18888.2	976.1	18941.5	973.8	18956.3	972.3	18974.2	976.6	18983.5	976.3
19032.5	965.6	19113.9	965.1	19224	964.8	19282.2	964.6	19290.6	969.7
19307.6	974.2	19313.1	973.7	19322.8	969.5	19338.6	967.2	19345.7	964.7
19426.8	964.5	19492.9	964.4	19606.6	964.2	19685.9	964.3	19717.5	964.1
19865.4	964.1	19957	963.3	20019.3	964.3	20221.9	964.3	20253.9	964.3
20282.3	966.5	20325.8	965.1	20328.7	964.2	20338.6	965.4	20430	966.2
20524.9	966.2	20609.1	966.4	20684.8	966.7	20728.9	97	120745.6	1978.2692
20746.6	978.7	20820.8	981.2	20854	997.6				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15516.5	.025	17495.9	.043	18191	.043	18803.6	.032	20820.8	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18222.6	120745.61	490	498	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15516.5	18191	997.6	20820.8	20854	997.6

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	977.43	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.63	Wt. n-Val.		0.033	
E.G. Elev (ft)	978.06	Reach Len. (ft)	490.00	498.00	480.00
Crit W.S. (ft)	971.55	Flow Area (sq ft)		25745.47	
E.G. Slope (ft/ft)	0.000873	Area (sq ft)	1.65	25745.47	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	2518.53	Top Width (ft)	7.27	2511.27	
Vel Total (ft/s)	6.37	Avg. Vel. (ft/s)		6.37	
Max Chl Dpth (ft)	14.13	Hydr. Depth (ft)		10.25	
Conv. Total (cfs)	5549480.0	Conv. (cfs)		5549480.0	
Length Wtd. (ft)	497.87	Wetted Per. (ft)		2519.22	

Min Ch El (ft)	963.30	Shear (lb/sq ft)		0.56	
Alpha	1.00	Stream Power (lb/ft s)		3.55	
Frctn Loss (ft)	0.45	Cum Volume (acre-ft)	4581.97	13717.95	1148.17
C & E Loss (ft)	0.00	Cum SA (acres)	1240.86	1546.93	539.69

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18222.61 LB	18727.21	12491.28	3428.22	495.29	7.62	6.93	3.64
18727.21	19231.81	19352.65	3856.20	506.68	11.80	7.64	5.02
19231.81	19736.41	44647.66	6229.16	508.10	27.22	12.34	7.17
19736.41	20241.01	51117.81	6737.46	504.61	31.17	13.35	7.59
20241.01	20745.61 RB	36390.59	5494.42	504.54	22.19	10.93	6.62

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 203.67

INPUT
Description: 203.67

Right Channel Bank Staion Interpolated
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15401.1	982.5	15424.7	984.1	15508.1	982.3	15591.4	979.1	15681.8	979.9
15787.8	979.3	15920	979.3	16055.7	978.9	16157.5	979.1	16260.6	979.3
16282.2	979.2	16477	979.1	16627.1	979.9	16750.8	980.1	16865.7	979.3
16957.3	981.3	16980.5	980.6	17002.4	977.7	17014.1	979.2	17103.7	973.3
17179.5	973.2	17215.7	975.7	17267.4	969.7	17366.5	975.6	17541.8	974.3
17694.8	973.7	17837.2	974.1	17962.6	973.8	17982.5	973.7	18104.5	972.8
18289.3	972.9	18348.9	975.3	18350.2	973.2	18394.8	968.7	18516.9	971.1
18627.3	969.9	18690.1	970.4	18740.2	966.8	18787.4	966.3	18802.9	968.2
18941.9	973.8	19049	974.1	19155.9	972.4	19180.7	975.8	19211.3	962.3
19411.4	963.8	19519	963.9	19654.3	964.2	19798.6	964.3	19832.9	964.3
20036.1	964.3	20137.2	965.3	20302.2	963	20432.8	965.2	20537.5	965.2
20656.2	965.3	20661.5	965.6	20693.5	975.1	20699.3	977.8	20708.7	982.2
20796	983.8	20827.7	980.1	20837	982.9	20858.2	981.6	21858.6	983.5
21904.3	982.5	23520.4	980	23527.3	982.8	23545.1	983.5	23556.1	980.2
23584.2	981.5	23593	977.2	23603.5	980.1	23621	979.7		

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15401.1	.025	16957.3	.037	18348.9	.037	18941.9	.032	20708.7	.032
20796	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18348.9	20699.3		470	490	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15401.1	17837.2	984.1	20708.7	23621	984.1

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	976.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.	0.037	0.033	
E.G. Elev (ft)	977.61	Reach Len. (ft)	470.00	490.00	505.00
Crit W.S. (ft)	971.55	Flow Area (sq ft)	1810.34	23834.66	
E.G. Slope (ft/ft)	0.000940	Area (sq ft)	4151.50	23834.66	
Q Total (cfs)	164000.00	Flow (cfs)	5175.86	158824.14	
Top Width (ft)	3648.90	Top Width (ft)	1300.38	2348.53	
Vel Total (ft/s)	6.40	Avg. Vel. (ft/s)	2.86	6.66	
Max Chl Dpth (ft)	14.63	Hydr. Depth (ft)	3.54	10.15	
Conv. Total (cfs)	5348269.5	Conv. (cfs)	168792.0	5179477.5	
Length Wtd. (ft)	489.59	Wetted Per. (ft)	511.75	2355.25	
Min Ch El (ft)	962.30	Shear (lb/sq ft)	0.21	0.59	
Alpha	1.06	Stream Power (lb/ft s)	0.59	3.96	
Frctn Loss (ft)	0.46	Cum Volume (acre-ft)	4558.61	13434.54	1148.17
C & E Loss (ft)	0.00	Cum SA (acres)	1233.50	1519.16	539.69

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17759.34	17955.86	895.57	353.06	118.66	0.55	2.98	2.54
17955.86	18152.38	2152.26	731.08	196.53	1.31	3.72	2.94
18152.38	18348.90	2128.01	726.19	196.57	1.30	3.70	2.93
18348.90 LB	18818.98	15637.87	3458.30	471.77	9.54	7.36	4.52
18818.98	19289.06	12516.62	2829.54	473.27	7.63	6.02	4.42
19289.06	19759.14	47244.71	6144.90	470.08	28.81	13.07	7.69
19759.14	20229.22	43596.76	5855.71	470.09	26.58	12.46	7.45
20229.22	20699.30 RB	39828.20	5546.21	470.03	24.29	11.85	7.18

CROSS SECTION RIVER: 1
REACH: 1 RS: 203.58

INPUT
Description: 203.58

Right Channel Bank Staion Interpolated
Station Elevation Data num= 75

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15526.8	983.1	15573.8	984.7	15577.9	981.7	15586.4	984.8	15648.9	982.8
15684.7	983.7	15735.5	978.7	15806.7	977.9	15925.6	978.3	15954.8	978.2
16031.7	974.4	16204.9	973.9	16321.4	974.3	16490.9	975.4	16570	975.3
16706.6	974.9	16819.9	975.7	16971.3	975.7	17120	975.1	17136.9	976.6
17168.4	976.1	17202.6	978.2	17251.4	973.9	17388.1	976	17458.2	974.6
17489	971.8	17596.3	976.7	17707.8	975.2	17790.7	972.4	17873.7	975.6
17978	974.3	18064.9	975.2	18204	975.9	18355.4	971.3	18433.8	971.3
18553.6	967.4	18636	970.5	18664.8	967.3	18681	970.8	18724	969.1
18765.5	971	18876.6	970.7	18988.9	970	19101.4	968.2	19228.7	965.4
19261.3	964.2	19337.3	967.8	19426.3	965.2	19456.9	967.4	19474	963.9
19482.9	963.9	19725.9	963.6	19842.5	963.6	19929.1	963.8	20222.2	963.5
20355.7	963.9	20380	963.9	20543.8	963.6	20636	963.9	20645.5	962.1
20704.98	977.3868	20706.2	977.7	20767.4	979.5	20782.3	981.3	20788.1	979.3
20818.3	979.5	20825.7	982.3	20859.8	981.5	22062.2	983.3	22098	982.2
23711.2	980	23724.5	982.4	23738.8	982.8	23750.9	979.2	23783	979.2

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15526.8	.025	17202.6	.037	18204	.037	18681	.032	20782.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18204	20704.98	560	513	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15526.8	17707.8	984.8	20782.3	23783	984.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	976.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.68	Wt. n-Val.	0.037	0.032	
E.G. Elev (ft)	977.14	Reach Len. (ft)	560.00	513.00	495.00
Crit W.S. (ft)	971.51	Flow Area (sq ft)	859.86	24479.72	
E.G. Slope (ft/ft)	0.000946	Area (sq ft)	3274.29	24479.72	
Q Total (cfs)	164000.00	Flow (cfs)	1531.70	162468.31	
Top Width (ft)	4630.90	Top Width (ft)	2133.51	2497.39	
Vel Total (ft/s)	6.47	Avg. Vel. (ft/s)	1.78	6.64	
Max Chl Dpth (ft)	14.37	Hydr. Depth (ft)	1.73	9.80	
Conv. Total (cfs)	5333318.5	Conv. (cfs)	49811.2	5283507.5	
Length Wtd. (ft)	514.20	Wetted Per. (ft)	496.32	2500.83	
Min Ch El (ft)	962.10	Shear (lb/sq ft)	0.10	0.58	
Alpha	1.04	Stream Power (lb/ft s)	0.18	3.84	
Frctn Loss (ft)	0.56	Cum Volume (acre-ft)	4518.55	13162.80	1148.17
C & E Loss (ft)	0.00	Cum SA (acres)	1214.98	1491.90	539.69

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17668.56	17847.04	873.09	388.76	139.33	0.53	2.79	2.25
17847.04	18025.52	443.66	285.97	178.51	0.27	1.60	1.55
18025.52	18204.00	214.95	185.13	178.48	0.13	1.04	1.16
18204.00 LB	18704.20	10662.53	2790.35	500.96	6.50	5.58	3.82

18704.20	19204.39	17942.16	3511.34	500.30	10.94	7.02	5.11
19204.39	19704.59	40777.16	5748.64	500.78	24.86	11.49	7.09
19704.59	20204.79	48928.46	6409.88	500.20	29.83	12.81	7.63
20204.79	20704.98 RB	44158.00	6019.51	498.60	26.93	12.12	7.34

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 203.48

INPUT
Description: 203.48

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15578.8	977.1	15693.5	976.9	15717.9	977	15814.4	976.9	15880.9	978.5
15900.7	978.2	15967.5	973.1	16013.9	973.9	16068.7	973.5	16168.1	973.8
16324.7	974	16419.6	974.1	16584.4	974.1	16657.7	974.3	16810.8	974.5
16932.4	974.5	17066.5	974.6	17177.1	974.2	17201.7	974.2	17312.2	975.1
17331.6	976	17341.7	975.7	17369.6	978.2	17434.9	970.7	17473.9	969.3
17535.6	971.3	17609.4	970.9	17714.8	972.8	17721.6	972.8	17841.5	973.7
17932.6	974	18016.7	972.4	18039.3	972.1	18120.3	973.5	18171.8	968
18184	969.1	18267.5	973.4	18353.5	970.9	18380.1	969.8	18439	969.7
18521.1	965.52	18538.6	965.3	18561.3	969.6	18571.7	970	18619.2	968.6
18635.6	969.2	18675.5	973.1	18730.7	972.2	18817.1	970.9	18956	969.1
18991.1	970.6	19035.5	973.7	19082.7	974.1	19116.8	968.9	19177.6	972.2
19217.3	970.5	19332.9	970.5	19399.6	962.9	19491.7	962.7	19584.5	965.1
19624.3	962.2	19645.8	962.3	19669.3	965	19679.4	965.3	19794.5	963.4
19884.7	963.3	19987.2	964.5	20013.9	964.4	20199.2	964	20220.6	964.7
20227.4	967.6	20231.3	963.9	20325.6	963.9	20342.5	963.9	20345.7	965.5
20353.5	967.3	20358.6	964.3	20404	963.2	20433.1	965.2	20458.7	965
20480	963.1	20588.9	964.7	20638.4	966.8	20725.1	968.7	20785.1	971.2
20856.76	976.9083	20866.7	977.7	20886.7	979.4	20901.8	978.6	20909.2	979.5
20915.7	978.5	20925.9	979.4	20953.9	979.4	20960.7	978.7	20985.4	978.7
20989.2	980.3	20999	981.2						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15578.8	.025	17369.6	.037	17932.6	.037	18619.2	.032	20886.7	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17932.62	20856.76	500	505.82	515	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15578.8	17369.6	981.2	20999	20999	981.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	975.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.	0.037	0.032	
E.G. Elev (ft)	976.58	Reach Len. (ft)	500.00	505.82	515.00
Crit W.S. (ft)	972.02	Flow Area (sq ft)	2009.07	23607.95	
E.G. Slope (ft/ft)	0.001248	Area (sq ft)	4384.08	23607.95	
Q Total (cfs)	164000.00	Flow (cfs)	6814.83	157185.16	
Top Width (ft)	4863.74	Top Width (ft)	1952.03	2911.71	
Vel Total (ft/s)	6.40	Avg. Vel. (ft/s)	3.39	6.66	
Max Chl Dpth (ft)	13.72	Hydr. Depth (ft)	3.70	8.11	
Conv. Total (cfs)	4642055.0	Conv. (cfs)	192895.3	4449159.5	
Length Wtd. (ft)	505.61	Wetted Per. (ft)	543.50	2918.40	
Min Ch El (ft)	962.20	Shear (lb/sq ft)	0.29	0.63	
Alpha	1.05	Stream Power (lb/ft s)	0.98	4.20	
Frctn Loss (ft)	0.65	Cum Volume (acre-ft)	4469.32	12879.64	1148.17
C & E Loss (ft)	0.00	Cum SA (acres)	1188.71	1460.05	539.69

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17304.92	17461.84	882.75	272.03	72.68	0.54	3.76	3.25
17461.84	17618.76	3359.55	825.37	156.96	2.05	5.26	4.07
17618.76	17775.68	1766.63	561.23	156.94	1.08	3.58	3.15
17775.68	17932.60	805.91	350.44	156.92	0.49	2.23	2.30

17932.60 LB	18517.43	10740.05	2788.82	585.48	6.55	4.77	3.85
18517.43	19102.26	13895.50	3016.55	585.87	8.47	5.16	4.61
19102.26	19687.10	37556.00	5418.84	585.85	22.90	9.27	6.93
19687.10	20271.93	56564.96	6933.41	586.93	34.49	11.86	8.16
20271.93	20856.76 RB	38428.65	5450.31	574.27	23.43	9.52	7.05

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 203.39

INPUT
Description: 203.39
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15500	974.4	15548.5	978.1	15604.9	974.8	15609.8	975.3	15717.3	976.3
15722.2	976.3	15836.5	975.1	15864.7	976.6	15875.6	973	15888.1	975.4
15914.3	976.1	16076.8	976.1	16271.9	976.2	16290.8	976.1	16376.9	976.2
16390.2	976.2	16520.6	976	16549.4	977.1	16694.9	973.2	16751.5	970.2
16832.2	968.6	16901	973.2	17053.7	971.4	17105.6	971.5	17120	974.9
17136.1	970.9	17147.5	974.3	17212	975.5	17260.9	972.8	17296.2	974.2
17353	971.2	17382.3	974.9	17417.1	974.8	17453.9	976.4	17519.2	968.1
17602.4	973.1	17694.4	971.8	17733.8	970.7	17815.5	973	17901.2	972.3
17947.7	972.1	17970.8	973	18042	972.8	18114	969.5	18199.7	969.1
18207.5	968.6	18224.3	964.4	18259.9	963.8	18330.5	967.6	18418.7	967.4
18507.8	969.8	18601.7	972.8	18629.1	974.7	18686.7	980.9	18738	974.3
18773.9	975.9	18902.4	975	19023.2	970.3	19056.6	971.7	19105.2	965.4
19218.1	968.3	19268.2	972	19346.8	971.4	19370.8	969.4	19397.9	965.7
19418.4	960.4	19479.4	959.9	19491.4	962	19633	960.6	19736.1	965
19770.9	965.7	19800.9	963.8	19816.1	965.5	19916.4	965	20010.4	963.8
20159.5	964.6	20260.9	963.8	20303.7	964.2	20330.3	963.1	20346	964.4
20389.8	962.9	20483.7	964.2	20485.1	964.9	20576.8	964.7	20682.1	965.3
20789.2	969.4	20834.2	971.9	20922.2	969.5	20993.5	968.3	21038.8	975.6
21082.9	975.6	21098.5	976.5	21138.2	977.4	21143.6	978.2	21153.1	976.5
21223	978.3								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
15500	.025	16832.2	.037	17970.8	.037	18601.7	.032	21038.8	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17970.8	21038.8	500	505	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15500	17519.2	980.9	21223.3	21223	980.9

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	975.22	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.70	Wt. n-Val.	0.037	0.033	
E.G. Elev (ft)	975.93	Reach Len. (ft)	500.00	505.00	500.00
Crit W.S. (ft)	971.09	Flow Area (sq ft)	1495.59	23365.43	
E.G. Slope (ft/ft)	0.001331	Area (sq ft)	3865.57	23365.43	
Q Total (cfs)	164000.00	Flow (cfs)	4866.54	159133.47	
Top Width (ft)	4207.55	Top Width (ft)	1350.24	2857.31	
Vel Total (ft/s)	6.60	Avg. Vel. (ft/s)	3.25	6.81	
Max Chl Dpth (ft)	15.32	Hydr. Depth (ft)	3.31	8.18	
Conv. Total (cfs)	4495587.0	Conv. (cfs)	133402.0	4362185.0	
Length Wtd. (ft)	504.81	Wetted Per. (ft)	451.83	2861.48	
Min Ch El (ft)	959.90	Shear (lb/sq ft)	0.28	0.68	
Alpha	1.04	Stream Power (lb/ft s)	0.89	4.62	
Frctn Loss (ft)	0.73	Cum Volume (acre-ft)	4421.97	12606.91	1148.17
C & E Loss (ft)	0.00	Cum SA (acres)	1169.76	1426.55	539.69

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17476.64	17641.36	1718.27	478.32	122.32	1.05	3.92	3.59
17641.36	17806.08	1897.55	571.92	164.77	1.16	3.47	3.32
17806.08	17970.80	1250.72	445.34	164.75	0.76	2.70	2.81

17970.80 LB	18584.40	18239.18	3824.98	614.39	11.12	6.23	4.77
18584.40	19198.00	7075.83	1682.69	405.98	4.31	4.15	4.21
19198.00	19811.60	49257.53	6366.49	615.17	30.04	10.38	7.74
19811.60	20425.20	54087.54	6727.78	613.75	32.98	10.96	8.04
20425.20	21038.80 RB	30473.39	4763.48	612.19	18.58	7.79	6.40

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 203.29

INPUT
Description: 203.29

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14306.7	975.2	14398.4	975.7	14462.6	975.2	14487	977.9	14491.6	976.6
14498.9	977.7	14515.3	976.7	14528	974	14553.9	972.7	14670.7	972.7
14687.5	972.7	14856.4	972.7	14867.5	972.7	15002.5	972.7	15006.1	972.7
15100.1	972.9	15122.5	975.2	15172.8	972.4	15364.8	972.7	15484.5	974
15649.2	973.6	15701.1	973.4	15710	975.9	15724.5	974.3	15776.8	976.4
15815.8	974	15918.9	974.9	15999.4	974.9	16112.9	975.4	16114.8	975.5
16293.6	975.5	16301	975.5	16411.1	976	16465.5	976	16664.1	976
16733.3	975.8	16808.3	976.1	16968.8	976.1	17062.2	976.1	17153	976.2
17251.7	975.1	17286.9	974.6	17327.4	969.3	17410.1	970.5	17467.7	974.5
17469.8	973.6	17539	974.4	17590	968.4	17649.5	971.4	17775.2	971.1
17888.5	970.4	17987.9	968.4	18065.6	972.5	18117.7	969.6	18146.3	971.6
18204.1	968.8	18247.3	971.6	18266.5	967.8	18378.2	963.9	18464	968.2
18535.2	966.5	18593.9	967.2	18627.7	974.8	18719.2	971.5	18838.7	974.7
18920	973.9	18947.9	969.3	19046.6	972.7	19166.7	971.8	19269	971.6
19295.1	965.4	19325.9	960.7	19447.7	960.9	19552.4	961.6	19655.6	961.1
19756.7	962.1	19849.6	963.4	19945.3	963	20028	965.9	20124.9	965.7
20226	965.2	20297.8	963.6	20378.8	964.4	20396.1	961.9	20494.8	962.8
20586	966.7	20676.2	969.1	20796.8	969	20894.8	969.2	20935.1	968.4
20981.6	969.2	21027.6	966.6	21082.5	8975.7	482 1088.3	976.7	21155	977.1
21257.1	975.6	21295	976.3						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14306.7	.025	16968.8	.037	18065.6	.037	18535.2	.032	21088.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18065.6	21082.58	620	535	420	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14306.7	17590	977.9	21088.3	21295	977.9

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	974.46	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.73	Wt. n-Val.	0.037	0.033	
E.G. Elev (ft)	975.20	Reach Len. (ft)	620.00	535.00	420.00
Crit W.S. (ft)	970.77	Flow Area (sq ft)	1911.74	22390.42	
E.G. Slope (ft/ft)	0.001572	Area (sq ft)	4404.29	22390.42	
Q Total (cfs)	164000.00	Flow (cfs)	7692.92	156307.08	
Top Width (ft)	4967.77	Top Width (ft)	2002.07	2965.71	
Vel Total (ft/s)	6.75	Avg. Vel. (ft/s)	4.02	6.98	
Max Chl Dpth (ft)	13.76	Hydr. Depth (ft)	4.02	7.55	
Conv. Total (cfs)	4136567.0	Conv. (cfs)	194038.3	3942528.8	
Length Wtd. (ft)	540.60	Wetted Per. (ft)	475.81	2970.14	
Min Ch El (ft)	960.70	Shear (lb/sq ft)	0.39	0.74	
Alpha	1.04	Stream Power (lb/ft s)	1.59	5.16	
Frctn Loss (ft)	0.91	Cum Volume (acre-ft)	4374.51	12341.68	1148.17
C & E Loss (ft)	0.01	Cum SA (acres)	1150.52	1392.80	539.69

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17564.41	17815.01	3041.22	814.42	225.08	1.85	3.62	3.73

17815.01	18065.60	4651.70	1097.31	250.72	2.84	4.38	4.24
18065.60 LB	18669.00	17267.19	3584.03	594.30	10.53	6.05	4.82
18669.00	19272.39	3513.84	1265.27	571.25	2.14	2.22	2.78
19272.39	19875.79	66836.17	7577.40	604.40	40.75	12.56	8.82
19875.79	20479.18	47165.16	6144.29	603.65	28.76	10.18	7.68
20479.18	21082.58 RB	21524.71	3819.44	596.53	13.12	6.41	5.64

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 203.19

INPUT
Description: 203.19

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16639.2	974.6	16696.5	974.6	16879.5	976.3	16960.6	976.7	16982.2	976.1
16987.1	975.2	16999.5	976.6	17045.2	975.2	17145.4	975	17180.8	974.8
17306.9	974	17389.7	974.5	17513.2	972.9	17539	972.7	17596.6	969.7
17650.2	971	17690.3	968.3	17762.5	967.5	17781.9	968.4	17812.7	966.2
17893.5	967.8	17945.6	971.7	18023.5	971.3	18058.7	964.6	18099.2	971.6
18139.8	972.1	18185.8	967.2	18251.5	970.8	18282.1	971.9	18338.2	971.3
18384.4	969	18406.2	969.7	18445.9	965.2	18495.1	966.4	18521	969
18558.4	964.7	18605.8	963.2	18623.9	961.2	18659	961.4	18701.5	965.4
18712.2	964.5	18734.5	964.5	18797.4	970	18848.7	968.9	18911.7	969.9
18983.1	969.7	19009.9	968.7	19025	967.1	19031	968.2	19080.8	968.8
19095.4	970.3	19159	970.9	19191.3	967.9	19256	967.2	19294.3	960.1
19346.5	959	19442.2	956.7	19471.8	962.7	19542.3	963	19643.7	963.4
19644.6	963.4	19721.9	962.3	19788.7	962.7	19870	964.6	19925.6	962.6
19971.9	966.8	20041.3	966	20111.2	965.3	20142.5	963.8	20233.9	963.3
20336.2	963.2	20384.6	963.4	20398.2	962.6	20462.1	962.2	20541.1	965.2
20570.6	966.9	20635.2	967.1	20669.2	965.5	20696.2	966.5	20752.9	964.7
20795.4	967.4	20825.2	966.9	20848.9	967.5	20865.3	966.7	20898.7	966.8
20928.5	970.1	20952.6	973.8	20965.3	9974.9827	20981.8	976.5	20999	975.6
21013	977.9	21075.8	975.9	21096.9	975.8	21174.9	976.1	21273.9	975.8
21344.5	975.8	21380	975.6						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16639.2	.025	17762.5	.043	18282.1	.043	18734.5	.037	20981.8	.025
21013	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18282.12	0965.39	535	520	485	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16639.2	17587	978

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	973.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.	0.036	0.038	
E.G. Elev (ft)	974.28	Reach Len. (ft)	535.00	520.00	485.00
Crit W.S. (ft)	969.95	Flow Area (sq ft)	3019.47	22027.15	
E.G. Slope (ft/ft)	0.001787	Area (sq ft)	3161.07	22027.15	
Q Total (cfs)	164000.00	Flow (cfs)	13926.43	150073.56	
Top Width (ft)	3491.38	Top Width (ft)	822.24	2669.14	
Vel Total (ft/s)	6.55	Avg. Vel. (ft/s)	4.61	6.81	
Max Chl Dpth (ft)	16.89	Hydr. Depth (ft)	4.34	8.25	
Conv. Total (cfs)	3879641.0	Conv. (cfs)	329448.5	3550192.5	
Length Wtd. (ft)	521.19	Wetted Per. (ft)	697.10	2673.28	
Min Ch El (ft)	956.70	Shear (lb/sq ft)	0.48	0.92	
Alpha	1.03	Stream Power (lb/ft s)	2.23	6.26	
Frctn Loss (ft)	1.01	Cum Volume (acre-ft)	4320.67	12068.92	1148.17
C & E Loss (ft)	0.01	Cum SA (acres)	1130.42	1358.20	539.69

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

17515.41	17624.94	774.59	135.48	37.96	0.47	3.57	5.72
17624.94	17734.47	3098.28	475.72	109.63	1.89	4.34	6.51
17734.47	17843.99	3918.46	691.18	109.63	2.39	6.31	5.67
17843.99	17953.52	2130.49	526.22	109.68	1.30	4.80	4.05
17953.52	18063.05	1254.74	383.77	110.22	0.77	3.50	3.27
18063.05	18172.57	1136.54	361.68	110.25	0.69	3.30	3.14
18172.57	18282.10	1613.32	445.42	109.72	0.98	4.07	3.62
18282.10 LB	18818.76	19347.59	3698.24	537.98	11.80	6.89	5.23
18818.76	19355.42	17102.61	3178.52	537.77	10.43	5.92	5.38
19355.42	19892.07	52013.30	6193.19	537.33	31.72	11.54	8.40
19892.07	20428.73	37075.95	5053.29	536.94	22.61	9.42	7.34
20428.73	20965.39 RB	24534.11	3903.90	523.26	14.96	7.47	6.28

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 203.09

INPUT
Description: 203.09

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16077.3	972.6	16108.8	973.2	16114.5	973.9	16141.2	974.9	16147	976.1
16177.1	975.5	16186.3	974.5	16217.9	974.3	16296.3	973.5	16396.3	973.6
16495.1	973.6	16619.4	973.4	16649.6	973.4	16802.2	973.6	16847.8	974.3
16927.3	974.4	16967.8	974.4	17063.1	975.3	17138.5	975.2	17150.2	974.9
17158.9	972.7	17171.5	974	17175.5	975.3	17183.4	974.2	17268	973.7
17382	973.8	17583.9	974.5	17588.1	974.4	17656.3	973	17724.5	971.9
17787.2	966	17835	968.2	17878.2	968.6	17889.9	967.6	17960.8	969
18034.5	970.7	18151.5	966.1	18178.5	966.8	18202.2	966.1	18277.6	970
18313.5	969.4	18321.1	969.7	18364.1	965.2	18437	969.5	18507	971.4
18541.2	970.5	18605.3	962.2	18681.6	963	18770.4	960.8	18814.5	971
18875.7	969	18992.4	969.2	19035.2	968.4	19104.8	968.6	19136.4	968
19190.2	961.9	19211.5	961.8	19247.1	964	19266.9	960.3	19282.4	958.7
19461.8	959.9	19573.5	959.6	19585.9	960.2	19653.1	960.1	19682.3	962.4
19752.6	963.1	19757	963.1	19865.5	961.3	19934.1	962.2	20005.1	964.6
20113.7	965.7	20184.3	965.7	20264.8	966	20287.7	966.2	20364.7	966.6
20397.2	966.4	20469.2	966.1	20498.9	964.4	20517.6	961.6	20546.5	960.5
20610.5	960.6	20636.9	964.4	20681.6	965.4	20709.6	964.4	20742.1	962.1
20765.3	962.2	20780	963.2	20812.8	959.6	20837.9	961.3	20914.8	2973.8939
20917.3	974.3	20926.9	975.4	20942.8	974.2	20972.4	973.4	21023.3	975.3
21111.6	973.6	21171	974.1						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16077.3	.025	17588.1	.043	18507	.043	18814.5	.037	20917.3	.025

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18507	20914.82	520	518	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16077.3	17583.9	976.1	20917.3	21171	976.1

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	972.42	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.83	Wt. n-Val.	0.043	0.038	
E.G. Elev (ft)	973.25	Reach Len. (ft)	520.00	518.00	500.00
Crit W.S. (ft)	969.11	Flow Area (sq ft)	3133.18	20204.61	
E.G. Slope (ft/ft)	0.002112	Area (sq ft)	3133.18	20204.61	
Q Total (cfs)	164000.00	Flow (cfs)	12200.80	151799.20	
Top Width (ft)	3213.89	Top Width (ft)	815.04	2398.85	
Vel Total (ft/s)	7.03	Avg. Vel. (ft/s)	3.89	7.51	
Max Chl Dpth (ft)	13.72	Hydr. Depth (ft)	3.84	8.42	
Conv. Total (cfs)	3568410.5	Conv. (cfs)	265472.4	3302938.3	
Length Wtd. (ft)	518.12	Wetted Per. (ft)	816.06	2403.51	
Min Ch El (ft)	958.70	Shear (lb/sq ft)	0.51	1.11	
Alpha	1.08	Stream Power (lb/ft s)	1.97	8.33	
Frctn Loss (ft)	0.99	Cum Volume (acre-ft)	4282.02	11816.84	1148.17
C & E Loss (ft)	0.02	Cum SA (acres)	1120.37	1327.95	539.69

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross

section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17535.12	17697.10	0.04	0.21	5.15	0.00	0.04	0.19
17697.10	17859.08	2137.70	579.79	162.31	1.30	3.58	3.69
17859.08	18021.06	2156.01	582.39	162.05	1.31	3.60	3.70
18021.06	18183.04	2813.85	683.34	162.08	1.72	4.22	4.12
18183.04	18345.02	2656.76	660.43	162.23	1.62	4.08	4.02
18345.02	18507.00	2436.44	627.01	162.24	1.49	3.87	3.89
18507.00 LB	18988.56	16501.08	2935.90	483.34	10.06	6.10	5.62
18988.56	19470.13	34252.83	4400.34	482.42	20.89	9.14	7.78
19470.13	19951.69	47566.78	5355.40	481.70	29.00	11.12	8.88
19951.69	20433.26	21029.68	3281.51	481.60	12.82	6.81	6.41
20433.26	20914.82 RB	32448.83	4231.48	474.45	19.79	8.95	7.67

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 202.99

INPUT
Description: 202.99
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17058.5	973.2	17114.3	973.5	17267.7	973.8	17289	973.9	17305.6	974.4
17316.7	973.3	17329.5	974.7	17397.2	973.4	17508.3	973.5	17530.6	972.5
17571.7	973.2	17646.3	973.1	17659.9	972.5	17696.1	969.8	17713.5	970
17723.9	969.1	17781.1	967.5	17850.9	965.7	17864.6	967.2	17879.9	968
17893	968.2	17922	965.3	17941	964	17984.7	968.4	18035.6	970
18091.7	969.9	18126.6	969.7	18186.5	969.9	18238.3	970	18288.7	964.3
18293.1	963.9	18346.5	968.2	18360.3	967.9	18420.8	969.3	18469.4	969.3
18497.6	968.2	18580.4	968.7	18586.2	968.9	18608.3	967.1	18619.4	964.4
18650.8	965	18666.5	962.2	18686.7	961.6	18748.1	962.5	18789.2	962.8
18875	962.8	18906.3	963.4	18945.7	961.5	18988.8	963.5	19005.4	963.6
19058	964.4	19119.4	964.2	19128.8	964.3	19182	965.3	19208.5	964.3
19269.4	961.7	19318.8	960.3	19334.7	959.8	19391.3	959.8	19415.3	959.6
19435.9	960	19527.6	959.5	19609.2	959.5	19725.7	959.2	19759.9	960.9
19828.4	961.4	19945.2	960.7	19948	960.7	20028.5	959.3	20090	960.7
20131.7	963.1	20172.8	964.1	20227.9	965.4	20241.1	965.3	20304	965
20364.7	965.9	20422.1	964.9	20460.6	964.9	20528.6	963.3	20552.5	959.7
20558.2	959.8	20619.9	962.6	20665.6	962	20682.4	960.6	20692.5	959.3
20713.5	960.1	20748.9	960	20773.8	959.3	20789	960.3	20808	960.6
20818.5	963.8	20841.7	963.9	20894.5	963.1	20926.9	970.2	20960.7	976.4
20976	975.9								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17058.5	.025	17646.3	.043	18469.4	.043	19058	.037	20926.9	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18469.4	20926.9	480	456	424	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
17058.5	17646.3	976

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	971.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.75	Wt. n-Val.	0.043	0.038	0.043
E.G. Elev (ft)	972.24	Reach Len. (ft)	480.00	456.00	424.00
Crit W.S. (ft)	967.55	Flow Area (sq ft)	2580.39	22030.71	4.58
E.G. Slope (ft/ft)	0.001726	Area (sq ft)	2580.39	22030.71	4.58
Q Total (cfs)	164000.00	Flow (cfs)	8104.77	155890.36	4.86
Top Width (ft)	3260.60	Top Width (ft)	796.04	2457.50	7.06
Vel Total (ft/s)	6.66	Avg. Vel. (ft/s)	3.14	7.08	1.06
Max Chl Dpth (ft)	12.30	Hydr. Depth (ft)	3.24	8.96	0.65
Conv. Total (cfs)	3947951.3	Conv. (cfs)	195105.0	3752729.0	117.1
Length Wtd. (ft)	457.42	Wetted Per. (ft)	797.26	2460.41	7.18
Min Ch El (ft)	959.20	Shear (lb/sq ft)	0.35	0.96	0.07
Alpha	1.08	Stream Power (lb/ft s)	1.10	6.83	0.07
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	4247.91	11565.72	1148.15
C & E Loss (ft)	0.04	Cum SA (acres)	1110.75	1299.07	539.65

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17622.86	17716.92	77.69	52.67	43.63	0.05	1.21	1.48
17716.92	17810.98	982.61	328.32	94.12	0.60	3.49	2.99
17810.98	17905.04	1544.98	430.97	94.24	0.94	4.58	3.58
17905.04	17999.10	1934.00	493.51	94.42	1.18	5.25	3.92
17999.10	18093.16	310.94	164.59	94.08	0.19	1.75	1.89
18093.16	18187.22	295.34	159.57	94.06	0.18	1.70	1.85
18187.22	18281.28	613.33	247.68	94.33	0.37	2.63	2.48
18281.28	18375.34	1801.00	472.63	94.30	1.10	5.02	3.81
18375.34	18469.40	544.90	230.45	94.07	0.33	2.45	2.36
18469.40 LB	18960.90	18205.08	3472.88	492.26	11.10	7.07	5.24
18960.90	19452.40	30831.24	4405.22	491.65	18.80	8.96	7.00
19452.40	19943.90	46771.91	5586.67	491.55	28.52	11.37	8.37
19943.90	20435.40	27447.85	4057.89	491.64	16.74	8.26	6.76
20435.40	20926.90 RB	32634.30	4508.05	493.31	19.90	9.17	7.24
20926.90	20930.17	4.00	3.26	3.33	0.00	1.00	1.23
20930.17	20933.45	0.86	1.29	3.33	0.00	0.40	0.66
20933.45	20936.72	0.00	0.02	0.53	0.00	0.05	0.16

CROSS SECTION RIVER: 1
REACH: 1 RS: 202.9

INPUT
Description: 202.9

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16149.3	972.1	16219	972.6	16381.4	973.3	16446.1	973.3	16495.7	974.5
16526.4	971.9	16579.2	972.6	16597.9	974.5	16618	973.6	16631.4	972.3
16699.5	972.9	16755	974.1	16804	971.3	16823.8	973.1	16887.1	972.5
16957.5	972.2	16968.8	972.6	17046.9	971.4	17089.7	971.9	17151.8	972
17172.3	972.1	17235.7	971.8	17304.6	971.3	17369.1	970.9	17440.5	971.3
17504.7	971	17572.9	970.6	17644	970	17676.2	972.2	17699.3	970.6
17772.5	968.5	17815	965.7	17875.4	965.2	17896.7	963.8	17966.8	965.8
18000.2	967.5	18046.2	967	18087.7	964.4	18148.3	968.4	18203.5	967.3
18258.7	965	18308.6	967.1	18383	966.5	18433.6	966.6	18455.6	968.2
18517.5	967.7	18563	962.4	18611.6	961.8	18646	958.2	18714	961.6
18808.1	961.6	18872.7	961.1	18917	963.4	18971.7	963.8	19054.2	965.2
19121.2	965.8	19211.2	964.4	19215.4	966	19303.3	961.5	19368.9	960.3
19378.2	959.7	19431.8	961.6	19460.5	960.1	19592.2	957.9	19666.6	958.3
19722.9	960.9	19833.6	959	19903.1	959.5	19944.9	961	20063.7	959.6
20145.5	959.8	20206.7	960.4	20250.7	959.4	20318.7	958.5	20412.7	962.7
20460.7	961.4	20488.5	963.8	20502.9	964	20545	960.1	20596	959.7
20624.3	960.6	20694.4	959	20754.9	958.5	20806.5	956.5	20831.6	957.9
20858.2	961.1	20861.7	962.3	20936.5	969.5	20988.5	971.9	20993.5	972.3
21011	973.7	21025.1	975.7	21027.9	980.1	21042.4	977	21052.5	978.4
21066.1	978.5	21080	974.2						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16149.3	.025	17815	.043	18455.6	.043	18872.7	.037	21011	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18455.6	20993.5	575	538	460	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16149.3	17500	980.1

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	970.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.60	Wt. n-Val.	0.041	0.038	
E.G. Elev (ft)	971.52	Reach Len. (ft)	575.00	538.00	460.00
Crit W.S. (ft)	966.30	Flow Area (sq ft)	3303.12	23985.76	
E.G. Slope (ft/ft)	0.001285	Area (sq ft)	3303.20	23985.76	
Q Total (cfs)	164000.00	Flow (cfs)	11302.65	152697.36	
Top Width (ft)	3419.59	Top Width (ft)	907.88	2511.71	
Vel Total (ft/s)	6.01	Avg. Vel. (ft/s)	3.42	6.37	
Max Chl Dpth (ft)	14.42	Hydr. Depth (ft)	3.67	9.55	
Conv. Total (cfs)	4574259.5	Conv. (cfs)	315251.5	4259008.0	

Length Wtd. (ft)	540.74	Wetted Per. (ft)	901.10	2514.33	
Min Ch El (ft)	956.50	Shear (lb/sq ft)	0.29	0.77	
Alpha	1.07	Stream Power (lb/ft s)	1.01	4.87	
Frctn Loss (ft)	0.66	Cum Volume (acre-ft)	4215.50	11324.86	1148.13
C & E Loss (ft)	0.02	Cum SA (acres)	1101.36	1273.06	539.62

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17379.33	17533.08	0.18	0.67	15.07	0.00	0.04	0.26
17533.08	17686.83	74.84	58.61	124.45	0.05	0.47	1.28
17686.83	17840.59	1447.12	399.92	146.07	0.88	2.74	3.62
17840.59	17994.34	3463.82	881.88	153.87	2.11	5.74	3.93
17994.34	18148.09	2245.11	680.05	153.98	1.37	4.42	3.30
18148.09	18301.85	2082.48	649.84	153.85	1.27	4.23	3.20
18301.85	18455.60	1989.11	632.15	153.82	1.21	4.11	3.15
18455.60 LB	18963.18	21804.15	4224.36	508.23	13.30	8.32	5.16
18963.18	19470.76	21072.21	3843.01	508.12	12.85	7.57	5.48
19470.76	19978.34	42589.69	5859.84	507.71	25.97	11.54	7.27
19978.34	20485.92	37294.66	5411.62	507.81	22.74	10.66	6.89
20485.92	20993.50 RB	29936.65	4646.93	482.46	18.25	9.65	6.44

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 202.8

INPUT
Description: 202.8

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16524.8	970.3	16556.4	971.5	16586.6	971.3	16591.4	972.2	16622.9	972.3
16660.4	974.1	16671.5	973.8	16699.8	970.7	16750	971.8	16768.2	970.7
16810	971.7	16908.3	970.6	16968.5	970.2	16997.3	973.4	17058.9	971.8
17081	970.9	17148.9	971	17188.6	970.2	17279.5	971.1	17348.6	971
17423	970.4	17488.6	969.6	17496.3	969.7	17556.3	970.2	17607.5	969.3
17662.7	971.7	17678.2	969.4	17755.1	968.2	17771.4	968.3	17836.1	965.5
17897.9	964.9	17974.2	962.8	18017.4	962.7	18037.3	963.4	18039.7	964
18135.1	964.3	18137.8	964.2	18205	963.3	18273.4	965.1	18313.6	965.5
18348.1	967.5	18390.8	968.8	18406.9	966.2	18434.5	959.9	18478	958.9
18492.5	956.4	18526.7	958.4	18618	960.3	18696.7	962.9	18716.3	963.1
18761.6	962.1	18858.8	963.6	18897.8	963.7	18966.5	960.9	18996.3	959.9
19072.2	959.5	19083	959.6	19151.4	960.5	19243.7	960.1	19333.5	960.5
19396.1	960.6	19435.5	960.4	19525.6	959.5	19621.8	960.4	19685.6	961.9
19750.9	962.5	19813.5	963.5	19828.2	963.6	19893.3	963.5	19985.3	961.5
20027.7	961	20127.3	961.5	20220.9	962	20261.5	962.8	20325.2	962.5
20339.8	963.1	20397.5	960.8	20461	959.3	20525.1	958.4	20576.6	957.1
20634.6	957.7	20682.6	958.4	20759.8	957.1	20823.5	956.8	20855.2	957.6
20859.5	958.4	20873	957.9	20906.1	958.3	20955.4	956.8	20983.8	959.2
20987.6	962.6	21013.7	97121014.96971.6307			21019.3	973.8	21057.4	987.6
21082.8	986	21093	986.3						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
16524.8	.025	17771.4	.043	18390.8	.043	19243.7	.037	21019.3	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18390.82	21014.96	600	555.5	450	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
16524.8	17279.5	987.6

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	970.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.52	Wt. n-Val.	0.042	0.039	
E.G. Elev (ft)	970.84	Reach Len. (ft)	600.00	555.50	450.00
Crit W.S. (ft)	965.59	Flow Area (sq ft)	3651.03	25399.98	
E.G. Slope (ft/ft)	0.001157	Area (sq ft)	3653.17	25399.98	
Q Total (cfs)	164000.00	Flow (cfs)	13003.53	150996.47	

Top Width (ft)	3577.49	Top Width (ft)	956.71	2620.78	
Vel Total (ft/s)	5.65	Avg. Vel. (ft/s)	3.56	5.94	
Max Chl Dpth (ft)	13.92	Hydr. Depth (ft)	3.97	9.69	
Conv. Total (cfs)	4821091.5	Conv. (cfs)	382263.5	4438828.0	
Length Wtd. (ft)	558.84	Wetted Per. (ft)	920.30	2625.07	
Min Ch El (ft)	956.40	Shear (lb/sq ft)	0.29	0.70	
Alpha	1.05	Stream Power (lb/ft s)	1.02	4.16	
Frctn Loss (ft)	0.71	Cum Volume (acre-ft)	4169.58	11019.88	1148.13
C & E Loss (ft)	0.01	Cum SA (acres)	1089.06	1241.37	539.62

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17395.60	17520.00	42.92	38.52	90.22	0.03	0.43	1.11
17520.00	17644.40	59.09	50.69	110.93	0.04	0.46	1.17
17644.40	17768.80	385.55	147.94	96.86	0.24	1.53	2.61
17768.80	17893.20	1539.50	517.26	124.46	0.94	4.16	2.98
17893.20	18017.60	3477.11	847.24	124.43	2.12	6.81	4.10
18017.60	18142.00	3090.35	789.51	124.49	1.88	6.35	3.91
18142.00	18266.40	3138.81	796.77	124.43	1.91	6.40	3.94
18266.40	18390.80	1270.20	463.10	124.48	0.77	3.72	2.74
18390.80 LB	18915.63	23030.04	4636.97	526.14	14.04	8.84	4.97
18915.63	19440.46	29776.01	5217.99	524.90	18.16	9.94	5.71
19440.46	19965.30	25900.57	4542.24	524.89	15.79	8.65	5.70
19965.30	20490.13	26860.96	4642.71	524.93	16.38	8.85	5.79
20490.13	21014.96 RB	45428.88	6360.08	524.22	27.70	12.20	7.14

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 202.69

INPUT
Description: 202.69

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17011.6	967.7	17023.5	967.7	17027.5	969.7	17103.8	970.9	17146.9	971.1
17176.2	972.4	17191.8	969.4	17194.6	968.5	17229	967.1	17294.2	968.5
17355.9	968.4	17445.9	967	17473.9	966.6	17539	968.1	17612.5	967.1
17670.9	967.5	17744.3	967.8	17814.2	967.3	17864	971	17864.9	969.3
17868	967.6	17892.1	965.9	17941.9	963.7	18000.1	961.6	18034.8	963.6
18086.5	962.2	18149.2	965.2	18155.1	964.6	18181.7	966.5	18238.5	967.5
18278.8	966.4	18296.3	967	18357.8	968.5	18371.8	972.9	18377.8	973.6
18394.4	971.5	18484.4	971	18522.7	971.5	18539.1	964.7	18552.9	960.1
18644.5	957.3	18707	953.7	18734.1	956.4	18813.8	956	18848.2	955.5
18893.1	956.3	18953	954.8	19004.8	957.3	19084.1	957.6	19157.7	958.3
19178.7	958.5	19240.7	959.5	19322.9	960.8	19365.9	962.7	19411.4	962.6
19474.6	962.5	19548.6	961.5	19628.5	961.4	19720.2	962.7	19779.3	961
19788.6	961.1	19848.4	962	19949.8	964.6	20005.6	961.1	20016.8	961.1
20083.2	961	20101.5	960.8	20164.7	959.6	20249.5	962.2	20340.4	963
20436.6	963.5	20463.4	963.4	20522.8	963.7	20592.1	963.4	20658.5	962.2
20698.9	961.2	20768.7	958.6	20856.6	958.8	20890.1	958.6	21023.8	956.8
21070.8	960.8	21077.4	967.1	21081.8	970.8403	21085.4	973.9	21098	980.8
21103.6	981.6	21111.1	978.1	21139.5	981.1	21166.7	979.8	21198.8	976.9
21211.8	978.5	21216.7	978.5	21220.2	977.8	21223.7	977.9	21225.4	978.5
21238.2	975.1	21274	973.3						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17011.6	.025	17868	.043	18377.8	.043	19084.1	.037	21103.6	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18377.8	21081.8	585	566.1	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17011.6	17176.2	981.6	21274.4	21274	981.6

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	969.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.61	Wt. n-Val.	0.037	0.039	
E.G. Elev (ft)	970.12	Reach Len. (ft)	585.00	566.10	510.00
Crit W.S. (ft)	965.19	Flow Area (sq ft)	3370.89	23641.91	
E.G. Slope (ft/ft)	0.001416	Area (sq ft)	3395.59	23641.91	
Q Total (cfs)	164000.00	Flow (cfs)	11596.49	152403.52	
Top Width (ft)	3716.99	Top Width (ft)	1164.28	2552.71	
Vel Total (ft/s)	6.07	Avg. Vel. (ft/s)	3.44	6.45	
Max Chl Dpth (ft)	15.80	Hydr. Depth (ft)	2.93	9.26	
Conv. Total (cfs)	4357917.5	Conv. (cfs)	308149.6	4049768.0	
Length Wtd. (ft)	567.45	Wetted Per. (ft)	1150.25	2558.76	
Min Ch El (ft)	953.70	Shear (lb/sq ft)	0.26	0.82	
Alpha	1.07	Stream Power (lb/ft s)	0.89	5.27	
Frctn Loss (ft)	0.88	Cum Volume (acre-ft)	4121.04	10707.18	1148.13
C & E Loss (ft)	0.01	Cum SA (acres)	1074.45	1208.38	539.62

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17102.68	17193.76	0.83	0.85	2.60	0.00	0.34	0.98
17193.76	17284.84	483.44	159.99	91.16	0.29	1.76	3.02
17284.84	17375.92	222.74	100.47	91.08	0.14	1.10	2.22
17375.92	17467.00	661.40	193.03	91.09	0.40	2.12	3.43
17467.00	17558.08	638.88	189.07	91.10	0.39	2.08	3.38
17558.08	17649.16	667.46	194.09	91.09	0.41	2.13	3.44
17649.16	17740.24	557.42	174.20	91.08	0.34	1.91	3.20
17740.24	17831.32	536.39	170.26	91.13	0.33	1.87	3.15
17831.32	17922.40	567.35	204.88	70.82	0.35	2.92	2.77
17922.40	18013.48	2573.84	604.16	91.16	1.57	6.63	4.26
18013.48	18104.56	2575.54	604.39	91.16	1.57	6.64	4.26
18104.56	18195.64	1360.15	412.19	91.23	0.83	4.53	3.30
18195.64	18286.72	508.84	228.38	91.11	0.31	2.51	2.23
18286.72	18377.80	242.21	134.94	74.45	0.15	1.82	1.79
18377.80 LB	18918.60	33726.66	4871.11	393.09	20.57	12.46	6.92
18918.60	19459.40	38377.49	5625.27	540.94	23.40	10.40	6.82
19459.40	20000.20	22343.16	3950.45	540.98	13.62	7.30	5.66
20000.20	20541.00	23060.92	4025.78	540.87	14.06	7.44	5.73
20541.00	21081.80 RB	34895.25	5169.30	542.89	21.28	9.59	6.75

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 202.59

INPUT
Description: 202.59

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17002.6	972.3	17024.4	972.3	17044.5	970.3	17059.2	968	17094.8	969.6
17174.4	971.6	17206.5	971.5	17240	970.3	17269.6	966.5	17294.8	968.3
17332.9	969.6	17346.3	969	17365.3	965.5	17382.1	965.5	17399.6	966.6
17456.2	967.4	17523.1	966.7	17531.4	966.1	17557.2	966	17651.6	966.7
17719.5	967.2	17792.8	966.6	17824.5	966	17874.3	968.6	17886.2	967.6
17905.4	963.2	17965.1	963.4	18022.2	961.6	18100.5	965.1	18174.1	965.7
18210.5	964.5	18233.1	965.7	18298.3	968.6	18346.1	966.9	18416.7	969.6
18505.8	969.5	18556.9	967.5	18622.3	970	18641.7	970	18695.8	961.6
18704.2	959.5	18757.3	962	18789.4	959.6	18857.2	957.4	18891.5	955.7
18960	953.7	18984.2	957.3	19041.9	957.5	19094.7	960.1	19217.7	959.4
19264.1	960.3	19322.3	963.2	19396.6	964.3	19407.1	961.9	19425.6	960
19426	960.9	19488.2	960.7	19564.4	961.7	19640.1	961.8	19698.4	962.2
19757.8	961.8	19850.5	959.2	19935.3	960.1	19956.2	961	19994.3	961.1
20000.8	960.6	20005.1	959.6	20026.1	957.7	20112.1	958.6	20156.3	960.2
20218.5	960.8	20291.8	962.8	20371.5	961.1	20441.9	962	20501.9	959.5

20592.8	959.1	20699	957.2	20711	957	20803.1	957	20825.8	957.1
20901.9	957.5	20941	958.6	20978.1	956.7	21025	956.8	21152.1	957.5
21195.0	9969.8993	21199.6	971.2	21234.1	969.1	21236.8	970.4	21264.7	967.7
21299.7	971.3	21305.5	967.6	21325.7	957.4	21362.7	958.8	21403.9	974
21429.1	977	21478	977.8						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17002.6	.025	18022.2	.043	18416.7	.043	19217.7	.037	21403.9	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18416.7	21195.09	400	561.2	640	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17002.6	17332.9	977.8	21200	21478	977.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	968.55	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.68	Wt. n-Val.	0.030	0.038	
E.G. Elev (ft)	969.23	Reach Len. (ft)	400.00	561.20	640.00
Crit W.S. (ft)	964.72	Flow Area (sq ft)	2691.00	22511.71	
E.G. Slope (ft/ft)	0.001709	Area (sq ft)	2741.41	22511.71	645.35
Q Total (cfs)	164000.00	Flow (cfs)	11764.01	152235.98	
Top Width (ft)	3795.74	Top Width (ft)	1100.15	2593.49	102.09
Vel Total (ft/s)	6.51	Avg. Vel. (ft/s)	4.37	6.76	
Max Chl Dpth (ft)	14.85	Hydr. Depth (ft)	2.60	8.68	
Conv. Total (cfs)	3966651.0	Conv. (cfs)	284535.0	3682116.0	
Length Wtd. (ft)	549.75	Wetted Per. (ft)	1037.34	2598.04	
Min Ch El (ft)	953.70	Shear (lb/sq ft)	0.28	0.92	
Alpha	1.03	Stream Power (lb/ft s)	1.21	6.25	
Frctn Loss (ft)	0.91	Cum Volume (acre-ft)	4079.83	10407.28	1144.35
C & E Loss (ft)	0.01	Cum SA (acres)	1059.24	1174.94	539.02

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17285.42	17379.69	282.46	69.06	31.21	0.17	2.23	4.09
17379.69	17473.97	551.85	160.63	94.31	0.34	1.70	3.44
17473.97	17568.24	717.64	188.04	94.30	0.44	1.99	3.82
17568.24	17662.51	791.86	199.46	94.28	0.48	2.12	3.97
17662.51	17756.79	463.49	144.64	94.27	0.28	1.53	3.20
17756.79	17851.06	700.12	185.29	94.32	0.43	1.97	3.78
17851.06	17945.33	1484.76	289.51	93.20	0.91	3.13	5.13
17945.33	18039.61	4049.95	561.84	94.32	2.47	5.96	7.21
18039.61	18133.88	1487.89	403.31	94.34	0.91	4.28	3.69
18133.88	18228.15	958.48	309.75	94.32	0.58	3.29	3.09
18228.15	18322.43	187.25	114.97	91.68	0.11	1.26	1.63
18322.43	18416.70	88.25	64.50	66.79	0.05	0.97	1.37
18416.70 LB	18972.38	18086.62	3127.24	376.69	11.03	8.33	5.78
18972.38	19528.05	27986.63	4523.99	556.92	17.07	8.14	6.19
19528.05	20083.73	28623.15	4397.87	555.97	17.45	7.91	6.51
20083.73	20639.41	29440.60	4472.33	555.82	17.95	8.05	6.58
20639.41	21195.09 RB	48098.98	5990.28	552.63	29.33	10.87	8.03

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 202.48

INPUT
Description: 202.48

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17009.6	967.6	17022.6	967.5	17087.4	968.9	17103.6	970.4	17112.7	969.9
17147.3	972	17156.9	971.8	17158.2	972.3	17178.9	971	17194.4	968
17247.5	968.9	17346.9	969.1	17398.9	969.9	17439.3	968.6	17487.9	968.6
17510.1	966.5	17588.4	966.2	17656.6	965	17699.5	965.1	17766.7	963.2
17818.3	961.3	17890	963.8	17903.9	964.7	17928.8	961.3	17945.4	959.8
17990.2	960.1	18038.4	959.4	18049.4	960.1	18123	963.9	18190.8	965.8

18202.9	966.1	18268.8	964.1	18281.9	963.4	18373.9	966.8	18446.2	967.8
18518.9	965.4	18575.8	971.2	18611.2	970.9	18639.1	969.5	18713	961.6
18741.6	959.3	18784.7	961.7	18862.1	959	18930.8	954.4	19044.5	952.5
19074.6	956.5	19142.6	957.5	19190.4	959.1	19212.4	958.4	19300.6	961.8
19319.9	962.4	19391.1	961.2	19413.8	960.8	19449.5	958.2	19532.2	958.9
19643.4	959	19750	959.8	19755	959.8	19836.5	958.7	19940.1	961.4
20015	957.1	20042.9	956.5	20093.3	957.6	20148	959.8	20169.8	958.7
20238.1	957.7	20350.9	956.9	20382.1	955.8	20443.3	956.5	20518.7	957.1
20582.5	957.3	20605	956.3	20635.4	956.3	20720.3	959.3	20738.9	959.4
20761.4	962.7	20791.3	965.4	20855.9	962.6	20874.6	962	20962.4	963.2
21037.1	963.2	21067	962.7	21100.7	957.5	21141.9	956.9	21226.2	955.6
21274.2	959.7	21307.36	968.958	21309.3	969.5	21365.5	967.8	21385.7	965.3
21411.6	965.6	21424.5	960.8	21433.2	956.4	21477.4	957.2	21505.2	969
21532	978.5	21590.9	977.9						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17009.6	.043	18575.8	.043	19074.6	.037	21532	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18575.8	21307.36	700	576.2	385	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17009.6	17398.9	978.5	21309.3	21590.9	978.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	967.66	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.65	Wt. n-Val.	0.043	0.038	
E.G. Elev (ft)	968.30	Reach Len. (ft)	700.00	576.20	385.00
Crit W.S. (ft)	963.72	Flow Area (sq ft)	3547.04	22958.20	
E.G. Slope (ft/ft)	0.001616	Area (sq ft)	3548.98	22958.20	824.46
Q Total (cfs)	164000.00	Flow (cfs)	11540.88	152459.13	
Top Width (ft)	3830.33	Top Width (ft)	1048.61	2646.35	135.37
Vel Total (ft/s)	6.19	Avg. Vel. (ft/s)	3.25	6.64	
Max Chl Dpth (ft)	15.16	Hydr. Depth (ft)	3.45	8.68	
Conv. Total (cfs)	4079216.3	Conv. (cfs)	287059.3	3792157.0	
Length Wtd. (ft)	585.03	Wetted Per. (ft)	1029.31	2650.04	
Min Ch El (ft)	952.50	Shear (lb/sq ft)	0.35	0.87	
Alpha	1.09	Stream Power (lb/ft s)	1.13	5.81	
Frctn Loss (ft)	0.91	Cum Volume (acre-ft)	4050.95	10114.37	1133.55
C & E Loss (ft)	0.02	Cum SA (acres)	1049.38	1141.19	537.28

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17427.25	17531.67	38.08	32.89	33.84	0.02	0.97	1.16
17531.67	17636.08	266.53	165.87	104.42	0.16	1.59	1.61
17636.08	17740.49	680.69	291.14	104.43	0.42	2.79	2.34
17740.49	17844.91	1921.86	542.79	104.47	1.17	5.20	3.54
17844.91	17949.32	1793.46	521.32	104.77	1.09	4.99	3.44
17949.32	18053.73	3782.82	814.79	104.45	2.31	7.80	4.64
18053.73	18158.15	1668.45	498.73	104.52	1.02	4.78	3.35
18158.15	18262.56	503.70	243.04	104.46	0.31	2.33	2.07
18262.56	18366.97	719.70	301.11	104.49	0.44	2.88	2.39
18366.97	18471.39	28.10	40.47	89.67	0.02	0.45	0.69
18471.39	18575.80	137.48	94.90	69.79	0.08	1.36	1.45
18575.80 LB	19122.11	28866.58	4528.92	466.73	17.60	9.72	6.37
19122.11	19668.42	28440.39	4422.64	546.54	17.34	8.10	6.43
19668.42	20214.74	31872.02	4735.63	546.58	19.43	8.67	6.73
20214.74	20761.05	42985.79	5666.98	546.65	26.21	10.37	7.59
20761.05	21307.36 RB	20294.38	3604.03	543.53	12.37	6.65	5.63

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 202.37

INPUT
Description: 202.37

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17046.5	966	17144.2	966.4	17159.7	966.4	17174.6	968.6	17199.8	968.8
17234.1	972.8	17240.1	970.8	17243.5	970.9	17244.9	973.1	17262.2	972
17288.2	966.3	17339.4	966.6	17390.7	968.1	17480.2	967.1	17572.6	967.5
17609.6	965.2	17687.4	964.4	17729	964.2	17762.4	962.8	17818.6	964.2
17908.4	962.3	17967.5	961.6	18000.2	964	18038.7	964.1	18072.2	959.7
18099.8	957.9	18104.7	958.4	18151.6	958.4	18194.7	959.1	18243.6	962.8
18315.7	961.8	18394.4	965.8	18412.7	966.2	18470.8	964.2	18481.7	964.7
18501.3	969.1	18508.1	970	18598.8	969.5	18602.7	969.6	18648.3	963.8
18679.8	963.2	18704	957.9	18743.6	960.5	18769.5	961.1	18842.5	955.2
18917.4	955.9	18993.6	955.2	19026.1	956.5	19078.6	954.6	19116.4	956.7
19134.5	956.6	19275.2	955.9	19317.5	959.5	19392.9	961.2	19411.7	961.2
19457.9	957.5	19505.5	956.4	19577.4	956.1	19580.5	956.2	19670.2	956.8
19746.9	961.5	19839.2	958.9	19936.5	957.1	20045	956.9	20086.7	957.3
20169.3	956.2	20237.2	955.3	20328.5	958	20334.1	957.4	20399.8	957
20463.4	959.2	20513.6	962	20602.6	959.9	20704.3	960.7	20742.9	961
20844.4	960.5	20908.1	960.2	20950.1	961.7	21049.7	960.9	21054.1	960.9
21135.1	960.3	21179.1	960.2	21212.7	956.8	21338.5	957.1	21366.3	957.1
21382.6	961.2	21402.5	967.3	21411.9	966.7	21431.9	963.9	21452.4	962.7
21480	964.4	21496.8	956	21544.1	956.6	21581.78	968.008	21601.9	974.1
21642.4	975	21693	974.4						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17046.5	.025	17390.7	.043	18508.1	.043	18743.6	.037	21601.9	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18508.1	21581.78	430	400.7	360	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
17046.5	17390.7	975

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	966.79	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.58	Wt. n-Val.	0.043	0.037	
E.G. Elev (ft)	967.38	Reach Len. (ft)	430.00	400.70	360.00
Crit W.S. (ft)	962.95	Flow Area (sq ft)	3571.16	24157.95	
E.G. Slope (ft/ft)	0.001486	Area (sq ft)	3654.78	24157.95	
Q Total (cfs)	164000.00	Flow (cfs)	11851.86	152148.14	
Top Width (ft)	4026.54	Top Width (ft)	1083.08	2943.45	
Vel Total (ft/s)	5.91	Avg. Vel. (ft/s)	3.32	6.30	
Max Chl Dpth (ft)	12.19	Hydr. Depth (ft)	3.94	8.21	
Conv. Total (cfs)	4254104.0	Conv. (cfs)	307433.1	3946670.8	
Length Wtd. (ft)	401.97	Wetted Per. (ft)	908.21	2950.78	
Min Ch El (ft)	954.60	Shear (lb/sq ft)	0.36	0.76	
Alpha	1.07	Stream Power (lb/ft s)	1.21	4.78	
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	3993.07	9802.75	1129.91
C & E Loss (ft)	0.06	Cum SA (acres)	1032.25	1104.22	536.68

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17533.70	17631.14	76.75	57.20	47.25	0.05	1.21	1.34
17631.14	17728.58	451.20	221.15	97.44	0.28	2.27	2.04
17728.58	17826.02	818.25	316.14	97.49	0.50	3.24	2.59
17826.02	17923.46	1051.91	367.52	97.46	0.64	3.77	2.86
17923.46	18020.90	1237.24	405.22	97.53	0.75	4.16	3.05
18020.90	18118.34	2308.89	589.88	97.81	1.41	6.05	3.91
18118.34	18215.78	3617.80	771.33	97.51	2.21	7.92	4.69
18215.78	18313.22	1485.17	452.14	97.53	0.91	4.64	3.28
18313.22	18410.66	595.52	261.33	97.55	0.36	2.68	2.28
18410.66	18508.10	209.10	129.25	80.65	0.13	1.61	1.62
18508.10 LB	19122.84	30537.94	4508.76	499.31	18.62	9.05	6.77
19122.84	19737.57	37629.92	5639.50	615.20	22.95	9.17	6.67
19737.57	20352.31	38456.45	5712.35	614.89	23.45	9.29	6.73

20352.31	20967.04	22031.96	4089.50	614.91	13.43	6.65	5.39
20967.04	21581.78 RB	23491.89	4207.86	606.47	14.32	7.00	5.58

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 202.29

INPUT
Description: 202.29
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17300	969.4	17300.2	969.4	17310.5	971.8	17342.5	971.5	17346.7	971.3
17352.1	970.9	17359.3	970.4	17377.2	970.2	17388.5	970.1	17410.3	969.8
17443.6	969.4	17469.5	969.2	17494.3	969	17512.1	968.3	17537.2	968.2
17551.3	968.6	17580.1	968.2	17588.6	968.1	17610.9	968	17662.1	967.6
17695.1	967.2	17731.2	966.7	17756	966.3	17772.6	965.6	17783.7	965.5
17806	965.9	17845.1	965.4	17859.1	965.2	17870.8	965.1	17909	964.8
17939.7	964.2	17948.3	964	17978	963.3	17983.9	963.1	18035.9	962.8
18043.8	962.7	18050.9	962.7	18093.6	962.3	18093.8	962.8	18107.2	962.7
18151	961.8	18180	961.8	18197.4	961.8	18203.9	961.7	18212.7	961.5
18297.3	960.6	18444	959	18520.4	958	18577.3	957.8	18667.8	958.1
18744.1	957.7	18943.8	956.4	18989.6	956.6	19224.4	957.4	19228.7	957.4
19485.5	956.7	19523.1	956.9	19553.4	956.9	19827.7	956.8	19864.8	956.1
19898	956.1	20171.5	956.3	20383.2	955.7	20442.4	955.9	20499.8	957.2
20499.9	957.2	20696.8	957.3	20777.7	957.4	20879.1	956.5	20964	956.5
21129.5	956.9	21176.5	956.6	21222.8	956.1	21262.9	955.8	21273.6	955.5
21305.8	956.3	21343.7	957	21400.4	957.2	21410.8	957.3	21495.3	956.7
21550.9	957.9	21563.4	959.3	21703.1	961	21803	962.3	21973.7	964.9
22093.3	966.9	22138.1	968.1	22178	968.7	22302.7	970.7	22344.1	970.7
22388.8	970.9	22553.3	971.9	22676.5	971.2	22717.7	971.3	22766.5	972.1
22785.4	971.9								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17300	.025	17469.5	.043	18197.4	.043	18989.6	.037	21563.4	.043
21803	.043								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18197.4	21803	590	583.1	600	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21803	22785.4	972.1

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	966.52	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.	0.043	0.038	
E.G. Elev (ft)	966.88	Reach Len. (ft)	590.00	583.10	600.00
Crit W.S. (ft)	961.29	Flow Area (sq ft)	1224.08	33007.21	
E.G. Slope (ft/ft)	0.000809	Area (sq ft)	1224.08	33007.21	575.59
Q Total (cfs)	164000.00	Flow (cfs)	2326.96	161673.05	
Top Width (ft)	4327.62	Top Width (ft)	454.74	3605.60	267.28
Vel Total (ft/s)	4.79	Avg. Vel. (ft/s)	1.90	4.90	
Max Chl Dpth (ft)	11.02	Hydr. Depth (ft)	2.69	9.15	
Conv. Total (cfs)	5765508.0	Conv. (cfs)	81805.4	5683702.5	
Length Wtd. (ft)	583.21	Wetted Per. (ft)	455.13	3605.80	
Min Ch El (ft)	955.50	Shear (lb/sq ft)	0.14	0.46	
Alpha	1.03	Stream Power (lb/ft s)	0.26	2.26	
Frctn Loss (ft)	0.64	Cum Volume (acre-ft)	3968.99	9539.83	1127.53
C & E Loss (ft)	0.02	Cum SA (acres)	1024.66	1074.09	535.57

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17718.79	17778.61	8.26	16.48	35.97	0.01	0.46	0.50
17778.61	17838.44	37.28	49.90	59.83	0.02	0.83	0.75
17838.44	17898.27	85.22	81.96	59.83	0.05	1.37	1.04
17898.27	17958.09	175.32	126.35	59.84	0.11	2.11	1.39
17958.09	18017.92	371.96	198.41	59.84	0.23	3.32	1.87
18017.92	18077.75	470.66	228.49	59.83	0.29	3.82	2.06
18077.75	18137.57	516.86	242.25	60.17	0.32	4.05	2.13

18137.57	18197.40	661.39	280.23	59.83	0.40	4.68	2.36
18197.40 LB	18918.52	22170.49	5693.23	721.15	13.52	7.89	3.89
18918.52	19639.64	35004.91	6903.47	721.12	21.34	9.57	5.07
19639.64	20360.76	39394.75	7345.00	721.13	24.02	10.19	5.36
20360.76	21081.88	36349.78	6998.96	721.14	22.16	9.71	5.19
21081.88	21803.00 RB	28753.11	6066.55	721.26	17.53	8.41	4.74

CROSS SECTION RIVER: 1
REACH: 1 RS: 202.18

INPUT
Description: 202.18

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17052.9	966.6	17168.5	966	17288.7	965.2	17328.5	965.5	17342.3	968
17346	967	17354.3	968	17364.1	966.7	17396.2	967.4	17415.4	969
17507.1	967.7	17613.8	965.1	17631.5	964.7	17747.4	962.9	17748.5	962.9
17865.9	962.4	17961.7	963.1	18017.5	963.4	18100.5	963.8	18139.7	964.7
18194.4	960.2	18256	959.9	18292.6	958.2	18331.5	958.9	18344.2	960.8
18389	961.7	18415.9	960.6	18473.5	964.7	18525.3	966.1	18612.9	966.4
18643.2	962.4	18672.1	961.3	18707.1	957.3	18769	952.6	18804.3	955.4
18910.2	957.1	18976	956.3	19019.3	958.4	19048.9	958.7	19085.4	956.1
19142.3	957	19169.3	958.6	19183.3	960.5	19235.6	960.8	19285.1	963
19369.7	960.1	19472.8	957.3	19559.8	955.6	19630.4	954.7	19686.5	951.8
19727.7	955.4	19747.8	950.7	19844.5	951.9	19893.9	954	19954	950
20009	954	20067.8	952	20110.4	954.4	20177.3	963.5	20231.5	963.4
20240.9	962.3	20277.5	960.8	20351.6	962	20380	959.9	20405.9	959.3
20492.4	961.5	20578.7	962.9	20684.9	962.3	20769.5	960.5	20826.3	963.1
20876.8	962.2	20900.3	963.5	20997.2	958.5	21014.5	957.4	21075.2	957.9
21127.2	959.8	21207.6	957.2	21255	956.2	21287.8	957.6	21353.8	957.8
21374.8	961.6	21414.6	960.9	21415.3	960.1	21444.1	956.6	21527.2	959.6
21591.2	960.1	21643.6	958.8	21685.6	954	21737.8	955.1	21787.2	954.7
21808.8	955.3	21829.3	951.8	21869.4	951.7	21919.3	955.9	21938.4	1966.7695
21957.1	977.4	21992	978.3						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17052.9	.025	17415.4	.043	18139.7	.043	18976	.037	21957.1	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18139.7	21938.41	525	511.84	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
17052.9	17415.4	978.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	965.70	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.53	Wt. n-Val.	0.043	0.038	
E.G. Elev (ft)	966.23	Reach Len. (ft)	525.00	511.84	500.00
Crit W.S. (ft)	961.77	Flow Area (sq ft)	1255.18	27390.23	
E.G. Slope (ft/ft)	0.001544	Area (sq ft)	1288.39	27390.23	
Q Total (cfs)	164000.00	Flow (cfs)	2951.33	161048.67	
Top Width (ft)	4356.48	Top Width (ft)	667.20	3689.28	
Vel Total (ft/s)	5.73	Avg. Vel. (ft/s)	2.35	5.88	
Max Chl Dpth (ft)	15.70	Hydr. Depth (ft)	2.28	7.42	
Conv. Total (cfs)	4174334.8	Conv. (cfs)	75120.9	4099213.8	
Length Wtd. (ft)	512.05	Wetted Per. (ft)	550.70	3697.92	
Min Ch El (ft)	950.00	Shear (lb/sq ft)	0.22	0.71	
Alpha	1.04	Stream Power (lb/ft s)	0.52	4.20	
Frctn Loss (ft)	1.19	Cum Volume (acre-ft)	3951.97	9135.58	1123.56
C & E Loss (ft)	0.04	Cum SA (acres)	1017.06	1025.27	533.73

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta	Right Sta	Flow	Area	W.P.	% Conv.	Hydr D.	Velocity

(ft)	(ft)	(cfs)	(sq ft)	(ft)		(ft)	(ft/s)
17560.07	17632.53	18.82	22.73	43.50	0.01	0.52	0.83
17632.53	17704.98	198.61	114.61	72.46	0.12	1.58	1.73
17704.98	17777.43	464.92	190.92	72.46	0.28	2.64	2.44
17777.43	17849.89	603.30	223.21	72.45	0.37	3.08	2.70
17849.89	17922.34	621.13	227.15	72.45	0.38	3.14	2.73
17922.34	17994.79	466.64	191.33	72.45	0.28	2.64	2.44
17994.79	18067.25	354.71	162.30	72.45	0.22	2.24	2.19
18067.25	18139.70	223.20	122.93	72.46	0.14	1.70	1.82
18139.70 LB	18899.44	17636.50	4001.98	653.52	10.75	6.14	4.41
18899.44	19659.18	33794.91	5796.97	760.27	20.61	7.63	5.83
19659.18	20418.93	52007.26	7439.10	761.72	31.71	9.79	6.99
20418.93	21178.67	15521.54	3598.16	760.13	9.46	4.74	4.31
21178.67	21938.41 RB	42088.47	6554.02	762.28	25.66	8.65	6.42

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 202.09

INPUT
Description: 202.09

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12423.7	965.6	17099.8	965.6	17186	965.4	17264.6	965.3	17349.3	965
17358.9	964.8	17418	967.1	17422.9	965.6	17428.2	966.9	17452	965.9
17476.4	966.1	17491.8	967.5	17574.4	967	17614.9	967.2	17693.5	967.2
17814.7	961.1	17920.2	960.8	17951.8	961.2	18050.9	963.8	18132.1	964.1
18212.9	964.4	18247.5	964.7	18306	959.3	18322.2	960.3	18340.5	958.1
18363.8	957.3	18389.5	962.4	18475.1	961.1	18485.9	960.9	18523.3	964.1
18558.3	962.3	18573.3	963.2	18621.2	963.3	18652.7	957.8	18708.8	958.1
18748.7	952.2	18769.9	955.2	18859.3	957.7	18962.1	957.3	18975.3	957.3
19086	957.5	19165.3	959.6	19217.9	961	19287.9	955.2	19344.8	963
19434.4	961.7	19513.8	958.9	19564.6	953.8	19623.2	957.6	19686.2	956.9
19738.7	957.5	19783.4	954.5	19908.5	952.6	19947.2	952	20093.1	950
20106.3	950	20143.3	952.6	20167.6	955.5	20187.3	956.2	20207.9	958
20254	956.6	20271.4	957.6	20297.7	960.4	20396.6	960.4	20472.8	959.6
20529.3	963.3	20613.6	962.6	20698	962.2	20720.5	961.5	20787.7	964.2
20816.2	959.4	20866.2	961.1	20916.3	960.7	20996.8	963.3	21047.5	963.6
21101.6	961.6	21155	960.7	21221.6	961.5	21280.8	956.9	21370.9	957.5
21444.4	956.7	21456.1	957.6	21466.3	959.4	21503.9	959	21516.7	956.6
21530.5	955.5	21561.3	958	21627.9	959.2	21709	959.7	21751.4	954.3
21825.3	953.8	21856.2	951.2	21912.9	951.7	21928.2	955.7	21938.26	965.332
21947	973.7	21985	973.7						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12423.7	.025	17491.8	.043	18212.9	.043	19086	.037	21947	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18212.9	21938.26	510	509.32	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
12423.7	17491.8	973.7

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	964.09	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.92	Wt. n-Val.	0.043	0.038	
E.G. Elev (ft)	965.01	Reach Len. (ft)	510.00	509.32	500.00
Crit W.S. (ft)	961.97	Flow Area (sq ft)	686.40	20918.74	
E.G. Slope (ft/ft)	0.003842	Area (sq ft)	686.40	20918.74	
Q Total (cfs)	164000.00	Flow (cfs)	2203.96	161796.05	
Top Width (ft)	4052.98	Top Width (ft)	373.88	3679.09	
Vel Total (ft/s)	7.59	Avg. Vel. (ft/s)	3.21	7.73	
Max Chl Dpth (ft)	14.09	Hydr. Depth (ft)	1.84	5.69	
Conv. Total (cfs)	2645760.3	Conv. (cfs)	35555.8	2610204.5	
Length Wtd. (ft)	509.33	Wetted Per. (ft)	374.00	3689.13	
Min Ch El (ft)	950.00	Shear (lb/sq ft)	0.44	1.36	

Alpha	1.03	Stream Power (lb/ft s)	1.41	10.52	
Frctn Loss (ft)	1.03	Cum Volume (acre-ft)	3940.07	8851.76	1123.56
C & E Loss (ft)	0.10	Cum SA (acres)	1010.79	981.98	533.73

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17441.01	17826.95	390.83	125.61	71.72	0.24	1.75	3.11
17826.95	18212.90	1813.13	560.79	302.28	1.11	1.86	3.23
18212.90 LB	18957.97	18018.64	3290.64	705.80	10.99	4.68	5.48
18957.97	19703.04	28199.51	4091.63	746.33	17.19	5.49	6.89
19703.04	20448.12	64958.67	6634.93	745.76	39.61	8.91	9.79
20448.12	21193.19	6118.98	1604.97	742.36	3.73	2.16	3.81
21193.19	21938.26 RB	44500.24	5296.57	748.87	27.13	7.12	8.40

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.99

INPUT
Description: 201.99

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12423.7	962.9	12792.3	963.8	13061.9	964.2	13286.8	963.1	13510.3	962
13746.9	961.3	13984	962.2	14217.9	962.9	14443.4	963.1	14690.7	964.7
14908.9	964.6	14956.9	968.1	14966.2	964.3	15216	964.5	15450.3	964.3
15717.5	963.6	15947.7	963	16170.3	962.3	16226.7	962.5	16243.5	964.4
16481.8	963.7	16706	964.8	16931.9	964.5	17163.9	965	17409.1	965.4
17507.7	965.1	17760.7	967.9	18000.5	959.7	18235.1	962.5	18353.1	960.5
18417.7	956.5	18440	960.5	18639.2	962	18674	954.8	18737.7	957.9
18818.4	957.6	18843.9	951.9	18894.5	956	19104.7	956.3	19162.4	959.4
19182	952.7	19244.4	958.4	19290	953.9	19357.8	953.9	19392.3	959.4
19476.2	956.3	19599.7	958.8	19757.3	956.9	19806.8	958.1	19854.1	952.5
20078.1	951.3	20095.8	953	20192.9	950.6	20250.9	959.6	20290.2	950.4
20347.4	962.9	20368.6	965.8	20433.1	963	20465.1	950.1	20577.2	949.5
20589	951.7	20619.5	951.7	20638.1	949.5	20700.3	949.5	20727.6	954.8
20735.3	964.1	20750.8	961.1	20862.1	965.2	20904	975.7	20956.4	975.3
20989.8	964.1	21038.3	963.3	21074.1	972.2	21105.1	970	21109	967.5
21138.5	968.2	21163.6	953.1	21180.4	949.1	21267.5	949.1	21538.3	949.1
21555.3	949.1	21578	958.4	21595.4	955.8	21617.3	955.7	21641.7	951.9
21676.1	954.4	21726.5	948.7	21821.2	953.2	21862.8	963.6	21892.71	964.4166
21991	967.1	22006.5	964	22019.9	967.9	22243.3	966.9	22585.6	967
22917.2	966.9	23024.3	966.9						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12423.7	.025	17507.7	.043	17760.7	.043	19357.8	.032	20250.9	.037
21991	.037	22006.5	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18235.12	18892.71	470	477.46	490	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12423.7	17760.7	975.7	21990.9	23024.3	975.7

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	963.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.58	Wt. n-Val.	0.043	0.036	

E.G. Elev (ft)	963.87	Reach Len. (ft)	470.00	477.46	490.00
Crit W.S. (ft)	958.62	Flow Area (sq ft)	703.79	26543.79	
E.G. Slope (ft/ft)	0.001250	Area (sq ft)	2118.24	26543.79	
Q Total (cfs)	164000.00	Flow (cfs)	1397.32	162602.67	
Top Width (ft)	5336.23	Top Width (ft)	2126.88	3209.35	
Vel Total (ft/s)	6.02	Avg. Vel. (ft/s)	1.99	6.13	
Max Chl Dpth (ft)	14.59	Hydr. Depth (ft)	2.07	8.27	
Conv. Total (cfs)	4638009.0	Conv. (cfs)	39516.9	4598492.0	
Length Wtd. (ft)	477.43	Wetted Per. (ft)	339.80	3232.24	
Min Ch El (ft)	948.70	Shear (lb/sq ft)	0.16	0.64	
Alpha	1.03	Stream Power (lb/ft s)	0.32	3.93	
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	3923.65	8574.29	1123.56
C & E Loss (ft)	0.05	Cum SA (acres)	996.15	941.71	533.73

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17847.67	18235.10	1397.32	703.79	339.80	0.85	2.07	1.99
18235.10 LB	18966.62	10785.94	3308.97	733.63	6.58	4.52	3.26
18966.62	19698.14	22542.67	4777.97	733.73	13.75	6.53	4.72
19698.14	20429.67	42585.43	6070.10	659.09	25.97	9.26	7.02
20429.67	21161.19	23660.56	3802.41	400.44	14.43	9.74	6.22
21161.19	21892.71 RB	63028.08	8584.35	705.34	38.43	12.26	7.34

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.9

INPUT
Description: 201.9

Right Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12498	962.4	12680.7	963	12847.7	963.1	13015.1	963.3	13199.8	963.2
13361.7	963.7	13371.9	960.2	13574.5	962.7	13724.8	961.4	13908.8	961.8
14082.1	962.6	14282	963.2	14504.3	963.3	14674.9	963	14875.2	963.6
15026	967.2	15036.6	963.6	15225.9	964.3	15398.3	964.4	15600.8	964.2
15790.8	963.8	15996.8	963.9	16181.7	962.7	16294.9	962.8	16309.4	964.3
16331.6	962	16525.6	962.6	16699.1	963.6	16881.9	964.4	17117.4	963.7
17353.6	965.3	17563.8	966.2	17569	964.3	17769.9	966.6	17941.7	966
17954.3	963.8	18181.9	958.7	18226.6	955.3	18260.2	960.7	18291.8	960.5
18303.9	958.6	18480.2	961.7	18648.9	961.8	18745.5	962	18798.7	956.2
18820.8	957.2	18854.3	951.8	18909.2	955.3	19138.4	956.3	19200	953.3
19336.3	962.3	19389.1	958.9	19449.9	951.5	19624.1	955.9	19782.3	957.2
19911.4	951.6	20081.9	950.6	20221.5	952.6	20269.4	959.3	20331.6	955.1
20356	957.7	20398.9	948.7	20567.7	948.5	20744.7	949.1	20888.3	947.2
20954.4	949.9	21000.8	949	21037.1	957.5	21099.1	956	21139.7	949.7
21300.7	952.4	21411.2	949.7	21444.1	955.9	21487.9	956.1	21503.4	949
21546.8	949	21556.2	952.2	21567.4	960.5	21588	955.9	21628.6	952.2
21667.7	955.7	21698.6	949	21736.9	950	21748.7	952.4	21786.7	952.8
21827.4	1963.9898	21842	968	21955.2	963.2	21982.2	967.4	22181.8	966
22228.4	965.8	22400.7	965.8	22432.3	965.9	22634.3	966.5	22801.2	966.1
23008.7	966	23096	965.3						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12498	.025	17569	.043	17769.9	.043	19389.1	.032	20331.6	.037
21842	.037	21982.2	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17954.3	21827.41	500	495.8	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12498	17769.9	968	21842.1	23096	968

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	962.95	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.41	Wt. n-Val.		0.036	
E.G. Elev (ft)	963.36	Reach Len. (ft)	500.00	495.80	500.00
Crit W.S. (ft)	957.26	Flow Area (sq ft)		31890.53	
E.G. Slope (ft/ft)	0.000784	Area (sq ft)	1057.29	31890.53	
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	5246.09	Top Width (ft)	1414.92	3831.18	
Vel Total (ft/s)	5.14	Avg. Vel. (ft/s)		5.14	
Max Chl Dpth (ft)	15.75	Hydr. Depth (ft)		8.32	
Conv. Total (cfs)	5857097.0	Conv. (cfs)		5857097.0	
Length Wtd. (ft)	495.80	Wetted Per. (ft)		3845.84	
Min Ch El (ft)	947.20	Shear (lb/sq ft)		0.41	
Alpha	1.00	Stream Power (lb/ft s)		2.09	
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	3906.52	8254.04	1123.56
C & E Loss (ft)	0.02	Cum SA (acres)	977.04	903.12	533.73

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17954.30 LB	18728.92	2899.54	1728.88	737.27	1.77	2.35	1.68
18728.92	19503.54	19108.52	5170.56	776.45	11.65	6.67	3.70
19503.54	20278.17	39876.95	7121.03	775.29	24.32	9.19	5.60
20278.17	21052.79	61263.56	9968.61	776.88	37.36	12.87	6.15
21052.79	21827.41 RB	40851.42	7901.44	779.95	24.91	10.25	5.17

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.81

INPUT
Description: 201.81

Left and Right Channel Bank Staions Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12574.1	961.8	12761.8	962	12923.9	962.6	13108.8	962.8	13276.3	963
13435.2	962.8	13461.6	960.9	13640.2	962.7	13758.3	961.2	13887.4	962.7
14049.5	962.4	14230.8	962.1	14408	962.7	14585.1	963.8	14774.2	962.7
14940.9	962.1	15056.2	964.1	15099	967.8	15104.2	963.1	15275.2	964.2
15444.5	964.1	15610.6	963.9	15771.8	963.8	15946.1	963.3	16142.1	962.7
16322.1	962	16382.5	963.6	16475.3	960.8	16709.7	962.1	16947.6	962.4
17136	963	17301	963.8	17538.6	963.1	17700.9	964.2	17890.2	965.6
17935.7	965.6	17946.89	963.6227	17964	960.6	18130	958	18246.7	956.1
18277.1	959.5	18483.2	960.9	18556.4	960.8	18619.6	964.6	18716.1	963.4
18765	964.3	18860.5	957.6	18955	958.4	19006.4	951.6	19072.9	957.9
19139.8	953.9	19294.5	954.6	19378.9	957.7	19550.9	954.4	19605.4	951.1
19693.5	953.4	19720.4	950.1	19883.7	950.2	20049.4	953	20182.8	953.5
20285.8	953.2	20377.1	957.6	20392.1	962.6	20421.1	948.6	20597	946.8
20665	946.7	20832.3	946.1	20846.8	951.1	20855.6	956.4	20869.8	954.4
20881.2	950.3	20908.5	949.6	20924	952.5	20962.6	950.9	21000.7	946.6
21169.8	946	21187.6	953.2	21244.2	956.3	21263.5	960.4	21295.1	951.3
21322.9	946.6	21496.1	948.5	21522.9	951.7	21690.5	950.7	21775	950.9
21803.27	963.6213	21811	967.1	21860	969.2	21904.1	961.6	21929.9	965
21975.7	963.6	22175.4	965.3	22352.1	965	22654	963.5	22715.1	963.5
22875.2	962.8	23093.9	964.4	23169.5	964.2				

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12574.1	.025	17700.9	.065	17935.7	.065	19378.9	.032	20392.1	.037
21860	.025	21975.7	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17946.89	21803.27	535	511.61	515	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12574.1	17935.7	969.2	21859.6	23169.5	969.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	962.64	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.36	Wt. n-Val.		0.037	
E.G. Elev (ft)	963.00	Reach Len. (ft)	535.00	511.61	515.00
Crit W.S. (ft)	955.82	Flow Area (sq ft)		34269.54	
E.G. Slope (ft/ft)	0.000618	Area (sq ft)	1212.66	34269.54	7.24
Q Total (cfs)	164000.00	Flow (cfs)		164000.00	
Top Width (ft)	5931.24	Top Width (ft)	2270.32	3646.98	13.93
Vel Total (ft/s)	4.79	Avg. Vel. (ft/s)		4.79	
Max Chl Dpth (ft)	16.64	Hydr. Depth (ft)		9.40	
Conv. Total (cfs)	6596895.0	Conv. (cfs)		6596895.0	
Length Wtd. (ft)	511.64	Wetted Per. (ft)		3663.11	
Min Ch El (ft)	946.00	Shear (lb/sq ft)		0.36	
Alpha	1.00	Stream Power (lb/ft s)		1.73	
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	3893.49	7877.52	1123.52
C & E Loss (ft)	0.02	Cum SA (acres)	955.89	860.56	533.65

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17946.89 LB	18718.17	2473.05	2027.86	635.02	1.51	3.20	1.22
18718.17	19489.44	9997.35	4496.88	701.91	6.10	6.42	2.22
19489.44	20260.72	43996.67	8060.18	771.65	26.83	10.45	5.46
20260.72	21031.99	56451.05	10047.86	779.12	34.42	13.03	5.62
21031.99	21803.27 RB	51081.88	9636.76	775.42	31.15	12.53	5.30

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.71

INPUT
Description: 201.71

Left Channel Bank Staion Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12659.2	961.6	12855.6	961	13000	961	13129.9	960.8	13180.2	962.1
13187.7	959.3	13371.2	960	13521.5	960.3	13689.3	960.5	13844.9	960.6
13979.7	960.3	14193.8	960.9	14324.5	960.9	14461	961	14593.2	960.9
14774.5	961.4	14909.4	960.6	15132.5	961.7	15192.9	963.1	15384.5	962.1
15537.8	962.3	15716.6	961.2	15856.1	961.1	16082.6	960.9	16210.7	961.2
16383	961	16543.7	961	16684.4	961.3	16813.5	961.2	16941.4	961.7
17106.2	961.5	17255.2	962	17388.3	961.5	17585.2	961.5	17706.7	962.1
17766.4	963.8	17769.2	962.5	17794.4	964.5	17957.8	964.3	18096.3	964.8
18107.0	5962.8899	18140.2	957	18197.6	953.2	18356.6	956.6	18441.5	961.3
18556.1	957.7	18600.1	958.6	18651.3	956.4	18676.1	956.9	18707	951.3
18764	957	18831.5	958.2	19007.5	955.3	19076.4	952	19279.5	954.1
19409.2	953.7	19475.6	949.9	19555.7	955.6	19660.9	959	19739.3	954.2
19763.1	949.4	19910.3	951	19978.4	951.1	20023.1	954.8	20199	956
20304.5	951.4	20347.1	954.9	20447.3	951.1	20499.8	956.3	20554.9	954.5
20692.6	956.1	20848.5	954.8	20899.8	950.2	20984.5	949.7	21011.3	946
21148.8	948.4	21186.8	951.7	21268.1	954.5	21355	953.1	21433.7	954.9
21490.6	959.4	21528.5	960.3	21661.1	959.7	21837.7	959.7	21975.8	962.2
22098	963.6	22111.4	961.1	22160.6	964.1	22190.7	962.9	22353.1	963.4
22385.7	963.3	22516.6	964.2	22615.8	964.3	22832.1	963.4	22981.6	963.4
23127.8	962.8	23246	962						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

12659.2	.025	17706.7	.065	18096.3	.065	19660.9	.032	20554.9	.037
21355	.025	21528.5	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18107.05	21528.5	505	489.63	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12659.2	18096.3	966	22098	23246	966

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	961.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.		0.040	0.025
E.G. Elev (ft)	962.47	Reach Len. (ft)	505.00	489.63	495.00
Crit W.S. (ft)	958.14	Flow Area (sq ft)		25921.00	762.71
E.G. Slope (ft/ft)	0.001820	Area (sq ft)	3890.56	25921.00	769.21
Q Total (cfs)	164000.00	Flow (cfs)		161162.84	2837.16
Top Width (ft)	8315.49	Top Width (ft)	4453.67	3415.73	446.09
Vel Total (ft/s)	6.15	Avg. Vel. (ft/s)		6.22	3.72
Max Chl Dpth (ft)	15.87	Hydr. Depth (ft)		7.59	1.78
Conv. Total (cfs)	3843987.8	Conv. (cfs)		3777487.8	66500.1
Length Wtd. (ft)	489.70	Wetted Per. (ft)		3420.15	429.28
Min Ch El (ft)	946.00	Shear (lb/sq ft)		0.86	0.20
Alpha	1.01	Stream Power (lb/ft s)		5.35	0.75
Frctn Loss (ft)	0.77	Cum Volume (acre-ft)	3862.16	7524.06	1118.93
C & E Loss (ft)	0.02	Cum SA (acres)	914.60	819.09	530.93

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18107.05 LB	18791.34	9578.14	3408.91	680.20	5.84	5.02	2.81
18791.34	19475.63	18821.91	5125.61	684.52	11.48	7.49	3.67
19475.63	20159.92	40777.71	5622.92	685.34	24.86	8.22	7.25
20159.92	20844.21	35393.93	5019.87	684.91	21.58	7.34	7.05
20844.21	21528.50 RB	56591.13	6743.68	685.18	34.51	9.86	8.39
21528.50	21643.00	759.25	209.82	114.50	0.46	1.83	3.62
21643.00	21757.50	1004.01	248.11	114.50	0.61	2.17	4.05
21757.50	21872.00	938.05	238.21	114.51	0.57	2.08	3.94
21872.00	21986.50	135.86	66.57	85.77	0.08	0.78	2.04

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.62

INPUT
Description: 201.62

Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12723.6	960.1	12862.6	960.3	13017.9	960.4	13156.4	960.4	13253.3	961.5
13267.4	959	13436.1	959.9	13621.5	960.4	13766.2	960.5	13909.8	960.4
14075.1	960.4	14269.1	960.4	14410.3	960.9	14542.3	960.9	14677.4	961
14845.4	961.8	15072.7	961	15207.9	961.9	15344.9	961.6	15510.2	961.6
15676.2	961	15821	960.6	15995.5	960.4	16157.9	960.8	16296	961.1
16491.6	961.1	16630.4	960.7	16799.9	960.5	16987.6	960.1	17022.4	962
17197.5	958.5	17331.6	959.3	17350.4	962.3	17555	961.1	17693.7	961.5
17788.7	963.5	17792.9	962.2	17963.6	963.3	18107	962.8	18229.7	963.9
18233.5	962.1533	18253.2	953.1	18417.5	953.4	18563.5	953.4	18723.5	952.3
18864.3	951.9	18956.1	956.6	19045.2	956.9	19129.4	952.1	19159.3	954.5
19237.7	952.1	19435.3	953.3	19483	951.6	19522	953.4	19577	948.8
19677.3	954.6	19737.2	953.8	19772.7	949.2	19918.1	949.3	20064.6	953.2
20213.3	953.8	20358.7	952.9	20472.9	952	20509.2	950	20584.5	955.3
20619.5	953.2	20653.6	948.7	20723.6	953.3	20794.2	955.3	20904.8	954.6
20962.2	949.9	20990.6	945.6	21150.5	945.9	21165.2	946.9	21199.1	955.3
21351	951.4	21457.3	955.6	21477.5	960.2	21514.2	959.4	21654.6	959.9
21824	959.8	21964.5	960.6	22074.2	961	22085	959.8	22090.5	961.3

22197.1	961.9	22233.4	963.7	22249.4	962.1	22301	963.2	22456.6	963.4
22491.4	963.3	22714.7	962.8	22775.6	962.8	22945.1	962.7	23131.5	962.5
23268.1	960.6	23318.4	961.5						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12723.6	.025	16799.9	.15	17197.5	.025	17792.9	.065	18229.7	.065
19577	.032	20509.2	.037	21351	.025	21477.5	.025		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18233.5	21477.5	485	486.48	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12723.6	18229.7	965	22233.4	23318.4	963.9

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	961.16	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.51	Wt. n-Val.		0.041	0.025
E.G. Elev (ft)	961.67	Reach Len. (ft)	485.00	486.48	510.00
Crit W.S. (ft)	956.72	Flow Area (sq ft)		28141.26	668.10
E.G. Slope (ft/ft)	0.001380	Area (sq ft)	2586.30	28141.26	687.94
Q Total (cfs)	164000.00	Flow (cfs)		162437.23	1562.78
Top Width (ft)	7631.05	Top Width (ft)	3705.53	3241.83	683.68
Vel Total (ft/s)	5.69	Avg. Vel. (ft/s)		5.77	2.34
Max Chl Dpth (ft)	15.56	Hydr. Depth (ft)		8.68	1.09
Conv. Total (cfs)	4414583.5	Conv. (cfs)		4372516.5	42067.1
Length Wtd. (ft)	486.98	Wetted Per. (ft)		3247.79	612.74
Min Ch El (ft)	945.60	Shear (lb/sq ft)		0.75	0.09
Alpha	1.02	Stream Power (lb/ft s)		4.31	0.22
Frctn Loss (ft)	0.77	Cum Volume (acre-ft)	3824.61	7220.22	1110.65
C & E Loss (ft)	0.02	Cum SA (acres)	867.30	781.67	524.52

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18233.50 LB	18882.30	17983.00	5265.10	648.42	10.97	8.14	3.42
18882.30	19531.10	15283.65	4778.07	649.27	9.32	7.36	3.20
19531.10	20179.90	46719.38	6260.60	649.48	28.49	9.65	7.46
20179.90	20828.70	35307.27	5377.59	649.59	21.53	8.29	6.57
20828.70	21477.50 RB	47143.90	6459.89	651.03	28.75	9.96	7.30
21477.50	21600.23	510.15	187.80	122.74	0.31	1.53	2.72
21600.23	21722.95	394.44	160.94	122.73	0.24	1.31	2.45
21722.95	21845.68	399.68	162.22	122.73	0.24	1.32	2.46
21845.68	21968.41	204.64	108.56	122.73	0.12	0.88	1.89
21968.41	22091.13	53.88	48.60	121.82	0.03	0.40	1.11

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.52

INPUT
Description: 201.52

Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12786.6	960.2	12939.6	960.1	13099	960.1	13244.9	960.2	13300.5	962.8
13357.3	959.7	13501.3	960.4	13678.7	959.8	13830.9	960	14035.1	959.9
14185.2	959.4	14386.6	959.8	14539	959.6	14722.7	959.3	14894.1	959.5
15114.2	959.2	15254.5	962.1	15427.2	959.8	15592.7	959.9	15779.1	959.7
15959.1	959.6	16138.8	959.3	16313.2	960.4	16492.7	958.5	16665.8	959
16834.1	958	17009.5	957.5	17081.3	959.5	17261.7	956	17408.3	957.9
17566	960	17731.1	959.6	17842.3	960.3	17845.2	962.9	17943.73	961.3971
18009.1	960.4	18087.6	959.9	18104.5	954	18264.9	951.7	18427.6	949.5
18577.1	948.4	18651.6	946.4	18699.1	952.7	18753.8	949	18784.8	949.1
18848.6	953.1	18893.8	954	18925.3	958	19065.9	958.5	19153	954.3

19223.7	956.3	19377	949.7	19404.1	948.6	19480.7	949.5	19540.9	947.7
19607.6	951.7	19748	954.6	19781.1	954.1	19818.6	949.6	19876.6	948.4
19936	956.7	20100.5	954.2	20244	952.7	20403.3	950.4	20550.4	948.2
20608.4	948	20715.6	953.3	20891.6	948.2	20923.4	941.8	20972.4	940.9
20990.6	945.3	21048.3	948	21178	947.3	21216.5	954.8	21254.9	957
21391.4	958.4	21554.4	958	21596.8	958.1	21777.9	958.2	21934.4	958.6
21995.7	958.3	22004.2	960.1	22157.3	959.4	22212.5	961.1	22218.9	959.2
22225.8	961.6	22299.7	963.1	22311.3	960.4	22338.4	962.5	22478.8	962.4
22674.4	962.5	22848.1	961.1	22905.9	961.6	23058.8	963.2	23081.5	963.2
23263.4	961.3	23370	959.8						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12786.6	.025	17009.5	.15	17261.7	.025	17845.2	.15	19480.7	.032
20244	.037	21391.4	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17943.73	21391.4	495	492.06	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12786.6	17845.2	963.2	22212.5	23370	963.2

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	960.42	Element			
Vel Head (ft)	0.46	Wt. n-Val.		0.049	0.025
E.G. Elev (ft)	960.88	Reach Len. (ft)	495.00	492.06	495.00
Crit W.S. (ft)	955.35	Flow Area (sq ft)		28876.55	1441.62
E.G. Slope (ft/ft)	0.001844	Area (sq ft)	4851.73	28876.55	1460.03
Q Total (cfs)	164000.00	Flow (cfs)		158548.25	5451.74
Top Width (ft)	8989.21	Top Width (ft)	4754.21	3383.73	851.27
Vel Total (ft/s)	5.41	Avg. Vel. (ft/s)		5.49	3.78
Max Chl Dpth (ft)	19.52	Hydr. Depth (ft)		8.53	1.80
Conv. Total (cfs)	3819285.5	Conv. (cfs)		3692323.5	126961.9
Length Wtd. (ft)	492.14	Wetted Per. (ft)		3389.35	799.29
Min Ch El (ft)	940.90	Shear (lb/sq ft)		0.98	0.21
Alpha	1.01	Stream Power (lb/ft s)		5.38	0.79
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	3783.20	6901.83	1098.08
C & E Loss (ft)	0.01	Cum SA (acres)	820.21	744.67	515.53

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17943.73 LB	18633.26	9389.78	5325.11	626.65	5.73	8.51	1.76
18633.26	19322.80	6227.43	4327.38	690.69	3.80	6.28	1.44
19322.80	20012.33	39564.17	6123.06	690.66	24.12	8.88	6.46
20012.33	20701.87	48448.95	6198.98	689.70	29.54	8.99	7.82
20701.87	21391.40 RB	54917.91	6902.02	691.65	33.49	10.01	7.96
21391.40	21523.31	1162.87	288.04	131.91	0.71	2.18	4.04
21523.31	21655.21	1309.89	309.36	131.91	0.80	2.35	4.23
21655.21	21787.12	1224.63	297.12	131.91	0.75	2.25	4.12
21787.12	21919.03	1029.46	267.73	131.91	0.63	2.03	3.85
21919.03	22050.93	528.70	179.60	132.10	0.32	1.36	2.94
22050.93	22182.84	195.69	98.88	131.92	0.12	0.75	1.98
22182.84	22314.75	0.52	0.90	7.64	0.00	0.12	0.58

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.43

INPUT
Description: 201.43

Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12790.4	959.2	12931.7	959.4	13106.1	959.5	13261.9	959.6	13426.6	960.3

13574.8	960.1	13719.2	960	13863.6	960.3	14015.4	959.4	14162.1	960.1
14260	960.7	14418.2	961.9	14556.8	961.4	14697.8	960.6	14846.1	959.1
15008.5	959.1	15194.6	958.6	15331.7	959.1	15511.6	959.4	15657.5	959.5
15799.1	959.9	15827.9	961.5	15973.4	960.8	16110.8	960.5	16254.2	959.9
16478.5	958.1	16617.9	958	16780.3	959.8	16924.1	959.3	17061.9	956
17202.1	956.4	17374.3	959	17594.2	959.4	17734	959.4	17844.3	960.3
17853.5	961.9	17859.2	959.6	18001.4	960.7	18014.9960.4907		18053	959.9
18066.9	952.8	18179.7	952.8	18317	950.6	18459.7	949.9	18597.4	947.5
18738.8	948.8	18799.8	954.8	18924.3	958	19076.8	958.9	19195.5	956.6
19253.6	950.7	19403.4	947	19416.1	948.3	19450.8	947.6	19528.4	954.4
19671.9	955.8	19712.9	955.8	19744.1	948.3	19847.5	947.6	19851.7	953.1
19996.8	955.1	20141.7	954.2	20303.2	954.8	20474.6	951.5	20649	946.3
20689.8	947.9	20719.5	943.8	20747.5	947.5	20911.6	947	20951.8	947.8
20976.3	941.3	21080.6	942.7	21100.4	945.1	21136.4	946.2	21179.1	944.6
21271.5	950.5	21342.1	957.5	21353.3	959.8	21363.1	957.2	21516.4	957.7
21676.7	958.3	21814.1	958.7	21883	958.4	22035.4	957.9	22182.8	959.4
22322.3	960.9	22328.9	958.7	22340	962.3	22362.8	960.4	22606.3	961.2
22648.5	961.2	22787	960.2	22945.6	960.3	23094.6	961.1	23289.3	961
23341.9	960.2	23387.4	958.8						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12790.4	.043	15827.9	.065	17202.1	.025	17853.5	.15	19253.6	.032
20649	.037	21342.1	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18014.9	21342.1	555	519.88	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12790.4	18000	962.3	22322.3	23387.4	962.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	959.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.54	Wt. n-Val.		0.042	0.025
E.G. Elev (ft)	960.03	Reach Len. (ft)	555.00	519.88	505.00
Crit W.S. (ft)	954.84	Flow Area (sq ft)		26963.93	1094.14
E.G. Slope (ft/ft)	0.001605	Area (sq ft)	1870.59	26963.93	1103.58
Q Total (cfs)	164000.00	Flow (cfs)		160906.22	3093.77
Top Width (ft)	6619.84	Top Width (ft)	2458.96	3288.28	872.60
Vel Total (ft/s)	5.85	Avg. Vel. (ft/s)		5.97	2.83
Max Chl Dpth (ft)	18.18	Hydr. Depth (ft)		8.20	1.29
Conv. Total (cfs)	4093355.5	Conv. (cfs)		4016136.5	77218.9
Length Wtd. (ft)	519.62	Wetted Per. (ft)		3296.91	846.16
Min Ch El (ft)	941.30	Shear (lb/sq ft)		0.82	0.13
Alpha	1.03	Stream Power (lb/ft s)		4.89	0.37
Frctn Loss (ft)	0.93	Cum Volume (acre-ft)	3745.01	6586.44	1083.51
C & E Loss (ft)	0.01	Cum SA (acres)	779.22	706.99	505.74

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18014.90 LB	18680.34	9563.07	5630.62	628.17	5.83	8.99	1.70
18680.34	19345.78	9901.43	3109.25	666.13	6.04	4.67	3.18
19345.78	20011.22	34948.98	4974.53	669.46	21.31	7.48	7.03
20011.22	20676.66	32132.91	4721.82	665.57	19.59	7.10	6.81
20676.66	21342.10 RB	74359.84	8527.71	667.57	45.34	12.82	8.72
21342.10	21478.45	914.50	261.01	134.11	0.56	1.95	3.50
21478.45	21614.81	718.29	227.30	136.35	0.44	1.67	3.16
21614.81	21751.16	401.62	160.37	136.35	0.24	1.18	2.50
21751.16	21887.51	262.36	124.21	136.35	0.16	0.91	2.11
21887.51	22023.87	487.54	180.15	136.35	0.30	1.32	2.71
22023.87	22160.22	306.32	136.32	136.36	0.19	1.00	2.25
22160.22	22296.57	3.14	4.78	30.27	0.00	0.16	0.66

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1

REACH: 1 RS: 201.33

INPUT
Description: 201.33

Left ChannelBank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12785.7	957.8	12951.9	958.1	13134.4	958.1	13293.5	958.1	13493.4	958.4
13649.5	958.9	13744.1	960.9	13758.6	959.4	13925.5	959	14085.7	958.6
14255.8	961.3	14420.6	961.4	14593.6	961.2	14794.8	960.7	14992.6	959.3
15164	957.6	15345.7	958.5	15520.6	959.3	15694.3	959.9	15854.4	959.9
16014.9	960.3	16184.1	960.4	16362.7	960.3	16517.9	960.6	16680.1	958.6
16837.4	958.7	16937	956.7	17109.2	956.2	17266.3	958.7	17288.5	957.8
17465.9	959.2	17667.7	959	17831.2	959.5	17862	961.6	17929.5	961.8
17948.2	960.4	18049.52	959.5026	18072.4	959.3	18086.6	953	18242.2	954.4
18398.7	954.5	18556.7	954.3	18607.2	952.5	18626.2	948.5	18634.2	950
18715.7	949.6	18791	954.8	18874.7	955.9	18937.2	954.7	18984.3	948
19116.8	949.1	19140.9	943	19269.7	945.9	19315	948.3	19489.9	950.7
19565.6	952.4	19588.8	955.2	19608.2	948.1	19752.9	948	19806.6	953
19969.5	952.2	20134.6	953.3	20171.4	952.2	20226.7	955.4	20293.9	954.2
20341.3	955.5	20424.9	951.7	20512.5	950.6	20548.8	944.7	20652.6	950
20769.7	946.7	20843.2	955	21006.1	948.3	21057.8	946.6	21076.8	943.6
21236.1	944.8	21304.1	946.3	21310.7	945	21357	957.5	21381.8	958.1
21545.7	957.7	21548.3	957.8	21799.8	956.8	21810.6	956.8	22056.9	957.1
22107.8	957.3	22115	958.6	22356.1	957.9	22513.8	959.5	22624.6	962.2
22794.7	960.7	22966.1	961	23037.1	962.1	23192.4	961.3	23366.6	961.5
23397.6	960.4	23444	960.7						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12785.7	.043	15854.4	.065	17266.3	.025	17929.5	.15	19116.8	.032
19315	.037	21381.8	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18049.52	21381.8	515	514.62	515	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12785.7	17929.5	962.2	22624.6	23444	962.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	958.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.62	Wt. n-Val.		0.042	0.025
E.G. Elev (ft)	959.09	Reach Len. (ft)	515.00	514.62	515.00
Crit W.S. (ft)	954.84	Flow Area (sq ft)		25364.43	924.74
E.G. Slope (ft/ft)	0.001992	Area (sq ft)	997.48	25364.43	924.74
Q Total (cfs)	164000.00	Flow (cfs)		161415.75	2584.25
Top Width (ft)	5793.05	Top Width (ft)	1499.45	3307.54	986.07
Vel Total (ft/s)	6.24	Avg. Vel. (ft/s)		6.36	2.79
Max Chl Dpth (ft)	15.47	Hydr. Depth (ft)		7.67	0.94
Conv. Total (cfs)	3674080.3	Conv. (cfs)		3616185.5	57894.8
Length Wtd. (ft)	514.63	Wetted Per. (ft)		3316.09	986.18
Min Ch El (ft)	943.00	Shear (lb/sq ft)		0.95	0.12
Alpha	1.03	Stream Power (lb/ft s)		6.05	0.33
Frctn Loss (ft)	0.97	Cum Volume (acre-ft)	3726.74	6274.17	1071.76
C & E Loss (ft)	0.01	Cum SA (acres)	754.01	667.63	494.96

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18049.52 LB	18715.98	4158.07	3239.95	643.47	2.54	5.05	1.28
18715.98	19382.43	39093.45	5855.04	667.99	23.84	8.79	6.68
19382.43	20048.89	34436.07	5049.13	668.15	21.00	7.58	6.82
20048.89	20715.34	28853.00	4538.46	667.32	17.59	6.81	6.36
20715.34	21381.80 RB	54875.12	6681.84	669.16	33.46	10.03	8.21
21381.80	21519.28	125.06	74.27	137.48	0.08	0.54	1.68
21519.28	21656.76	269.63	117.75	137.48	0.16	0.86	2.29
21656.76	21794.24	594.91	189.31	137.48	0.36	1.38	3.14
21794.24	21931.72	769.56	220.93	137.48	0.47	1.61	3.48
21931.72	22069.20	640.72	197.93	137.48	0.39	1.44	3.24

22069.20	22206.68	99.32	55.30	92.94	0.06	0.60	1.80
22206.68	22344.16	57.29	46.49	137.48	0.03	0.34	1.23
22344.16	22481.64	27.79	22.77	68.36	0.02	0.33	1.22

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.24

INPUT
Description: 201.24

Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12806	955.8	12962.7	956.3	13145.6	957.3	13331.4	956.5	13517.2	956.2
13697.1	957.3	13855.5	957.4	14010.3	957	14164.7	956.7	14318.4	958.2
14482	958.5	14660	956.8	14688.4	957.7	14821.8	955.2	14989	957.8
15156	956.9	15324.8	957.6	15476.8	959	15632.7	959.6	15787	959.8
15939.5	959	16132.2	958.4	16296.2	957.9	16464.6	957.9	16632.1	958.1
16801.9	956.7	16986.8	954.6	17117.8	954.3	17180.2	958.7	17353.5	957.6
17566.1	957.4	17719.1	957.9	17947.6	957.8	18063.5	959.9	18067.36	958.4367
18084.6	951.9	18123.2	954.4	18273.7	954.7	18463.7	954.1	18640.4	954.1
18769.1	951.5	18834.7	946.6	18852.7	947.7	18957	944.8	19101.5	944.9
19190.4	949.6	19365.4	949.8	19479.4	950.7	19501.5	945.5	19659.5	947.2
19709.9	951	19861.9	951.5	20036.3	950.6	20116.5	953	20174.4	956.4
20272.4	956.3	20322.3	953.3	20397.8	952.3	20534.1	946.8	20728.3	949.3
20901.9	952.6	21060.4	953.1	21108.8	948.4	21143.3	943.1	21322.6	943
21477	945.1	21515.7	945.4	21547.4	956.4	21570	957.6	21573.6	955.3
21742.9	955.8	21840.8	955.8	22073.6	956.2	22315.2	956.6	22474.6	957.8
22660.5	959.5	22837.1	960.3	23006	960.7	23189	960.3	23372.7	959.3
23535.3	958.6	23693.7	960.2	23701.8	958.7	23728.6	959.3	23733.9	957.9
23745.1	960.6	23895.9	959.5	24055.3	959.7	24212	959	24364.3	958.6
24523.2	960	24683.9	959.1	24867.9	960.4	25044.2	960.6	25240.9	961.6
25449.6	962.7	25490	964.7						

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12806	.043	16132.2	.065	17180.2	.025	17947.6	.15	18063.5	.15
18957	.037	19659.5	.032	20174.4	.037	21570	.025		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18067.36	21570	485	488.56	490	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12806	18063.5	964.7	23006	25490	964.7

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	957.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.58	Wt. n-Val.		0.040	0.025
E.G. Elev (ft)	958.11	Reach Len. (ft)	485.00	488.56	490.00
Crit W.S. (ft)	953.56	Flow Area (sq ft)		25956.55	1190.80
E.G. Slope (ft/ft)	0.001803	Area (sq ft)	2367.20	25956.55	1190.80
Q Total (cfs)	164000.00	Flow (cfs)		160291.16	3708.84
Top Width (ft)	7081.95	Top Width (ft)	2715.17	3498.82	867.96
Vel Total (ft/s)	6.04	Avg. Vel. (ft/s)		6.18	3.11
Max Chl Dpth (ft)	14.53	Hydr. Depth (ft)		7.42	1.37
Conv. Total (cfs)	3862235.0	Conv. (cfs)		3774891.0	87343.9
Length Wtd. (ft)	488.58	Wetted Per. (ft)		3504.03	868.61
Min Ch El (ft)	943.00	Shear (lb/sq ft)		0.83	0.15
Alpha	1.03	Stream Power (lb/ft s)		5.15	0.48
Frctn Loss (ft)	0.66	Cum Volume (acre-ft)	3706.85	5971.02	1059.25
C & E Loss (ft)	0.05	Cum SA (acres)	729.09	627.43	484.00

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

18067.36 LB	18767.89	2345.82	2458.12	699.26	1.43	3.52	0.95
18767.89	19468.42	40317.58	6794.28	700.91	24.58	9.70	5.93
19468.42	20168.94	36880.14	5172.76	701.41	22.49	7.38	7.13
20168.94	20869.47	26232.32	4513.66	700.79	16.00	6.44	5.81
20869.47	21570.00 RB	54515.30	7017.73	701.65	33.24	10.04	7.77
21570.00	21831.33	1762.88	490.80	261.87	1.07	1.88	3.59
21831.33	22092.67	1236.07	396.32	261.33	0.75	1.52	3.12
22092.67	22354.00	680.70	277.07	261.34	0.42	1.06	2.46
22354.00	22615.33	29.20	26.61	84.08	0.02	0.32	1.10

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.14

INPUT
Description: 201.14

Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12823.9	955.7	12999.4	956.2	13212.7	955.6	13428.9	956	13645.2	955.7
13816.9	955.8	13992.2	956	14163.4	956.5	14335.2	955.8	14527.3	956.5
14708.6	956.3	14909.6	955.2	15093.8	955.5	15267	954.8	15439.6	956.4
15609.9	956.4	15791	956.8	15950.3	959	16129.2	957.7	16303.6	956
16475	953.7	16660.8	955	16839.9	953.5	17004.5	951.4	17082.5	958.8
17162.8	956.1	17184.4	958.7	17362.4	957.4	17598.4	957.1	17832.2	956.8
18017.1	960	18032	960.2	18037.8	6957.9	083 18056.8	950.5	18241.1	949.4
18415.6	950.8	18585.7	951.8	18725.4	952.4	18733.1	949.9	18790.6	949.1
18818.8	941.6	18850.4	943.3	18986.4	943.9	19077.9	949.8	19149.1	948.9
19305.2	951	19389.8	945.3	19562.7	946.4	19610	949.5	19790.7	949.7
19961	950.3	20069.8	955.8	20203.6	953.6	20241.8	949.2	20445.4	947.5
20553.6	952	20738.9	949.5	20840.4	947.3	20887.4	943.5	20941.4	948.4
20992.7	949.8	21019.8	942	21063.4	942.9	21079.7	945.4	21128.6	946
21160	941.1	21202.5	940.4	21278.6	945.6	21455.1	945.3	21569.3	940.9
21644.4	944.5	21697.9	954.5	21721	955.2	21725.6	953.1	21741.2	955
22051.3	955.9	22155.8	956.1	22389.7	956.4	22512.4	956.8	22725.1	956.9
22832.8	959	22857.1	957	23030.8	959	23238.6	958.8	23414	958.9
23606.9	957.7	23803.1	958	24052.9	958.2	24291.1	958.1	24471.3	958.5
24625.1	958.9	24632.8	957.3	24637.8	958.9	24815.7	959.6	25013.4	960.6
25215.4	961.6	25365.2	962.4						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12823.9	.043	16303.6	.065	17184.4	.025	18032	.15	18850.4	.037
19610	.032	20553.6	.037	21721	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18037.86	21721	480	481.53	485	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12823.9	18032	962.4	22832.8	25365.2	962.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	956.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.41	Wt. n-Val.		0.040	0.025
E.G. Elev (ft)	957.39	Reach Len. (ft)	480.00	481.53	485.00
Crit W.S. (ft)	952.04	Flow Area (sq ft)		31549.89	885.06
E.G. Slope (ft/ft)	0.001057	Area (sq ft)	5461.82	31549.89	885.06
Q Total (cfs)	164000.00	Flow (cfs)		162432.75	1567.25
Top Width (ft)	8718.27	Top Width (ft)	4029.08	3680.78	1008.42
Vel Total (ft/s)	5.06	Avg. Vel. (ft/s)		5.15	1.77
Max Chl Dpth (ft)	16.58	Hydr. Depth (ft)		8.57	0.88
Conv. Total (cfs)	5044147.0	Conv. (cfs)		4995943.0	48204.0
Length Wtd. (ft)	481.59	Wetted Per. (ft)		3687.87	1009.00
Min Ch El (ft)	940.40	Shear (lb/sq ft)		0.56	0.06
Alpha	1.03	Stream Power (lb/ft s)		2.91	0.10
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	3663.26	5648.53	1047.57
C & E Loss (ft)	0.03	Cum SA (acres)	691.55	587.16	473.45

Warning - Divided flow computed for this cross-section.

Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18037.86 LB	18774.49	4866.35	4550.72	735.90	2.97	6.20	1.07
18774.49	19511.12	39963.34	7419.78	738.06	24.37	10.07	5.39
19511.12	20247.74	22159.63	4498.94	737.14	13.51	6.11	4.93
20247.74	20984.37	33313.05	6004.76	737.16	20.31	8.15	5.55
20984.37	21721.00 RB	62130.39	9075.69	739.61	37.88	12.32	6.85
21721.00	21963.95	964.41	428.80	243.52	0.59	1.76	2.25
21963.95	22206.89	398.67	252.14	242.95	0.24	1.04	1.58
22206.89	22449.84	181.92	157.48	242.95	0.11	0.65	1.16
22449.84	22692.79	21.31	43.49	242.95	0.01	0.18	0.49
22692.79	22935.73	0.95	3.15	36.63	0.00	0.09	0.30

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 201.05

INPUT
Description: 201.05

Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12848.3	954.5	13055.4	953.7	13276.2	955.4	13483.1	957.1	13684.3	954.7
13886.2	954.5	14079.9	955	14267.8	955.7	14489.3	955.5	14686	954.3
14893.9	954.8	15093.5	953.8	15286.8	955	15508	955.8	15694.8	955.4
15890.9	955.3	16093.3	955.3	16296.5	955.9	16489.7	956.3	16687.2	954.3
16876.1	953.1	17029.6	951.4	17090	955.6	17177.7	953.2	17211.7	959.1
17239.8	956.7	17474.3	956.9	17712.8	956.3	17920.1	957.3	17947.8	957.7
17948.21	957.514	17963.9	950.4	18149.7	948.9	18366.7	949.3	18552.6	947.7
18642	947.2	18662.5	941.8	18877.7	942.9	18965.7	942.8	19025.5	948.9
19069.3	949.7	19115	948	19146.2	943.8	19305.4	944.7	19341.4	942.6
19450.5	944.4	19486	951.1	19656.3	948.4	19742.2	949.2	19800.5	946.7
19926.9	951	19979.4	950.2	20027.5	955.4	20105.3	953.3	20157.5	947.1
20233.6	946.1	20272.3	948.2	20302.6	946.7	20402.5	950.2	20615.4	948.5
20746.4	950.2	20793.3	949	20816.3	941.7	20964.1	941.5	20993.4	945.9
21193.9	949.2	21384.8	948.9	21582.1	946	21750.2	942.4	21815.9	945.1
21849	955.5	21881.2	953.7	21901.6	955.1	21907	953.3	21990.8	953.6
22189.8	954.8	22244.5	955.2	22537.9	955.5	22570.5	955.5	22835	955.8
22894.6	957.1	22905.9	959	22934.1	957.4	23165.2	957.6	23380	958
23414	957	23451.8	959.3	23684.3	956.6	23933.2	957	24126.1	957.5
24400	957.7	24595.1	958.4	24603.3	957.1	24622.7	959.8	24638.5	957.6
24836.5	959.9	24997.1	961.2						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12848.3	.043	16687.2	.15	17177.7	.025	17947.8	.15	18965.7	.037
19486	.032	20402.5	.037	21849	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17948.21	21849	520	512.89	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12848.3	17947.8	961.2	22905.9	24997.1	961.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	956.58	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.30	Wt. n-Val.		0.045	0.025
E.G. Elev (ft)	956.88	Reach Len. (ft)	520.00	512.89	510.00
Crit W.S. (ft)	950.96	Flow Area (sq ft)		35974.31	1598.72
E.G. Slope (ft/ft)	0.000938	Area (sq ft)	7154.52	35974.31	1598.72
Q Total (cfs)	164000.00	Flow (cfs)		160079.17	3920.84
Top Width (ft)	9331.22	Top Width (ft)	4410.76	3898.73	1021.73
Vel Total (ft/s)	4.36	Avg. Vel. (ft/s)		4.45	2.45
Max Chl Dpth (ft)	15.08	Hydr. Depth (ft)		9.23	1.56
Conv. Total (cfs)	5355517.0	Conv. (cfs)		5227480.0	128037.3
Length Wtd. (ft)	512.83	Wetted Per. (ft)		3906.34	1022.13

Min Ch El (ft)	941.50	Shear (lb/sq ft)		0.54	0.09
Alpha	1.02	Stream Power (lb/ft s)		2.40	0.22
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	3593.75	5275.31	1033.75
C & E Loss (ft)	0.01	Cum SA (acres)	645.05	545.27	462.15

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17948.21 LB	18728.37	8036.78	6480.70	780.15	4.90	8.33	1.24
18728.37	19508.53	41939.04	9250.89	781.50	25.57	11.86	4.53
19508.53	20288.68	28240.54	5454.27	781.07	17.22	6.99	5.18
20288.68	21068.84	41080.65	7366.67	781.74	25.05	9.44	5.58
21068.84	21849.00 RB	40782.14	7421.77	781.89	24.87	9.51	5.49
21849.00	22058.87	1829.66	572.11	210.27	1.12	2.73	3.20
22058.87	22268.75	1026.55	404.17	209.88	0.63	1.93	2.54
22268.75	22478.62	497.65	261.75	209.87	0.30	1.25	1.90
22478.62	22688.49	373.68	220.41	209.88	0.23	1.05	1.70
22688.49	22898.37	193.29	140.26	182.24	0.12	0.77	1.38

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 200.95

INPUT
Description: 200.95

Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12874.8	952.5	13039.9	952	13212.3	952.3	13372.8	953.5	13537.8	953.7
13708.5	953.7	13872.8	954	14042.5	953.4	14205.3	953.3	14401.9	953.5
14603.1	953.1	14762	954.2	14934	952.2	15127.8	952.8	15312.6	953.8
15422.3	957.2	15583	954.7	15746.4	955	15906.8	956.3	15988.2	955.4
16164.6	957.4	16332.4	957.6	16504.4	956.6	16673	957.2	16861.4	956.7
17049	953.4	17207.8	951.7	17274	955.6	17440.2	954.4	17613.5	957.4
17631.7	953.8	17653.9	958.1	17824.4	958	17905.8	956.9	189 17952.4	956.3
17964.6	951.3	18135.4	946.6	18219.9	947	18317.2	949.6	18410.9	946.7
18428.8	949	18651.9	947.8	18690.8	946.2	18729.3	940.1	18914	943.4
19040.9	943.9	19102.9	941.9	19126.2	943.3	19190.9	941.9	19216.4	943.8
19237.2	941.5	19420.9	944.3	19517.6	943.7	19555.3	947.7	19758.1	946.5
19818.9	950.2	19947.1	951.5	20006.8	955.9	20184.2	954.1	20323.1	951.3
20414.3	945.7	20527.8	944.2	20653.3	949.4	20684.2	940.5	20842.4	942.7
20989.1	947.8	21069.4	948.4	21262.3	947.7	21448.8	948.8	21631.4	946.7
21802	942.6	21869.1	939.8	21909.3	943.4	21954	953.2	22148.5	954.1
22306.3	954	22378	955.4	22594.8	954	22757.8	954.9	22935.8	954.8
23107.3	956.2	23275.4	955.9	23411.6	954.8	23573.4	957.7	23629.1	956.7
23796.3	955.8	23971.7	955.8	24129.8	956	24294.4	955.8	24466.5	955.4
24623.6	955.4	24630	955.3	24639.7	957.8	24648.4	954.6	24662.5	958.2
24836.4	959.8	24988.3	960.7						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12874.8	.043	17824.4	.15	18729.3	.037	19517.6	.032	20323.1	.037
21954	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17905.8	21954	475	474.38	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12874.8	17824.4	960.7	23100	24988.3	960.7

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	956.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.		0.041	0.035
E.G. Elev (ft)	956.48	Reach Len. (ft)	475.00	474.38	480.00
Crit W.S. (ft)	949.86	Flow Area (sq ft)		37707.35	1914.51

E.G. Slope (ft/ft)	0.000642	Area (sq ft)	9147.48	37707.35	2537.96
Q Total (cfs)	164000.00	Flow (cfs)		161099.58	2900.42
Top Width (ft)	10204.86	Top Width (ft)	3745.43	4001.36	2458.08
Vel Total (ft/s)	4.14	Avg. Vel. (ft/s)		4.27	1.51
Max Chl Dpth (ft)	16.40	Hydr. Depth (ft)		9.42	1.67
Conv. Total (cfs)	6470560.0	Conv. (cfs)		6356125.0	114434.8
Length Wtd. (ft)	474.52	Wetted Per. (ft)		4007.00	1146.03
Min Ch El (ft)	939.80	Shear (lb/sq ft)		0.38	0.07
Alpha	1.05	Stream Power (lb/ft s)		1.61	0.10
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	3496.45	4841.53	1009.53
C & E Loss (ft)	0.00	Cum SA (acres)	596.36	498.76	441.78

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17905.80 LB	18715.44	6150.48	6127.65	764.40	3.75	8.03	1.00
18715.44	19525.08	61069.88	10827.36	810.19	37.24	13.37	5.64
19525.08	20334.72	14890.28	4224.12	810.15	9.08	5.22	3.53
20334.72	21144.36	42222.54	8607.54	811.27	25.75	10.63	4.91
21144.36	21954.00 RB	36766.41	7920.69	810.99	22.42	9.78	4.64
21954.00	22156.29	961.38	512.55	202.29	0.59	2.53	1.88
22156.29	22358.57	666.51	411.43	202.30	0.41	2.03	1.62
22358.57	22560.86	337.84	273.67	202.29	0.21	1.35	1.23
22560.86	22763.15	541.86	363.36	202.29	0.33	1.80	1.49
22763.15	22965.43	333.27	271.44	202.29	0.20	1.34	1.23
22965.43	23167.72	59.56	82.06	134.57	0.04	0.61	0.73

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 200.86

INPUT
Description: 200.86

Left Channel Bank Station Interpolated
Station Elevation Data num= 98

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12893	952.7	13071.4	952.1	13217.7	954.6	13366.3	951.7	13513.8	953.9
13666	954.4	13820.1	953.4	13963.2	953.3	14149	953.3	14333.5	952.5
14509.1	952.1	14688.3	953.1	14861.7	952.4	15054.1	951.6	15210.6	951.7
15424.6	955	15571.3	952.8	15782.9	955.2	16020.2	955.6	16192.2	953.9
16399.2	952.8	16559.9	953	16714.8	953.3	16760.5	954.7	16916.6	953.9
17003.1	954.6	17168.1	950.1	17285.1	949.5	17360.5	954.6	17520.2	953
17694.7	956	17869.8	957	17934.1	958.11	7992.44	956.56	98 17995.1	956.5
17996	956.3	408 18052.8	946.3	18288.3	948.1	18449.5	947.1	18628.5	947.7
18762	951.3	18912.7	950.4	19061.6	946.8	19092	945.3	19141.3	938.5
19175.6	940.7	19336.6	941.9	19619.6	944.7	19730.8	944.7	19826.2	949.9
19922.8	951.3	20011.5	955.4	20112.1	951.4	20184.7	943.1	20254	952.1
20308.4	952.8	20438.4	949.3	20464.9	944.1	20568.6	943.9	20744.1	941.1
20840.6	941.3	20896.7	945.9	20979.1	947.3	21100	946.2	21279.3	951.2
21459.1	946.8	21602.1	945.3	21642.4	941.5	21792.5	940.9	21831.9	940.3
21865.4	942.7	21898	952	22032	954.1	22187.6	953.7	22377.3	953.4
22522.7	953.4	22725.4	952.8	22947.9	954.9	23137.5	955	23294.6	956.1
23413.1	955.8	23420	954.5	23482.2	956.5	23641.6	956.7	23647.7	954.4
23806	955.4	23951.6	954.9	24112	954.8	24269.9	954.6	24426.7	954.8
24604.6	954.9	24656.8	954.3	24670.5	956.8	24680.8	954	24693.9	958.2
24856.4	958.5	25029.7	959	25175	960.2				

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12893	.043	17934.1	.15	19619.6	.032	20308.4	.037	21898	.035

22032 .035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17996	22032	525	523.32	525	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12893	17750	960.2	23360	25175	960.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	955.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.29	Wt. n-Val.		0.053	0.035
E.G. Elev (ft)	956.06	Reach Len. (ft)	525.00	523.32	525.00
Crit W.S. (ft)	949.69	Flow Area (sq ft)		36083.01	2219.01
E.G. Slope (ft/ft)	0.001275	Area (sq ft)	12028.79	36083.01	3200.99
Q Total (cfs)	164000.00	Flow (cfs)		158974.66	5025.36
Top Width (ft)	11114.79	Top Width (ft)	4788.13	4032.75	2293.91
Vel Total (ft/s)	4.28	Avg. Vel. (ft/s)		4.41	2.26
Max Chl Dpth (ft)	17.27	Hydr. Depth (ft)		8.95	1.83
Conv. Total (cfs)	4593507.0	Conv. (cfs)		4452751.0	140756.2
Length Wtd. (ft)	523.36	Wetted Per. (ft)		4038.16	1215.03
Min Ch El (ft)	938.50	Shear (lb/sq ft)		0.71	0.15
Alpha	1.03	Stream Power (lb/ft s)		3.13	0.33
Frctn Loss (ft)	0.55	Cum Volume (acre-ft)	3380.99	4439.73	977.91
C & E Loss (ft)	0.00	Cum SA (acres)	549.84	455.01	415.59

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17996.00 LB	18803.20	8242.98	6110.82	804.84	5.03	7.60	1.35
18803.20	19610.40	15408.93	8907.55	807.84	9.40	11.04	1.73
19610.40	20417.60	26366.80	4941.37	808.62	16.08	6.12	5.34
20417.60	21224.80	61533.74	8827.99	807.99	37.52	10.94	6.97
21224.80	22032.00 RB	47422.23	7295.27	808.87	28.92	9.04	6.50
22032.00	22241.53	866.74	404.24	209.53	0.53	1.93	2.14
22241.53	22451.07	1159.42	481.34	209.53	0.71	2.30	2.41
22451.07	22660.60	1335.95	524.06	209.53	0.81	2.50	2.55
22660.60	22870.13	1304.27	516.57	209.54	0.80	2.47	2.52
22870.13	23079.67	280.84	205.58	209.54	0.17	0.98	1.37
23079.67	23289.20	78.14	87.22	167.35	0.05	0.52	0.90

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 200.77

INPUT
Description: 200.77
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12925.1	950.1	13101.8	952.3	13250.4	951	13436.7	950.7	13651.1	951.4
13804.4	951.9	14027	953.4	14249.5	951.8	14401.1	950.7	14592.6	949.7
14752.3	950.6	14873.3	950.3	15006	952.1	15110.8	950.9	15249.1	953.3
15443.8	954.5	15631.2	955.3	15702.9	951.3	15936.9	951	16108.8	954.5
16172	955.8	16295.1	951.4	16462	950.7	16530.6	949.9	16652.3	952.8
16854.8	954	17022.2	952.1	17185.4	949.9	17349.4	948.1	17402.8	955.2
17473.6	951.6	17660.6	954.4	17828.8	955.3	17926.5	954	17969.3	948
18147.9	944.4	18302.9	946.4	18524.1	946.1	18650.9	949	18815.8	948.8
18902.5	949.8	18913.4	952	19097	950.8	19277	951.3	19280.8	951.9
19280.9	949.5	19321.8	951.3	19557.8	943.7	19720.4	945.1	19857.8	946.5
19911.9	942.9	19989.5	951.1	20140.5	950.2	20288.5	945.2	20339.4	948.6
20362.3	944.7	20388.7	942.6	20487.8	944	20788	936.9	20804.9	937.1
20829.2	942.4	20906.3	944.7	21056	944.4	21222.9	942.6	21375.1	940.2
21524.6	940.4	21559.7	941	21581	950.6	21785.8	951.3	21951	952.4
22102.3	952.1	22329.8	953.2	22461	953	22651.4	953.3	22824.9	954.7
23050.7	954.8	23217.5	954.9	23380.5	954.5	23421.7	954.3	23434.6	956
23439.7	954.3	23489.2	957.2	23506.4	952.5	23514.1	955.4	23706.9	954.3
23876.7	954.3	24057.8	954.4	24216.1	954.4	24385.4	954.2	24554.4	953.9

24685.3	953.1	24698.2	956.8	24704.7	952.7	24723.6	958.6	24886.7	958.9
24978	959.5								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12925.1	.043	17828.8	.15	19321.8	.032	19857.8	.037	21785.8	.025
21951	.035								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17828.8	21951	500	495.64	520	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
12925.1	17630	960	23180	24978	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	955.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.31	Wt. n-Val.	0.043	0.043	0.035
E.G. Elev (ft)	955.51	Reach Len. (ft)	500.00	495.64	520.00
Crit W.S. (ft)	949.21	Flow Area (sq ft)	90.87	35538.52	2045.91
E.G. Slope (ft/ft)	0.000888	Area (sq ft)	15640.05	35538.52	3299.12
Q Total (cfs)	164000.00	Flow (cfs)	59.40	160304.59	3636.00
Top Width (ft)	11594.63	Top Width (ft)	4812.56	4114.51	2667.56
Vel Total (ft/s)	4.35	Avg. Vel. (ft/s)	0.65	4.51	1.78
Max Chl Dpth (ft)	18.30	Hydr. Depth (ft)	0.51	8.64	1.66
Conv. Total (cfs)	5502849.0	Conv. (cfs)	1993.2	5378853.5	122002.2
Length Wtd. (ft)	496.22	Wetted Per. (ft)	179.68	4121.74	1229.01
Min Ch El (ft)	936.90	Shear (lb/sq ft)	0.03	0.48	0.09
Alpha	1.05	Stream Power (lb/ft s)	0.02	2.16	0.16
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	3214.25	4009.51	938.74
C & E Loss (ft)	0.00	Cum SA (acres)	491.98	406.07	385.69

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17501.89	17828.80	59.40	90.87	179.68	0.04	0.51	0.65
17828.80 LB	18653.24	7141.77	6322.60	817.26	4.35	7.74	1.13
18653.24	19477.68	7329.82	4235.11	827.14	4.47	5.14	1.73
19477.68	20302.12	38004.04	6995.14	825.17	23.17	8.48	5.43
20302.12	21126.56	65521.12	10362.88	825.64	39.95	12.57	6.32
21126.56	21951.00 RB	42307.88	7622.77	826.54	25.80	9.25	5.55
21951.00	22152.80	1312.75	596.24	201.80	0.80	2.95	2.20
22152.80	22354.60	912.42	479.33	201.80	0.56	2.38	1.90
22354.60	22556.40	754.53	427.68	201.80	0.46	2.12	1.76
22556.40	22758.20	524.97	344.03	201.80	0.32	1.70	1.53
22758.20	22960.00	83.70	114.33	201.80	0.05	0.57	0.73
22960.00	23161.80	44.60	78.36	201.80	0.03	0.39	0.57
23161.80	23363.60	3.00	5.92	18.20	0.00	0.33	0.51

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 200.67

INPUT
Description: 200.67
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
12952.7	947.8	13129.5	948.3	13308.2	948.8	13483.1	949.2	13641	952.6
13766	952	13870.6	949.3	14073.7	950.3	14282	951.5	14535.6	948.8
14746.4	948.7	14899.4	949.8	15045.4	950.6	15138.5	953.1	15312.3	952.8
15471.5	952.2	15651.1	951.4	15730.3	949.9	15964.5	954	16199.7	953.8
16438.6	948.9	16643.2	952.3	16796.2	954	17002.3	953.9	17133.8	952.2
17211.9	946.7	17315.9	947	17376.2	954.8	17384.7	952.3	17551.8	953.1
17732.2	954.1	17919.3	952.9	17950	943.8	18101.5	944.9	18330.6	947.4
18498.9	943.9	18565	943.8	18742.3	948.8	18888.2	952	18925.4	946.6
18962.8	948.9	19023.7	947.4	19040.9	949.6	19238.5	952.4	19366.3	948.8
19569.2	947.1	19719.3	940.8	19796.7	942.1	19832.7	943.8	19969	943

20047.1	949	20111	948.4	20263	939.8	20444.8	942.7	20609	942.6
20782.8	941.1	20963.8	942.2	20998.9	941.8	21090.6	944.3	21256.2	942.8
21298.3	943.3	21316	950.6	21367.7	945.7	21427.5	950.4	21604	951.9
21649.3	952.3	21939.5	952.7	21971.5	952.7	22194	953.4	22217.8	954.7
22233.1	953	22256.3	952.8	22476.8	953.9	22513.4	953.9	22711.5	955.1
22773.4	955.2	22873.4	959.1	23051.6	959.3	23158.6	956.6	23168.5	958.8
23393.6	957.5	23430	957.4	23431.7	955.9	23584.2	954.6	23749.1	953.9
23939.2	954	24125.4	954.8	24292.4	954.6	24492.9	954.3	24643.7	954.1
24725.3	954.1	24731.8	955.7	24741.4	953.7	24755.2	960.7	24923	959.7
24996.7	960								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
12952.7	.043	17919.3	.15	18962.8	.032	19040.9	.15	19366.3	.032
20263	.043	21604	.025	21649.3	.025				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17919.3	21649.3	500	503.34	510	.1	.3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
12952.7	17540	960	22700	23500	960	23500	24996.7	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	954.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.35	Wt. n-Val.	0.043	0.047	0.025
E.G. Elev (ft)	955.00	Reach Len. (ft)	500.00	503.34	510.00
Crit W.S. (ft)	948.96	Flow Area (sq ft)	423.25	33248.01	1470.09
E.G. Slope (ft/ft)	0.001171	Area (sq ft)	17097.16	33248.01	1876.08
Q Total (cfs)	164000.00	Flow (cfs)	538.42	159376.11	4085.47
Top Width (ft)	10677.09	Top Width (ft)	4964.93	3730.00	1982.16
Vel Total (ft/s)	4.67	Avg. Vel. (ft/s)	1.27	4.79	2.78
Max Chl Dpth (ft)	14.85	Hydr. Depth (ft)	1.12	8.91	1.49
Conv. Total (cfs)	4792703.0	Conv. (cfs)	15734.6	4657575.5	119392.9
Length Wtd. (ft)	503.52	Wetted Per. (ft)	379.31	3734.79	986.70
Min Ch El (ft)	939.80	Shear (lb/sq ft)	0.08	0.65	0.11
Alpha	1.03	Stream Power (lb/ft s)	0.10	3.12	0.30
Frctn Loss (ft)	0.59	Cum Volume (acre-ft)	3026.37	3618.17	907.85
C & E Loss (ft)	0.00	Cum SA (acres)	435.87	361.45	357.94

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17257.09	17588.19	108.72	71.37	48.19	0.07	1.48	1.52
17588.19	17919.30	429.69	351.88	331.11	0.26	1.06	1.22
17919.30 LB	18665.30	10075.41	6876.25	747.41	6.14	9.22	1.47
18665.30	19411.30	6781.58	3623.46	746.76	4.14	4.86	1.87
19411.30	20157.30	49576.30	7075.88	746.50	30.23	9.49	7.01
20157.30	20903.30	62649.76	9473.47	746.20	38.20	12.70	6.61
20903.30	21649.30 RB	30293.06	6198.94	747.92	18.47	8.31	4.89
21649.30	21872.46	1622.56	490.12	223.16	0.99	2.20	3.31
21872.46	22095.62	1224.88	414.04	223.16	0.75	1.86	2.96
22095.62	22318.78	763.98	311.22	221.92	0.47	1.40	2.45
22318.78	22541.94	450.51	227.20	223.16	0.27	1.02	1.98
22541.94	22765.10	23.53	27.50	95.29	0.01	0.29	0.86

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 200.58

INPUT
Description: 200.58

Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13004.2	946.1	13252.7	946	13406.6	945.2	13565.9	944.9	13774.2	944.6

13943.1	945.5	14116.9	945	14279.1	946.6	14438.8	947.7	14609	948.4
14768.3	947.1	14929	947.1	15050.5	947.2	15202.4	950.2	15286.6	950.1
15344.6	952	15501.3	950.2	15638.8	948.6	15758.4	951.1	15992.6	950.5
16109.8	952.6	16227.7	949.4	16451.3	948.4	16610.1	950.8	16708	953.4
16925.1	953.5	17149.3	953.1	17163.9	953.3	17234.2	944.5	17318.9	945.5
17387.8	953.1	17544.8	952.5	17768	953.3	17947	953.3	18120.4	944.7
18239.5	947	18479.6	944.5	18689.4	943	18899.8	947.1	18982.6	947.4
19060.5	950.5	19193.4	946.5	19239.2	951	19272	950.3	19281	947.8
19435	949.5	19481.5	950.8	19780.1	939.9	19839	939.1	20105.5	937.6
20341.3	941.2	20411.6	945.7	20456.8	943.9	20469.2	941.9	20590	941.2
20660	946.3	20712.1	943.5	20803.5	943.1	20830.7	941.2	21002.3	943.4
21117.8	946.3	21272	946.4	21425	950.4	21450	950.6	778 21452	950.7
21643	952.3	21667.2	952.4	21820.3	952	21847.8	952	22017.1	952.7
22213.8	952.2	22244.2	960.6	22257.8	957.2	22270.2	958.5	22289.1	952.8
22392.9	953.3	22566.6	953.5	22797.3	954.2	22998.5	955.3	23151	955.4
23322.6	954.9	23399.1	953.2	23498	953.6	23506	952.3	23516.9	955.5
23555.1	955.9	23578.4	953.2	23779.1	953.4	23989.5	954.5	24174.8	954.3
24351.4	954.1	24538.2	953.8	24699.8	953.7	24771.3	955.3	24776.5	952.9
24795.5	960.4	24969.5	959.5						

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
13004.2	.15	14609	.043	17947	.15	19481.5	.032	20105.5	.043
21425	.025	21643	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17947	21450	475	479.55	530	.1	.3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
13004.2	17460	960	22800	23545	960	23545	24969.5	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	954.05	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.36	Wt. n-Val.	0.043	0.048	0.025
E.G. Elev (ft)	954.41	Reach Len. (ft)	475.00	479.55	530.00
Crit W.S. (ft)	948.28	Flow Area (sq ft)	509.49	32643.25	1754.55
E.G. Slope (ft/ft)	0.001178	Area (sq ft)	24873.38	32643.25	2118.39
Q Total (cfs)	164000.00	Flow (cfs)	622.69	158213.08	5164.24
Top Width (ft)	10503.21	Top Width (ft)	4942.80	3503.00	2057.41
Vel Total (ft/s)	4.70	Avg. Vel. (ft/s)	1.22	4.85	2.94
Max Chl Dpth (ft)	16.45	Hydr. Depth (ft)	1.05	9.32	1.42
Conv. Total (cfs)	4778632.0	Conv. (cfs)	18143.9	4610012.5	150475.8
Length Wtd. (ft)	481.69	Wetted Per. (ft)	487.00	3505.02	1234.44
Min Ch El (ft)	937.60	Shear (lb/sq ft)	0.08	0.68	0.10
Alpha	1.04	Stream Power (lb/ft s)	0.09	3.32	0.31
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	2785.49	3237.48	884.47
C & E Loss (ft)	0.02	Cum SA (acres)	379.00	319.66	334.29

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17287.96	17617.48	319.16	221.16	157.48	0.19	1.40	1.44
17617.48	17947.00	303.52	288.32	329.52	0.19	0.87	1.05
17947.00 LB	18647.60	7426.58	5551.64	700.85	4.53	7.92	1.34
18647.60	19348.20	5911.60	4842.74	701.34	3.60	6.91	1.22
19348.20	20048.80	55617.66	7334.33	700.83	33.91	10.47	7.58
20048.80	20749.40	58285.86	8785.18	701.23	35.54	12.54	6.63
20749.40	21450.00 RB	30971.38	6129.36	700.77	18.88	8.75	5.05
21450.00	21684.63	2057.82	564.49	234.64	1.25	2.41	3.65
21684.63	21919.27	1393.78	446.81	234.64	0.85	1.90	3.12
21919.27	22153.90	975.69	360.74	234.63	0.59	1.54	2.70
22153.90	22388.53	512.52	215.82	170.62	0.31	1.27	2.37
22388.53	22623.17	208.46	142.90	234.63	0.13	0.61	1.46
22623.17	22857.80	15.98	23.81	125.28	0.01	0.19	0.67

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 200.49

INPUT
Description: 200.49
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13048.9	945.6	13261.8	944.9	13471.4	944.9	13640.6	945.6	13821.9	945.7
13998.1	945.5	14204.4	944.8	14399.4	943.8	14586.6	943.4	14763.6	943
14951.3	943.1	15156.1	943.2	15371.2	945.2	15548.1	948.1	15769.6	946.9
15979.3	948.4	16200.3	947.6	16375.3	947.1	16493.4	953	16719	952.8
16949.5	951	17106.4	951.7	17132.4	947.4	17168	952.5	17198.4	950.8
17234.4	945.1	17404.6	947.6	17536.5	952.7	17719.3	953.3	17750.3	952.7
17791.5	947.5	17816.7	949.6	17852.9	949	17862.5	950.8	18012.9	951.3
18153.1	947.1	18273.7	941.6	18480.3	943.2	18739.9	945	18856.4	944.7
19028.1	939.7	19085	944.7	19190.4	945.3	19261.7	948.1	19342.5	943.7
19490.6	939.8	19542	943.5	19650.1	948.1	19854.1	940.8	19947.1	937.5
20192	936.9	20201.4	940.9	20275.4	939.8	20324.1	944	20367.7	939.3
20425.1	937.8	20452	941.7	20573.6	946.4	20608.5	941.9	20627	944.1
20638.3	940.9	20706.1	939.4	20811.1	939.3	20837.1	942.5	20956.7	943.3
20975.1	941.9	21136.8	944.8	21171	950.3	21342.1	950.2	21559.3	950.8
21830.5	950.9	21861.8	951.1	21876.9	959.1	21891.8	959	21905.4	951.7
22133.6	952.2	22336	952.4	22590.8	952.7	22633.1	952.7	22813.2	952.3
23018.2	953.8	23185.8	954.6	23401.6	954.5	23519	954	23540.6	951.9
23589.4	954.7	23609.6	952	23780.4	952.4	23946.1	952.4	24145	952.4
24343.4	952.9	24514.6	953.3	24725.8	953.2	24810.9	953.5	24835.6	958
24956.8	957.1								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
13048.9	.15	15548.1	.043	17719.3	.043	18273.7	.15	19342.5	.032
20192	.043	21171	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17719.3	21171	510	497.59	510	.1	.3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
13048.9	17380	960	21840	22160	960	23591	24956.8	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	953.62	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.29	Wt. n-Val.	0.043	0.047	0.025
E.G. Elev (ft)	953.91	Reach Len. (ft)	510.00	497.59	510.00
Crit W.S. (ft)	946.93	Flow Area (sq ft)	724.46	34883.95	2938.45
E.G. Slope (ft/ft)	0.000836	Area (sq ft)	31160.82	34883.95	4506.28
Q Total (cfs)	164000.00	Flow (cfs)	1199.64	153888.41	8911.95
Top Width (ft)	11171.66	Top Width (ft)	4670.40	3451.70	3049.56
Vel Total (ft/s)	4.25	Avg. Vel. (ft/s)	1.66	4.41	3.03
Max Chl Dpth (ft)	16.72	Hydr. Depth (ft)	2.14	10.11	1.89
Conv. Total (cfs)	5673637.0	Conv. (cfs)	41502.0	5323823.0	308312.0
Length Wtd. (ft)	498.33	Wetted Per. (ft)	339.40	3456.68	1550.84
Min Ch El (ft)	936.90	Shear (lb/sq ft)	0.11	0.53	0.10
Alpha	1.04	Stream Power (lb/ft s)	0.18	2.32	0.30
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)	2479.98	2865.78	844.17
C & E Loss (ft)	0.01	Cum SA (acres)	326.59	281.37	303.23

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17096.58	17407.94	501.44	172.51	27.95	0.31	6.17	2.91
17407.94	17719.30	698.20	551.95	311.46	0.43	1.77	1.26
17719.30 LB	18409.64	9447.07	4172.54	691.13	5.76	6.04	2.26
18409.64	19099.98	9230.36	6994.10	690.64	5.63	10.13	1.32
19099.98	19790.32	28213.64	6238.91	690.89	17.20	9.04	4.52
19790.32	20480.66	70163.45	9890.53	692.02	42.78	14.33	7.09
20480.66	21171.00 RB	36833.91	7587.86	692.01	22.46	10.99	4.85
21171.00	21423.39	3226.43	846.14	252.39	1.97	3.35	3.81
21423.39	21675.77	2553.85	735.41	252.39	1.56	2.91	3.47
21675.77	21928.16	1506.93	451.25	164.23	0.92	2.75	3.34
21928.16	22180.55	60.29	28.49	20.55	0.04	1.39	2.12

22180.55	22432.93	621.51	314.98	252.39	0.38	1.25	1.97
22432.93	22685.32	424.44	250.55	252.39	0.26	0.99	1.69
22685.32	22937.71	448.37	258.94	252.39	0.27	1.03	1.73
22937.71	23190.09	6.87	11.58	56.25	0.00	0.21	0.59
23190.09	23442.48						
23442.48	23694.87	63.25	41.12	47.88	0.04	0.86	1.54

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 200.39

INPUT
Description: 200.39
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13083.9	945.2	13254.6	945.3	13486.8	945.5	13742.8	945.8	14008.5	946
14273.9	945.9	14454.3	945.6	14637.7	945.4	14834.7	945.2	15022.8	944.7
15192.5	944.4	15417.5	944.4	15642.9	944.4	15819.7	943.9	16016.8	943.5
16254.5	943.6	16478.3	943.8	16652.7	943.9	16819.7	947.8	16875.2	949.8
16928.9	948.8	16992.7	951.1	17168.8	950.1	17242.1	945	17439	948.6
17484.9	949	17507.9	946.2	17527.7	949.5	17682.5	952.2	17714.9	945.6
17726.7	949.9	17781	947.5	17966.7	946.8	18026.8	945.7	18050.3	941.5
18183	941.3	18379.8	942.6	18534.2	941	18751.2	942.5	18800.2	941.7
18918.7	944.9	19025.6	941.5	19161.9	944.8	19220.8	943.5	19267.5	947.7
19444.5	940.9	19506.7	939	19763.7	940.6	19785	940.5	20110.3	939.9
20152.6	937	20199	940.6	20240.6	941.7	20272.3	938.7	20460.6	948.4
20515.5	946.8	20585.3	946.5	20659.8	939.5	20714.2	938.7	20742	943.3
20788.5	938.9	20812.7	939.9	20854.3	937.8	20978.7	940.9	21041	951.3
21062	949.6	21134.2	949.8	21326.6	949.6	21342.1	949.6	21606.3	951
21865.7	950.7	21893.4	950.9	21911.5	958	21918.5	956.7	21925.9	957.8
21937.7	950.6	22152.6	950.7	22336.4	951.5	22566.3	951.6	22807.6	951.9
23031.4	952.1	23203.3	953.2	23429.6	953.3	23573.8	952	23600	955.9
23653.9	951.2	23829	950.5	24004.5	950.7	24185.9	951.4	24362.4	951.7
24572.6	951.5	24742.1	951.6	24842.9	953.7	24848.9	951.1	24857.3	956.6
24952.5	957.6								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
13083.9	.15	16875.2	.043	17682.5	.043	18751.2	.15	19506.7	.032
20199	.043	21041	.025						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17682.5	21041	550	506.5	480	.1	.3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
13080	17300	960	21400	22680	960	23600	24952.5	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	953.26	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.27	Wt. n-Val.	0.043	0.045	0.025
E.G. Elev (ft)	953.53	Reach Len. (ft)	550.00	506.50	480.00
Crit W.S. (ft)	946.22	Flow Area (sq ft)	1638.89	36133.59	1927.02
E.G. Slope (ft/ft)	0.000685	Area (sq ft)	34873.80	36133.59	7070.11
Q Total (cfs)	164000.00	Flow (cfs)	3907.78	154640.86	5451.36
Top Width (ft)	11565.71	Top Width (ft)	4598.60	3358.50	3608.62
Vel Total (ft/s)	4.13	Avg. Vel. (ft/s)	2.38	4.28	2.83
Max Chl Dpth (ft)	16.26	Hydr. Depth (ft)	4.28	10.76	1.66
Conv. Total (cfs)	6264659.0	Conv. (cfs)	149273.8	5907148.0	208237.4
Length Wtd. (ft)	507.73	Wetted Per. (ft)	382.99	3363.45	1163.02
Min Ch El (ft)	937.00	Shear (lb/sq ft)	0.18	0.46	0.07
Alpha	1.04	Stream Power (lb/ft s)	0.44	1.97	0.20
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	2093.41	2460.16	776.40
C & E Loss (ft)	0.02	Cum SA (acres)	272.33	242.48	264.25

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta	Right Sta	Flow	Area	W.P.	% Conv.	Hydr D.	Velocity

(ft)	(ft)	(cfs)	(sq ft)	(ft)		(ft)	(ft/s)
17069.35	17375.93	1503.31	493.96	75.94	0.92	6.51	3.04
17375.93	17682.50	2404.47	1144.93	307.05	1.47	3.73	2.10
17682.50 LB	18354.20	21707.82	5760.41	673.56	13.24	8.58	3.77
18354.20	19025.90	24188.05	7347.23	671.82	14.75	10.94	3.29
19025.90	19697.60	23564.74	7290.38	672.11	14.37	10.85	3.23
19697.60	20369.30	55276.04	8753.76	672.23	33.70	13.03	6.31
20369.30	21041.00 RB	29904.21	6981.81	673.74	18.23	10.39	4.28
21041.00	21301.77	3155.55	910.04	260.84	1.92	3.49	3.47
21301.77	21562.53	1231.81	350.19	98.23	0.75	3.56	3.52
21562.53	22605.60						
22605.60	22866.37	494.87	261.77	186.37	0.30	1.40	1.89
22866.37	23127.13	455.71	284.96	260.77	0.28	1.09	1.60
23127.13	23387.90	10.35	26.90	208.66	0.01	0.13	0.38
23387.90	23648.67	103.08	93.17	148.16	0.06	0.63	1.11

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 200.3

INPUT
Description: 200.3
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13125.5	945.5	13316	945.5	13495.7	945.7	13687.9	945.9	13882.5	945.7
14123.9	945.2	14361.2	945.8	14546.2	945.8	14737.5	945.3	14938.1	945.4
15122.2	945.1	15335	945.6	15433	945.6	15567.6	939.4	15743.1	943.1
15926.3	943.9	16194.5	945.4	16429.4	944.1	16628.2	944	16879.3	943.5
17113.8	942.4	17377.6	941.9	17498.6	943.3	17607.2	938.9	17628.8	936.3
17658.3	936.3	17675	944.5	17697.5	951.2	17780.4	950.6	17838.1	947
17867.7	942.5	17967.1	945	18084.3	942	18261.2	944.6	18437.1	945.1
18628.2	943.1	18829.4	943.7	19025	944.9	19214.9	946.9	19248.3	947.6
19276.7	941.7	19395.7	940.8	19474.4	946.5	19525.1	941.1	19863.4	942.3
20078.8	940.7	20263.9	939.9	20310.8	939.3	20322.1	942.6	20372.8	938
20488.5	939.3	20499.7	937.7	20594.1	938.9	20626.9	940.5	20657.3	939.8
20690.1	946.3	20711.8	945.7	20725.9	942.7	20819.1	942.7	20861.5	948.6
20879.4	947.5	20896	957	20906	955	20980	955.9	20990	954.6
21051.2	955.9	21071.8	953.9	21206.4	955	21247.3	956.9	21438.7	956
21607.6	952.1	21652.6	956.5	21832	957.6	22017.2	957.7	22136.9	954
22358.1	956.8	22480.5	957.8	22661.3	957.9	22684.8	957.8	22918.3	956.9
22985.5	956.5	23086.3	950.7	23165.3	950.8	23400.3	954	23576.8	954.1
23691	953.2	23717.5	950.5	23919.1	949.7	24108.8	949.5	24379.6	950.1
24590.3	950.3	24795.9	950.7	24878.3	952.9	24883.6	950.7	24903	957.1
24983.7	956.7								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
13125.5	.15	17780.4	.15	18261.2	.065	19395.7	.032	20263.9	.043
20896	.043	21206.4	.053						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17780.4	20896	520	515.72	560	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
13125.5	17205	960	23581	24983.7	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	952.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.47	Wt. n-Val.	0.150	0.046	0.053
E.G. Elev (ft)	953.01	Reach Len. (ft)	520.00	515.72	560.00
Crit W.S. (ft)	947.15	Flow Area (sq ft)	5500.05	30040.31	287.50
E.G. Slope (ft/ft)	0.001459	Area (sq ft)	37672.32	30040.31	3086.02
Q Total (cfs)	179750.00	Flow (cfs)	9338.81	170071.34	339.85
Top Width (ft)	9202.61	Top Width (ft)	4654.90	3107.81	1439.90
Vel Total (ft/s)	5.02	Avg. Vel. (ft/s)	1.70	5.66	1.18
Max Chl Dpth (ft)	16.24	Hydr. Depth (ft)	9.56	9.67	1.10
Conv. Total (cfs)	4706211.5	Conv. (cfs)	244508.5	4452805.0	8898.1
Length Wtd. (ft)	516.20	Wetted Per. (ft)	578.54	3113.10	262.58
Min Ch El (ft)	937.70	Shear (lb/sq ft)	0.87	0.88	0.10
Alpha	1.21	Stream Power (lb/ft s)	1.47	4.98	0.12
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)	1635.42	2075.44	720.44
C & E Loss (ft)	0.01	Cum SA (acres)	213.91	204.88	236.43

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17159.75	17470.07	4910.21	2743.00	265.08	2.73	10.35	1.79
17470.07	17780.40	4428.60	2757.05	313.46	2.46	8.88	1.61
17780.40 LB	18403.52	10000.51	5116.13	623.66	5.56	8.21	1.95
18403.52	19026.64	19435.71	5328.31	623.14	10.81	8.55	3.65
19026.64	19649.76	31409.31	5534.74	624.24	17.47	8.88	5.67
19649.76	20272.88	62340.68	7027.04	623.13	34.68	11.28	8.87
20272.88	20896.00 RB	46885.15	7034.08	618.93	26.08	11.43	6.67
20896.00	21441.03						
21441.03	21713.54	2.01	5.21	23.65	0.00	0.22	0.39
21713.54	22803.59						
22803.59	23076.11	10.58	13.68	21.84	0.01	0.63	0.77
23076.11	23348.62	327.26	268.61	217.09	0.18	1.24	1.22

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 200.2

INPUT
Description: 200.2

Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13153.3	944.6	13349.8	941	13453.5	941.7	13506.2	944.4	13667.2	944.5
13896.4	944.4	14116.1	944.3	14330.9	944.2	14491.6	944.1	14677.3	943.8
14757.1	939.6	14939.8	944.1	15110.7	943.8	15278.6	943.3	15461.1	943.2
15632.4	943.3	15866.9	943.9	16084.9	943.3	16260.8	943.4	16458.2	942.6
16696.4	943.8	16928.4	942.2	17115	942.0292	17146.9	942	17406.4	942.7
17643.4	942.6	17703.7	941.7	17728.1	936.2	17754.7	936.2	17774.2	941
17960.5	949.6	18052.3	948	18086.8	939.2	18113.1	940.7	18233.7	939.8
18402.1	943	18511.7	944.8	18531.7	941.8	18707.3	944.7	18794.8	941.3
19017.2	943.2	19081.1	945.2	19247.5	944.2	19313.2	945.7	19482.3	942.9
19591.6	942.6	20062.3	940.4	20235.8	940	20296.5	940.6	20329.2	937.6
20402.2	940.4	20578.4	937.9	20633	938.7	20676	937	20686.1	939.7
20744	948	20822.3	948	20949.1	954.9	21027.6	947.5	21215	947.3
21338.5	947.2	21527.5	948.5	21746	948.8	21841.7	948.3	22059	949.1
22185.4	949.1	22507.1	948.8	22551.2	949	22836.7	949.8	22992.3	949.2
23156.3	950.7	23327.5	950.2	23492.3	951.2	23633.4	950.7	23641.6	948.8
23667.9	953.3	23785.4	949.4	23980	949	24145.7	948.5	24326	947.5
24336.6	946.6	24353.9	949.4	24529.6	949.2	24626.1	949.5	24679.5	947.3
24861.6	949.3	24983.4	948.5	24990.2	949.6	24999.2	947	25138.6	950
25169.5	955.5	25202.4	950.9	25239.2	950	25434.2	953.6	25474.7	955.9
25481.6	954.7	25498.7	958.4						

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
13153.3	.15	17960.5	.15	18233.7	.065	19482.3	.032	20235.8	.043
20744	.043	21215	.025	23667.9	.053				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17960.5	20744	535	525.73	515	.1	.3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
13150	17115	960	20744	23100	960	23666	25498.7	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	951.60	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.56	Wt. n-Val.	0.150	0.046	0.025
E.G. Elev (ft)	952.16	Reach Len. (ft)	535.00	525.73	515.00
Crit W.S. (ft)	946.76	Flow Area (sq ft)	7545.91	26344.59	542.32
E.G. Slope (ft/ft)	0.001835	Area (sq ft)	40102.79	26344.59	11188.30
Q Total (cfs)	179750.00	Flow (cfs)	13761.43	164634.56	1354.01

Top Width (ft)	11966.47	Top Width (ft)	4807.20	2783.50	4375.77
Vel Total (ft/s)	5.22	Avg. Vel. (ft/s)	1.82	6.25	2.50
Max Chl Dpth (ft)	15.40	Hydr. Depth (ft)	8.92	9.46	0.97
Conv. Total (cfs)	4196364.0	Conv. (cfs)	321268.3	3843485.5	31610.1
Length Wtd. (ft)	526.25	Wetted Per. (ft)	846.90	2786.31	558.45
Min Ch El (ft)	937.00	Shear (lb/sq ft)	1.02	1.08	0.11
Alpha	1.32	Stream Power (lb/ft s)	1.86	6.77	0.28
Frctn Loss (ft)	0.87	Cum Volume (acre-ft)	1171.20	1741.66	628.69
C & E Loss (ft)	0.04	Cum SA (acres)	157.43	170.01	199.05

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16999.06	17319.54	3634.11	1923.70	204.54	2.02	9.41	1.89
17319.54	17640.02	5263.43	2875.21	320.48	2.93	8.97	1.83
17640.02	17960.50	4863.91	2746.99	321.88	2.71	8.57	1.77
17960.50 LB	18517.20	14894.19	4811.66	557.97	8.29	8.64	3.10
18517.20	19073.90	20064.06	4852.67	556.99	11.16	8.72	4.13
19073.90	19630.60	21549.38	4190.39	556.75	11.99	7.53	5.14
19630.60	20187.30	55190.18	5819.69	556.71	30.70	10.45	9.48
20187.30	20744.00 RB	52936.75	6670.16	557.90	29.45	11.98	7.94
20744.00	22962.86						
22962.86	23279.84	538.83	199.33	179.84	0.30	1.11	2.70
23279.84	23596.82	627.98	274.12	316.98	0.35	0.86	2.29
23596.82	23913.80	187.19	68.87	61.62	0.10	1.13	2.72

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION RIVER: 1
REACH: 1 RS: 200.1

INPUT
Description: 200.1
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13401.5	961.6	13404.9	959.9	13406.7	957.2	13436.1	949.3	13438.3	947.2
13608.9	944.8	13771.4	944.1	13861.6	946.2	14093.6	944.2	14363	943.5
14599.1	944	14804.9	943.5	14985.6	943.6	15188.8	942.7	15425.2	942.8
15650.8	942.8	15834.1	942.9	16015.4	942.8	16214.7	941.9	16467.4	941.6
16641.3	942.8	16821.1	944	17077.9	942.2	17313	941.7	17523.7	941.6
17672.5	940.7	17733.3	943.5	17903.5	943	18097	942	18197	940.9
18244	934.9	18278.2	934.7	18280	936.9	18289	936.2	18327.6	941.8
18505.3	941.8	18602	941.2	18752.8	944.8	18927.6	940.3	19044.3	938.9
19072.3	941.3	19130.7	943	19301.3	943.1	19402.1	944.8	19524.2	937.7
19631.9	945.9	19875.1	939.3	20104.9	934.9	20306.5	934.5	20329.5	935.2
20520.9	935.5	20604.1	936.7	20643	947.2	20857.2	946.5	21112.6	946.5
21165.6	945.5	21339.7	946.3	21499.9	947.4	21673.2	947.4	21692.7	947.4
21938.1	947.6	21976.2	947.6	22310	947.7	22366.6	947.7	22620.5	948
22748	948.7	23104.3	950.4	23323.4	950.8	23521	950.1	23671.5	950.7
23677.2	948.1	23730.1	951.6	23754.2	948.1	23760.8	950.1	23949.5	948.5
24132.7	948.8	24309.4	949	24354.9	949.5	24372.1	946.9	24561.3	948.7
24717.9	946.9	24773.6	949.1	24952.8	948.5	25016.6	946.2	25028.8	948.4
25039.1	944.7	25073.4	947.5	25256.1	949.3	25287.2	954.4	25301	949.1
25375.9	953.1	25528.9	956	25539.2	957.4	25551.8	955.4	25735.3	957.8
25963	960								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
13401.5	.15	15425.2	.043	16821.1	.15	18752.8	.15	19524.2	.032
20643	.043	21165.6	.025	23730.1	.053				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17733.3	20643	490	491.65	495	.1	.3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
13400	17030	960	20800	23000	960	23729	25965	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	950.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.44	Wt. n-Val.	0.150	0.051	0.040
E.G. Elev (ft)	951.26	Reach Len. (ft)	490.00	491.65	495.00
Crit W.S. (ft)	945.21	Flow Area (sq ft)	6388.61	30293.23	923.43
E.G. Slope (ft/ft)	0.001505	Area (sq ft)	32944.94	30293.23	11976.16
Q Total (cfs)	179750.00	Flow (cfs)	10686.70	166633.63	2429.69
Top Width (ft)	11854.24	Top Width (ft)	4302.84	2909.70	4641.70
Vel Total (ft/s)	4.78	Avg. Vel. (ft/s)	1.67	5.50	2.63
Max Chl Dpth (ft)	16.32	Hydr. Depth (ft)	9.08	10.41	1.06
Conv. Total (cfs)	4633937.0	Conv. (cfs)	275502.1	4295798.0	62637.1
Length Wtd. (ft)	491.76	Wetted Per. (ft)	703.37	2913.88	875.91
Min Ch El (ft)	934.50	Shear (lb/sq ft)	0.85	0.98	0.10
Alpha	1.24	Stream Power (lb/ft s)	1.43	5.37	0.26
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	722.61	1399.88	491.75
C & E Loss (ft)	0.05	Cum SA (acres)	101.49	135.65	145.74

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16866.94	17155.73	1744.30	1081.66	125.73	0.97	8.60	1.61
17155.73	17444.51	4350.59	2610.40	288.79	2.42	9.04	1.67
17444.51	17733.30	4591.81	2696.55	288.85	2.55	9.34	1.70
17733.30 LB	18315.24	9194.72	5477.29	583.67	5.12	9.41	1.68
18315.24	18897.18	7757.47	4941.10	582.16	4.32	8.49	1.57
18897.18	19479.12	8112.67	5075.88	582.23	4.51	8.72	1.60
19479.12	20061.06	46094.65	5973.93	582.45	25.64	10.27	7.72
20061.06	20643.00 RB	95474.08	8825.02	583.36	53.11	15.16	10.82
20643.00	20997.67	1971.39	607.99	157.00	1.10	3.87	3.24
20997.67	22771.00						
22771.00	23125.67	127.84	77.81	125.67	0.07	0.62	1.64
23125.67	23480.33	74.18	85.01	354.67	0.04	0.24	0.87
23480.33	23835.00	256.27	152.63	238.57	0.14	0.64	1.68

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 200

INPUT
Description: 200
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13751.9	957.5	13774.9	950.4	13899.2	945.3	14075.2	943.6	14247.4	943.4
14390.2	944.1	14410.8	941.9	14489.5	944.7	14707.6	944.7	14871.6	945
15032.5	944.4	15300.2	944.1	15460.8	944.8	15628	944.3	15784.9	944.2
15958.7	943.4	16114	943.3	16279	942.4	16452	942.3	16652.4	942.7
16843.9	942.3	17008.1	943.8	17197.2	943.5	17388.9	942.5	17552.5	941.8
17738.6	942.2	17904	942.1	18074.8	942.9	18250.5	943.4	18433.6	942.2
18601	942.2	18626	940.2	18638.8	934	18658.5	933.4	18693.5	940.2
18768.9	944.3	18874.7	940.2	19043.7	940.6	19233.3	941.2	19416.4	942.6
19566.9	941.6	19720.1	935.8	19796.8	938.8	19975	934.4	20272.3	934.1
20276.6	934.2	20626.2	936.3	20790.5	935.3	20829	944.5	21085.6	944
21172.7	942.8	21329.4	945.1	21406.2	952.7	21433.8	946.6	21513.2	947.1
21713.7	947	21747.4	947	21906.5	946.8	21920.3	946.8	22147.8	946
22206.3	945.8	22451.9	946.8	22701.3	947.9	22901.9	948.3	23151.7	949.3
23234.2	950.1	23323.5	948.7	23510.9	949.9	23672.1	949.6	23707.3	949.9
23712.7	946.9	23720.9	949.2	23769.1	950.4	23820.8	947.8	23989.1	947.8
24020.6	947.1	24029.2	945.6	24038	947.6	24198.6	947	24361	947.2
24513.5	945.6	24672.5	946.4	24863.2	946.6	25018.9	946.3	25064.3	946
25075.8	943.9	25087.5	947.1	25163.5	947.5	25181.3	953.2	25200.7	953.7
25211	947.8	25384.8	952.1	25573.3	956	25602.8	956.1	25616.3	960.7
25622.7	961.4								

Manning's n Values num= 9

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
13751.9	.15	15628	.043	17008.1	.15	18601	.15	19566.9	.032
20829	.032	21329.4	.043	21713.7	.025	23769.1	.053		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17008.1	20829	520	521.67	525	.1	.3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
13751	16950	960	21350	23200	960	23769	25625	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	950.43	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.26	Wt. n-Val.	0.043	0.050	0.032
E.G. Elev (ft)	950.69	Reach Len. (ft)	520.00	521.67	525.00
Crit W.S. (ft)	944.16	Flow Area (sq ft)	400.61	39679.84	3817.27
E.G. Slope (ft/ft)	0.000762	Area (sq ft)	21108.45	39679.84	14593.91
Q Total (cfs)	179750.00	Flow (cfs)	1384.04	163125.84	15240.11
Top Width (ft)	11475.52	Top Width (ft)	3233.30	3820.90	4421.33
Vel Total (ft/s)	4.09	Avg. Vel. (ft/s)	3.45	4.11	3.99
Max Chl Dpth (ft)	17.03	Hydr. Depth (ft)	6.90	10.38	3.50
Conv. Total (cfs)	6513163.0	Conv. (cfs)	50150.2	5910794.0	552218.9
Length Wtd. (ft)	521.84	Wetted Per. (ft)	58.10	3824.60	1091.25
Min Ch El (ft)	933.40	Shear (lb/sq ft)	0.33	0.49	0.17
Alpha	1.00	Stream Power (lb/ft s)	1.13	2.03	0.66
Frctn Loss (ft)	0.35	Cum Volume (acre-ft)	418.59	1004.99	340.79
C & E Loss (ft)	0.01	Cum SA (acres)	59.10	97.67	94.25

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16791.02	17008.10	1384.04	400.61	58.10	0.77	6.90	3.45
17008.10 LB	17772.28	6304.17	5907.29	764.18	3.51	7.73	1.07
17772.28	18536.46	6414.31	5969.01	764.19	3.57	7.81	1.07
18536.46	19300.64	9009.05	7327.47	766.54	5.01	9.59	1.23
19300.64	20064.82	51110.68	8923.70	764.41	28.43	11.68	5.73
20064.82	20829.00 RB	90287.62	11552.37	765.27	50.23	15.12	7.82
20829.00	21148.58	8826.22	2018.03	319.59	4.91	6.31	4.37
21148.58	21468.16	5613.84	1284.22	201.54	3.12	6.38	4.37
21468.16	23066.06						
23066.06	23385.64	356.12	204.05	185.65	0.20	1.10	1.75
23385.64	23705.22	345.52	249.01	319.58	0.19	0.78	1.39
23705.22	24024.80	98.43	61.95	64.89	0.05	0.97	1.59

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: 1
REACH: 1 RS: 199.91

INPUT
Description: 199.91
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14357	952	14390.5	944.3	14519.8	944.3	14639.2	944	14799.9	943.3
14919	943.3	15064.9	943.3	15201.6	943.3	15338.6	943.4	15454.7	943.3
15584.5	943.3	15701.7	943.3	15826.7	943	15946.8	942.7	16066.9	942.8
16186	942.4	16318.5	941.2	16444.9	941.2	16595	941.2	16734.2	941.2
16862.4	941.9	16985.5	941.6	17123.4	941.2	17256.1	940.2	17418.5	940.8
17583.3	941.1	17747.3	940.1	17924.2	940.7	18048.2	942.2	18185	942.2
18189.1	942.2	18396.1	942.1	18544.2	943.4	18752.1	941	18756.5	940.1
18757.1	941.1	18776.4	938.5	18875.1	932.1	19009.5	940.1	19154.1	941.2
19274.4	940.6	19412.9	940.1	19433.2	938.2	19665	944.1	19683.4	944.3
20122	935.3	20357	935.3	20396.2	935.2	20513.6	938.9	20603.3	938.2
20817.6	934.9	20841.2	934.9	21013	935.1	21078.3	935.1	21141.2	941.5
21181.1	941.5	21315.9	945	21377.5	952.3	21405.6	945.7	21555.3	946.7
21673.9	946.5	21886.3	946.2	22065.2	946.2	22189.8	945.7	22354.3	945.2
22462	946.4	22675.7	948.1	22731	948.3	22992.2	947.3	23079.5	947.2
23195.8	947.1	23332.1	947.2	23499	947.4	23628.6	947.3	23678.5	948.1
23685.3	950.9	23692.1	948.2	23702.9	950.2	23747.7	949.7	23766.7	947.4
23890.2	946.9	24000	946.9	24127.8	946.1	24323.2	945.3	24446.3	945.3
24602.1	944.4	24749.8	944.2	24887.7	943.5	25018.7	945.8	25033.6	942.4
25046.9	947.2	25137.9	947.1	25214.4	951.6	25285.5	947.1	25444.7	950.8
25559.1	953.2								

Manning's n Values num= 10

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14357	.15	16318.5	.043	17747.3	.15	18544.2	.15	19433.2	.032
21013	.043	21315.9	.043	21377.5	.025	23702.9	.053	25018.7	.025

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
16862.4 21315.9 465 466.41 465 .1 .3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
14357	16800	960	21300	23050	960	23686	25559.1	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	950.11	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.21	Wt. n-Val.	0.043	0.046	0.025
E.G. Elev (ft)	950.33	Reach Len. (ft)	465.00	466.41	465.00
Crit W.S. (ft)	943.36	Flow Area (sq ft)	523.19	46165.19	1787.51
E.G. Slope (ft/ft)	0.000588	Area (sq ft)	18136.00	46249.79	14400.39
Q Total (cfs)	179750.00	Flow (cfs)	1809.90	172795.88	5144.24
Top Width (ft)	10961.45	Top Width (ft)	2497.20	4453.50	4010.76
Vel Total (ft/s)	3.71	Avg. Vel. (ft/s)	3.46	3.74	2.88
Max Chl Dpth (ft)	18.01	Hydr. Depth (ft)	8.38	10.40	2.82
Conv. Total (cfs)	7410548.0	Conv. (cfs)	74616.5	7123850.5	212081.3
Length Wtd. (ft)	466.30	Wetted Per. (ft)	62.40	4439.63	633.80
Min Ch El (ft)	932.10	Shear (lb/sq ft)	0.31	0.38	0.10
Alpha	1.01	Stream Power (lb/ft s)	1.07	1.43	0.30
Frctn Loss (ft)	0.46	Cum Volume (acre-ft)	184.35	490.45	166.06
C & E Loss (ft)	0.00	Cum SA (acres)	24.90	48.12	43.44

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16695.37	16862.40	1809.89	523.19	62.40	1.01	8.38	3.46
16862.40 LB	17753.10	29741.43	8170.49	890.71	16.55	9.17	3.64
17753.10	18643.80	7128.66	7315.06	890.72	3.97	8.21	0.97
18643.80	19534.50	15871.99	9640.06	892.11	8.83	10.82	1.65
19534.50	20425.20	57367.19	10117.46	890.85	31.91	11.36	5.67
20425.20	21315.90 RB	62686.61	10922.13	875.24	34.87	12.49	5.74
21315.90	23013.18						
23013.18	23296.06	2163.09	728.71	246.06	1.20	2.96	2.97
23296.06	23578.94	2277.02	794.61	282.88	1.27	2.81	2.87
23578.94	23861.82	704.12	264.19	104.86	0.39	2.53	2.67

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: 1
REACH: 1 RS: 199.82

INPUT
Description: 199.82

Left Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14626.5	957.7	14665	955.3	14714.8	947.7	14731.9	943.6	14878.2	942.2
15038.4	942.1	15177.1	942.1	15312	942.9	15442.8	943.5	15572.5	942.6
15710.4	942.1	15843.3	942.2	15981.6	942	16111.7	941.9	16269.4	941.3
16337.7	941.1	16490	941.8	16647.8	941.2	16807.1	940.1	16870	940.1
16937.5	940.1	17070.8	940.1	17202.5	940.1	17339.2	940.1	17503.8	940.1
17635.5	940.1	17774.7	939.1	17955.5	939.8	18107	939.8	18236.3	940.2
18376.6	941.1	18554.9	941.8	18684.9	940.6	18768.3	940	18787.7	931.4
18818.1	931.2	18845.4	938.1	18894.5	940	19032.4	940.6	19165.1	939.3
19236.6	938.1	19354.5	941.6	19458.6	938.6	20124.2	939.3	20322.3	939.2
20533.6	938.6	20766.2	939.3	20910.7	936.7	20926	937.9	21009.9	936.6
21146.9	939.7	21241.8	942.2	21405.4	944.5	21551.8	945.7	21756.1	945.8
21937.2	945.7	22121.7	945.7	22347.1	945.6	22491.6	945.9	22657.2	946.2
22790.5	945.6	22925.1	946.5	23055.8	946.4	23218.3	946.1	23364.5	946.1
23514.8	945.8	23642	948.2	23655.7	947.2	23663.6	949.2	23669.7	947
23724.8	949.5	23780.9	946.5	23947	945	24077.1	944.4	24199.5	945.5
24210.3	943.6	24214.2	944.9	24354.9	943.6	24545.8	943	24742.9	943.3
24928.6	944	25002.7	943.7	25010.2	942.2	25023.6	945.4	25153.6	945.8

25304.8	946.9	25434.7	948.1	25588.5	950.5	25663.5	951.7	25798.3	956.3
25810.1	957.9	25834.3	954.9	25859.3	957.7	25991.9	960.7	26149.5	962.1
26241.6	962.1	26277	964.4						

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
14626.5	.15	18554.9	.15	19165.1	.065	21405.4	.025	23724.8	.053
25002.7	.025								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
16870	21405.4	0	0	0	.1	.3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
14626.5	16870	960	21650	22900	960	23724	26127	960

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	949.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.23	Wt. n-Val.		0.089	0.025
E.G. Elev (ft)	949.86	Reach Len. (ft)			
Crit W.S. (ft)	943.25	Flow Area (sq ft)		45360.59	3619.03
E.G. Slope (ft/ft)	0.002023	Area (sq ft)	16403.25	45360.59	16712.13
Q Total (cfs)	179750.00	Flow (cfs)		157943.73	21806.26
Top Width (ft)	10830.59	Top Width (ft)	2167.85	4535.40	4127.35
Vel Total (ft/s)	3.67	Avg. Vel. (ft/s)		3.48	6.03
Max Chl Dpth (ft)	18.43	Hydr. Depth (ft)		10.00	3.39
Conv. Total (cfs)	3996823.8	Conv. (cfs)		3511951.5	484872.3
Length Wtd. (ft)		Wetted Per. (ft)		4538.41	1069.35
Min Ch El (ft)	931.20	Shear (lb/sq ft)		1.26	0.43
Alpha	1.12	Stream Power (lb/ft s)		4.39	2.57
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
16870.00 LB	17777.08	17544.35	8716.47	907.08	9.76	9.61	2.01
17777.08	18684.16	16356.72	8357.52	907.09	9.10	9.21	1.96
18684.16	19591.24	32241.14	9492.27	909.91	17.94	10.46	3.40
19591.24	20498.32	47481.22	9591.01	907.08	26.42	10.57	4.95
20498.32	21405.40 RB	44320.33	9203.32	907.25	24.66	10.15	4.82
21405.40	21730.17	7220.83	1046.76	244.60	4.02	4.28	6.90
21730.17	22704.49						
22704.49	23029.27	2324.45	410.86	129.27	1.29	3.18	5.66
23029.27	23354.04	6629.44	1113.85	324.77	3.69	3.43	5.95
23354.04	23678.81	5473.30	993.72	325.48	3.04	3.06	5.51
23678.81	24003.59	158.22	53.83	45.23	0.09	1.19	2.94

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
1	214.14	169000.00	1048.70	1075.49	1062.65	1077.00	0.000805	9.84	17174.59	1271.14	0.36
1	214.04	169000.00	1048.80	1075.03	1062.61	1076.57	0.000847	9.96	16971.35	813.47	0.36
1	213.95	169000.00	1049.30	1074.15	1063.64	1076.04	0.001219	11.05	15299.30	776.02	0.43
1	213.85	169000.00	1048.10	1071.64	1065.13	1075.07	0.002237	15.00	11752.62	1017.51	0.58
1	213.75	169000.00	1044.60	1071.95	1060.87	1073.92	0.000921	11.26	15011.57	656.36	0.41
1	213.745	Bridge									
1	213.74	169000.00	1044.60	1071.65	1060.88	1073.67	0.000959	11.41	14815.19	654.73	0.42
1	213.66	169000.00	1047.60	1069.25	1063.58	1072.98	0.002201	15.51	10895.83	586.02	0.62
1	213.57	169000.00	1046.70	1069.18	1063.01	1071.60	0.001833	12.49	13529.99	1273.72	0.55
1	213.47	169000.00	1045.80	1068.59	1061.30	1070.60	0.001697	11.36	14877.93	1418.72	0.52
1	213.38	169000.00	1045.40	1068.59	1059.33	1069.80	0.000810	8.83	19129.90	1251.64	0.37
1	213.33	169000.00	1045.40	1068.56	1057.67	1069.52	0.000607	7.87	21471.41	1370.78	0.33
1	213.26	169000.00	1040.40	1068.15	1055.56	1069.32	0.000569	8.67	19486.07	881.21	0.33
1	213.255	Bridge									
1	213.25	169000.00	1040.40	1067.95	1055.57	1069.14	0.000585	8.75	19309.64	880.24	0.33
1	213.21	166000.00	1044.90	1067.99	1055.85	1069.02	0.000510	8.17	20358.42	1540.71	0.31
1	213.11	166000.00	1047.60	1067.16	1058.35	1068.63	0.000913	9.73	17065.84	927.79	0.40
1	213.03	166000.00	1046.70	1066.57	1058.28	1068.17	0.001032	10.14	16390.75	965.54	0.42
1	212.93	166000.00	1045.40	1065.48	1057.98	1067.55	0.001316	11.53	14401.40	850.10	0.48
1	212.84	166000.00	1043.10	1063.54	1057.53	1066.65	0.001931	14.14	11736.64	635.75	0.58
1	212.74	166000.00	1041.60	1063.06	1055.49	1065.57	0.001466	12.71	13063.85	721.70	0.51
1	212.68	166000.00	1036.90	1063.02	1052.63	1065.16	0.001030	11.74	14139.23	629.02	0.44
1	212.675	Bridge									
1	212.67	166000.00	1036.90	1062.53	1052.64	1064.77	0.001102	12.00	13830.45	626.50	0.45
1	212.56	166000.00	1039.30	1056.87	1055.70	1063.23	0.004887	20.23	8207.39	521.49	0.90
1	212.46	166000.00	1037.20	1056.23	1052.72	1060.77	0.003034	17.11	9703.67	1555.15	0.72
1	212.37	166000.00	1036.60	1053.10	1051.67	1058.81	0.004646	19.17	8658.17	573.64	0.87
1	212.27	166000.00	1035.10	1050.72	1049.53	1056.36	0.005181	19.06	8710.84	2802.81	0.89
1	212.18	166000.00	1030.80	1050.31	1045.83	1053.98	0.002663	15.37	10798.63	2343.04	0.65
1	212.08	166000.00	1025.90	1050.10	1041.41	1052.71	0.001403	12.96	12809.28	2181.45	0.49
1	211.99	166000.00	1025.39	1048.63	1041.14	1051.83	0.001803	14.35	11567.96	1311.41	0.55
1	211.89	166000.00	1024.19	1048.02	1039.98	1050.91	0.001579	13.65	12164.79	564.99	0.52
1	211.79	166000.00	1023.84	1047.18	1039.19	1050.08	0.001594	13.65	12157.43	1191.04	0.52
1	211.71	166000.00	1023.19	1046.47	1038.49	1049.36	0.001593	13.64	12171.85	644.81	0.52
1	211.64	166000.00	1022.58	1045.60	1038.21	1048.68	0.001744	14.09	11783.58	857.09	0.54
1	211.54	166000.00	1021.90	1043.70	1038.03	1047.58	0.002210	15.81	10501.56	525.99	0.62
1	211.525	Bridge									
1	211.51	166000.00	1021.80	1042.20	1037.90	1046.67	0.002770	16.97	9779.93	522.21	0.69
1	211.41	166000.00	1018.30	1041.78		1045.05	0.001843	14.53	11426.47	567.96	0.57
1	211.31	166000.00	1020.80	1040.76	1037.18	1043.89	0.002759	14.19	11698.88	824.88	0.66
1	211.21	166000.00	1021.10	1040.21	1035.52	1042.40	0.001956	11.86	13992.95	992.51	0.56
1	211.12	166000.00	1015.70	1040.58	1029.81	1041.56	0.000570	7.98	20951.97	1554.03	0.32
1	211.02	166000.00	1019.40	1039.37	1032.08	1041.09	0.001191	10.58	16765.23	1794.36	0.45
1	210.93	166000.00	1018.70	1039.25	1034.19	1040.38	0.000996	9.17	21805.22	2682.27	0.41
1	210.83	166000.00	1019.10	1038.81	1032.16	1039.88	0.000898	8.93	22682.30	2276.87	0.39

1	210.74	166000.00	1018.20	1038.47	1029.76	1039.47	0.000687	8.33	23480.88	2337.38	0.34
1	210.64	166000.00	1017.70	1038.32	1028.99	1039.09	0.000552	7.45	26701.86	3011.65	0.31
1	210.55	166000.00	1018.00	1037.82	1028.53	1038.76	0.000667	7.93	23013.20	3103.29	0.34
1	210.46	166000.00	1016.30	1038.08	1025.03	1038.40	0.000227	4.59	36203.79	2074.95	0.19
1	210.36	166000.00	1017.40	1037.78	1027.52	1038.24	0.000357	5.46	30410.01	1915.99	0.24
1	210.26	166000.00	1016.90	1037.67	1026.44	1038.06	0.000308	5.05	32878.57	1983.15	0.22
1	210.17	166000.00	1014.70	1037.42	1027.93	1037.88	0.000373	5.44	30534.52	2336.50	0.24
1	210.07	166000.00	1018.70	1037.31	1026.27	1037.68	0.000333	4.95	33837.15	2402.36	0.21
1	209.98	166000.00	1020.90	1036.91	1028.12	1037.48	0.000395	4.65	29373.24	2011.88	0.22
1	209.88	166000.00	1019.30	1036.53	1027.52	1037.22	0.000670	7.30	25545.53	1889.70	0.33
1	209.79	166000.00	1020.80	1036.46	1026.08	1036.91	0.000358	5.09	31103.87	1858.60	0.24
1	209.69	166000.00	1019.40	1035.94	1025.98	1036.64	0.000665	5.63	25358.06	1874.85	0.31
1	209.6	166000.00	1016.40	1035.16	1028.98	1036.21	0.000976	8.49	21081.84	2531.34	0.40
1	209.54	166000.00	992.31	1033.17	1020.15	1035.72	0.000916	12.88	13468.79	2865.75	0.44
1	209.535	Bridge									
1	209.53	166000.00	992.82	1032.53	1021.67	1035.48	0.001314	13.87	12618.67	2757.01	0.49
1	209.42	166000.00	1019.60	1032.75	1028.88	1034.19	0.001853	9.62	17253.24	3517.10	0.52
1	209.33	166000.00	1012.00	1032.01	1027.34	1033.29	0.001515	9.05	18335.40	3444.06	0.47
1	209.24	166000.00	1008.90	1031.38	1026.03	1032.61	0.001227	9.33	20229.02	3674.06	0.44
1	209.14	166000.00	1010.60	1030.73	1025.72	1031.97	0.001259	9.46	20506.87	3565.39	0.45
1	209.04	166000.00	1012.20	1030.49	1023.82	1031.36	0.000805	7.98	24184.19	4634.40	0.36
1	208.95	166000.00	1013.80	1026.98	1026.98	1030.33	0.004363	15.12	12615.76	3473.24	0.82
1	208.85	166000.00	1013.40	1025.83	1024.09	1027.72	0.003277	11.30	15515.18	2707.19	0.67
1	208.75	166000.00	1005.20	1024.77	1021.22	1026.30	0.002008	9.91	16750.51	3136.98	0.54
1	208.67	166000.00	1007.60	1023.94	1020.38	1025.37	0.002030	9.59	17307.31	2277.36	0.54
1	208.57	166000.00	1007.60	1021.84	1019.78	1023.98	0.003382	11.74	14140.69	1901.92	0.69
1	208.48	166000.00	1007.60	1021.36	1017.83	1022.45	0.001742	8.36	19846.32	2170.30	0.49
1	208.39	166000.00	1005.60	1020.44	1017.30	1021.56	0.002009	8.49	19556.15	2917.03	0.51
1	208.29	166000.00	1004.70	1019.52	1016.22	1020.55	0.001815	8.14	20401.16	2550.02	0.49
1	208.19	166000.00	1004.70	1018.79	1014.90	1019.66	0.001564	7.49	22151.23	2675.20	0.46
1	208.1	166000.00	1001.40	1018.03	1014.24	1018.84	0.001569	7.22	22975.85	3169.07	0.46
1	207.99	166000.00	999.90	1016.92	1013.04	1017.87	0.001846	7.82	21223.83	3550.29	0.49
1	207.9	166000.00	1000.80	1016.38	1012.11	1017.07	0.001249	6.69	24841.00	3677.89	0.41
1	207.8	166000.00	999.10	1015.41	1011.91	1016.32	0.001667	7.69	21968.54	4716.85	0.47
1	207.71	166000.00	1000.30	1014.41	1011.58	1015.43	0.001885	8.24	20769.38	3875.09	0.50
1	207.62	166000.00	1000.20	1012.76	1010.41	1014.28	0.002780	9.99	17275.70	4261.90	0.61
1	207.53	166000.00	999.10	1012.09	1008.06	1013.25	0.001487	8.78	19695.68	4480.12	0.47
1	207.49	166000.00	992.20	1012.07	1004.70	1012.92	0.000745	7.40	22425.63	3807.62	0.35
1	207.485	Bridge									
1	207.48	166000.00	992.20	1011.97	1004.71	1012.83	0.000763	7.46	22258.79	3764.72	0.35
1	207.43	166000.00	999.00	1010.99	1007.62	1012.48	0.002056	9.80	16943.36	3420.48	0.54
1	207.34	166000.00	995.90	1009.51	1006.68	1011.35	0.002647	10.88	15263.20	3295.01	0.61
1	207.27	166000.00	993.30	1008.39	1006.05	1010.28	0.002803	10.35	15199.13	2022.03	0.62
1	207.16	166000.00	992.70	1007.64	1004.53	1008.85	0.001701	9.41	19343.36	2942.53	0.50
1	207.07	166000.00	992.80	1004.30	1004.30	1007.37	0.005285	15.05	12697.66	2120.20	0.86
1	206.97	166000.00	981.70	1003.73	995.20	1004.80	0.000773	8.53	21353.06	2153.05	0.36
1	206.88	166000.00	981.80	1003.59	993.25	1004.41	0.000528	7.55	24355.01	2551.49	0.31
1	206.79	166000.00	981.80	1003.43	992.79	1004.13	0.000488	6.93	26344.34	3026.58	0.29
1	206.7	166000.00	981.80	1003.32	993.99	1003.85	0.000441	6.03	29832.40	3518.91	0.27
1	206.6	166000.00	981.80	1002.90	996.86	1003.56	0.000710	6.91	26877.89	3305.87	0.33
1	206.51	166000.00	981.80	1002.02	998.45	1003.04	0.001348	8.99	22110.89	4076.31	0.45

1	206.41	166000.00	982.50	1001.41	997.86	1002.32	0.001436	8.71	23370.73	3862.04	0.46
1	206.32	166000.00	982.80	1000.76	997.01	1001.56	0.001495	8.05	24553.13	3961.08	0.46
1	206.22	166000.00	983.00	999.83	996.52	1000.70	0.001856	8.54	24921.60	3819.70	0.52
1	206.13	166000.00	984.60	998.84		999.71	0.002097	8.44	24241.28	3610.68	0.52
1	206.03	166000.00	984.50	997.19	995.38	998.47	0.002920	10.05	20468.49	3627.32	0.61
1	205.94	166000.00	981.00	996.28	992.59	997.17	0.001782	8.09	23804.44	3972.72	0.48
1	205.84	166000.00	979.50	995.78	991.08	996.43	0.001006	6.80	27802.29	3933.87	0.38
1	205.75	166000.00	973.90	995.10	989.65	995.78	0.001766	6.71	25677.48	3323.81	0.37
1	205.62	166000.00	976.00	994.55	988.64	995.07	0.000680	5.99	30115.46	4036.29	0.31
1	205.52	166000.00	975.90	994.29	987.04	994.75	0.000496	5.67	33142.91	4244.93	0.28
1	205.43	166000.00	976.10	994.00	986.90	994.50	0.000544	6.04	31497.52	3841.72	0.29
1	205.4	164000.00	975.50	993.99	984.66	994.40	0.000362	5.41	35918.83	4097.72	0.24
1	205.34	164000.00	975.57	993.64	986.68	994.20	0.001005	6.45	29524.11	7349.09	0.30
1	205.25	164000.00	973.40	993.26	985.26	993.82	0.000623	6.64	30541.56	4512.59	0.28
1	205.15	164000.00	973.10	991.75	987.56	993.21	0.002039	10.40	19447.44	3049.13	0.49
1	205.06	164000.00	970.50	990.84	984.94	992.22	0.001876	9.62	18538.21	2210.49	0.47
1	204.97	164000.00	973.30	990.56	984.94	991.30	0.001134	7.35	24818.70	3736.07	0.36
1	204.87	164000.00	968.10	990.19	982.85	990.80	0.000767	6.60	27860.37	3635.73	0.31
1	204.78	164000.00	967.60	990.01	980.95	990.45	0.000477	5.68	31874.44	4837.50	0.25
1	204.68	164000.00	971.40	989.36	982.88	990.10	0.000903	7.28	24862.18	3375.80	0.33
1	204.61	164000.00	972.60	988.59	983.50	989.64	0.001360	8.79	20900.50	7282.55	0.41
1	204.53	164000.00	972.70	987.68	983.01	988.93	0.001814	9.22	18845.59	4061.33	0.46
1	204.42	164000.00	971.40	986.40	982.73	987.76	0.002432	9.40	17715.45	2778.70	0.51
1	204.34	164000.00	969.30	985.28	981.49	986.65	0.002470	9.39	17463.06	2452.20	0.52
1	204.25	164000.00	969.22	980.90	980.90	984.46	0.007743	15.13	10836.17	1993.71	1.00
1	204.15	164000.00	966.00	981.17	975.80	982.09	0.001058	7.72	21240.53	2149.48	0.40
1	204.05	164000.00	965.00	980.27	976.82	981.39	0.001759	8.49	19320.24	2116.76	0.50
1	203.96	164000.00	964.10	977.71	976.68	979.86	0.005221	11.77	13938.40	2225.52	0.80
1	203.86	164000.00	962.30	977.81	971.81	978.53	0.000902	6.82	24032.46	2201.57	0.36
1	203.77	164000.00	963.30	977.43	971.55	978.06	0.000873	6.37	25745.47	2518.53	0.35
1	203.67	164000.00	962.30	976.93	971.55	977.61	0.000940	6.66	25645.00	3648.90	0.37
1	203.58	164000.00	962.10	976.47	971.51	977.14	0.000946	6.64	25339.57	4630.90	0.37
1	203.48	164000.00	962.20	975.92	972.02	976.58	0.001248	6.66	25617.02	4863.74	0.41
1	203.39	164000.00	959.90	975.22	971.09	975.93	0.001331	6.81	24861.02	4207.55	0.42
1	203.29	164000.00	960.70	974.46	970.77	975.20	0.001572	6.98	24302.16	4967.77	0.45
1	203.19	164000.00	956.70	973.59	969.95	974.28	0.001787	6.81	25046.62	3491.38	0.42
1	203.09	164000.00	958.70	972.42	969.11	973.25	0.002112	7.51	23337.79	3213.89	0.46
1	202.99	164000.00	959.20	971.50	967.55	972.24	0.001726	7.08	24615.67	3260.60	0.42
1	202.9	164000.00	956.50	970.92	966.30	971.52	0.001285	6.37	27288.88	3419.59	0.36
1	202.8	164000.00	956.40	970.32	965.59	970.84	0.001157	5.94	29051.01	3577.49	0.34
1	202.69	164000.00	953.70	969.50	965.19	970.12	0.001416	6.45	27012.80	3716.99	0.37
1	202.59	164000.00	953.70	968.55	964.72	969.23	0.001709	6.76	25202.71	3795.74	0.40
1	202.48	164000.00	952.50	967.66	963.72	968.30	0.001616	6.64	26505.24	3830.33	0.40
1	202.37	164000.00	954.60	966.79	962.95	967.38	0.001486	6.30	27729.11	4026.54	0.39
1	202.29	164000.00	955.50	966.52	961.29	966.88	0.000809	4.90	34231.29	4327.62	0.29
1	202.18	164000.00	950.00	965.70	961.77	966.23	0.001544	5.88	28645.41	4356.48	0.38
1	202.09	164000.00	950.00	964.09	961.97	965.01	0.003842	7.73	21605.14	4052.98	0.57
1	201.99	164000.00	948.70	963.29	958.62	963.87	0.001250	6.13	27247.58	5336.23	0.38
1	201.9	164000.00	947.20	962.95	957.26	963.36	0.000784	5.14	31890.53	5246.09	0.31
1	201.81	164000.00	946.00	962.64	955.82	963.00	0.000618	4.79	34269.54	5931.24	0.28
1	201.71	164000.00	946.00	961.87	958.14	962.47	0.001820	6.22	26683.71	8315.49	0.40

1	201.62	164000.00	945.60	961.16	956.72	961.67	0.001380	5.77	28809.36	7631.05	0.35
1	201.52	164000.00	940.90	960.42	955.35	960.88	0.001844	5.49	30318.17	8989.21	0.33
1	201.43	164000.00	941.30	959.48	954.84	960.03	0.001605	5.97	28058.07	6619.84	0.37
1	201.33	164000.00	943.00	958.47	954.84	959.09	0.001992	6.36	26289.18	5793.05	0.40
1	201.24	164000.00	943.00	957.53	953.56	958.11	0.001803	6.18	27147.35	7081.95	0.40
1	201.14	164000.00	940.40	956.98	952.04	957.39	0.001057	5.15	32434.95	8718.27	0.31
1	201.05	164000.00	941.50	956.58	950.96	956.88	0.000938	4.45	37573.03	9331.22	0.26
1	200.95	164000.00	939.80	956.20	949.86	956.48	0.000642	4.27	39621.86	10204.86	0.25
1	200.86	164000.00	938.50	955.77	949.69	956.06	0.001275	4.41	38302.02	11114.79	0.26
1	200.77	164000.00	936.90	955.20	949.21	955.51	0.000888	4.51	37675.29	11594.63	0.27
1	200.67	164000.00	939.80	954.65	948.96	955.00	0.001171	4.79	35141.34	10677.09	0.28
1	200.58	164000.00	937.60	954.05	948.28	954.41	0.001178	4.85	34907.29	10503.21	0.28
1	200.49	164000.00	936.90	953.62	946.93	953.91	0.000836	4.41	38546.85	11171.66	0.24
1	200.39	164000.00	937.00	953.26	946.22	953.53	0.000685	4.28	39699.50	11565.71	0.23
1	200.3	179750.00	937.70	952.54	947.15	953.01	0.001459	5.66	35827.86	9202.61	0.32
1	200.2	179750.00	937.00	951.60	946.76	952.16	0.001835	6.25	34432.81	11966.47	0.36
1	200.1	179750.00	934.50	950.82	945.21	951.26	0.001505	5.50	37605.27	11854.24	0.30
1	200	179750.00	933.40	950.43	944.16	950.69	0.000762	4.11	43897.72	11475.52	0.22
1	199.91	179750.00	932.10	950.11	943.36	950.33	0.000588	3.74	48475.89	10961.45	0.20
1	199.82	179750.00	931.20	949.63	943.25	949.86	0.002023	3.48	48979.61	10830.59	0.19

Profile Output Table - Standard Table 2

Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
1	214.14	1077.00	1075.49	1.50	0.42	0.00		169000.00		1271.14
1	214.04	1076.57	1075.03	1.54	0.50	0.04		169000.00		813.47
1	213.95	1076.04	1074.15	1.89	0.81	0.15		169000.00		776.02
1	213.85	1075.07	1071.64	3.43	0.71	0.44	3128.91	165871.08		1017.51
1	213.75	1073.92	1071.95	1.97	0.00	0.02		169000.00		656.36
1	213.745	Bridge								
1	213.74	1073.67	1071.65	2.02	0.52	0.17		169000.00		654.73
1	213.66	1072.98	1069.25	3.74	0.98	0.39		169000.00		586.02
1	213.57	1071.60	1069.18	2.42	0.88	0.13		169000.00		1273.72
1	213.47	1070.60	1068.59	2.00	0.56	0.24		169000.00		1418.72
1	213.38	1069.80	1068.59	1.21	0.20	0.08		169000.00		1251.64
1	213.33	1069.52	1068.56	0.96	0.19	0.02		169000.00		1370.78
1	213.26	1069.32	1068.15	1.17	0.00	0.01		169000.00		881.21
1	213.255	Bridge								
1	213.25	1069.14	1067.95	1.19	0.07	0.05		169000.00		880.24
1	213.21	1069.02	1067.99	1.04	0.36	0.04	38.68	165961.31		1540.71
1	213.11	1068.63	1067.16	1.47	0.45	0.01		166000.00		927.79
1	213.03	1068.17	1066.57	1.60	0.57	0.05	9.00	165991.00		965.54
1	212.93	1067.55	1065.48	2.06	0.79	0.10		166000.00		850.10
1	212.84	1066.65	1063.54	3.11	0.90	0.18		166000.00		635.75
1	212.74	1065.57	1063.06	2.51	0.30	0.11		166000.00		721.70
1	212.68	1065.16	1063.02	2.14	0.00	0.03		166000.00		629.02
1	212.675	Bridge								
1	212.67	1064.77	1062.53	2.24	1.13	0.41		166000.00		626.50
1	212.56	1063.23	1056.87	6.35	1.91	0.54		166000.00		521.49
1	212.46	1060.77	1056.23	4.54	1.85	0.12		166000.00		1555.15
1	212.37	1058.81	1053.10	5.71	2.43	0.02		166000.00		573.64
1	212.27	1056.36	1050.72	5.64	1.79	0.59		166000.00		2802.81
1	212.18	1053.98	1050.31	3.67	0.95	0.32		166000.00		2343.04
1	212.08	1052.71	1050.10	2.61	0.82	0.06		166000.00		2181.45
1	211.99	1051.83	1048.63	3.20	0.82	0.09		166000.00		1311.41
1	211.89	1050.91	1048.02	2.89	0.84	0.00		166000.00		564.99
1	211.79	1050.08	1047.18	2.89	0.72	0.00		166000.00		1191.04
1	211.71	1049.36	1046.47	2.89	0.65	0.02		166000.00		644.81
1	211.64	1048.68	1045.60	3.08	1.02	0.08		166000.00		857.09
1	211.54	1047.58	1043.70	3.88	0.00	0.09		166000.00		525.99
1	211.525	Bridge								
1	211.51	1046.67	1042.20	4.47	1.26	0.36		166000.00		522.21
1	211.41	1045.05	1041.78	3.28	1.12	0.05		166000.00		567.96
1	211.31	1043.89	1040.76	3.13	1.21	0.28		166000.00		824.88
1	211.21	1042.40	1040.21	2.19	0.47	0.36		166000.00		992.51
1	211.12	1041.56	1040.58	0.99	0.40	0.07		165915.48	84.51	1554.03
1	211.02	1041.09	1039.37	1.71	0.54	0.18		163717.95	2282.03	1794.36
1	210.93	1040.38	1039.25	1.12	0.48	0.01		136464.55	29535.45	2682.27
1	210.83	1039.88	1038.81	1.08	0.40	0.02		139926.77	26073.24	2276.87

1	210.74	1039.47	1038.47	1.00	0.31	0.07		152539.30	13460.71	2337.38
1	210.64	1039.09	1038.32	0.77	0.31	0.02	3.77	144352.89	21643.35	3011.65
1	210.55	1038.76	1037.82	0.94	0.17	0.18		158174.88	7825.13	3103.29
1	210.46	1038.40	1038.08	0.33	0.15	0.01		166000.00		2074.95
1	210.36	1038.24	1037.78	0.46	0.16	0.02		166000.00		1915.99
1	210.26	1038.06	1037.67	0.40	0.17	0.01		166000.00		1983.15
1	210.17	1037.88	1037.42	0.46	0.18	0.03		166000.00		2336.50
1	210.07	1037.68	1037.31	0.37	0.18	0.02		151132.45	14867.55	2402.36
1	209.98	1037.48	1036.91	0.57	0.25	0.01		84561.76	81438.24	2011.88
1	209.88	1037.22	1036.53	0.70	0.24	0.08	1212.17	104575.56	60212.27	1889.70
1	209.79	1036.91	1036.46	0.44	0.24	0.03		72428.23	93571.77	1858.60
1	209.69	1036.64	1035.94	0.70	0.40	0.03		64420.82	101579.18	1874.85
1	209.6	1036.21	1035.16	1.04	0.33	0.15	208.30	148474.11	17317.59	2531.34
1	209.54	1035.72	1033.17	2.56	0.00	0.03	1306.13	164693.86		2865.75
1	209.535	Bridge								
1	209.53	1035.48	1032.53	2.95	0.84	0.45	2021.08	163978.91		2757.01
1	209.42	1034.19	1032.75	1.44	0.85	0.05		166000.00		3517.10
1	209.33	1033.29	1032.01	1.27	0.66	0.01	0.00	166000.00		3444.06
1	209.24	1032.61	1031.38	1.23	0.64	0.00	10837.45	146752.06	8410.49	3674.06
1	209.14	1031.97	1030.73	1.23	0.50	0.11	13592.06	141725.30	10682.64	3565.39
1	209.04	1031.36	1030.49	0.86	0.78	0.25	10615.30	136742.50	18642.20	4634.40
1	208.95	1030.33	1026.98	3.35				155774.88	10225.12	3473.24
1	208.85	1027.72	1025.83	1.89	1.31	0.11	26.38	154015.53	11958.10	2707.19
1	208.75	1026.30	1024.77	1.53	0.90	0.03		166000.00		3136.98
1	208.67	1025.37	1023.94	1.43	1.32	0.07		166000.00		2277.36
1	208.57	1023.98	1021.84	2.14	1.21	0.32		166000.00		1901.92
1	208.48	1022.45	1021.36	1.09	0.89	0.00		166000.00		2170.30
1	208.39	1021.56	1020.44	1.12	0.98	0.03		166000.00		2917.03
1	208.29	1020.55	1019.52	1.03	0.84	0.05		166000.00		2550.02
1	208.19	1019.66	1018.79	0.87	0.81	0.02		166000.00		2675.20
1	208.1	1018.84	1018.03	0.81	0.95	0.01		166000.00		3169.07
1	207.99	1017.87	1016.92	0.95	0.73	0.08		166000.00		3550.29
1	207.9	1017.07	1016.38	0.69	0.73	0.02	48.27	165951.73		3677.89
1	207.8	1016.32	1015.41	0.91	0.88	0.01	1634.70	164365.30		4716.85
1	207.71	1015.43	1014.41	1.03	1.11	0.05	6418.17	159581.83	0.00	3875.09
1	207.62	1014.28	1012.76	1.51	0.92	0.11	4528.28	161471.72	0.00	4261.90
1	207.53	1013.25	1012.09	1.16	0.23	0.09	6639.81	159360.20		4480.12
1	207.49	1012.92	1012.07	0.85	0.00	0.01		166000.00		3807.62
1	207.485	Bridge								
1	207.48	1012.83	1011.97	0.86	0.29	0.06		166000.00		3764.72
1	207.43	1012.48	1010.99	1.49	1.09	0.03	0.00	166000.00		3420.48
1	207.34	1011.35	1009.51	1.84	1.06	0.01		166000.00		3295.01
1	207.27	1010.28	1008.39	1.89	1.23	0.20	61252.95	104603.35	143.69	2022.03
1	207.16	1008.85	1007.64	1.21	1.29	0.19	41169.60	124830.40		2942.53
1	207.07	1007.37	1004.30	3.07	0.83	0.60	29853.11	136146.89		2120.20
1	206.97	1004.80	1003.73	1.07	0.31	0.07	11556.15	154443.86		2153.05
1	206.88	1004.41	1003.59	0.83	0.25	0.04	13323.65	152676.34		2551.49
1	206.79	1004.13	1003.43	0.69	0.23	0.05	15594.92	150405.08		3026.58
1	206.7	1003.85	1003.32	0.53	0.28	0.01	15340.47	150657.39	2.15	3518.91
1	206.6	1003.56	1002.90	0.66	0.48	0.04	26458.74	139541.25		3305.87
1	206.51	1003.04	1002.02	1.02	0.69	0.03	49264.98	116735.02		4076.31

1	206.41	1002.32	1001.41	0.91	0.72	0.03	63303.46	102696.55		3862.04
1	206.32	1001.56	1000.76	0.80	0.85	0.01	61168.81	104831.18		3961.08
1	206.22	1000.70	999.83	0.87	0.99	0.00	53201.16	112798.84		3819.70
1	206.13	999.71	998.84	0.86	1.19	0.04	57076.93	108923.07		3610.68
1	206.03	998.47	997.19	1.28	1.19	0.12	38067.04	125045.94	2887.02	3627.32
1	205.94	997.17	996.28	0.89	0.66	0.07	26725.79	137949.17	1325.04	3972.72
1	205.84	996.43	995.78	0.64	0.65	0.00	22730.27	141072.88	2196.85	3933.87
1	205.75	995.78	995.10	0.68	0.66	0.05	1.21	160405.86	5592.93	3323.81
1	205.62	995.07	994.55	0.52	0.30	0.02	2083.10	151545.33	12371.57	4036.29
1	205.52	994.75	994.29	0.46	0.24	0.01	6878.48	146271.84	12849.68	4244.93
1	205.43	994.50	994.00	0.51	0.07	0.03	12628.40	142594.56	10777.03	3841.72
1	205.4	994.40	993.99	0.41	0.18	0.02	11964.65	145097.92	6937.42	4097.72
1	205.34	994.20	993.64	0.57	0.38	0.00	16574.65	134496.09	12929.26	7349.09
1	205.25	993.82	993.26	0.57	0.52	0.09	33461.84	126168.16	4370.00	4512.59
1	205.15	993.21	991.75	1.46	0.97	0.02	23073.87	137855.30	3070.83	3049.13
1	205.06	992.22	990.84	1.37	0.73	0.19	8132.39	155867.59	0.01	2210.49
1	204.97	991.30	990.56	0.74	0.47	0.04	31809.95	132110.56	79.49	3736.07
1	204.87	990.80	990.19	0.61	0.30	0.05	21030.20	142969.80		3635.73
1	204.78	990.45	990.01	0.45	0.33	0.03	29110.95	134889.06		4837.50
1	204.68	990.10	989.36	0.73	0.43	0.03	31210.81	132789.19		3375.80
1	204.61	989.64	988.59	1.05	0.69	0.02	34890.96	129109.04		7282.55
1	204.53	988.93	987.68	1.25	1.15	0.01	12439.19	151560.81		4061.33
1	204.42	987.76	986.40	1.36	1.11	0.00	2577.06	161422.94		2778.70
1	204.34	986.65	985.28	1.37	1.97	0.22		164000.00		2452.20
1	204.25	984.46	980.90	3.56	1.15	0.79		164000.00		1993.71
1	204.15	982.09	981.17	0.93	0.68	0.02		164000.00		2149.48
1	204.05	981.39	980.27	1.12	1.42	0.10		164000.00		2116.76
1	203.96	979.86	977.71	2.15	0.90	0.43		164000.00		2225.52
1	203.86	978.53	977.81	0.72	0.44	0.03		164000.00		2201.57
1	203.77	978.06	977.43	0.63	0.45	0.00		164000.00		2518.53
1	203.67	977.61	976.93	0.67	0.46	0.00	5175.86	158824.14		3648.90
1	203.58	977.14	976.47	0.68	0.56	0.00	1531.70	162468.31		4630.90
1	203.48	976.58	975.92	0.67	0.65	0.00	6814.83	157185.16		4863.74
1	203.39	975.93	975.22	0.70	0.73	0.00	4866.54	159133.47		4207.55
1	203.29	975.20	974.46	0.73	0.91	0.01	7692.92	156307.08		4967.77
1	203.19	974.28	973.59	0.69	1.01	0.01	13926.43	150073.56		3491.38
1	203.09	973.25	972.42	0.83	0.99	0.02	12200.80	151799.20		3213.89
1	202.99	972.24	971.50	0.75	0.68	0.04	8104.77	155890.36	4.86	3260.60
1	202.9	971.52	970.92	0.60	0.66	0.02	11302.65	152697.36		3419.59
1	202.8	970.84	970.32	0.52	0.71	0.01	13003.53	150996.47		3577.49
1	202.69	970.12	969.50	0.61	0.88	0.01	11596.49	152403.52		3716.99
1	202.59	969.23	968.55	0.68	0.91	0.01	11764.01	152235.98		3795.74
1	202.48	968.30	967.66	0.65	0.91	0.02	11540.88	152459.13		3830.33
1	202.37	967.38	966.79	0.58	0.43	0.06	11851.86	152148.14		4026.54
1	202.29	966.88	966.52	0.37	0.64	0.02	2326.96	161673.05		4327.62
1	202.18	966.23	965.70	0.53	1.19	0.04	2951.33	161048.67		4356.48
1	202.09	965.01	964.09	0.92	1.03	0.10	2203.96	161796.05		4052.98
1	201.99	963.87	963.29	0.58	0.47	0.05	1397.32	162602.67		5336.23
1	201.9	963.36	962.95	0.41	0.34	0.02		164000.00		5246.09
1	201.81	963.00	962.64	0.36	0.50	0.02		164000.00		5931.24
1	201.71	962.47	961.87	0.59	0.77	0.02		161162.84	2837.16	8315.49

1	201.62	961.67	961.16	0.51	0.77	0.02		162437.23	1562.78	7631.05
1	201.52	960.88	960.42	0.46	0.85	0.01		158548.25	5451.74	8989.21
1	201.43	960.03	959.48	0.54	0.93	0.01		160906.22	3093.77	6619.84
1	201.33	959.09	958.47	0.62	0.97	0.01		161415.75	2584.25	5793.05
1	201.24	958.11	957.53	0.58	0.66	0.05		160291.16	3708.84	7081.95
1	201.14	957.39	956.98	0.41	0.48	0.03		162432.75	1567.25	8718.27
1	201.05	956.88	956.58	0.30	0.39	0.01		160079.17	3920.84	9331.22
1	200.95	956.48	956.20	0.28	0.42	0.00		161099.58	2900.42	10204.86
1	200.86	956.06	955.77	0.29	0.55	0.00		158974.66	5025.36	11114.79
1	200.77	955.51	955.20	0.31	0.50	0.00	59.40	160304.59	3636.00	11594.63
1	200.67	955.00	954.65	0.35	0.59	0.00	538.42	159376.11	4085.47	10677.09
1	200.58	954.41	954.05	0.36	0.47	0.02	622.69	158213.08	5164.24	10503.21
1	200.49	953.91	953.62	0.29	0.38	0.01	1199.64	153888.41	8911.95	11171.66
1	200.39	953.53	953.26	0.27	0.50	0.02	3907.78	154640.86	5451.36	11565.71
1	200.3	953.01	952.54	0.47	0.84	0.01	9338.81	170071.34	339.85	9202.61
1	200.2	952.16	951.60	0.56	0.87	0.04	13761.43	164634.56	1354.01	11966.47
1	200.1	951.26	950.82	0.44	0.51	0.05	10686.70	166633.63	2429.69	11854.24
1	200	950.69	950.43	0.26	0.35	0.01	1384.04	163125.84	15240.11	11475.52
1	199.91	950.33	950.11	0.21	0.46	0.00	1809.90	172795.88	5144.24	10961.45
1	199.82	949.86	949.63	0.23				157943.73	21806.26	10830.59

HEC-RAS Version 2.1 October 1997
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Salt Gila Reach 4 - MARCH 16 (2)
Project File : reach4.prj
Run Date and Time: 1/22/99 2:50:12 PM

Project in English units

PLAN DATA

Plan Title: Method 1 FW
Plan File : c:\saltgila\diskette\revision 1\disk 2\Unzipped\reach4.p05

Geometry Title: Reach 4
Geometry File : c:\saltgila\diskette\revision 1\disk 2\Unzipped\reach4.g01

Flow Title : Imported Flow 02
Flow File : c:\saltgila\diskette\revision 1\disk 2\Unzipped\reach4.f02

Plan Summary Information:
Number of: Cross Sections = 134 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 14

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computational Flow Regime: Subcritical Flow

Encroachment Data
Equal Conveyance = True
Left Offset = 0
Right Offset = 0

River = Salt River Reach = Reach 4

RS	Profile	Method	Value1	Value2
225.30	PF#2		119248.15	20840
225.19	PF#2		119367.98	20920
225.11	PF#2		1 19340.4	21225
225	PF#2		1 19351.9	21445
224.90	PF#2		119459.96	21370
224.82	PF#2		119456.892	1492.72
224.71	PF#2		119459.54	21720
224.62	PF#2		119460.45	21600
224.52	PF#2		119463.52	21370
224.42	PF#2		119474.88	21065
224.31	PF#2		119483.332	0653.26
224.22	PF#2		119346.972	0551.01
224.20	PF#2		119456.882	0544.75
224.19	PF#2		1 19466.22	0528.16
224.16	PF#2		119479.862	0537.39

224.14	PF#2	1 19476.420540.46
224.12	PF#2	119386.0220538.58
224.06	PF#2	119506.0520384.04
223.96	PF#2	119511.45 20406.1
223.86	PF#2	1 19552.420396.33
223.77	PF#2	119592.8820311.51
223.67	PF#2	119562.2720245.13
223.58	PF#2	119527.5820181.59
223.48	PF#2	1 19492.120178.39
223.38	PF#2	1 19481.120241.02
223.29	PF#2	119501.2920338.45
223.19	PF#2	119360.21 20415.2
223.09	PF#2	119292.3820380.68
223.08	PF#2	1 19332 20356
223.02	PF#2	119353.6420446.33
222.93	PF#2	119406.4520352.21
222.83	PF#2	119479.7420443.15
222.74	PF#2	1 19531.420569.49
222.65	PF#2	119561.2520640.75
222.55	PF#2	119524.46 20795
222.45	PF#2	119472.8520860.86
222.36	PF#2	119466.8820649.69
222.27	PF#2	119515.3620592.59
222.17	PF#2	119489.0420498.95
222.09	PF#2	119483.2820524.52
222.08	PF#2	119484.5320523.82
221.99	PF#2	119415.5620427.89
221.89	PF#2	119381.2820367.67
221.80	PF#2	119421.7120357.17
221.70	PF#2	119451.4920391.17
221.61	PF#2	119473.0320399.17
221.50	PF#2	119527.6120456.28
221.40	PF#2	119511.7320460.74
221.31	PF#2	119574.9820485.13
221.26	PF#2	119495.66 20451.8
221.25	PF#2	119499.6520449.81
221.24	PF#2	119495.6620450.59
221.2	PF#2	119419.2620391.86
221.195	PF#2	119421.9220390.84
221.19	PF#2	119421.9220390.84
221.06	PF#2	119517.35 20439.3
221.055	PF#2	119529.5620438.24
221.05	PF#2	119529.5620438.24
221.02	PF#2	1 19520.720420.89
220.92	PF#2	119547.9120454.12
220.82	PF#2	1 19510 20430.3
220.73	PF#2	1 19535.620420.15
220.63	PF#2	119531.1820437.64
220.54	PF#2	119531.3720446.62
220.45	PF#2	119539.67 20451.8
220.35	PF#2	119544.1320460.75
220.25	PF#2	119549.1220468.77
220.16	PF#2	119561.2420473.91
220.06	PF#2	119565.9120475.44
220.05	PF#2	119567.0320474.05
220.03	PF#2	119567.2120473.83
219.88	PF#2	119562.9620481.47
219.79	PF#2	119514.2320446.13
219.70	PF#2	119566.9120512.06
219.61	PF#2	119564.3220553.08
219.51	PF#2	119541.3920547.55
219.42	PF#2	119488.9720499.14
219.33	PF#2	119430.3720455.23
219.24	PF#2	119468.0920500.54
219.14	PF#2	119481.8420505.11
219.03	PF#2	119340.4520367.12
219.02	PF#2	119342.5320364.42
219.01	PF#2	119342.4120364.57
218.97	PF#2	119490.0620499.87
218.96	PF#2	119477.8720498.32
218.80	PF#2	119492.0120503.75
218.71	PF#2	119509.9120496.68
218.61	PF#2	119503.37 20500.7
218.52	PF#2	119500.4720508.59
218.42	PF#2	119506.7820514.59
218.33	PF#2	119490.0520541.51

218.24	PF#2	119418.1620453.03
218.14	PF#2	1 19389.520421.92
218.04	PF#2	1 19390.120428.82
217.95	PF#2	119437.7220479.88
217.86	PF#2	119497.3920541.25
217.76	PF#2	119555.6420379.43
217.66	PF#2	1 19569.820590.64
217.57	PF#2	119521.4220562.61
217.48	PF#2	119436.3120482.29
217.38	PF#2	119462.8520497.62
217.29	PF#2	119510.5720509.97
217.19	PF#2	119561.63 20511.8
217.10	PF#2	119606.8320517.63
217.00	PF#2	1 19611.820517.96
216.91	PF#2	119604.2620510.01
216.81	PF#2	119605.3820502.23
216.72	PF#2	119595.7920495.56
216.62	PF#2	1 19590.420649.84
216.52	PF#2	119518.7820520.66
216.49	PF#2	1 19526.120518.11
216.42	PF#2	1 19535.320482.14
216.33	PF#2	119399.9120426.24
216.23	PF#2	1 19329.520413.21
216.13	PF#2	1 19324.320437.98
216.04	PF#2	119397.8520467.69
215.94	PF#2	119572.3520479.02
215.84	PF#2	119571.9820442.79
215.82	PF#2	119550.04 20410.9
215.81	PF#2	119550.06 20410.9
215.75	PF#2	1 19576.720431.51
215.65	PF#2	119594.8420484.84
215.56	PF#2	119587.3720495.25
215.46	PF#2	119599.3720516.22
215.36	PF#2	1 19618 20537
215.27	PF#2	1 19610.6 20553.9
215.18	PF#2	119683.2220277.12
215.09	PF#2	1 19674.220293.22
214.99	PF#2	119601.52 20329.1
214.9	PF#2	119563.8820374.38
214.79	PF#2	119461.7320518.14
214.785	PF#2	119462.6420517.08
214.78	PF#2	119462.6420517.08
214.71	PF#2	119640.2920541.86
214.61	PF#2	119685.1720477.61
214.52	PF#2	119525.2620453.48
214.42	PF#2	119382.0820423.77
214.33	PF#2	119492.0720391.61
214.23	PF#2	119614.3420352.34
214.14	PF#2	119654.9820381.82

FLOW DATA

Flow Title: Imported Flow 02
Flow File : c:\saltgila\diskette\revision 1\disk 2\Unzipped\reach4.f02

Flow Data (cfs)

River	Reach	RS	PF#1	PF#2
Salt River	Reach 4	225.30	172000	172000
Salt River	Reach 4	221.26	169000	169000

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
Salt River	Reach 4	PF#1		Known WS = 1075.49
Salt River	Reach 4	PF#2		Known WS = 1075.5

GEOMETRY DATA

Geometry Title: Reach 4
Geometry File : c:\saltgila\diskette\revision 1\disk 2\Unzipped\reach4.g01

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 225.30

INPUT
Description:
Station Elevation Data num= 286

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18656.12	1195.618	663.42	1195.571	8672.03	1195.75	18676.3	1196.171	8683.27	1196.01
18703.39	1195.818	757.43	1195.031	8781.67	1194.21	8804.38	1200.981	8820.95	1205.67
18832.59	1208.6	18836.9	1209.821	8845.27	1213.171	8852.34	1213.51	8861.86	1213.63
18880.16	1220.71	8940.43	1219.131	8945.82	1219.111	8953.79	1220.13	18964.6	1220.04
18974.55	1219.8	18986.3	1219.721	9011.65	1218.591	9023.79	1216.951	9031.91	1216.37
19038.97	1215.41	9052.96	1213.781	9073.75	1212.151	9079.08	1211.741	9095.13	1207.11
19101.83	1204.91	9113.81	1201.55	19130.8	1195.651	9149.88	1194.42	19164.8	1193.8
19180.48	1193	19189.69	1191.751	9193.44	1190.851	9201.73	1187.571	9204.43	1186.87
19210.6	1186.9	19237.8	1187.091	9245.05	1180.171	9248.36	1177.161	9255.33	1177.24
19274.04	1165	19279.59	1161.461	9325.01	1159.791	9329.35	1159.451	9370.45	1159.38
19424.2	1159.11	9472.89	1158.031	9485.66	1157.711	9494.61	1157.691	9544.03	1157.68
19574.55	1157.31	9593.81	1157.481	9650.86	1158.041	9672.56	1158.49	19699.7	1177.65
19706.03	1182.31	9712.21	1178.631	9738.43	1162.861	9795.66	1162.961	9809.55	1162.76
19860.74	1160.51	9895.95	1160.011	9902.26	1160.671	9924.07	1158.61	9952.52	1157.12
19967.07	1146.52	0280.33	1146.462	0304.77	1158.512	0314.28	1157.82	20354.8	1157.69
20361.02	1157.32	0378.28	1155.822	0401.38	1156.282	0413.17	1156.512	0434.63	1161.41
20442.52	1158.52	0445.72	1158.592	0462.04	1155.42	0466.16	1155.112	0495.23	1154.1
20502.96	1154	20516.41	1153.272	0519.75	1152.582	0524.44	1153.892	0528.82	1154.65
20539.9	1154.3	20552.4	1155.242	0576.11	1155.552	0594.84	1156.052	0604.66	1156.18
20616.02	1156.12	0631.39	1156.052	0635.68	1157.082	0645.34	1158.92	0654.37	1159.78
20658.06	1160.72	0662.61	1160.612	0669.63	1158.892	0689.76	1156.672	0699.77	1155.67
20717.59	1154.62	0728.65	1153.222	0739.25	1153.082	0764.86	1153.022	0778.44	1154.51
20792.48	1154.92	0806.81	1155.03	20828.9	1161.562	0831.68	1162.79	20840	1162.126
20846.84	1161.582	0862.03	1160.3	20866.7	1160.372	0870.25	1161.422	0876.73	1160.97
20885.4	1163.482	0897.39	1168.32	0908.29	1172.42	0914.68	1174.652	0917.54	1173.59
20948.42	1170.042	0972.63	1170.42	0983.66	1177.912	0989.99	1175.252	0997.16	1174.12
21009.01	1180.872	1029.49	1181.12	1033.59	1181.072	1041.93	1176.472	1064.39	1164.26
21082.16	1156.12	21115.7	1154.62	1126.06	1154.912	1141.81	1155.612	1186.91	1177.61
21205.92	1186.792	1212.02	1186.32	1228.18	1185.312	1253.71	1186.42	1258.31	1186.58
21267.89	1189.152	1289.81	1194.52	1321.59	1194.562	1339.29	1194.532	1395.96	1196.36
21410.26	1196.722	1443.36	1197.72	1502.43	1198.852	1521.47	1199.052	1555.25	1199.02
21577.28	1199.092	1614.18	1198.62	1628.13	1197.752	1700.79	1196.452	1701.74	1196.33
21718.64	1190.872	1736.75	1190.42	1749.65	1190.372	1757.86	1190.012	1762.05	1189.99
21797.57	1190.12	1810.83	1189.72	1824.03	1190.252	1871.37	1190.242	1891.33	1189.18
21909.17	1189.222	1934.95	1190.42	1967.16	1190.262	1983.23	1190.572	2000.65	1190.51
22040.28	1190.142	2062.85	1189.92	2082.04	1189.24	22095.5	1188.942	2115.61	1189.3
22145.03	1189.322	2185.08	1189.62	2204.03	1190.152	2240.58	1191.59	22246.9	1194.35
22267.82	1197.97	22276.1	1199.52	2286.17	1200.922	2299.43	1203.272	2312.12	1204.72
22319.43	1203.612	2328.42	1204.82	2333.19	1202.32	22343.7	1199.792	2348.26	1199.38
22356.95	1200.852	2357.94	1201.8	22364.1	1203.92	2386.38	1212.022	2405.28	1217.74
22407.11	1218.412	2414.32	1216	2421.41	1214.882	2430.67	1215.25	22456.4	1215.32
22458.64	1213.822	2465.73	1210.12	2486.14	1198.962	2488.98	1196.882	2500.28	1192.16
22514.32	1192.232	2545.53	1192.72	2560.08	1192.832	2584.16	1193.082	2623.77	1193.8
22624.67	1194.322	2642.46	1202.62	2656.57	1201.39	22658.5	1201.372	2672.15	1193.49
22704.1	1194.332	2730.35	1194.92	2751.26	1206.412	2755.18	1205.42	2771.59	1195.26
22773.39	1195.292	2789.85	1193.72	2796.54	1193.482	2814.94	1193.932	2819.08	1193.64
22822.55	1193.742	2833.06	1193.72	2852.72	1194.032	2869.59	1193.272	2883.86	1193.35
22931.52	1194.542	2960.85	1196	22963.9	1196.222	2975.78	1201.072	2992.33	1206.9
23024.19	1195.632	3050.62	1194.92	3057.82	1195.17	23086.4	1207.592	3094.25	1207.71
23111.05	1206.642	3117.04	1206.32	3126.71	1206.222	3135.89	1205.982	3147.99	1197.76
23157.12	1193.592	3173.13	1193.72	3192.65	1193.992	3202.96	1194.292	3218.55	1194.5
23262.18	1196.262	3303.13	1196.72	3311.83	1196.792	3339.95	1196.742	3371.64	1196.53
23386.39	1196.31	23417.8	1195	3492.52	1194.272	3506.95	1194.19	23525.6	1194.43
23546.65	1194.592	3559.22	1194.42	3580.28	1194.362	3612.97	1194.32	3651.29	1194.09
23696.03	1194.912	3736.97	1195.52	3764.24	1195.82	3852.99	1194	2386.83	1198.13
23868.9	1196.732	3881.39	1191.6	23899.9	1190.83	23904.7	1190.832	3926.75	1192.16
23936.82	1192.822	3976.91	1193.82	3990.23	1193.982	4108.29	1193.542	4187.78	1195.11
24261.38	1194.56								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18656.12	.025	19344.03	.03	20840	.03

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19193.44	20840	567.06	567.06	567.06	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18656.12	19193.44	1190.85	20840	24261.38	1194.56

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1177.35	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.41	Wt. n-Val.		0.030	
E.G. Elev (ft)	1177.76	Reach Len. (ft)	567.06	567.06	567.06
Crit W.S. (ft)	1162.72	Flow Area (sq ft)		33423.64	
E.G. Slope (ft/ft)	0.000188	Area (sq ft)		33423.64	3654.52
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1883.46	Top Width (ft)		1576.77	306.69
Vel Total (ft/s)	5.15	Avg. Vel. (ft/s)		5.15	
Max Chl Dpth (ft)	30.89	Hydr. Depth (ft)		21.20	
Conv. Total (cfs)	12545063.0	Conv. (cfs)		12545063.0	
Length Wtd. (ft)	567.06	Wetted Per. (ft)		1602.27	
Min Ch El (ft)	1146.46	Shear (lb/sq ft)		0.24	
Alpha	1.00	Stream Power (lb/ft s)		1.26	
Frctn Loss (ft)	0.16	Cum Volume (acre-ft)	3489.33	25035.85	2242.57
C & E Loss (ft)	0.05	Cum SA (acres)	352.75	1393.62	373.08

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1177.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.41	Wt. n-Val.		0.030	
E.G. Elev (ft)	1177.77	Reach Len. (ft)	567.06	567.06	567.06
Crit W.S. (ft)	1162.72	Flow Area (sq ft)		33441.55	
E.G. Slope (ft/ft)	0.000190	Area (sq ft)		33441.55	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1576.81	Top Width (ft)		1576.81	
Vel Total (ft/s)	5.14	Avg. Vel. (ft/s)		5.14	
Max Chl Dpth (ft)	30.90	Hydr. Depth (ft)		21.21	
Conv. Total (cfs)	12477011.0	Conv. (cfs)		12477011.0	
Length Wtd. (ft)	567.06	Wetted Per. (ft)		1617.56	
Min Ch El (ft)	1146.46	Shear (lb/sq ft)		0.25	
Alpha	1.00	Stream Power (lb/ft s)		1.26	
Frctn Loss (ft)	0.16	Cum Volume (acre-ft)		24902.95	2.15
C & E Loss (ft)	0.05	Cum SA (acres)		1385.20	0.71

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19193.44 LB	19303.21	1725.08	581.44	59.83	1.00	10.56	2.97
19303.21	19412.98	8697.81	1956.81	109.80	5.06	17.83	4.44
19412.98	19522.75	9759.61	2096.74	109.79	5.67	19.10	4.65
19522.75	19632.52	10339.96	2170.58	109.77	6.01	19.77	4.76
19632.52	19742.29	4265.29	1252.07	104.71	2.48	13.22	3.41
19742.29	19852.06	6423.95	1631.58	109.81	3.73	14.86	3.94
19852.06	19961.83	8999.52	2014.40	112.17	5.23	18.35	4.47
19961.83	20071.61	21436.17	3376.83	111.02	12.46	30.76	6.35
20071.61	20181.38	21720.91	3388.31	109.77	12.63	30.87	6.41
20181.38	20291.15	21270.02	3361.06	111.01	12.37	30.62	6.33
20291.15	20400.92	10813.49	2243.18	111.44	6.29	20.43	4.82
20400.92	20510.69	11251.01	2295.15	111.19	6.54	20.91	4.90
20510.69	20620.46	12504.58	2436.09	110.15	7.27	22.19	5.13
20620.46	20730.23	10778.52	2232.97	110.72	6.27	20.34	4.83
20730.23	20840.00 RB	12014.08	2386.44	111.09	6.98	21.74	5.03

Warning - Divided flow computed for this cross-section.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19193.44 LB	19303.21	1736.41	582.07	59.84	1.01	10.57	2.98
19303.21	19412.98	8749.88	1958.05	109.80	5.09	17.84	4.47
19412.98	19522.75	9817.35	2097.98	109.79	5.71	19.11	4.68
19522.75	19632.52	10400.78	2171.83	109.77	6.05	19.79	4.79
19632.52	19742.29	4291.23	1253.15	104.75	2.49	13.23	3.42
19742.29	19852.06	6463.78	1632.83	109.81	3.76	14.87	3.96
19852.06	19961.83	9053.12	2015.64	112.17	5.26	18.36	4.49
19961.83	20071.61	21554.89	3378.07	111.02	12.53	30.77	6.38
20071.61	20181.38	21841.17	3389.56	109.77	12.70	30.88	6.44
20181.38	20291.15	21387.89	3362.31	111.01	12.43	30.63	6.36
20291.15	20400.92	10876.76	2244.42	111.44	6.32	20.45	4.85
20400.92	20510.69	11316.61	2296.39	111.19	6.58	20.92	4.93
20510.69	20620.46	12576.83	2437.33	110.15	7.31	22.20	5.16
20620.46	20730.23	10841.63	2234.21	110.72	6.30	20.35	4.85
20730.23	20840.00 RB	11091.66	2387.68	126.32	6.45	21.75	4.65

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 225.19

INPUT
Description:
Station Elevation Data num= 320

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18442.16	1193.1	18498.4	1193.3418541.82		1193.2818593.41		1192.6118633.34		1193.21
18682.07	1193.518732.94		1193.4118766.02		1193.2418812.02		1193.52	18862.1	1193.49
18913.6	1193.818919.53		1193.6818937.82		1193.6419000.95		1193.0219030.03		1193.07
19047.98	1193.419062.78		1211	19071.2	1212.8719078.47		121319126.95		1214.33
19152.97	1214.519170.54		1214.6	19210.7	1214.219230.39		1213.9219236.89		1212.41
19248.28	1212.119271.42		1211.7519300.35		1199.819307.22		1197.0119336.41		1187.57
19348.16	1187.719351.63		1184.8119359.98		1177.4619366.78		1177.619369.84		1175.2
19388.38	1160.219409.76		1160.2519432.23		1160.3219440.84		1157.6619451.48		1157.43
19490.75	1156.319539.88		1156.0219544.73		1159.5519567.81		1176.56	19572	1176.45
19574.19	1176.8	19576.8	1176.4219604.76		1169.5119640.33		1162.619653.42		1161.28
19670.18	1159.819688.19		1159.9219722.91		1158.4219732.24		1158.6819753.88		1158.75
19767.98	1158.319782.57		1157.1419818.26		1154.7419847.79		1154.1619857.32		1153.75
19894.01	1152.919906.04		1152.5719931.57		1152.5319949.53		1151.8319971.94		1150.45
19978.44	1150.619994.64		1151.7620056.04		1155.6820058.62		1155.8220091.06		1157.01
20110.36	1157.820120.23		1157.8120131.12		1157.5220167.82		1157.6220173.33		1156.9
20187.29	1155.520191.52		1156.3620198.85		1156.43	20204.7	1157.220217.42		1156.39
20228.2	1156.420268.85		1155.9420287.24		1156.1320319.77		1156.2220334.81		1156.18
20343.19	1156.320365.74		1156.1720384.95		1155.7620395.91		1155.6120405.47		1155.64
20415.03	1157.420419.39		1158.120429.97		1158.6620441.31		1161.2420447.23		1161.65
20458.39	1163.120487.85		1180.4720501.77		1188.7220506.99		1188.9120518.99		1187.72
20528.65	1184.320541.21		1178.1620555.22		1175.0220560.69		1172.6620568.11		1170.18
20571.63	1169.520592.04		1166.3920597.94		1164.7820618.37		1161.2920621.15		1161.09
20635.16	1161.320639.94		1162.5820652.72		1169.4320670.54		1179.58	20672.1	1179.83
20680.15	1179.720690.59		1181.5220694.27		1181.5720703.71		1182.5620710.84		1184.74
20718.69	1186.220721.86		1186.1520723.94		1185.2920743.27		1176.8520746.33		1175.77
20754.28	1171.320760.15		1168.5620763.22		1166.5220796.67		1163.4720808.47		1159.56
20820.55	1155.320834.33		1153.3720848.12		1151.6820867.09		1155.5720877.86		1155.7
20901.05	1166.1	209201	175.31720937.48		1183.82	20940.5	1182.8320956.27		1178.27
20961.24	1178.5120968.38		1178.120994.31		117921002.92		1178.821004.89		1178.8
21045.4	1180.6921061.72		1183	21096.3	1187.0221140.91		1192.9321152.05		1192.58
21163.18	1192.6721214.67		1192.621225.58		1192.7921257.72		1192.7821270.45		1192.45
21302.02	1192.5121332.98		1191.7	21373.6	1191.6621394.01		1191.9421419.47		1191.83
21437.6	1191.8421441.86		1191.721490.15		1195.2	21497	1195.8121515.26		1198.02
21551.31	1202.89	21556.3	1203.521598.95		1206.3121633.84		1211.78	21643.4	1212.66
21691.29	1215.47	21713.7	1217.321739.76		1218.5921772.51		1220.421783.25		1221.45
21799.95	1223.6321832.52		1225.621909.45		1232.8221919.57		1233.2121962.14		1233.35
21964.67	1233.2822002.04		1232.922019.05		1232.9322029.56		1231.7822032.08		1231.6
22037.48	1230.5122066.02		1225.222094.83		1218.2422100.98		1217.4122115.51		1216.17
22137.41	1209.78	22154.4	1201.422157.95		1199.422162.53		1197.522166.03		1196.74

```
22212.25 1189.83 22239.2  1188.822244.23 1188.8222288.95 1189.9922297.41  1189.2
22313.32 1189.1822327.49  1189.822350.23 1189.3322361.77 1189.2622379.42 1192.91
22391.57 1193.5122396.73  1194.822410.62 1197.2122425.43 1197.9122429.29 1198.53
22432.93 1197.5322443.58  1199.522451.57 1199.0322455.42 1199.0622473.22 1212.52
22476.55 1212.5322496.88    119822501.53 1199.2522503.85 1199.5222523.22 1213.68
22525.59 1213.5822537.58  1206.322543.57 1204.0522557.47 1199.65 22568.8 1198.85
22572.84 1198.4222579.69    119822583.32 1197.4922588.65 1197.5122592.94 1198.21
22602.49 1198.7822607.87  1198.722614.04 1200.2422621.61 1200.9522630.78 1203.22
22634.06 1203.5422640.68  1202.322642.35 1202.3822649.48 1198.9422650.73 1199.12
22658.65 1196.6822664.71  1196.622685.84 1195.43 22695.5 1195.9622708.86 1195.13
22726.92 1194.9522736.01  1194.222754.98 1193.7122772.69 1192.9722780.46 1193.49
22787.83 1192.2722799.58  1193.122810.46 1193.5222815.04 1193.5622832.72 1194.56
22850.42 1194.0822870.97  1194.322881.72 1194.6322900.43 1194.8822903.16 1195.48
22910.63 1194.8822913.85  1194.922931.05 1194.4122932.54 1194.5322972.62 1194.76
22982.58 1195.3923006.58  1207.923011.56 1205.81 23023.3 1201.3523050.51 1210.44
23052.44 1211.0323052.64  1210.423074.75 1200.3923080.77 1203.2323089.55  1208.5
 23102.9 1202.1523107.01    1200 23114.2 1202.7423129.23 1208.8123133.57 1197.43
23135.24 1194.3523137.17  1193.3 23217.7 1193.1523229.48 1193.3423258.23 1193.56
23291.63     119423315.02 1194.723354.88 1196.5723399.57 1196.8223416.78 1196.87
23471.44 1196.99 23495.1  1195.823512.11 1195.0623573.46 1193.9923584.62 1193.85
23590.05 1193.9123670.77  1194.323736.38 1194.4523758.52 1194.1923826.46 1194.13
23843.66 1194.0723903.52  1194.923930.99 1195.3923967.22 1195.46 23977.7 1195.25
24039.18 1194.4924042.47  1194.424055.94 1199.3424066.38 1194.6124069.67 1193.39
24096.83  1194.224141.95    1195 24186.3 1194.38 24221.5 1193.7124228.12 1193.69
24287.42 1194.3124295.61  1194.224359.71 1193.2124405.43 1188.3224409.15 1187.88

Manning's n Values          num=       3
     Sta   n Val      Sta   n Val     Sta   n Val
18442.16    .02519248.28     .03   20920    .031

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19248.28   20920            439.53  439.53  439.53             .1       .3
Ineffective Flow      num=        2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
18442.1619248.28  1212.1   2092024409.15 1187.88
Blocked Obstructions      num=        1
   Sta L   Sta R    Elev
   20450   20790    1185

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1176.66   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                0.89   Wt. n-Val.                              0.030
  E.G. Elev (ft)            1177.55   Reach Len. (ft)             439.53     439.53     439.53
  Crit W.S. (ft)            1165.67   Flow Area (sq ft)                    22740.30
  E.G. Slope (ft/ft)       0.000492   Area (sq ft)                         22740.30       1.85
  Q Total (cfs)           172000.00   Flow (cfs)                          172000.00
  Top Width (ft)            1212.94   Top Width (ft)                       1210.18       2.76
  Vel Total (ft/s)             7.56   Avg. Vel. (ft/s)                        7.56
  Max Chl Dpth (ft)           26.21   Hydr. Depth (ft)                       18.79
  Conv. Total (cfs)       7750811.0   Conv. (cfs)                         7750811.0
  Length Wtd. (ft)           439.53   Wetted Per. (ft)                     1259.74
  Min Ch El (ft)            1150.45   Shear (lb/sq ft)                        0.55
  Alpha                        1.00   Stream Power (lb/ft s)                  4.20
  Frctn Loss (ft)              0.16   Cum Volume (acre-ft)       3489.33   24670.28    2218.77
  C & E Loss (ft)              0.09   Cum SA (acres)              352.75    1375.48     371.07

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1176.67   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                0.89   Wt. n-Val.                              0.030
  E.G. Elev (ft)            1177.56   Reach Len. (ft)             439.53     439.53     439.53
  Crit W.S. (ft)            1165.67   Flow Area (sq ft)                    22753.45
  E.G. Slope (ft/ft)       0.000492   Area (sq ft)                         22753.45
  Q Total (cfs)           172000.00   Flow (cfs)                          172000.00
  Top Width (ft)            1210.32   Top Width (ft)                       1210.32
  Vel Total (ft/s)             7.56   Avg. Vel. (ft/s)                        7.56
  Max Chl Dpth (ft)           26.22   Hydr. Depth (ft)                       18.80
  Conv. Total (cfs)       7752009.0   Conv. (cfs)                         7752009.0
  Length Wtd. (ft)           439.53   Wetted Per. (ft)                     1261.27
  Min Ch El (ft)            1150.45   Shear (lb/sq ft)                        0.55
  Alpha                        1.00   Stream Power (lb/ft s)                  4.19
  Frctn Loss (ft)              0.16   Cum Volume (acre-ft)               24537.18       2.15
```

C & E Loss (ft) 0.09 Cum SA (acres) 1367.06 0.71

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19359.73	19471.18	10531.92	1626.59	109.42	6.12	15.76	6.47
19471.18	19582.62	10834.61	1696.85	116.56	6.30	15.48	6.39
19582.62	19694.07	7461.93	1339.52	112.92	4.34	12.02	5.57
19694.07	19805.52	15448.03	2062.99	111.58	8.98	18.51	7.49
19805.52	19916.97	22050.32	2553.29	111.50	12.82	22.91	8.64
19916.97	20028.42	24951.68	2750.97	111.62	14.51	24.68	9.07
20028.42	20139.86	17807.30	2246.36	111.55	10.35	20.16	7.93
20139.86	20251.31	17448.80	2220.56	111.73	10.14	19.92	7.86
20251.31	20362.76	18339.93	2285.63	111.45	10.66	20.51	8.02
20362.76	20474.21	11596.25	1678.55	102.45	6.74	19.24	6.91
20474.21	20697.10						
20697.10	20808.55	1174.43	266.06	31.80	0.68	14.34	4.41
20808.55	20920.00 RB	14354.79	2012.95	117.15	8.35	18.06	7.13

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19359.73	19471.18	10540.85	1627.71	109.43	6.13	15.77	6.48
19471.18	19582.62	10835.75	1698.04	116.71	6.30	15.47	6.38
19582.62	19694.07	7471.37	1340.73	112.92	4.34	12.03	5.57
19694.07	19805.52	15459.42	2064.20	111.58	8.99	18.52	7.49
19805.52	19916.97	22062.43	2554.50	111.50	12.83	22.92	8.64
19916.97	20028.42	24963.97	2752.18	111.62	14.51	24.69	9.07
20028.42	20139.86	17819.01	2247.57	111.55	10.36	20.17	7.93
20139.86	20251.31	17460.45	2221.77	111.73	10.15	19.94	7.86
20251.31	20362.76	18351.70	2286.84	111.45	10.67	20.52	8.02
20362.76	20474.21	11603.55	1679.50	102.46	6.75	19.25	6.91
20474.21	20697.10						
20697.10	20808.55	1175.36	266.27	31.81	0.68	14.35	4.41
20808.55	20920.00 RB	14256.15	2014.16	118.51	8.29	18.07	7.08

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 225.11

INPUT
Description:
Station Elevation Data num= 300

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18566.59	1191.6	18610.7	1191.48	18663.82	1191.67	18705.41	1191.42	18756.46	1191.98
18812.22	1191.41	8847.46	1191.66	18885.07	1191.45	18927.13	1191.92	18995.17	1191.84
19011.45	1191.91	9041.77	1191.6	19068.3	1191.44	19085.11	1190.91	9125.76	1190.25
19150.49	1209.81	9151.87	1209.48	19169.96	11881	9185.85	1195.98	19225.48	1210
19255.55	1209.8	19282.7	1209.36	19312.95	1208.79	19326.6	1192.67	19341.19	1175.8
19361.19	1161.11	9363.98	1159.15	19386.89	1158.15	19396.05	1157.82	19407.66	1157.76
19412.57	1157.61	9429.78	1157.94	19434.41	1157.23	19447.76	1157.31	9491.85	1157.45
19544.26	1157.41	9553.18	1157.26	19558.33	1159.03	19566.29	1162.36	19573.05	1161.92
19606.03	1160	19636.59	1159.01	19659.23	1158.17	19711.01	1156.83	19773.99	1155.7
19796.71	1155.51	9848.14	1155.41	19873.97	1155.17	19901.1	1155.21	9943.04	1155.52
19990.89	1155.62	0030.16	1155.15	20056.95	1155.07	20081.06	1154.82	20121.14	1152.39
20134.84	1152.12	0161.68	1151.66	20179.08	1151.66	20192.6	1151.92	20240.3	1155.06
20257.89	1156.92	0274.94	1158.35	20288.46	1159.21	20311.52	1159.67	20320.12	1159.54
20332.63	1159.82	0339.32	1159.72	20343.45	1159.97	20352.45	1158.54	20360.92	1157.73
20363.87	1157.62	0377.37	1163.62	20387.57	1166.26	20407.04	1172.76	20411.11	1173.57
20418.12	1176	20432.63	1173.39	20441.71	1172.12	20451.35	1171.73	20462.41	1168.27
20474.44	1165	20479.99	1163.34	20494.67	1165.51	20507.42	1163.82	20509.04	1163.68
20519.46	1161	20521.11	1160.44	20531.81	1160.19	20539.85	1159.92	20553.16	1160.21
20562.91	1160.12	0574.45	1159.26	20594.42	1159.49	20614.89	1160	20635.8	1160.22
20638.89	1160.12	0645.11	1159.22	20657.74	1158.02	20665.54	1158.81	20671.67	1159.13
20693.52	1158.5	20701.1	1159.81	20704.46	1159.94	20714.65	1159.92	0727.36	1159.6
20737.73	1159.92	0763.09	1159.55	20771.7	1159.53	20793.76	1159.27	20805.35	1159.2

```
 20818.43  1164.320838.58 1169.6220843.06 1169.2320851.47 1169.1220858.31 1168.19
 20865.09  1167.520875.47 1165.7920897.66 1165.7120900.84 1165.5720909.81 1165.82
 20923.73  1168.120934.37 1165.8620956.06 1158.2420966.77 1154.2620971.44 1154.93
 20987.27  1154.321007.09 1157.6121010.23 1156.6121015.65 1156.3721036.65 1154.34
 21061.12  1148.7 21111.4 1148.1621125.78 1148.2221169.04  1148.521174.92 1148.47
 21182.17  1149.7   212251155.73521226.38 1155.9321242.76 1155.8621247.47 1156.29
 21265.38 1158.25 21313.2  1163.321338.33 1162.26 21383.6 1159.63 21386.8 1159.55
 21423.84 1163.0921470.82  1167.121491.45 1177.3421500.71 1181.0521509.79 1181.23
  21519.8 1181.3221544.02  1185.121551.05 1185.56 21554.7 1185.2621565.01 1190.89
 21579.11 1195.6621583.64  1196.221610.22 1196.1921617.79 1196.0621631.36 1198.49
 21635.85 1199.7521662.22    120221669.32 1202.9721683.01 1205.4621705.64 1205.84
 21712.98 1206.8121745.97  1213.121766.31 1215.6621791.82 1217.9621811.88 1220.46
 21842.68 1222.8321887.14  1226.121894.02 1226.7621898.88 1226.8221936.68 1228.87
 21963.47 1228.77 21991.7    122722035.02 1225.0122048.39 1224.7722073.49 1225.05
 22082.06 1224.6622102.81  1224.1 22113.4 1224.1822116.41 1224.06 22158.6 1226.68
 22164.27 1225.6822171.63  1223.722199.91 1215.7322213.41 1212.08 22219.1 1210.13
 22235.35 1203.7522253.06  1196.322278.83 1188.7122298.21 1186.3122305.48 1187.95
 22308.26 1187.8922330.46    118822344.24 1188.3722370.46 1188.5522385.97 1188.57
 22397.19 1188.3322423.47  1188.722437.38 1187.8322451.51 1188.8922458.48 1188.92
 22468.23 1189.9422476.75  1190.122500.63 1190.9722529.14 1199.0222535.59 1204.66
 22545.31 1206.9922550.35  1207.922559.76 1208.5322565.58 1209.36 22571.9 1209.32
 22584.45 1210.1822590.38  1210.322601.06 1210.7322614.33 1209.5222624.86 1210.12
 22641.34 1210.2122656.42  1210.422681.78 1209.49 22703.6 1209.0922731.09 1210.01
 22752.38 1208.9122760.47  1205.8 22784.4 1193.7922809.53    119322842.14 1193.71
 22870.66 1193.8922882.01  1194.422888.52 1194.3622904.97 1193.8922941.74 1191.96
 22953.19  1192.122970.29  1192.823010.31 1193.3323021.04 1200.8523021.85 1201.07
 23028.28 1200.4323057.24  1202.623058.44 1202.4623069.08 1195.3123072.98 1194.19
 23084.92 1194.0823106.84    119423116.68 1194.2223147.56 1195.31 23149.6 1195.32
 23166.82 1194.2223169.32  1194.2 23185.3 1200.2623204.48 1202.2523216.81 1203.46
  23261.4 1192.5623263.63  1192.223269.39 1193.6323276.68 1193.6823291.16 1191.81
 23337.59  1192.523345.45  1192.623414.25 1193.84 23473.3 1195.6323496.23 1195.56
 23537.98 1195.7223577.48  1195.923628.11 1195.9423640.05 1195.2123668.97 1194.57
 23695.73 1193.7223700.18  1193.323714.09  1193.423744.88 1194.0423768.39 1194.32
 23787.71 1193.89 23845.7  1193.923879.88 1193.52   23904 1193.5123942.37 1194.03
 23981.49 1194.7224004.83  1194.724118.32 1195.6524131.75 1195.7124207.49 1195.35
 24220.89 1200.8724231.41  1195.224232.55 1194.7324253.47 1195.3824284.12 1194.52
 24310.64 1193.9724341.07  1192.924360.28 1192.3824424.93 1192.8424429.37 1192.85
 24461.19 1187.5724507.41  1189.324537.98 1190.3524540.69 1190.37 24582.5 1190.31

Manning's n Values          num=        3
     Sta   n Val     Sta    n Val     Sta    n Val
18566.59    .02519312.95     .03    21225     .03

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19312.95   21225            577.62  577.62  577.62             .1       .3
Ineffective Flow     num=        2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
18566.5919312.95 1208.79   21225 24582.5 1190.31
Blocked Obstructions     num=        1
   Sta L   Sta R    Elev
   20400   20940    1185

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1176.71   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                0.59   Wt. n-Val.                            0.030
  E.G. Elev (ft)            1177.30   Reach Len. (ft)            577.62     577.62     577.62
  Crit W.S. (ft)            1163.67   Flow Area (sq ft)                   27955.79
  E.G. Slope (ft/ft)       0.000279   Area (sq ft)                        27955.79    3904.36
  Q Total (cfs)           172000.00   Flow (cfs)                         172000.00
  Top Width (ft)            1609.78   Top Width (ft)                      1344.60     265.18
  Vel Total (ft/s)             6.15   Avg. Vel. (ft/s)                       6.15
  Max Chl Dpth (ft)           28.55   Hydr. Depth (ft)                      20.79
  Conv. Total (cfs)       10304549.0   Conv. (cfs)                        10304549.0
  Length Wtd. (ft)           577.62   Wetted Per. (ft)                    1377.04
  Min Ch El (ft)            1148.16   Shear (lb/sq ft)                       0.35
  Alpha                        1.00   Stream Power (lb/ft s)                 2.17
  Frctn Loss (ft)              0.09   Cum Volume (acre-ft)      3489.33  24414.51    2199.06
  C & E Loss (ft)              0.11   Cum SA (acres)             352.75   1362.59     369.72


Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
                than 0.7 or greater than 1.4.  This may indicate the need for additional cross
sections.
```

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1176.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.		0.030	
E.G. Elev (ft)	1177.31	Reach Len. (ft)	577.62	577.62	577.62
Crit W.S. (ft)	1163.67	Flow Area (sq ft)		27967.60	
E.G. Slope (ft/ft)	0.000284	Area (sq ft)		27967.60	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1344.60	Top Width (ft)		1344.60	
Vel Total (ft/s)	6.15	Avg. Vel. (ft/s)		6.15	
Max Chl Dpth (ft)	28.56	Hydr. Depth (ft)		20.80	
Conv. Total (cfs)	10208231.0	Conv. (cfs)		10208231.0	
Length Wtd. (ft)	577.62	Wetted Per. (ft)		1398.05	
Min Ch El (ft)	1148.16	Shear (lb/sq ft)		0.35	
Alpha	1.00	Stream Power (lb/ft s)		2.18	
Frctn Loss (ft)	0.09	Cum Volume (acre-ft)		24281.29	2.15
C & E Loss (ft)	0.11	Cum SA (acres)		1354.17	0.71

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19312.95 LB	19440.42	8273.14	1641.68	105.96	4.81	16.41	5.04
19440.42	19567.89	13940.10	2424.78	128.44	8.10	19.02	5.75
19567.89	19695.36	12066.06	2217.63	127.58	7.02	17.40	5.44
19695.36	19822.83	16038.62	2629.80	127.49	9.32	20.63	6.10
19822.83	19950.30	17018.95	2724.96	127.47	9.89	21.38	6.25
19950.30	20077.77	17045.20	2727.51	127.47	9.91	21.40	6.25
20077.77	20205.24	20866.46	3080.49	127.58	12.13	24.17	6.77
20205.24	20332.71	14641.32	2491.79	127.74	8.51	19.55	5.88
20332.71	20460.18	4472.84	994.05	76.04	2.60	14.77	4.50
20460.18	20842.59						
20842.59	20970.06	2334.01	543.54	44.60	1.36	18.08	4.29
20970.06	21097.53	20454.34	3054.22	128.67	11.89	23.96	6.70
21097.53	21225.00 RB	24848.95	3425.34	128.00	14.45	26.87	7.25

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19312.95 LB	19440.42	8391.03	1642.56	105.97	4.88	16.42	5.11
19440.42	19567.89	14137.85	2425.90	128.44	8.22	19.03	5.83
19567.89	19695.36	12238.10	2218.75	127.58	7.12	17.41	5.52
19695.36	19822.83	16265.17	2630.92	127.49	9.46	20.64	6.18
19822.83	19950.30	17258.92	2726.08	127.47	10.03	21.39	6.33
19950.30	20077.77	17285.52	2728.63	127.47	10.05	21.41	6.33
20077.77	20205.24	21159.00	3081.61	127.58	12.30	24.18	6.87
20205.24	20332.71	14848.71	2492.91	127.74	8.63	19.56	5.96
20332.71	20460.18	4536.95	994.64	76.05	2.64	14.78	4.56
20460.18	20842.59						
20842.59	20970.06	2366.90	543.80	44.61	1.38	18.09	4.35
20970.06	21097.53	20741.21	3055.34	128.67	12.06	23.97	6.79
21097.53	21225.00 RB	22770.64	3426.46	148.98	13.24	26.88	6.65

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 225

INPUT

Description:

Station Elevation Data num= 313

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18356.23	1189.718	380.05	1189.63	18440.6	1189.731	8496.62		119018	533.26 1190.13
18564.2	1189.818	590.47	1189.741	8615.79	1189.551	8668.43	1188.85	18690.7	1189.07
18699.78		118918	734.99	1188.781	8775.01	1188.951	8817.49	1188.441	8844.13 1188.34
18891.82	1190.71	8900.16	1190.811	8957.36	1189.771	8989.18	1184.091	9022.88	1182.95
19031.34	1182.5	19038.2	1181.661	9093.98	1180.181	9102.04	1179.94	19132.3	1179.63
19144.24	1179.4	19156.8	1179.341	9207.28	1178.561	9219.87	1174.921	9234.34	1174.63
19264.79	1176.4	19277.4	1182.04	19288.4	1186.81	9292.62	1189.521	9307.43	1201.28
19315.42	1193.41	9322.87	1191.631	9326.03	1190.431	9331.32	1189.33	19341.3	1186.9
19346.8	1181.51	9355.62	1173.481	9361.34	1173.621	9381.51	1160.441	9386.18	1157.53
19435.57	1156.11	9453.94	1156.011	9490.23	1155.611	9521.27	1155.041	9580.28	1155.15
19604.19	1155.31	9617.29	1155.481	9646.16	1155.411	9664.82	1155.421	9670.93	1161.99
19687.16	1178.21	9707.23	1177.81	9718.56	1177.721	9727.45	1179.131	9736.33	1174.3
19751.05	1167.41	9756.93	1164.781	9772.33	1158.961	9777.71	1156.95	19808.1	1153.94
19847.62	1153.91	9877.27	1153.751	9923.98	1154.11	9975.06	1154.611	9997.52	1154.68
20045.61	1154.62	0111.83	1154.22	20142.2	1153.75	20170.9	1153.122	0174.02	1153.07
20208.08	1153.42	0231.34	1153.912	0287.82	1155.572	0295.41	1156.092	0331.24	1158.8
20351.53	1159.82	0364.37	1160.532	0391.97	1161.262	0405.19	1161.262	0433.18	1165.26
20440.45	1166.62	0447.99	1167.542	0457.93	1168.45	20476.7	1165.72	0498.03	1161.63
20514.21	1159.52	0559.92	1159.182	0577.41	1159.272	0584.03	1159.242	0618.76	1158.93
20647.33	1159.22	0670.99	1160.012	0681.72	1161.292	0689.19	1159.392	0718.71	1152.1
20734.76	1148.12	0742.26	1147.882	0764.81	1147.96	20769.3	1147.622	0778.24	1146.44
20799.41	1146.72	0802.57	1146.262	0816.11	1144.12	0821.96	1144.62	0830.89	1144.38
20835.87	1144.72	0848.81	1145.312	0854.11	1144.822	0859.41	1144.652	0880.42	1145.38
20894.87	1145.42	0899.18	1145.482	0913.05	1145.282	0923.72	1144.962	0926.64	1143.92
20951.59	1143.52	0977.07	1143.712	1029.14	1138.362	1030.89	1138.372	1052.36	1139.74
21059.95		114021	081.03	1141.662	1100.29	1143.072	1108.48	1146.222	1118.12 1148.24
21152.5	1158.8	21156.6	1158.72	1190.57	1161.922	1199.27	1162.372	1209.82	1162.4
21212.65	1162.62	1229.92	1163.52	1248.31	1163.712	1271.06	1163.652	1282.39	1163.12
21323.7	1160.9	21353.8	1160.52	1393.04	1159.982	1429.57	1157.83	214451	1157.067
21461.1	1156.272	1475.93	1155.82	1487.94	1154.512	1506.43	1154.4	21525.1	1154.62
21536.46	1155.68	21567.4	1158.92	1609.68	1158.22	1613.21	1156.32	1625.39	1156.36
21638.91	1154.822	1646.74	1151.92	1656.38	1151.92	1670.45	1157.942	1671.45	1158.19
21687.54	1157.712	1696.76	1157.62	1703.26	1157.442	1716.51	1156.222	1737.59	1153.02
21744.12	1153.142	1752.96	1152.72	1760.16	1152.592	1765.83	1152.712	1792.82	1165.65
21796.37	1167.372	1814.48	1182.22	1823.07	1187.582	1831.15	1184.82	1851.67	1184.44
21893.28	1184.232	1898.67	1184.32	1942.25	1184.922	1949.93	1184.982	1982.18	1184.8
21988.24	1184.862	2009.66	1184.8	22026.5		118522057.16	1185.112	2075.49	1185.44
22082.12	1185.462	2099.18	1185.22	2105.65	1185.272	2112.49	1185.462	2145.51	1185.33
22152.62	1185.352	2190.06		118522197.76	1184.762	2203.71	1184.722	2238.37	1185.09
22245.83	1184.78	22274.9	1184.52	2298.83	1184.32	2315.81	1183.892	2343.74	1184.83
22347.97	1184.812	2349.51	1184.52	2355.15	1185.092	2363.84	1187.532	2382.53	1191.29
22384.23	1190.32	2401.19	1188.42	2402.52	1188.342	2425.16	1184.952	2456.19	1184.22
22458.9	1184.21	22483.2	1184.72	2515.92	1185.782	2521.45	1185.832	2531.16	1184.83
22546.02	1184.632	2555.83	1186.22	2566.97	1186.52	2584.43	1186.542	2590.63	1187.67
22613.68	1192.822	2635.85	1196.92	2642.53	1194.722	2645.07	1193.122	2660.85	1191.09
22686.43	1189.992	2708.15	1190.12	2720.08	1189.962	2751.01	1188.022	2781.73	1189.42
22809.61	1205.262	2817.29	1209.12	2825.25	1211.02	2830.25	1211.42	2842.72	1208.34
22873.47	1192.662	2915.25	1191.12	2952.41		119322972.41	1192.782	3001.19	1192.6
23033.19	1192.682	3055.72	1192.12	3081.23	1190.162	3090.51	1190.422	3112.45	1190.14
23123.94	1189.852	3127.71	1190.22	3131.15	1191.092	3137.61	1190.19	23152.5	1184.71
23165.82	1183.242	3173.11	1182.3	23183.4	1182.052	3195.65	1180.522	3206.72	1180.68
23208.84	1181.322	3214.24	1183.82	3222.83	1185.742	3228.16	1187.68	23236.4	1188.31
23252.81	1191.562	3277.08	1191	23281.4	1193.442	3296.12	1184.442	3483.38	1184.17
23492.79	1188.332	3503.64	1193.52	3514.95	1193.842	3585.18	1193.362	3633.83	1193.2
23657.62	1193.152	3700.62	1192.72	3729.82	1192.382	3762.84	1193.512	3773.65	1193.71
23788.38	1193.362	3860.15	1192	23878.2	1195.552	3902.62	1196.422	3908.57	1196.39
23909.48	1196.072	3912.15	1196.42	3942.78	1191.442	3959.88	1185.66	23980.5	1185.72
23997.14	1185.372	4015.84	1185.22	4041.64	1185.062	4059.56	1184.732	4065.49	1184.88
24073.75	1184.862	4082.02	1187.22	4089.11	1190.282	4123.86	1190.612	4126.79	1191.26
24137.01	1194.442	4143.44	1193.32	4156.07	1191.53	24161.8	1191.862	4176.05	1191.94
24219.35	1192.862	4247.96		119324285.64	1192.592	4311.13	1192.222	4344.86	1191.47
24379.43	1187.572	4508.93	1187.62	4528.06	1193.242	4555.74	1192.942	4560.02	1192.98
24573.38	1191.312	4575.01		119124585.85	1191.01				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18356.23	.025	19307.43	.03	21445	.031

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19307.43	21445	526.43	526.43	526.43	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18356.23	19307.43	1201.28	21445	24585.85	1191.01

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1176.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.		0.030	
E.G. Elev (ft)	1177.10	Reach Len. (ft)	526.43	526.43	526.43
Crit W.S. (ft)	1160.02	Flow Area (sq ft)		44041.00	
E.G. Slope (ft/ft)	0.000106	Area (sq ft)	77.97	44041.00	7300.78
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	2462.93	Top Width (ft)	52.67	2047.30	362.96
Vel Total (ft/s)	3.91	Avg. Vel. (ft/s)		3.91	
Max Chl Dpth (ft)	38.50	Hydr. Depth (ft)		21.51	
Conv. Total (cfs)	16729344.0	Conv. (cfs)		16729344.0	
Length Wtd. (ft)	526.43	Wetted Per. (ft)		2073.65	
Min Ch El (ft)	1138.36	Shear (lb/sq ft)		0.14	
Alpha	1.00	Stream Power (lb/ft s)		0.55	
Frctn Loss (ft)	0.08	Cum Volume (acre-ft)	3488.81	23937.16	2124.77
C & E Loss (ft)	0.02	Cum SA (acres)	352.40	1340.10	365.55

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1176.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.		0.030	
E.G. Elev (ft)	1177.11	Reach Len. (ft)	526.43	526.43	526.43
Crit W.S. (ft)	1160.02	Flow Area (sq ft)		44055.75	
E.G. Slope (ft/ft)	0.000107	Area (sq ft)		44055.75	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	2047.32	Top Width (ft)		2047.32	
Vel Total (ft/s)	3.90	Avg. Vel. (ft/s)		3.90	
Max Chl Dpth (ft)	38.51	Hydr. Depth (ft)		21.52	
Conv. Total (cfs)	16632781.0	Conv. (cfs)		16632781.0	
Length Wtd. (ft)	526.43	Wetted Per. (ft)		2093.49	
Min Ch El (ft)	1138.36	Shear (lb/sq ft)		0.14	
Alpha	1.00	Stream Power (lb/ft s)		0.55	
Frctn Loss (ft)	0.08	Cum Volume (acre-ft)		23803.76	2.15
C & E Loss (ft)	0.02	Cum SA (acres)		1331.68	0.71

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19307.43 LB	19449.93	4805.35	1595.87	104.12	2.79	16.28	3.01
19449.93	19592.44	11560.91	3063.99	142.51	6.72	21.50	3.77
19592.44	19734.94	5680.27	1778.25	106.18	3.30	18.39	3.19
19734.94	19877.45	9382.12	2732.17	146.37	5.45	19.17	3.43
19877.45	20019.95	12519.39	3213.92	142.51	7.28	22.55	3.90
20019.95	20162.46	12590.11	3224.85	142.51	7.32	22.63	3.90
20162.46	20304.96	12570.05	3222.41	142.58	7.31	22.61	3.90
20304.96	20447.47	6878.70	2247.52	143.10	4.00	15.77	3.06
20447.47	20589.97	6396.65	2152.75	143.28	3.72	15.11	2.97
20589.97	20732.48	9376.58	2714.52	144.14	5.45	19.05	3.45
20732.48	20874.98	20979.00	4386.31	142.95	12.20	30.78	4.78
20874.98	21017.49	23796.71	4730.29	142.91	13.84	33.19	5.03
21017.49	21159.99	21777.09	4512.81	145.13	12.66	31.67	4.83
21159.99	21302.50	5885.76	2044.72	142.73	3.42	14.35	2.88
21302.50	21445.00 RB	7801.30	2420.61	142.62	4.54	16.99	3.22

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19307.43 LB	19449.93	4824.32	1596.58	104.13	2.80	16.29	3.02
19449.93	19592.44	11605.01	3065.02	142.51	6.75	21.51	3.79
19592.44	19734.94	5701.53	1778.95	106.21	3.31	18.39	3.21
19734.94	19877.45	9418.55	2733.20	146.37	5.48	19.18	3.45
19877.45	20019.95	12566.83	3214.95	142.51	7.31	22.56	3.91
20019.95	20162.46	12637.79	3225.88	142.51	7.35	22.64	3.92
20162.46	20304.96	12617.66	3223.44	142.58	7.34	22.62	3.91
20304.96	20447.47	6906.34	2248.54	143.10	4.02	15.78	3.07
20447.47	20589.97	6422.57	2153.77	143.28	3.73	15.11	2.98
20589.97	20732.48	9413.03	2715.54	144.14	5.47	19.06	3.47
20732.48	20874.98	21055.49	4387.33	142.95	12.24	30.79	4.80
20874.98	21017.49	23882.80	4731.32	142.91	13.89	33.20	5.05
21017.49	21159.99	21856.25	4513.84	145.13	12.71	31.68	4.84
21159.99	21302.50	5909.86	2045.75	142.73	3.44	14.36	2.89
21302.50	21445.00 RB	7181.96	2421.64	162.42	4.18	16.99	2.97

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 224.90

INPUT
Description:
Station Elevation Data num= 347

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18410.26	1189.1	18450.7	1188.72	18476	1188.8	18566.98	1189.4	18596.38	1189.16
18638.16	1188.6	18655.45	1188.59	18727.64	1188.87	18771.75	1189.08	18831.93	1188.92
18844.92	1188.6	18857.05	1188.85	18881.45	1189.04	18891.88	1183.75	18908.88	1175.44
18935.91	1173.8	18950.26	1173.62	18985.81	1174.16	19002.16	1174.53	19020.29	1174.84
19045.32	1185.7	19048.13	1186.84	19071.41	1186.27	19073.86	1185.1	19098.72	1172.53
19121.51	1171.8	19151.86	1171.02	19200.76	1170.57	19217.37	1169.97	19274.07	1170.02
19335.21	1169.5	19338.74	1171.46	19343.84	1172.71	19376.18	1176.13	19388.5	1169.42
19397.84	1172.1	19428.13	1185.94	19433.27	1186.41	19445.78	1186.72	19480.99	1161.58
19488.73	115	19493.24	1155.71	19499.7	1155.88	19507.92	1155.84	19536.65	1155.34
19586.93	1154.2	19602.4	1158.9	19605.56	1159.98	19624.77	1165.33	19638.72	1169.29
19648.46	1172.2	19651.96	1172.4	19661.01	1172.61	19670.28	1171.96	19713.55	1161.57
19730.86	1160.1	19741.25	1160.73	19765.99	1161.47	19782.1	1163.51	19786.66	1162.55
19803.69	1158.2	19823.27	1161.93	19829.18	1163.38	19835.55	1162.67	19845.22	1162.39
19859.81	1163.7	19866.06	1164.62	19888	1163.91	19901.4	1163.81	19927.82	1167.62
19943.13	1169.8	19969.08	1162.84	19988.88	1156.74	20000.3	1154.44	20013.69	1154.37
20038.97	1154.7	20091.24	1153.72	20122.42	1154.03	20141.05	1153.97	20201.3	1152.9
20246.27	1152.2	20294.42	1152.16	20344.47	1152.75	20346.9	1152.8	20402.98	1153.61
20410.52	115	20415.95	1154.16	20428.84	1156.24	20455.09	1156.97	20469.43	1157.33
20521.43	115	20539.02	115	20563.19	1157.25	20572.23	1157.18	20581.09	1158.4
20584.28	1157.4	20586.55	1157.46	20588.64	1158.21	20603.1	1163.16	20610.74	1165.6
20632.42	1170.2	20640.24	1171.51	20650.49	1175.02	20660.64	1175.19	20680.34	1172.24
20693.35	1172.1	20706.39	1172.44	20721.88	1172.52	20752.5	1175.15	20756.16	1174.14
20767.97	1169.1	20794.4	1154.9	20815.76	1151.71	20826.88	1150.43	20843.01	1147.76
20867.14	1148.1	20870.4	1148.21	20892.03	115	20901.23	1155.64	20911.04	1155.11
20917.89	1154.2	20930.94	1153.18	20932.63	1153.31	20951.26	1157.2	20952.39	1157.37
20962.07	1156.6	20994.47	1156.68	21013.9	1157.06	21020.04	1157.55	21036.84	1157.05
21062.9	1157.4	21078.63	1157.05	21090.43	1156.39	21101.82	1156.09	21125.98	1156.98
21136.08	1157.9	21147.6	1158.33	21172.86	1159.77	21188.14	1159.49	21219.11	1161.7
21225.82	1161.8	21237.22	1161.32	1269.36	1160.64	21300.77	1160.22	1317.67	1159.17
21339.13	1158.1	21352.42	1158.06	21362.07	1157.76	213	701157.46	21390.68	1156.68
21399.24	1156.2	21404.48	1156.22	1413.85	1156.35	21444	1157.35	21454.85	1157.17
21480.39	1156.1	21484.09	1156.22	1487.57	1155.88	21533.73	1157.76	21546.15	1158.29
21548.85	1157.9	21556.43	115	21566.22	1155.88	21582.14	1158.24	21585.51	1158.2
21591.12	1157.5	21612.63	1157.32	1622.96	1156.22	1627.15	1159.66	21647.72	1158.89
21666.74	1160.6	21689.29	1160.72	1701.78	1160.92	21728.6	1160.46	21757.65	1159.28
21770.09	1158.5	21781.82	1159.12	1796.81	1159.98	21808.21	1160.15	21818.87	1159.95
21827.31	1159.9	21834.28	1159.72	1855.98	1157.84	21864.87	1157.51	21875.21	1157.9
21888.72	1157.7	21900.97	1157.32	1912.66	1157.32	21921.11	1156.88	21935.73	1157.21
21957.89	1157.1	21961.71	1156.92	1995.06	1157.09	21998.87	1158.91	22008.66	1163.21
22017.1	1167.3	22028.39	1174.9	22045.8	1186.95	22051.1	1186.16	22070.51	1185.93
22074.63	1184.1	22087.66	1183.92	2097.25	1183.99	22107.25	1184.46	2111.68	1185.92
22118.25	1186.5	22122.86	1186.72	2133.74	1188.41	22152.74	1182.92	22153.97	1182.73
22190.8	1182.9	22204.61	1190.12	2230.84	1204.72	22238.15	1208.58	22253.26	1216.09
22258.66	1216.3	22277.66	1215.4	22279.5	1216.03	22289.47	1216.08	22306.73	1216.46

```
22318.61  1216.422325.45  1216.122333.02 1213.33 22340.1 1211.3522347.31 1208.16
 22355.6 1207.0122381.25  1206.722382.17 1207.3822397.32 1207.6322422.69 1207.72
22431.12  1211.122447.56  1218.322470.07 1206.7422487.33 1199.5922524.46 1184.09
22532.57 1183.7622551.72    118422561.13 1183.5422578.28 1184.8922588.52 1189.76
22613.19 1202.5622625.63  1207.822635.06 1207.8522695.74 1209.4322704.02 1209.93
 22708.2 1208.93 22720.4  1206.622740.23 1209.4322748.21 1210.4122776.78 1207.24
 22785.8 1205.5622795.42  1204.122807.76 1202.7522814.53  1203.722824.09 1203.97
22836.08 1202.5622840.38  1202.322858.07 1203.3822862.39 1203.3822865.03 1201.99
22870.64 1203.0122878.82  1204.1 22892.4 1205.1222915.88 1206.2222919.02 1206.12
22922.93 1204.3722932.53  1199.222944.71 1192.3122989.69  1191.1 23018.3 1190.03
23022.55 1190.1223036.36  1191.423059.85 1193.2623069.22 1193.8523071.24 1193.39
23091.35 1183.8323096.33    118223100.94 1181.6823121.36 1179.5423127.57 1183.34
23143.41 1193.3623148.07  1190.323154.03 1191.2123156.99  1190.523177.01  1189.7
23204.22 1190.3823216.04  1190.923226.37 1190.7123244.24 1190.6123262.32 1190.08
23268.38 1190.0723293.33  1190.7 23301.9 1191.4523323.68 1192.1723337.82 1191.69
23349.97 1186.7423355.94  1184.223370.93 1184.1723384.69 1189.7923388.48  1191.5
23426.01  1191.823439.52  1191.623450.57 1191.1923477.06 1190.3723491.59 1194.07
23497.14 1191.0523537.29  1190.923573.51 1191.0323624.93  1191.423634.96 1191.52
23677.87 1191.7223709.43  1191.223720.78 1191.2623738.99 1191.5623763.39 1191.56
23776.33 1191.9723785.02  1191.723792.58 1186.8823793.85 1186.4323802.23 1186.51
23816.26 1187.09 23843.4  1186.723851.62 1186.7123892.07 1187.8823959.21 1190.97
23979.45 1192.2324039.11  1192.224111.93 1191.25 24158.7 1191.5424187.18 1188.12
24191.35 1187.57 24272.5  1187.624312.92 1187.5724330.77 1191.6124356.03 1191.63
24360.09 1191.3924371.38  1190.524405.95 1190.2724412.33 1190.1424420.03 1190.22
24436.56 1190.8424455.72  1191.524492.81 1192.5724511.07 1192.0924527.54 1191.22
24541.43 1191.6924595.14  1191.3

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
18410.26    .02519445.78     .03   21370    .031

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19445.78   21370           433.65  433.65  433.65             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
18410.2619445.78 1186.72   2137024595.14  1191.3

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1176.59   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                0.41   Wt. n-Val.                            0.030
  E.G. Elev (ft)            1177.00   Reach Len. (ft)             433.65     433.65     433.65
  Crit W.S. (ft)            1163.77   Flow Area (sq ft)                    33546.89
  E.G. Slope (ft/ft)       0.000239   Area (sq ft)               1960.52   33546.89   11932.12
  Q Total (cfs)           172000.00   Flow (cfs)                          172000.00
  Top Width (ft)            3005.67   Top Width (ft)              434.80    1910.04     660.84
  Vel Total (ft/s)             5.13   Avg. Vel. (ft/s)                        5.13
  Max Chl Dpth (ft)           28.83   Hydr. Depth (ft)                       17.56
  Conv. Total (cfs)       11130309.0   Conv. (cfs)                         11130309.0
  Length Wtd. (ft)           433.65   Wetted Per. (ft)                     1935.00
  Min Ch El (ft)            1147.76   Shear (lb/sq ft)                        0.26
  Alpha                        1.00   Stream Power (lb/ft s)                  1.33
  Frctn Loss (ft)              0.10   Cum Volume (acre-ft)       3476.49   23468.33    2008.55
  C & E Loss (ft)              0.03   Cum SA (acres)              349.46    1316.19     359.37


Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1176.60   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                0.41   Wt. n-Val.                            0.030
  E.G. Elev (ft)            1177.01   Reach Len. (ft)             433.65     433.65     433.65
  Crit W.S. (ft)            1163.77   Flow Area (sq ft)                    33559.02
  E.G. Slope (ft/ft)       0.000242   Area (sq ft)                         33559.02
  Q Total (cfs)           172000.00   Flow (cfs)                          172000.00
  Top Width (ft)            1910.04   Top Width (ft)                       1910.04
  Vel Total (ft/s)             5.13   Avg. Vel. (ft/s)                        5.13
  Max Chl Dpth (ft)           28.84   Hydr. Depth (ft)                       17.57
  Conv. Total (cfs)       11064154.0   Conv. (cfs)                         11064154.0
  Length Wtd. (ft)           433.65   Wetted Per. (ft)                     1954.15
  Min Ch El (ft)            1147.76   Shear (lb/sq ft)                        0.26
  Alpha                        1.00   Stream Power (lb/ft s)                  1.33
  Frctn Loss (ft)              0.10   Cum Volume (acre-ft)                23334.76       2.15
  C & E Loss (ft)              0.03   Cum SA (acres)                       1307.77       0.71
```

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19445.78 LB	19574.06	10365.38	2108.33	120.73	6.03	18.48	4.92
19574.06	19702.34	5351.89	1468.73	131.81	3.11	11.45	3.64
19702.34	19830.62	8795.72	1967.89	130.00	5.11	15.34	4.47
19830.62	19958.90	5414.67	1468.33	129.44	3.15	11.45	3.69
19958.90	20087.19	14284.16	2630.73	129.80	8.30	20.51	5.43
20087.19	20215.47	17466.44	2954.34	128.29	10.15	23.03	5.91
20215.47	20343.75	19031.67	3110.39	128.29	11.06	24.25	6.12
20343.75	20472.03	16052.62	2810.09	128.48	9.33	21.91	5.71
20472.03	20600.31	12245.49	2395.08	129.33	7.12	18.67	5.11
20600.31	20728.59	1474.27	674.39	130.25	0.86	5.26	2.19
20728.59	20856.88	9882.69	2133.81	133.64	5.75	16.63	4.63
20856.88	20985.16	16999.70	2919.80	129.74	9.88	22.76	5.82
20985.16	21113.44	13420.83	2522.77	128.35	7.80	19.67	5.32
21113.44	21241.72	10620.15	2193.11	128.47	6.17	17.10	4.84
21241.72	21370.00 RB	10594.31	2189.11	128.36	6.16	17.06	4.84

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19445.78 LB	19574.06	10421.83	2109.05	120.74	6.06	18.48	4.94
19574.06	19702.34	5383.15	1469.54	131.81	3.13	11.46	3.66
19702.34	19830.62	8845.02	1968.70	130.00	5.14	15.35	4.49
19830.62	19958.90	5446.30	1469.14	129.44	3.17	11.45	3.71
19958.90	20087.19	14361.72	2631.54	129.80	8.35	20.51	5.46
20087.19	20215.47	17560.29	2955.16	128.29	10.21	23.04	5.94
20215.47	20343.75	19133.48	3111.21	128.29	11.12	24.25	6.15
20343.75	20472.03	16139.25	2810.91	128.48	9.38	21.91	5.74
20472.03	20600.31	12312.61	2395.90	129.33	7.16	18.68	5.14
20600.31	20728.59	1484.49	675.20	130.25	0.86	5.26	2.20
20728.59	20856.88	9937.55	2134.62	133.64	5.78	16.64	4.66
20856.88	20985.16	17091.13	2920.62	129.74	9.94	22.77	5.85
20985.16	21113.44	13494.00	2523.59	128.35	7.85	19.67	5.35
21113.44	21241.72	10678.92	2193.92	128.47	6.21	17.10	4.87
21241.72	21370.00 RB	9710.26	2189.93	147.50	5.65	17.07	4.43

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 224.82

INPUT
Description:
Station Elevation Data num= 329

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18468.66	1190.5	18491.23	1191.1	18548.52	1191.07	18668.84	1191.17	18703.73	1191.07
18762.31	1190.4	18770	1190.33	18775.31	1187.67	18799.29	1175.07	18808.95	1174.43
18824.7	1174.6	18870.09	1174.15	18897.86	1173.41	18919.25	1173.91	18936.05	1174.36
18965.24	1186.7	18984.82	1186.14	19012.61	1173.48	19017.57	1171.03	19032.33	1170.82
19113.32	1169.5	19227.06	1169.28	19314.52	1168.89	19327.02	1168.86	19345.61	1169.21
19370.77	1170.2	19376.92	1170.5	19384.11	1171.83	19403.07	1175.02	19413.34	1179.97
19424.25	1185.4	19442	1185.83	19450.84	1180.19	19456.61	1176.73	19467.12	1170.13
19473.77	1165.2	19475.71	1163.4	19487.79	1154.69	19510.76	1154.77	19554.15	1154.06
19568.85	1157.9	19575.87	1159.88	19585.54	1163.41	19608.64	1170.98	19614.23	1172.83
19629.85	1173.2	19630.93	1172.65	19644.57	1164.57	19652.46	1158.69	19662.28	1159.02
19670.63	1160.3	19679.74	1161.46	19692.52	1162.67	19702.64	1164.13	19706.24	1165.04
19709.94	1165.4	19726.98	1158.42	19731.84	1157.63	19744.98	1157.07	19756.63	1157.02
19780.81	1157.7	19788.53	1157.29	19796.49	1157.03	19813.07	1158.23	19813.98	1158.42
19823.68	1157.6	19838	1156.76	19844.79	1155.81	19854.83	1154.68	19874.16	1155.1
19880.65	1155.1	19889.7	1158.69	19908.35	1165.34	19918.34	1165.72	19924.34	1165.78
19932.83	1164.8	19968.19	1162.06	19989.45	1160.25	19996.08	1160.09	20010.62	1158.94
20046.56	1161.6	20073.77	1161.65	20088.63	1161.83	20107.79	1161.6	20127.03	1161.12
20159.96	1161.4	20174.57	1159.67	20221.72	1153.8	20310.74	1151.5	20322.31	1151.1
20369.16	1151.1	20393.13	1150.98	20398.26	1151.05	20449.39	1151.38	20476.38	1151.6
20489.96	115	20558.18	1154.8	20573.83	1155.16	20594.32	1155.23	20617.49	1155.28
20630.53	1155.4	20663.46	1155.41	20686.53	1155.04	20699.38	1154.75	20708.94	1154.89
20713.14	1154.7	20741.09	115	20779.61	1154.16	20788.02	1154.38	20811.75	1154.48
20824.48	1154.1	20840.64	1153.5	20853.16	1152.92	20865.48	1152.04	20891.25	1151.36
20898.25	1153.2	20901.46	1153.81	20918.45	1157.85	20932.61	1162.12	20953.61	1158.64

```
 20959.8  1157.220968.36 1154.8820972.57 1154.8721001.34 1154.3221007.32 1154.64
21013.58  1152.221023.96  1150.421029.02 1149.6321044.34 1149.61 21052.6 1149.27
21060.13  1152.8   21075 1158.3621081.91 1160.0421093.14 1161.6121107.82 1159.62
21115.54  1156.821124.62 1153.3421149.99  1153.421159.91 1153.3421179.99 1156.52
21208.17  1158.421211.61 1157.8521220.38 1155.5321224.45  1155.121234.12 1157.54
21236.06  1157.621246.71 1158.5721249.75 1158.5221258.88 1160.1721264.32 1161.33
21285.45  1163.8 21288.4 1163.97 21299.1 1165.89 21303.2 1167.2521311.55 1165.01
21319.32  1163.121332.47 1161.5521339.36 1161.5821347.31 1162.1121355.61 1162.01
21363.33  1162.421381.26 1164.1121401.23 1166.36 21407.1 1166.8321433.73 1169.83
21435.24  1170.421441.75 1170.8421463.58 1173.5221475.79 1174.6521496.43 1176.97
   215201180.888 21529.7  1182.521533.41 1183.2421552.03 1181.1821556.88 1180.08
21562.32 1180.1321608.18  1179.121641.44 1178.5921655.19 1178.3421671.39 1180.68
 21673.3  1180.221700.72  1172.221710.51 1170.2921719.97 1169.58 21733.3 1165.63
21743.08 1163.7321758.09  1159.921766.89 1158.18 21773.6 1158.6121775.39  1158.4
21785.53 1161.0121800.07  1160.721812.34 1160.55 21824.9 1159.9721830.63 1161.34
21861.22 1172.3421875.18  1178.521881.04 1180.6321891.61 1179.0121900.35 1177.84
21908.25 1177.4321918.64  1177.121934.84  1177.121939.41 1177.3521946.81 1177.28
21962.12 1177.4921972.75    117721976.82 1178.7121992.77 1184.6121996.24 1185.96
22007.37 1189.3122015.71  1191.122024.98 1192.53 22030.2 1183.5722031.57 1184.28
22050.48 1195.8122055.69  1196.922072.22  1198.222086.62 1196.7822091.69 1196.81
 22107.1 1195.3622111.15  1194.722133.91 1191.9522135.36 1191.5722157.28 1188.97
22163.45 1187.9822178.17  1185.422193.04 1181.9722201.48 1181.8922206.38  1181.7
22238.74 1181.1722250.19  1180.522263.12 1180.4122270.24 1180.6722288.24    1181
22296.07 1178.1522305.22  1177.822311.58 1177.85 22325.9 1180.6422340.07 1181.18
22360.49 1181.6622389.89  1182.422397.51 1182.8122435.83 1184.1722448.82 1184.22
22463.16 1184.1922475.18  1183.822484.78  1183.822504.01 1183.5222533.83 1184.08
22557.61 1184.9822589.24  1186.422593.65 1186.4722648.82 1184.5722652.46 1184.48
22699.66 1185.0622704.02  1185.122761.06 1184.9622791.67 1185.5222793.04  1184.9
22815.24 1188.5522824.17  1190.822839.18 1186.1522865.68 1178.4222869.29 1178.58
 22883.4 1177.5522901.09  1178.222913.47 1184.8122949.46 1184.5522952.52 1182.79
 22960.9 1177.6222980.99  1176.822986.44 1179.4423009.71 1189.9523017.58 1189.77
23042.15 1188.86 23058.2  1188.923076.43 1189.0923112.59 1189.9123119.69 1189.91
23151.39 1189.2223166.65  1190.123192.67 1189.4423200.75 1189.25 23216.8 1189.28
23223.58 1189.6223239.13  1190.923241.12 1190.9223256.72 1185.6723266.95 1181.75
23282.03 1177.2723296.47  1176.323304.63 1175.9423313.34 1174.6123322.49 1171.72
 23328.7 1172.9123344.04  1175.623349.46 1178.5123374.58 1184.5823376.26 1185.76
 23381.3 1187.5923399.56  1194.723421.49 1193.5523442.79 1192.6523460.71 1190.31
23487.98 1190.5323533.74  1190.923539.16 1190.6223575.12 1189.8123592.67 1189.83
23615.36 1189.9723655.28  1189.423683.97 1189.4923706.74 1189.5723751.48 1190.43
23776.73 1191.2423779.71  1191.223784.82  1190.523801.81 1192.3623805.89  1192.5
23819.96  1192.723861.06    119223875.71 1191.8423900.03 1191.7223930.47 1187.57
24082.99 1187.5724094.49  1189.524101.67 1191.3924110.66 1191.46

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
18468.66     .05   19442    .035   21520     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         19442   21520           599.67  599.67  599.67             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
18468.66   19442 1185.83   2152024110.66 1191.46

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1176.55   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                0.32   Wt. n-Val.                            0.035
  E.G. Elev (ft)            1176.87   Reach Len. (ft)             599.67     599.67     599.67
  Crit W.S. (ft)            1162.82   Flow Area (sq ft)                   37949.14
  E.G. Slope (ft/ft)       0.000235   Area (sq ft)               2982.65   37949.14    2227.93
  Q Total (cfs)           172000.00   Flow (cfs)                         172000.00
  Top Width (ft)            2819.06   Top Width (ft)              545.16    2035.83     238.07
  Vel Total (ft/s)             4.53   Avg. Vel. (ft/s)                       4.53
  Max Chl Dpth (ft)           27.28   Hydr. Depth (ft)                      18.64
  Conv. Total (cfs)       11220919.0   Conv. (cfs)                        11220919.0
  Length Wtd. (ft)           599.67   Wetted Per. (ft)                    2064.68
  Min Ch El (ft)            1149.27   Shear (lb/sq ft)                       0.27
  Alpha                        1.00   Stream Power (lb/ft s)                 1.22
  Frctn Loss (ft)              0.09   Cum Volume (acre-ft)       3451.89   23112.45    1938.07
  C & E Loss (ft)              0.04   Cum SA (acres)              344.58    1296.55     354.89


Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
                than 0.7 or greater than 1.4.  This may indicate the need for additional cross
sections.
```

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1176.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.32	Wt. n-Val.		0.035	
E.G. Elev (ft)	1176.88	Reach Len. (ft)	599.67	599.67	599.67
Crit W.S. (ft)	1162.82	Flow Area (sq ft)		37960.57	
E.G. Slope (ft/ft)	0.000235	Area (sq ft)		37960.57	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	2035.83	Top Width (ft)		2035.83	
Vel Total (ft/s)	4.53	Avg. Vel. (ft/s)		4.53	
Max Chl Dpth (ft)	27.29	Hydr. Depth (ft)		18.65	
Conv. Total (cfs)	11226501.0	Conv. (cfs)		11226501.0	
Length Wtd. (ft)	599.67	Wetted Per. (ft)		2064.69	
Min Ch El (ft)	1149.27	Shear (lb/sq ft)		0.27	
Alpha	1.00	Stream Power (lb/ft s)		1.22	
Frctn Loss (ft)	0.09	Cum Volume (acre-ft)		22978.77	2.15
C & E Loss (ft)	0.04	Cum SA (acres)		1288.12	0.71

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19442.00 LB	19580.53	9609.52	2289.25	131.71	5.59	18.52	4.20
19580.53	19719.07	4826.42	1577.54	145.87	2.81	11.39	3.06
19719.07	19857.60	11917.26	2665.54	139.52	6.93	19.24	4.47
19857.60	19996.13	8080.74	2117.93	140.62	4.70	15.29	3.82
19996.13	20134.67	8379.36	2152.58	138.69	4.87	15.54	3.89
20134.67	20273.20	12659.71	2759.95	139.02	7.36	19.92	4.59
20273.20	20411.73	18783.66	3492.49	138.55	10.92	25.21	5.38
20411.73	20550.27	17705.66	3371.20	138.59	10.29	24.33	5.25
20550.27	20688.80	14226.21	2956.07	138.55	8.27	21.34	4.81
20688.80	20827.33	15190.16	3074.78	138.56	8.83	22.20	4.94
20827.33	20965.87	13961.23	2940.69	140.67	8.12	21.23	4.75
20965.87	21104.40	14885.01	3063.36	141.52	8.65	22.11	4.86
21104.40	21242.93	13393.64	2868.76	140.71	7.79	20.71	4.67
21242.93	21381.47	6927.56	1928.09	140.09	4.03	13.92	3.59
21381.47	21520.00 RB	1453.84	690.92	112.01	0.85	6.21	2.10

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19442.00 LB	19580.53	9609.52	2289.94	131.72	5.59	18.52	4.20
19580.53	19719.07	4828.08	1578.31	145.87	2.81	11.39	3.06
19719.07	19857.60	11917.38	2666.32	139.52	6.93	19.25	4.47
19857.60	19996.13	8081.84	2118.71	140.62	4.70	15.29	3.81
19996.13	20134.67	8380.41	2153.36	138.69	4.87	15.54	3.89
20134.67	20273.20	12659.62	2760.73	139.02	7.36	19.93	4.59
20273.20	20411.73	18781.68	3493.27	138.55	10.92	25.22	5.38
20411.73	20550.27	17704.03	3371.98	138.59	10.29	24.34	5.25
20550.27	20688.80	14225.67	2956.84	138.55	8.27	21.34	4.81
20688.80	20827.33	15189.33	3075.56	138.56	8.83	22.20	4.94
20827.33	20965.87	13960.73	2941.47	140.67	8.12	21.23	4.75
20965.87	21104.40	14884.22	3064.14	141.52	8.65	22.12	4.86
21104.40	21242.93	13393.31	2869.54	140.71	7.79	20.71	4.67
21242.93	21381.47	6928.92	1928.87	140.09	4.03	13.92	3.59
21381.47	21520.00 RB	1455.27	691.54	112.01	0.85	6.22	2.10

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River

REACH: Reach 4 RS: 224.71

INPUT
Description:
Station Elevation Data num= 277

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18464	1174.918	560.25	1174.931	8564.92	1174.841	8576.94	1180.611	8583.28	1183.49
18595.74	1189.318	610.56	1189.421	8616.36	1188.281	8628.59	1185.61	8636.54	1185.54
18647.7	1185.6	18748	1186.071	8757.28	1186.52	18797.1	1188.631	8851.54	1188
18883.82	1188.11	8888.02	1187.54	18907.5	1186.21	8924.77	1175.331	8937.32	1169.24
18957.69	1167.51	8972.07	1166.841	9014.03	1165.261	9037.23	1166.071	9079.19	1166.87
19124.33	1166	19133.5	116619	179.79	1171.51	9180.79	1171.641	9196.04	1170.48
19244.39	117219	264.65	1172.391	9294.94	1173.74	19314.2	1173.871	9340.55	1173
19361.41	1172.31	9391.52	1173.111	9409.22	1175.021	9421.18	1180.74	19431.2	1185.44
19446.49	1185.41	9455.44	1179.291	9491.82	1154.961	9542.07	1153.951	9546.61	1154.64
19563.52	1159.91	9609.02	1170.031	9615.88	1171.25	19640.4	1176.221	9656.48	1176.53
19669.1	1175.41	9674.56	1178.171	9689.02	1185.931	9697.87	1181.96	19713.6	1175.09
19728.79	116519	731.37	1163.521	9755.99	1148.721	9999.55	1148.722	0006.21	1149.47
20013.74	1150.12	0021.53	1150.24	20029.8	1149.322	0041.52	1148.53	20053.2	1147.98
20084.72	1145.32	0105.72	1143.312	0120.92	1142.322	0131.89	1141.81	20154.6	1141.77
20168.4	114220	184.68	1143.472	0193.33	1144.052	0207.65	1145.172	0215.48	1146.19
20219.08	1146.82	0253.11	1153.672	0262.44	1154.082	0277.52	1154.442	0281.83	1154.35
20307.84	1156.92	0320.31	1158.182	0332.28	1158.662	0349.98	1160.912	0358.71	1161.76
20370.25	1161.92	0383.63	1161.562	0395.83	1159.08	20422.8	1155.612	0444.66	1152.88
20456.99	1153.12	0466.15	1153.362	0474.01	1153.082	0495.23	1154.662	0496.87	1154.37
20509.17	1153.52	0524.58	1152.552	0533.32	1152.332	0549.23	1152.312	0578.73	1151.68
20587.03	1151.62	0605.18	1151.752	0609.45	1151.672	0631.35	1151.322	0638.11	1151.58
20655.54	1152.72	0674.02	1153.42	0682.97	1153.482	0696.32	1154.162	0736.97	1153.58
20743.09	1153.82	0750.84	1154.39	20781.4	1156.12	0784.55	1158.132	0786.73	1158.55
20796.85	115820	803.01	1157.382	0818.77	1156.792	0835.84	1158.212	0861.54	1158.88
20884.65	115820	916.47	1157.992	0925.95	1157.622	0942.29	1157.462	0954.43	1157.11
20956.33	1157.42	0964.42	1157.732	0972.92	1156.962	0990.42	1157.292	1004.19	1157.24
21018.32	1159.42	1025.19	1155.74	21033.6	1152.582	1061.57	1151.24	21149.5	1151.31
21251.46	1151.62	1273.01	1151.412	1302.97	1152.212	1344.07	1153.222	1414.83	1153.56
21452.9	1154.22	1489.37	1154.492	1509.45	1154.892	1553.77	1154.982	1606.68	1157.47
21615.63	1161.32	1626.07	1165.052	1634.05	1168.25	21642.7	1165.922	1652.32	1163.75
21655.11	1163.32	1670.14	1163.19	21690	1163.082	1709.36	1162.48	217201	1162.246
21744.81	1161.7	21771.2	1163.52	1787.65	1164.972	1868.56	1163.56	21934.9	1167.82
21971.79	1171.762	2003.59	1173.32	2007.38	1173.782	2013.25	1173.932	2022.36	1174.47
22039.78	1174.292	2066.19	1173.92	2067.64	117422	078.56	1175.692	2088.67	1175.56
22095.23	1175.32	2101.34	1175.52	2125.41	1176.82	22142.7	1177.562	2154.25	1180.14
22160.92	1180.382	2169.46	118022	175.19	1179.83	22186.8	1178.722	2192.54	1177.9
22203	1179.412	2214.87	1178.72	2220.75	1179.4	22227.3	1179.282	2236.47	1180.6
22242.02	1180.942	2254.98	1179.52	2262.54	1177.512	2273.47	1177.41	22282.5	1177.56
22295.05	1176.672	2297.34	1176.32	2310.55	1176.87	22319.4	1176.432	2329.08	1177.75
22345.94	1178.762	2361.58	1178.92	2375.38	1179.192	2382.04	1179.452	2390.52	1179.31
22394.13	1180.832	2402.68	1181.12	2421.42	1183.12	2425.47	1186.632	2428.87	1188.5
22435	1190.762	2441.19	1193.52	2444.95	1195.422	2456.01	1199.042	2473.79	1186.49
22479.65	1181.662	2496.99	1181.72	2518.17	1181.912	2539.38	1182.362	2547.85	1182.34
22567.6	1182.632	2573.95	1183.12	2607.44	1184.25	22619.7	1184.412	2645.64	1184.84
22665.53	1184.49	22666.2	1184.52	2686.76	1200.52	2689.47	1201.082	2696.99	1204.24
22698.31	1203.442	2706.42	1203.12	2708.32	1203.342	2719.85	1197.81	22728.3	1192.49
22739.29	1184.442	2785.66	1182.52	2788.75	1182.832	2806.26	1183.892	2815.79	1183.2
22832.27	1183.442	2836.45	1183.42	2846.73	1182.972	2863.76	1182.842	2882.04	1181.99
22907.43	1182.242	2924.35	1179.92	2934.16	1179.012	2939.22	1178.46	22968.3	1173.95
22992.13	1173.322	3022.21	1174.82	3036.83	1173.482	3058.26	1171.842	3073.67	1170.38
23087.08	1170.392	3108.86	1169.7	23111	1169.352	3140.54	1167.12	3173.66	1164.49
23176.37	1164.462	3183.59	1163.72	3205.02	1161.592	3213.59	1161.582	3218.55	1168.13
23268.77	1188.64	23277.4	1188.4	23394	1184.912	3450.93	1183.332	3458.46	1185.46
23478.08	1193.222	3492.53	1190.52	3503.09	1188.182	3504.75	1187.692	3528.38	1187.52
23562.27	1185.532	3630.27	1188.62	3637.25	1188.75	23661.7	1189.54	23680.4	1189.83
23701.25	1189.712	3747.57	1188.9						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18464	.05	19431.2	.035	21720	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19431.2	21720	483.86	483.86	483.86	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18464	19431.2	1185.93	21720	23747.57	1188.9

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft) 1176.55 Element Left OB Channel Right OB

Vel Head (ft)	0.19	Wt. n-Val.		0.035	
E.G. Elev (ft)	1176.74	Reach Len. (ft)	483.86	483.86	483.86
Crit W.S. (ft)	1158.72	Flow Area (sq ft)		49039.47	
E.G. Slope (ft/ft)	0.000112	Area (sq ft)	3471.63	49039.47	5135.32
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	3514.23	Top Width (ft)	594.06	2221.56	698.61
Vel Total (ft/s)	3.51	Avg. Vel. (ft/s)		3.51	
Max Chl Dpth (ft)	34.78	Hydr. Depth (ft)		22.07	
Conv. Total (cfs)	16259854.0	Conv. (cfs)		16259854.0	
Length Wtd. (ft)	483.86	Wetted Per. (ft)		2246.88	
Min Ch El (ft)	1141.77	Shear (lb/sq ft)		0.15	
Alpha	1.00	Stream Power (lb/ft s)		0.53	
Frctn Loss (ft)	0.06	Cum Volume (acre-ft)	3407.46	22513.68	1887.39
C & E Loss (ft)	0.00	Cum SA (acres)	336.74	1267.24	348.44

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1176.55	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.19	Wt. n-Val.		0.035	
E.G. Elev (ft)	1176.74	Reach Len. (ft)	483.86	483.86	483.86
Crit W.S. (ft)	1158.72	Flow Area (sq ft)		49050.86	
E.G. Slope (ft/ft)	0.000113	Area (sq ft)		49050.86	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	2221.59	Top Width (ft)		2221.59	
Vel Total (ft/s)	3.51	Avg. Vel. (ft/s)		3.51	
Max Chl Dpth (ft)	34.78	Hydr. Depth (ft)		22.08	
Conv. Total (cfs)	16197322.0	Conv. (cfs)		16197322.0	
Length Wtd. (ft)	483.86	Wetted Per. (ft)		2261.22	
Min Ch El (ft)	1141.77	Shear (lb/sq ft)		0.15	
Alpha	1.00	Stream Power (lb/ft s)		0.54	
Frctn Loss (ft)	0.06	Cum Volume (acre-ft)		22379.84	2.15
C & E Loss (ft)	0.00	Cum SA (acres)		1258.82	0.71

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19431.20 LB	19583.79	6071.13	2177.32	132.16	3.53	17.52	2.79
19583.79	19736.37	678.11	561.98	119.82	0.39	4.94	1.21
19736.37	19888.96	15812.04	4130.55	155.86	9.19	27.07	3.83
19888.96	20041.55	16565.43	4213.30	152.74	9.63	27.61	3.93
20041.55	20194.13	21784.30	4968.44	152.94	12.67	32.56	4.38
20194.13	20346.72	12471.74	3563.03	153.76	7.25	23.35	3.50
20346.72	20499.31	9456.72	3015.11	153.40	5.50	19.76	3.14
20499.31	20651.89	13508.88	3727.50	152.69	7.85	24.43	3.62
20651.89	20804.48	11266.16	3348.95	153.39	6.55	21.95	3.36
20804.48	20957.07	8625.68	2848.10	152.72	5.01	18.67	3.03
20957.07	21109.65	11448.38	3389.49	154.31	6.66	22.21	3.38
21109.65	21262.24	14166.19	3834.30	152.59	8.24	25.13	3.69
21262.24	21414.83	12926.68	3629.53	152.61	7.52	23.79	3.56
21414.83	21567.41	11364.00	3359.55	152.61	6.61	22.02	3.38
21567.41	21720.00 RB	5854.57	2272.33	155.28	3.40	14.89	2.58

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19431.20 LB	19583.79	6083.52	2177.96	132.16	3.54	17.53	2.79
19583.79	19736.37	680.27	562.56	119.85	0.40	4.95	1.21
19736.37	19888.96	15842.01	4131.34	155.86	9.21	27.08	3.83
19888.96	20041.55	16596.73	4214.08	152.74	9.65	27.62	3.94
20041.55	20194.13	21824.43	4969.22	152.94	12.69	32.57	4.39
20194.13	20346.72	12496.01	3563.82	153.76	7.27	23.36	3.51

20346.72	20499.31	9475.75	3015.89	153.40	5.51	19.76	3.14
20499.31	20651.89	13534.94	3728.28	152.69	7.87	24.43	3.63
20651.89	20804.48	11288.35	3349.73	153.39	6.56	21.95	3.37
20804.48	20957.07	8643.26	2848.88	152.72	5.03	18.67	3.03
20957.07	21109.65	11470.88	3390.27	154.31	6.67	22.22	3.38
21109.65	21262.24	14193.39	3835.08	152.59	8.25	25.13	3.70
21262.24	21414.83	12951.75	3630.31	152.61	7.53	23.79	3.57
21414.83	21567.41	11386.36	3360.33	152.61	6.62	22.02	3.39
21567.41	21720.00 RB	5532.37	2273.12	169.59	3.22	14.90	2.43

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 224.62

INPUT
Description:
Station Elevation Data num= 219

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18378.52	1185.818	404.35	1185.48	18468.51	1184.54	18519.25	1184.05	18597.14	1183.85
18625.03	1183.818	645.15	1183.99	18674.94	1184.38	18726.36	1183.75	18735.04	1183.41
18810.85	1180.718	818.74	1180.48	18822.11	1180.06	18841.76	1174.218	866.52	1183.49
18879.93	1186.918	886.19	1187.13	18896.94	1187.71	8903.79	1186.818	935.34	1174.9
18952.59	1168.118	970.84	1166.55	19016.04	1167.21	9041.59	1168.54	19076.7	1168.5
19100.78	1168.419	112.49	1168.38	19170.92	1168.82	19208.13	1171.07	19217.46	1171.58
19228.76	1177.519	245.51	1186.29	19247.74	1186.34	19262.74	1186.11	19281.57	1185.9
19291.06	1180.319	293.54	1178.55	19296.84	1179.07	19306.6	1180.03	19309.4	1180.04
19324.17	118	119355.66	1173.44	19361.36	1171.58	19380.53	1167.81	19383.47	1167.14
19404.93	1173.319	415.91	1178.17	19430.33	1185.47	19437.83	1185.31	9447.76	1185.23
19462.55	117	519482.14	1162.35	19495.08	1153.37	19501.85	1153.24	19530.15	1153.57
19553.32	1153.819	569.11	1157.41	19586.18	1159.21	9600.46	1161.07	19616.22	1161.18
19672.91	1161.819	686.04	1161.82	19702.52	1161.67	19764.44	1160.78	19818.05	1160.08
19833.36	116	019864.29	1160.44	19900.89	1160.82	19939.15	1163.18	19943.11	1163.31
19946.81	1162.819	964.63	1166.16	19974.75	1165.51	9982.08	1165.78	19989.55	1163.93
20004.4	1163.120	011.63	1162.76	20038.32	1161.36	20068.86	1145.27	20074.04	1144.37
20083.55	1143.320	086.09	1143.17	20100.72	1143.17	20109.54	1144.32	0114.57	1144
20132.41	1143.420	142.12	1143.57	20180.96	1143.01	20196.71	1144.21	20215.45	1146.02
20244.38	1149.820	254.84	1149.81	20274.37	1151.06	20303.52	1151.02	20372.27	1148.56
20373.8	1148.6	20407.9	1152.79	20414.72	1153.39	20426.65	1154.22	0441.24	1155.53
20445.35	1155.320	455.62	1154.17	20467.54	1153.52	20504.49	1158.42	20518.03	1160.41
20536.22	1159.9	20559.2	1159.39	20573.96	1159.86	20587.92	1159.22	20613.78	1156.6
20623.68	1155.520	628.88	1155.04	20639.74	1154.48	20648.95	1154.52	20676.03	1151.35
20681.05	1150.320	685.65	1149.94	20716.53	1148.31	20718.26	1148.28	20761.57	1149.03
20778.13	1148.720	789.51	1148.74	20845.64	1148.83	20863.07	1149.23	20874.13	1149.79
20877.77	1152.520	879.74	1153.48	20901.45	1158.12	20917.91	1161.19	20923.26	1160.04
20931.08	1158.620	971.99	1155.92	21004.14	1155.92	1029.13	1157.13	21094.11	1158.09
21105.12	1157.7	21114.2	1158.23	21125.7	1158.12	1138.44	1158.57	21146.08	1160.9
21153.05	1161.621	156.33	1161.39	21175.88	1160.33	21194.36	1158.19	21296.44	1155.95
21306.29	1155.921	368.24	1156.62	21374.31	1156.22	21388.29	1154.25	21393.32	1154.01
21405.64	1153.621	421.92	1153.36	21457.66	1151.36	21469.29	1150.33	21510.01	1149.18
21514.93	1149.221	522.43	1149.77	21531.86	1150.77	21542.55	1151.18	21561.6	1151.78
21585.4	1151.321	598.53	1151.05	21600	1151.08	21643.62	1151.98	21681.1	1152.23
21691.8	1152.552	1736.93	1152.92	1758.33	1153.14	21767.5	1153.39	21783.92	1154.29
21795.39	1158.22	21819	1158.92	1863.06	1174.92	21879.57	1174.72	1927.14	1173.19
21962.31	1173.262	1966.92	1173.22	1973.81	1174.66	21995.83	1176.44	22012.64	1175.4
22018	1175.432	2032.54	1177.92	2048.17	1180.15	22055.24	1180.79	22065.01	1178.99
22070.42	1177.622	2073.56	1176.42	2082.18	1174.96	22092.26	1175.13	22123.7	1175.99
22133.35	1174.012	2138.59	1172.62	2151.32	1172.16	22163.66	1171.65	22173.36	1171.51
22188.26	1171.722	201.63	1171.32	2228.57	1170.23	22244.33	1178.98	22264.95	1189.61
22279.95	1188.722	291.92	118	922311.27	1189.11	22345.6	1187.71	22356.31	1187.48
22408.94	1188.422	415.73	1188.62	2445.76	1188.37	22488.37	1188.46	22496.99	1188.98
22500.11	1188.972	2527.12	1189.52	2639.53	1189.48	22671.17	1189.55	22682.21	1189.38
22714.79	1189.642	2773.11	1189.92	2780.07	1189.97	22793.79	1189.95		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18378.52	.05	19430.33	.035	21600	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19430.33	21600	529.95	529.95	529.95	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18378.52	19430.33	1185.47	21600	22793.79	1189.95

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1176.46	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.22	Wt. n-Val.		0.035	
E.G. Elev (ft)	1176.68	Reach Len. (ft)	529.95	529.95	529.95
Crit W.S. (ft)	1159.96	Flow Area (sq ft)		45608.09	
E.G. Slope (ft/ft)	0.000135	Area (sq ft)	2603.41	45608.09	6380.85
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	3108.05	Top Width (ft)	378.08	2139.55	590.41
Vel Total (ft/s)	3.77	Avg. Vel. (ft/s)		3.77	
Max Chl Dpth (ft)	33.45	Hydr. Depth (ft)		21.32	
Conv. Total (cfs)	14803655.0	Conv. (cfs)		14803655.0	
Length Wtd. (ft)	529.95	Wetted Per. (ft)		2157.46	
Min Ch El (ft)	1143.01	Shear (lb/sq ft)		0.18	
Alpha	1.00	Stream Power (lb/ft s)		0.67	
Frctn Loss (ft)	0.07	Cum Volume (acre-ft)	3373.72	21988.01	1823.43
C & E Loss (ft)	0.00	Cum SA (acres)	331.34	1243.02	341.28

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1176.46	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.22	Wt. n-Val.		0.035	
E.G. Elev (ft)	1176.68	Reach Len. (ft)	529.95	529.95	529.95
Crit W.S. (ft)	1159.96	Flow Area (sq ft)		45617.74	
E.G. Slope (ft/ft)	0.000137	Area (sq ft)		45617.74	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	2139.55	Top Width (ft)		2139.55	
Vel Total (ft/s)	3.77	Avg. Vel. (ft/s)		3.77	
Max Chl Dpth (ft)	33.45	Hydr. Depth (ft)		21.32	
Conv. Total (cfs)	14693845.0	Conv. (cfs)		14693845.0	
Length Wtd. (ft)	529.95	Wetted Per. (ft)		2182.84	
Min Ch El (ft)	1143.01	Shear (lb/sq ft)		0.18	
Alpha	1.00	Stream Power (lb/ft s)		0.67	
Frctn Loss (ft)	0.07	Cum Volume (acre-ft)		21854.06	2.15
C & E Loss (ft)	0.00	Cum SA (acres)		1234.60	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19430.33 LB	19574.97	7102.27	2170.41	121.97	4.13	18.95	3.27
19574.97	19719.62	6540.73	2212.74	144.83	3.80	15.30	2.96
19719.62	19864.26	6984.17	2300.44	144.66	4.06	15.90	3.04
19864.26	20008.91	5396.47	1974.42	145.35	3.14	13.65	2.73
20008.91	20153.55	16556.34	3906.07	148.90	9.63	27.00	4.24
20153.55	20298.20	19270.95	4234.23	145.07	11.20	29.27	4.55
20298.20	20442.84	15171.22	3668.09	145.06	8.82	25.36	4.14
20442.84	20587.49	9058.39	2693.17	145.23	5.27	18.62	3.36
20587.49	20732.13	13396.28	3405.76	145.23	7.79	23.55	3.93
20732.13	20876.78	17394.49	3984.63	145.32	10.11	27.55	4.37
20876.78	21021.42	9665.30	2807.89	146.26	5.62	19.41	3.44
21021.42	21166.07	8660.71	2620.60	145.10	5.04	18.12	3.30
21166.07	21310.71	9371.28	2745.38	144.81	5.45	18.98	3.41
21310.71	21455.36	11766.46	3147.61	144.87	6.84	21.76	3.74
21455.36	21600.00 RB	15664.94	3736.64	144.81	9.11	25.83	4.19

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19430.33 LB	19574.97	7169.21	2170.93	121.97	4.17	18.96	3.30
19574.97	19719.62	6603.10	2213.39	144.83	3.84	15.30	2.98
19719.62	19864.26	7050.64	2301.09	144.66	4.10	15.91	3.06
19864.26	20008.91	5448.25	1975.07	145.35	3.17	13.65	2.76
20008.91	20153.55	16710.64	3906.73	148.90	9.72	27.01	4.28
20153.55	20298.20	19450.13	4234.88	145.07	11.31	29.28	4.59
20298.20	20442.84	15312.89	3668.74	145.06	8.90	25.36	4.17
20442.84	20587.49	9143.96	2693.82	145.23	5.32	18.62	3.39
20587.49	20732.13	13521.68	3406.41	145.23	7.86	23.55	3.97
20732.13	20876.78	17556.51	3985.29	145.32	10.21	27.55	4.41

20876.78	21021.42	9756.44	2808.55	146.26	5.67	19.42	3.47
21021.42	21166.07	8742.62	2621.25	145.10	5.08	18.12	3.34
21166.07	21310.71	9459.73	2746.03	144.81	5.50	18.98	3.44
21310.71	21455.36	11876.92	3148.26	144.87	6.91	21.77	3.77
21455.36	21600.00 RB	14197.27	3737.30	170.19	8.25	25.84	3.80

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 224.52

INPUT
Description:
Station Elevation Data num= 201

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18088.7	1184.518	094.05	1184.541	8136.07	1185.241	8204.45	1185.89	18218	1185.89
18231.78	1183.718	250.76	1183.531	8339.83	1183.261	8379.79	1184.881	8401.55	1186.16
18428.54	1191.718	433.64	1192.791	8445.55	1192.971	8476.05	1192.671	8484.38	1192.51
18485.77	1190.7	18501.8	1190.041	8512.61	1192.551	8527.36	1192.691	8530.87	1192.36
18557.82	1191.718	586.99	1190.981	8641.01	1173.551	8651.39	1170.081	8670.01	1162.45
18673.96	1160.918	683.35	1161.41	8814.59	1161.351	8971.41	1161.611	8995.12	1161.38
19042.34	1161.419	046.67	1161.651	9049.29	1160.771	9053.55	1161.221	9056.67	1161.97
19101	1183.119	108.59	1186.841	9123.87	1186.161	9131.81	1185.281	9169.23	1168.35
19186.57	1160.219	189.46	1160.51	9198.48	1163.981	9244.71	1158.741	9246.73	1158.8
19249.58	1163.119	263.12	1171.471	9281.03	1183.61	9292.86	1184.661	9321.49	1188.18
19356.17	1171.919	369.03	1165.581	9370.86	1164.051	9394.33	1171.541	9434.58	1184.43
19451.27	1184.619	482.81	1163.461	9497.43	1153.811	9507.25	1153.621	9579.45	1153.4
19583.14	1153.419	602.45	1153.811	9641.76	1154.211	9653.22	1153.99	19672.4	1154.1
19713.81	1154.819	723.27	1155.22	19748	1156.481	9764.85	1156.591	9809.25	1155.66
19862.99	1154.619	865.78	1154.611	9891.59	1154.181	9963.95	1153.761	9969.89	1153.68
20030.43	1152.720	075.47	1151.922	0086.28	1151.722	0111.83	1151.72	0116.37	1151.85
20150.09	1151.420	152.59	1151.362	0162.27	1151.582	0191.66	1152.372	0213.73	1152.8
20220.38	1153.120	233.22	1151.352	0239.83	1151.152	0317.34	1150.092	0360.79	1149.26
20364.78	1149.120	402.94	1149.28	20441.4	1149.492	0464.67	1149.852	0484.68	1149.59
20498.13	1149.320	502.32	1149.34	20513.4	1148.952	0536.24	1149.992	0538.83	1150.27
20542.7	1151.3	20547.2	1151.552	0556.42	1150.32	0562.09	1148.942	0571.53	1148.8
20598.82	1147.92	0617.41	1147.842	0624.67	1147.822	0636.08	1147.532	0688.72	1147.67
20691.86	1147.82	0736.77	1148.022	0809.46	1149.632	0855.42	1149.27	20898.4	1149.5
20935.16	1149.52	0953.85	1148.792	0989.41	1148.152	1018.71	1147.52	1022.84	1147.48
21026.09	1149.4	21031.9	1152.522	1036.04	1154.492	1046.57	1154.922	1053.64	1155.58
21076.1	1155.42	1084.82	1155.832	1088.81	1155.682	1112.35	1156.12	1123.26	1156.8
21126.83	1157.32	1147.62	1164.552	1156.03	1167.552	1161.19	1167.432	1179.54	1166.62
21181.54	1164.72	1190.54	1163.242	1204.66	1159.642	1209.11	1160.362	1237.67	1152.56
21253.62	1153.4	21274.1	1151.722	1288.71	1150.45	21295.3	1150.552	1298.09	1151.25
21308.67	1153.42	1319.78	1155.412	1321.51	1155.382	1324.95	1156.282	1339.65	1158.84
21340.72	1158.82	1346.72	1157.22	1352.78	1157.01	21368.5	1156	21370	1155.91
21411.43	1153.42	1419.91	1153.72	1426.88	1153.832	1463.75	1154.022	1479.12	1160.61
21493.32	1156.982	1503.83	1156.72	1511.16	1156.8	21526.1	1158.042	1530.36	1158.17
21558.04	1158.712	1568.37	1159	21572.86	1161.082	1590.45	1167.942	1620.14	1167.95
21623.43	1167.932	1625.68	1167	21648.07	1159	21668.6	1159.452	1682.24	1160.41
21690.39	1160.782	1711.67	1162.22	1724.12	1162.65	21755	1164.352	1758.82	1164.6
21777.24	1166.582	1796.76	1168.52	1813.46	1169.16	21849	1168.72	1858.44	1168.58
21917.45	1169.44	21939.5	1170.12	1958.25	1170.52	1971.26	1176.012	1991.56	1182.37
22002.74	1186.112	2025.09	1186.22	2038.67	1186.382	2046.77	1186.392	2067.33	1186.74
22098.6	1186.982	2158.37	1187.72	2216.75	1187.852	2254.97	1187.952	2329.24	1188.32
22366.41	1188.54								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18088.7	.05	19451.27	.035	21370	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19451.27	21370	503.1	503.1	503.1	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18088.7	19451.27	1184.6	21370	22366.41	1188.54

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1176.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.22	Wt. n-Val.		0.035	
E.G. Elev (ft)	1176.61	Reach Len. (ft)	503.10	503.10	503.10
Crit W.S. (ft)	1158.39	Flow Area (sq ft)		45385.96	
E.G. Slope (ft/ft)	0.000118	Area (sq ft)	8002.59	45385.96	8103.41
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	3145.40	Top Width (ft)	636.46	1906.48	602.46
Vel Total (ft/s)	3.79	Avg. Vel. (ft/s)		3.79	

Max Chl Dpth (ft)	28.91	Hydr. Depth (ft)		23.81	
Conv. Total (cfs)	15863059.0	Conv. (cfs)		15863059.0	
Length Wtd. (ft)	503.10	Wetted Per. (ft)		1921.38	
Min Ch El (ft)	1147.48	Shear (lb/sq ft)		0.17	
Alpha	1.00	Stream Power (lb/ft s)		0.66	
Frctn Loss (ft)	0.07	Cum Volume (acre-ft)	3309.21	21434.50	1735.32
C & E Loss (ft)	0.01	Cum SA (acres)	325.17	1218.41	334.03

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1176.39	Element			
Vel Head (ft)	0.22	Wt. n-Val.		0.035	
E.G. Elev (ft)	1176.61	Reach Len. (ft)	503.10	503.10	503.10
Crit W.S. (ft)	1158.39	Flow Area (sq ft)		45392.71	
E.G. Slope (ft/ft)	0.000119	Area (sq ft)		45392.71	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1906.48	Top Width (ft)		1906.48	
Vel Total (ft/s)	3.79	Avg. Vel. (ft/s)		3.79	
Max Chl Dpth (ft)	28.91	Hydr. Depth (ft)		23.81	
Conv. Total (cfs)	15755195.0	Conv. (cfs)		15755195.0	
Length Wtd. (ft)	503.10	Wetted Per. (ft)		1941.87	
Min Ch El (ft)	1147.48	Shear (lb/sq ft)		0.17	
Alpha	1.00	Stream Power (lb/ft s)		0.66	
Frctn Loss (ft)	0.07	Cum Volume (acre-ft)		21300.44	2.15
C & E Loss (ft)	0.01	Cum SA (acres)		1209.99	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19451.27 LB	19579.19	7127.16	2252.46	122.49	4.14	19.47	3.16
19579.19	19707.10	10293.84	2857.56	127.93	5.98	22.34	3.60
19707.10	19835.02	8962.48	2630.07	127.97	5.21	20.56	3.41
19835.02	19962.93	10124.21	2829.20	127.93	5.89	22.12	3.58
19962.93	20090.85	11316.28	3024.65	127.93	6.58	23.65	3.74
20090.85	20218.76	11974.76	3129.18	127.94	6.96	24.46	3.83
20218.76	20346.68	13017.55	3291.05	128.05	7.57	25.73	3.96
20346.68	20474.59	14101.40	3451.45	127.92	8.20	26.98	4.09
20474.59	20602.51	14113.29	3457.98	128.37	8.21	27.03	4.08
20602.51	20730.42	15578.89	3664.07	127.92	9.06	28.64	4.25
20730.42	20858.34	14437.86	3500.72	127.93	8.39	27.37	4.12
20858.34	20986.25	14313.75	3482.66	127.94	8.32	27.23	4.11
20986.25	21114.17	11110.62	3008.39	129.74	6.46	23.52	3.69
21114.17	21242.08	5403.76	1966.77	132.19	3.14	15.38	2.75
21242.08	21370.00 RB	10124.15	2839.77	129.13	5.89	22.20	3.57

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19451.27 LB	19579.19	7166.81	2252.87	122.50	4.17	19.48	3.18
19579.19	19707.10	10351.02	2858.01	127.93	6.02	22.34	3.62
19707.10	19835.02	9012.47	2630.52	127.97	5.24	20.56	3.43
19835.02	19962.93	10180.47	2829.65	127.93	5.92	22.12	3.60
19962.93	20090.85	11378.97	3025.10	127.93	6.62	23.65	3.76
20090.85	20218.76	12041.00	3129.63	127.94	7.00	24.47	3.85
20218.76	20346.68	13089.41	3291.50	128.05	7.61	25.73	3.98
20346.68	20474.59	14179.08	3451.90	127.92	8.24	26.99	4.11
20474.59	20602.51	14191.04	3458.44	128.37	8.25	27.04	4.10
20602.51	20730.42	15664.52	3664.53	127.92	9.11	28.65	4.27
20730.42	20858.34	14517.35	3501.18	127.93	8.44	27.37	4.15
20858.34	20986.25	14392.58	3483.11	127.94	8.37	27.23	4.13
20986.25	21114.17	11172.18	3008.84	129.74	6.50	23.52	3.71
21114.17	21242.08	5434.43	1967.22	132.19	3.16	15.38	2.76
21242.08	21370.00 RB	9228.69	2840.22	149.61	5.37	22.20	3.25

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 224.42

INPUT
Description:
Station Elevation Data num= 162

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18043.55	1183.518	058.12	1183.611	8117.53	1183.161	8160.31	1184.441	8190.45	1185.61
18204.03	1185.618	224.37	1182.161	8271.71	1180.91	18282.6	1183.841	8294.74	1189.44
18309.53	1193.918	322.31	1192.821	8342.86	1191.761	8358.99	1191.21	8360.57	1189.59
18370.45	118918	377.65	1188.761	8385.95	1191.811	8395.35	1192.491	8401.65	1192.77
18411.71	1192.218	435.01	1191.031	8460.48	1189.711	8514.06	1170.081	8543.55	1161.58
18545.99	1160.7	18551.8	1161.041	8643.34	1161.051	9222.97	1161.04	19226.6	1160.62
19240.66	1161.319	247.55	1161.471	9261.31	1162.391	9264.15	1162.371	9272.42	1163.6
19276.33	1164.819	291.06	1170.061	9293.26	1171.221	9301.82	1176.241	9320.57	1186.49
19327.53	118719	334.78	1187.361	9336.36	1186.961	9358.72	1179.981	9377.48	1174.07
19383.76	1172	19397.8	1172.121	9411.52	1173.021	9443.09	1184.681	9462.26	1184.81
19471.43	1178.619	507.11	1154.219	527.34	1153.991	9566.11	1154.191	9585.43	1154.32
19628.3	115419	650.21	1153.751	9701.38	1153.681	9712.02	1153.63	19775.8	1153.52
19814.95	1153.419	817.34	1153.211	9869.39	1153.05	19909.7	1152.321	9952.33	1151.82
19991.79	1152.1	20021.5	1151.932	0042.41	1151.612	0056.38	1151.512	0092.53	1151.36
20104.41	1151.220	150.93	1150.992	0191.15	1151.192	0196.14	1151.192	0216.46	1149.36
20226.63	1148.720	233.55	1148.652	0277.89	1148.52	0309.76	1148.782	0321.25	1147.98
20333.22	1147.520	346.56	1147.122	0398.46	1152.92	0476.81	1146.882	0487.22	1146.82
20535.02	1147.220	546.05	1146.972	0566.01	114820	597.82	1148.532	0634.33	1149
20646.91	1149.220	659.41	1149.572	0715.31	1150.092	0725.27	1150.072	0752.76	1150.28
20771.42	1150.8	20805.6	1151.472	0826.19	1151.52	0867.07	1152.082	0874.98	1151.61
20897.86	1150.920	929.75	1151.142	0942.37	1151.392	0968.03	1152.032	0974.67	1151.71
20985.96	1152.2	20992.1	1152.212	1019.11	1151.6	21049.7	1150.39	21065	1149.567
21065.88	1149.522	1082.61	1148.32	1125.78	1148.432	1127.95	1148.292	1144.39	1146.08
21148.56	1146.122	1160.16	1144.92	1171.69	1144.792	1177.64	1146.272	1188.78	1149.56
21195.8	1151.732	1219.79	1149.8	21234.5	1158.962	1247.11	1159.422	1276.39	1160.73
21291.12	1161.32	1306.11	116721	308.31	1168.082	1317.52	1170.352	1339.41	1170.72
21360.4	1169.382	1365.06	1168.92	1396.53	1167.552	1401.42	1167.482	1460.32	1167.06
21474.76	1166.982	1510.63	1172.12	1519.63	1173.492	1540.19	1170.682	1545.19	1171.51
21572.22	1177.372	1576.08	118021	581.46	1182.932	1594.26	1183.852	1610.38	1184.69
21628.34	1185.472	1664.95	1185.22	1683.62	1184.982	1715.53	1185.172	1741.04	1185.41
21751.82	1185.82	1768.03	1186	21827.3	1185.992	1902.85	1186.072	1926.28	1186.34
21956.88	1185.842	1986.13	1185.9	22026.7	118622	107.52	1185.862	2135.75	1185.91
22153.92	1186.712	2161.11	1186.8						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18043.55	.05	19462.26	.035	21065	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19462.26	21065	599.2	599.2	599.2	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18043.55	19462.26	1184.81	21065	22161.11	1186.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1176.24	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.29	Wt. n-Val.		0.035	
E.G. Elev (ft)	1176.54	Reach Len. (ft)	599.20	599.20	599.20
Crit W.S. (ft)	1158.33	Flow Area (sq ft)		39501.05	
E.G. Slope (ft/ft)	0.000146	Area (sq ft)	11765.94	39501.05	7534.36
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	2946.39	Top Width (ft)	854.25	1590.12	502.02
Vel Total (ft/s)	4.35	Avg. Vel. (ft/s)		4.35	
Max Chl Dpth (ft)	31.45	Hydr. Depth (ft)		24.84	
Conv. Total (cfs)	14231550.0	Conv. (cfs)		14231550.0	
Length Wtd. (ft)	599.20	Wetted Per. (ft)		1597.84	
Min Ch El (ft)	1146.82	Shear (lb/sq ft)		0.23	
Alpha	1.00	Stream Power (lb/ft s)		0.98	
Frctn Loss (ft)	0.12	Cum Volume (acre-ft)	3195.05	20944.29	1645.02
C & E Loss (ft)	0.03	Cum SA (acres)	316.56	1198.22	327.65

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1176.25	Element	Left OB	Channel	Right OB

Vel Head (ft)	0.29	Wt. n-Val.		0.035	
E.G. Elev (ft)	1176.54	Reach Len. (ft)	599.20	599.20	599.20
Crit W.S. (ft)	1158.33	Flow Area (sq ft)		39504.92	
E.G. Slope (ft/ft)	0.000149	Area (sq ft)		39504.92	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1590.12	Top Width (ft)		1590.12	
Vel Total (ft/s)	4.35	Avg. Vel. (ft/s)		4.35	
Max Chl Dpth (ft)	29.43	Hydr. Depth (ft)		24.84	
Conv. Total (cfs)	14077609.0	Conv. (cfs)		14077609.0	
Length Wtd. (ft)	599.20	Wetted Per. (ft)		1624.52	
Min Ch El (ft)	1146.82	Shear (lb/sq ft)		0.23	
Alpha	1.00	Stream Power (lb/ft s)		0.99	
Frctn Loss (ft)	0.12	Cum Volume (acre-ft)		20810.18	2.15
C & E Loss (ft)	0.03	Cum SA (acres)		1189.79	0.71

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19462.26 LB	19569.11	5848.24	1728.28	101.05	3.40	18.34	3.38
19569.11	19675.96	9571.09	2375.07	106.85	5.56	22.23	4.03
19675.96	19782.81	9864.94	2418.53	106.85	5.74	22.63	4.08
19782.81	19889.66	10176.77	2464.19	106.86	5.92	23.06	4.13
19889.66	19996.51	10975.50	2578.46	106.86	6.38	24.13	4.26
19996.51	20103.36	11339.32	2629.38	106.85	6.59	24.61	4.31
20103.36	20210.21	11805.12	2694.20	106.91	6.86	25.21	4.38
20210.21	20317.05	13673.41	2942.57	106.92	7.95	27.54	4.65
20317.05	20423.90	12749.72	2825.38	107.27	7.41	26.44	4.51
20423.90	20530.75	14311.53	3025.25	107.01	8.32	28.31	4.73
20530.75	20637.60	14138.18	3001.86	106.89	8.22	28.09	4.71
20637.60	20744.45	12785.36	2825.75	106.86	7.43	26.45	4.52
20744.45	20851.30	11707.30	2680.37	106.87	6.81	25.09	4.37
20851.30	20958.15	11530.15	2656.14	106.88	6.70	24.86	4.34
20958.15	21065.00 RB	11523.34	2655.59	106.92	6.70	24.85	4.34

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19462.26 LB	19569.11	5903.15	1728.51	101.05	3.43	18.34	3.42
19569.11	19675.96	9660.61	2375.33	106.85	5.62	22.23	4.07
19675.96	19782.81	9957.17	2418.79	106.85	5.79	22.64	4.12
19782.81	19889.66	10271.88	2464.46	106.86	5.97	23.07	4.17
19889.66	19996.51	11077.99	2578.72	106.86	6.44	24.13	4.30
19996.51	20103.36	11445.17	2629.64	106.85	6.65	24.61	4.35
20103.36	20210.21	11915.27	2694.46	106.91	6.93	25.22	4.42
20210.21	20317.05	13800.80	2942.83	106.92	8.02	27.54	4.69
20317.05	20423.90	12868.59	2825.65	107.27	7.48	26.45	4.55
20423.90	20530.75	14444.81	3025.51	107.01	8.40	28.32	4.77
20530.75	20637.60	14269.87	3002.12	106.89	8.30	28.10	4.75
20637.60	20744.45	12904.55	2826.01	106.86	7.50	26.45	4.57
20744.45	20851.30	11816.54	2680.63	106.87	6.87	25.09	4.41
20851.30	20958.15	11637.76	2656.40	106.88	6.77	24.86	4.38
20958.15	21065.00 RB	10025.84	2655.86	133.60	5.83	24.86	3.77

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 224.31

INPUT
Description:

Station Elevation Data num= 182

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18260.48	1181.518	288.51	1185.87	18301.05	1191.06	18312.67	1190.45	18315.96	1190.41
18345.81	1189.318	352.98	1186.82	18366.88	1187.12	18370.7	1186.96	18378.38	1187.39
18388.21	1188.118	398.63	1188.38	18415.14	1187.74	18455.04	1186.118	473.39	1180.03
18493.79	1170.118	502.03	1167.89	18514.32	1165.04	18523.98	1164.57	18534.13	1164.32
18550.44	1166.818	580.05	1170.08	18583.46	1170.36	18621.47	1171.61	18628.32	1171.82
18663.11	1172.318	671.21	1172.52	18698.8	1172.63	18734.87	1172.58	18738.21	1172.65
18764.61	1172.318	768.81	1172.19	18778.99	1172.13	18791.18	1171.89	18801.71	1171.57
18821.35	1170.418	848.56	1169.46	18856.1	1169.27	18869.55	1168.12	18875.46	1167.77
18886.96	1166.818	894.87	1165.72	18911.57	1162.75	18915.08	1161.78	18934.72	1162.45
18940.54	1161.118	944.97	1161.04	19143.71	1161.04	19169.01	1160.62	19208.75	1162.17
19240.66	1162.619	264.51	1162.66	19269.89	1163.119	289.29	1165.53	19292.56	1165.82
19309.12	1169.619	310.82	1170.06	19318.34	1173.66	19343.02	1186.22	19348.81	1187.37
19360.06	1188.219	395.94	1173.23	19430.5	1173.38	19441.56	1179.12	19452.97	1185.31
19458.91	1185.419	469.49	1185.3	19500.9	1163.74	19514.21	1154.51	9578.95	1154.71
19626.84	1154.819	648.47	1154.21	9736.43	1152.08	19774.46	1152.91	9796.75	1153.29
19806.29	1150.719	809.19	1149.62	19829.29	1150.05	19851.93	1150.19	19861.38	1150.35
19904.57	1150.619	923.12	1150.25	19969.31	1149.06	19996.54	1148.83	20020.2	1148.35
20043.8	1148	20086.59	1147.54	20122.45	1147.37	20155.61	1148.02	20163.54	1151.16
20166.7	1151.62	0179.31	1150.09	20189	1149.52	20205.26	1149.46	20219.88	1148.88
20226.16	1148.72	0231.26	1148.41	20257.45	1147.41	20262.99	1147.82	20266.41	1147.51
20283.34	1146.82	0288.42	1146.82	20294.46	1146.22	20302.98	1146.22	20318.06	1145.7
20328.39	1145.62	0338.24	1145.71	20354.04	1146.27	20361.33	1147.56	20362.49	1147.59
20369.34	1148.92	0375.09	1149.43	20385.68	1151.82	20389.24	1152.62	20396.92	1152.09
20406.33	1151	20436.89	1152.18	20442.2	1153.11	20450.74	1154.05	20506.03	1154.03
20524.74	1154	20559.5	1153.93	20581.21	1153.83	20612	1154.68	20648.99	1173.35
20654.48	1176.5	20662.8	1180.36	20665.32	1180.05	20667.75	1180.54	20670.16	1180.23
20682.02	1176	20690.61	1173.33	20723.1	1158.72	0732.06	1154.18	20757.62	1154.66
20787.67	1154.4	20867.1	1153.43	20910.88	1154.39	20925.21	1154.96	20930.22	1155.43
20963.61	1159.82	0990.94	1163.36	20998.37	1164.42	21025.84	1166.82	21043.9	1168.25
21060.39	1169.42	1083.27	1171.88	21107.82	1172.36	21115.16	1172.74	21122.26	1172.95
21133.52	1173.7	21138.6	1173.84	21148.22	1175.32	1150.91	1176.12	21159.45	1176.65
21181.39	1177.42	1210.61	1176.59	21224.95	1176.66	21274.36	1176.65	21278.34	1176.91
21285.5	1176.72	1292.94	1174.38	21294.87	1174.69	21302.18	1177.03	21310.23	1175.93
21321.74	1175.42	1381.62	1176.77	21389.48	1176.92	1439.94	1176.22	21452.69	1184.77
21502.78	1184.32	1555.17	1184.76	21571.85	1184.94	21576.97	1184.93	21740.59	1185.77
21770.72	1185	21786.13	1184.87	21796.29	1185.43	21814.78	1185.86	21828.5	1185.97
21858	1185.92	1896.79	1185.75						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18260.48	.05	19458.91	.03	20667.75	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19458.91	20667.75	106	477.07	507	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18260.48	19458.91	1185.42	20667.75	21896.79	1180.54

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1175.80	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.58	Wt. n-Val.		0.035	
E.G. Elev (ft)	1176.39	Reach Len. (ft)	106.00	477.07	507.00
Crit W.S. (ft)	1160.06	Flow Area (sq ft)		28046.58	
E.G. Slope (ft/ft)	0.000307	Area (sq ft)	8148.03	28046.58	6735.02
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	2559.24	Top Width (ft)	885.86	1169.94	503.44
Vel Total (ft/s)	6.13	Avg. Vel. (ft/s)		6.13	
Max Chl Dpth (ft)	30.20	Hydr. Depth (ft)		23.97	
Conv. Total (cfs)	9820888.0	Conv. (cfs)		9820888.0	
Length Wtd. (ft)	477.07	Wetted Per. (ft)		1184.03	
Min Ch El (ft)	1145.60	Shear (lb/sq ft)		0.45	
Alpha	1.00	Stream Power (lb/ft s)		2.78	
Frctn Loss (ft)	0.15	Cum Volume (acre-ft)	3058.08	20479.71	1546.87
C & E Loss (ft)	0.00	Cum SA (acres)	304.59	1179.23	320.73

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1175.80	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.58	Wt. n-Val.		0.035	
E.G. Elev (ft)	1176.39	Reach Len. (ft)	106.00	477.07	507.00

Crit W.S. (ft)	1160.06	Flow Area (sq ft)	28047.59	
E.G. Slope (ft/ft)	0.000307	Area (sq ft)	28047.59	
Q Total (cfs)	172000.00	Flow (cfs)	172000.00	
Top Width (ft)	1169.93	Top Width (ft)	1169.93	
Vel Total (ft/s)	6.13	Avg. Vel. (ft/s)	6.13	
Max Chl Dpth (ft)	30.20	Hydr. Depth (ft)	23.97	
Conv. Total (cfs)	9821482.0	Conv. (cfs)	9821482.0	
Length Wtd. (ft)	477.07	Wetted Per. (ft)	1184.03	
Min Ch El (ft)	1145.60	Shear (lb/sq ft)	0.45	
Alpha	1.00	Stream Power (lb/ft s)	2.78	
Frctn Loss (ft)	0.15	Cum Volume (acre-ft)	20345.56	2.15
C & E Loss (ft)	0.00	Cum SA (acres)	1170.81	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19458.91 LB	19539.50	3631.47	865.68	62.81	2.11	15.41	4.19
19539.50	19620.09	9477.06	1700.67	80.59	5.51	21.10	5.57
19620.09	19700.68	10063.08	1763.22	80.61	5.85	21.88	5.71
19700.68	19781.27	11146.35	1874.74	80.61	6.48	23.26	5.95
19781.27	19861.86	12452.81	2008.89	81.14	7.24	24.93	6.20
19861.86	19942.45	12948.88	2051.05	80.60	7.53	25.45	6.31
19942.45	20023.04	14137.92	2162.13	80.60	8.22	26.83	6.54
20023.04	20103.63	15173.52	2255.70	80.59	8.82	27.99	6.73
20103.63	20184.21	14389.88	2192.95	81.32	8.37	27.21	6.56
20184.21	20264.80	14418.42	2188.37	80.66	8.38	27.16	6.59
20264.80	20345.39	16575.71	2379.27	80.66	9.64	29.52	6.97
20345.39	20425.98	13186.11	2080.80	81.31	7.67	25.82	6.34
20425.98	20506.57	10286.93	1787.69	80.73	5.98	22.18	5.75
20506.57	20587.16	10044.09	1761.03	80.59	5.84	21.85	5.70
20587.16	20667.75 RB	4067.76	974.40	71.21	2.36	14.74	4.17

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19458.91 LB	19539.50	3631.60	865.73	62.81	2.11	15.41	4.19
19539.50	19620.09	9477.15	1700.73	80.59	5.51	21.10	5.57
19620.09	19700.68	10063.14	1763.29	80.61	5.85	21.88	5.71
19700.68	19781.27	11146.38	1874.81	80.61	6.48	23.26	5.95
19781.27	19861.86	12452.79	2008.96	81.14	7.24	24.93	6.20
19861.86	19942.45	12948.85	2051.12	80.60	7.53	25.45	6.31
19942.45	20023.04	14137.84	2162.20	80.60	8.22	26.83	6.54
20023.04	20103.63	15173.40	2255.77	80.59	8.82	27.99	6.73
20103.63	20184.21	14389.80	2193.02	81.32	8.37	27.21	6.56
20184.21	20264.80	14418.33	2188.44	80.66	8.38	27.16	6.59
20264.80	20345.39	16575.54	2379.34	80.66	9.64	29.52	6.97
20345.39	20425.98	13186.07	2080.87	81.31	7.67	25.82	6.34
20425.98	20506.57	10286.99	1787.76	80.73	5.98	22.18	5.75
20506.57	20587.16	10044.16	1761.10	80.59	5.84	21.85	5.70
20587.16	20667.75 RB	4067.98	974.46	71.21	2.37	14.74	4.17

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 224.22

INPUT
Description:
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19306.77	118519319.42	1184.9519339.82	1178.1219359.81	1171.21 19379.9	1164.06				
19400.1	1156.619407.09	1153.9419430.58	1153.9819454.42	1153.9419478.39	1153.92				
19499.01	1153.919519.71	1153.7419540.48	1153.5719561.31	1153.4319582.19	1153.31				
19603.12	1153.2 19627.6	1153.0619648.62	1152.8619669.67	1152.519694.26	1152.07				
19715.35	1151.519736.45	1150.9119757.55	1150.3819778.66	115019799.75	1149.86				
19820.82	1149.819845.38	1149.68 19862.9	1149.4519883.89	1148.8919897.86	1148.68				
19918.78	1148.719939.65	1148.7719960.45	1148.8219984.65	1148.8820005.31	1149.45				
20025.9	1149.420049.82	1149.2120073.61	1148.9520100.65	1148.8420124.16	1148.75				
20147.53	114920170.75	1149.2920187.23	1149.3920220.98	1149.420270.26	1149.67				
20312.26	1149.820350.95	1150.3320366.52	1153.33 20398.1	1154.6120459.08	1152.84				
20509.22	1155.220526.73	1169.9720530.71	1172.8620547.19	1172.06 20560.8	1184.84				

20565.55 1186.520569.82 1187.22 20574.8 1188.4420590.92 1191.8720598.08 1192.81
20608.57 1193.720654.24 1193.3620673.32 1193.2820746.65 1192.72

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19306.77	.05	19306.77	.03	20608.57	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19306.77	20608.57	404	110	67	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1175.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.		0.035	
E.G. Elev (ft)	1176.24	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1160.24	Flow Area (sq ft)		27965.27	
E.G. Slope (ft/ft)	0.000321	Area (sq ft)		27965.27	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1204.04	Top Width (ft)		1204.04	
Vel Total (ft/s)	6.15	Avg. Vel. (ft/s)		6.15	
Max Chl Dpth (ft)	26.97	Hydr. Depth (ft)		23.23	
Conv. Total (cfs)	9601033.0	Conv. (cfs)		9601033.0	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		1216.08	
Min Ch El (ft)	1148.68	Shear (lb/sq ft)		0.46	
Alpha	1.00	Stream Power (lb/ft s)		2.83	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	3048.17	20172.99	1507.68
C & E Loss (ft)	0.01	Cum SA (acres)	303.51	1166.23	317.81

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1175.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.59	Wt. n-Val.		0.035	
E.G. Elev (ft)	1176.24	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1160.24	Flow Area (sq ft)		27966.45	
E.G. Slope (ft/ft)	0.000321	Area (sq ft)		27966.45	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1204.04	Top Width (ft)		1204.04	
Vel Total (ft/s)	6.15	Avg. Vel. (ft/s)		6.15	
Max Chl Dpth (ft)	26.97	Hydr. Depth (ft)		23.23	
Conv. Total (cfs)	9601694.0	Conv. (cfs)		9601694.0	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		1216.08	
Min Ch El (ft)	1148.68	Shear (lb/sq ft)		0.46	
Alpha	1.00	Stream Power (lb/ft s)		2.83	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)		20038.83	2.15
C & E Loss (ft)	0.01	Cum SA (acres)		1157.81	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19306.77 LB	19393.56	1102.50	382.15	49.47	0.64	8.20	2.88
19393.56	19480.34	10413.55	1848.70	87.71	6.05	21.30	5.63
19480.34	19567.13	11026.12	1905.14	86.79	6.41	21.95	5.79
19567.13	19653.92	11496.60	1953.53	86.79	6.68	22.51	5.89
19653.92	19740.70	12573.03	2061.50	86.81	7.31	23.75	6.10
19740.70	19827.49	14209.89	2218.43	86.80	8.26	25.56	6.41
19827.49	19914.28	15030.06	2294.41	86.80	8.74	26.44	6.55
19914.28	20001.06	15373.82	2325.69	86.79	8.94	26.80	6.61
20001.06	20087.85	15028.68	2294.21	86.79	8.74	26.43	6.55
20087.85	20174.64	15285.09	2317.61	86.79	8.89	26.70	6.60
20174.64	20261.42	14812.02	2274.28	86.79	8.61	26.21	6.51
20261.42	20348.21	14425.45	2238.51	86.79	8.39	25.79	6.44
20348.21	20435.00	11149.76	1920.81	87.11	6.48	22.13	5.80
20435.00	20521.78	9879.80	1815.65	90.73	5.74	20.92	5.44
20521.78	20608.57 RB	193.63	114.65	33.13	0.11	3.92	1.69

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19306.77 LB	19393.56	1102.60	382.20	49.47	0.64	8.20	2.88
19393.56	19480.34	10413.64	1848.78	87.71	6.05	21.30	5.63
19480.34	19567.13	11026.19	1905.22	86.79	6.41	21.95	5.79

19567.13	19653.92	11496.66	1953.62	86.79	6.68	22.51	5.88
19653.92	19740.70	12573.05	2061.59	86.81	7.31	23.75	6.10
19740.70	19827.49	14209.84	2218.52	86.80	8.26	25.56	6.41
19827.49	19914.28	15029.97	2294.50	86.80	8.74	26.44	6.55
19914.28	20001.06	15373.71	2325.77	86.79	8.94	26.80	6.61
20001.06	20087.85	15028.59	2294.30	86.79	8.74	26.44	6.55
20087.85	20174.64	15285.00	2317.70	86.79	8.89	26.71	6.59
20174.64	20261.42	14811.94	2274.36	86.79	8.61	26.21	6.51
20261.42	20348.21	14425.38	2238.59	86.79	8.39	25.79	6.44
20348.21	20435.00	11149.82	1920.89	87.11	6.48	22.13	5.80
20435.00	20521.78	9879.90	1815.73	90.73	5.74	20.92	5.44
20521.78	20608.57 RB	193.70	114.68	33.13	0.11	3.92	1.69

BRIDGE RIVER: Salt River
REACH: Reach 4 RS: 224.21

INPUT
Description:
Distance from Upstream XS = 0
Deck/Roadway Width = 77
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 15

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19323.35	1190.4	118319503.35		1191	118319503.35		1191	1183
19523.85	1191.6	1183.419604.85		1192.8	1183.819604.85		1192.8	1183.8
19693.85	1193.8	1184.819788.85		1194.6	1185.619913.85		1195.1	1186.1
20043.85	1195.4	1186.420178.85		1195.4	1186.420319.35		1195.3	1186.3
20459.35	1194.6	1185.620643.35		1193.9	1184.920643.35		1193.9	1193.9

Upstream Bridge Cross Section Data
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19306.77	118519319.42	1184.9519339.82		1178.1219359.81		1171.21	19379.9	1164.06	
19400.1	1156.619407.09	1153.9419430.58		1153.9819454.42		1153.9419478.39		1153.92	
19499.01	1153.919519.71	1153.7419540.48		1153.5719561.31		1153.4319582.19		1153.31	
19603.12	1153.2 19627.6	1153.0619648.62		1152.8619669.67		1152.519694.26		1152.07	
19715.35	1151.519736.45	1150.9119757.55		1150.3819778.66		115019799.75		1149.86	
19820.82	1149.819845.38	1149.68 19862.9		1149.4519883.89		1148.8919897.86		1148.68	
19918.78	1148.719939.65	1148.7719960.45		1148.8219984.65		1148.8820005.31		1149.45	
20025.9	1149.420049.82	1149.2120073.61		1148.9520100.65		1148.8420124.16		1148.75	
20147.53	114920170.75	1149.2920187.23		1149.3920220.98		1149.420270.26		1149.67	
20312.26	1149.820350.95	1150.3320366.52		1153.33 20398.1		1154.6120459.08		1152.84	
20509.22	1155.220526.73	1169.9720530.71		1172.8620547.19		1172.06 20560.8		1184.84	
20565.55	1186.520569.82	1187.22 20574.8		1188.4420590.92		1191.8720598.08		1192.81	
20608.57	1193.720654.24	1193.3620673.32		1193.2820746.65		1192.72			

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19306.77	.0519306.77	.03520608.57		.05	

Bank Sta: Left	Right	Coeff Contr.	Expan.
19306.7	720608.57	.1	.3

Downstream Deck/Roadway Coordinates
num= 15

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19294.2	1190.4	1183	19474.2	1191	1183	19474.2	1191	1183
19494.7	1191.6	1183.4	19575.7	1192.8	1183.8	19575.7	1192.8	1183.8
19664.7	1193.8	1184.8	19759.7	1194.6	1185.6	19884.7	1195.1	1186.1
20014.7	1195.4	1186.4	20149.7	1195.4	1186.4	20290.2	1195.3	1186.3
20430.2	1194.6	1185.6	20614.2	1193.9	1184.9	20614.2	1193.9	1193.9

Downstream Bridge Cross Section Data
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19445.11	1184.819457.36	1174.9719470.77		1174.8819480.38		1164.9319485.98		1158.99	
19496.11	1158.419519.75	1157.7319543.45		1157.4719567.19		1157.2 19585.5		1156.85	
19594.94	1154.919615.68	1151.419639.88		1150.23 19662.5		1149.97 19682.4		1149.99	
19702.3	1150.119726.18	1149.8219746.07		1149.6619768.07		1149.5719783.14		1150.02	
19805.66	1149.819829.45	1149.6319853.19		1149.4119876.89		1149.1319892.65		1148.94	
19916.25	114919939.79	1149.0219951.53		1149.0520011.61		1149.1820015.14		1149.31	
20028.65	1149.2 20044.7	1149.2520087.99		1149.1420143.11		1149.14 20170.3		1149.31	
20276.33	1149.320304.88	1149.4320317.29		1149.620322.34		1150.5720486.04		1157.24	

```
20495.82  1156.920504.08 1157.3220507.02 1159.7920526.44 1173.8420542.14 1172.85
20544.44    117520552.57 1184.2420557.11 1185.8220587.76 1196.2620704.48 1194.79
20707.75  1194.8

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
19445.11     .0519445.11    .03520707.75     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
     19445.1120707.75             .1       .3

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  9

Pier Data
Pier Station     Upstream=   19515    Downstream=   19515
Upstream     num=       2
    Width   Elev    Width   Elev
      9    1150       9    1189
Downstream     num=       2
    Width   Elev    Width   Elev
      9    1150       9    1189

Pier Data
Pier Station     Upstream=   19595    Downstream=   19595
Upstream     num=       2
    Width   Elev    Width   Elev
      9    1150       9    1189
Downstream     num=       2
    Width   Elev    Width   Elev
      9    1150       9    1189

Pier Data
Pier Station     Upstream=   19685    Downstream=   19685
Upstream     num=       2
    Width   Elev    Width   Elev
      9    1150       9    1189
Downstream     num=       2
    Width   Elev    Width   Elev
      9    1150       9    1189

Pier Data
Pier Station     Upstream=   19780    Downstream=   19780
Upstream     num=       2
    Width   Elev    Width   Elev
      9    1150       9    1189
Downstream     num=       2
    Width   Elev    Width   Elev
      9    1150       9    1189

Pier Data
Pier Station     Upstream=   19905    Downstream=   19905
Upstream     num=       2
    Width   Elev    Width   Elev
      9    1150       9    1189
Downstream     num=       2
    Width   Elev    Width   Elev
      9    1150       9    1189

Pier Data
Pier Station     Upstream=   20035    Downstream=   20035
Upstream     num=       2
    Width   Elev    Width   Elev
      9    1150       9    1189
Downstream     num=       2
    Width   Elev    Width   Elev
      9    1150       9    1189

Pier Data
```

```
Pier Station      Upstream=   20170    Downstream=   20170
Upstream      num=        2
    Width   Elev    Width   Elev
        9   1150        9   1189
Downstream      num=        2
    Width   Elev    Width   Elev
        9   1150        9   1189

Pier Data
Pier Station      Upstream= 20310.5    Downstream= 20310.5
Upstream      num=        2
    Width   Elev    Width   Elev
        9   1150        9   1189
Downstream      num=        2
    Width   Elev    Width   Elev
        9   1150        9   1189

Pier Data
Pier Station      Upstream=   20450    Downstream=   20450
Upstream      num=        2
    Width   Elev    Width   Elev
        9   1150        9   1189
Downstream      num=        2
    Width   Elev    Width   Elev
        9   1150        9   1189

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Do not add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the downstream end
       Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT    Profile #PF#1
Opening : Bridge #1
```

E.G. US. (ft)	1176.24	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1175.65	E.G. Elev (ft)	1176.23	1176.15
Q Total (cfs)	172000.00	W.S. Elev (ft)	1175.54	1175.28
Q Bridge (cfs)	172000.00	Crit W.S. (ft)	1160.71	1161.35
Q Weir (cfs)		Max Chl Dpth (ft)	26.86	26.34
Weir Sta Lft (ft)		Vel Total (ft/s)	6.65	7.50
Weir Sta Rgt (ft)		Flow Area (sq ft)	25849.12	22946.36
Weir Submerg		Froude # Chl	0.24	0.28
Weir Max Depth (ft)		Specif Force (cu ft)	347987.41	317930.78
Min Top Rd (ft)	1190.90	Hydr Depth (ft)	23.03	22.79
Min El Prs (ft)	1186.40	W.P. Total (ft)	1575.34	1444.78
Delta EG (ft)	0.14	Conv. Total (cfs)	7086320.0	6155300.5
Delta WS (ft)	0.29	Top Width (ft)	1122.60	1006.72
BR Open Area (sq ft)	33371.63	Frctn Loss (ft)	0.05	0.02
BR Open Vel (ft/s)	7.50	C & E Loss (ft)	0.02	0.04
Coef of Q		Shear Total (lb/sq ft)	0.60	0.77
Br Sel Mthd	Energy only	Power Total (lb/ft s)	4.02	5.80

```
BRIDGE OUTPUT    Profile #PF#2
Opening : Bridge #1
```

E.G. US. (ft)	1176.24	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1175.65	E.G. Elev (ft)	1176.23	1176.16
Q Total (cfs)	172000.00	W.S. Elev (ft)	1175.54	1175.28
Q Bridge (cfs)	172000.00	Crit W.S. (ft)	1160.71	1161.35
Q Weir (cfs)		Max Chl Dpth (ft)	26.86	26.34
Weir Sta Lft (ft)		Vel Total (ft/s)	6.65	7.50
Weir Sta Rgt (ft)		Flow Area (sq ft)	25850.22	22947.34
Weir Submerg		Froude # Chl	0.24	0.28
Weir Max Depth (ft)		Specif Force (cu ft)	348011.13	317951.44

Min Top Rd (ft)	1190.90	Hydr Depth (ft)	23.03	22.79
Min El Prs (ft)	1186.40	W.P. Total (ft)	1575.36	1444.80
Delta EG (ft)	0.14	Conv. Total (cfs)	7086748.5	6155674.5
Delta WS (ft)	0.29	Top Width (ft)	1122.61	1006.72
BR Open Area (sq ft)	33371.63	Frctn Loss (ft)	0.05	0.02
BR Open Vel (ft/s)	7.50	C & E Loss (ft)	0.02	0.04
Coef of Q		Shear Total (lb/sq ft)	0.60	0.77
Br Sel Mthd	Energy only	Power Total (lb/ft s)	4.02	5.80

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 224.20

INPUT
Description:
Station Elevation Data num= 51

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19445.11	1184.819	457.36	1174.971	9470.77	1174.881	9480.38	1164.931	9485.98	1158.99
19496.11	1158.419	519.75	1157.731	9543.45	1157.471	9567.19	1157.2	19585.5	1156.85
19594.94	1154.919	615.68	1151.419	639.88	1150.23	19662.5	1149.97	19682.4	1149.99
19702.3	1150.119	726.18	1149.821	9746.07	1149.661	9768.07	1149.571	9783.14	1150.02
19805.66	1149.819	829.45	1149.631	9853.19	1149.411	9876.89	1149.131	9892.65	1148.94
19916.25	1149	19939.79	1149.021	9951.53	1149.052	0011.61	1149.182	0015.14	1149.31
20028.65	1149.2	20044.7	1149.252	0087.99	1149.142	0143.11	1149.14	20170.3	1149.31
20276.33	1149.32	0304.88	1149.432	0317.29	1149.62	0322.34	1150.572	0486.04	1157.24
20495.82	1156.92	0504.08	1157.322	0507.02	1159.792	0526.44	1173.842	0542.14	1172.85
20544.44	1175	20552.57	1184.242	0557.11	1185.822	0587.76	1196.262	0704.48	1194.79
20707.75	1194.8								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19445.11	.05	19445.11	.03	20707.75	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19445.11	20707.75	208	77	57	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1175.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.74	Wt. n-Val.		0.035	
E.G. Elev (ft)	1176.10	Reach Len. (ft)	208.00	77.00	57.00
Crit W.S. (ft)		Flow Area (sq ft)		24936.73	
E.G. Slope (ft/ft)	0.000412	Area (sq ft)		24936.73	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1087.88	Top Width (ft)		1087.88	
Vel Total (ft/s)	6.90	Avg. Vel. (ft/s)		6.90	
Max Chl Dpth (ft)	26.42	Hydr. Depth (ft)		22.92	
Conv. Total (cfs)	8469205.0	Conv. (cfs)		8469205.0	
Length Wtd. (ft)	77.00	Wetted Per. (ft)		1102.11	
Min Ch El (ft)	1148.94	Shear (lb/sq ft)		0.58	
Alpha	1.00	Stream Power (lb/ft s)		4.02	
Frctn Loss (ft)	0.03	Cum Volume (acre-ft)	3048.17	20111.72	1507.68
C & E Loss (ft)	0.00	Cum SA (acres)	303.51	1163.56	317.81

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1175.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.74	Wt. n-Val.		0.035	
E.G. Elev (ft)	1176.10	Reach Len. (ft)	208.00	77.00	57.00
Crit W.S. (ft)		Flow Area (sq ft)		24937.79	
E.G. Slope (ft/ft)	0.000412	Area (sq ft)		24937.79	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1087.87	Top Width (ft)		1087.87	
Vel Total (ft/s)	6.90	Avg. Vel. (ft/s)		6.90	
Max Chl Dpth (ft)	26.42	Hydr. Depth (ft)		22.92	
Conv. Total (cfs)	8469807.0	Conv. (cfs)		8469807.0	
Length Wtd. (ft)	77.00	Wetted Per. (ft)		1102.11	
Min Ch El (ft)	1148.94	Shear (lb/sq ft)		0.58	
Alpha	1.00	Stream Power (lb/ft s)		4.02	
Frctn Loss (ft)	0.03	Cum Volume (acre-ft)		19977.56	2.15
C & E Loss (ft)	0.00	Cum SA (acres)		1155.14	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19445.11 LB	19529.29	3652.00	879.50	79.36	2.12	12.15	4.15
19529.29	19613.46	9559.27	1607.57	84.64	5.56	19.10	5.95
19613.46	19697.64	15076.31	2108.91	84.24	8.77	25.05	7.15
19697.64	19781.81	15597.53	2151.84	84.19	9.07	25.56	7.25
19781.81	19865.99	15736.16	2163.23	84.18	9.15	25.70	7.27
19865.99	19950.17	16383.18	2216.15	84.18	9.53	26.33	7.39
19950.17	20034.34	16260.82	2206.21	84.18	9.45	26.21	7.37
20034.34	20118.52	16228.51	2203.55	84.18	9.44	26.18	7.36
20118.52	20202.69	16174.27	2199.13	84.18	9.40	26.13	7.35
20202.69	20286.87	16098.28	2192.92	84.18	9.36	26.05	7.34
20286.87	20371.04	14666.18	2075.02	84.31	8.53	24.65	7.07
20371.04	20455.22	11312.59	1775.17	84.25	6.58	21.09	6.37
20455.22	20539.40	5243.63	1147.53	89.69	3.05	13.63	4.57
20539.40	20623.57	11.26	9.99	6.37	0.01	1.87	1.13

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19445.11 LB	19529.29	3652.24	879.57	79.36	2.12	12.15	4.15
19529.29	19613.46	9559.43	1607.66	84.64	5.56	19.10	5.95
19613.46	19697.64	15076.26	2109.00	84.24	8.77	25.05	7.15
19697.64	19781.81	15597.45	2151.92	84.19	9.07	25.56	7.25
19781.81	19865.99	15736.07	2163.31	84.18	9.15	25.70	7.27
19865.99	19950.17	16383.06	2216.23	84.18	9.53	26.33	7.39
19950.17	20034.34	16260.72	2206.29	84.18	9.45	26.21	7.37
20034.34	20118.52	16228.41	2203.63	84.18	9.44	26.18	7.36
20118.52	20202.69	16174.17	2199.21	84.18	9.40	26.13	7.35
20202.69	20286.87	16098.19	2193.00	84.18	9.36	26.05	7.34
20286.87	20371.04	14666.14	2075.10	84.31	8.53	24.65	7.07
20371.04	20455.22	11312.68	1775.25	84.25	6.58	21.09	6.37
20455.22	20539.40	5243.89	1147.61	89.69	3.05	13.63	4.57
20539.40	20623.57	11.27	10.00	6.37	0.01	1.87	1.13

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 224.19

INPUT
Description:
Station Elevation Data num= 35

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19454.96	1184.4	19483.52	1161.3	19487.38	1157.16	19491.44	1156.9	19617.69	1156.67
19623.23	1156.8	19624.53	1156.44	19686.6	1149.44	19760.55	1149.14	19778.52	1149.69
19796.09	1149.6	19806.97	1149.79	19818.58	1149.63	19896.58	1149.73	19906.24	1149.71
19917.31	1149.9	20011.67	1149.21	20038.97	1149.24	20050.97	1149.33	20070.28	1149.38
20165.08	1149.4	20286.15	1149.36	20307.09	1149.41	20319.98	1149.68	20493.09	1156.87
20504.22	1157.2	20509.34	1160.32	20526.6	1174.2	20530.81	1177.2	20542.55	1177.03
20568.26	1190.3	20577.52	1195.95	20588.16	1198.34	20607.63	1198.16	20709.61	1197.44

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19454.96	.05	19454.96	.03	20709.61	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19454.96	20709.61	171	172.54	177	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1175.31	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.75	Wt. n-Val.		0.035	
E.G. Elev (ft)	1176.06	Reach Len. (ft)	75.00	75.00	75.00
Crit W.S. (ft)	1160.99	Flow Area (sq ft)		24729.63	
E.G. Slope (ft/ft)	0.000410	Area (sq ft)		24729.63	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1061.97	Top Width (ft)		1061.97	
Vel Total (ft/s)	6.96	Avg. Vel. (ft/s)		6.96	
Max Chl Dpth (ft)	26.17	Hydr. Depth (ft)		23.29	
Conv. Total (cfs)	8489667.0	Conv. (cfs)		8489667.0	
Length Wtd. (ft)	75.00	Wetted Per. (ft)		1075.47	
Min Ch El (ft)	1149.14	Shear (lb/sq ft)		0.59	
Alpha	1.00	Stream Power (lb/ft s)		4.10	
Frctn Loss (ft)	0.04	Cum Volume (acre-ft)	3048.17	20067.83	1507.68

C & E Loss (ft)	0.00	Cum SA (acres)	303.51	1161.66	317.81

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1175.31	Element			
Vel Head (ft)	0.75	Wt. n-Val.		0.035	
E.G. Elev (ft)	1176.06	Reach Len. (ft)	75.00	75.00	75.00
Crit W.S. (ft)	1160.99	Flow Area (sq ft)		24730.66	
E.G. Slope (ft/ft)	0.000410	Area (sq ft)		24730.66	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1061.96	Top Width (ft)		1061.96	
Vel Total (ft/s)	6.95	Avg. Vel. (ft/s)		6.95	
Max Chl Dpth (ft)	26.17	Hydr. Depth (ft)		23.29	
Conv. Total (cfs)	8490268.0	Conv. (cfs)		8490268.0	
Length Wtd. (ft)	75.00	Wetted Per. (ft)		1075.47	
Min Ch El (ft)	1149.14	Shear (lb/sq ft)		0.59	
Alpha	1.00	Stream Power (lb/ft s)		4.10	
Frctn Loss (ft)	0.04	Cum Volume (acre-ft)		19933.66	2.15
C & E Loss (ft)	0.00	Cum SA (acres)		1153.24	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19454.96 LB	19538.60	5598.34	1128.11	79.17	3.25	15.58	4.96
19538.60	19622.25	9198.21	1553.40	83.65	5.35	18.57	5.92
19622.25	19705.89	13173.11	1931.01	84.09	7.66	23.09	6.82
19705.89	19789.53	16085.73	2172.39	83.65	9.35	25.97	7.40
19789.53	19873.18	15746.51	2144.74	83.65	9.15	25.64	7.34
19873.18	19956.82	15669.19	2138.40	83.65	9.11	25.57	7.33
19956.82	20040.46	16079.67	2171.82	83.64	9.35	25.97	7.40
20040.46	20124.11	16059.94	2170.23	83.64	9.34	25.95	7.40
20124.11	20207.75	16031.11	2167.87	83.64	9.32	25.92	7.39
20207.75	20291.39	16053.56	2169.69	83.64	9.33	25.94	7.40
20291.39	20375.04	15044.67	2087.34	83.69	8.75	24.95	7.21
20375.04	20458.68	11832.78	1807.41	83.71	6.88	21.61	6.55
20458.68	20542.32	5427.17	1087.23	75.64	3.16	15.65	4.99

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19454.96 LB	19538.60	5598.56	1128.18	79.17	3.25	15.58	4.96
19538.60	19622.25	9198.39	1553.48	83.65	5.35	18.57	5.92
19622.25	19705.89	13173.13	1931.09	84.09	7.66	23.09	6.82
19705.89	19789.53	16085.64	2172.47	83.65	9.35	25.97	7.40
19789.53	19873.18	15746.42	2144.82	83.65	9.15	25.64	7.34
19873.18	19956.82	15669.11	2138.48	83.65	9.11	25.57	7.33
19956.82	20040.46	16079.58	2171.90	83.64	9.35	25.97	7.40
20040.46	20124.11	16059.84	2170.31	83.64	9.34	25.95	7.40
20124.11	20207.75	16031.01	2167.95	83.64	9.32	25.92	7.39
20207.75	20291.39	16053.47	2169.77	83.64	9.33	25.94	7.40
20291.39	20375.04	15044.62	2087.42	83.69	8.75	24.96	7.21
20375.04	20458.68	11832.86	1807.49	83.71	6.88	21.61	6.55
20458.68	20542.32	5427.39	1087.30	75.64	3.16	15.65	4.99

BRIDGE RIVER: Salt River
REACH: Reach 4 RS: 224.175

INPUT
Description:
Distance from Upstream XS = 75
Deck/Roadway Width = 61
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 11

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19452.47	1209.4	1209.419	452.47	1209.4	1196.419	588.47	1208.1	1195.1
19728.47	1206.8	1193.819	868.47	1205.5	1192.520	008.47	1204.3	1191.3
20148.47	1203	1190	20288.47	1201.7	1188.720	428.47	1200.5	1187.5
20568.47	1199.2	1186.220	595.67	1198.34	1198.34			

```
Upstream Bridge Cross Section Data
Station Elevation Data    num=      35
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
19454.96  1184.419483.52  1161.319487.38 1157.1619491.44  1156.919617.69 1156.67
19623.23  1156.819624.53 1156.44 19686.6 1149.4419760.55 1149.1419778.52 1149.69
19796.09  1149.619806.97 1149.7919818.58 1149.6319896.58 1149.7319906.24 1149.71
19917.31  1149.920011.67 1149.2120038.97 1149.2420050.97 1149.3320070.28 1149.38
20165.08  1149.420286.15 1149.3620307.09 1149.4120319.98 1149.6820493.09 1156.87
20504.22  1157.220509.34 1160.32 20526.6  1174.220530.81  1177.220542.55 1177.03
20568.26  1190.320577.52 1195.9520588.16 1198.3420607.63 1198.1620709.61 1197.44

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
19454.96     .0519454.96    .03520709.61     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19454.9620709.61             .1       .3

Downstream  Deck/Roadway Coordinates
    num=      11
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
19444.96  1209.4  1209.419444.96  1209.4  1196.419580.96  1208.1  1195.1
19720.96  1206.8  1193.819860.96  1205.5  1192.520000.96  1204.3  1191.3
20140.96    1203    119020280.96  1201.7  1188.720420.96  1200.5  1187.5
20560.96  1199.2  1186.220586.48 1198.21 1198.21

Downstream Bridge Cross Section Data
Station Elevation Data    num=      34
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
19462.47  1185.5 19469.8 1185.6619470.97 1184.7119497.84 1155.9919525.98 1154.16
19530.01  1154.219628.15 1155.8919643.87 1156.0819670.59 1149.4519675.68 1148.88
19725.27  1148.619728.27 1148.7119792.34 1148.5219832.02 1149.07 19874.4 1148.48
19892.65  1148.519931.19 1148.4319975.43 1149.2719996.04 1149.11   20002 1149.12
20067.69  1149.620173.33 1149.9120192.58  1149.9 20327.4 1150.2120410.35 1151.92
20443.52  1153.3 20500.1 1154.7220526.26 1170.9320528.13 1172.1620545.31 1177.82
20585.77    119720593.99 1198.2120639.84 1196.6520712.47 1196.03

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
19462.47     .0519462.47    .03520712.47     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19462.4720712.47             .1       .3

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  7

Pier Data
Pier Station     Upstream=   19590    Downstream=   19590
Upstream     num=       2
    Width   Elev    Width   Elev
       4    1150       4    1196
Downstream     num=       2
    Width   Elev    Width   Elev
       4    1150       4    1196

Pier Data
Pier Station     Upstream=   19730    Downstream=   19730
Upstream     num=       2
    Width   Elev    Width   Elev
       4    1150       4    1195
Downstream     num=       2
    Width   Elev    Width   Elev
       4    1150       4    1195

Pier Data
Pier Station     Upstream=   19870    Downstream=   19870
Upstream     num=       2
```

```
    Width   Elev    Width   Elev
      4    1150       4    1195
Downstream      num=        2
    Width   Elev    Width   Elev
      4    1150       4    1195

Pier Data
Pier Station     Upstream=   20010    Downstream=   20010
Upstream      num=        2
    Width   Elev    Width   Elev
      4    1150       4    1192
Downstream      num=        2
    Width   Elev    Width   Elev
      4    1150       4    1192

Pier Data
Pier Station     Upstream=   20150    Downstream=   20150
Upstream      num=        2
    Width   Elev    Width   Elev
      4    1150       4    1192
Downstream      num=        2
    Width   Elev    Width   Elev
      4    1150       4    1192

Pier Data
Pier Station     Upstream=   20290    Downstream=   20290
Upstream      num=        2
    Width   Elev    Width   Elev
      4    1150       4    1192
Downstream      num=        2
    Width   Elev    Width   Elev
      4    1150       4    1192

Pier Data
Pier Station     Upstream=   20430    Downstream=   20430
Upstream      num=        2
    Width   Elev    Width   Elev
      4    1150       4    1190
Downstream      num=        2
    Width   Elev    Width   Elev
      4    1150       4    1190

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
      Energy
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
      Energy Only

Additional Bridge Parameters
      Add Friction component to Momentum
      Do not add Weight component to Momentum
      Class B flow critical depth computations use critical depth
          inside the bridge at the downstream end
      Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT    Profile #PF#1
Opening : Bridge #1

  E.G. US. (ft)                1176.06   Element                 Inside BR US  Inside BR DS
  W.S. US. (ft)                1175.31   E.G. Elev (ft)               1176.02       1175.98
  Q Total (cfs)              172000.00   W.S. Elev (ft)               1175.22       1175.20
  Q Bridge (cfs)             172000.00   Crit W.S. (ft)               1161.19       1160.62
  Q Weir (cfs)                           Max Chl Dpth (ft)              26.08         26.77
  Weir Sta Lft (ft)                      Vel Total (ft/s)                7.18          7.07
  Weir Sta Rgt (ft)                      Flow Area (sq ft)           23957.38      24342.81
  Weir Submerg                           Froude # Chl                    0.26          0.26
  Weir Max Depth (ft)                    Specif Force (cu ft)       325429.69     335161.88
  Min Top Rd (ft)              1197.44   Hydr Depth (ft)                23.18         23.65
  Min El Prs (ft)              1198.34   W.P. Total (ft)              1384.41       1388.39
  Delta EG (ft)                   0.12   Conv. Total (cfs)          6804822.0     6974892.0
  Delta WS (ft)                   0.10   Top Width (ft)               1033.72       1029.49
  BR Open Area (sq ft)        41074.07   Frctn Loss (ft)                 0.04          0.02
  BR Open Vel (ft/s)              7.18   C & E Loss (ft)                 0.01          0.01
```

Coef of Q		Shear Total (lb/sq ft)	0.69	0.67
Br Sel Mthd	Energy only	Power Total (lb/ft s)	4.96	4.70

BRIDGE OUTPUT Profile #PF#2
Opening : Bridge #1

E.G. US. (ft)	1176.06	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1175.31	E.G. Elev (ft)	1176.02	1175.98
Q Total (cfs)	172000.00	W.S. Elev (ft)	1175.22	1175.20
Q Bridge (cfs)	172000.00	Crit W.S. (ft)	1161.19	1160.62
Q Weir (cfs)		Max Chl Dpth (ft)	26.08	26.77
Weir Sta Lft (ft)		Vel Total (ft/s)	7.18	7.07
Weir Sta Rgt (ft)		Flow Area (sq ft)	23958.39	24343.81
Weir Submerg		Froude # Chl	0.26	0.26
Weir Max Depth (ft)		Specif Force (cu ft)	325451.44	335184.03
Min Top Rd (ft)	1197.44	Hydr Depth (ft)	23.18	23.65
Min El Prs (ft)	1198.34	W.P. Total (ft)	1384.43	1388.41
Delta EG (ft)	0.12	Conv. Total (cfs)	6805238.5	6975316.5
Delta WS (ft)	0.10	Top Width (ft)	1033.72	1029.49
BR Open Area (sq ft)	41074.07	Frctn Loss (ft)	0.04	0.02
BR Open Vel (ft/s)	7.18	C & E Loss (ft)	0.01	0.01
Coef of Q		Shear Total (lb/sq ft)	0.69	0.67
Br Sel Mthd	Energy only	Power Total (lb/ft s)	4.95	4.70

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 224.16

INPUT
Description:
Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19462.47	1185.5	19469.8	1185.6	19470.97	1184.7	19497.84	1155.9	19525.98	1154.16
19530.01	1154.2	19628.15	1155.8	19643.87	1156.0	19670.59	1149.4	19675.68	1148.88
19725.27	1148.6	19728.27	1148.7	19792.34	1148.5	19832.02	1149.07	19874.4	1148.48
19892.65	1148.5	19931.19	1148.4	19975.43	1149.2	19996.04	1149.11	20002	1149.12
20067.69	1149.6	20173.33	1149.9	20192.58	1149.9	20327.4	1150.2	20410.35	1151.92
20443.52	1153.3	20500.1	1154.7	20526.26	1170.9	20528.13	1172.1	20545.31	1177.82
20585.77	1197	20593.99	1198.2	20639.84	1196.6	20712.47	1196.03		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19462.47	.05	19462.47	.03	20712.47	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19462.4	20712.47	143	110	83	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1175.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.73	Wt. n-Val.		0.035	
E.G. Elev (ft)	1175.94	Reach Len. (ft)	143.00	110.00	83.00
Crit W.S. (ft)		Flow Area (sq ft)		25043.76	
E.G. Slope (ft/ft)	0.000392	Area (sq ft)		25043.76	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1057.54	Top Width (ft)		1057.54	
Vel Total (ft/s)	6.87	Avg. Vel. (ft/s)		6.87	
Max Chl Dpth (ft)	26.78	Hydr. Depth (ft)		23.68	
Conv. Total (cfs)	8686949.0	Conv. (cfs)		8686949.0	
Length Wtd. (ft)	110.00	Wetted Per. (ft)		1072.35	
Min Ch El (ft)	1148.43	Shear (lb/sq ft)		0.57	
Alpha	1.00	Stream Power (lb/ft s)		3.93	
Frctn Loss (ft)	0.04	Cum Volume (acre-ft)	3048.17	19971.38	1507.68
C & E Loss (ft)	0.01	Cum SA (acres)	303.51	1157.53	317.81

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1175.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.73	Wt. n-Val.		0.035	
E.G. Elev (ft)	1175.95	Reach Len. (ft)	143.00	110.00	83.00
Crit W.S. (ft)		Flow Area (sq ft)		25044.78	
E.G. Slope (ft/ft)	0.000392	Area (sq ft)		25044.78	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1057.53	Top Width (ft)		1057.53	

Vel Total (ft/s)	6.87	Avg. Vel. (ft/s)	6.87	
Max Chl Dpth (ft)	26.78	Hydr. Depth (ft)	23.68	
Conv. Total (cfs)	8687554.0	Conv. (cfs)	8687554.0	
Length Wtd. (ft)	110.00	Wetted Per. (ft)	1072.35	
Min Ch El (ft)	1148.43	Shear (lb/sq ft)	0.57	
Alpha	1.00	Stream Power (lb/ft s)	3.93	
Frctn Loss (ft)	0.04	Cum Volume (acre-ft)	19837.21	2.15
C & E Loss (ft)	0.01	Cum SA (acres)	1149.11	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19462.47 LB	19545.80	5938.90	1154.01	74.35	3.45	17.50	5.15
19545.80	19629.14	10174.76	1668.54	83.34	5.92	20.02	6.10
19629.14	19712.47	13536.45	1988.17	84.18	7.87	23.86	6.81
19712.47	19795.80	16332.00	2216.31	83.34	9.50	26.60	7.37
19795.80	19879.14	16166.81	2202.87	83.34	9.40	26.43	7.34
19879.14	19962.47	16381.69	2220.39	83.34	9.52	26.64	7.38
19962.47	20045.80	15713.76	2165.60	83.34	9.14	25.99	7.26
20045.80	20129.14	15292.63	2130.54	83.33	8.89	25.57	7.18
20129.14	20212.47	15062.38	2111.24	83.33	8.76	25.33	7.13
20212.47	20295.80	14900.21	2097.58	83.33	8.66	25.17	7.10
20295.80	20379.14	14422.47	2057.05	83.34	8.39	24.68	7.01
20379.14	20462.47	12603.80	1897.53	83.38	7.33	22.77	6.64
20462.47	20545.80	5474.14	1133.92	80.41	3.18	15.13	4.83

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19462.47 LB	19545.80	5939.02	1154.07	74.35	3.45	17.50	5.15
19545.80	19629.14	10174.89	1668.63	83.34	5.92	20.02	6.10
19629.14	19712.47	13536.45	1988.26	84.18	7.87	23.86	6.81
19712.47	19795.80	16331.89	2216.40	83.34	9.50	26.60	7.37
19795.80	19879.14	16166.71	2202.95	83.34	9.40	26.44	7.34
19879.14	19962.47	16381.57	2220.47	83.34	9.52	26.65	7.38
19962.47	20045.80	15713.68	2165.68	83.34	9.14	25.99	7.26
20045.80	20129.14	15292.57	2130.62	83.33	8.89	25.57	7.18
20129.14	20212.47	15062.33	2111.33	83.33	8.76	25.34	7.13
20212.47	20295.80	14900.16	2097.66	83.33	8.66	25.17	7.10
20295.80	20379.14	14422.45	2057.13	83.34	8.39	24.69	7.01
20379.14	20462.47	12603.84	1897.61	83.38	7.33	22.77	6.64
20462.47	20545.80	5474.43	1134.00	80.41	3.18	15.14	4.83

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 224.14

INPUT
Description:
Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19459.38	1184.3	19465.68	1184.65	19492.45	1161.06	19501.14	1153.87	19528.15	1153.13
19553.94	1153.8	19572.95	1154.23	19596.91	1154.42	19636.97	1154.74	19650.11	1155.01
19674.08	1149.1	19693.35	1148.02	19723.32	1147.88	19756.48	1148.02	19761.35	1148.16
19767.39	1147.9	19780.71	1147.69	19806.34	1149.15	19837.03	1150.11	19847.77	1150.17
19872.55	1149.6	19907.37	1149.49	19941.64	1147.88	19965.67	1147.3	20043	1145.9
20045.27	1145.9	20095.82	1147.52	20130.45	1148.45	20186.83	1149.02	20227.38	1147.78
20233.86	1147.4	20251.42	1147.49	20319.37	1149.28	20347.59	1151.52	20414.65	1152.68
20471.19	1153.5	20498.3	1154.14	20528.1	1173.32	20537.21	1172.62	20541.83	1176.29
20559.39	1184.3	20602.79	1203.05	20607.89	1205.68	20610.22	1205.02	20665.75	1203.77

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19459.38	.05	19459.38	.03	20665.75	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19459.38	20665.75	312	86	56	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1175.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.		0.035	

E.G. Elev (ft)	1175.89	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1159.62	Flow Area (sq ft)		25869.50	
E.G. Slope (ft/ft)	0.000355	Area (sq ft)		25869.50	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1064.06	Top Width (ft)		1064.06	
Vel Total (ft/s)	6.65	Avg. Vel. (ft/s)		6.65	
Max Chl Dpth (ft)	29.30	Hydr. Depth (ft)		24.31	
Conv. Total (cfs)	9128054.0	Conv. (cfs)		9128054.0	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		1079.68	
Min Ch El (ft)	1145.90	Shear (lb/sq ft)		0.53	
Alpha	1.00	Stream Power (lb/ft s)		3.53	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	3048.17	19907.10	1507.68
C & E Loss (ft)	0.01	Cum SA (acres)	303.51	1154.86	317.81

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1175.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.		0.035	
E.G. Elev (ft)	1175.89	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1159.62	Flow Area (sq ft)		25870.54	
E.G. Slope (ft/ft)	0.000355	Area (sq ft)		25870.54	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1064.06	Top Width (ft)		1064.06	
Vel Total (ft/s)	6.65	Avg. Vel. (ft/s)		6.65	
Max Chl Dpth (ft)	29.30	Hydr. Depth (ft)		24.31	
Conv. Total (cfs)	9128656.0	Conv. (cfs)		9128656.0	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		1079.68	
Min Ch El (ft)	1145.90	Shear (lb/sq ft)		0.53	
Alpha	1.00	Stream Power (lb/ft s)		3.53	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)		19772.92	2.15
C & E Loss (ft)	0.01	Cum SA (acres)		1146.43	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19459.38 LB	19539.80	5393.43	1109.36	71.35	3.14	17.50	4.86
19539.80	19620.23	10049.30	1690.69	80.44	5.84	21.02	5.94
19620.23	19700.65	11897.34	1877.76	81.18	6.92	23.35	6.34
19700.65	19781.08	15506.60	2193.26	80.44	9.02	27.27	7.07
19781.08	19861.50	14147.38	2076.29	80.48	8.23	25.82	6.81
19861.50	19941.93	14322.70	2091.50	80.46	8.33	26.01	6.85
19941.93	20022.35	16377.66	2266.44	80.44	9.52	28.18	7.23
20022.35	20102.78	16781.61	2299.97	80.46	9.76	28.60	7.30
20102.78	20183.20	14975.33	2147.89	80.44	8.71	26.71	6.97
20183.20	20263.63	15402.05	2184.62	80.46	8.95	27.16	7.05
20263.63	20344.05	14431.69	2101.62	80.52	8.39	26.13	6.87
20344.05	20424.48	11720.41	1854.26	80.45	6.81	23.06	6.32
20424.48	20504.90	10378.80	1734.39	81.69	6.03	21.57	5.98
20504.90	20585.33	615.71	241.45	40.88	0.36	6.79	2.55

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19459.38 LB	19539.80	5393.49	1109.43	71.35	3.14	17.50	4.86
19539.80	19620.23	10049.43	1690.77	80.44	5.84	21.02	5.94
19620.23	19700.65	11897.40	1877.84	81.18	6.92	23.35	6.34
19700.65	19781.08	15506.53	2193.34	80.44	9.02	27.27	7.07
19781.08	19861.50	14147.36	2076.37	80.48	8.23	25.82	6.81
19861.50	19941.93	14322.66	2091.57	80.46	8.33	26.01	6.85
19941.93	20022.35	16377.55	2266.52	80.44	9.52	28.18	7.23
20022.35	20102.78	16781.47	2300.05	80.46	9.76	28.60	7.30
20102.78	20183.20	14975.28	2147.96	80.44	8.71	26.71	6.97
20183.20	20263.63	15401.97	2184.70	80.46	8.95	27.16	7.05
20263.63	20344.05	14431.65	2101.69	80.52	8.39	26.13	6.87
20344.05	20424.48	11720.48	1854.34	80.45	6.81	23.06	6.32
20424.48	20504.90	10378.92	1734.46	81.69	6.03	21.57	5.98
20504.90	20585.33	615.82	241.49	40.88	0.36	6.79	2.55

BRIDGE RIVER: Salt River
REACH: Reach 4 RS: 224.13

```
INPUT
Description:
Distance from Upstream XS =        0
Deck/Roadway Width        =       86
Weir Coefficient          =      2.6
Bridge Deck/Roadway Skew  =
Upstream  Deck/Roadway Coordinates
    num=       14
     Sta Hi Cord Lo Cord      Sta Hi Cord Lo Cord      Sta Hi Cord Lo Cord
19401.14  1223.5    121119441.14    1224  1211.219466.14  1224.3  1211.3
19466.14  1224.3  1211.319556.64  1225.3  1212.319666.64  1225.4  1212.4
19796.64  1224.4  1211.419921.64  1222.6  1209.620056.64  1219.8  1206.8
20211.64  1216.4  1203.420317.14  1212.9  1199.920452.14  1209.6  1196.6
20601.14  1206.2  1193.220601.14  1206.2  1206.2

Upstream Bridge Cross Section Data
Station Elevation Data    num=       45
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
19459.38  1184.319465.68 1184.6519492.45 1161.0619501.14 1153.8719528.15 1153.13
19553.94  1153.819572.95 1154.2319596.91 1154.4219636.97 1154.7419650.11 1155.01
19674.08  1149.119693.35 1148.0219723.32 1147.8819756.48 1148.0219761.35 1148.16
19767.39  1147.919780.71 1147.6919806.34 1149.1519837.03 1150.1119847.77 1150.17
19872.55  1149.619907.37 1149.4919941.64 1147.8819965.67  1147.3   20043  1145.9
20045.27  1145.920095.82 1147.5220130.45 1148.4520186.83 1149.0220227.38 1147.78
20233.86  1147.420251.42 1147.4920319.37 1149.2820347.59 1151.5220414.65 1152.68
20471.19  1153.5 20498.3 1154.14 20528.1 1173.3220537.21 1172.6220541.83 1176.29
20559.39  1184.320602.79 1203.0520607.89 1205.6820610.22 1205.0220665.75 1203.77

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
19459.38     .0519459.38    .03520665.75     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
     19459.3820665.75             .1       .3

Downstream  Deck/Roadway Coordinates
    num=       15
     Sta Hi Cord Lo Cord      Sta Hi Cord Lo Cord      Sta Hi Cord Lo Cord
19385.75  1223.4  1210.819425.75  1223.5    121119465.75    1224  1211.2
19490.75  1224.3  1211.319490.75  1224.3  1211.319581.25  1225.3  1212.3
19691.25  1225.4  1212.419821.25  1224.4  1211.419946.25  1222.6  1209.6
20081.25  1219.8  1206.820236.25  1216.4  1203.420341.75  1212.9  1199.9
20476.75  1209.6  1196.620625.75  1206.2  1193.220625.75  1206.2  1206.2

Downstream Bridge Cross Section Data
Station Elevation Data    num=       53
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
19369.76  1184.219371.43  1184.319388.01 1173.96 19406.3 1162.3619420.85 1153.01
   19443  1153.119456.81 1153.0219479.86 1152.6419493.71 1152.4719512.21  1152.5
19535.36  1152.819553.91 1153.0419577.12 1152.7919589.45 1152.8119599.62 1150.36
19605.85  1153.119622.93 1153.1419642.23 1150.9519656.19 1149.1819679.46 1148.78
19698.07  1148.419721.33 1147.8919744.57 1147.2219763.15 1146.9419786.35 1146.82
19810.52  1146.719828.03  1146.819851.13 1146.7319874.18 1146.6619897.18 1146.52
19920.11  1146.4 19944.7  1146.119961.23 1146.0519978.74    1146   20065 1145.41
20131.27  1145.620165.43 1146.5720181.92 1146.7720200.65 1146.2520287.16 1147.65
 20310.4  1148.320366.05 1152.6220390.37 1153.0120494.49 1154.3520512.13 1165.82
 20524.3  1174.120534.14 1173.7920536.49 1173.59 20548.4 1182.7820591.46 1201.71
20596.63  1203.8 20650.4 1204.6920658.52 1204.53

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
19369.76     .0519369.76    .03520658.52     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
     19369.7620658.52             .1       .3

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  9
```

```
Pier Data
Pier Station     Upstream=   19480    Downstream=   19480
Upstream     num=       2
    Width   Elev    Width   Elev
       9    1150       9    1213
Downstream     num=       2
    Width   Elev    Width   Elev
       9    1150       9    1213

Pier Data
Pier Station     Upstream=   19575    Downstream=   19575
Upstream     num=       2
    Width   Elev    Width   Elev
       9    1150       9    1213
Downstream     num=       2
    Width   Elev    Width   Elev
       9    1150       9    1213

Pier Data
Pier Station     Upstream=   19685    Downstream=   19685
Upstream     num=       2
    Width   Elev    Width   Elev
       9    1150       9    1213
Downstream     num=       2
    Width   Elev    Width   Elev
       9    1150       9    1213

Pier Data
Pier Station     Upstream=   19815    Downstream=   19815
Upstream     num=       2
    Width   Elev    Width   Elev
       9    1150       9    1213
Downstream     num=       2
    Width   Elev    Width   Elev
       9    1150       9    1213

Pier Data
Pier Station     Upstream=   19940    Downstream=   19940
Upstream     num=       2
    Width   Elev    Width   Elev
       9    1150       9    1210
Downstream     num=       2
    Width   Elev    Width   Elev
       9    1150       9    1210

Pier Data
Pier Station     Upstream=   20075    Downstream=   20075
Upstream     num=       2
    Width   Elev    Width   Elev
       9    1150       9    1208
Downstream     num=       2
    Width   Elev    Width   Elev
       9    1150       9    1208

Pier Data
Pier Station     Upstream=   20230    Downstream=   20230
Upstream     num=       2
    Width   Elev    Width   Elev
       9    1150       9    1204
Downstream     num=       2
    Width   Elev    Width   Elev
       9    1150       9    1204

Pier Data
Pier Station     Upstream=   20335    Downstream=   20335
Upstream     num=       2
    Width   Elev    Width   Elev
       9    1150       9    1200
Downstream     num=       2
    Width   Elev    Width   Elev
       9    1150       9    1200

Pier Data
Pier Station     Upstream=   20470    Downstream=   20470
Upstream     num=       2
```

Width	Elev	Width	Elev
9	1150	9	1200

Downstream num= 2

Width	Elev	Width	Elev
9	1150	9	1200

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data
Energy
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth inside the bridge at the downstream end
Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT Profile #PF#1
Opening : Bridge #1

		Element	Inside BR US	Inside BR DS
E.G. US. (ft)	1175.89	E.G. Elev (ft)	1175.88	1175.78
W.S. US. (ft)	1175.20	W.S. Elev (ft)	1175.07	1175.14
Q Total (cfs)	172000.00	Crit W.S. (ft)	1160.11	1158.70
Q Bridge (cfs)	172000.00	Max Chl Dpth (ft)	29.17	29.73
Q Weir (cfs)		Vel Total (ft/s)	7.20	6.43
Weir Sta Lft (ft)		Flow Area (sq ft)	23884.84	26730.47
Weir Sta Rgt (ft)		Froude # Chl	0.26	0.23
Weir Submerg		Specif Force (cu ft)	338965.34	384697.38
Weir Max Depth (ft)		Hydr Depth (ft)	24.28	24.95
Min Top Rd (ft)	1202.34	W.P. Total (ft)	1407.53	1551.24
Min El Prs (ft)	1212.40	Conv. Total (cfs)	6696150.5	7570990.5
Delta EG (ft)	0.14	Top Width (ft)	983.80	1071.37
Delta WS (ft)	0.00	Frctn Loss (ft)	0.05	0.00
BR Open Area (sq ft)	55339.68	C & E Loss (ft)	0.05	0.03
BR Open Vel (ft/s)	7.20	Shear Total (lb/sq ft)	0.70	0.56
Coef of Q		Power Total (lb/ft s)	5.03	3.57
Br Sel Mthd	Energy only			

BRIDGE OUTPUT Profile #PF#2
Opening : Bridge #1

		Element	Inside BR US	Inside BR DS
E.G. US. (ft)	1175.89	E.G. Elev (ft)	1175.88	1175.78
W.S. US. (ft)	1175.20	W.S. Elev (ft)	1175.07	1175.14
Q Total (cfs)	172000.00	Crit W.S. (ft)	1160.11	1158.70
Q Bridge (cfs)	172000.00	Max Chl Dpth (ft)	29.17	29.73
Q Weir (cfs)		Vel Total (ft/s)	7.20	6.43
Weir Sta Lft (ft)		Flow Area (sq ft)	23885.80	26731.38
Weir Sta Rgt (ft)		Froude # Chl	0.26	0.23
Weir Submerg		Specif Force (cu ft)	338987.16	384719.06
Weir Max Depth (ft)		Hydr Depth (ft)	24.28	24.95
Min Top Rd (ft)	1202.34	W.P. Total (ft)	1407.55	1551.26
Min El Prs (ft)	1212.40	Conv. Total (cfs)	6696547.5	7571357.0
Delta EG (ft)	0.14	Top Width (ft)	983.80	1071.38
Delta WS (ft)	0.00	Frctn Loss (ft)	0.05	0.00
BR Open Area (sq ft)	55339.68	C & E Loss (ft)	0.05	0.03
BR Open Vel (ft/s)	7.20	Shear Total (lb/sq ft)	0.70	0.56
Coef of Q		Power Total (lb/ft s)	5.03	3.57
Br Sel Mthd	Energy only			

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 224.12

INPUT
Description:
Station Elevation Data num= 53

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19369.76	1184.21	9371.43	1184.31	9388.01	1173.96	19406.3	1162.36	19420.85	1153.01
19443	1153.11	9456.81	1153.02	19479.86	1152.64	19493.71	1152.47	19512.21	1152.5
19535.36	1152.81	9553.91	1153.04	19577.12	1152.79	19589.45	1152.81	19599.62	1150.36

```
19605.85  1153.119622.93 1153.1419642.23 1150.9519656.19 1149.1819679.46 1148.78
19698.07  1148.419721.33 1147.8919744.57 1147.2219763.15 1146.9419786.35 1146.82
19810.52  1146.719828.03  1146.819851.13 1146.7319874.18 1146.6619897.18 1146.52
19920.11  1146.4 19944.7  1146.119961.23 1146.0519978.74    1146   20065 1145.41
20131.27  1145.620165.43 1146.5720181.92 1146.7720200.65 1146.2520287.16 1147.65
 20310.4  1148.320366.05 1152.6220390.37 1153.0120494.49 1154.3520512.13 1165.82
 20524.3  1174.120534.14 1173.7920536.49 1173.59 20548.4 1182.7820591.46 1201.71
20596.63  1203.8 20650.4 1204.6920658.52 1204.53

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
19369.76     .0519369.76    .03520658.52     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19369.7620658.52               54     337     429             .1       .3
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1175.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.55	Wt. n-Val.		0.035	
E.G. Elev (ft)	1175.75	Reach Len. (ft)	54.00	337.00	429.00
Crit W.S. (ft)		Flow Area (sq ft)		28900.78	
E.G. Slope (ft/ft)	0.000272	Area (sq ft)		28900.78	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1152.56	Top Width (ft)		1152.56	
Vel Total (ft/s)	5.95	Avg. Vel. (ft/s)		5.95	
Max Chl Dpth (ft)	29.79	Hydr. Depth (ft)		25.08	
Conv. Total (cfs)	10425235.0	Conv. (cfs)		10425235.0	
Length Wtd. (ft)	337.00	Wetted Per. (ft)		1166.91	
Min Ch El (ft)	1145.41	Shear (lb/sq ft)		0.42	
Alpha	1.00	Stream Power (lb/ft s)		2.50	
Frctn Loss (ft)	0.12	Cum Volume (acre-ft)	3048.17	19857.13	1507.68
C & E Loss (ft)	0.04	Cum SA (acres)	303.51	1152.83	317.81

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1175.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.55	Wt. n-Val.		0.035	
E.G. Elev (ft)	1175.75	Reach Len. (ft)	54.00	337.00	429.00
Crit W.S. (ft)		Flow Area (sq ft)		28901.76	
E.G. Slope (ft/ft)	0.000272	Area (sq ft)		28901.76	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1152.56	Top Width (ft)		1152.56	
Vel Total (ft/s)	5.95	Avg. Vel. (ft/s)		5.95	
Max Chl Dpth (ft)	29.79	Hydr. Depth (ft)		25.08	
Conv. Total (cfs)	10425805.0	Conv. (cfs)		10425805.0	
Length Wtd. (ft)	337.00	Wetted Per. (ft)		1166.91	
Min Ch El (ft)	1145.41	Shear (lb/sq ft)		0.42	
Alpha	1.00	Stream Power (lb/ft s)		2.50	
Frctn Loss (ft)	0.12	Cum Volume (acre-ft)		19722.96	2.15
C & E Loss (ft)	0.04	Cum SA (acres)		1144.40	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19369.76 LB	19455.68	4833.61	1156.10	76.13	2.81	16.60	4.18
19455.68	19541.59	10530.94	1936.16	85.92	6.12	22.54	5.44
19541.59	19627.51	10432.36	1933.25	86.82	6.07	22.50	5.40
19627.51	19713.43	13158.78	2215.23	86.14	7.65	25.78	5.94
19713.43	19799.35	15129.57	2406.42	85.93	8.80	28.01	6.29
19799.35	19885.26	15559.08	2447.05	85.92	9.05	28.48	6.36
19885.26	19971.18	15952.69	2484.03	85.92	9.27	28.91	6.42
19971.18	20057.10	16446.00	2529.80	85.92	9.56	29.45	6.50
20057.10	20143.02	16653.17	2548.94	85.92	9.68	29.67	6.53
20143.02	20228.93	15791.60	2469.16	85.94	9.18	28.74	6.40
20228.93	20314.85	14886.71	2383.35	85.95	8.66	27.74	6.25
20314.85	20400.77	11404.49	2032.43	86.08	6.63	23.66	5.61
20400.77	20486.69	9740.86	1847.67	85.93	5.66	21.51	5.27
20486.69	20572.60	1480.14	511.19	58.41	0.86	9.85	2.90

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19369.76 LB	19455.68	4833.71	1156.16	76.13	2.81	16.60	4.18
19455.68	19541.59	10531.03	1936.23	85.92	6.12	22.54	5.44
19541.59	19627.51	10432.45	1933.32	86.82	6.07	22.50	5.40
19627.51	19713.43	13158.79	2215.30	86.14	7.65	25.78	5.94
19713.43	19799.35	15129.51	2406.49	85.93	8.80	28.01	6.29
19799.35	19885.26	15559.01	2447.12	85.92	9.05	28.48	6.36
19885.26	19971.18	15952.60	2484.10	85.92	9.27	28.91	6.42
19971.18	20057.10	16445.90	2529.88	85.92	9.56	29.45	6.50
20057.10	20143.02	16653.06	2549.01	85.92	9.68	29.67	6.53
20143.02	20228.93	15791.52	2469.23	85.94	9.18	28.74	6.40
20228.93	20314.85	14886.67	2383.42	85.95	8.66	27.74	6.25
20314.85	20400.77	11404.55	2032.50	86.08	6.63	23.66	5.61
20400.77	20486.69	9740.97	1847.74	85.93	5.66	21.51	5.27
20486.69	20572.60	1480.24	511.24	58.41	0.86	9.85	2.90

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 224.06

INPUT
Description:
Station Elevation Data num= 220

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17003.84	1177.617	013.07	1178.221	7016.06	1178.161	7034.66	1179.021	7123.66	1179.97
17144.07	1179.617	155.38	1166.917	162.84	1157.491	7172.03	1156.441	7173.48	1156.39
17183.34	1144.517	184.69	1144.45	17194.9	1148.991	7202.37	1153.081	7204.24	1156.9
17217.74	1158.217	234.66	1160.031	7239.02	1160.861	7252.79	1173.551	7260.85	1177.15
17276.64	1182.7	17282.3	1182.711	7306.98	1182.917	7309.82	1182.88	17318.4	1179.63
17338.05	1180.817	366.31	1182.361	7380.12	1182.341	7385.13	1182.517	420.22	1182.52
17451.32	1182.217	507.92	1182.111	7537.23	1182.111	7591.97	1181.981	7637.72	1181.98
17693.32	1182.917	705.59	1182.917	736.82	1182.641	7758.68	1182.651	7801.52	1182.4
17831.63	1182.417	850.97	1182.381	7909.75	1181.291	7929.83	1180.861	8002.12	1180.6
18039.13	1180.218	055.07	1180.261	8079.91	1180.46	18092	1180.591	8102.85	1180.8
18112.84	1182.818	130.05	1181.451	8137.45	1182.211	8138.56	1182.061	8165.85	1182.74
18171.9	1182.1	18181.2	1181.781	8194.57	1181.781	8225.83	1182.131	8230.33	1182.26
18252.9	1193.618	266.15	1197.421	8274.76	1192.841	8280.31	1192.091	8293.74	1197.28
18303.53	119218	309.55	1189.791	8322.28	1184.11	8332.24	1186.65	18340.5	1192.92
18344.09	1190.118	359.18	1191.281	8377.55	1205.891	8383.23	1205.231	8388.46	1207.05
18394.99	1204.818	415.59	1203.091	8423.63	1202.31	8432.77	1204.581	8433.96	1203.64
18445.5	1195.918	457.41	1187.31	8462.31	1183.26	18485.1	1182.49	18507.5	1193.19
18525.17	1195.318	537.48	1195.591	8548.89	1186.171	8557.12	1185.521	8573.46	1184.67
18576.86	1183.618	582.63	1182.421	8595.61	1182.171	8647.54	1181.751	8675.35	1181.28
18739.74	1180.518	789.97	1181.311	8819.97	1186.531	8838.88	1187.351	8893.02	1189.08
18917.81	1188.918	934.77	1188.5	18952.9	1188.211	8968.14	1187.891	8979.66	1187.15
19017.37	1201.619	033.52	1205.851	9047.37	1206.241	9051.79	1206.151	9110.81	1206.29
19119.87	1206.7	19125.7	1206.751	9160.77	119019	9171.87	1183.451	9176.03	1181.17
19183.79	1178.519	198.04	1178.531	9216.49	1178.37	19223.1	1178.121	9238.22	1177.97
19250.3	1177.719	271.13	1176.981	9273.96	1176.781	9309.85	1179.041	9340.46	1178.18
19387.13	1178.519	410.86	1178.79	19449.2	1179.691	9455.36	1180.031	9495.71	1184.21
19502.23	1178.419	527.54	1153.151	9576.04	1152.781	9642.97	1152.51	9657.16	1152.5
19666.35	1151.219	700.36	1146.61	9719.22	1147.45	19757.1	1147.771	9766.98	1147.88
19814.43	1148.119	816.86	1148.221	9851.37	1148.231	9858.69	1148.091	9926.33	1148.15
19965.39	1148.319	995.18	1147.532	0002.72	1147.542	0044.52	1146.792	0077.23	1145.95
20136.56	1145.620	146.09	1145.922	0164.95	1146.262	0177.31	1148.012	0192.77	1151.26
20196.53	115220	218.06	1151.742	0240.17	1151.372	0268.47	1151.62	0313.93	1152.45
20352.05	1152.620	355.97	1152.742	0359.68	1155.792	0394.93	1182.992	0408.99	1183.47
20426.1	1177.320	439.74	1172.412	0463.71	1171.22	0466.41	1171.322	0483.19	1171.03
20488.65	117120	525.36	1171.262	0534.74	1171.232	0542.39	1171.552	0550.95	1171.74
20576.87	117220	580.84	1172.392	0597.13	1173.432	0612.26	1173.782	0670.68	1174.41
20682.75	1174.120	693.03	1174.042	0701.44	1174.312	0711.79	1174.352	0720.14	1174.79
20746.14	1174.620	766.04	1174.82	0781.52	1173.962	0796.58	1174.362	0808.59	1174.02
20833.3	1173.620	836.98	1173.642	0864.99	1173.422	0873.93	1174.332	0876.66	1174.75
20893.77	1179.1	20898	1180.492	0905.84	1180.432	0924.38	1181.642	0945.93	1182.55
20952.36	1182.720	977.21	1182.772	1016.96	1182.012	1048.39	1181.282	1143.31	1181.19
21162.41	1181.221	273.72	1181.26	21307.4	1181.3	21428.5	1181.992	1478.93	1182.21
21532.62	1182.221	585.14	1181.97	21606.3	1182.012	1621.25	1182.32	1691.57	1183.58
21753.76	1184.121	765.95	1184.342	1776.85	1184.382	1836.32	1184.92	1887.13	1185.18

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17003.84	.05	19495.71	.035	20408.99	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19495.71	20408.99	526	528	522	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17003.8	19495.71	1184.21	20408.99	21887.13	1183.47

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1174.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.99	Wt. n-Val.		0.035	
E.G. Elev (ft)	1175.58	Reach Len. (ft)	526.00	528.00	522.00
Crit W.S. (ft)	1160.26	Flow Area (sq ft)		21513.79	
E.G. Slope (ft/ft)	0.000511	Area (sq ft)	1739.69	21513.79	609.56
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1373.10	Top Width (ft)	106.59	878.00	388.50
Vel Total (ft/s)	7.99	Avg. Vel. (ft/s)		7.99	
Max Chl Dpth (ft)	30.14	Hydr. Depth (ft)		24.50	
Conv. Total (cfs)	7605271.5	Conv. (cfs)		7605271.5	
Length Wtd. (ft)	528.00	Wetted Per. (ft)		895.39	
Min Ch El (ft)	1145.60	Shear (lb/sq ft)		0.77	
Alpha	1.00	Stream Power (lb/ft s)		6.13	
Frctn Loss (ft)	0.19	Cum Volume (acre-ft)	3047.09	19662.12	1504.68
C & E Loss (ft)	0.06	Cum SA (acres)	303.45	1144.97	315.89

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1174.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.99	Wt. n-Val.		0.035	
E.G. Elev (ft)	1175.59	Reach Len. (ft)	526.00	528.00	522.00
Crit W.S. (ft)	1160.26	Flow Area (sq ft)		21514.54	
E.G. Slope (ft/ft)	0.000511	Area (sq ft)		21514.54	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	877.99	Top Width (ft)		877.99	
Vel Total (ft/s)	7.99	Avg. Vel. (ft/s)		7.99	
Max Chl Dpth (ft)	28.99	Hydr. Depth (ft)		24.50	
Conv. Total (cfs)	7605737.0	Conv. (cfs)		7605737.0	
Length Wtd. (ft)	528.00	Wetted Per. (ft)		895.38	
Min Ch El (ft)	1145.60	Shear (lb/sq ft)		0.77	
Alpha	1.00	Stream Power (lb/ft s)		6.13	
Frctn Loss (ft)	0.19	Cum Volume (acre-ft)		19527.93	2.15
C & E Loss (ft)	0.06	Cum SA (acres)		1136.55	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19495.71 LB	19556.60	4772.48	856.68	59.42	2.77	16.95	5.57
19556.60	19617.48	9776.31	1330.23	60.89	5.68	21.85	7.35
19617.48	19678.37	10309.60	1375.09	61.09	5.99	22.59	7.50
19678.37	19739.25	13893.64	1644.86	61.10	8.08	27.02	8.45
19739.25	19800.14	13685.20	1627.67	60.89	7.96	26.73	8.41
19800.14	19861.02	13418.60	1608.63	60.89	7.80	26.42	8.34
19861.02	19921.91	13463.91	1611.81	60.88	7.83	26.47	8.35
19921.91	19982.79	13414.29	1608.31	60.89	7.80	26.42	8.34
19982.79	20043.68	14143.97	1660.30	60.90	8.22	27.27	8.52
20043.68	20104.56	15171.62	1731.69	60.90	8.82	28.44	8.76
20104.56	20165.45	15455.37	1751.06	60.90	8.99	28.76	8.83
20165.45	20226.33	11563.31	1476.29	61.42	6.72	24.25	7.83
20226.33	20287.22	10663.55	1401.43	60.89	6.20	23.02	7.61
20287.22	20348.11	10050.77	1352.54	60.89	5.84	22.21	7.43
20348.11	20408.99 RB	2217.38	477.20	43.45	1.29	13.28	4.65

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19495.71 LB	19556.60	4772.64	856.72	59.42	2.77	16.95	5.57
19556.60	19617.48	9776.38	1330.28	60.89	5.68	21.85	7.35
19617.48	19678.37	10309.65	1375.14	61.09	5.99	22.59	7.50
19678.37	19739.25	13893.57	1644.91	61.10	8.08	27.02	8.45
19739.25	19800.14	13685.13	1627.73	60.89	7.96	26.73	8.41

19800.14	19861.02	13418.54	1608.68	60.89	7.80	26.42	8.34
19861.02	19921.91	13463.85	1611.87	60.88	7.83	26.47	8.35
19921.91	19982.79	13414.24	1608.36	60.89	7.80	26.42	8.34
19982.79	20043.68	14143.89	1660.35	60.90	8.22	27.27	8.52
20043.68	20104.56	15171.50	1731.74	60.90	8.82	28.44	8.76
20104.56	20165.45	15455.24	1751.11	60.90	8.99	28.76	8.83
20165.45	20226.33	11563.32	1476.34	61.42	6.72	24.25	7.83
20226.33	20287.22	10663.60	1401.48	60.89	6.20	23.02	7.61
20287.22	20348.11	10050.83	1352.60	60.89	5.84	22.21	7.43
20348.11	20408.99 RB	2217.61	477.23	43.44	1.29	13.28	4.65

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 223.96

INPUT
Description:
Station Elevation Data num= 191

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17290.78	1177.917	320.83	1178.42	17361.7	1179.551	7380.27	1179.721	7386.87	1179.92
17404.95	1180	17471.5	1180.221	7480.78	1180.121	7492.53	1176.851	7496.14	1175.14
17502.92	1175.51	7507.96	1175.161	7543.83	1171.891	7560.62	1171.221	7575.12	1171.02
17671.74	1168.61	7680.17	1168.591	7713.05	1168.021	7786.45	1167.511	7798.93	1167.27
17807.77	1167.2	17861.7	1168.741	7897.59	1167.44	17914	1167.651	7938.98	1167.61
17998.35	1168.11	8023.16	1167.871	8069.41	1167.851	8098.72	1167.481	8120.53	1167.87
18165.36	1168.51	8187.87	1167.761	8203.76	1167.831	8229.49	1168.721	8253.05	1179.48
18258.86	118	18269.05	1181.571	8295.91	1180.641	8319.74	1180.671	8349.66	1181.77
18351.15	1181.91	8375.11	1182.061	8385.22	1181.731	8410.31	1181.851	8450.73	1181.77
18464.05	1180.71	8468.09	1181.251	8477.99	1181.681	8495.56	1182.291	8499.89	1182.67
18508.06	1182.81	8532.64	1182.841	8549.68	1182.67	18559.9	1182.331	8571.25	1180.82
18579.22	1176.11	8585.62	1179.221	8587.54	1180.81	8588.93	1181.111	8610.18	1192.03
18617.78	1197.11	8626.93	1200.671	8631.39	1199.991	8638.83	1197.21	8666.77	1183.5
18676.38	1181.4	18718.9	1181.771	8731.97	1181.891	8763.09	1181.951	8776.07	1185.74
18789.71	1188.31	8807.57	1184.261	8812.37	1183.321	8837.29	1183.11	18870.5	1183.15
18875.61	1183.41	8896.52	1183.441	8904.39	1183.241	8913.84	1183.281	8934.54	1182.39
18976.3	1180.71	8985.12	1180.531	9009.01	1180.391	9064.88	1178.931	9075.85	1178.54
19130.89	1178.51	9138.47	1180.771	9168.01	1190.57	19190.2	1191.481	9196.43	1191.58
19242.3	1192.8	19260.3	1192.41	9269.65	1192.731	9280.12	1192.471	9311.73	1191.17
19313.7	1191.51	9318.54	1191.421	9324.95	1189.78	19331.8	1187.291	9338.26	1187.78
19347.2	1184.41	9355.81	1180.431	9369.44	1180.16	19394.5	1179.831	9402.58	1179.66
19415.83	1179.81	9502.56	1184.071	9532.64	1151.821	9564.13	1151.741	9590.64	1151.74
19601.3	115	19627.85	1151.67	19669.9	1151.61	9680.29	1151.931	9695.62	1147.83
19713.19	1144.11	9718.69	1142.881	9733.23	1142.91	19781.3	1142.31	9793.79	1142.57
19834.64	1142.91	9860.64	1143.31	9894.35	1144.031	9910.24	1144.271	9927.36	1143.68
19983.64	114	20008.49	1142.562	0010.74	1142.672	0053.57	1143.23	20071.3	1143.21
20092.99	1143.32	0135.07	1144.452	0150.98	1144.82	0176.07	1146.532	0180.63	1146.7
20204.61	1146.9	20227.3	1152.012	0256.68	1152.442	0266.01	1152.342	0304.78	1151.16
20322.65	1151.62	0365.32	1151.222	0375.82	1151.462	0413.44	1180.132	0415.97	1182.1
20428.34	1182.42	0446.79	1177.262	0459.16	1173.522	0472.94	1172.1	20479.4	1172.19
20479.58	1171.42	0486.84	1171.422	0513.93	1170.932	0518.25	1171.012	0540.35	1172.19
20564.84	1171.22	0569.69	1171.042	0584.83	1169.632	0630.89	1170.172	0631.43	1170.24
20652.15	1175.22	0685.65	1175.41	20700.1	1175.472	0709.49	1175.592	0722.72	1178.9
20752.73	1178.22	0764.21	1178.072	0778.08	1178.752	0785.94	1178.852	0793.11	1179.21
20804.58	1179.22	0827.54	1178.792	0853.71	1178.922	0865.07	1179.042	0889.56	1178.68
20922.25	1178.92	0934.34	1178.812	0976.72	1183.032	1090.21	1182.42	1129.92	1182.45
21285.66	1182.52	1367.62	1182.342	1496.27	1182.752	1584.34	1183.012	1687.67	1183.5
21789.4	1183.62	1885.23	1184.372	1939.98	1185.292	1986.39	1185.842	2072.68	1186.18
22118.62	1186.5								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17290.78	.05	19502.56	.03	20428.34	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19502.56	20428.34	523	547.79	537	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17290.78	19502.56	1184.07	20428.34	22118.62	1182.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1174.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.80	Wt. n-Val.		0.030	
E.G. Elev (ft)	1175.34	Reach Len. (ft)	523.00	547.79	537.00
Crit W.S. (ft)	1157.63	Flow Area (sq ft)		24011.87	
E.G. Slope (ft/ft)	0.000268	Area (sq ft)	4328.07	24011.87	640.16

Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1815.70	Top Width (ft)	727.45	894.65	193.60
Vel Total (ft/s)	7.16	Avg. Vel. (ft/s)		7.16	
Max Chl Dpth (ft)	32.24	Hydr. Depth (ft)		26.84	
Conv. Total (cfs)	10509460.0	Conv. (cfs)		10509460.0	
Length Wtd. (ft)	547.79	Wetted Per. (ft)		914.12	
Min Ch El (ft)	1142.30	Shear (lb/sq ft)		0.44	
Alpha	1.00	Stream Power (lb/ft s)		3.15	
Frctn Loss (ft)	0.18	Cum Volume (acre-ft)	3010.45	19386.21	1497.19
C & E Loss (ft)	0.02	Cum SA (acres)	298.41	1134.23	312.40

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1174.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.80	Wt. n-Val.		0.030	
E.G. Elev (ft)	1175.34	Reach Len. (ft)	523.00	547.79	537.00
Crit W.S. (ft)	1157.63	Flow Area (sq ft)		24012.64	
E.G. Slope (ft/ft)	0.000268	Area (sq ft)		24012.64	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	894.65	Top Width (ft)		894.65	
Vel Total (ft/s)	7.16	Avg. Vel. (ft/s)		7.16	
Max Chl Dpth (ft)	32.24	Hydr. Depth (ft)		26.84	
Conv. Total (cfs)	10510015.0	Conv. (cfs)		10510015.0	
Length Wtd. (ft)	547.79	Wetted Per. (ft)		914.13	
Min Ch El (ft)	1142.30	Shear (lb/sq ft)		0.44	
Alpha	1.00	Stream Power (lb/ft s)		3.15	
Frctn Loss (ft)	0.18	Cum Volume (acre-ft)		19252.01	2.15
C & E Loss (ft)	0.02	Cum SA (acres)		1125.81	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19502.56 LB	19564.28	4671.91	960.77	62.70	2.72	18.19	4.86
19564.28	19626.00	8875.05	1403.09	61.72	5.16	22.73	6.33
19626.00	19687.72	9000.36	1417.34	61.99	5.23	22.96	6.35
19687.72	19749.44	13948.88	1849.87	62.52	8.11	29.97	7.54
19749.44	19811.15	15699.70	1975.70	61.72	9.13	32.01	7.95
19811.15	19872.87	15271.75	1943.21	61.73	8.88	31.48	7.86
19872.87	19934.59	14577.26	1889.83	61.74	8.48	30.62	7.71
19934.59	19996.31	15143.31	1933.35	61.72	8.80	31.33	7.83
19996.31	20058.03	15394.20	1952.57	61.73	8.95	31.64	7.88
20058.03	20119.75	14972.24	1920.30	61.73	8.70	31.11	7.80
20119.75	20181.46	13622.71	1815.22	61.79	7.92	29.41	7.50
20181.46	20243.18	10605.65	1567.08	62.29	6.17	25.39	6.77
20243.18	20304.90	8763.47	1392.61	61.74	5.10	22.56	6.29
20304.90	20366.62	9141.21	1428.21	61.73	5.31	23.14	6.40
20366.62	20428.34 RB	2312.31	562.71	47.28	1.34	14.25	4.11

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19502.56 LB	19564.28	4671.95	960.82	62.71	2.72	18.19	4.86
19564.28	19626.00	8875.16	1403.14	61.72	5.16	22.73	6.33
19626.00	19687.72	9000.45	1417.39	61.99	5.23	22.97	6.35
19687.72	19749.44	13948.82	1849.92	62.52	8.11	29.97	7.54
19749.44	19811.15	15699.60	1975.75	61.72	9.13	32.01	7.95
19811.15	19872.87	15271.66	1943.27	61.73	8.88	31.49	7.86
19872.87	19934.59	14577.19	1889.89	61.74	8.48	30.62	7.71
19934.59	19996.31	15143.22	1933.41	61.72	8.80	31.33	7.83
19996.31	20058.03	15394.10	1952.62	61.73	8.95	31.64	7.88
20058.03	20119.75	14972.16	1920.35	61.73	8.70	31.11	7.80
20119.75	20181.46	13622.67	1815.28	61.79	7.92	29.41	7.50
20181.46	20243.18	10605.70	1567.13	62.29	6.17	25.39	6.77
20243.18	20304.90	8763.57	1392.67	61.74	5.10	22.56	6.29
20304.90	20366.62	9141.30	1428.26	61.73	5.31	23.14	6.40
20366.62	20428.34 RB	2312.47	562.75	47.28	1.34	14.25	4.11

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 223.86

INPUT
Description: Blocked obstructions coded in to model peirs for Red Mountain Freeway
Station Elevation Data num= 168

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17367.19	117	17370.88	1177.17	17379.66	1177.26	17380.26	1176.93	17410.61	1176.94
17449.52	117	17478.55	1178.35	17533.86	117	17544.45	1177.16	17593.39	1178.33
17606.33	1178.4	17636.5	1178.82	17673.07	1179.23	17758.25	1179.92	17768.1	1180.24
17777.85	1180.2	17837.63	1179.08	17882.72	1179.92	17888.26	1179.73	17897.27	1179.8
17911.38	1180.1	17934.46	1179.8	17943.61	1179.15	17990.72	1177.06	18017.23	1177.75
18051.11	1178.8	18067.92	1179.61	18088.59	1179.65	18095.98	1179.58	18161.69	1180.2
18180.05	1180.5	18194.78	1179.89	18230.18	1178.66	18289.57	1179.57	18309.08	1179.83
18360.12	1181.2	18376.67	1181.78	18438.88	1182.22	18484.2	1182.24	18509.57	1182.12
18540.25	1182.1	18562.71	1182.2	18573.58	1185.43	18588.83	1187.5	18604.17	1186.96
18625.08	118	18627.36	1189.29	18645.25	1188.96	18657.63	1190.91	18678.64	1193.13
18684.66	1193.1	18705.26	1190.24	18715.77	1189.5	18735.31	1182.84	18762.16	1182.74
18777.17	1182.9	18795.48	1182.88	18810.22	118	18865.29	1183.21	18887.58	1183.84
18890.48	118	18921.18	1184.76	18930.16	1184.84	18951.29	1184.89	18974.91	1184.67
18985.39	1183.8	19013.14	1183.35	19050.86	1183.98	19086.23	1184.3	19095.21	1184.73
19101.07	1185.3	19118.67	1185.34	19141.05	1186.01	19150.82	1185.83	19166.16	1185.68
19180.1	1187.6	19190.98	1190.02	19212.52	1185.95	19218.02	1184.41	19228.49	1183.92
19243.85	1184.3	19248.72	1184.22	19292.18	1182.8	19299.64	1182.88	19338.09	1183.98
19354.54	117	19371.78	1180.74	19380.11	1179.99	19383.68	1177.58	19387.45	1182.24
19409.6	1186.2	19420.76	1187.85	19430.15	1188.19	19440.89	1190.15	19468.54	1189.78
19482.11	1186.8	19546.16	1175.23	19697.12	1148.04	19722.4	1145.58	19795.69	1144.41
19806.6	1144.5	19856.27	1143.56	19878.51	1143.27	19932.14	1142.3	19968.62	1142.12
20004.61	1141.3	20047.17	1140.96	20068.21	1142.24	20091.45	1144.46	20112.69	1145.42
20132.42	1145.9	20167.92	1144.89	20193.16	1145.18	20216.62	1148.84	20220.22	1149.5
20251.22	1149.9	20277.92	1149.89	20301.76	1149.74	20352.98	1150.05	20366.1	1150.08
20389.64	1168.7	20403.14	1179.61	20404.29	1179.83	20418.22	1180.45	20437.42	1175.94
20469.85	1168.9	20491.48	1168.97	20538.34	1170.13	20588.95	1171.04	20612.23	1171.04
20640.07	1172.4	20670.81	1171.82	20709.86	1172.18	20727.45	1172.21	20735.22	1173.24
20744.18	1173.8	20764.63	1174.01	20815.04	1175.57	20828.27	1176.07	20877.21	1178.27
20885.03	1178.5	20920.53	1179.1	20950.61	1179.69	21007.41	1179.93	21032.37	1180.97
21039.44	1181.2	21062.37	1181.23	21124.51	1181.41	21172.99	1181.58	21242.53	1181.61
21320.88	1181.4	21380.01	1181.41	21435.05	1181.05	21488.03	1181.07	21551.13	1181.44
21624.86	118	21682.95	1181.99	21796.03	1182.04	21847.81	1182.18	21903.19	1182.18
22039.48	1182.4	22068.95	1182.66	22088.9	1182.71	22176.35	1183.97	22266.59	1183.92
22275.54	1184.1	22289.11	1184.01	22348	1184.64				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17367.19	.05	19482.11	.03	20418.22	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19482.1	20418.22	485	483.1	485	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17367.19	19482.11	1186.8	20418.22	22348	1180.45

Blocked Obstructions num= 5

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
19475.6	19484.5	1196.8	19535.1	19544	1196.8	19585	19594	1196.3
19645.1	19654	1196.3	19680.1	19688.9	1196.3			

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1174.11	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.03	Wt. n-Val.		0.030	
E.G. Elev (ft)	1175.13	Reach Len. (ft)	485.00	483.10	485.00
Crit W.S. (ft)	1157.82	Flow Area (sq ft)		21156.92	
E.G. Slope (ft/ft)	0.000414	Area (sq ft)		21156.92	901.17
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1139.08	Top Width (ft)		817.23	321.86
Vel Total (ft/s)	8.13	Avg. Vel. (ft/s)		8.13	
Max Chl Dpth (ft)	33.15	Hydr. Depth (ft)		25.89	
Conv. Total (cfs)	8448881.0	Conv. (cfs)		8448881.0	
Length Wtd. (ft)	483.10	Wetted Per. (ft)		924.15	
Min Ch El (ft)	1140.96	Shear (lb/sq ft)		0.59	
Alpha	1.00	Stream Power (lb/ft s)		4.82	
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	2984.47	19102.20	1487.69
C & E Loss (ft)	0.03	Cum SA (acres)	294.04	1123.47	309.23

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1174.11	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.03	Wt. n-Val.		0.030	
E.G. Elev (ft)	1175.13	Reach Len. (ft)	485.00	483.10	485.00
Crit W.S. (ft)	1157.82	Flow Area (sq ft)		21157.62	
E.G. Slope (ft/ft)	0.000414	Area (sq ft)		21157.62	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	817.23	Top Width (ft)		817.23	
Vel Total (ft/s)	8.13	Avg. Vel. (ft/s)		8.13	
Max Chl Dpth (ft)	33.15	Hydr. Depth (ft)		25.89	
Conv. Total (cfs)	8449295.0	Conv. (cfs)		8449295.0	
Length Wtd. (ft)	483.10	Wetted Per. (ft)		924.16	
Min Ch El (ft)	1140.96	Shear (lb/sq ft)		0.59	
Alpha	1.00	Stream Power (lb/ft s)		4.81	
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)		18967.99	2.15
C & E Loss (ft)	0.03	Cum SA (acres)		1115.04	0.71

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19544.52	19606.92	437.53	207.57	59.62	0.25	4.56	2.11
19606.92	19669.33	3216.93	807.88	89.36	1.87	15.10	3.98
19669.33	19731.74	7404.55	1402.50	101.62	4.30	26.16	5.28
19731.74	19794.15	15829.93	1820.64	62.42	9.20	29.17	8.69
19794.15	19856.55	16579.03	1871.87	62.42	9.64	29.99	8.86
19856.55	19918.96	17537.02	1936.00	62.41	10.20	31.02	9.06
19918.96	19981.37	18372.29	1990.80	62.41	10.68	31.90	9.23
19981.37	20043.78	19249.02	2047.26	62.41	11.19	32.81	9.40
20043.78	20106.18	17614.67	1943.05	62.57	10.24	31.13	9.07
20106.18	20168.59	15352.30	1787.69	62.44	8.93	28.65	8.59
20168.59	20231.00	14125.55	1704.01	62.75	8.21	27.31	8.29
20231.00	20293.41	11645.69	1514.32	62.41	6.77	24.26	7.69
20293.41	20355.81	11610.31	1511.53	62.41	6.75	24.22	7.68
20355.81	20418.22 RB	3025.15	611.78	48.90	1.76	15.10	4.94

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19544.52	19606.92	437.62	207.61	59.62	0.25	4.56	2.11
19606.92	19669.33	3217.04	807.93	89.37	1.87	15.10	3.98
19669.33	19731.74	7404.50	1402.55	101.62	4.30	26.16	5.28
19731.74	19794.15	15829.91	1820.69	62.42	9.20	29.17	8.69
19794.15	19856.55	16578.98	1871.92	62.42	9.64	29.99	8.86
19856.55	19918.96	17536.95	1936.05	62.41	10.20	31.02	9.06
19918.96	19981.37	18372.19	1990.86	62.41	10.68	31.90	9.23
19981.37	20043.78	19248.89	2047.32	62.41	11.19	32.81	9.40
20043.78	20106.18	17614.60	1943.10	62.57	10.24	31.14	9.07
20106.18	20168.59	15352.29	1787.75	62.44	8.93	28.65	8.59
20168.59	20231.00	14125.58	1704.07	62.75	8.21	27.31	8.29
20231.00	20293.41	11645.79	1514.38	62.41	6.77	24.27	7.69
20293.41	20355.81	11610.41	1511.59	62.41	6.75	24.22	7.68
20355.81	20418.22 RB	3025.26	611.82	48.90	1.76	15.10	4.94

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 223.77

INPUT
Description: Blocked obstructions coded in to model peirs for Red Mountain Freeway
Station Elevation Data num= 117

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

```
17399.57  1174.917400.26 1174.8917435.65 1177.6217438.58 1177.7217464.97 1182.29
17490.82  1187.517507.23 1190.8317538.98 1189.7317572.47 1188.9417652.84 1190.38
17717.62  1190.817732.88 1190.9717756.25 1191.4117849.87 1193.2117925.57 1194.57
17935.49  1194.717956.61 1194.7618028.33 1194.7818146.61    119618167.92 1196.28
18265.88  1197.318328.16 1198.1418391.93 1198.7418436.63 1198.8718530.47 1198.16
18546.24  1198.318609.96 1197.3318614.79 1197.2318649.62  1197.218678.23 1195.97
18755.94  1190.618764.14  1189.918779.31 1189.4518847.58 1187.8718973.11 1186.56
19074.07  1186.519128.87 1186.3919173.38 1186.3719195.67 1186.5519256.18 1186.83
19310.08  1186.219366.29 1185.4419430.72 1185.1519460.08 1173.0119515.79 1149.29
19531.09  1158.7   19571 1181.8519574.43 1181.2219580.27 1180.4519585.57 1180.59
19611.28  1155.719616.75 1150.3619722.66 1146.1519842.35 1141.0719875.23  1140.6
19909.34    114019911.41 1140.1219923.54 1139.8219962.82 1139.1919985.84 1139.44
20010.64  1141.120066.56 1143.2420078.64  1143.320088.48  1143.820108.47 1149.01
20113.16    115020144.65 1149.79   20155  1149.820187.85 1150.0320221.92 1150.18
20279.82  1150.520317.65 1177.9820330.93 1178.47 20338.8  1176.220354.89 1171.14
20385.37  1171.220434.76    117120469.72 1170.9420485.35 1170.7420529.34 1170.05
   20538    117020550.96 1170.2720575.01 1170.6620584.76 1171.0420607.11 1171.41
20617.58  1171.420654.99 1169.24   20670 1170.2520700.03 1172.4120706.85 1173.02
20752.86  1173.220757.87 1172.9420768.86 1172.8620817.61 1172.8720869.09  1173.7
20877.24  1173.820911.96    117420941.92 1174.0220951.19 1174.1221012.53 1177.47
21038.57    118021090.31 1179.75 21114.2 1179.7621128.06 1179.67 21293.1 1179.26
21306.94  1179.321471.68 1179.7621748.77 1179.7321778.35  1179.721842.42 1179.92
21980.15  1180.922038.55  1181.122203.83 1181.7122238.25    118322249.58 1183.18
22288.32  1183.6 22295.7  1183.6

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
17399.57     .05   19571     .0320330.93     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         1957120330.93              500     500     500              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
17399.57   19571 1181.8520330.93 22295.7 1178.47
Blocked Obstructions     num=       5
   Sta L   Sta R    Elev   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 19620.6 19629.5  1181.3 19668.1   19667  1181.3   19716   19725  1181.3
 19741.1   19750  1181.3 19776.1 19784.9  1181.3

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1173.52   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                1.34   Wt. n-Val.                            0.030
  E.G. Elev (ft)            1174.85   Reach Len. (ft)             500.00    500.00     500.00
  Crit W.S. (ft)            1158.27   Flow Area (sq ft)                   18530.30
  E.G. Slope (ft/ft)       0.000640   Area (sq ft)               1177.22  18530.30    1034.85
  Q Total (cfs)           172000.00   Flow (cfs)                         172000.00
  Top Width (ft)            1291.23   Top Width (ft)               97.78    683.03     510.42
  Vel Total (ft/s)             9.28   Avg. Vel. (ft/s)                      9.28
  Max Chl Dpth (ft)           34.33   Hydr. Depth (ft)                     27.13
  Conv. Total (cfs)       6800224.0   Conv. (cfs)                        6800224.0
  Length Wtd. (ft)           500.00   Wetted Per. (ft)                    918.82
  Min Ch El (ft)            1139.19   Shear (lb/sq ft)                      0.81
  Alpha                        1.00   Stream Power (lb/ft s)                7.48
  Frctn Loss (ft)              0.47   Cum Volume (acre-ft)       2977.92  18882.12    1476.91
  C & E Loss (ft)              0.05   Cum SA (acres)              293.50   1115.15     304.59


Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
                than 0.7 or greater than 1.4.  This may indicate the need for additional cross
sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1173.52   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                1.34   Wt. n-Val.                            0.030
  E.G. Elev (ft)            1174.86   Reach Len. (ft)             500.00    500.00     500.00
  Crit W.S. (ft)            1158.27   Flow Area (sq ft)                   18530.96
  E.G. Slope (ft/ft)       0.000640   Area (sq ft)                        18530.96
  Q Total (cfs)           172000.00   Flow (cfs)                         172000.00
  Top Width (ft)             683.03   Top Width (ft)                       683.03
  Vel Total (ft/s)             9.28   Avg. Vel. (ft/s)                      9.28
  Max Chl Dpth (ft)           34.33   Hydr. Depth (ft)                     27.13
  Conv. Total (cfs)       6800585.5   Conv. (cfs)                        6800585.5
  Length Wtd. (ft)           500.00   Wetted Per. (ft)                    918.83
```

Min Ch El (ft)	1139.19	Shear (lb/sq ft)	0.81	
Alpha	1.00	Stream Power (lb/ft s)	7.48	
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	18747.91	2.15
C & E Loss (ft)	0.05	Cum SA (acres)	1106.72	0.71

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19571.00 LB	19621.66	1350.94	365.48	60.42	0.79	13.18	3.70
19621.66	19672.32	7354.77	1049.84	66.52	4.28	24.52	7.01
19672.32	19722.99	8161.76	1145.80	70.81	4.75	26.23	7.12
19722.99	19773.65	5525.60	1134.20	123.93	3.21	28.53	4.87
19773.65	19824.31	7801.40	1288.13	101.54	4.54	30.77	6.06
19824.31	19874.97	18628.68	1644.54	50.68	10.83	32.46	11.33
19874.97	19925.63	19464.09	1688.31	50.67	11.32	33.32	11.53
19925.63	19976.29	20214.46	1726.94	50.67	11.75	34.09	11.71
19976.29	20026.96	19178.81	1674.15	50.73	11.15	33.05	11.46
20026.96	20077.62	17123.81	1563.61	50.69	9.96	30.86	10.95
20077.62	20128.28	13056.33	1336.69	51.45	7.59	26.38	9.77
20128.28	20178.94	11002.76	1198.87	50.66	6.40	23.66	9.18
20178.94	20229.61	10811.33	1186.31	50.66	6.29	23.42	9.11
20229.61	20280.27	10595.01	1172.99	50.77	6.16	23.15	9.03
20280.27	20330.93 RB	1730.26	354.44	38.61	1.01	11.35	4.88

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19571.00 LB	19621.66	1350.99	365.49	60.42	0.79	13.19	3.70
19621.66	19672.32	7354.78	1049.88	66.52	4.28	24.52	7.01
19672.32	19722.99	8161.74	1145.84	70.81	4.75	26.24	7.12
19722.99	19773.65	5525.53	1134.24	123.93	3.21	28.54	4.87
19773.65	19824.31	7801.29	1288.17	101.55	4.54	30.77	6.06
19824.31	19874.97	18628.59	1644.59	50.68	10.83	32.46	11.33
19874.97	19925.63	19463.97	1688.36	50.67	11.32	33.33	11.53
19925.63	19976.29	20214.31	1726.99	50.67	11.75	34.09	11.70
19976.29	20026.96	19178.70	1674.20	50.73	11.15	33.05	11.46
20026.96	20077.62	17123.77	1563.66	50.69	9.96	30.86	10.95
20077.62	20128.28	13056.42	1336.74	51.45	7.59	26.39	9.77
20128.28	20178.94	11002.91	1198.92	50.66	6.40	23.67	9.18
20178.94	20229.61	10811.49	1186.36	50.66	6.29	23.42	9.11
20229.61	20280.27	10595.18	1173.04	50.77	6.16	23.15	9.03
20280.27	20330.93 RB	1730.35	354.47	38.61	1.01	11.35	4.88

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 223.67

INPUT
Description: Blocked obstructions coded in to model peirs for Red Mountain Freeway
Station Elevation Data num= 143

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17393.92	1174.21	7397.09	1174.31	7410.06	1174.16	17421.92	1173.74	17422.7	1174.02
17432.28	1174.71	7474.71	1175.92	17490.58	1176.18	17543.03	1177.51	17545.63	1177.81
17545.69	1176.91	7584.93	1177.66	17602.38	1177.97	17620.23	1177.71	7703.92	1177.76
17729.11	1178.2	17762.6	1178.34	17826.6	1178.89	17885.7	1179.08	17969.34	1179.77
18026.5	1180.31	8099.63	1180.52	18162.88	1180.52	18214.49	1181.01	18259.08	1181.29

```
18289.38  1181.118339.18 1181.1318385.53 1181.3218410.31 1181.3718440.81 1181.58
18472.92    118218477.29 1183.6118502.05 1191.3118518.32 1191.6818621.65 1190.88
18625.47  1190.918754.67 1191.1718765.45 1191.1318771.58 1191.33 18783.9 1191.58
18793.14    118918803.45 1186.6918832.52 1184.9718883.33 1184.6318920.46  1183.6
18931.67  1183.218944.35 1183.3418964.16 1183.2118984.37 1182.6618996.56 1182.63
 19027.2  1182.719051.04 1182.9719091.19 1182.4119109.06 1182.6719141.05 1182.57
19144.53  1182.519149.05 1183.4119186.37 1190.0919193.74 1189.9719217.02 1189.24
19230.49  1189.5 19247.4 1188.9819282.55 1189.0319295.49 1190.5919303.51 1188.45
 19325.2  1186.319329.83 1186.14 19338.3 1188.6719368.01 1189.0619373.02 1189.19
19414.93  1187.319452.26 1187.08 19454.3 1187.0119461.55 1184.5119496.26 1169.42
19512.14  1175.119522.15 1177.1619543.81 1176.8119556.81 1176.3419582.32 1158.41
19592.31  1151.219664.56 1148.33 19675.2 1148.4319734.04 1148.3819799.85 1145.91
19955.27  1139.719975.38 1138.6219983.51 1138.2619991.27 1138.41 20043.6 1139.54
20069.12  1148.120070.93 1148.8420074.45 1148.7820121.96 1148.2920138.27 1148.74
20150.06  1148.920182.62 1149.5620204.53  1149.920230.48 1172.2220242.25 1170.91
20251.62  1176.120257.81 1176.7320264.06 1177.8220278.16 1172.2220293.04  1166.2
20295.38  1166.320345.27 1166.4320411.91 1167.1820425.61    116820439.72 1168.97
20456.21  1169.120480.02  1169.720494.61 1170.3820578.71 1172.7620588.37 1173.02
20677.11  1174.820709.86 1175.44 20740.1 1175.1420762.37 1174.9620829.95 1174.28
20889.57  1174.1 20927.7 1173.7820957.98 1174.1221027.95 1174.5921045.88 1174.79
21052.26  1176.221064.54 1178.2621129.54 1177.7221152.28 1177.6221179.46 1177.64
21247.92    117821376.63 1178.9921411.97 1178.9921452.36 1179.0521620.08 1179.05
21722.16  1179.221805.32 1178.8721922.37 1179.4921977.74 1179.7122095.91 1179.54
22121.69  1179.722231.49 1181.5222249.15  1181.8

Manning's n Values         num=        3
     Sta   n Val      Sta   n Val      Sta   n Val
17393.92     .0519522.15    .03520264.06     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19522.1520264.06            500.21  500.21  500.21              .1       .3
Ineffective Flow      num=        2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
17393.9219522.15 1177.1620264.0622249.15 1177.82
Blocked Obstructions      num=        5
   Sta L   Sta R    Elev   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 19753.1   19762  1180.3 19803.1   19812  1180.3   19843   19852  1180.3
 19893.1   19902  1180.3 19948.1 19956.9  1180.3

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1172.51   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                1.83   Wt. n-Val.                            0.035
  E.G. Elev (ft)            1174.34   Reach Len. (ft)             500.21    500.21     500.21
  Crit W.S. (ft)            1159.87   Flow Area (sq ft)                   15846.36
  E.G. Slope (ft/ft)       0.001519   Area (sq ft)                 24.26  15846.36    1121.15
  Q Total (cfs)           172000.00   Flow (cfs)                         172000.00
  Top Width (ft)             946.38   Top Width (ft)               15.72    638.36     292.29
  Vel Total (ft/s)            10.85   Avg. Vel. (ft/s)                      10.85
  Max Chl Dpth (ft)           34.25   Hydr. Depth (ft)                      24.82
  Conv. Total (cfs)        4413830.0  Conv. (cfs)                        4413830.0
  Length Wtd. (ft)           500.21   Wetted Per. (ft)                     942.95
  Min Ch El (ft)            1138.26   Shear (lb/sq ft)                      1.59
  Alpha                        1.00   Stream Power (lb/ft s)               17.29
  Frctn Loss (ft)              0.95   Cum Volume (acre-ft)      2971.02  18684.83    1464.54
  C & E Loss (ft)              0.08   Cum SA (acres)             292.85   1107.56     299.99


Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1172.51   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                1.83   Wt. n-Val.                            0.035
  E.G. Elev (ft)            1174.34   Reach Len. (ft)             500.21    500.21     500.21
  Crit W.S. (ft)            1159.87   Flow Area (sq ft)                   15847.14
  E.G. Slope (ft/ft)       0.001518   Area (sq ft)                        15847.14
  Q Total (cfs)           172000.00   Flow (cfs)                         172000.00
  Top Width (ft)             638.36   Top Width (ft)                       638.36
  Vel Total (ft/s)            10.85   Avg. Vel. (ft/s)                      10.85
  Max Chl Dpth (ft)           34.25   Hydr. Depth (ft)                      24.82
  Conv. Total (cfs)        4414152.0  Conv. (cfs)                        4414152.0
```

Length Wtd. (ft)	500.21	Wetted Per. (ft)	942.97	
Min Ch El (ft)	1138.26	Shear (lb/sq ft)	1.59	
Alpha	1.00	Stream Power (lb/ft s)	17.29	
Frctn Loss (ft)	0.95	Cum Volume (acre-ft)	18550.61	2.15
C & E Loss (ft)	0.08	Cum SA (acres)	1099.14	0.71

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19522.15 LB	19571.61	88.01	30.70	11.42	0.05	3.28	2.87
19571.61	19621.07	8961.02	916.71	54.19	5.21	18.53	9.78
19621.07	19670.53	14052.85	1158.03	49.50	8.17	23.41	12.14
19670.53	19719.99	14748.02	1191.72	49.46	8.57	24.10	12.38
19719.99	19769.45	7282.71	994.15	90.60	4.23	24.51	7.33
19769.45	19818.91	7958.78	1065.92	94.40	4.63	26.28	7.47
19818.91	19868.38	8782.59	1145.51	97.49	5.11	28.31	7.67
19868.38	19917.84	9598.58	1228.30	101.59	5.58	30.28	7.81
19917.84	19967.30	10390.20	1310.74	106.11	6.04	32.24	7.93
19967.30	20016.76	26032.79	1676.28	49.49	15.14	33.89	15.53
20016.76	20066.22	22539.93	1552.49	50.71	13.10	31.39	14.52
20066.22	20115.68	14571.27	1186.06	49.77	8.47	23.98	12.29
20115.68	20165.14	14425.11	1176.11	49.47	8.39	23.78	12.27
20165.14	20214.60	12135.81	1087.26	52.68	7.06	21.98	11.16
20214.60	20264.06 RB	432.32	126.37	36.08	0.25	4.14	3.42

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19522.15 LB	19571.61	88.06	30.71	11.42	0.05	3.29	2.87
19571.61	19621.07	8961.34	916.77	54.19	5.21	18.54	9.77
19621.07	19670.53	14053.03	1158.09	49.50	8.17	23.41	12.13
19670.53	19719.99	14748.17	1191.78	49.46	8.57	24.10	12.37
19719.99	19769.45	7282.64	994.20	90.60	4.23	24.51	7.33
19769.45	19818.91	7958.67	1065.97	94.40	4.63	26.28	7.47
19818.91	19868.38	8782.43	1145.56	97.50	5.11	28.31	7.67
19868.38	19917.84	9598.36	1228.35	101.59	5.58	30.28	7.81
19917.84	19967.30	10389.93	1310.79	106.11	6.04	32.24	7.93
19967.30	20016.76	26032.42	1676.34	49.49	15.14	33.89	15.53
20016.76	20066.22	22539.72	1552.55	50.71	13.10	31.39	14.52
20066.22	20115.68	14571.42	1186.12	49.77	8.47	23.98	12.28
20115.68	20165.14	14425.27	1176.17	49.47	8.39	23.78	12.26
20165.14	20214.60	12136.03	1087.32	52.68	7.06	21.98	11.16
20214.60	20264.06 RB	432.49	126.41	36.08	0.25	4.14	3.42

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 223.58

INPUT
Description: Blocked obstructions coded in to model peirs for Red Mountain Freeway
Station Elevation Data num= 149

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17435.18	1174.21	7453.68	1173.73	17463.54	1173.83	17467.25	1174.17	17508.23	1176.68

```
17517.29  1176.517527.22 1176.9217541.86 1176.7717713.93 1177.3817735.32 1177.08
17772.95  1177.617832.38 1177.5817851.84 1177.8217940.15 1176.4817947.86 1176.81
17956.22  1176.417977.35 1176.3918024.24 1175.2118056.96 1175.1618085.37 1175.94
18088.44  1176.318106.99 1178.2518120.64 1178.4818127.34  1178.718148.87 1177.81
 18214.7  1175.918233.87 1177.3918239.56 1177.87 18240.9 1178.57 18259.9 1181.46
18271.36  1184.218275.71 1184.15 18299.2  1182.818329.27 1183.2618340.62 1183.51
18349.34  1183.618414.51 1183.6618450.13 1183.5918458.45 1183.7518499.99 1183.82
18522.14  1184.118564.33 1184.2518584.51 1184.0418598.11 1183.9718611.54 1183.79
18635.76  1183.618651.95 1183.3818674.54  1183.518699.29 1183.5318708.13 1183.47
18776.04  1183.8 18804.8 1190.0618810.25    119018820.23  1188.118837.76 1183.48
18849.24  1181.318867.43 1175.4118875.28 1175.36 18923.3 1175.3819009.81 1175.37
19020.86  1175.419041.04 1175.2119124.57 1174.5419168.28  1173.419207.61 1172.49
19225.97  1172.619265.32 1172.54 19288.2 1172.0819302.41 1177.6919329.79 1187.75
19384.27  1187.519393.47 1187.47 19456.3  1187.219479.09 1176.5119488.35 1171.78
19492.22    117319502.01 1176.9119522.19  1174.819523.67 1173.6219553.21 1151.58
19560.44  1151.219605.69 1150.2519634.94 1149.9319664.77 1150.3519695.83 1151.16
19704.22  1148.419718.29 1144.3419731.09 1144.3119758.64 1144.0519830.68  1145.3
19907.88  1146.519982.52  1147.520019.67 1146.8620049.19 1148.0720073.47 1147.22
20089.26    114820151.23 1151.0420183.52 1171.9520186.51    1174 20196.9 1176.02
20210.58  1170.620219.04 1166.4720238.67 1161.6620241.79 1160.4920242.59 1160.55
20248.49  1158.320277.49 1160.7120280.55 1161.0220299.09 1163.2920322.39 1166.47
20329.43  1166.720389.83 1167.1320390.91 1167.1220443.51 1169.29 20467.7 1166.62
20506.97  1167.120537.88  1168.920555.63 1169.9220577.37 1170.5120628.48 1171.22
20692.86    117220704.62 1172.2720767.29 1175.8720792.93 1176.2520819.27 1175.42
20846.13  1174.4 20873.5 1173.4820960.44 1174.0920991.54 1174.2521004.17 1174.65
21018.88  1174.9 21056.8 1176.1721071.73 1176.5821079.62 1176.8721089.15 1176.84
21216.99  1177.321439.52 1177.46 21606.1 1177.5221625.18 1177.6221746.06 1177.96
21798.19    117821823.85 1177.8421958.38 1177.8521969.01 1177.9422028.24 1178.06
22089.21  1180.822096.49  1180.922148.85 1181.6922151.43 1181.68

Manning's n Values         num=       3
      Sta   n Val     Sta   n Val     Sta   n Val
17435.18     .0519502.01    .035 20196.9     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19502.01 20196.9               490   501.3     510             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
17435.1819502.01 1176.91 20196.922151.43 1176.02
Blocked Obstructions     num=       5
   Sta L   Sta R    Elev   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 19806.1   19815  1178.9 19856.1   19865  1178.9   19893   19902  1178.9
 19943.1   19952  1178.9 19998.1 20006.9  1178.9

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1170.70   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.61   Wt. n-Val.                              0.035
  E.G. Elev (ft)            1173.31   Reach Len. (ft)             490.00     501.30     510.00
  Crit W.S. (ft)            1162.04   Flow Area (sq ft)                    13275.04
  E.G. Slope (ft/ft)       0.002451   Area (sq ft)                         13275.04    1629.98
  Q Total (cfs)           172000.00   Flow (cfs)                          172000.00
  Top Width (ft)             990.19   Top Width (ft)                         609.50     380.69
  Vel Total (ft/s)            12.96   Avg. Vel. (ft/s)                        12.96
  Max Chl Dpth (ft)           26.65   Hydr. Depth (ft)                        21.78
  Conv. Total (cfs)       3474125.5   Conv. (cfs)                         3474125.5
  Length Wtd. (ft)           501.30   Wetted Per. (ft)                       867.39
  Min Ch El (ft)            1144.05   Shear (lb/sq ft)                         2.34
  Alpha                        1.00   Stream Power (lb/ft s)                  30.34
  Frctn Loss (ft)              0.96   Cum Volume (acre-ft)       2970.88   18517.62    1448.74
  C & E Loss (ft)              0.22   Cum SA (acres)              292.76    1100.40     296.12


Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m), between the current and previous cross
                section.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1170.70   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.61   Wt. n-Val.                              0.035
  E.G. Elev (ft)            1173.31   Reach Len. (ft)             490.00     501.30     510.00
  Crit W.S. (ft)            1162.04   Flow Area (sq ft)                    13275.93
  E.G. Slope (ft/ft)       0.002451   Area (sq ft)                         13275.93
```

Q Total (cfs)	172000.00	Flow (cfs)	172000.00	
Top Width (ft)	609.51	Top Width (ft)	609.51	
Vel Total (ft/s)	12.96	Avg. Vel. (ft/s)	12.96	
Max Chl Dpth (ft)	26.65	Hydr. Depth (ft)	21.78	
Conv. Total (cfs)	3474461.3	Conv. (cfs)	3474461.3	
Length Wtd. (ft)	501.30	Wetted Per. (ft)	867.41	
Min Ch El (ft)	1144.05	Shear (lb/sq ft)	2.34	
Alpha	1.00	Stream Power (lb/ft s)	30.34	
Frctn Loss (ft)	0.96	Cum Volume (acre-ft)	18383.39	2.15
C & E Loss (ft)	0.22	Cum SA (acres)	1091.97	0.71

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19502.01 LB	19548.34	1049.18	160.65	25.89	0.61	7.74	6.53
19548.34	19594.66	12444.63	903.55	47.55	7.24	19.50	13.77
19594.66	19640.99	13824.42	952.43	46.33	8.04	20.56	14.51
19640.99	19687.31	13525.67	940.07	46.34	7.86	20.29	14.39
19687.31	19733.64	17064.62	1090.10	47.35	9.92	23.53	15.65
19733.64	19779.97	21105.70	1227.68	46.33	12.27	26.50	17.19
19779.97	19826.29	9221.95	969.64	88.93	5.36	25.91	9.51
19826.29	19872.62	8884.20	941.18	87.30	5.17	25.15	9.44
19872.62	19918.94	8490.47	910.67	86.05	4.94	24.40	9.32
19918.94	19965.27	8241.49	889.18	84.77	4.79	23.76	9.27
19965.27	20011.60	8060.86	876.82	84.62	4.69	23.37	9.19
20011.60	20057.92	16954.31	1076.75	46.36	9.86	23.24	15.75
20057.92	20104.25	16516.82	1060.13	46.37	9.60	22.88	15.58
20104.25	20150.57	14116.64	964.88	46.38	8.21	20.83	14.63
20150.57	20196.90 RB	2499.06	311.33	36.82	1.45	10.04	8.03

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19502.01 LB	19548.34	1049.34	160.68	25.89	0.61	7.74	6.53
19548.34	19594.66	12444.90	903.61	47.55	7.24	19.51	13.77
19594.66	19640.99	13824.63	952.50	46.33	8.04	20.56	14.51
19640.99	19687.31	13525.90	940.14	46.34	7.86	20.29	14.39
19687.31	19733.64	17064.63	1090.17	47.35	9.92	23.53	15.65
19733.64	19779.97	21105.46	1227.74	46.33	12.27	26.50	17.19
19779.97	19826.29	9221.67	969.69	88.93	5.36	25.91	9.51
19826.29	19872.62	8883.95	941.23	87.30	5.17	25.15	9.44
19872.62	19918.94	8490.25	910.73	86.06	4.94	24.40	9.32
19918.94	19965.27	8241.29	889.23	84.77	4.79	23.76	9.27
19965.27	20011.60	8060.69	876.87	84.62	4.69	23.37	9.19
20011.60	20057.92	16954.34	1076.81	46.36	9.86	23.24	15.74
20057.92	20104.25	16516.87	1060.20	46.37	9.60	22.89	15.58
20104.25	20150.57	14116.83	964.95	46.38	8.21	20.83	14.63
20150.57	20196.90 RB	2499.28	311.37	36.83	1.45	10.04	8.03

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 223.48

INPUT

Description: Blocked obstructions coded in to model peirs for Red Mountain Freeway

Station Elevation Data num= 141

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17468.86	1173.717	485.33	1173.9	417486.96	1173.8	517507.81	1175	17516.7	1175.34
17525.57	117	617551.45	1174.9	217584.51	1175.3	817592.65	1174.8	517604.44	1174.52
17618.53	117	417652.51	1172.9	317687.42	1173.4	17698.97	1173.0	617728.44	1173.41
17800.52	1175.11	7862.46	1176.2	117911.24	1176.5	917948.63	1176.3	417982.99	1176.62
17997.88	1176.31	8008.97	1175.5	118030.49	1180.15	18061.8	1180.1	518172.19	1180.99
18175.23	118	118258.52	1180.6	918268.75	1180.6	118273.73	1180.6	918382.17	1180.84
18393.04	1180.81	8485.78	1180.9	518503.24	1180.9	518598.18	1180.6	18684.56	1181.47
18746.96	1181.91	8762.99	1181.2	718788.87	1180.3	518795.74	1179.9	218797.68	1179.96
18820.89	118	018832.43	1179.22	18858.5	1178.31	8864.04	1178.2	318955.78	1177.58
18966.64	1177.51	9038.35	1176.7	219132.86	1177.4	919135.49	1177.4	819205.03	1176.45
19253.95	1177.5	19271.4	1178.21	9284.61	1177.32	19304.1	1176.6	319310.74	1176.56
19315.32	1176.71	9332.95	1176.9	519353.73	1177.51	9405.75	1175.71	9424.88	1175.08
19452.58	1173.71	9456.54	1173.5	819476.03	1174.3	719480.82	1174.4	919489.74	1170.66
19502.46	1168.41	9503.91	1168.0	319506.02	1166.6	819533.24	1148.55	19572.3	1148.69
19598.3	1148.51	9621.24	1148.61	19656.3	1148.9	119664.93	1146.1	19676.86	1142.58
19706.28	1142.31	9720.85	1141.99	19764.5	1142.8	619776.65	1143.1	319797.04	1136.21
19802.89	1135.71	9830.38	1137.3	519993.78	1145.8	420044.25	1146.7	220093.25	1146.16
20100.36	1146.52	0151.25	1148.22	20179.7	1171.3	20189.71	1172.9	20199.48	1166.42
20211.56	1160.82	0223.63	1160.9	720242.43	1162.9	20248.79	1163.7	820261.76	1164.45
20302.27	1166.42	0307.51	1167.5	420322.47	1167.7	520348.96	1168.4	420362.51	1169.22
20387.23	1169.9	20413.1	1170.5	920486.02	1171.1	720526.99	1171.5	720572.38	1171.53
20639.45	1169.82	0676.82	1169.9	120696.25	1170.5	520713.38	1170.5	420778.73	1171.55
20799.79	1171.1	20813.8	1170.9	820850.58	1170.1	220863.64	1170.5	220883.97	1170.42
20933.04	1170.42	0952.93	1170.3	220964.22	1169.94	20980	1172.8	221002.71	1175.36
21048.56	1174.72	1066.64	1174.42	1092.34	1174.6	421145.45	1175.7	221207.02	1175.89
21264.12	1175.62	1293.11	1175.5	721416.28	1175.1	421437.16	1175.13	21556.1	1175.58
21702.94	1175.82	1838.59	1176.2	621851.05	1176.32	1941.47	1176.7	821974.26	1176.35
21988.51	1176.32	2017.24	1178.4	122039.31	1180.1	322064.99	1180.1	422104.44	1180.35
22184.55	1180.4								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17468.86	.05	19480.82	.03	520189.71	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19480.82	20189.71	450	527.75	610	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17468.86	19480.82	1174.49	20189.71	22184.55	1172.9

Blocked Obstructions num= 5

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
19883.1	19892	1177.9	19933.1	19942	1177.9	19971	19980	1177.9
20021.1	20030	1177.9	20074.1	20081.9	1177.9			

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1170.24	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.89	Wt. n-Val.		0.035	
E.G. Elev (ft)	1172.13	Reach Len. (ft)	450.00	527.75	610.00
Crit W.S. (ft)	1158.21	Flow Area (sq ft)		15601.74	
E.G. Slope (ft/ft)	0.001547	Area (sq ft)		15601.74	851.54
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	933.29	Top Width (ft)		642.79	290.50
Vel Total (ft/s)	11.02	Avg. Vel. (ft/s)		11.02	
Max Chl Dpth (ft)	34.54	Hydr. Depth (ft)		24.27	
Conv. Total (cfs)	4372728.0	Conv. (cfs)		4372728.0	
Length Wtd. (ft)	527.75	Wetted Per. (ft)		919.80	
Min Ch El (ft)	1135.70	Shear (lb/sq ft)		1.64	
Alpha	1.00	Stream Power (lb/ft s)		18.06	
Frctn Loss (ft)	0.70	Cum Volume (acre-ft)	2970.88	18351.46	1434.21
C & E Loss (ft)	0.12	Cum SA (acres)	292.76	1093.19	292.19

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1170.24	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.89	Wt. n-Val.		0.035	
E.G. Elev (ft)	1172.13	Reach Len. (ft)	450.00	527.75	610.00
Crit W.S. (ft)	1158.21	Flow Area (sq ft)		15601.74	
E.G. Slope (ft/ft)	0.001547	Area (sq ft)		15601.74	

Q Total (cfs)	172000.00	Flow (cfs)	172000.00	
Top Width (ft)	642.79	Top Width (ft)	642.79	
Vel Total (ft/s)	11.02	Avg. Vel. (ft/s)	11.02	
Max Chl Dpth (ft)	34.54	Hydr. Depth (ft)	24.27	
Conv. Total (cfs)	4372736.0	Conv. (cfs)	4372736.0	
Length Wtd. (ft)	527.75	Wetted Per. (ft)	919.80	
Min Ch El (ft)	1135.70	Shear (lb/sq ft)	1.64	
Alpha	1.00	Stream Power (lb/ft s)	18.06	
Frctn Loss (ft)	0.70	Cum Volume (acre-ft)	18217.23	2.15
C & E Loss (ft)	0.12	Cum SA (acres)	1084.77	0.71

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19480.82 LB	19528.08	1323.44	259.18	41.03	0.77	7.20	5.11
19528.08	19575.34	11513.94	1013.11	48.30	6.69	21.44	11.36
19575.34	19622.60	11894.01	1024.08	47.26	6.92	21.67	11.61
19622.60	19669.86	12140.28	1042.50	47.92	7.06	22.06	11.65
19669.86	19717.12	17816.75	1308.41	47.56	10.36	27.69	13.62
19717.12	19764.38	18065.70	1316.10	47.27	10.50	27.85	13.73
19764.38	19811.64	21083.35	1458.14	48.44	12.26	30.85	14.46
19811.64	19858.89	23549.09	1543.77	47.33	13.69	32.67	15.25
19858.89	19906.15	8988.17	1160.07	98.25	5.23	30.24	7.75
19906.15	19953.41	8109.00	1067.14	93.06	4.71	27.82	7.60
19953.41	20000.67	7087.36	966.94	89.00	4.12	25.27	7.33
20000.67	20047.93	6622.72	915.98	86.06	3.85	23.88	7.23
20047.93	20095.19	6846.63	939.69	87.27	3.98	23.82	7.29
20095.19	20142.45	13245.66	1092.69	47.29	7.70	23.12	12.12
20142.45	20189.71 RB	3713.91	493.93	43.76	2.16	13.74	7.52

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19480.82 LB	19528.08	1323.44	259.18	41.03	0.77	7.20	5.11
19528.08	19575.34	11513.93	1013.11	48.30	6.69	21.44	11.36
19575.34	19622.60	11894.00	1024.08	47.26	6.92	21.67	11.61
19622.60	19669.86	12140.27	1042.50	47.92	7.06	22.06	11.65
19669.86	19717.12	17816.73	1308.41	47.56	10.36	27.69	13.62
19717.12	19764.38	18065.69	1316.10	47.27	10.50	27.85	13.73
19764.38	19811.64	21083.33	1458.14	48.44	12.26	30.85	14.46
19811.64	19858.89	23549.07	1543.77	47.33	13.69	32.67	15.25
19858.89	19906.15	8988.16	1160.07	98.25	5.23	30.24	7.75
19906.15	19953.41	8108.99	1067.14	93.06	4.71	27.82	7.60
19953.41	20000.67	7087.35	966.94	89.00	4.12	25.27	7.33
20000.67	20047.93	6622.72	915.98	86.06	3.85	23.88	7.23
20047.93	20095.19	6846.63	939.69	87.27	3.98	23.82	7.29
20095.19	20142.45	13245.65	1092.69	47.29	7.70	23.12	12.12
20142.45	20189.71 RB	3714.05	493.93	43.76	2.16	13.74	7.52

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 223.38

INPUT
Description: Blocked obstructions coded in to model peirs for Red Mountain Freeway
Station Elevation Data num= 145

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17443.57	1172.717	469.17	1172.6517	472.12	1172.5717	502.47	1174.0417	503.12	1174.13
17515.36	1174	17539.87	1173.7617	549.87	1174.21	17554	1173.9517	618.72	1174.01
17667.28	1173.817	678.01	1173.2317	705.16	1173.1917	792.34	1173.5117	869.86	1174.29
17905.98	1174.217	975.22	1174.8618	026.22	1175.8118	052.96	1176.2118	094.37	1176.33
18140.28	1176.618	174.98	1176.9118	249.51	1177.3518	290.05	1177.7418	334.57	1177.42
18384.6	1177.218	451.79	1177.418	489.18	1177.3618	507.52	1177.5118	595.28	1177.82
18630.29	1178	18686.48	1177.41	18736.6	1177.1618	815.25	1178.4118	821.78	1178.81
18828.68	1179	18833.71	1178.7218	836.97	1177.0118	853.49	1178.3618	859.34	1177.94

```
18869.82  1177.518883.07  1176.518891.04 1176.3118959.53 1175.2318969.54 1175.34
19000.16  1175.819099.13 1175.7719110.15  1175.819328.17 1177.0319332.99 1176.96
19344.26  1176.5 19360.1  1176.719388.96  1177.2 19427.5  1176.719461.98 1175.08
19468.83  1173.219477.87 1172.2719507.02 1150.2219510.76 1147.5119528.88  1147.3
19562.92    114719579.13  1146.8   19604 1146.7919654.35 1147.1419661.36 1146.11
19677.61    114419708.18 1145.7119722.83 1146.31 19748.8 1145.4319774.66 1145.54
19779.91  1143.319802.56 1134.6219814.17 1135.7119818.14 1135.2419827.96  1138.8
19843.94  1137.419848.21 1137.4919890.58 1139.3219974.33 1139.9920062.58 1146.79
 20110.3  1146.420162.59 1149.07 20209.4 1149.6320217.02 1149.7620220.23  1152.3
20241.46  1170.220255.78 1171.1120267.63 1163.04 20279.2 1164.0820311.28 1167.96
20322.04  1168.320344.18 1170.7820351.65 1171.4420384.79 1171.7220387.03 1171.79
20428.23  1170.820433.41 1171.0220476.89 1173.2420488.72 1173.4520503.14 1172.86
20506.24  1172.5 20515.5  1172.420542.85 1171.2720581.77  1169.520602.73 1169.37
20638.01  1168.620666.54 1168.2520690.86 1167.7720705.46 1167.7620739.16 1167.35
20759.97  1167.320777.72 1167.2720800.77 1167.2320818.95 1166.9620824.36 1167.18
20843.58  1167.320867.25  1167.120909.37 1166.6720925.09 1166.4220948.23 1166.23
21016.51  1165.621034.09 1165.7421053.29 1166.0321132.01 1166.0221201.52 1165.54
21219.24  1164.721229.57 1164.5221301.52 1167.1221303.14  1167.2 21347.7 1172.31
21351.52  1172.221397.58 1170.2221426.37 1170.1321486.04  1169.921582.73 1169.82
21632.95  1169.821652.23  1169.921726.81 1169.6821746.38 1172.7821752.68  1172.8
21794.34  1174.621860.56 1175.4221905.08 1175.8421960.01 1176.05 21979.3 1176.61

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
17443.57     .0519388.96    .03520255.78     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19388.9620255.78           480.81  480.81  480.81             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
17443.5719388.96  1177.220255.78 21979.3    1175
Blocked Obstructions     num=       5
   Sta L   Sta R    Elev   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 19973.6 19780.5  1176.7 19826.1   19835  1176.7   19876   19885  1176.7
   19918   19927  1176.7 19963.1 19971.9  1176.7
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1169.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.48	Wt. n-Val.		0.035	
E.G. Elev (ft)	1171.31	Reach Len. (ft)	480.81	480.81	480.81
Crit W.S. (ft)	1157.04	Flow Area (sq ft)		17589.90	
E.G. Slope (ft/ft)	0.001141	Area (sq ft)		17589.90	2536.40
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1665.59	Top Width (ft)		724.21	941.37
Vel Total (ft/s)	9.78	Avg. Vel. (ft/s)		9.78	
Max Chl Dpth (ft)	35.21	Hydr. Depth (ft)		24.29	
Conv. Total (cfs)	5092340.0	Conv. (cfs)		5092340.0	
Length Wtd. (ft)	480.81	Wetted Per. (ft)		987.81	
Min Ch El (ft)	1134.62	Shear (lb/sq ft)		1.27	
Alpha	1.00	Stream Power (lb/ft s)		12.40	
Frctn Loss (ft)	0.54	Cum Volume (acre-ft)	2970.88	18150.40	1410.49
C & E Loss (ft)	0.03	Cum SA (acres)	292.76	1084.91	283.57

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1169.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.48	Wt. n-Val.		0.035	
E.G. Elev (ft)	1171.31	Reach Len. (ft)	480.81	480.81	480.81
Crit W.S. (ft)	1157.04	Flow Area (sq ft)		17589.90	
E.G. Slope (ft/ft)	0.001141	Area (sq ft)		17589.90	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	724.21	Top Width (ft)		724.21	
Vel Total (ft/s)	9.78	Avg. Vel. (ft/s)		9.78	
Max Chl Dpth (ft)	35.21	Hydr. Depth (ft)		24.29	
Conv. Total (cfs)	5092338.5	Conv. (cfs)		5092338.5	
Length Wtd. (ft)	480.81	Wetted Per. (ft)		987.81	
Min Ch El (ft)	1134.62	Shear (lb/sq ft)		1.27	
Alpha	1.00	Stream Power (lb/ft s)		12.40	
Frctn Loss (ft)	0.54	Cum Volume (acre-ft)		18016.16	2.15
C & E Loss (ft)	0.03	Cum SA (acres)		1076.49	0.71

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19446.75	19504.54	1040.59	207.73	29.38	0.60	8.86	5.01
19504.54	19562.32	13658.24	1289.27	59.30	7.94	22.31	10.59
19562.32	19620.11	14602.06	1328.26	57.79	8.49	22.98	10.99
19620.11	19677.90	15029.37	1353.40	58.00	8.74	23.42	11.10
19677.90	19735.69	16116.52	1409.90	57.85	9.37	24.40	11.43
19735.69	19793.48	17106.63	1474.92	59.22	9.95	25.52	11.60
19793.48	19851.26	13093.62	1629.75	113.50	7.61	33.34	8.03
19851.26	19909.05	11806.57	1516.43	110.70	6.86	31.08	7.79
19909.05	19966.84	8573.14	1356.80	135.47	4.98	30.12	6.32
19966.84	20024.63	13700.13	1475.68	82.73	7.97	27.99	9.28
20024.63	20082.42	15698.45	1388.30	57.90	9.13	24.02	11.31
20082.42	20140.20	14585.40	1327.68	57.83	8.48	22.98	10.99
20140.20	20197.99	12405.49	1204.74	57.82	7.21	20.85	10.30
20197.99	20255.78 RB	4583.79	627.04	50.31	2.66	14.57	7.31

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19446.75	19504.54	1040.58	207.73	29.39	0.60	8.86	5.01
19504.54	19562.32	13658.24	1289.27	59.30	7.94	22.31	10.59
19562.32	19620.11	14602.06	1328.26	57.79	8.49	22.98	10.99
19620.11	19677.90	15029.37	1353.40	58.00	8.74	23.42	11.10
19677.90	19735.69	16116.52	1409.90	57.85	9.37	24.40	11.43
19735.69	19793.48	17106.63	1474.92	59.22	9.95	25.52	11.60
19793.48	19851.26	13093.62	1629.75	113.50	7.61	33.34	8.03
19851.26	19909.05	11806.57	1516.43	110.70	6.86	31.08	7.79
19909.05	19966.84	8573.14	1356.80	135.47	4.98	30.12	6.32
19966.84	20024.63	13700.13	1475.68	82.73	7.97	27.99	9.28
20024.63	20082.42	15698.45	1388.30	57.90	9.13	24.02	11.31
20082.42	20140.20	14585.40	1327.68	57.83	8.48	22.98	10.99
20140.20	20197.99	12405.49	1204.74	57.82	7.21	20.85	10.30
20197.99	20255.78 RB	4583.79	627.04	50.31	2.66	14.57	7.31

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 223.29

INPUT
Description: Blocked obstructions coded in to model peirs for Red Mountain Freeway
Station Elevation Data num= 158

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17523.28	1171.51	7532.04	1171.74	17570.98	1174.03	17586.45	1174.53	17601.92	1174.03
17621.04	1172.71	7657.59	1172.73	17666.52	1172.38	17718.53	1172.53	17857.57	1171.59
17875.54	1171.61	7943.75	1170.81	18052.73	1170.21	8093.27	1170.03	18123.63	1170.38
18177.13	1170.11	8196.72	1170.21	8226.42	1170.12	18258.72	1169.64	18261.75	1169.74
18310.58	1168.91	8320.26	1168.04	18343.64	1168.31	18370.64	1168.09	18423.69	1168.55
18437.48	1168.81	8479.02	1169.36	18503.96	1169.81	18511.25	1169.85	18550.64	1170.34
18589.58	1170.11	8614.87	1170.18	18676.6	1170.36	18688.14	1170.25	18752.22	1170.61
18789.11	1170.61	8874.93	1170.46	18925.8	1170.28	18940.63	1170.34	18949.12	1170.46
18987.3	1172.31	8999.12	1172.62	19016.09	1173.39	19038.27	1166.46	19052.06	1165.22
19076.24	1163.41	9080.55	1162.71	9095.35	1162.43	19129.46	1163.15	19147.44	1163.59
19179.41	1163.61	9261.31	1163.91	9273.46	1163.69	19338.09	1163.66	19350.24	1163.38
19395.52	1163.11	9425.94	1163.02	19441.51	1161.28	19447.31		116319477.37	1171.6
19497.4	1172.41	9507.93	1164.13	19528.09	1148.83	19568.15	1148.28	19591.39	1147.99
19667.15		114819672.73	1148.07	19706.82	1140.73	19728.93	1140.64	19735.54	1140.7
19744.68		114119777.17	1142.35	19803.56	1144.96	19821.96	1146.92	19849.3	1142.92
19865.29	1139.91	9870.05	1140.21	19880.78	1140.03	19896.74		114019911.18	1141.29
19931.76	1143.51	9933.34	1143.36	19972.81	1142.49	20118.81	1146.88	20172.68	1148.59
20209.36	1148.92	0241.49	1148.49	20271.36	1148.22	20284.31	1148.74	20307.48	1149.86
20320.29	1157.82	0341.89	1171.53	20351.2	1172.52	20353.34	1172.32	20379.75	1171.36
20382.89	1171.52	0409.35	1171.82	20416.05	1172.55	20423.83	1172.43	20442.01	1170.46
20460.02	1170.52	0478.55	1170.27	20520.6	1169.62	20548.31	1169.62	20549.7	1169.09
20562.52	1170.92	0582.01	1171.88	20585.81	1171.34	20601.09	1171.83	20631	1168.25

```
20637.44  1168.120669.02 1166.6620684.23 1166.2420725.61 1165.7420759.01 1165.69
20789.16  1165.820808.47 1165.8220844.88  1166.620872.96  1166.520965.66 1166.78
 21027.3  1166.721076.07 1166.5321110.08 1166.0321152.18 1166.08 21209.5 1166.28
21239.51  1166.321296.16 1166.6121300.44 1166.3621319.68 1166.2421367.52 1166.53
21398.73  1167.721420.45 1168.2821437.21 1170.5321446.59 1171.9121469.74 1170.65
21504.06  1168.421516.67 1169.8221549.22 1169.7221605.44 1170.0321625.62 1170.33
21665.96  1170.721685.93 1170.8621724.02 1170.9221739.49 1171.2321772.55 1171.24
21787.21  1171.5 21818.2 1171.3921856.22 1171.5621897.66 1171.7221913.09 1171.75
21918.05  1172.121942.88 1173.6521952.02 1174.8121992.43  1173.822007.99 1177.62
22011.51  1179.122013.78 1179.1422096.38 1178.31

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
17523.28     .05 19497.4    .035 20351.2     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       19497.4 20351.2           521.09  521.09  521.09             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
17523.28 19497.4  1172.4 20351.222096.38  1172.5
Blocked Obstructions     num=       5
   Sta L   Sta R    Elev   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 19964.6 19973.5  1181.5 20013.1   20022  1181.5   20063   20072  1181.5
   20098   20107  1181.5 20148.1 20156.9  1181.5

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1169.35   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                1.40   Wt. n-Val.                            0.035
  E.G. Elev (ft)            1170.74   Reach Len. (ft)             521.09    521.09     521.09
  Crit W.S. (ft)            1157.37   Flow Area (sq ft)                   18141.91
  E.G. Slope (ft/ft)       0.001114   Area (sq ft)               2627.98  18141.91    2299.53
  Q Total (cfs)           172000.00   Flow (cfs)                         172000.00
  Top Width (ft)            2258.16   Top Width (ft)              633.75    792.56     831.85
  Vel Total (ft/s)             9.48   Avg. Vel. (ft/s)                      9.48
  Max Chl Dpth (ft)           29.45   Hydr. Depth (ft)                     22.89
  Conv. Total (cfs)        5153064.5  Conv. (cfs)                        5153064.5
  Length Wtd. (ft)           521.09   Wetted Per. (ft)                    1048.33
  Min Ch El (ft)            1139.90   Shear (lb/sq ft)                      1.20
  Alpha                        1.00   Stream Power (lb/ft s)               11.41
  Frctn Loss (ft)              0.43   Cum Volume (acre-ft)       2956.38  17953.20    1383.80
  C & E Loss (ft)              0.16   Cum SA (acres)              289.26   1076.54     273.78


Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1169.35   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                1.40   Wt. n-Val.                            0.035
  E.G. Elev (ft)            1170.74   Reach Len. (ft)             521.09    521.09     521.09
  Crit W.S. (ft)            1157.37   Flow Area (sq ft)                   18141.91
  E.G. Slope (ft/ft)       0.001114   Area (sq ft)                        18141.91
  Q Total (cfs)           172000.00   Flow (cfs)                         172000.00
  Top Width (ft)             792.56   Top Width (ft)                       792.56
  Vel Total (ft/s)             9.48   Avg. Vel. (ft/s)                      9.48
  Max Chl Dpth (ft)           29.45   Hydr. Depth (ft)                     22.89
  Conv. Total (cfs)        5153070.0  Conv. (cfs)                        5153070.0
  Length Wtd. (ft)           521.09   Wetted Per. (ft)                    1048.33
  Min Ch El (ft)            1139.90   Shear (lb/sq ft)                      1.20
  Alpha                        1.00   Stream Power (lb/ft s)               11.41
  Frctn Loss (ft)              0.43   Cum Volume (acre-ft)               17818.96       2.15
  C & E Loss (ft)              0.16   Cum SA (acres)                      1068.12       0.71


Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF#1

  Left Sta      Right Sta        Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                 (ft)     (ft/s)
  19497.40 LB   19554.32       6075.67     819.55     59.99       3.53     15.45       7.41
```

19554.32	19611.24	11991.98	1206.85	56.92	6.97	21.20	9.94
19611.24	19668.16	12131.04	1215.20	56.92	7.05	21.35	9.98
19668.16	19725.08	16527.43	1470.96	57.70	9.61	25.84	11.24
19725.08	19782.00	18950.43	1588.74	56.98	11.02	27.91	11.93
19782.00	19838.92	14941.31	1380.79	57.31	8.69	24.26	10.82
19838.92	19895.84	19253.10	1607.83	57.32	11.19	28.25	11.97
19895.84	19952.76	18066.07	1545.24	57.11	10.50	27.15	11.69
19952.76	20009.68	8823.48	1265.48	101.55	5.13	26.35	6.97
20009.68	20066.60	6292.49	1103.05	119.60	3.66	24.83	5.70
20066.60	20123.52	5418.81	983.41	112.32	3.15	23.13	5.51
20123.52	20180.44	6752.00	1031.21	90.93	3.93	21.43	6.55
20180.44	20237.36	11425.38	1172.30	56.92	6.64	20.60	9.75
20237.36	20294.28	11650.27	1186.26	56.94	6.77	20.84	9.82
20294.28	20351.20 RB	3700.50	565.04	49.81	2.15	12.79	6.55

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19497.40 LB	19554.32	6075.67	819.55	59.99	3.53	15.45	7.41
19554.32	19611.24	11991.98	1206.85	56.92	6.97	21.20	9.94
19611.24	19668.16	12131.04	1215.20	56.92	7.05	21.35	9.98
19668.16	19725.08	16527.42	1470.96	57.70	9.61	25.84	11.24
19725.08	19782.00	18950.42	1588.74	56.98	11.02	27.91	11.93
19782.00	19838.92	14941.30	1380.79	57.31	8.69	24.26	10.82
19838.92	19895.84	19253.09	1607.83	57.32	11.19	28.25	11.97
19895.84	19952.76	18066.06	1545.24	57.11	10.50	27.15	11.69
19952.76	20009.68	8823.48	1265.48	101.55	5.13	26.35	6.97
20009.68	20066.60	6292.49	1103.05	119.60	3.66	24.83	5.70
20066.60	20123.52	5418.81	983.41	112.32	3.15	23.13	5.51
20123.52	20180.44	6752.00	1031.21	90.93	3.93	21.43	6.55
20180.44	20237.36	11425.38	1172.30	56.92	6.64	20.60	9.75
20237.36	20294.28	11650.27	1186.26	56.94	6.77	20.84	9.82
20294.28	20351.20 RB	3700.57	565.04	49.81	2.15	12.79	6.55

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 223.19

INPUT
Description: Blocked obstructions coded in to model peirs for Red Mountain Freeway
Station Elevation Data num= 158

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17650.34	1171.21	7678.35	1171.91	7691.98	1172.34	17707.45	1171.84	17713.66	1171.91
17790.76	1172.31	7838.48	1172.33	17873.53	1172.42	17925.49	1172.41	17971.31	1172.5
18059.48	1172.21	8075.56	1173.51	18080.64	1173.51	18128.67	1172.96	18134.91	1172.98
18215.85	1172.81	8294.94	1173.11	8303.18	1173.26	18329.44	1173.88	18353.75	1173.8
18377.46	1173.3	18405.2	1173.71	18414.83	1173.76	18420.25	1174.01	18431.51	1174.02
18444.78	1171.31	8452.13	1170.31	8503.94	1168.49	18522.49	1168.21	8575.75	1168.4
18632.59	1168.71	8694.01	1168.95	18713.69	1168.99	18726.85	1169.11	18760.16	1169.3
18793.28	1169.71	8846.02	1170.04	18894.04	1170.44	18923.36	1170.57	18954.76	1169.74
18960.47	1169.71	9015.35	1169.65	19018.92	1169.61	19029	1171.45	19065.48	1171.05
19073.4	1171.2	19085.4	1170.61	19121.97	1169.11	19140.2	1169.36	19145.86	1169.34
19178.28	1167.5	19203.7	1163.58	19232.02	1163.57	19250.52	1163.11	19298.61	1163.46
19308.15	1163.61	9316.43	1165.81	19339.2	1172.27	19354.78	1173.07	19384.55	1152.36
19388.62	1149.21	9396.89	1148.97	19486.2	1147.19	19607.18	1146.04	19616.58	1145.93
19631.39	1146.21	9667.04	1146.57	19678.55	1145.21	19705.63	1142.39	19751.3	1141.32
19773.84	114	19795.59	1141.34	19903.14	1143.22	20007.95	1143.84	20019.39	1144.06
20029.14	114	20094.38	1144.09	20097.06	1144.07	20256.51	1148.99	20296.71	1150.3
20338.31	1150.32	0347.97	1150.51	20383.86	1151.01	20406.21	1163.39	20422.16	1173.86
20430.26	117	20438.71	1172.32	0443.62	1174.56	20464.89	1180.35	20488.39	1183.69
20496.39	1180.4	20506.6	1178.75	20518.46	1176.72	0528.16	1172.77	20541.08	1167.65
20562.49	1167.22	0563.76	1167.19	20598.64	1166.74	20616.4	1167.17	20627.7	1166.81
20642.95	1166.52	0684.77	1165.63	20697.36	1165.31	20698.87	1165.27	20715.6	1166.26
20721.19	1166.72	0727.36	1165.74	20745.23	1163.45	20757.39	1164.56	20768.47	1164.6
20777.52	1164.92	0788.42	1167.84	20798.49	1171.31	20812.18	1171.08	20825.51	1171.23

```
20831.24  1171.520854.43  1171.420895.41 1171.5720911.32 1171.5720964.26 1171.38
21040.47  1171.321055.81 1171.2521087.67 1169.9721124.64 1169.6721133.61 1168.66
21152.32  1165.821213.88 1167.5721261.65 1167.3621281.84  1167.621345.28 1167.51
21367.09  1167.621416.35 1168.4621430.18 1168.4821465.15 1168.89   21486 1169.67
21504.91  1170.121550.81 1171.4921599.49  1171.521634.24 1171.4721644.23  1170.1
21654.66  1173.121661.33  1175.121703.61 1173.9321722.08 1172.8921758.01 1173.14
21774.57    117321822.57 1173.4421855.85 1173.5221902.62 1174.0121936.99    1174
21965.18  1174.222013.15 1174.3522076.41 1174.7822111.19 1175.0522215.69 1175.25
22285.39  1175.422321.58 1175.63 22379.5 1176.01

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
17650.34     .0519354.78    .03520443.62     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
     19354.7820443.62               620  514.62     430              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
17650.3419354.78 1173.0720443.62 22379.5 1174.56
Blocked Obstructions     num=       5
   Sta L   Sta R    Elev   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 20060.6 20069.5  1190.5 20113.1   20122  1190.5   20163   20172  1190.5
   20198   20207  1190.5 20248.1 20256.9  1190.5

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)          1169.29   Element                    Left OB    Channel   Right OB
  Vel Head (ft)              0.86   Wt. n-Val.                            0.035
  E.G. Elev (ft)          1170.15   Reach Len. (ft)            620.00     514.62     430.00
  Crit W.S. (ft)          1155.62   Flow Area (sq ft)                   23106.09
  E.G. Slope (ft/ft)     0.000631   Area (sq ft)               963.45   23106.09    1363.96
  Q Total (cfs)         172000.00   Flow (cfs)                         172000.00
  Top Width (ft)          2091.50   Top Width (ft)             477.51    1010.39     603.60
  Vel Total (ft/s)           7.44   Avg. Vel. (ft/s)                       7.44
  Max Chl Dpth (ft)         28.29   Hydr. Depth (ft)                      22.87
  Conv. Total (cfs)      6848227.0  Conv. (cfs)                        6848227.0
  Length Wtd. (ft)         514.62   Wetted Per. (ft)                    1252.68
  Min Ch El (ft)          1141.00   Shear (lb/sq ft)                       0.73
  Alpha                      1.00   Stream Power (lb/ft s)                 5.41
  Frctn Loss (ft)            0.60   Cum Volume (acre-ft)      2934.90  17706.48    1361.89
  C & E Loss (ft)            0.15   Cum SA (acres)             282.61    1065.76     265.20


Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
                than 0.7 or greater than 1.4.  This may indicate the need for additional cross
sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)          1169.29   Element                    Left OB    Channel   Right OB
  Vel Head (ft)              0.86   Wt. n-Val.                            0.035
  E.G. Elev (ft)          1170.15   Reach Len. (ft)            620.00     514.62     430.00
  Crit W.S. (ft)          1155.62   Flow Area (sq ft)                   23106.09
  E.G. Slope (ft/ft)     0.000631   Area (sq ft)                        23106.09
  Q Total (cfs)         172000.00   Flow (cfs)                         172000.00
  Top Width (ft)          1010.39   Top Width (ft)                      1010.39
  Vel Total (ft/s)           7.44   Avg. Vel. (ft/s)                       7.44
  Max Chl Dpth (ft)         28.29   Hydr. Depth (ft)                      22.87
  Conv. Total (cfs)      6848227.0  Conv. (cfs)                        6848227.0
  Length Wtd. (ft)         514.62   Wetted Per. (ft)                    1252.68
  Min Ch El (ft)          1141.00   Shear (lb/sq ft)                       0.73
  Alpha                      1.00   Stream Power (lb/ft s)                 5.41
  Frctn Loss (ft)            0.60   Cum Volume (acre-ft)               17572.24       2.15
  C & E Loss (ft)            0.15   Cum SA (acres)                      1057.33       0.71


Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
                than 0.7 or greater than 1.4.  This may indicate the need for additional cross
sections.
```

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19354.78 LB	19427.37	6420.57	1077.17	73.56	3.73	16.04	5.96
19427.37	19499.96	12145.56	1570.76	72.60	7.06	21.64	7.73
19499.96	19572.55	13037.54	1638.92	72.59	7.58	22.58	7.95
19572.55	19645.14	13574.69	1679.13	72.60	7.89	23.13	8.08
19645.14	19717.73	15027.89	1787.00	72.82	8.74	24.62	8.41
19717.73	19790.31	18531.55	2023.99	72.60	10.77	27.88	9.16
19790.31	19862.90	18010.69	1989.66	72.60	10.47	27.41	9.05
19862.90	19935.49	16732.21	1903.63	72.60	9.73	26.22	8.79
19935.49	20008.08	16143.45	1863.09	72.59	9.39	25.67	8.66
20008.08	20080.67	9354.85	1609.66	114.18	5.44	25.27	5.81
20080.67	20153.26	8975.71	1563.11	112.89	5.22	24.54	5.74
20153.26	20225.85	5023.96	1218.54	144.65	2.92	22.32	4.12
20225.85	20298.44	6764.71	1279.87	104.67	3.93	20.06	5.29
20298.44	20371.03	9659.56	1369.03	72.59	5.62	18.86	7.06
20371.03	20443.62 RB	2597.04	532.52	49.14	1.51	12.06	4.88

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19354.78 LB	19427.37	6420.54	1077.17	73.56	3.73	16.04	5.96
19427.37	19499.96	12145.56	1570.76	72.60	7.06	21.64	7.73
19499.96	19572.55	13037.54	1638.92	72.59	7.58	22.58	7.95
19572.55	19645.14	13574.69	1679.13	72.60	7.89	23.13	8.08
19645.14	19717.73	15027.89	1787.00	72.82	8.74	24.62	8.41
19717.73	19790.31	18531.55	2023.99	72.60	10.77	27.88	9.16
19790.31	19862.90	18010.70	1989.66	72.60	10.47	27.41	9.05
19862.90	19935.49	16732.21	1903.63	72.60	9.73	26.22	8.79
19935.49	20008.08	16143.45	1863.09	72.59	9.39	25.67	8.66
20008.08	20080.67	9354.85	1609.66	114.18	5.44	25.27	5.81
20080.67	20153.26	8975.71	1563.11	112.89	5.22	24.54	5.74
20153.26	20225.85	5023.96	1218.54	144.65	2.92	22.32	4.12
20225.85	20298.44	6764.71	1279.87	104.67	3.93	20.06	5.29
20298.44	20371.03	9659.56	1369.03	72.59	5.62	18.86	7.06
20371.03	20443.62 RB	2597.07	532.52	49.14	1.51	12.06	4.88

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 223.09

INPUT
Description: Upstream face of McClintock bridge

Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18410	1166.3	18957.34	1171.8	19060.89	1172	19241.37	1180.7	19241.37	1172
19241.46	1172	19348.67	1161.5	19354.58	1161.5	19408.63	1149.5	19465.04	1148
19470.96	1148	19527.96	1165.7	19581.41	1155.1	19587.33	1155.1	19651.04	1146.3
19697.78	1151.5	19703.7	1151.5	19767.7	1151.9	19814.15	1152	19820.07	1152
19929.73	1152	19936.44	1152	20000.94	1152	20046.89	1152	20052.81	1152
20111.49	1152	20163.27	1153.1	20169.18	1153.1	20226.78	1156.4	20279.64	1156.2
20285.56	1156.2	20306.86	1156.4	20363.17	1164.1	20394.43	1169.3	20394.53	1173.82
20394.63	1180.7	20648.67	1174	20914.95	1166.4	21053.02	1168.4	21565.84	1170.2

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18410	.05	19241.37	.03	20394.53	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19241.37	20394.53	139.09	139.09	139.09	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18410	19241.37	1172	20394.53	21565.84	1173.82

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1167.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.38	Wt. n-Val.		0.035	
E.G. Elev (ft)	1169.40	Reach Len. (ft)	27.80	27.80	27.80
Crit W.S. (ft)	1163.00	Flow Area (sq ft)		13879.32	
E.G. Slope (ft/ft)	0.002884	Area (sq ft)	25.26	13879.32	19.52
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1222.95	Top Width (ft)	70.91	1088.29	63.75
Vel Total (ft/s)	12.39	Avg. Vel. (ft/s)		12.39	
Max Chl Dpth (ft)	20.71	Hydr. Depth (ft)		12.75	
Conv. Total (cfs)	3202536.0	Conv. (cfs)		3202536.0	
Length Wtd. (ft)	27.80	Wetted Per. (ft)		1095.39	
Min Ch El (ft)	1146.30	Shear (lb/sq ft)		2.28	
Alpha	1.00	Stream Power (lb/ft s)		28.28	
Frctn Loss (ft)	0.11	Cum Volume (acre-ft)	2927.86	17488.00	1355.06
C & E Loss (ft)	0.06	Cum SA (acres)	278.71	1053.36	261.90

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1167.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.38	Wt. n-Val.		0.035	
E.G. Elev (ft)	1169.40	Reach Len. (ft)	27.80	27.80	27.80
Crit W.S. (ft)	1163.00	Flow Area (sq ft)		13879.18	
E.G. Slope (ft/ft)	0.002885	Area (sq ft)		13879.18	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1088.29	Top Width (ft)		1088.29	
Vel Total (ft/s)	12.39	Avg. Vel. (ft/s)		12.39	
Max Chl Dpth (ft)	20.71	Hydr. Depth (ft)		12.75	
Conv. Total (cfs)	3202488.5	Conv. (cfs)		3202488.5	
Length Wtd. (ft)	27.80	Wetted Per. (ft)		1095.39	
Min Ch El (ft)	1146.30	Shear (lb/sq ft)		2.28	
Alpha	1.00	Stream Power (lb/ft s)		28.28	
Frctn Loss (ft)	0.11	Cum Volume (acre-ft)		17353.77	2.15
C & E Loss (ft)	0.06	Cum SA (acres)		1044.94	0.71

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19241.37 LB	19318.25	82.01	32.75	25.99	0.05	1.27	2.50
19318.25	19395.12	4484.36	560.93	78.01	2.61	7.30	7.99
19395.12	19472.00	20200.31	1378.68	77.28	11.74	17.93	14.65
19472.00	19548.88	5361.84	630.49	79.92	3.12	8.20	8.50
19548.88	19625.76	10108.32	912.84	77.88	5.88	11.87	11.07
19625.76	19702.63	20735.44	1401.41	77.41	12.06	18.23	14.80
19702.63	19779.51	15526.62	1174.88	76.88	9.03	15.28	13.22
19779.51	19856.39	15100.66	1155.44	76.88	8.78	15.03	13.07
19856.39	19933.27	15072.15	1154.12	76.88	8.76	15.01	13.06
19933.27	20010.14	15072.15	1154.12	76.88	8.76	15.01	13.06
20010.14	20087.02	15072.16	1154.12	76.88	8.76	15.01	13.06
20087.02	20163.90	14441.20	1124.95	76.89	8.40	14.63	12.84
20163.90	20240.78	10484.32	928.73	76.97	6.10	12.08	11.29
20240.78	20317.65	8452.24	816.13	76.98	4.91	10.62	10.36
20317.65	20394.53 RB	1806.23	299.73	63.69	1.05	4.76	6.03

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19241.37 LB	19318.25	82.00	32.75	25.99	0.05	1.27	2.50
19318.25	19395.12	4484.30	560.92	78.01	2.61	7.30	7.99
19395.12	19472.00	20200.38	1378.67	77.28	11.74	17.93	14.65
19472.00	19548.88	5361.78	630.48	79.92	3.12	8.20	8.50
19548.88	19625.76	10108.29	912.83	77.88	5.88	11.87	11.07
19625.76	19702.63	20735.51	1401.40	77.41	12.06	18.23	14.80
19702.63	19779.51	15526.63	1174.87	76.88	9.03	15.28	13.22
19779.51	19856.39	15100.67	1155.43	76.88	8.78	15.03	13.07
19856.39	19933.27	15072.17	1154.11	76.88	8.76	15.01	13.06
19933.27	20010.14	15072.17	1154.11	76.88	8.76	15.01	13.06
20010.14	20087.02	15072.17	1154.11	76.88	8.76	15.01	13.06
20087.02	20163.90	14441.21	1124.94	76.89	8.40	14.63	12.84
20163.90	20240.78	10484.30	928.72	76.97	6.10	12.08	11.29
20240.78	20317.65	8452.20	816.12	76.98	4.91	10.62	10.36
20317.65	20394.53 RB	1806.21	299.72	63.69	1.05	4.76	6.03

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

BRIDGE RIVER: Salt River
REACH: Reach 4 RS: 223.085

INPUT
Description: McClintock Drive
Distance from Upstream XS = 27.8
Deck/Roadway Width = 83.5
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 21

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
18410	1166.3	1166.3	18957.34	1171.8	1171.8	19060.89	1172	1172
19060.89	1172	1172	19241.27	1180.7	1180.7	19241.27	1180.7	1172
19348.67	1183.05	1176.15	19465.04	1184.79	1177.89	19581.41	1186.16	1179.26
19697.78	1186.96	1180.06	19814.15	1187.1	1180.2	19930.52	1187.03	1180.13
20046.89	1186.15	1179.25	20163.27	1184.84	1177.94	20279.64	1182.98	1176.08
20394.43	1180.7	1173.82	20394.63	1180.7	1180.7	20648.67	1174	1174
20914.95	1166.4	1166.4	21053.02	1168.4	1168.4	21565.84	1170.2	1170.2

Upstream Bridge Cross Section Data
Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18410	1166.3	18957.34	1171.8	19060.89	1172	19241.27	1180.7	19241.37	1172
19241.46	1172	19348.67	1161.5	19354.58	1161.5	19408.63	1149.5	19465.04	1148
19470.96	1148	19527.96	1165.7	19581.41	1155.1	19587.33	1155.1	19651.04	1146.3
19697.78	1151.5	19703.7	1151.5	19767.7	1151.9	19814.15	1152	19820.07	1152
19929.73	1152	19936.44	1152	20000.94	1152	20046.89	1152	20052.81	1152
20111.49	1152	20163.27	1153.1	20169.18	1153.1	20226.78	1156.4	20279.64	1156.2
20285.56	1156.2	20306.86	1156.4	20363.17	1164.1	20394.43	1169.3	20394.53	1173.82
20394.63	1180.7	20648.67	1174	20914.95	1166.4	21053.02	1168.4	21565.84	1170.2

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18410	.05	19241.37	.035	20394.53	.05

Bank Sta: Left	Right	Coeff Contr.	Expan.
19241.37	20394.53	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18410	19241.37	1172	20394.53	21565.84	1173.82

Downstream Deck/Roadway Coordinates
num= 21

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord

```
   18410  1166.3  1166.318957.34  1171.8  1171.819060.89    1172    1172
19060.89    1172    117219241.27  1180.7  1180.719241.27  1180.7    1172
19348.67 1183.05 1176.1519465.04 1184.79 1177.8919581.41 1186.16 1179.26
19697.78 1186.96 1180.0619814.15  1187.1  1180.219930.52 1187.03 1180.13
20046.89 1186.15 1179.2520163.27 1184.84 1177.9420279.64 1182.98 1176.08
20394.43  1180.7 1173.8220394.63  1180.7  1180.720648.67    1174    1174
20914.95  1166.4  1166.421053.02  1168.4  1168.421565.84  1170.2  1170.2

Downstream Bridge Cross Section Data
Station Elevation Data    num=      40
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   18410  1166.318957.34  1171.819060.89    117219241.27  1180.719241.37    1172
19241.46    117219348.67  1161.519354.58  1161.519408.63  1149.519465.04    1148
19470.96    114819527.96  1165.719581.41  1155.119587.33  1155.119651.04  1146.3
19697.78  1151.5 19703.7  1151.5 19767.7  1151.919814.15    115219820.07    1152
19929.73    115219936.44    115220000.94    115220046.89    115220052.81    1152
20111.49    115220163.27  1153.120169.18  1153.120226.78  1156.420279.64  1156.2
20285.56  1156.220306.86  1156.420363.17  1164.120394.43  1169.320394.53 1173.82
20394.63  1180.720648.67    117420914.95  1166.421053.02  1168.421565.84  1170.2

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   18410     .0519241.37    .03520394.53     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
     19241.3720394.53             .1       .3
Ineffective Flow     num=       1
   Sta L   Sta R    Elev
   1841019241.37    1180

Upstream Embankment side slope              =         horiz. to 1.0 vertical
Downstream Embankment side slope            =         horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  9

Pier Data
Pier Station     Upstream=19351.63    Downstream=19351.63
Upstream     num=       2
    Width   Elev    Width   Elev
     5.9    1161     5.9    1177
Downstream     num=       2
    Width   Elev    Width   Elev
     5.9    1161     5.9    1177

Pier Data
Pier Station     Upstream=   19468    Downstream=   19468
Upstream     num=       2
    Width   Elev    Width   Elev
     5.9    1148     5.9    1178
Downstream     num=       2
    Width   Elev    Width   Elev
     5.9    1148     5.9    1178

Pier Data
Pier Station     Upstream=19584.37    Downstream=19584.37
Upstream     num=       2
    Width   Elev    Width   Elev
     5.9    1155     5.9    1180
Downstream     num=       2
    Width   Elev    Width   Elev
     5.9    1155     5.9    1180

Pier Data
Pier Station     Upstream=19700.74    Downstream=19700.74
Upstream     num=       2
    Width   Elev    Width   Elev
     5.9    1151     5.9    1181
Downstream     num=       2
    Width   Elev    Width   Elev
     5.9    1151     5.9    1181
```

```
Pier Data
Pier Station     Upstream=19817.11    Downstream=19817.11
Upstream     num=       2
    Width   Elev    Width   Elev
     5.9    1152     5.9    1181
Downstream     num=       2
    Width   Elev    Width   Elev
     5.9    1152     5.9    1181

Pier Data
Pier Station     Upstream=19933.48    Downstream=19933.48
Upstream     num=       2
    Width   Elev    Width   Elev
     5.9    1152     5.9    1181
Downstream     num=       2
    Width   Elev    Width   Elev
     5.9    1152     5.9    1181

Pier Data
Pier Station     Upstream=20049.85    Downstream=20049.85
Upstream     num=       2
    Width   Elev    Width   Elev
     5.9    1152     5.9    1180
Downstream     num=       2
    Width   Elev    Width   Elev
     5.9    1152     5.9    1180

Pier Data
Pier Station     Upstream=20166.23    Downstream=20166.23
Upstream     num=       2
    Width   Elev    Width   Elev
     5.9    1153     5.9    1178
Downstream     num=       2
    Width   Elev    Width   Elev
     5.9    1153     5.9    1178

Pier Data
Pier Station     Upstream= 20282.6    Downstream= 20282.6
Upstream     num=       2
    Width   Elev    Width   Elev
     5.9    1156     5.9    1177
Downstream     num=       2
    Width   Elev    Width   Elev
     5.9    1156     5.9    1177

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
       Momentum                Cd    =     1.2
       Yarnell                 KVal =    1.05
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Do not add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the downstream end
       Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT    Profile #PF#1
Opening : Bridge #1

  E.G. US. (ft)                 1169.40   Element                 Inside BR US  Inside BR DS
  W.S. US. (ft)                 1167.01   E.G. Elev (ft)               1169.23       1168.44
  Q Total (cfs)               172000.00   W.S. Elev (ft)               1166.21       1163.45
  Q Bridge (cfs)              172000.00   Crit W.S. (ft)               1163.40       1163.45
  Q Weir (cfs)                            Max Chl Dpth (ft)              19.91         17.15
  Weir Sta Lft (ft)                       Vel Total (ft/s)               13.94         17.92
  Weir Sta Rgt (ft)                       Flow Area (sq ft)           12335.07       9599.95
  Weir Submerg                            Froude # Chl                    0.71          1.00
  Weir Max Depth (ft)                     Specif Force (cu ft)       159136.05     150163.25
  Min Top Rd (ft)               1172.00   Hydr Depth (ft)                12.07         10.02
```

Min El Prs (ft)	1180.70	W.P. Total (ft)	1263.42	1144.72
Delta EG (ft)	1.49	Conv. Total (cfs)	2392197.5	1682322.3
Delta WS (ft)	3.94	Top Width (ft)	1022.15	958.02
BR Open Area (sq ft)	25100.39	Frctn Loss (ft)	0.60	0.26
BR Open Vel (ft/s)	17.92	C & E Loss (ft)	0.20	0.05
Coef of Q		Shear Total (lb/sq ft)	3.15	5.47
Br Sel Mthd	Energy only	Power Total (lb/ft s)	43.94	98.05

Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir
flow. The momentum answer has been disregarded.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy equation could not be balanced within the specified number of iterations. The
program selected the water surface that had the least amount of error between computed
and assumed values.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
energy was used.

BRIDGE OUTPUT Profile #PF#2
Opening : Bridge #1

E.G. US. (ft)	1169.40	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1167.01	E.G. Elev (ft)	1169.23	1168.44
Q Total (cfs)	172000.00	W.S. Elev (ft)	1166.21	1163.45
Q Bridge (cfs)	172000.00	Crit W.S. (ft)	1163.40	1163.45
Q Weir (cfs)		Max Chl Dpth (ft)	19.91	17.15
Weir Sta Lft (ft)		Vel Total (ft/s)	13.94	17.92
Weir Sta Rgt (ft)		Flow Area (sq ft)	12335.07	9599.95
Weir Submerg		Froude # Chl	0.71	1.00
Weir Max Depth (ft)		Specif Force (cu ft)	159136.05	150163.25
Min Top Rd (ft)	1172.00	Hydr Depth (ft)	12.07	10.02
Min El Prs (ft)	1180.70	W.P. Total (ft)	1263.42	1144.72
Delta EG (ft)	1.49	Conv. Total (cfs)	2392197.5	1682322.3
Delta WS (ft)	3.94	Top Width (ft)	1022.15	958.02
BR Open Area (sq ft)	25100.39	Frctn Loss (ft)	0.60	0.26
BR Open Vel (ft/s)	17.92	C & E Loss (ft)	0.20	0.05
Coef of Q		Shear Total (lb/sq ft)	3.15	5.47
Br Sel Mthd	Energy only	Power Total (lb/ft s)	43.94	98.05

Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir
flow. The momentum answer has been disregarded.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy equation could not be balanced within the specified number of iterations. The
program selected the water surface that had the least amount of error between computed
and assumed values.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
energy was used.

CROSS SECTION RIVER: Salt River

REACH: Reach 4 RS: 223.08

INPUT
Description: Downstream face of McClintock bridge

Station Elevation Data num= 40

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18410	1166.318	957.34	1171.819	060.89	117219	241.27	1180.719	241.37	1172
19241.46	117219	348.67	1161.519	354.58	1161.519	408.63	1149.519	465.04	1148
19470.96	114819	527.96	1165.719	581.41	1155.119	587.33	1155.119	651.04	1146.3
19697.78	1151.5	19703.7	1151.5	19767.7	1151.919	814.15	115219	820.07	1152
19929.73	115219	936.44	115220	000.94	115220	046.89	115220	052.81	1152
20111.49	115220	163.27	1153.120	169.18	1153.120	226.78	1156.420	279.64	1156.2
20285.56	1156.220	306.86	1156.420	363.17	1164.120	394.43	1169.320	394.53	1173.82
20394.63	1180.720	648.67	117420	914.95	1166.421	053.02	1168.421	565.84	1170.2

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18410	.05	19241.37	.03	20394.53	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19241.37	20394.53	170	268.54	370	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
18410	19241.37	1180

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1163.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	4.83	Wt. n-Val.		0.035	
E.G. Elev (ft)	1167.91	Reach Len. (ft)	170.00	268.54	370.00
Crit W.S. (ft)	1163.07	Flow Area (sq ft)		9747.96	
E.G. Slope (ft/ft)	0.008376	Area (sq ft)		9747.96	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1001.37	Top Width (ft)		1001.37	
Vel Total (ft/s)	17.64	Avg. Vel. (ft/s)		17.64	
Max Chl Dpth (ft)	16.77	Hydr. Depth (ft)		9.73	
Conv. Total (cfs)	1879353.6	Conv. (cfs)		1879353.6	
Length Wtd. (ft)	268.54	Wetted Per. (ft)		1007.31	
Min Ch El (ft)	1146.30	Shear (lb/sq ft)		5.06	
Alpha	1.00	Stream Power (lb/ft s)		89.29	
Frctn Loss (ft)	0.57	Cum Volume (acre-ft)	2927.85	17452.44	1355.06
C & E Loss (ft)	1.08	Cum SA (acres)	278.69	1050.16	261.88

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need
for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to
critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
energy was used.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1163.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	4.83	Wt. n-Val.		0.035	
E.G. Elev (ft)	1167.91	Reach Len. (ft)	170.00	268.54	370.00
Crit W.S. (ft)	1163.07	Flow Area (sq ft)		9747.96	
E.G. Slope (ft/ft)	0.008376	Area (sq ft)		9747.96	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	

Top Width (ft)	1001.37	Top Width (ft)	1001.37	
Vel Total (ft/s)	17.64	Avg. Vel. (ft/s)	17.64	
Max Chl Dpth (ft)	16.77	Hydr. Depth (ft)	9.73	
Conv. Total (cfs)	1879353.6	Conv. (cfs)	1879353.6	
Length Wtd. (ft)	268.54	Wetted Per. (ft)	1007.31	
Min Ch El (ft)	1146.30	Shear (lb/sq ft)	5.06	
Alpha	1.00	Stream Power (lb/ft s)	89.29	
Frctn Loss (ft)	0.57	Cum Volume (acre-ft)	17318.21	2.15
C & E Loss (ft)	1.09	Cum SA (acres)	1041.74	0.71

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
energy was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19318.25	19395.12	2571.87	268.23	63.59	1.50	4.29	9.59
19395.12	19472.00	22867.99	1075.88	77.28	13.30	13.99	21.26
19472.00	19548.88	4409.06	356.19	57.57	2.56	6.46	12.38
19548.88	19625.76	8837.58	610.05	77.88	5.14	7.94	14.49
19625.76	19702.63	23652.92	1098.62	77.41	13.75	14.29	21.53
19702.63	19779.51	16170.60	872.10	76.88	9.40	11.34	18.54
19779.51	19856.39	15573.91	852.65	76.88	9.05	11.09	18.27
19856.39	19933.27	15534.22	851.33	76.88	9.03	11.07	18.25
19933.27	20010.14	15534.22	851.33	76.88	9.03	11.07	18.25
20010.14	20087.02	15534.22	851.33	76.88	9.03	11.07	18.25
20087.02	20163.90	14655.87	822.17	76.89	8.52	10.69	17.83
20163.90	20240.78	9296.20	625.93	76.97	5.40	8.14	14.85
20240.78	20317.65	6679.60	513.34	76.98	3.88	6.68	13.01
20317.65	20394.53 RB	681.75	98.80	38.37	0.40	2.60	6.90

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
energy was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta	Right Sta	Flow	Area	W.P.	% Conv.	Hydr D.	Velocity

(ft)	(ft)	(cfs)	(sq ft)	(ft)		(ft)	(ft/s)
19318.25	19395.12	2571.87	268.23	63.59	1.50	4.29	9.59
19395.12	19472.00	22867.99	1075.88	77.28	13.30	13.99	21.26
19472.00	19548.88	4409.06	356.19	57.57	2.56	6.46	12.38
19548.88	19625.76	8837.58	610.05	77.88	5.14	7.94	14.49
19625.76	19702.63	23652.92	1098.62	77.41	13.75	14.29	21.53
19702.63	19779.51	16170.60	872.10	76.88	9.40	11.34	18.54
19779.51	19856.39	15573.91	852.65	76.88	9.05	11.09	18.27
19856.39	19933.27	15534.22	851.33	76.88	9.03	11.07	18.25
19933.27	20010.14	15534.22	851.33	76.88	9.03	11.07	18.25
20010.14	20087.02	15534.22	851.33	76.88	9.03	11.07	18.25
20087.02	20163.90	14655.87	822.17	76.89	8.52	10.69	17.83
20163.90	20240.78	9296.20	625.93	76.97	5.40	8.14	14.85
20240.78	20317.65	6679.60	513.34	76.98	3.88	6.68	13.01
20317.65	20394.53 RB	681.75	98.80	38.37	0.40	2.60	6.90

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
energy was used.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 223.02

INPUT
Description:
Station Elevation Data num= 168

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17971.69	1171.41	7974.78	1171.53	18010.57	1170.24	18044.22	1168.51	8064.14	1167.67
18117.68	1167.71	8156.47	1167.75	18175.38	1167.36	18188.46	1167.89	18215.48	1168.55
18228.44	1168.71	8240.95	1168.79	18256.37	1169.11	18274.54	1168.74	18301.38	1169.89
18315.99	1171.71	8333.85	1173.01	18341.31	1172.33	18347.67	1171.54	18366.61	1169.89
18371.85	1169.21	8375.45	1168.56	18412.76	1169.88	18439.92	1170.35	18447.07	1169.88
18465.53	1168.51	8484.53	1166.94	18497	1167.81	18511.43	1167.28	18522.44	1167.45
18523.02	1167.31	8528.81	1168.41	8559.96	1167.48	18569.11	1167.34	18590.71	1166.71
18612.75	1165.91	8633.07	1163.46	18644.79	1162.92	18665.56	1162.68	18699.39	1162.56
18713.58	1162.91	8754.75	1162.95	18762.54	1163.37	18767.23	1162.96	18771.67	1163.35
18781.15	1163.61	8823.15	1163.75	18836.52	1163.87	18854.62	1163.78	18858.39	1164.47
18889.29	1165	18899.81	1166.4	18906.1	1167.42	18924.93	1163.41	8926.38	1162.97
18967.55	1163	19008.72	1162.91	19114.49	1162.91	19116.9	1163.33	19120.76	1163.4
19129.15	1163.21	9165.22	1162.44	19183.62	1162.42	19185.96	1162.58	19204.6	1163.18
19228.85	1165.11	9254.14	1167.38	19267.45	1166.78	19280.62	1166.27	19289.14	1167.6
19307.19	1170.91	9329.31	1172.97	19341.36	1168.35	19389.13	1149.67	19412.4	1148.34
19418.76	1148.11	9445.72	1147.96	19454.69	1147.67	19514.54	1147.11	9556.29	1146.76
19592.78	1146.8	19612.2	1146.36	19666.81	1145.38	19701.26	1145.06	19723.7	1144.6
19765.05	1143.81	9775.01	1143.16	19791.43	1142.64	19821.12	1140.06	19834.25	1140.2
19839.35	1140	19849.98	1140.15	19925.51	1141.57	19940.87	1140.87	19972.41	1141.21
19982.15	1141.2	20026.2	1141.75	20050.74	1142.15	20062.44	1142.29	20115.32	1142.8
20138.82	1142.72	0209.03	1143.13	20260.66	1144.16	20276.37	1145.84	20306.63	1146.7
20313.92	1147.42	0324.74	1147.36	20401.47	1157.92	20438.92	1162.6	20513.5	1172.12
20538.9	1176.62	0545.23	1177.32	20556.91	1177.52	20567.11	1177.51	20588.99	1179.51
20606.17	1179	20612.09	1179.09	20623.35	1181.24	20638.78	1185.33	20642.52	1186.06
20655.98	1186.6	20662.2	1186.55	20689.46	1180.98	20704.25	1178.13	20714.55	1174.88
20730.77	1169.62	0741.14	1167.72	20748.35	1165.25	20751.64	1163.71	20761.41	1165.54
20766.25	1165.62	0816.03	1166.24	20831.05	1166.33	20909.51	1166.18	20963.96	1166.38
21009.27	1166.72	1081.39	1167.31	21099.05	1167.42	21158.92	1167.58	21181.89	1167.61
21196.89	1167.72	1236.98	1167.92	21249.56	1168.12	21284.25	1167.82	21288.35	1167.89
21321.62	1168.12	1331.66	1168.05	21361.53	1168.35	21377.75	1168.37	21399.11	1168.2
21407.41	1168.12	1438.42	1168.42	21470.92	1169	21541.91	1168.77	21656.73	1168.69

```
 21674.4  1168.921749.08 1169.8621815.71 1170.0621880.09  1170.221923.59 1170.87
21933.59  1170.8 21941.3 1171.3621971.17 1171.9521984.85    117222018.46 1174.38
22045.18  1174.922071.91 1174.3522094.13 1172.35

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
17971.69     .0519329.31    .035 20513.5     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19329.31 20513.5              500  494.97     480             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
17971.6919329.31 1172.97 20513.522094.13 1172.12
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1163.55	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.22	Wt. n-Val.		0.035	
E.G. Elev (ft)	1164.76	Reach Len. (ft)	500.00	494.97	480.00
Crit W.S. (ft)	1154.20	Flow Area (sq ft)		19418.38	
E.G. Slope (ft/ft)	0.000943	Area (sq ft)	277.76	19418.38	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1524.43	Top Width (ft)	431.74	1092.69	
Vel Total (ft/s)	8.86	Avg. Vel. (ft/s)		8.86	
Max Chl Dpth (ft)	23.55	Hydr. Depth (ft)		17.77	
Conv. Total (cfs)	5600136.0	Conv. (cfs)		5600136.0	
Length Wtd. (ft)	494.97	Wetted Per. (ft)		1096.79	
Min Ch El (ft)	1140.00	Shear (lb/sq ft)		1.04	
Alpha	1.00	Stream Power (lb/ft s)		9.24	
Frctn Loss (ft)	0.44	Cum Volume (acre-ft)	2927.31	17362.54	1355.06
C & E Loss (ft)	0.00	Cum SA (acres)	277.84	1043.71	261.88

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1163.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.22	Wt. n-Val.		0.035	
E.G. Elev (ft)	1164.77	Reach Len. (ft)	500.00	494.97	480.00
Crit W.S. (ft)	1154.21	Flow Area (sq ft)		19430.92	
E.G. Slope (ft/ft)	0.000941	Area (sq ft)		19430.92	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1092.69	Top Width (ft)		1092.69	
Vel Total (ft/s)	8.85	Avg. Vel. (ft/s)		8.85	
Max Chl Dpth (ft)	23.56	Hydr. Depth (ft)		17.78	
Conv. Total (cfs)	5606088.5	Conv. (cfs)		5606088.5	
Length Wtd. (ft)	494.97	Wetted Per. (ft)		1096.82	
Min Ch El (ft)	1140.00	Shear (lb/sq ft)		1.04	
Alpha	1.00	Stream Power (lb/ft s)		9.22	
Frctn Loss (ft)	0.44	Cum Volume (acre-ft)		17228.27	2.15
C & E Loss (ft)	0.00	Cum SA (acres)		1035.28	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19329.31 LB	19408.26	2842.69	522.05	57.26	1.65	9.56	5.45
19408.26	19487.20	9710.39	1240.65	78.97	5.65	15.71	7.83
19487.20	19566.15	10568.39	1305.19	78.95	6.14	16.53	8.10
19566.15	19645.09	11191.40	1350.88	78.96	6.51	17.11	8.28
19645.09	19724.04	12565.05	1448.07	78.96	7.31	18.34	8.68
19724.04	19802.99	14518.68	1579.78	79.03	8.44	20.01	9.19
19802.99	19881.93	18484.35	1826.09	79.03	10.75	23.13	10.12
19881.93	19960.88	17556.39	1770.04	78.97	10.21	22.42	9.92
19960.88	20039.82	17123.91	1743.57	78.95	9.96	22.09	9.82
20039.82	20118.77	15876.16	1666.18	78.95	9.23	21.11	9.53
20118.77	20197.72	15373.02	1634.28	78.95	8.94	20.70	9.41
20197.72	20276.66	14144.77	1555.40	79.05	8.22	19.70	9.09
20276.66	20355.61	9765.34	1246.85	79.28	5.68	15.79	7.83
20355.61	20434.55	2270.43	520.53	79.64	1.32	6.59	4.36
20434.55	20513.50 RB	9.04	8.83	11.87	0.01	0.75	1.02

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19329.31 LB	19408.26	2845.01	522.67	57.27	1.65	9.57	5.44
19408.26	19487.20	9712.33	1241.56	78.97	5.65	15.73	7.82
19487.20	19566.15	10569.87	1306.10	78.95	6.15	16.54	8.09
19566.15	19645.09	11192.54	1351.79	78.96	6.51	17.12	8.28
19645.09	19724.04	12565.38	1448.97	78.96	7.31	18.35	8.67
19724.04	19802.99	14517.80	1580.68	79.03	8.44	20.02	9.18
19802.99	19881.93	18480.85	1826.99	79.03	10.74	23.14	10.12
19881.93	19960.88	17553.52	1770.95	78.97	10.21	22.43	9.91
19960.88	20039.82	17121.34	1744.47	78.95	9.95	22.10	9.81
20039.82	20118.77	15874.42	1667.09	78.95	9.23	21.12	9.52
20118.77	20197.72	15371.60	1635.19	78.95	8.94	20.71	9.40
20197.72	20276.66	14144.13	1556.30	79.05	8.22	19.71	9.09
20276.66	20355.61	9767.24	1247.76	79.28	5.68	15.81	7.83
20355.61	20434.55	2274.71	521.43	79.64	1.32	6.60	4.36
20434.55	20513.50 RB	9.26	8.96	11.88	0.01	0.76	1.03

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 222.93

INPUT
Description:
Station Elevation Data num= 194

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18044.81	1170.318	059.54	1170.08	18082.34	1171.84	18085.02	1170.83	18112.24	1167.63
18113.9	1167.218	124.59	1162.91	18127.16	1162.29	18130.08	1161.99	18135.27	1162.21
18172.95	1160.6	18181.4	1160.56	18188.17	1159.96	18203.15	1159.35	18206.38	1159.06
18221.12	115	918234.64	1158.86	18250.81	1158.84	18258.55	1159.01	18270.09	1159.07
18289.38	1159.718	302.61	1159.92	18311.85	1159.42	18323.82	1159.58	18333.46	1158.91
18349.35	1158.118	374.85	1152.51	8386.38	1150.79	18392.15	1149.56	18410.64	1144.97
18415.62	1144.618	434.07	1143.97	18463.53	1143.62	18486.43	1143.11	8515.51	1142.98
18525.12	1142.318	542.97	1142.23	18577.36	1141.49	18587.91	1141.55	18619.96	1142.75
18644.69	114	418653.36	1144.18	18666.31	1144.95	18693.59	1147.21	18698.21	1147.82
18709.45	1149.918	719.21	1152.24	18725.67	1153.13	18738.09	1155.02	18743.38	1156
18748.91	1158.118	756.46	1158.08	18770	1157.01	18787.62	1156.87	18791.91	1157.25
18813.17	1156.318	841.62	1154.66	18858.76	115	618881.49	1158.02	18897.61	1159.83
18907.73	1161.618	909.57	1161.22	18921.66	1160.53	18925.78	1160.08	18936.53	1160.16
18944.94	115	818951.65	1157.84	18969.72	1157.21	8987.28	1156.44	18997.79	1156.43
19026.88	1157.9	19036.5	1157.89	19047.12	1157.66	19058.92	1157.59	19099.8	1158.02
19108.79	1158.619	147.63	1165.07	19162.91	1165.11	19177.51	1164.69	19182.74	1164.85
19226.65	1158.519	240.77	1157.47	19252.37	1157.08	19268.47	1157.31	19289.85	1157.28
19305.64	1155.8	19315.5	1154.61	9327.75	1157.38	19348.09	1162.91	9351.76	1161.42
19354.63	1160.619	361.43	1165.5	19371.1	1172.11	19387.15	1171.47	19415.35	1159.17
19419.6	1157	19427.4	1156.46	19448.81	1147.05	19451.67	1145.84	19453.7	1145.59
19465.43	1145.919	470.76	1143.85	19475.04	1143.46	19484.7	1142.08	19505.7	1138.91
19533.01	1138.519	591.33	1137.71	9639.73	1142.14	19644.95	1142.57	19647.95	1142.49
19700.44	1142.119	806.44	1140.17	19818.97	114	019871.09	1139.54	19936.2	1140.13
19958.66	1140.120	036.35	1140.82	0049.41	1140.84	20133.62	1142.21	20146.15	1142.34
20182.57	1142.620	225.98	1142.62	20260.54	1143.97	20280.58	1149.62	20311.81	1158.03
20316.46	1157.720	329.75	1157.05	20377.76	1169.88	20403.92	1170.72	0412.11	1171.64
20443.67	1176.420	455.16	1176.33	20541.87	1191.42	20595.84	1199.65	20620.14	1198.6
20626.95	1198.220	640.27	1196.88	20653.4	1196.49	20663.01	1196.69	20672.83	1196.69
20685.41	1194.6	20691.5	1193.87	20704.53	1189.73	20740.62	1178.12	20759.66	1171.95
20775.41	116	720783.88	1166.34	20787.5	1166.11	20791.24	1165.37	20793.55	1164.63
20801.17	1163.120	802.77	1165.41	20807.08	1165.44	20811.98	1165.17	20812.34	1166.76
20813.33	1165.3	20817	1166.67	20827.62	1166.56	20840.67	1164.81	20874.4	1164.69
20892.67	1165.120	934.23	1165.22	0939.07	1165.25	20976.51	1169.73	20985.15	1166.37
21017.72	1166.921	088.07	1167.97	21131.31	1168.58	21159.63	1168.56	21210.47	1169.22
21255.35	1169.821	264.52	1169.94	21268.88	1170.01	21318.21	1172.22	1357.38	1170.99
21473.22	1172.221	515.36	1172.51	21548.08	1172.92	21704.73	1174.14	21756.14	1174.3
21889.34	117	521937.15	1175.26	22053.19	1175.76	22078.57	1175.52	22104.77	1176.51
22117.89	1176.922	127.78	1177.06	22139.5	1176.87	22174.8	1177.13	22183.4	1176.84
22201.98	1177.122	206.83	1177.28	22210.88	1176.49	22214.67	1176.4		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18044.81	.05	19371.1	.03	20412.11	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19371.1	20412.11	470	502.27	520	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18044.81	19371.1	1172.11	20412.11	22214.67	1171.64

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1163.05	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.27	Wt. n-Val.		0.035	
E.G. Elev (ft)	1164.32	Reach Len. (ft)	470.00	502.27	520.00
Crit W.S. (ft)	1152.09	Flow Area (sq ft)		19035.72	
E.G. Slope (ft/ft)	0.000836	Area (sq ft)	10409.04	19035.72	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	2119.92	Top Width (ft)	1174.15	945.77	
Vel Total (ft/s)	9.04	Avg. Vel. (ft/s)		9.04	
Max Chl Dpth (ft)	25.35	Hydr. Depth (ft)		20.13	
Conv. Total (cfs)	5949091.5	Conv. (cfs)		5949091.5	
Length Wtd. (ft)	502.27	Wetted Per. (ft)		953.10	
Min Ch El (ft)	1137.70	Shear (lb/sq ft)		1.04	
Alpha	1.00	Stream Power (lb/ft s)		9.42	
Frctn Loss (ft)	0.35	Cum Volume (acre-ft)	2865.98	17144.06	1355.06
C & E Loss (ft)	0.08	Cum SA (acres)	268.63	1032.13	261.88

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1163.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.27	Wt. n-Val.		0.035	
E.G. Elev (ft)	1164.33	Reach Len. (ft)	470.00	502.27	520.00
Crit W.S. (ft)	1152.09	Flow Area (sq ft)		19047.50	
E.G. Slope (ft/ft)	0.000834	Area (sq ft)		19047.50	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	945.76	Top Width (ft)		945.76	
Vel Total (ft/s)	9.03	Avg. Vel. (ft/s)		9.03	
Max Chl Dpth (ft)	25.37	Hydr. Depth (ft)		20.14	
Conv. Total (cfs)	5955134.5	Conv. (cfs)		5955134.5	
Length Wtd. (ft)	502.27	Wetted Per. (ft)		953.12	
Min Ch El (ft)	1137.70	Shear (lb/sq ft)		1.04	
Alpha	1.00	Stream Power (lb/ft s)		9.40	
Frctn Loss (ft)	0.35	Cum Volume (acre-ft)		17009.66	2.15
C & E Loss (ft)	0.08	Cum SA (acres)		1023.70	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19371.10 LB	19440.50	803.64	211.79	36.61	0.47	6.22	3.79
19440.50	19509.90	11371.34	1354.62	71.17	6.61	19.52	8.39
19509.90	19579.30	17126.30	1714.66	69.41	9.96	24.71	9.99
19579.30	19648.70	15366.93	1608.71	69.63	8.93	23.18	9.55
19648.70	19718.10	12907.41	1447.03	69.40	7.50	20.85	8.92
19718.10	19787.50	14014.03	1520.30	69.41	8.15	21.91	9.22
19787.50	19856.90	15239.46	1598.67	69.41	8.86	23.04	9.53
19856.90	19926.30	15533.67	1617.09	69.40	9.03	23.30	9.61
19926.30	19995.71	15048.06	1586.56	69.40	8.75	22.86	9.48
19995.71	20065.11	14457.21	1548.90	69.40	8.41	22.32	9.33
20065.11	20134.51	13471.36	1484.68	69.41	7.83	21.39	9.07
20134.51	20203.91	12623.39	1427.83	69.40	7.34	20.57	8.84
20203.91	20273.31	11505.47	1354.60	69.92	6.69	19.52	8.49
20273.31	20342.71	2515.46	548.24	71.28	1.46	7.90	4.59
20342.71	20412.11 RB	16.28	12.07	9.84	0.01	1.27	1.35

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19371.10 LB	19440.50	805.36	212.21	36.62	0.47	6.23	3.80
19440.50	19509.90	11372.29	1355.48	71.17	6.61	19.53	8.39
19509.90	19579.30	17123.91	1715.52	69.41	9.96	24.72	9.98
19579.30	19648.70	15365.65	1609.57	69.63	8.93	23.19	9.55
19648.70	19718.10	12907.62	1447.89	69.40	7.50	20.86	8.91
19718.10	19787.50	14013.58	1521.16	69.41	8.15	21.92	9.21

19787.50	19856.90	15238.27	1599.53	69.41	8.86	23.05	9.53
19856.90	19926.30	15532.30	1617.95	69.40	9.03	23.31	9.60
19926.30	19995.71	15046.98	1587.42	69.40	8.75	22.87	9.48
19995.71	20065.11	14456.50	1549.76	69.40	8.40	22.33	9.33
20065.11	20134.51	13471.23	1485.54	69.41	7.83	21.41	9.07
20134.51	20203.91	12623.76	1428.69	69.40	7.34	20.59	8.84
20203.91	20273.31	11506.43	1355.47	69.92	6.69	19.53	8.49
20273.31	20342.71	2519.61	549.11	71.28	1.46	7.91	4.59
20342.71	20412.11 RB	16.52	12.19	9.85	0.01	1.28	1.36

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 222.83

INPUT
Description:
Station Elevation Data num= 207

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17961.21	1167.417	965.29	1167.521	7987.09	1167.581	8016.31	1168.351	8040.57	1169.48
18053.27	1169.818	089.71	1170.391	8126.28		117018	156.09	1168.541	8167.04
18184.34	1171.618	186.48	1172.051	8190.33	1167.59	18199.7	1166.171	8221.05	1165.01
18241.73	1162.918	253.01	1160.721	8263.42	1158.091	8272.82	1155.918	277.84	1154
18292.96	1152.518	294.53	1150.19	18295.7	1149.941	8308.08	1149.931	8322.22	1151.36
18337.36	1152.518	345.61	1155.011	8380.53	1155.011	8393.59	1155.718	410.52	1155.78
18435.11	1158.118	479.88	1158.07	18495.4	1160.391	8515.38	1160.651	8532.28	1159.17
18538.83	1159.118	555.97	1159.18	18562.6	1159.571	8579.85	1162.831	8588.81	1162.83
18605.21		116118	618.77	1158.061	8626.76	1155.651	8628.35	1154.991	8639.46	1153.77
18647.65	1152.5	18657.1	1152.1	18666.6	1152.51	8686.41	1152.51	8700.37	1154.08
18709.28		115518	722.91	1155.661	8741.07	1156.141	8775.85	1156.87	18780	1156.86
18789.49	1157.318	814.28	1158.051	8831.01	1162.151	8842.81	1162.92	18853.6	1162.92
18905.71	1169.218	910.16	1169.141	8924.78	1170.061	8934.46	1170.161	8936.54	1169.63
18959.52	1162.918	971.38	1162.591	8975.93	1162.321	9001.94	1161.21	9037.07	1161.69
19059.59	1161.719	094.58	1162.281	9115.59	1162.91	9122.44	1165.641	9126.84	1167.22
19129.27	1165.619	134.29	1162.91	9144.01	1158.71	9145.23	1157.931	9202.96	1157.93
19225.71	1158.719	235.33	1158.8	19252	1158.471	9266.38	1157.921	9299.83	1155.09
19334.93	1153.919	365.14	1154.071	9380.63	1156.551	9394.72	1157.15	19409.5	1157.99
19412.49	1158.119	414.28	1157.421	9419.84	1158.41	9427.45	1161.361	9450.79	1169.94
19465.83	1170.1	19478.7	1163.451	9491.02	1156.911	9505.27	1156.44	19516.1	1150.04
19549.08	1128.419	573.13	1128.391	9583.62	1127.921	9586.27	1128.411	9598.27	1129.07
19619.16	1130.419	643.43	1135.881	9649.42	1137.541	9659.21	1137.721	9711.71	1140.3
19717.47	1141	19755.3	1140.561	9854.38	1140.271	9898.28	1140.021	9981.21	1139.71
19989.54	1139.620	009.71	1139.672	0095.91	1139.63	20129.9	1139.522	0175.64	1139.06
20247.52	1138.420	271.76	1138.252	0345.97	1140.312	0363.76	1146.072	0370.31	1148.11
20401.04	1156.520	419.29	1156.532	0461.53	1167.82	0466.01	1169.042	0477.75	1170.03
20509.81	1177.320	549.27	1185.182	0554.87	1186.39	20557.9	1186.3	20575	1186.24
20609.25		118720	613.63	1186.932	0631.69	1187.73	20662.3	1189.662	0676.58	1188.95
20684.69	1188.520	698.98	1188.442	0708.31	1188.552	0744.71	1187.772	0760.91	1187.78
20790.04	1189.220	803.44	1185.592	0833.92	1177.482	0865.39	1167.162	0866.62	1167.15
20901.79	1165.720	913.97	1164.622	0923.87	1164.442	0936.75	1166.842	0944.23	1166.96
21041.84	1172.6	21060.9	1172.042	1077.54	1171.952	1146.04	1170.482	1231.63	1170.86
21288.53		117221	290.92	1171.562	1309.06	1171.542	1320.45	1172.452	1339.54	1171.72
21345.9	1169.721	363.31	1166.582	1373.76	1166.442	1399.93	1166.672	1408.61	1169.34
21416.67	1172	21433.8	1172.012	1461.03	1171.912	1465.67	1172.022	1467.08	1171.64
21505.24	1164.421	510.85	1164.362	1522.52	1165.712	1538.01	1165.262	1590.57	1165.64
21602.98	1163.221	619.14	1159.192	1627.31	1158.432	1649.11	1159.42	1673.25	1158.82
21704.37		115821	712.13	1157.872	1751.87	1158.57	21787.6	1165.412	1817.59	1163.77
21841.71	1163.521	855.88	1163.74	21924.9	1164.472	1939.97	1164.412	1947.94	1164.52
22001.19	1163.922	058.68	1165.792	2101.69	1171.912	2109.78	1173.182	2111.55	1173.13
22121.15		117422	125.94	1172.672	2132.03	1171.312	2144.69	1171.952	2165.48	1171.51
22179.43	1171.222	216.33	1170.96						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17961.21	.05	19465.83	.03	20477.75	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19465.8	20477.75	497.11	497.11	497.11	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17961.21	19465.83	1170.12	20477.75	22216.33	1170.03

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1162.90	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.00	Wt. n-Val.		0.035	
E.G. Elev (ft)	1163.89	Reach Len. (ft)	497.11	497.11	497.11

Crit W.S. (ft)	1149.43	Flow Area (sq ft)		21474.69	
E.G. Slope (ft/ft)	0.000578	Area (sq ft)	5559.36	21474.69	652.14
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	2187.54	Top Width (ft)	1053.86	963.41	170.27
Vel Total (ft/s)	8.01	Avg. Vel. (ft/s)		8.01	
Max Chl Dpth (ft)	34.98	Hydr. Depth (ft)		22.29	
Conv. Total (cfs)	7151936.5	Conv. (cfs)		7151936.5	
Length Wtd. (ft)	497.11	Wetted Per. (ft)		977.40	
Min Ch El (ft)	1127.92	Shear (lb/sq ft)		0.79	
Alpha	1.00	Stream Power (lb/ft s)		6.35	
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	2779.83	16910.51	1351.16
C & E Loss (ft)	0.00	Cum SA (acres)	256.61	1021.12	260.87

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1162.91	Element			
Vel Head (ft)	0.99	Wt. n-Val.		0.035	
E.G. Elev (ft)	1163.90	Reach Len. (ft)	497.11	497.11	497.11
Crit W.S. (ft)	1149.43	Flow Area (sq ft)		21486.92	
E.G. Slope (ft/ft)	0.000577	Area (sq ft)		21486.92	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	963.41	Top Width (ft)		963.41	
Vel Total (ft/s)	8.00	Avg. Vel. (ft/s)		8.00	
Max Chl Dpth (ft)	34.99	Hydr. Depth (ft)		22.30	
Conv. Total (cfs)	7158595.0	Conv. (cfs)		7158595.0	
Length Wtd. (ft)	497.11	Wetted Per. (ft)		977.43	
Min Ch El (ft)	1127.92	Shear (lb/sq ft)		0.79	
Alpha	1.00	Stream Power (lb/ft s)		6.34	
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)		16775.96	2.15
C & E Loss (ft)	0.00	Cum SA (acres)		1012.70	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19465.83 LB	19533.29	2309.35	544.98	60.17	1.34	10.18	4.24
19533.29	19600.75	21930.66	2242.76	70.63	12.75	33.25	9.78
19600.75	19668.21	17909.08	1960.11	68.35	10.41	29.05	9.14
19668.21	19735.68	12310.58	1558.04	67.56	7.16	23.10	7.90
19735.68	19803.14	11668.97	1507.95	67.46	6.78	22.35	7.74
19803.14	19870.60	11867.90	1523.32	67.46	6.90	22.58	7.79
19870.60	19938.06	12138.34	1544.05	67.46	7.06	22.89	7.86
19938.06	20005.52	12381.09	1562.53	67.46	7.20	23.16	7.92
20005.52	20072.98	12451.79	1567.85	67.46	7.24	23.24	7.94
20072.98	20140.44	12520.69	1573.05	67.46	7.28	23.32	7.96
20140.44	20207.90	12968.39	1606.59	67.46	7.54	23.82	8.07
20207.90	20275.37	13523.90	1647.54	67.46	7.86	24.42	8.21
20275.37	20342.83	12780.44	1592.81	67.49	7.43	23.61	8.02
20342.83	20410.29	4913.56	909.79	69.81	2.86	13.49	5.40
20410.29	20477.75 RB	325.26	133.33	33.70	0.19	4.06	2.44

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19465.83 LB	19533.29	2311.72	545.66	60.18	1.34	10.19	4.24
19533.29	19600.75	21924.97	2243.61	70.63	12.75	33.26	9.77
19600.75	19668.21	17906.07	1960.97	68.35	10.41	29.07	9.13
19668.21	19735.68	12310.83	1558.90	67.56	7.16	23.11	7.90
19735.68	19803.14	11669.55	1508.81	67.46	6.78	22.37	7.73
19803.14	19870.60	11868.38	1524.17	67.46	6.90	22.59	7.79
19870.60	19938.06	12138.68	1544.91	67.46	7.06	22.90	7.86
19938.06	20005.52	12381.31	1563.38	67.46	7.20	23.17	7.92
20005.52	20072.98	12451.96	1568.70	67.46	7.24	23.25	7.94
20072.98	20140.44	12520.83	1573.91	67.46	7.28	23.33	7.96
20140.44	20207.90	12968.29	1607.44	67.46	7.54	23.83	8.07
20207.90	20275.37	13523.50	1648.39	67.46	7.86	24.43	8.20
20275.37	20342.83	12780.44	1593.67	67.49	7.43	23.62	8.02
20342.83	20410.29	4916.87	910.64	69.81	2.86	13.50	5.40

20410.29	20477.75 RB	326.58	133.74	33.71	0.19	4.07	2.44

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 222.74

INPUT
Description:
Station Elevation Data num= 161

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17982.09	1170.817	992.53	1169.96	17996.32	1169.86	18032.69	1167.45	18053.23	1168.73
18067.98	1172.7	18074.2	1171.33	18096.5	1177.13	18098.56	1176.82	18122.76	1171.53
18132.05	117	018158.62	1168.51	8174.89	1167.38	18208.93	1167.21	8216.61	1167.33
18232.17	1167.41	8267.41	1167.75	18317.51	1168.86	18334.53	1169.21	18358.54	1170.24
18373.22	1168.21	8411.05	1162.74	18436.87	1163.41	18463.27	1164.02	18480.46	1167.03
18508.28	1172.71	8515.09	1173.88	18533.45	1172.14	18583.6	1166.29	18588.28	1165.63
18605.22	1165.11	8653.94	1163.22	18673.1	1167.19	18710.22	1173.45	18720.1	1174.09
18730.18	1170.31	8745.53	1167.33	18755.93	1167.66	18773.24	1166.68	18779.21	1166.25
18799.28	1166.81	8826.98	1173.52	18847.47	1178.51	18872.64	1172.53	18901.41	1166.37
18909.22	1166.81	8942.54	1167.82	18959.71	1167.77	18964.66	1169.73	18972.24	1170.59
18980.05	1169.61	8988.04	1168.93	19017.16	1173.39	19090.23	1158.99	19099.73	1158.44
19164.68	115	619180.85	1155.09	19200.88	1154.05	19220.13	1153.11	9233.74	1153.84
19241.42	1153.8	19245.8	1154.32	19257.91	1151.99	19276.54	1155.78	19292.29	1156.72
19301.43	1157.81	9319.12	1160.74	19322.64	1161.57	19341.09	1154.47	19364.63	1145.65
19395.57	1144.51	9411.84	1144.82	19474.07	1165.07	19487.8	1169.39	19506.54	1171.93
19522.71	1165.91	9549.67	1155.62	19563.25	1156.02	19596.55	1136.44	19598.23	1135.69
19629.09	1135.11	9639.29	1134.16	19653.9	1137.42	19659.49	1138.11	9700.97	1138.67
19764.93	1139.31	9836.78	1140.51	19894.72	1141.71	19925.21	1140.44	20018.05	1140.13
20037.37	1140.42	0062.45	1140.51	20167.3	1140.74	20257.17	1140.84	20313.38	1140.87
20371.73	114	120391.45	1140.86	20450.23	1139.77	20455.53	1139.71	20466.88	1141.52
20477.89	1143.52	0491.97	1145	20500.5	1149.82	20505.97	1152.61	20520.94	1152.55
20531.04	1156.82	0535.25	1156.83	20546.8	1156.54	20591.55	1168.47	20603.24	1168.78
20618.71	116	920672.42	1173.08	20694.37	1174.06	20708.79	1175.56	20722.38	1177.07
20727.88	1177.6	20764.4	1181.29	20774.47	1182.52	20786.38	1183.77	20818.82	1183.97
20847.26	1184	20877.3	1183.22	0881.97	1183.22	0885.59	1182.52	0892.04	1183.45
20900.03	1180.52	0903.33	1177.67	20951.64	1161.29	20972.4	1162.01	21006.74	1157.56
21022.81	1157.32	1045.77	1157.22	21073.73	1157.63	21119.61	1157.98	21142.99	1158.06
21210.54	1157.42	1242.07	1156.91	21264.3	1156.46	21271.2	1156.46	21311.68	1156.11
21335.69	115	621344.52	1156.32	1396.55	1156.84	21419.85	1157.29	21471.72	1157.82
21481.43	1157.92	1517.63	1158.29	21527.65	1158.32	21541.52	1159.03	21547.73	1159.45
21551.84	1160.62	1587.19	1170.8	21595.8	1169.76	21601.57	1169.38	21616	1166.14
21620.18	1164.62	1633.88	1165.56	21667.59	1167.31	21681.23	1168.87	21731.75	1169.61
21738.87	1169.6								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17982.09	.05	19506.54	.03	20603.24	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19506.54	20603.24	482.71	482.71	482.71	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17982.09	19506.54	1171.93	20603.24	21738.87	1168.78

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1162.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.00	Wt. n-Val.		0.035	
E.G. Elev (ft)	1163.59	Reach Len. (ft)	482.71	482.71	482.71
Crit W.S. (ft)	1150.45	Flow Area (sq ft)		21415.29	
E.G. Slope (ft/ft)	0.000642	Area (sq ft)	3281.37	21415.29	2982.41
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	2043.47	Top Width (ft)	394.47	1038.09	610.91
Vel Total (ft/s)	8.03	Avg. Vel. (ft/s)		8.03	
Max Chl Dpth (ft)	28.43	Hydr. Depth (ft)		20.63	
Conv. Total (cfs)	6789622.0	Conv. (cfs)		6789622.0	
Length Wtd. (ft)	482.71	Wetted Per. (ft)		1049.38	
Min Ch El (ft)	1134.16	Shear (lb/sq ft)		0.82	
Alpha	1.00	Stream Power (lb/ft s)		6.57	
Frctn Loss (ft)	0.32	Cum Volume (acre-ft)	2729.39	16665.78	1330.42
C & E Loss (ft)	0.00	Cum SA (acres)	248.34	1009.70	256.41

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1162.60	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.00	Wt. n-Val.		0.035	
E.G. Elev (ft)	1163.60	Reach Len. (ft)	482.71	482.71	482.71
Crit W.S. (ft)	1150.47	Flow Area (sq ft)		21429.35	
E.G. Slope (ft/ft)	0.000640	Area (sq ft)		21429.35	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1038.09	Top Width (ft)		1038.09	
Vel Total (ft/s)	8.03	Avg. Vel. (ft/s)		8.03	
Max Chl Dpth (ft)	28.44	Hydr. Depth (ft)		20.64	
Conv. Total (cfs)	6796929.0	Conv. (cfs)		6796929.0	
Length Wtd. (ft)	482.71	Wetted Per. (ft)		1049.41	
Min Ch El (ft)	1134.16	Shear (lb/sq ft)		0.82	
Alpha	1.00	Stream Power (lb/ft s)		6.55	
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)		16531.08	2.15
C & E Loss (ft)	0.00	Cum SA (acres)		1001.28	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19506.54 LB	19579.65	1242.95	342.38	52.17	0.72	7.10	3.63
19579.65	19652.77	16618.36	1889.60	76.36	9.66	25.84	8.79
19652.77	19725.88	15245.02	1764.11	73.19	8.86	24.13	8.64
19725.88	19798.99	14346.94	1700.37	73.12	8.34	23.26	8.44
19798.99	19872.11	13142.33	1613.27	73.13	7.64	22.07	8.15
19872.11	19945.22	12653.76	1577.17	73.14	7.36	21.57	8.02
19945.22	20018.33	13414.15	1633.10	73.11	7.80	22.34	8.21
20018.33	20091.45	13225.31	1619.30	73.12	7.69	22.15	8.17
20091.45	20164.56	13013.56	1603.65	73.11	7.57	21.93	8.11
20164.56	20237.67	12891.46	1594.61	73.11	7.50	21.81	8.08
20237.67	20310.79	12822.53	1589.49	73.11	7.45	21.74	8.07
20310.79	20383.90	12735.39	1583.00	73.11	7.40	21.65	8.05
20383.90	20457.01	13339.29	1627.88	73.14	7.76	22.27	8.19
20457.01	20530.13	6864.31	1110.82	76.21	3.99	15.19	6.18
20530.13	20603.24 RB	444.64	166.54	40.23	0.26	4.23	2.67

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19506.54 LB	19579.65	1245.41	343.03	52.18	0.72	7.11	3.63
19579.65	19652.77	16615.53	1890.59	76.36	9.66	25.86	8.79
19652.77	19725.88	15243.38	1765.10	73.19	8.86	24.14	8.64
19725.88	19798.99	14345.90	1701.36	73.12	8.34	23.27	8.43
19798.99	19872.11	13142.06	1614.26	73.13	7.64	22.08	8.14
19872.11	19945.22	12653.80	1578.16	73.14	7.36	21.59	8.02
19945.22	20018.33	13413.71	1634.09	73.11	7.80	22.35	8.21
20018.33	20091.45	13224.99	1620.29	73.12	7.69	22.16	8.16
20091.45	20164.56	13013.37	1604.65	73.11	7.57	21.95	8.11
20164.56	20237.67	12891.35	1595.60	73.11	7.49	21.82	8.08
20237.67	20310.79	12822.46	1590.48	73.11	7.45	21.75	8.06
20310.79	20383.90	12735.38	1583.99	73.11	7.40	21.66	8.04
20383.90	20457.01	13338.89	1628.87	73.14	7.76	22.28	8.19
20457.01	20530.13	6867.34	1111.81	76.21	3.99	15.21	6.18
20530.13	20603.24 RB	446.43	167.07	40.25	0.26	4.24	2.67

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 222.65

INPUT
Description:
Station Elevation Data num= 155

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17404.99	1171.717	455.15	1171.35	17594.58	1170.59	17610.45	1172.77	17630.6	1178.06
17638.11	1176.917	712.52	1163.47	17721.07	1165.12	17728.33	1166.28	17752.53	1167.31
17771.9	1166.817	779.32	1167.51	17803.99	1167.69	17814.02	1166.82	17816.45	1166.34
17824.79	1165.317	834.91	1163.46	17861.4	1159.34	17873.47	1161.25	17930.08	1172.25
17936.15	1171.717	941.52	1171.76	17965.96	1171.21	17984.66	1169.67	18000.74	1167.89
18014.08	1167.418	065.91	1162.05	18071.71	1161.34	18101.15	1164.63	18108.42	1165.55
18123.61	1167.118	134.43	1167.55	18155.83	1167.73	18233.81	1168.21	18246.71	1168.88

18272.02	1170.118285.58	1171.0618324.19	1172.13 18330.8	1170.4418373.38	1166.99	
18419	1167.618428.86	1167.6618485.85	1168.3118500.56	1170.0618513.19	1168.65	
18535.63	1165.5 18556	1163.11 18580.9	1163.7418595.32	1164.0318603.14	1165.8	
18637.29	1174.118661.17	1167.1818678.19	1161.9318682.19	1162.0518707.41	1163.23	
18713.37	116418740.98	1166.618748.05	1165.9218762.86	1163.9518780.67	1162.7	
18809.79	116518837.54	1169.2718852.87	1169.7718873.86	1171.3618881.29	1170.69	
18926.37	1163.818934.97	1163.7618985.26	1163.6818991.65	1164.4619036.98	1171.26	
19041.3	1171.619060.89	1169.1519075.83	1164.3519108.82	1163.1719143.06	1161.62	
19162.71	1156.519197.45	1154.5819213.69	1153.4519241.35	1154.5819286.86	1154.2	
19320.75	1152.919351.72	1153.0919400.99	1151.7119440.57	1151.6619449.53	1151.38	
19485.79	1163.119496.37	1164.3219518.27	1171.0419534.96	1170.8919551.91	1165.46	
19581.29	1155.319594.59	1155.4519603.69	1151.0119624.13	1141.58 19658.7	1141.45	
19665.28	1141.519673.04	1144.5419673.96	1144.219688.76	1140.1819698.97	1141.24	
19764	1142.5 19808.2	1143.3519938.09	1141.3219942.81	1141.1920064.62	1140.14	
20179.57	1141.220212.29	1141.2520266.54	1142.48 20341.2	1144.3220378.62	1143.45	
20399.95	1142.720414.25	1142.3220445.28	1142.0920453.86	1141.6220485.29	1141.76	
20511.56	1141.620521.79	1141.3820543.11	1143.7320548.38	1143.6220567.92	1143.82	
20575.16	1143.720588.35	1143.3920613.27	1143.25 20632.9	1143 20668.5	1143.04	
20713.81	1142.220780.36	1141.7520805.06	1141.320883.73	1139.3520935.22	1138.75	
21003.81	1160.421126.11	1163.6821192.48	1143.6321221.17	1143.721231.48	1143.84	
21245.6	1144.3 21256.9	1148.8221270.39	1155.4821279.83	1154.4621291.04	1153.78	
21301.04	1162.8 21310.2	1169.1321321.95	1168.4821323.69	1168.0421347.73	1165.04	
21353.28	1164.921374.94	1165.5321404.93	1166.721441.38	1168.3721454.58	1169.63	
21464.01	1169.821488.71	1169.5221502.48	1169.2421543.81	1168.721549.79	1168.8	

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17404.99	.05	19518.27	.03	21126.11	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19518.27	21126.11	525	522.87	470	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17404.99	19518.27	1171.04	20640.75	21549.79	1168

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1162.23	Element			
Vel Head (ft)	1.03	Wt. n-Val.		0.035	
E.G. Elev (ft)	1163.26	Reach Len. (ft)	525.00	522.87	470.00
Crit W.S. (ft)	1151.59	Flow Area (sq ft)		21092.08	
E.G. Slope (ft/ft)	0.000706	Area (sq ft)	2836.60	28219.67	2063.84
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	2093.67	Top Width (ft)	413.44	1510.74	169.49
Vel Total (ft/s)	8.15	Avg. Vel. (ft/s)		8.15	
Max Chl Dpth (ft)	23.48	Hydr. Depth (ft)		19.54	
Conv. Total (cfs)	6473008.5	Conv. (cfs)		6473008.5	
Length Wtd. (ft)	522.87	Wetted Per. (ft)		1085.25	
Min Ch El (ft)	1138.75	Shear (lb/sq ft)		0.86	
Alpha	1.00	Stream Power (lb/ft s)		6.99	
Frctn Loss (ft)	0.28	Cum Volume (acre-ft)	2695.49	16390.76	1302.46
C & E Loss (ft)	0.07	Cum SA (acres)	243.87	995.58	252.08

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1162.24	Element			
Vel Head (ft)	1.03	Wt. n-Val.		0.035	
E.G. Elev (ft)	1163.27	Reach Len. (ft)	525.00	522.87	470.00
Crit W.S. (ft)	1151.59	Flow Area (sq ft)		21103.01	
E.G. Slope (ft/ft)	0.000722	Area (sq ft)		21103.01	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1079.50	Top Width (ft)		1079.50	
Vel Total (ft/s)	8.15	Avg. Vel. (ft/s)		8.15	
Max Chl Dpth (ft)	22.10	Hydr. Depth (ft)		19.55	
Conv. Total (cfs)	6403131.0	Conv. (cfs)		6403131.0	
Length Wtd. (ft)	522.87	Wetted Per. (ft)		1104.49	
Min Ch El (ft)	1140.14	Shear (lb/sq ft)		0.86	
Alpha	1.00	Stream Power (lb/ft s)		7.02	
Frctn Loss (ft)	0.29	Cum Volume (acre-ft)		16295.42	2.15
C & E Loss (ft)	0.07	Cum SA (acres)		989.54	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19518.27 LB	19625.46	2804.26	595.59	68.47	1.63	9.28	4.71
19625.46	19732.65	18257.62	2202.84	108.42	10.61	20.55	8.29
19732.65	19839.84	16803.23	2086.38	107.21	9.77	19.46	8.05
19839.84	19947.03	17895.56	2166.70	107.20	10.40	20.21	8.26
19947.03	20054.22	19891.74	2308.55	107.19	11.56	21.54	8.62
20054.22	20161.41	20114.39	2324.02	107.19	11.69	21.68	8.65
20161.41	20268.60	18579.23	2216.01	107.20	10.80	20.67	8.38
20268.60	20375.78	15638.58	1998.46	107.22	9.09	18.64	7.83
20375.78	20482.97	17499.37	2137.94	107.22	10.17	19.95	8.19
20482.97	20590.16	16874.11	2092.60	107.33	9.81	19.52	8.06
20590.16	20697.35	7641.93	962.98	50.59	4.44	19.04	7.94

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19518.27 LB	19625.46	2830.94	596.24	68.48	1.65	9.29	4.75
19625.46	19732.65	18415.26	2203.92	108.42	10.71	20.56	8.36
19732.65	19839.84	16949.09	2087.47	107.21	9.85	19.47	8.12
19839.84	19947.03	18050.33	2167.79	107.20	10.49	20.22	8.33
19947.03	20054.22	20062.73	2309.64	107.19	11.66	21.55	8.69
20054.22	20161.41	20287.19	2325.11	107.19	11.79	21.69	8.73
20161.41	20268.60	18739.55	2217.09	107.20	10.90	20.68	8.45
20268.60	20375.78	15774.93	1999.55	107.22	9.17	18.65	7.89
20375.78	20482.97	17650.90	2139.03	107.22	10.26	19.96	8.25
20482.97	20590.16	17020.54	2093.69	107.33	9.90	19.53	8.13
20590.16	20697.35	6218.53	963.49	69.82	3.62	19.05	6.45

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 222.55

INPUT
Description:
Station Elevation Data num= 116

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17744.06	1173.8	17756.47	1173.15	17762.55	1172.98	17806.58	1172.66	17834.02	1172.37
17897.72	1171.5	17912.67	1171.42	17936.16	1172.21	17971.06	1177.08	18016.62	1169.19
18043.32	1170.8	18075.87	1171.83	18095.2	1170.01	18100.43	1170.82	18121.15	1171.17
18122.99	1171.4	18128.9	1175.84	18143.27	1173.57	18171.07	1168.87	18204.45	1169.61
18211.64	1170.1	18243.71	1176.16	18293.5	1170.14	18308.83	1168.78	18326.93	1167.37
18356.47	1166.2	18528.14	1168.03	18566.48	1168.47	18595.99	1169.92	18646.3	1170.82
18668.09	1170.9	18678.44	1170.91	18698.5	1167.11	18705.62	1166.51	18755.44	1164.83
18759.49	1165.7	18768.93	1166.08	18777.73	1165.84	18801.44	1165.59	18860.97	1164.39
19004.58	1164.1	19009.16	1164.24	19013.63	1164.03	19062.68	1163.53	19076.86	1164.4
19103.91	1164.5	19151.9	1164.99	19161.32	1164.92	19209.63	1165.31	19216.64	1165.2
19241.21	1159.6	19298.08	1147.67	19394.55	1147.28	19419.11	1147.31	19448.19	1156.85
19489.95	1170.9	19493.48	1170.42	19501.76	1169.74	19533.66	1159	19546.5	1154.48
19566.54	1155.5	19569.57	1156.32	19572.55	1154.46	19585.14	1145.74	19593.28	1144.58
19627.97	1145.4	19680.55	1145.57	19710.26	1145.9	19719.38	1147.75	19726.64	1148.8
19742.6	1143.8	19747.24	1142.72	19752.29	1143.88	19769.32	1147.47	19781.32	1145.45
19790.31	1145.4	19861.96	1145.14	19905.92	1144.28	19999.24	1141.62	20018.77	1141.24
20134.34	1140.5	20140.11	1140.67	20204.62	1143.02	20265.64	1144	20342.6	1143.15
20404.82	1142.7	20491.58	1142.57	20531.64	1142.25	20539.7	1142.28	20651.51	1140.19
20679.09	1139.6	20708.14	1139.71	20819.91	1140.09	20839.79	1140.69	20881.49	1142.31
20944.38	1143.8	20948.55	1143.72	20963.9	1142.88	20996.56	1149.24	21031.97	1155.32
21042.88	1157.5	21063.95	1155.63	21069.25	1157.24	21091.25	1164.76	21110.23	1170.12
21117.13	1169.2	21127.04	1167.03	21154.97	1157.04	21158.21	1157.47	21163.21	1157.1
21174.3	1174.7	21180.73	1177.3	21182.91	1177.66	21220.99	1166.85	21236.18	1173.93
21239.44	1174.5								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17744.06	.04	19489.95	.03	21110.23	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19489.95	21110.23	530	514.6	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17744.06	19489.95	1170.9	20795	21239.44	1170

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1162.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.81	Wt. n-Val.		0.030	
E.G. Elev (ft)	1162.91	Reach Len. (ft)	530.00	514.60	510.00
Crit W.S. (ft)	1151.35	Flow Area (sq ft)		23760.71	
E.G. Slope (ft/ft)	0.000433	Area (sq ft)	2601.20	28277.44	83.37
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1818.05	Top Width (ft)	233.53	1559.00	25.53
Vel Total (ft/s)	7.24	Avg. Vel. (ft/s)		7.24	
Max Chl Dpth (ft)	22.50	Hydr. Depth (ft)		18.70	
Conv. Total (cfs)	8262618.0	Conv. (cfs)		8262618.0	
Length Wtd. (ft)	514.60	Wetted Per. (ft)		1277.27	
Min Ch El (ft)	1139.60	Shear (lb/sq ft)		0.50	
Alpha	1.00	Stream Power (lb/ft s)		3.64	
Frctn Loss (ft)	0.22	Cum Volume (acre-ft)	2662.72	16051.68	1290.88
C & E Loss (ft)	0.02	Cum SA (acres)	239.97	977.15	251.03

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1162.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.81	Wt. n-Val.		0.030	
E.G. Elev (ft)	1162.91	Reach Len. (ft)	530.00	514.60	510.00
Crit W.S. (ft)	1151.35	Flow Area (sq ft)		23765.05	
E.G. Slope (ft/ft)	0.000443	Area (sq ft)		23765.05	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1270.54	Top Width (ft)		1270.54	
Vel Total (ft/s)	7.24	Avg. Vel. (ft/s)		7.24	
Max Chl Dpth (ft)	22.50	Hydr. Depth (ft)		18.70	
Conv. Total (cfs)	8171156.5	Conv. (cfs)		8171156.5	
Length Wtd. (ft)	514.60	Wetted Per. (ft)		1299.37	
Min Ch El (ft)	1139.60	Shear (lb/sq ft)		0.51	
Alpha	1.00	Stream Power (lb/ft s)		3.66	
Frctn Loss (ft)	0.22	Cum Volume (acre-ft)		16026.13	2.15
C & E Loss (ft)	0.02	Cum SA (acres)		975.44	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19489.95 LB	19597.97	2596.74	634.96	78.26	1.51	8.64	4.09
19597.97	19705.99	11913.92	1801.81	108.03	6.93	16.68	6.61
19705.99	19814.01	11300.47	1757.25	109.84	6.57	16.27	6.43
19814.01	19922.02	12606.06	1863.95	108.03	7.33	17.26	6.76
19922.02	20030.04	15822.73	2136.44	108.05	9.20	19.78	7.41
20030.04	20138.06	17868.52	2297.86	108.02	10.39	21.27	7.78
20138.06	20246.08	15711.53	2127.51	108.07	9.13	19.70	7.38
20246.08	20354.10	14187.25	2000.85	108.03	8.25	18.52	7.09
20354.10	20462.12	15237.23	2088.37	108.02	8.86	19.33	7.30
20462.12	20570.14	15807.73	2134.99	108.03	9.19	19.76	7.40
20570.14	20678.16	18051.46	2312.09	108.04	10.50	21.40	7.81
20678.16	20786.17	19339.67	2409.53	108.02	11.24	22.31	8.03
20786.17	20894.19	1556.70	195.12	8.83	0.91	22.11	7.98

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19489.95 LB	19597.97	2610.98	635.21	78.27	1.52	8.64	4.11
19597.97	19705.99	11975.83	1802.18	108.03	6.96	16.68	6.65
19705.99	19814.01	11359.30	1757.62	109.84	6.60	16.27	6.46
19814.01	19922.02	12671.42	1864.31	108.03	7.37	17.26	6.80
19922.02	20030.04	15904.11	2136.80	108.05	9.25	19.78	7.44
20030.04	20138.06	17960.05	2298.23	108.02	10.44	21.28	7.81
20138.06	20246.08	15792.36	2127.88	108.07	9.18	19.70	7.42
20246.08	20354.10	14260.49	2001.22	108.03	8.29	18.53	7.13
20354.10	20462.12	15315.70	2088.74	108.02	8.90	19.34	7.33
20462.12	20570.14	15889.04	2135.36	108.03	9.24	19.77	7.44

20570.14	20678.16	18143.90	2312.46	108.04	10.55	21.41	7.85
20678.16	20786.17	19438.50	2409.90	108.02	11.30	22.31	8.07
20786.17	20894.19	678.31	195.15	30.92	0.39	22.11	3.48

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 222.45

INPUT
Description:
Station Elevation Data num= 130

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17826.14	1166.117	847.35	1165.83	17867.83	1165.71	17896.5	1165.81	17909.57	1166.58
17929.22	116	717933.44	1166.61	7945.88	1166.54	17964.38	1166.38	18000.7	1166.35
18014.83	1166.61	8040.52	1166.57	18066.47	1166.65	18080.29	1166.73	18123.92	1167.09
18131.62	1167.41	8134.38	1168.08	18154	1167.21	8212.81	1167.96	18217.63	1168.17
18231.89	1169.91	8236.14	1167.11	8313.15	1166.84	18357.54	1167.01	18365.31	1167.61
18405.52	1168.81	8432.68	1169.38	18458.94	1174.25	18467.92	1175.33	18491.25	1168.94
18506.43	1165.61	8562.53	1166.51	8570.92	1166.69	18593.26	1167.46	18623.09	1171.06
18651.32	1179.51	8666.72	1172.85	18692.67	1169.59	18721.79	1167.81	18740.05	1168.35
18748.81	1168.51	8764.51	1169.22	18770.88	1168.66	18786.1	1167.02	18853.5	1167.63
18866.83	116	818869.66	1167.51	8875.57	1166.15	18880.81	1164.61	8907.18	1158.03
18921.75	1161.71	8935.89	1165.41	8956.79	1166.34	18982.03	1172.31	9015.99	1169.97
19048.41	1170.41	9075.35	1171.83	19087.5	1171.43	19130.27	1170.78	19142.75	1166.75
19154.41	1162.81	9163.56	116	419175.09	1163.51	9201.66	1158.04	19213.04	1156.88
19233.35	1153.6	19253	1150.81	9268.39	1150.96	19365.44	1151.25	19368.91	1148.97
19388.71	1155.71	9435.01	1171.24	19444.85	1169.76	19461.47	1164.91	19477.62	1160.68
19495.51	1155.41	9502.85	1155.34	19515.29	1155.57	19527.51	1149.71	19535.78	1145.59
19536.81	1145.61	9644.25	1143.03	19648.81	1142.95	19707.18	1143.44	19783.36	1144.02
19789.94	1143.41	9797.04	1145.66	19802.38	1147.15	19813.62	1144.81	9828.92	1141.14
19844.54	1143.11	9893.28	1142.11	19913.38	1141.43	19993.19	1139.61	20050.51	1139.54
20076.37	1141.32	0156.81	1143.66	20186.3	1143.57	20259.79	1142.42	20320.2	1141.63
20357.92	1141.42	0420.64	1142.17	20455.71	1142.47	20504.95	1142.45	20589.88	1142.33
20612.55	1142.52	0668.97	1143.15	20725.94	1143.71	20759.88	1144.45	20809.08	1155.95
20816.37	1157.62	0823.32	1157.45	20847.23	1157.11	20863.63	1162.91	20877.99	1163.67
20879.89	1163.92	0893.74	1169.14	20896.64	1170.08	20908.16	1169.35	20922.96	1165.23
20941.89	1165.82	0980.46	1167.05	21028.71	1166.84	21064.77	1166.66	21080.34	1166.69
21162.91	116	721209.22	1166.82	21232.13	1166.52	1248.59	1166.73	21260.16	1166.65

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17826.14	.04	19435.01	.03	20896.64	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19435.01	20896.64	420	480.98	550	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17826.14	19435.01	1171.24	20896.64	21260.16	1170.08

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1161.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.74	Wt. n-Val.		0.030	
E.G. Elev (ft)	1162.67	Reach Len. (ft)	420.00	480.98	550.00
Crit W.S. (ft)	1151.04	Flow Area (sq ft)		24914.87	
E.G. Slope (ft/ft)	0.000416	Area (sq ft)	1984.91	24914.87	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1643.65	Top Width (ft)	255.64	1388.01	
Vel Total (ft/s)	6.90	Avg. Vel. (ft/s)		6.90	
Max Chl Dpth (ft)	22.39	Hydr. Depth (ft)		17.95	
Conv. Total (cfs)	8431141.0	Conv. (cfs)		8431141.0	
Length Wtd. (ft)	480.98	Wetted Per. (ft)		1395.17	
Min Ch El (ft)	1139.54	Shear (lb/sq ft)		0.46	
Alpha	1.00	Stream Power (lb/ft s)		3.20	
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	2634.82	15737.49	1290.39
C & E Loss (ft)	0.04	Cum SA (acres)	236.99	959.75	250.88

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1161.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.74	Wt. n-Val.		0.030	
E.G. Elev (ft)	1162.67	Reach Len. (ft)	420.00	480.98	550.00
Crit W.S. (ft)	1151.04	Flow Area (sq ft)		24916.05	

E.G. Slope (ft/ft)	0.000416	Area (sq ft)	24916.05	
Q Total (cfs)	172000.00	Flow (cfs)	172000.00	
Top Width (ft)	1388.01	Top Width (ft)	1388.01	
Vel Total (ft/s)	6.90	Avg. Vel. (ft/s)	6.90	
Max Chl Dpth (ft)	22.39	Hydr. Depth (ft)	17.95	
Conv. Total (cfs)	8431809.0	Conv. (cfs)	8431809.0	
Length Wtd. (ft)	480.98	Wetted Per. (ft)	1395.17	
Min Ch El (ft)	1139.54	Shear (lb/sq ft)	0.46	
Alpha	1.00	Stream Power (lb/ft s)	3.20	
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	15738.59	2.15
C & E Loss (ft)	0.04	Cum SA (acres)	959.73	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19435.01 LB	19532.45	1245.17	381.27	62.44	0.72	6.40	3.27
19532.45	19629.89	11061.83	1692.15	97.86	6.43	17.37	6.54
19629.89	19727.34	12523.69	1819.92	97.45	7.28	18.68	6.88
19727.34	19824.78	11388.06	1727.01	98.58	6.62	17.72	6.59
19824.78	19922.22	13700.92	1922.74	97.71	7.97	19.73	7.13
19922.22	20019.66	16123.17	2117.88	97.46	9.37	21.73	7.61
20019.66	20117.10	15418.32	2062.33	97.52	8.96	21.16	7.48
20117.10	20214.55	12449.16	1813.52	97.46	7.24	18.61	6.86
20214.55	20311.99	13489.29	1902.87	97.45	7.84	19.53	7.09
20311.99	20409.43	14383.06	1977.51	97.45	8.36	20.29	7.27
20409.43	20506.87	13528.82	1906.17	97.45	7.87	19.56	7.10
20506.87	20604.31	13505.83	1904.20	97.44	7.85	19.54	7.09
20604.31	20701.76	12854.60	1848.60	97.45	7.47	18.97	6.95
20701.76	20799.20	9575.64	1555.96	98.51	5.57	15.97	6.15
20799.20	20896.64 RB	752.42	282.72	62.94	0.44	4.59	2.66

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19435.01 LB	19532.45	1245.36	381.32	62.44	0.72	6.40	3.27
19532.45	19629.89	11061.89	1692.24	97.86	6.43	17.37	6.54
19629.89	19727.34	12523.69	1820.00	97.45	7.28	18.68	6.88
19727.34	19824.78	11388.11	1727.10	98.58	6.62	17.72	6.59
19824.78	19922.22	13700.87	1922.82	97.71	7.97	19.73	7.13
19922.22	20019.66	16123.00	2117.97	97.46	9.37	21.74	7.61
20019.66	20117.10	15418.18	2062.42	97.52	8.96	21.17	7.48
20117.10	20214.55	12449.17	1813.61	97.46	7.24	18.61	6.86
20214.55	20311.99	13489.25	1902.96	97.45	7.84	19.53	7.09
20311.99	20409.43	14382.97	1977.59	97.45	8.36	20.30	7.27
20409.43	20506.87	13528.78	1906.25	97.45	7.87	19.56	7.10
20506.87	20604.31	13505.79	1904.28	97.44	7.85	19.54	7.09
20604.31	20701.76	12854.58	1848.69	97.45	7.47	18.97	6.95
20701.76	20799.20	9575.76	1556.04	98.51	5.57	15.97	6.15
20799.20	20896.64 RB	752.59	282.77	62.94	0.44	4.59	2.66

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 222.36

INPUT
Description:
Station Elevation Data num= 113

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17829.74	1165.617	834.64	1166.45	17859.39	1168.06	17874.8	1167.85	17883.61	1166.44
17891.32	116	617905.68	1166.71	7910.66	1166.85	17931.6	1166.65	17963.15	1169.29
17976.79	1170.11	8020.15	1178.95	18025.61	1179.87	18030.98	1181.17	18059.18	1173.76
18085.25	1171.31	8126.63	1168.31	8145.23	1167.81	18183.43	1166.89	18206.06	1168.14
18216.67	1168.51	8225.99	1167.34	18227.08	1166.84	18279.16	1166.92	18386.63	1167.36
18397.83	1167.31	8401.63	1167.41	18496.65	1169.13	18505.92	1167.21	18516.61	1167.44
18531.18	1166.51	8559.17	1173.47	18574.35	1178.25	18597.15	1175.83	18610.09	1170.58
18625.22	1169.11	8658.09	1168.46	18725.52	1165.37	18730.59	1166.06	18743.89	1167.52
18764.11	1170	18779.5	1169.11	8793.72	1168.44	18798.51	1167.51	8801.48	1167.39
18877.88	1165.51	8888.14	1165.51	8925.88	1165.03	18973.11	1165.63	18993.98	1165.86
19007.51	1166.21	9014.24	1165.07	19037.42	1159.22	19048.71	1156.31	9055.17	1158.31
19074.18	1164.51	9172.16	1164.27	19211.16	1163.98	19222.42	1164.72	19247.58	1157.64

```
19271.77  1151.119306.63 1151.0319368.58 1151.0619434.45 1169.5519443.83 1168.82
19449.19    116719486.22 1155.0519507.55 1155.5419520.37 1155.5719541.32  1150.7
19563.69  1145.619661.39 1144.7619678.04 1144.7119753.28 1142.0719759.31 1141.88
19766.05  1143.5   19782 1138.8719785.96  1139.519802.48  1141.819806.33 1140.93
19809.02    114019818.13 1140.8119874.46 1142.1119940.87 1143.5619953.56 1143.82
20023.18  1142.220089.25 1140.6120110.35 1140.7320205.36 1141.67 20230.2 1141.43
20341.82  1141.320370.04  1141.420462.13 1141.1520507.39 1140.9320520.17 1141.92
20552.46    114320589.84 1151.2920612.04  1156.220628.64 1156.4720643.46 1159.87
20682.64  1168.820693.89 1169.3120706.91  1164.320710.69 1164.3320728.15 1164.12
20754.56    116120763.64 1159.4820765.36    116020778.51 1161.2920813.26 1163.38
20835.33  1163.720851.05 1162.9520893.86 1163.81

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
17829.74     .0419434.45     .0320693.89     .04

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
     19434.4520693.89               630  487.06     380              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
17829.7419434.45 1169.5520693.8920893.86 1169.31
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1161.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.10	Wt. n-Val.		0.030	
E.G. Elev (ft)	1162.39	Reach Len. (ft)	630.00	487.06	380.00
Crit W.S. (ft)	1151.87	Flow Area (sq ft)		20461.32	
E.G. Slope (ft/ft)	0.000648	Area (sq ft)	1456.37	20461.32	21.04
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1414.74	Top Width (ft)	205.52	1182.81	26.41
Vel Total (ft/s)	8.41	Avg. Vel. (ft/s)		8.41	
Max Chl Dpth (ft)	22.42	Hydr. Depth (ft)		17.30	
Conv. Total (cfs)	6757316.5	Conv. (cfs)		6757316.5	
Length Wtd. (ft)	487.06	Wetted Per. (ft)		1188.46	
Min Ch El (ft)	1138.87	Shear (lb/sq ft)		0.70	
Alpha	1.00	Stream Power (lb/ft s)		5.85	
Frctn Loss (ft)	0.35	Cum Volume (acre-ft)	2618.23	15486.97	1290.26
C & E Loss (ft)	0.03	Cum SA (acres)	234.77	945.55	250.72

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1161.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.10	Wt. n-Val.		0.030	
E.G. Elev (ft)	1162.39	Reach Len. (ft)	630.00	487.06	380.00
Crit W.S. (ft)	1151.87	Flow Area (sq ft)		20461.61	
E.G. Slope (ft/ft)	0.000648	Area (sq ft)		20461.61	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1182.81	Top Width (ft)		1182.81	
Vel Total (ft/s)	8.41	Avg. Vel. (ft/s)		8.41	
Max Chl Dpth (ft)	22.42	Hydr. Depth (ft)		17.30	
Conv. Total (cfs)	6757479.0	Conv. (cfs)		6757479.0	
Length Wtd. (ft)	487.06	Wetted Per. (ft)		1188.46	
Min Ch El (ft)	1138.87	Shear (lb/sq ft)		0.70	
Alpha	1.00	Stream Power (lb/ft s)		5.85	
Frctn Loss (ft)	0.35	Cum Volume (acre-ft)		15488.06	2.15
C & E Loss (ft)	0.03	Cum SA (acres)		945.54	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19434.45 LB	19518.41	860.86	250.53	52.52	0.50	4.86	3.44
19518.41	19602.38	7228.94	1089.42	85.10	4.20	12.98	6.64
19602.38	19686.34	10750.87	1375.00	83.97	6.25	16.38	7.82
19686.34	19770.30	12778.36	1528.11	84.37	7.43	18.20	8.36
19770.30	19854.26	15475.85	1718.91	84.95	9.00	20.47	9.00
19854.26	19938.23	13419.55	1570.75	83.98	7.80	18.71	8.54
19938.23	20022.19	12761.37	1524.07	83.98	7.42	18.15	8.37
20022.19	20106.15	15032.40	1681.41	83.98	8.74	20.03	8.94
20106.15	20190.11	15235.22	1694.88	83.97	8.86	20.19	8.99
20190.11	20274.08	14763.16	1663.16	83.96	8.58	19.81	8.88

20274.08	20358.04	14943.49	1675.30	83.96	8.69	19.95	8.92
20358.04	20442.00	14973.59	1677.33	83.96	8.71	19.98	8.93
20442.00	20525.96	15111.64	1686.92	84.01	8.79	20.09	8.96
20525.96	20609.93	8256.21	1181.35	85.37	4.80	14.07	6.99
20609.93	20693.89 RB	408.50	144.18	40.36	0.24	3.63	2.83

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19434.45 LB	19518.41	860.90	250.54	52.52	0.50	4.86	3.44
19518.41	19602.38	7229.01	1089.44	85.10	4.20	12.98	6.64
19602.38	19686.34	10750.90	1375.02	83.97	6.25	16.38	7.82
19686.34	19770.30	12778.36	1528.13	84.37	7.43	18.20	8.36
19770.30	19854.26	15475.81	1718.93	84.95	9.00	20.47	9.00
19854.26	19938.23	13419.54	1570.77	83.98	7.80	18.71	8.54
19938.23	20022.19	12761.37	1524.09	83.98	7.42	18.15	8.37
20022.19	20106.15	15032.37	1681.44	83.98	8.74	20.03	8.94
20106.15	20190.11	15235.18	1694.90	83.97	8.86	20.19	8.99
20190.11	20274.08	14763.13	1663.18	83.96	8.58	19.81	8.88
20274.08	20358.04	14943.46	1675.32	83.96	8.69	19.95	8.92
20358.04	20442.00	14973.56	1677.35	83.96	8.71	19.98	8.93
20442.00	20525.96	15111.61	1686.94	84.01	8.79	20.09	8.96
20525.96	20609.93	8256.27	1181.37	85.37	4.80	14.07	6.99
20609.93	20693.89 RB	408.55	144.18	40.36	0.24	3.63	2.83

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 222.27

INPUT
Description:
Station Elevation Data num= 131

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18229.32	1166.118	250.05	1166.75	18278.94	1167.58	18285.44	1167.14	18297.52	1168.12
18329.34	1169.818	330.87	1169.76	18339.83	1170.51	8364.66	1170.43	18371	1171.75
18375.68	1170.918	417.64	1164.16	18452.44	1163.98	18464.69	1164.15	18471.17	1164.1
18538.67	1164.51	8554.41	1164.48	18587.27	1164.43	18589.89	1164.63	18615.02	1165.44
18625.91	1165.4	18650.9	1164.15	18657.49	1164.05	18668.84	1165.59	18673.08	1165.44
18717.3	1164.8	18741.7	1164.13	18764.17	1164.97	18767.26	1164.89	18812.34	1163.32
18834.79	116	31885	1.48	1162.47	18861.98	1163.45	18904.93	1165.07	18912.29	1164.97
18927.38	1164.51	8950.33	1164.24	18972.81	1163.31	18980.73	1164.27	18986.42	1165.36
19008.46	1169.81	9012.93	1169.23	19029.55	1168.09	19075.71	1163.68	19120.33	1161.85
19137.67	1160.3	19201.2	1163.08	19216.26	1164.63	19218.15	1164.65	19257.26	1163.95
19328.26	1165.9	19358.6	1166.39	19374.56	1166.11	19385.2	1165.64	19399.5	1166.09
19430.27	116	19454.16	1164.58	19474.54	1169.68	19486.26	1168.12	19517.16	1160.18
19533.88	1155.71	9554.39	1153.18	19588.86	1146.31	9597.05	1144.76	19600.22	1144.02
19651.54	1142.91	9713.94	1142.41	19735.4	1142.33	19787.27	1141.45	19800.41	1145.55
19820.21	1140.41	9825.33	1139.19	19845.23	1141.91	9852.13	1140.94	19867.25	1141.67
19999.63	1141.42	0113.28	1142.64	20129.11	1142.79	20164.57	1142.08	20258.07	1140.03
20342.57	1140.82	0392.03	1141.39	20476.1	1142.52	20488.7	1142.75	20507.64	1146.74
20554.17	1155.82	0568.05	1156.18	20577.97	1156.62	0605.05	1164.09	20624.27	1169.12
20636.35	1168.9	20655.6	1164.03	20690.53	1162.26	20715.35	1160.34	20740.17	1158.79
20753.58	1158.72	0785.62	1158.86	20816.23	1159.19	20824	1159.46	20842.81	1161.22
20855.55	1162.52	0868.51	1162.14	20883.38	1163.09	20895.84	1162.99	20931.13	1163.95
21041.27	1165.92	1067.94	1165.85	21130.05	1165.74	21136.02	1165.84	21184.06	1165.94
21195.48	1165.92	1255.31	1165.82	21260.95	1165.74	21313.65	1166.04	21421.15	1165.43
21464.35	1165.42	1495.94	1171.41	21510.65	1171.64	21536.01	1172.25	21550.81	1175.26
21574.05	1179.72	1595.71	1180.74	21599.29	1180.85	21685.97	1184.08	21687.38	1183.98
21734.88	1179.82	1743.24	1176.77	21756.8	1171.04	21769.18	1168.25	21771.73	1168.4
21818.53	1171.7								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18229.32	.04	19474.54	.03	20624.27	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19474.54	20624.27	580	492.86	420	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18229.32	19474.54	1169.68	20624.27	21818.53	1169.12

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1160.64	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.36	Wt. n-Val.		0.030	
E.G. Elev (ft)	1162.01	Reach Len. (ft)	580.00	492.86	420.00
Crit W.S. (ft)	1152.19	Flow Area (sq ft)		18354.18	
E.G. Slope (ft/ft)	0.000822	Area (sq ft)	2.00	18354.18	179.70
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1214.10	Top Width (ft)	11.66	1077.23	125.21
Vel Total (ft/s)	9.37	Avg. Vel. (ft/s)		9.37	
Max Chl Dpth (ft)	21.45	Hydr. Depth (ft)		17.04	
Conv. Total (cfs)	5999718.0	Conv. (cfs)		5999718.0	
Length Wtd. (ft)	492.86	Wetted Per. (ft)		1082.56	
Min Ch El (ft)	1139.19	Shear (lb/sq ft)		0.87	
Alpha	1.00	Stream Power (lb/ft s)		8.15	
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)	2607.68	15269.97	1289.38
C & E Loss (ft)	0.00	Cum SA (acres)	233.20	932.92	250.05

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1160.64	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.36	Wt. n-Val.		0.030	
E.G. Elev (ft)	1162.01	Reach Len. (ft)	580.00	492.86	420.00
Crit W.S. (ft)	1152.19	Flow Area (sq ft)		18354.45	
E.G. Slope (ft/ft)	0.000822	Area (sq ft)		18354.45	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1077.23	Top Width (ft)		1077.23	
Vel Total (ft/s)	9.37	Avg. Vel. (ft/s)		9.37	
Max Chl Dpth (ft)	21.45	Hydr. Depth (ft)		17.04	
Conv. Total (cfs)	5999862.5	Conv. (cfs)		5999862.5	
Length Wtd. (ft)	492.86	Wetted Per. (ft)		1082.56	
Min Ch El (ft)	1139.19	Shear (lb/sq ft)		0.87	
Alpha	1.00	Stream Power (lb/ft s)		8.15	
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)		15271.05	2.15
C & E Loss (ft)	0.00	Cum SA (acres)		932.91	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19474.54 LB	19551.19	522.69	149.55	36.61	0.30	4.17	3.50
19551.19	19627.84	8048.46	1041.75	77.59	4.68	13.59	7.73
19627.84	19704.48	12727.25	1364.82	76.66	7.40	17.81	9.33
19704.48	19781.13	13587.39	1419.45	76.66	7.90	18.52	9.57
19781.13	19857.78	13756.57	1442.44	78.33	8.00	18.82	9.54
19857.78	19934.43	14256.27	1460.99	76.66	8.29	19.06	9.76
19934.43	20011.08	14402.27	1469.87	76.65	8.37	19.18	9.80
20011.08	20087.73	13809.52	1433.30	76.65	8.03	18.70	9.63
20087.73	20164.38	13111.49	1389.41	76.66	7.62	18.13	9.44
20164.38	20241.03	14678.91	1486.88	76.67	8.53	19.40	9.87
20241.03	20317.67	15912.69	1560.56	76.66	9.25	20.36	10.20
20317.67	20394.32	15026.07	1507.79	76.66	8.74	19.67	9.97
20394.32	20470.97	13817.95	1433.84	76.66	8.03	18.71	9.64
20470.97	20547.62	7771.80	1021.32	77.82	4.52	13.32	7.61
20547.62	20624.27 RB	570.68	172.20	45.65	0.33	3.83	3.31

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19474.54 LB	19551.19	522.72	149.56	36.61	0.30	4.17	3.50
19551.19	19627.84	8048.52	1041.77	77.59	4.68	13.59	7.73
19627.84	19704.48	12727.25	1364.84	76.66	7.40	17.81	9.33
19704.48	19781.13	13587.38	1419.47	76.66	7.90	18.52	9.57
19781.13	19857.78	13756.56	1442.46	78.33	8.00	18.82	9.54
19857.78	19934.43	14256.25	1461.01	76.66	8.29	19.06	9.76
19934.43	20011.08	14402.25	1469.89	76.65	8.37	19.18	9.80
20011.08	20087.73	13809.50	1433.32	76.65	8.03	18.70	9.63
20087.73	20164.38	13111.49	1389.43	76.66	7.62	18.13	9.44
20164.38	20241.03	14678.88	1486.90	76.67	8.53	19.40	9.87

20241.03	20317.67	15912.64	1560.58	76.66	9.25	20.36	10.20
20317.67	20394.32	15026.04	1507.81	76.66	8.74	19.67	9.97
20394.32	20470.97	13817.93	1433.86	76.66	8.03	18.71	9.64
20470.97	20547.62	7771.86	1021.34	77.82	4.52	13.32	7.61
20547.62	20624.27 RB	570.73	172.21	45.65	0.33	3.83	3.31

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 222.17

INPUT
Description:
Station Elevation Data num= 231

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16001.28	1173.216	010.24	1172.96	16032.2	1172.621	6044.46	1172.741	6072.51	1173.58
16077.13	1173.816	081.42	1173.421	6085.11	1173.551	6102.83	1172.381	6202.06	1169.35
16236.12	1169.116	281.24	1169.316	375.72	1169.591	6406.04	1169.031	6421.21	1168.99
16455.41	1168.516	471.91	1168.341	6489.06	1167.991	6504.99	1166.921	6518.22	1166.52
16523.56	1165.916	529.35	1166.081	6581.29	1167.86	16593	1168.231	6595.27	1167.94
16606.1	1167.9	16637.2	1166.961	6661.28	1167.171	6722.46	1167.011	6768.48	1166.99
16797.65	1166.21	6858.29	1166.21	16905.4	1167.52	16963.1	1167.781	6968.54	1167.39
16979.96	1167.61	7062.68	1167.42	17168	1167.021	7184.94	1166.131	7202.21	1164.72
17215.82	1164.81	7241.17	1164.99	17254.1	1164.371	7271.04	116417	305.87	1164.04
17427.69	1163.41	7492.61	1163.271	7565.11	1163.281	7704.21	1163.27	17771.8	1163.04
17801.01	116417	904.68	1163.911	7988.14	1163.531	8058.06	1162.921	8197.72	1162.68
18243.48	1162.51	8253.17	1162.691	8287.07	1163.711	8315.46	1164.631	8341.15	1163.04
18367.15	1163.51	8377.33	1163.981	8386.58	1168.451	8398.81	1173.351	8402.08	1174.3
18404.07	1174.31	8449.38	1168.48	18475.7	1163.741	8505.44	1161.561	8520.42	1160.36
18528.89	1160.71	8554.16	1160.691	8559.77	1160.771	8579.21	1160.561	8623.02	1160.19
18690.01	1172.8	18697.1	1173.81	8744.97	1164.34	18791.4	1166.481	8805.54	1165.03
18818.85	1165	18868.9	1165.31	8908.37	1164.761	8934.23	1164.221	8949.94	1163.61
18964.81	1163.91	8985.69	1163.861	9046.21	1163.041	9063.07	1163.721	9072.52	1163.62
19091.14	1163.91	9152.99	1164.111	9189.83	1164.11	9253.84	1162.671	9285.42	1161.92
19297.98	1161.81	9313.24	1162.041	9363.42	1163.021	9379.89	1155.461	9381.52	1154.82
19388.63	1155.91	9408.47	1157.11	9420.26	1160.531	9436.44	1166.851	9443.16	1169.64
19461.81	1167.81	9499.77	1157.21	9509.91	1154.53	19529.3	1152.731	9570.72	1143.58
19641.21	1141.91	9649.85	1141.641	9696.84	1139.511	9716.44	1139.11	9786.79	1138.18
19811.5	1139.51	9819.37	1140.951	9834.32	1137.161	9843.55	1138.881	9905.75	1140.12
19917.22	1140.31	9949.02	1140.132	0048.18	1139.492	0083.29	1139.812	0176.26	1140.46
20216.1	1140.52	0303.83	1140.69	20341.8	1141.472	0409.23	1142.98	20457.3	1153.58
20483.6	1156.42	0519.65	1165.322	0529.27	1167.732	0541.18	116920	556.34	1163.19
20598.89	1161.12	0612.54	1160.172	0659.27	1156.852	0687.65	1156.812	0732.69	1158.03
20775.8	116020	806.38	1161.822	0818.05	1161.042	0822.41	1162.932	0838.59	1164.49
20840.87	1164.5	20852	1167.272	0871.21	1171.612	0891.26	1170.592	0977.83	1170.8
20998.33	117121	023.94	1170.762	1097.19	1170.822	1115.39	1170.452	1133.64	1165.82
21147.36	1162.62	1177.14	1162.92	1179.91	1162.862	1213.22	1163.11	21250	1161.44
21259.45	1163.72	1274.23	1167.492	1297.37	1165.762	1362.64	1165.292	1368.24	1165.41
21391.63	1166.12	1412.38	116721	432.43	1166.492	1488.36	1164.932	1512.65	1166.08
21558.53	1165.72	1608.54	1183.142	1613.67	1184.172	1627.01	1186.032	1673.59	1186.66
21700.29	1186.62	1715.78	1186.212	1747.01	1184.71	21759.1	1180.392	1769.12	1172.95
21779.93	1168.4	21788.9	1166.362	1797.62	1164.23	21808.8	1163.732	1825.05	1163.92
21856.54	1163.72	1864.78	116221	873.76	1160.82	1886.62	1163.292	1926.57	1163.46
21986	1165.62	1987.67	1165.632	2058.41	1165.722	2082.99	1165.882	2150.65	1164.38
22157.49	1164.32	2190.04	1164.83	22237.4	1164.83	22269.6	1165.022	2339.21	1165.01
22414.64	1163.62	2484.43	1163.592	2534.23	1163.472	2604.52	1163.082	2624.87	1162.71
22673.28	1162.62	2727.45	1162.812	2784.46	1165.912	2800.58	1166.52	2818.56	1166.73
22879.81	1167.82	2900.34	1168.292	2918.49	1168.962	2970.85	1170.422	3041.65	1171.11
23054.92	1171.42	3065.88	1171.532	3088.44	1171.932	3135.78	1172.412	3169.17	1173.16
23181.67	1172.92	3198.65	1173.03	23265.1	1173.762	3291.59	1174.032	3297.34	1174.22
23306.8	1174.32	3381.41	1174.992	3408.83	1175.24	23411.3	1175.13	23431.3	1173.63
23439.11	1173.8								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
16001.28	.04	19443.16	.03	20541.18	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19443.16	20541.18	410	381.57	360	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16001.28	19443.16	1169.64	20541.18	23439.11	1169

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1160.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.41	Wt. n-Val.		0.030	

E.G. Elev (ft)	1161.60	Reach Len. (ft)	410.00	381.57	360.00
Crit W.S. (ft)	1151.21	Flow Area (sq ft)		18072.05	
E.G. Slope (ft/ft)	0.000794	Area (sq ft)	156.93	18072.05	350.82
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1227.36	Top Width (ft)	50.47	1009.91	166.98
Vel Total (ft/s)	9.52	Avg. Vel. (ft/s)		9.52	
Max Chl Dpth (ft)	23.04	Hydr. Depth (ft)		17.89	
Conv. Total (cfs)	6105676.0	Conv. (cfs)		6105676.0	
Length Wtd. (ft)	381.57	Wetted Per. (ft)		1014.45	
Min Ch El (ft)	1137.16	Shear (lb/sq ft)		0.88	
Alpha	1.00	Stream Power (lb/ft s)		8.40	
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	2606.62	15063.89	1286.83
C & E Loss (ft)	0.09	Cum SA (acres)	232.79	921.11	248.65

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1160.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.41	Wt. n-Val.		0.030	
E.G. Elev (ft)	1161.60	Reach Len. (ft)	410.00	381.57	360.00
Crit W.S. (ft)	1151.21	Flow Area (sq ft)		18072.54	
E.G. Slope (ft/ft)	0.000794	Area (sq ft)		18072.54	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1009.91	Top Width (ft)		1009.91	
Vel Total (ft/s)	9.52	Avg. Vel. (ft/s)		9.52	
Max Chl Dpth (ft)	23.04	Hydr. Depth (ft)		17.90	
Conv. Total (cfs)	6105954.5	Conv. (cfs)		6105954.5	
Length Wtd. (ft)	381.57	Wetted Per. (ft)		1014.45	
Min Ch El (ft)	1137.16	Shear (lb/sq ft)		0.88	
Alpha	1.00	Stream Power (lb/ft s)		8.40	
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)		15064.98	2.15
C & E Loss (ft)	0.09	Cum SA (acres)		921.10	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19443.16 LB	19516.36	304.71	98.51	28.11	0.18	3.61	3.09
19516.36	19589.56	6424.90	904.98	74.26	3.74	12.36	7.10
19589.56	19662.76	12101.87	1315.86	73.23	7.04	17.98	9.20
19662.76	19735.96	15095.30	1502.54	73.24	8.78	20.53	10.05
19735.96	19809.17	16440.01	1581.43	73.24	9.56	21.60	10.40
19809.17	19882.37	15604.49	1538.88	73.98	9.07	21.02	10.14
19882.37	19955.57	14578.05	1471.16	73.21	8.48	20.10	9.91
19955.57	20028.77	14880.71	1489.38	73.20	8.65	20.35	9.99
20028.77	20101.97	15087.75	1501.77	73.20	8.77	20.52	10.05
20101.97	20175.17	14462.09	1464.09	73.20	8.41	20.00	9.88
20175.17	20248.38	14093.85	1441.59	73.20	8.19	19.69	9.78
20248.38	20321.58	13873.67	1428.06	73.21	8.07	19.51	9.72
20321.58	20394.78	12532.33	1343.65	73.22	7.29	18.36	9.33
20394.78	20467.98	6223.34	888.60	74.42	3.62	12.14	7.00
20467.98	20541.18 RB	296.93	101.54	31.52	0.17	3.28	2.92

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19443.16 LB	19516.36	304.79	98.53	28.11	0.18	3.61	3.09
19516.36	19589.56	6425.04	905.02	74.26	3.74	12.36	7.10
19589.56	19662.76	12101.90	1315.90	73.23	7.04	17.98	9.20
19662.76	19735.96	15095.24	1502.58	73.24	8.78	20.53	10.05
19735.96	19809.17	16439.91	1581.47	73.24	9.56	21.60	10.40
19809.17	19882.37	15604.42	1538.91	73.98	9.07	21.02	10.14
19882.37	19955.57	14578.01	1471.19	73.21	8.48	20.10	9.91
19955.57	20028.77	14880.67	1489.42	73.20	8.65	20.35	9.99
20028.77	20101.97	15087.69	1501.81	73.20	8.77	20.52	10.05
20101.97	20175.17	14462.05	1464.12	73.20	8.41	20.00	9.88
20175.17	20248.38	14093.82	1441.63	73.20	8.19	19.69	9.78
20248.38	20321.58	13873.65	1428.10	73.21	8.07	19.51	9.71
20321.58	20394.78	12532.35	1343.68	73.22	7.29	18.36	9.33

20394.78	20467.98	6223.48	888.64	74.42	3.62	12.14	7.00
20467.98	20541.18 RB	296.98	101.56	31.52	0.17	3.28	2.92

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 222.09

INPUT
Description: Upstream face of Rural Road Bridge

Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18210	1164	19030	1164	19200	1168	19457.2	1171.8	19457.3	1165.1
19457.3	1164.6	19498.1	1157.6	19551.1	1152	19571.9	1151.6	19577.9	1151.6
19580.9	1148.1	19635.4	1138.8	19692.9	1136.4	19698.9	1136.4	19736.9	1136
19745.9	1136	19764.9	1136.2	19792.4	1137	19813.9	1136.7	19819.9	1136.7
19839.9	1136.2	19859.9	1136.2	19890.9	1136.7	19913.4	1137	19934.9	1137.1
19940.9	1137.1	19998.4	1137.1	20055.9	1136.9	20061.9	1136.9	20092.9	1137.6
20102.9	1137.8	20106.9	1137.8	20131.9	1138	20146.9	1138	20176.9	1138
20182.9	1138	20240.4	1138.9	20297.9	1139	20303.9	1139	20361.4	1139.4
20418.9	1140.8	20424.9	1140.8	20448.4	1141.1	20477.9	1152.8	20515.9	1157.5
20530.9	1162.1	20539.9	1166.7	20545.9	1166.7	20564.4	1165.4	20580.4	1162.3
20601.4	1157	20660.9	1156	20666.9	1156	20669.9	1156	20728.9	1156.4
20769.9	1155.9	20781.6	1157.4	20781.7	1165	20781.8	1171.7	21050	1168
21220	1164								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18210	.04	19457.3	.03	20545.9	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19457.3	20545.9	154.01	154.01	154.01	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18210	19457.3	1165.1	20545.9	21220	1166.7

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1160.14	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.12	Wt. n-Val.		0.030	
E.G. Elev (ft)	1161.26	Reach Len. (ft)	30.00	30.00	30.00
Crit W.S. (ft)	1148.79	Flow Area (sq ft)		20234.88	
E.G. Slope (ft/ft)	0.000568	Area (sq ft)		20234.88	710.68
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1233.92	Top Width (ft)		1041.23	192.68
Vel Total (ft/s)	8.50	Avg. Vel. (ft/s)		8.50	
Max Chl Dpth (ft)	24.14	Hydr. Depth (ft)		19.43	
Conv. Total (cfs)	7217043.5	Conv. (cfs)		7217043.5	
Length Wtd. (ft)	30.00	Wetted Per. (ft)		1047.18	
Min Ch El (ft)	1136.00	Shear (lb/sq ft)		0.69	
Alpha	1.00	Stream Power (lb/ft s)		5.82	
Frctn Loss (ft)	0.02	Cum Volume (acre-ft)	2605.89	14896.12	1282.44
C & E Loss (ft)	0.01	Cum SA (acres)	232.55	912.13	247.16

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1160.14	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.12	Wt. n-Val.		0.030	
E.G. Elev (ft)	1161.26	Reach Len. (ft)	30.00	30.00	30.00
Crit W.S. (ft)	1148.79	Flow Area (sq ft)		20235.26	
E.G. Slope (ft/ft)	0.000568	Area (sq ft)		20235.26	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1041.24	Top Width (ft)		1041.24	
Vel Total (ft/s)	8.50	Avg. Vel. (ft/s)		8.50	
Max Chl Dpth (ft)	24.14	Hydr. Depth (ft)		19.43	
Conv. Total (cfs)	7217252.0	Conv. (cfs)		7217252.0	
Length Wtd. (ft)	30.00	Wetted Per. (ft)		1047.19	
Min Ch El (ft)	1136.00	Shear (lb/sq ft)		0.69	
Alpha	1.00	Stream Power (lb/ft s)		5.82	
Frctn Loss (ft)	0.02	Cum Volume (acre-ft)		14897.19	2.15
C & E Loss (ft)	0.01	Cum SA (acres)		912.11	0.71

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19457.30 LB	19529.88	373.66	152.95	46.99	0.22	3.28	2.44
19529.88	19602.45	3494.24	703.74	74.62	2.03	9.70	4.97
19602.45	19675.02	12354.31	1488.99	73.09	7.18	20.52	8.30
19675.02	19747.59	15908.35	1728.20	72.59	9.25	23.81	9.21
19747.59	19820.17	15646.12	1711.04	72.59	9.10	23.58	9.14
19820.17	19892.74	15844.55	1723.97	72.58	9.21	23.76	9.19
19892.74	19965.31	15151.22	1678.24	72.58	8.81	23.12	9.03
19965.31	20037.89	15101.82	1674.92	72.57	8.78	23.08	9.02
20037.89	20110.46	14884.08	1660.50	72.58	8.65	22.88	8.96
20110.46	20183.03	14120.26	1608.73	72.57	8.21	22.17	8.78
20183.03	20255.61	13516.52	1567.17	72.58	7.86	21.59	8.62
20255.61	20328.18	13041.56	1533.82	72.57	7.58	21.14	8.50
20328.18	20400.75	12429.28	1490.32	72.59	7.23	20.54	8.34
20400.75	20473.33	9402.24	1273.49	74.47	5.47	17.55	7.38
20473.33	20545.90 RB	731.81	238.81	52.22	0.43	4.67	3.06

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19457.30 LB	19529.88	373.71	152.96	46.99	0.22	3.28	2.44
19529.88	19602.45	3494.35	703.76	74.62	2.03	9.70	4.97
19602.45	19675.02	12354.32	1489.01	73.09	7.18	20.52	8.30
19675.02	19747.59	15908.29	1728.23	72.59	9.25	23.81	9.20
19747.59	19820.17	15646.07	1711.07	72.59	9.10	23.58	9.14
19820.17	19892.74	15844.50	1723.99	72.58	9.21	23.76	9.19
19892.74	19965.31	15151.18	1678.27	72.58	8.81	23.12	9.03
19965.31	20037.89	15101.78	1674.95	72.57	8.78	23.08	9.02
20037.89	20110.46	14884.04	1660.52	72.58	8.65	22.88	8.96
20110.46	20183.03	14120.24	1608.76	72.57	8.21	22.17	8.78
20183.03	20255.61	13516.52	1567.20	72.58	7.86	21.59	8.62
20255.61	20328.18	13041.56	1533.85	72.57	7.58	21.14	8.50
20328.18	20400.75	12429.29	1490.34	72.59	7.23	20.54	8.34
20400.75	20473.33	9402.29	1273.52	74.47	5.47	17.55	7.38
20473.33	20545.90 RB	731.87	238.83	52.22	0.43	4.67	3.06

BRIDGE RIVER: Salt River
REACH: Reach 4 RS: 222.085

INPUT
Description: Rural Road
Distance from Upstream XS = 30
Deck/Roadway Width = 94
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 15

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19030	1164	1164	19200	1168	1168	19457.2	1171.8	1171.8
19457.3	1171.81	1165.1	19571.9	1174.22	1167.6	19692.9	1176.2	1169.53
19813.9	1177.62	1170.95	19934.9	1178.62	1171.95	20055.9	1179.06	1172.39
20176.9	1179.11	1172.44	20297.9	1178.63	1172	20418.9	1177.57	1170.9
20539.9	1176.12	1169.45	20660.9	1174.15	1167.5	20781.6	1171.74	1165.07

Upstream Bridge Cross Section Data
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18210	1164	19030	1164	19200	1168	19457.2	1171.8	19457.3	1165.1
19457.3	1164.6	19498.1	1157.6	19551.1	1152	19571.9	1151.6	19577.9	1151.6
19580.9	1148.1	19635.4	1138.8	19692.9	1136.4	19698.9	1136.4	19736.9	1136
19745.9	1136	19764.9	1136.2	19792.4	1137	19813.9	1136.7	19819.9	1136.7
19839.9	1136.2	19859.9	1136.2	19890.9	1136.7	19913.4	1137	19934.9	1137.1
19940.9	1137.1	19998.4	1137.1	20055.9	1136.9	20061.9	1136.9	20092.9	1137.6
20102.9	1137.8	20106.9	1137.8	20131.9	1138	20146.9	1138	20176.9	1138
20182.9	1138	20240.4	1138.9	20297.9	1139	20303.9	1139	20361.4	1139.4
20418.9	1140.8	20424.9	1140.8	20448.4	1141.1	20477.9	1152.8	20515.9	1157.5

20530.9	1162.1	20539.9	1166.7	20545.9	1166.7	20564.4	1165.4	20580.4	1162.3
20601.4	1157	20660.9	1156	20666.9	1156	20669.9	1156	20728.9	1156.4
20769.9	1155.9	20781.6	1157.4	20781.7	1165	20781.8	1171.7	21050	1168
21220	1164								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18210	.04	19457.3	.03	20545.9	.04

Bank Sta: Left Right Coeff Contr. Expan.

19457.3	20545.9	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18210	19457.3	1165.1	20545.9	21220	1166.7

Downstream Deck/Roadway Coordinates

num= 15

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19030	1164	1164	19200	1168	1168	19457.2	1171.8	1171.8
19457.3	1171.81	1165.1	19571.9	1174.22	1167.6	19692.9	1176.2	1169.53
19813.9	1177.62	1170.95	19934.9	1178.62	1171.95	20055.9	1179.06	1172.39
20176.9	1179.11	1172.44	20297.9	1178.63	1172	20418.9	1177.57	1170.9
20539.9	1176.12	1169.45	20660.9	1174.15	1167.5	20781.6	1171.74	1165.07

Downstream Bridge Cross Section Data

Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18210	1164	19030	1164	19200	1168	19457.2	1171.8	19457.3	1165.1
19457.3	1164.6	19498.1	1157.6	19551.1	1152	19571.9	1151.6	19577.9	1151.6
19580.9	1148.1	19635.4	1138.8	19692.9	1136.4	19698.9	1136.4	19736.9	1136
19745.9	1136	19764.9	1136.2	19792.4	1137	19813.9	1136.7	19819.9	1136.7
19839.9	1136.2	19859.9	1136.2	19890.9	1136.7	19913.4	1137	19934.9	1137.1
19940.9	1137.1	19998.4	1137.1	20055.9	1136.9	20061.9	1136.9	20092.9	1137.6
20102.9	1137.8	20106.9	1137.8	20131.9	1138	20146.9	1138	20176.9	1138
20182.9	1138	20240.4	1138.9	20297.9	1139	20303.9	1139	20361.4	1139.4
20418.9	1140.8	20424.9	1140.8	20448.4	1141.1	20477.9	1152.8	20515.9	1157.5
20530.9	1162.1	20539.9	1166.7	20545.9	1166.7	20564.4	1165.4	20580.4	1162.3
20601.4	1157	20660.9	1156	20666.9	1156	20669.9	1156	20728.9	1156.4
20769.9	1155.9	20781.6	1157.4	20781.7	1165	20781.8	1171.7	21050	1168
21220	1164								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18210	.04	19457.3	.03	20545.9	.04

Bank Sta: Left Right Coeff Contr. Expan.

19457.3	20545.9	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18210	19457.3	1165.1	20545.9	21220	1166.7

Upstream Embankment side slope = horiz. to 1.0 vertical
Downstream Embankment side slope = horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins =
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Piers = 10

Pier Data
Pier Station Upstream= 19574.9 Downstream= 19574.9
Upstream num= 2

Width	Elev	Width	Elev
6	1151.6	6	1167.6

Downstream num= 2

Width	Elev	Width	Elev
6	1151.6	6	1167.6

Pier Data
Pier Station Upstream= 19695.9 Downstream= 19695.9
Upstream num= 2

Width	Elev	Width	Elev
6	1136.4	6	1169.53

Downstream num= 2

```
    Width   Elev    Width   Elev
      6  1136.4       6 1169.53

Pier Data
Pier Station     Upstream= 19816.9    Downstream= 19816.9
Upstream     num=        2
    Width   Elev    Width   Elev
      6  1136.7       6    1171
Downstream     num=        2
    Width   Elev    Width   Elev
      6  1136.7       6    1171

Pier Data
Pier Station     Upstream= 19937.9    Downstream= 19937.9
Upstream     num=        2
    Width   Elev    Width   Elev
      6  1137.1       6 1171.95
Downstream     num=        2
    Width   Elev    Width   Elev
      6  1137.1       6 1171.95

Pier Data
Pier Station     Upstream= 20058.9    Downstream= 20058.9
Upstream     num=        2
    Width   Elev    Width   Elev
      6  1136.9       6 1172.39
Downstream     num=        2
    Width   Elev    Width   Elev
      6  1136.9       6 1172.39

Pier Data
Pier Station     Upstream= 20179.9    Downstream= 20179.9
Upstream     num=        2
    Width   Elev    Width   Elev
      6    1138       6  1172.4
Downstream     num=        2
    Width   Elev    Width   Elev
      6    1138       6  1172.4

Pier Data
Pier Station     Upstream= 20300.9    Downstream= 20300.9
Upstream     num=        2
    Width   Elev    Width   Elev
      6    1139       6    1172
Downstream     num=        2
    Width   Elev    Width   Elev
      6    1139       6    1172

Pier Data
Pier Station     Upstream= 20421.9    Downstream= 20421.9
Upstream     num=        2
    Width   Elev    Width   Elev
      6  1140.8       6  1170.9
Downstream     num=        2
    Width   Elev    Width   Elev
      6  1140.8       6  1170.9

Pier Data
Pier Station     Upstream= 20542.9    Downstream= 20542.9
Upstream     num=        2
    Width   Elev    Width   Elev
      6  1166.7       6  1169.5
Downstream     num=        2
    Width   Elev    Width   Elev
      6  1166.7       6  1169.5

Pier Data
Pier Station     Upstream= 20663.9    Downstream= 20663.9
Upstream     num=        2
    Width   Elev    Width   Elev
      6    1156       6  1167.5
Downstream     num=        2
    Width   Elev    Width   Elev
      6    1156       6  1167.5

Number of Bridge Coefficient Sets =  1
```

Low Flow Methods and Data
Energy
Momentum Cd = 1.2
Yarnell KVal = 1.05
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth inside the bridge at the downstream end
Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT Profile #PF#1
Opening : Bridge #1

E.G. US. (ft)	1161.26	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1160.14	E.G. Elev (ft)	1161.23	1161.14
Q Total (cfs)	172000.00	W.S. Elev (ft)	1159.97	1159.86
Q Bridge (cfs)	172000.00	Crit W.S. (ft)	1149.18	1149.17
Q Weir (cfs)		Max Chl Dpth (ft)	23.97	23.86
Weir Sta Lft (ft)		Vel Total (ft/s)	9.02	9.07
Weir Sta Rgt (ft)		Flow Area (sq ft)	19071.64	18967.71
Weir Submerg		Froude # Chl	0.41	0.41
Weir Max Depth (ft)		Specif Force (cu ft)	250967.08	249236.67
Min Top Rd (ft)	1165.10	Hydr Depth (ft)	19.23	19.15
Min El Prs (ft)	1172.44	W.P. Total (ft)	1323.98	1321.32
Delta EG (ft)	0.19	Conv. Total (cfs)	5592421.5	5549143.0
Delta WS (ft)	0.21	Top Width (ft)	1177.57	1176.21
BR Open Area (sq ft)	32088.49	Frctn Loss (ft)	0.09	0.02
BR Open Vel (ft/s)	9.07	C & E Loss (ft)	0.00	0.04
Coef of Q		Shear Total (lb/sq ft)	0.85	0.86
Br Sel Mthd	Energy only	Power Total (lb/ft s)	7.67	7.81

BRIDGE OUTPUT Profile #PF#2
Opening : Bridge #1

E.G. US. (ft)	1161.26	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1160.14	E.G. Elev (ft)	1161.23	1161.14
Q Total (cfs)	172000.00	W.S. Elev (ft)	1159.97	1159.86
Q Bridge (cfs)	172000.00	Crit W.S. (ft)	1149.18	1149.17
Q Weir (cfs)		Max Chl Dpth (ft)	23.97	23.86
Weir Sta Lft (ft)		Vel Total (ft/s)	9.02	9.07
Weir Sta Rgt (ft)		Flow Area (sq ft)	19072.00	18968.07
Weir Submerg		Froude # Chl	0.41	0.41
Weir Max Depth (ft)		Specif Force (cu ft)	250973.16	249242.72
Min Top Rd (ft)	1165.10	Hydr Depth (ft)	19.23	19.15
Min El Prs (ft)	1172.44	W.P. Total (ft)	1323.99	1321.33
Delta EG (ft)	0.19	Conv. Total (cfs)	5592575.5	5549297.5
Delta WS (ft)	0.21	Top Width (ft)	1177.58	1176.21
BR Open Area (sq ft)	32088.49	Frctn Loss (ft)	0.09	0.02
BR Open Vel (ft/s)	9.07	C & E Loss (ft)	0.00	0.04
Coef of Q		Shear Total (lb/sq ft)	0.85	0.86
Br Sel Mthd	Energy only	Power Total (lb/ft s)	7.67	7.81

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 222.08

INPUT
Description: Downstream face of Rural Road Bridge

Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18210	1164	19030	1164	19200	1168	19457.2	1171.8	19457.3	1165.1
19457.3	1164.6	19498.1	1157.6	19551.1	1152	19571.9	1151.6	19577.9	1151.6
19580.9	1148.1	19635.4	1138.8	19692.9	1136.4	19698.9	1136.4	19736.9	1136
19745.9	1136	19764.9	1136.2	19792.4	1137	19813.9	1136.7	19819.9	1136.7
19839.9	1136.2	19859.9	1136.2	19890.9	1136.7	19913.4	1137	19934.9	1137.1

19940.9	1137.1	19998.4	1137.1	20055.9	1136.9	20061.9	1136.9	20092.9	1137.6
20102.9	1137.8	20106.9	1137.8	20131.9	1138	20146.9	1138	20176.9	1138
20182.9	1138	20240.4	1138.9	20297.9	1139	20303.9	1139	20361.4	1139.4
20418.9	1140.8	20424.9	1140.8	20448.4	1141.1	20477.9	1152.8	20515.9	1157.5
20530.9	1162.1	20539.9	1166.7	20545.9	1166.7	20564.4	1165.4	20580.4	1162.3
20601.4	1157	20660.9	1156	20666.9	1156	20669.9	1156	20728.9	1156.4
20769.9	1155.9	20781.6	1157.4	20781.7	1165	20781.8	1171.7	21050	1168
21220	1164								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18210	.04	19457.3	.03	20545.9	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19457.3	20545.9	580	440.56	330	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18210	19457.3	1165.1	20545.9	21220	1166.7

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1159.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.15	Wt. n-Val.		0.030	
E.G. Elev (ft)	1161.08	Reach Len. (ft)	580.00	440.56	330.00
Crit W.S. (ft)	1148.80	Flow Area (sq ft)		20013.41	
E.G. Slope (ft/ft)	0.000588	Area (sq ft)		20013.41	669.75
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1231.13	Top Width (ft)		1039.30	191.84
Vel Total (ft/s)	8.59	Avg. Vel. (ft/s)		8.59	
Max Chl Dpth (ft)	23.93	Hydr. Depth (ft)		19.26	
Conv. Total (cfs)	7094848.0	Conv. (cfs)		7094848.0	
Length Wtd. (ft)	440.56	Wetted Per. (ft)		1045.20	
Min Ch El (ft)	1136.00	Shear (lb/sq ft)		0.70	
Alpha	1.00	Stream Power (lb/ft s)		6.04	
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	2605.89	14828.11	1280.13
C & E Loss (ft)	0.05	Cum SA (acres)	232.55	908.59	246.50

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1159.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.15	Wt. n-Val.		0.030	
E.G. Elev (ft)	1161.08	Reach Len. (ft)	580.00	440.56	330.00
Crit W.S. (ft)	1148.80	Flow Area (sq ft)		20013.79	
E.G. Slope (ft/ft)	0.000588	Area (sq ft)		20013.79	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1039.29	Top Width (ft)		1039.29	
Vel Total (ft/s)	8.59	Avg. Vel. (ft/s)		8.59	
Max Chl Dpth (ft)	23.93	Hydr. Depth (ft)		19.26	
Conv. Total (cfs)	7095090.5	Conv. (cfs)		7095090.5	
Length Wtd. (ft)	440.56	Wetted Per. (ft)		1045.19	
Min Ch El (ft)	1136.00	Shear (lb/sq ft)		0.70	
Alpha	1.00	Stream Power (lb/ft s)		6.04	
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)		14829.19	0.32
C & E Loss (ft)	0.05	Cum SA (acres)		908.58	0.18

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19457.30 LB	19529.88	346.61	143.16	45.72	0.20	3.16	2.42
19529.88	19602.45	3424.85	688.29	74.62	1.99	9.48	4.98
19602.45	19675.02	12348.84	1473.54	73.09	7.18	20.30	8.38
19675.02	19747.59	15939.79	1712.75	72.59	9.27	23.60	9.31
19747.59	19820.17	15674.67	1695.59	72.59	9.11	23.36	9.24
19820.17	19892.74	15875.28	1708.52	72.58	9.23	23.54	9.29
19892.74	19965.31	15174.36	1662.79	72.58	8.82	22.91	9.13
19965.31	20037.89	15124.43	1659.47	72.57	8.79	22.87	9.11

20037.89	20110.46	14904.35	1645.05	72.58	8.67	22.67	9.06
20110.46	20183.03	14132.38	1593.28	72.57	8.22	21.95	8.87
20183.03	20255.61	13522.32	1551.72	72.58	7.86	21.38	8.71
20255.61	20328.18	13042.45	1518.37	72.57	7.58	20.92	8.59
20328.18	20400.75	12423.97	1474.87	72.59	7.22	20.32	8.42
20400.75	20473.33	9370.30	1258.04	74.47	5.45	17.33	7.45
20473.33	20545.90 RB	695.40	227.98	51.50	0.40	4.51	3.05

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19457.30 LB	19529.88	346.68	143.18	45.72	0.20	3.16	2.42
19529.88	19602.45	3424.97	688.31	74.62	1.99	9.48	4.98
19602.45	19675.02	12348.85	1473.56	73.09	7.18	20.30	8.38
19675.02	19747.59	15939.73	1712.78	72.59	9.27	23.60	9.31
19747.59	19820.17	15674.62	1695.62	72.59	9.11	23.36	9.24
19820.17	19892.74	15875.23	1708.54	72.58	9.23	23.54	9.29
19892.74	19965.31	15174.32	1662.82	72.58	8.82	22.91	9.13
19965.31	20037.89	15124.39	1659.50	72.57	8.79	22.87	9.11
20037.89	20110.46	14904.31	1645.07	72.58	8.67	22.67	9.06
20110.46	20183.03	14132.35	1593.31	72.57	8.22	21.95	8.87
20183.03	20255.61	13522.31	1551.75	72.58	7.86	21.38	8.71
20255.61	20328.18	13042.44	1518.40	72.57	7.58	20.92	8.59
20328.18	20400.75	12423.98	1474.89	72.59	7.22	20.32	8.42
20400.75	20473.33	9370.36	1258.07	74.47	5.45	17.34	7.45
20473.33	20545.90 RB	695.48	228.00	51.50	0.40	4.52	3.05

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 221.99

INPUT
Description:
Station Elevation Data num= 200

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17228.1	1167.317	258.96	1166.117	291.63	1169.221	7293.52	1169.291	7354.45	1166.5
17358.04	1166.517	386.91	1165.941	7430.53	1165.451	7465.42	1164.771	7504.19	1164.11
17517.7	1163.817	557.37	1163.117	568.46	1162.991	7596.15	1163.231	7646.22	1163.04
17664.33	1162.917	731.94	1162.771	7764.84	1162.531	7842.88	1162.381	7895.13	1162.14
17950	1161.817	992.32	1161.618	008.74	1161.471	8042.78	1161.318	085.64	1161.18
18095.78	1161.218	181.67	1161.618	206.63	1161.581	8296.43	1161.391	8335.79	1161.37
18389.47	1161.418	419.45	1161.321	8459.39	1161.051	8508.93	1160.991	8618.73	1161.02
18725.56	1160.9	18734.5	1160.861	8810.21	1161.351	8837.68	1161.38	18936.6	1161.27
18955.95	1161.3	19027.2	1161.591	9072.68	1161.651	9091.72	1161.781	9107.22	1161.43
19117.15	1161	19125.19	1161.431	9167.72	1161.181	9170.23	1161.22	19204.7	1160.86
19214.48	1160.41	9272.73	1160.3	19280.4	1159.861	9312.77	1158.41	9334.57	1157.04
19362.41	1165	19375.13	1168.781	9387.53	1170.49	19423.3	1155.811	9424.11	1155.59
19444.1	1156.81	9466.76	1156.061	9473.13	1155.671	9487.21	1154.341	9498.52	1154.09
19508.31	1154.71	9522.21	1145.731	9526.03	1145.91	9542.04	1145.981	9548.13	1143.76
19549.74	1142.81	9578.31	1142.721	9608.92	1142.31	9622.35	1142.55	19625.8	1142.43
19629.95	1141.91	9662.92	1140.93	19757.8	1138.141	9790.37	1138.341	9889.34	1139.22
20013.16	1138.7	20021.4	1138.682	0046.59	1139.272	0150.57	1141.482	0168.42	1141.41
20279.22	1139.72	0311.82	1140.852	0339.33	1142.082	0380.39	1150.36	20395.1	1153.35
20408.91	115	520451.75	116	420464.34	1166.74	20474.1	1168.582	0520.34	1161.8
20524.22	1161.5	20551.1	1161.72	20569	1158.542	0579.56	1158.192	0581.69	1157.82
20619.68	1158.12	0624.32	1158.272	0636.26	1158.242	0682.65	1158.222	0708.27	1159.65
20747.43	1165.12	0810.38	1169.092	0865.53	1168.612	0878.38	1168.592	0925.02	1169.04
20977.87	1168.52	0990.49	1168.512	1017.94	1163.912	1020.96	1162.222	1027.69	1160.11
21041.39	1160.22	1048.88	1164.462	1051.31	1164.732	1103.84	1164.332	1113.72	1164.2
21167.12	1164.32	1199.72	1164.332	1238.15	1164.72	1244.69	1165.512	1250.07	1165.47
21255.82	1165.12	1263.75	1162.592	1273.81	1162.532	1441.29	1161.922	1461.92	1162.62
21468.87	1162.72	1483.54	1163.622	1530.74	1164.782	1532.64	1165.612	1578.49	1184.47
21580.42	1185.3	21583.3	1185.152	1603.14	1184.67	21614.3	1183.992	1640.68	1182.58
21655.09	1182.32	1667.69	1183.072	1684.27	1183.812	1707.08	1185.462	1717.84	1185.84
21729.19	1185.72	1758.49	1174.32	1786.72	1161.732	1788.91	1161.412	1814.08	1161.25
21824.13	1161.62	1829.11	1162.382	1843.37	1161.532	1858.77	1161.612	1885.49	1161.81
21909.83	1161.92	1920.48	1162.572	1936.69	1162.972	1976.35	1162.162	2029.88	1162.27

```
22120.51  1161.822128.67 1161.8122133.27  1161.722196.18  1161.722222.92 1162.51
22230.32  1162.322238.27 1161.4122269.18 1161.3222332.41 1161.2122339.87 1161.48
22350.41  1161.222441.19 1161.62   22490 1162.0622504.47 1163.38 22519.1 1163.04
22613.27  1163.222638.03 1163.1522664.13 1163.0222668.84 1163.1522699.98 1163.56
22742.99  1164.122775.57 1163.9622823.75 1164.1222840.56 1164.3622888.81 1164.88
22942.19  1167.3 22960.9 1168.0822991.37 1168.8923023.13 1170.1923043.49 1170.56
23080.41  1171.5 23092.3 1171.8823129.53 1172.7523168.04 1173.2423174.01  1173.4
 23188.8  1174.123254.98 1175.0523286.26 1175.3623307.91 1175.3123338.46 1175.78

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 17228.1     .0419387.53     .03 20474.1     .04

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
     19387.53 20474.1               560   510.5     470             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 17228.119387.53 1170.49 20474.123338.46 1168.58

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)          1158.99   Element                    Left OB    Channel   Right OB
  Vel Head (ft)              1.69   Wt. n-Val.                            0.030
  E.G. Elev (ft)          1160.68   Reach Len. (ft)            560.00     510.50    470.00
  Crit W.S. (ft)          1151.29   Flow Area (sq ft)                   16480.58
  E.G. Slope (ft/ft)     0.001084   Area (sq ft)                38.06   16480.58    101.05
  Q Total (cfs)         172000.00   Flow (cfs)                         172000.00
  Top Width (ft)          1183.84   Top Width (ft)              41.62    1012.33    129.90
  Vel Total (ft/s)          10.44   Avg. Vel. (ft/s)                      10.44
  Max Chl Dpth (ft)         20.85   Hydr. Depth (ft)                      16.28
  Conv. Total (cfs)      5223013.0  Conv. (cfs)                        5223013.0
  Length Wtd. (ft)         510.50   Wetted Per. (ft)                    1018.26
  Min Ch El (ft)          1138.14   Shear (lb/sq ft)                      1.10
  Alpha                      1.00   Stream Power (lb/ft s)                11.44
  Frctn Loss (ft)            0.62   Cum Volume (acre-ft)       2605.63  14643.56   1277.21
  C & E Loss (ft)            0.03   Cum SA (acres)              232.27    898.21    245.28


Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)          1158.99   Element                    Left OB    Channel   Right OB
  Vel Head (ft)              1.69   Wt. n-Val.                            0.030
  E.G. Elev (ft)          1160.68   Reach Len. (ft)            560.00     510.50    470.00
  Crit W.S. (ft)          1151.29   Flow Area (sq ft)                   16480.95
  E.G. Slope (ft/ft)     0.001084   Area (sq ft)                        16480.95
  Q Total (cfs)         172000.00   Flow (cfs)                         172000.00
  Top Width (ft)          1012.33   Top Width (ft)                      1012.33
  Vel Total (ft/s)          10.44   Avg. Vel. (ft/s)                      10.44
  Max Chl Dpth (ft)         20.85   Hydr. Depth (ft)                      16.28
  Conv. Total (cfs)      5223198.5  Conv. (cfs)                        5223198.5
  Length Wtd. (ft)         510.50   Wetted Per. (ft)                    1018.27
  Min Ch El (ft)          1138.14   Shear (lb/sq ft)                      1.10
  Alpha                      1.00   Stream Power (lb/ft s)                11.44
  Frctn Loss (ft)            0.62   Cum Volume (acre-ft)               14644.64      0.32
  C & E Loss (ft)            0.03   Cum SA (acres)                      898.20      0.18


FLOW DISTRIBUTION OUTPUT    Profile #PF#1

  Left Sta      Right Sta        Flow       Area       W.P.    % Conv.   Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                (ft)     (ft/s)
  19387.53 LB   19459.97        302.33     109.57     45.11      0.18      2.47      2.76
  19459.97      19532.41       2261.64     449.57     75.19      1.31      6.21      5.03
  19532.41      19604.84      10816.32    1136.84     73.10      6.29     15.69      9.51
  19604.84      19677.28      12888.31    1258.74     72.50      7.49     17.38     10.24
  19677.28      19749.72      15681.09    1415.72     72.47      9.12     19.54     11.08
  19749.72      19822.16      17176.68    1495.06     72.44      9.99     20.64     11.49
  19822.16      19894.60      16360.38    1451.97     72.44      9.51     20.04     11.27
  19894.60      19967.03      16220.02    1444.47     72.44      9.43     19.94     11.23
  19967.03      20039.47      16542.48    1461.67     72.44      9.62     20.18     11.32
  20039.47      20111.91      15092.88    1383.52     72.46      8.77     19.10     10.91
  20111.91      20184.35      13392.65    1287.72     72.45      7.79     17.78     10.40
  20184.35      20256.79      14160.48    1331.51     72.45      8.23     18.38     10.63
  20256.79      20329.22      14443.90    1347.67     72.48      8.40     18.60     10.72
```

20329.22	20401.66	6458.26	836.69	73.62	3.75	11.55	7.72
20401.66	20474.10 RB	202.61	69.86	26.69	0.12	2.66	2.90

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19387.53 LB	19459.97	302.39	109.58	45.11	0.18	2.47	2.76
19459.97	19532.41	2261.79	449.60	75.19	1.31	6.21	5.03
19532.41	19604.84	10816.37	1136.86	73.10	6.29	15.69	9.51
19604.84	19677.28	12888.32	1258.76	72.50	7.49	17.38	10.24
19677.28	19749.72	15681.04	1415.75	72.47	9.12	19.54	11.08
19749.72	19822.16	17176.60	1495.08	72.44	9.99	20.64	11.49
19822.16	19894.60	16360.31	1452.00	72.44	9.51	20.04	11.27
19894.60	19967.03	16219.96	1444.50	72.44	9.43	19.94	11.23
19967.03	20039.47	16542.41	1461.70	72.44	9.62	20.18	11.32
20039.47	20111.91	15092.84	1383.54	72.46	8.77	19.10	10.91
20111.91	20184.35	13392.65	1287.75	72.45	7.79	17.78	10.40
20184.35	20256.79	14160.46	1331.53	72.45	8.23	18.38	10.63
20256.79	20329.22	14443.87	1347.70	72.48	8.40	18.60	10.72
20329.22	20401.66	6458.38	836.72	73.62	3.75	11.55	7.72
20401.66	20474.10 RB	202.65	69.87	26.69	0.12	2.66	2.90

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 221.89

INPUT
Description:
Station Elevation Data num= 169

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18161.32	118918	182.36	1186.318	272.19	1173.418	277.68	1174.371	8296.84	1174.62
18327.04	1175.418	351.63	1176.531	8365.81	1176.471	8388.58	1173.451	8404.71	1171.92
18446.03	1166.118	461.79	1165.991	8502.06	1164.721	8528.23	1163.661	8553.47	1163.24
18598.41	1161.818	644.49	1161.031	8701.92	1161.271	8748.85	1160.911	8822.97	1160.98
18837.4	1160.818	915.81	1159.631	8968.45	1158.741	8983.15	1158.671	8996.08	1157.52
19009.62	1160.319	015.83	1160.081	9057.14	1158.811	9066.94	1159.511	9089.99	1160.29
19119.06	1159.219	179.93	1157.891	9232.08	1150.491	9251.46	1147.81	9253.61	1147.74
19274.36	1149.419	275.56	1149.691	9289.33	1154.421	9294.75	1154.761	9323.57	1162.64
19337.79	1166.819	346.18	1170.331	9348.98	1171.321	9356.76	1167.87	19392.1	1153.75
19419.99	115419	429.76	115419	442.34	1151.991	9445.01	1151.311	9459.64	1155.29
19467.67	1155.219	471.52	1155.291	9483.77	1143.021	9487.24	1139.721	9528.76	1138.45
19558.85	1136.219	601.29	1140.081	9609.97	1140.891	9619.19	1141.21	9633.53	1141.98
19640.82	1141.419	722.43	1138.771	9766.05	1141.131	9851.35	1141.231	9899.11	1141.41
19971.6	1141.820	028.47	1142.12	0089.74	1140.242	0162.05	1138.752	0164.13	1138.79
20287.09	1142.320	291.34	1143.12	20307.8	1146.812	0329.94	1151.372	0348.08	1151.72
20368.68	1158.420	396.08	1167.752	0399.15	1167.062	0418.06	1166.152	0493.63	1157.15
20555.01	1161.620	570.26	1159.682	0578.82	1159.492	0608.46	1159.222	0621.68	1159.42
20638.74	1159.620	651.79	1161.382	0659.22	1161.862	0698.49	1161.622	0728.25	1161.37
20744.67	1160.920	770.67	1161.38	20785	1161.512	0804.72	1162.262	0819.52	1162.09
20838.48	1161.420	858.28	1161.152	0886.14	1161.632	0893.59	1161.662	0905.54	1163.3
20935.3	1163.721	015.06	1163.962	1093.11	1165.012	1110.98	1164.822	1127.65	1165.42
21134.25	1164.621	296.92	1164.592	1311.66	1164.542	1316.66	1164.72	21334.9	1164.56
21355.48	1175.621	391.39	1177.232	1394.96	1177.282	1400.07	1178.562	1427.55	1188.09
21450.73	1186.821	483.68	1187.72	1495.96	1188.662	1508.88	1189.362	1573.43	1189.89
21580.3	1189.821	592.27	1188.12	1680.11	1173.122	1681.99	1169.972	1688.73	1162.25
21708.44	1162.321	714.52	1160.282	1755.73	1161.192	1799.28	1163.712	1812.85	1164.18
21862.85	1163.621	920.72	1164.522	1934.83	1164.552	1954.46	1164.742	2023.38	1165.15
22048.76	1165.322	090.36	1165.292	2124.89	1164.712	2171.39	1164.942	2212.98	1165.03
22233.83	1164.122	262.05	1162.592	2302.38	1163.952	2321.75	1164.422	2378.71	1165.58
22439.74	1166.422	445.13	1166.392	2478.45	1167.172	2486.73	1167.2	22585.5	1167.34
22634.36	1167.422	668.78	1167.282	2679.97	116722	713.73	1166.422	753.65	1173.52
22759.09	1173.5	22832.7	1173.252	3002.71	1173.842	3015.32	1173.792	3050.61	1173.31
23077.36	1174.223	124.52	1175.362	3128.21	1175.62	3147.58	1177.82	3156.31	1178.95
23182.18	1179.223	220.56	1178.542	3281.93	1178.462	3334.21	1178.64		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18161.32	.04	19348.98	.03	20396.08	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19348.98	20396.08	520	490.84	460	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18161.32	19348.98	1171.32	20396.08	23334.21	1167.75

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1158.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.96	Wt. n-Val.		0.030	
E.G. Elev (ft)	1160.03	Reach Len. (ft)	520.00	490.84	460.00
Crit W.S. (ft)	1151.65	Flow Area (sq ft)		15299.77	
E.G. Slope (ft/ft)	0.001351	Area (sq ft)	729.92	15299.77	9.42
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1151.07	Top Width (ft)	144.25	986.38	20.45
Vel Total (ft/s)	11.24	Avg. Vel. (ft/s)		11.24	
Max Chl Dpth (ft)	21.87	Hydr. Depth (ft)		15.51	
Conv. Total (cfs)	4679928.0	Conv. (cfs)		4679928.0	
Length Wtd. (ft)	490.84	Wetted Per. (ft)		996.93	
Min Ch El (ft)	1136.20	Shear (lb/sq ft)		1.29	
Alpha	1.00	Stream Power (lb/ft s)		14.55	
Frctn Loss (ft)	0.66	Cum Volume (acre-ft)	2600.70	14457.34	1276.62
C & E Loss (ft)	0.01	Cum SA (acres)	231.08	886.50	244.47

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1158.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.96	Wt. n-Val.		0.030	
E.G. Elev (ft)	1160.03	Reach Len. (ft)	520.00	490.84	460.00
Crit W.S. (ft)	1151.65	Flow Area (sq ft)		15300.25	
E.G. Slope (ft/ft)	0.001351	Area (sq ft)		15300.25	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	986.38	Top Width (ft)		986.38	
Vel Total (ft/s)	11.24	Avg. Vel. (ft/s)		11.24	
Max Chl Dpth (ft)	21.87	Hydr. Depth (ft)		15.51	
Conv. Total (cfs)	4680164.5	Conv. (cfs)		4680164.5	
Length Wtd. (ft)	490.84	Wetted Per. (ft)		996.93	
Min Ch El (ft)	1136.20	Shear (lb/sq ft)		1.29	
Alpha	1.00	Stream Power (lb/ft s)		14.55	
Frctn Loss (ft)	0.66	Cum Volume (acre-ft)		14458.41	0.32
C & E Loss (ft)	0.01	Cum SA (acres)		886.49	0.18

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19348.98 LB	19418.79	540.90	135.51	38.34	0.31	3.61	3.99
19418.79	19488.59	2249.01	421.13	76.99	1.31	6.03	5.34
19488.59	19558.40	17295.39	1377.88	69.91	10.06	19.74	12.55
19558.40	19628.21	15985.17	1315.27	70.04	9.29	18.84	12.15
19628.21	19698.01	13972.74	1212.05	69.87	8.12	17.36	11.53
19698.01	19767.82	15342.26	1282.11	69.88	8.92	18.37	11.97
19767.82	19837.63	13362.98	1179.62	69.81	7.77	16.90	11.33
19837.63	19907.43	13177.40	1169.77	69.81	7.66	16.76	11.26
19907.43	19977.24	12749.67	1146.84	69.81	7.41	16.43	11.12
19977.24	20047.05	12384.48	1127.07	69.82	7.20	16.15	10.99
20047.05	20116.85	14220.63	1224.66	69.83	8.27	17.54	11.61
20116.85	20186.66	16104.63	1319.53	69.83	9.36	18.90	12.20
20186.66	20256.47	14353.26	1231.52	69.84	8.34	17.64	11.65
20256.47	20326.27	9241.66	950.27	70.69	5.37	13.61	9.73
20326.27	20396.08 RB	1019.81	206.55	42.48	0.59	4.99	4.94

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19348.98 LB	19418.79	540.99	135.52	38.34	0.31	3.61	3.99
19418.79	19488.59	2249.20	421.16	76.99	1.31	6.03	5.34
19488.59	19558.40	17295.26	1377.92	69.91	10.06	19.74	12.55
19558.40	19628.21	15985.08	1315.30	70.04	9.29	18.84	12.15
19628.21	19698.01	13972.71	1212.08	69.87	8.12	17.36	11.53
19698.01	19767.82	15342.19	1282.14	69.88	8.92	18.37	11.97

19767.82	19837.63	13362.97	1179.66	69.81	7.77	16.90	11.33
19837.63	19907.43	13177.40	1169.80	69.81	7.66	16.76	11.26
19907.43	19977.24	12749.68	1146.87	69.81	7.41	16.43	11.12
19977.24	20047.05	12384.50	1127.10	69.82	7.20	16.15	10.99
20047.05	20116.85	14220.59	1224.69	69.83	8.27	17.54	11.61
20116.85	20186.66	16104.53	1319.56	69.83	9.36	18.90	12.20
20186.66	20256.47	14353.22	1231.56	69.84	8.34	17.64	11.65
20256.47	20326.27	9241.76	950.30	70.69	5.37	13.61	9.73
20326.27	20396.08 RB	1019.90	206.57	42.48	0.59	4.99	4.94

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 221.80

INPUT
Description:
Station Elevation Data num= 188

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18195.87	1210.618206.33	1210.0618268.65	1207.718276.94	1206.4918283.96	1202.79				
18294.72	1196.1	18328	1195.6 18348.1	1194.8518356.04	1193.3918362.14	1191.1			
18363.55	1190.418376.79	1190.8918403.03	1190.6118417.69	1191.3818420.16	1190.98				
18433.12	1187.718482.24	1174.0618510.47	1165.9118531.57	1164.6418556.08	1164.03				
18589.61	1163.318608.83	1162.9318655.29	1161.9618713.56	1162.2 18738.5	1162.31				
18742.4	1162.318799.21	1161.8518835.11	1161.9618846.72	1157.9818857.05	1160.4				
18899.99	1159.618937.49	1161.0518945.96	1158.9318992.28	1157.1618998.83	1156.99				
19066.83	1148.419070.07	1148.4619150.04	1151.3119165.16	1159.1819179.04	1164.33				
19192.16	1166.319195.49	1166.4219232.95	1150.4219238.01	1148.57 19280.9	1149.18				
19284.1	1149.219286.96	1149.8819309.57	1154.62 19343.5	1164.43	19350	1166.39			
19358.97	1169.619377.34	1161.6319390.65	1162.2319400.98	1162.0819440.36	1153.1				
19442.53	1152.619470.25	1155.0719483.92	1153.7119502.11	1140.4419505.02	1138.54				
19552.6	1138.419570.23	1136.3519606.09	1141.819612.72	1142.8419636.74	1140.36				
19648.42	1139.419749.09	1138.8419776.44	1138.3319782.55	1138.4319887.19	1138.83				
19912.95	113920001.53	1137.4320047.61	1136.6720132.52	1139.6820179.34	1141.16				
20233.4	1141.520271.09	1141.6720287.08	1145.2820323.83	1152.9520330.37	1152.9				
20343.75	1152.320373.84	1163.6320381.57	1166.2920391.18	1165.1620399.13	1164.63				
20408.31	1165.320429.06	1164.8320451.18	1164.1920458.79	1162.2720470.36	1159.85				
20477.35	1159.820491.93	1160.07 20518.7	1160.9620526.46	1161.0320538.42	1161.44				
20552.5	1161.820568.77	1161.75 20595.3	1161.5320629.76	1161.6620662.92	1161.53				
20708.54	1161.520747.81	1161.5320775.58	1161.73 20798.6	1161.5520821.58	1161.65				
20884.34	1161.320914.55	1161.0420959.94	1159.8621031.24	1160.4221040.75	1160.45				
21059.65	1160.321087.69	1159.5921099.74	1159.821116.21	1161.7621127.28	1162.66				
21137.95	116321140.46	1163.6321200.32	1166.2921210.81	1167.1421271.48	1170.41				
21287.77	1171.821295.81	1172.3821342.69	1174.3721350.38	1174.6321426.93	1178.54				
21434.63	1178.5 21457.9	1171.0921479.51	1164.5221490.56	1163.8421503.06	1162.78				
21513.46	1162.721527.74	1162.0521536.21	1161.2321562.56	1160.8921573.78	1161				
21584.6	1161.721591.93	1162.0521606.96	1162.16 21640.1	1163.16 21656.9	1163.53				
21703.98	1163.921707.22	1164.0321726.09	1163.98 21805.8	116321849.97	1162.23				
21891.14	1161.821947.27	1161.3421979.38	1161.2621998.69	1160.9922060.89	1162.34				
22079.78	1162.422113.99	1163.1622118.49	1161.5122131.71	1162.422155.67	1162.8				
22201.25	1163.722220.21	1164.2622245.94	1164.9722262.29	1166.2322281.29	1165.81				
22306.73	1166.222343.14	1166.6422360.44	1166.5522371.75	1165.9922383.67	1165.02				
22420.14	1165.822446.45	1166.5522468.98	1166.7222538.97	1167.4122578.44	1167.76				
22579.7	1168.1 22607.9	1172.3422616.63	1172.59 22677.7	1173.5722730.96	1173.31				
22777	1173.722794.36	1173.9222872.47	1174.3122927.16	1174.42 22933.6	1174.9				
23008.51	1175.123039.74	1174.8823081.93	1176.123090.79	1176.523108.08	1178.43				
23114.74	117923130.35	1178.9223148.09	1179.07						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18195.87	.04	19358.97	.03	20381.57	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19358.9	720381.57	520	512.31	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18195.87	19358.97	1169.62	0381.57	23148.09	1166.29

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1157.35	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.02	Wt. n-Val.		0.030	
E.G. Elev (ft)	1159.37	Reach Len. (ft)	520.00	512.31	500.00
Crit W.S. (ft)	1150.58	Flow Area (sq ft)		15076.04	
E.G. Slope (ft/ft)	0.001319	Area (sq ft)	1616.34	15076.04	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1212.13	Top Width (ft)	276.68	935.45	

Vel Total (ft/s)	11.41	Avg. Vel. (ft/s)		11.41	
Max Chl Dpth (ft)	21.00	Hydr. Depth (ft)		16.12	
Conv. Total (cfs)	4735331.0	Conv. (cfs)		4735331.0	
Length Wtd. (ft)	512.31	Wetted Per. (ft)		944.07	
Min Ch El (ft)	1136.35	Shear (lb/sq ft)		1.32	
Alpha	1.00	Stream Power (lb/ft s)		15.01	
Frctn Loss (ft)	0.67	Cum Volume (acre-ft)	2586.69	14286.20	1276.57
C & E Loss (ft)	0.01	Cum SA (acres)	228.56	875.67	244.36

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1157.35	Element			
Vel Head (ft)	2.02	Wt. n-Val.		0.030	
E.G. Elev (ft)	1159.37	Reach Len. (ft)	520.00	512.31	500.00
Crit W.S. (ft)	1150.58	Flow Area (sq ft)		15076.61	
E.G. Slope (ft/ft)	0.001319	Area (sq ft)		15076.61	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	935.46	Top Width (ft)		935.46	
Vel Total (ft/s)	11.41	Avg. Vel. (ft/s)		11.41	
Max Chl Dpth (ft)	21.00	Hydr. Depth (ft)		16.12	
Conv. Total (cfs)	4735611.0	Conv. (cfs)		4735611.0	
Length Wtd. (ft)	512.31	Wetted Per. (ft)		944.07	
Min Ch El (ft)	1136.35	Shear (lb/sq ft)		1.32	
Alpha	1.00	Stream Power (lb/ft s)		15.00	
Frctn Loss (ft)	0.67	Cum Volume (acre-ft)		14287.26	0.32
C & E Loss (ft)	0.01	Cum SA (acres)		875.66	0.18

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19358.97 LB	19427.14	4.08	3.36	5.57	0.00	0.62	1.21
19427.14	19495.32	1131.85	272.90	71.46	0.66	4.00	4.15
19495.32	19563.49	14663.63	1261.72	70.43	8.53	18.51	11.62
19563.49	19631.66	13459.40	1187.41	68.81	7.83	17.42	11.34
19631.66	19699.84	14147.30	1219.39	68.24	8.23	17.89	11.60
19699.84	19768.01	14922.68	1258.58	68.18	8.68	18.46	11.86
19768.01	19836.18	15447.60	1284.96	68.18	8.98	18.85	12.02
19836.18	19904.36	15083.86	1266.70	68.17	8.77	18.58	11.91
19904.36	19972.53	15403.67	1282.82	68.18	8.96	18.82	12.01
19972.53	20040.70	17048.24	1363.31	68.18	9.91	20.00	12.51
20040.70	20108.88	16622.58	1343.03	68.21	9.66	19.70	12.38
20108.88	20177.05	13460.72	1183.32	68.21	7.83	17.36	11.38
20177.05	20245.22	11749.84	1090.41	68.18	6.83	15.99	10.78
20245.22	20313.40	8057.19	874.43	69.14	4.68	12.83	9.21
20313.40	20381.57 RB	797.37	183.70	44.93	0.46	4.20	4.34

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19358.97 LB	19427.14	4.08	3.37	5.57	0.00	0.62	1.21
19427.14	19495.32	1132.07	272.94	71.46	0.66	4.00	4.15
19495.32	19563.49	14663.57	1261.76	70.43	8.53	18.51	11.62
19563.49	19631.66	13459.39	1187.45	68.81	7.83	17.42	11.33
19631.66	19699.84	14147.27	1219.43	68.24	8.23	17.89	11.60
19699.84	19768.01	14922.62	1258.62	68.18	8.68	18.46	11.86
19768.01	19836.18	15447.52	1285.00	68.18	8.98	18.85	12.02
19836.18	19904.36	15083.80	1266.75	68.17	8.77	18.58	11.91
19904.36	19972.53	15403.60	1282.86	68.18	8.96	18.82	12.01
19972.53	20040.70	17048.10	1363.35	68.18	9.91	20.00	12.50
20040.70	20108.88	16622.46	1343.07	68.21	9.66	19.70	12.38
20108.88	20177.05	13460.72	1183.36	68.21	7.83	17.36	11.38
20177.05	20245.22	11749.90	1090.45	68.18	6.83	16.00	10.78
20245.22	20313.40	8057.36	874.47	69.14	4.68	12.83	9.21
20313.40	20381.57 RB	797.49	183.73	44.93	0.46	4.20	4.34

CROSS SECTION RIVER: Salt River

REACH: Reach 4 RS: 221.70

INPUT
Description:
Station Elevation Data num= 177

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18313.4	1207.718	331.21	1190.5	518353.07	1178.8	18357.74	1176.4	918383.22	1173.02
18388.14	1172.318	425.75	1170.5	818484.17	1168.7	218551.42	1167.0	518573.43	1166.72
18584.11	1166.418	612.02	1166.1	18666.45	1165.1	418709.95	1164.5	718726.98	1164.56
18729.96	1164.218	733.93	1163.2	518741.54	1162.5	318742.43	1162.1	818754.36	1163.08
18794.42	1162.618	812.28	1162.6	918870.65	1154.7	118917.38	1147.9	218947.73	1148.51
18977.47	1147.618	991.82	1147.9	819043.31	1149.0	519071.02	1149.34	19075.1	1149.34
19218.77	1147.519	309.85	1147.1	419357.44	1148.89	19370.6	1153.0	119374.03	1154.48
19383.37	1157.319	409.57	1165.8	719416.32	1167.3	919421.68	1168.7	419441.88	1160.62
19459.38	1153.519	474.54	1154.2	519485.11	1154.6	919494.75	1154.6	919501.02	1152.62
19518.83	1152.919	535.86	1153.5	819541.98	1153.5	19565.71	1139.8	519619.86	1137.57
19624.35	1137.419	634.06	1138.1	619660.31	1140.4	219662.96	1140.1	519791.68	1137.6
19926.34	1134.319	979.53	1136.7	20001.72	1137.3	420058.56	1139.0	320103.44	1138.63
20193.46	1137.320	218.21	1137.9	220297.42	1140.9	920315.77	1140.8	320327.65	1141.87
20331.56	1143.420	336.16	1143.5	320357.62	1149.4	220366.55	1151.7	520376.48	1153.55
20406.45	116020	424.35	1163.9	820429.66	1164.0	320438.47	1163.4	820446.38	1162.45
20476.02	115920	483.23	1158.6	20515.8	1158.9	820530.06	1159.9	620558.19	1161.28
20591.52	1160.420	616.24	1159.9	120664.46	1158.5	620680.13	1158.6	420702.62	1158.97
20737.58	115920	784.83	1158.7	320829.13	1157.4	720912.47	1159.31	20933.1	1159.79
20954.93	1168.120	977.63	1177.37	20995.9	1178.3	420999.53	1178.6	321081.63	1178.23
21083.63	1178.321	093.55	1179.7	221128.13	1178.7	621190.62	1177.2	721209.18	1169.86
21229.58	1162.821	237.19	1161.4	921239.52	1160.5	21268.55	1159.9	721291.89	1164.94
21301.26	1164.621	306.68	1160.4	621324.48	1162.9	221348.89	1164.3	721402.27	1165.51
21434.96	1171.321	449.56	1172.6	21463.69	1174.8	121490.56	1175.2	421526.24	1176.75
21542.59	1176.9	21555.5	1177.5	721594.85	1177.4	521622.38	1182.0	421629.26	1182.57
21641.43	1185.221	667.39	1189.6	221680.98	1193.8	521697.93	1199.2	921733.38	1207.61
21756.81	1212.3	21768.5	120821	815.78	1183.4	21825.94	1181.6	921855.64	1176.17
21869.96	1173.421	875.52	1172.6	721880.58	1172.5	221930.63	1170.1	321938.76	1170.01
22003.3	1170.822	072.34	1170.32	22089.3	1170.2	822143.78	1170.4	722201.32	1171.17
22221.23	1171.122	291.67	1171.4	622308.03	1171.6	122363.53	1171.5	22371.52	1171.81
22441.39	1173.922	459.63	1172.9	122477.06	1172.7	122511.23	1172.4	22515.43	1172.41
22546.13	1171.8	22567.5	1171.8	222627.63	1172.7	922675.51	1172.3	122686.47	1172.26
22704.37	1171.522	733.97	1171.2	722742.09	1170.6	222760.68	1176.4	922765.21	1177.15
22771.49	117722	794.55	1175.7	22832.55	1176.3	922848.45	1175.4	222869.41	1174.44
22880.16	1176.522	885.04	1177.5	922896.93	1177.4	722930.49	1176.9	222938.35	1177.12
22981.95	1177.623	029.34	1178.5	123071.34	1179.2	223088.16	1179.47	23096.5	1179.4
23160.94	1179.423	225.52	1179.55						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18313.4	.04	19421.68	.03	20429.66	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19421.68	20429.66	480	491.61	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18313.4	19421.68	1168.74	20429.66	23225.52	1164.03

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1156.71	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.98	Wt. n-Val.		0.030	
E.G. Elev (ft)	1158.69	Reach Len. (ft)	480.00	491.61	500.00
Crit W.S. (ft)	1149.59	Flow Area (sq ft)		15216.32	
E.G. Slope (ft/ft)	0.001284	Area (sq ft)	4124.98	15216.32	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1465.08	Top Width (ft)	525.40	939.68	
Vel Total (ft/s)	11.30	Avg. Vel. (ft/s)		11.30	
Max Chl Dpth (ft)	22.41	Hydr. Depth (ft)		16.19	
Conv. Total (cfs)	4800137.0	Conv. (cfs)		4800137.0	
Length Wtd. (ft)	491.61	Wetted Per. (ft)		946.68	
Min Ch El (ft)	1134.30	Shear (lb/sq ft)		1.29	
Alpha	1.00	Stream Power (lb/ft s)		14.56	
Frctn Loss (ft)	0.70	Cum Volume (acre-ft)	2552.42	14108.06	1276.57
C & E Loss (ft)	0.03	Cum SA (acres)	223.78	864.65	244.36

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1156.71	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.98	Wt. n-Val.		0.030	
E.G. Elev (ft)	1158.70	Reach Len. (ft)	480.00	491.61	500.00
Crit W.S. (ft)	1149.59	Flow Area (sq ft)		15217.00	
E.G. Slope (ft/ft)	0.001284	Area (sq ft)		15217.00	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	939.68	Top Width (ft)		939.68	
Vel Total (ft/s)	11.30	Avg. Vel. (ft/s)		11.30	
Max Chl Dpth (ft)	22.41	Hydr. Depth (ft)		16.19	
Conv. Total (cfs)	4800493.5	Conv. (cfs)		4800493.5	
Length Wtd. (ft)	491.61	Wetted Per. (ft)		946.68	
Min Ch El (ft)	1134.30	Shear (lb/sq ft)		1.29	
Alpha	1.00	Stream Power (lb/ft s)		14.56	
Frctn Loss (ft)	0.70	Cum Volume (acre-ft)		14109.12	0.32
C & E Loss (ft)	0.03	Cum SA (acres)		864.64	0.18

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19421.68 LB	19488.88	249.29	86.96	38.05	0.14	2.33	2.87
19488.88	19556.08	1184.93	282.32	69.71	0.69	4.20	4.20
19556.08	19623.28	12901.50	1176.08	68.73	7.50	17.50	10.97
19623.28	19690.47	12938.17	1168.54	67.35	7.52	17.39	11.07
19690.47	19757.67	13433.57	1194.24	67.21	7.81	17.77	11.25
19757.67	19824.87	15202.24	1286.25	67.21	8.84	19.14	11.82
19824.87	19892.07	17387.32	1394.23	67.22	10.11	20.75	12.47
19892.07	19959.27	18924.61	1467.14	67.24	11.00	21.83	12.90
19959.27	20026.47	15907.62	1321.94	67.24	9.25	19.67	12.03
20026.47	20093.67	13709.73	1208.91	67.21	7.97	17.99	11.34
20093.67	20160.87	14283.32	1238.96	67.21	8.30	18.44	11.53
20160.87	20228.06	15096.14	1280.88	67.22	8.78	19.06	11.79
20228.06	20295.26	12601.79	1149.56	67.25	7.33	17.11	10.96
20295.26	20362.46	7888.78	874.29	68.49	4.59	13.01	9.02
20362.46	20429.66 RB	291.00	86.01	29.34	0.17	3.00	3.38

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19421.68 LB	19488.88	249.40	86.99	38.05	0.15	2.33	2.87
19488.88	19556.08	1185.19	282.36	69.71	0.69	4.20	4.20
19556.08	19623.28	12901.52	1176.13	68.73	7.50	17.50	10.97
19623.28	19690.47	12938.19	1168.59	67.35	7.52	17.39	11.07
19690.47	19757.67	13433.56	1194.29	67.21	7.81	17.77	11.25
19757.67	19824.87	15202.16	1286.30	67.21	8.84	19.14	11.82
19824.87	19892.07	17387.15	1394.28	67.22	10.11	20.75	12.47
19892.07	19959.27	18924.37	1467.19	67.24	11.00	21.83	12.90
19959.27	20026.47	15907.51	1321.99	67.24	9.25	19.67	12.03
20026.47	20093.67	13709.72	1208.96	67.21	7.97	17.99	11.34
20093.67	20160.87	14283.28	1239.01	67.21	8.30	18.44	11.53
20160.87	20228.06	15096.07	1280.93	67.22	8.78	19.06	11.79
20228.06	20295.26	12601.82	1149.61	67.25	7.33	17.11	10.96
20295.26	20362.46	7888.98	874.34	68.49	4.59	13.01	9.02
20362.46	20429.66 RB	291.09	86.03	29.34	0.17	3.00	3.38

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 221.61

INPUT
Description:
Station Elevation Data num= 191

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18678.5	1212.41	8683.01	1211.03	18689.82	1208.65	18703.07	1203.75	18715.48	1197.08
18718.55	1195.81	8720.66	1195.51	8744.02	1195.45	18748.36	1194.65	18750.08	1194.6
18759.03	1190.21	8792.02	1157.91	8804.93	1145.34	18829.12	1143.27	18856.12	1158.13
18869.54	1164.71	8908.36	1164.21	8915.11	1164.05	18951.93	1163.48	18960.49	1163.42
18973.47	1163.71	8982.88	1159.43	19016.44	1146.21	19049.87	1145.77	19063.08	1145.72
19079.13	1146.11	9082.86	1146.02	19107.73	1144.89	19133.21	1145.24	19143.93	1145.87
19188.53	1147.31	9247.86	1145.48	19284.38	1143.85	19314.17	1148.44	19314.76	1148.92
19372.29	1147.9	19392.3	1154.35	19397.5	1156.13	19421.34	1162.45	19434.25	1166.14

```
 19434.8  1165.419438.93 1168.4219443.22 1166.7919476.46  1154.419486.31 1154.09
19501.93  1153.419519.36    115419529.18 1153.9119533.42 1152.29 19542.7 1151.89
19551.94  1152.419558.35 1151.9819564.25 1151.9819583.11 1139.9319591.56 1134.39
19648.21  1136.719677.11 1137.8119809.86 1133.9819916.35 1134.7919935.06  1134.9
19990.46    113920010.96 1140.7420062.96  1140.820076.44  1140.7 20137.2 1140.74
20205.46  1141.5 20305.7 1140.7320341.53 1140.2220343.81 1140.6620353.78  1143.7
20380.41    115220388.69  1152.720419.66  1161.520433.82 1165.4620447.28 1164.42
20458.72  1163.620475.45 1161.0720499.06 1157.2720531.49 1159.46 20545.4 1157.98
20571.87  1157.520578.81 1157.4320606.24 1157.4420616.16 1157.3220640.05  1157.8
20691.04  1159.220694.58 1159.3920702.31 1160.6720707.85 1161.2620714.52 1162.18
20723.12  1167.320734.57  1173.620755.69 1173.7420780.53 1173.7520796.22 1174.01
20840.73  1174.2 20850.6 1174.0920857.79 1173.8920868.54 1174.3120895.56 1174.78
20907.19  1172.420920.14 1169.14 20926.2 1169.7520939.07 1165.5220960.36 1163.32
20975.48  1163.420989.85  1161.321006.64  1160.321028.57 1158.06 21060.5 1158.44
21092.06  1158.421120.46 1158.39 21145.3  1158.321150.14 1158.4421173.57 1162.29
21204.33  1166.621232.66 1165.1321234.44  1163.821241.62  1161.221250.13 1163.07
 21260.5  1164.121290.65 1165.0921299.98 1165.7321315.94 1168.1721326.38 1170.72
21348.18    117421409.65  1182.721454.08 1187.7721464.71  1188.721505.76 1190.37
21573.42  1179.921596.51  1181.6 21602.4 1181.9321622.23 1184.8221655.45 1189.32
21671.98  1191.621711.23 1194.45 21728.2 1197.1321777.27 1203.8321788.71 1204.26
21819.26  1205.621841.15 1206.0321867.01 1203.1921903.18 1197.41 21932.3 1194.88
 21945.8    119321985.87 1185.7222004.02 1184.45   22027 1184.1422057.67 1187.79
 22075.1  1189.922085.84 1188.5622113.34 1185.4522115.25  1184.122125.69 1182.83
22154.69  1179.7 22155.4 1179.7422176.65 1181.88   22200 1182.5622220.51 1182.03
22230.57  1181.222264.92 1177.4222278.13 1178.0922302.74 1178.9722350.33 1177.43
22381.18  1175.522383.12 1176.0522397.28 1175.3622403.14 1174.6822437.65 1172.38
22439.41  1172.422472.76 1174.72 22494.1 1175.0622505.84 1175.9322516.42 1175.14
22553.24  1180.522562.01 1180.8922577.08 1180.9622612.44  1183.222617.73 1183.38
22632.53    118522658.81 1185.2322669.56 1185.0522713.55 1181.8422715.82 1182.17
22718.59  1183.922723.52 1182.7522735.39 1183.0422743.11 1182.4122776.65 1180.99
22777.91    1181

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 18678.5     .0419438.93     .0320433.82     .04

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19438.9320433.82              420   571.5     760              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 18678.519438.93 1168.4220433.8222777.91 1165.46

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1155.68   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.28   Wt. n-Val.                            0.030
  E.G. Elev (ft)            1157.96   Reach Len. (ft)             420.00     571.50     760.00
  Crit W.S. (ft)            1149.68   Flow Area (sq ft)                   14181.40
  E.G. Slope (ft/ft)       0.001596   Area (sq ft)               4023.39   14181.40
  Q Total (cfs)           172000.00   Flow (cfs)                          172000.00
  Top Width (ft)            1387.28   Top Width (ft)              461.14     926.14
  Vel Total (ft/s)            12.13   Avg. Vel. (ft/s)                        12.13
  Max Chl Dpth (ft)           21.70   Hydr. Depth (ft)                        15.31
  Conv. Total (cfs)        4305533.5  Conv. (cfs)                         4305533.5
  Length Wtd. (ft)           571.50   Wetted Per. (ft)                       934.48
  Min Ch El (ft)            1133.98   Shear (lb/sq ft)                        1.51
  Alpha                        1.00   Stream Power (lb/ft s)                 18.34
  Frctn Loss (ft)              0.95   Cum Volume (acre-ft)       2507.53  13942.18    1276.57
  C & E Loss (ft)              0.01   Cum SA (acres)              218.34     854.12     244.36


Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1155.68   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.28   Wt. n-Val.                            0.030
  E.G. Elev (ft)            1157.96   Reach Len. (ft)             420.00     571.50     760.00
  Crit W.S. (ft)            1149.68   Flow Area (sq ft)                   14182.42
  E.G. Slope (ft/ft)       0.001596   Area (sq ft)                        14182.42
  Q Total (cfs)           172000.00   Flow (cfs)                          172000.00
  Top Width (ft)             926.14   Top Width (ft)                         926.14
  Vel Total (ft/s)            12.13   Avg. Vel. (ft/s)                        12.13
  Max Chl Dpth (ft)           21.70   Hydr. Depth (ft)                        15.31
  Conv. Total (cfs)        4306036.0  Conv. (cfs)                         4306036.0
  Length Wtd. (ft)           571.50   Wetted Per. (ft)                       934.48
```

Min Ch El (ft)	1133.98	Shear (lb/sq ft)	1.51	
Alpha	1.00	Stream Power (lb/ft s)	18.33	
Frctn Loss (ft)	0.95	Cum Volume (acre-ft)	13943.22	0.32
C & E Loss (ft)	0.01	Cum SA (acres)	854.11	0.18

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19438.93 LB	19505.26	138.02	53.89	32.48	0.08	1.67	2.56
19505.26	19571.58	809.38	209.35	68.04	0.47	3.16	3.87
19571.58	19637.91	15341.82	1238.44	70.17	8.92	18.67	12.39
19637.91	19704.23	15643.54	1225.37	66.37	9.10	18.47	12.77
19704.23	19770.56	17276.58	1300.49	66.35	10.04	19.61	13.28
19770.56	19836.89	19866.63	1414.10	66.34	11.55	21.32	14.05
19836.89	19903.21	19745.48	1408.79	66.33	11.48	21.24	14.02
19903.21	19969.54	18085.96	1337.24	66.42	10.52	20.16	13.52
19969.54	20035.86	12291.37	1060.87	66.46	7.15	15.99	11.59
20035.86	20102.19	10972.73	990.26	66.33	6.38	14.93	11.08
20102.19	20168.52	10889.06	985.73	66.33	6.33	14.86	11.05
20168.52	20234.84	10262.29	951.29	66.33	5.97	14.34	10.79
20234.84	20301.17	10641.90	972.25	66.33	6.19	14.66	10.95
20301.17	20367.49	9537.78	916.67	67.48	5.55	13.82	10.40
20367.49	20433.82 RB	497.47	116.67	32.73	0.29	3.68	4.26

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19438.93 LB	19505.26	138.15	53.92	32.48	0.08	1.67	2.56
19505.26	19571.58	809.76	209.43	68.04	0.47	3.16	3.87
19571.58	19637.91	15341.67	1238.51	70.17	8.92	18.67	12.39
19637.91	19704.23	15643.40	1225.45	66.37	9.09	18.48	12.77
19704.23	19770.56	17276.33	1300.56	66.35	10.04	19.61	13.28
19770.56	19836.89	19866.19	1414.17	66.34	11.55	21.32	14.05
19836.89	19903.21	19745.05	1408.86	66.33	11.48	21.24	14.01
19903.21	19969.54	18085.64	1337.31	66.42	10.51	20.16	13.52
19969.54	20035.86	12291.45	1060.94	66.46	7.15	16.00	11.59
20035.86	20102.19	10972.89	990.33	66.33	6.38	14.93	11.08
20102.19	20168.52	10889.22	985.81	66.33	6.33	14.86	11.05
20168.52	20234.84	10262.50	951.37	66.33	5.97	14.34	10.79
20234.84	20301.17	10642.08	972.32	66.33	6.19	14.66	10.95
20301.17	20367.49	9538.01	916.74	67.48	5.55	13.82	10.40
20367.49	20433.82 RB	497.65	116.70	32.73	0.29	3.68	4.26

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 221.50

INPUT
Description:
Station Elevation Data num= 99

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18724.69	1224.31	8736.78	1219.59	18740.72	1217.94	18746.27	1217.04	18762.15	1207.06
18762.87	1206.71	8779.35	1201.53	18780.37	1201.44	18804.96	1196.58	18807.77	1195.77
18813.4	1193.41	8835.21	1186.21	8863.88	1163.37	18883.84	1146.59	18910.1	1145.79
18943.52	1162.21	8976.58	1161.23	19025.23	1159.81	19050.06	1159.05	19062.67	1155.45
19088.81	1148.41	9103.99	1147.87	19122.88	1146.98	19152.74	1146.24	19167.01	1146.34
19212.01	1146	19222.05	1145.91	9247.66	1143.79	19287.05	1144.04	19295.73	1144.26
19308.12	1145	19350.49	1146.95	19384.7	1147.38	19388.07	1147.38	19414.13	1154.24
19421.77	1156.31	9446.99	1162.69	19452.98	1164.43	19460.46	1168.13	19464.91	1166.3
19478.02	1160.41	9495.41	1160.52	19508.22	1160.44	19514.49	1158.73	19535.89	1151.98
19549.16	1150.81	9564.95	1151.31	19579.7	1152.19	19590.95	1145.02	19596.41	1141.22
19623.73	1140.81	9639.47	1140.61	19660.34	1139.68	19721.27	1136.87	19768.9	1134.08
19897.56	1136.11	9971.91	1135.11	20028.81	1134.25	20038.11	1134.62	20049.15	1134.86
20117.01	1139.22	0150.41	1141.01	20157.19	1142.55	20260.17	1138.98	20290.02	1138.35
20365.62	1141.32	0376.07	1141.72	0405.82	1151.54	20446.21	1151.94	20448.54	1152.35
20489.79	1164.32	0506.63	1164.73	20509.77	1164.73	20520.6	1162.92	20538.53	1168.66
20542.37	1169.82	0552.68	1169.07	20605.25	1166.09	20627.64	1167.66	20657.69	1167.36
20681.46	1166.72	0690.88	1166.46	20703.82	1164.01	20710.31	1162.19	20726.22	1162.62
20744.7	1162.72	0753.41	1160.04	20774.01	1167.28	20778.57	1169.31	20780.54	1169.82
20811.33	1168.3	20827.3	1167.94	20859.08	1166.63	20875.49	1164.42	0883.33	1165.77

20891.67 1168.620906.56 1171.6420926.89 1172.5320993.81 1186.59

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18724.69	.04	19460.46	.03	20506.63	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19460.46	20506.63	510	506.96	520	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18724.69	19460.46	1168.13	20506.63	20993.81	1164.73

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1154.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.41	Wt. n-Val.		0.030	
E.G. Elev (ft)	1157.00	Reach Len. (ft)	510.00	506.96	520.00
Crit W.S. (ft)	1149.15	Flow Area (sq ft)		13820.51	
E.G. Slope (ft/ft)	0.001741	Area (sq ft)	3091.70	13820.51	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1331.98	Top Width (ft)	403.30	928.68	
Vel Total (ft/s)	12.45	Avg. Vel. (ft/s)		12.45	
Max Chl Dpth (ft)	20.51	Hydr. Depth (ft)		14.88	
Conv. Total (cfs)	4122656.3	Conv. (cfs)		4122656.3	
Length Wtd. (ft)	506.96	Wetted Per. (ft)		935.10	
Min Ch El (ft)	1134.08	Shear (lb/sq ft)		1.61	
Alpha	1.00	Stream Power (lb/ft s)		19.99	
Frctn Loss (ft)	1.00	Cum Volume (acre-ft)	2473.23	13758.49	1276.57
C & E Loss (ft)	0.04	Cum SA (acres)	214.17	841.95	244.36

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1154.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.40	Wt. n-Val.		0.030	
E.G. Elev (ft)	1157.00	Reach Len. (ft)	510.00	506.96	520.00
Crit W.S. (ft)	1149.15	Flow Area (sq ft)		13822.11	
E.G. Slope (ft/ft)	0.001740	Area (sq ft)		13822.11	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	928.67	Top Width (ft)		928.67	
Vel Total (ft/s)	12.44	Avg. Vel. (ft/s)		12.44	
Max Chl Dpth (ft)	20.52	Hydr. Depth (ft)		14.88	
Conv. Total (cfs)	4123454.5	Conv. (cfs)		4123454.5	
Length Wtd. (ft)	506.96	Wetted Per. (ft)		935.09	
Min Ch El (ft)	1134.08	Shear (lb/sq ft)		1.61	
Alpha	1.00	Stream Power (lb/ft s)		19.98	
Frctn Loss (ft)	1.00	Cum Volume (acre-ft)		13759.51	0.32
C & E Loss (ft)	0.04	Cum SA (acres)		841.94	0.18

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19460.46 LB	19530.21	1.10	1.07	2.73	0.00	0.41	1.03
19530.21	19599.95	1711.73	327.54	73.39	1.00	4.70	5.23
19599.95	19669.70	11097.57	985.31	69.78	6.45	14.13	11.26
19669.70	19739.44	15074.36	1184.43	69.83	8.76	16.98	12.73
19739.44	19809.18	19747.96	1392.52	69.80	11.48	19.97	14.18
19809.18	19878.93	18724.68	1348.42	69.75	10.89	19.33	13.89
19878.93	19948.67	17842.61	1309.92	69.75	10.37	18.78	13.62
19948.67	20018.42	19264.60	1371.59	69.75	11.20	19.67	14.05
20018.42	20088.16	18484.15	1338.62	69.83	10.75	19.19	13.81
20088.16	20157.91	12311.31	1050.12	70.03	7.16	15.06	11.72
20157.91	20227.65	10005.89	926.00	69.79	5.82	13.28	10.81
20227.65	20297.40	13003.51	1083.59	69.78	7.56	15.54	12.00
20297.40	20367.14	11713.78	1017.89	69.80	6.81	14.59	11.51
20367.14	20436.89	2895.59	443.94	71.34	1.68	6.37	6.52
20436.89	20506.63 RB	121.17	39.56	19.75	0.07	2.04	3.06

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19460.46 LB	19530.21	1.11	1.07	2.72	0.00	0.41	1.03
19530.21	19599.95	1712.46	327.66	73.39	1.00	4.70	5.23
19599.95	19669.70	11097.85	985.43	69.78	6.45	14.13	11.26
19669.70	19739.44	15074.24	1184.55	69.83	8.76	16.98	12.73
19739.44	19809.18	19747.30	1392.64	69.80	11.48	19.97	14.18
19809.18	19878.93	18724.15	1348.54	69.75	10.89	19.34	13.88
19878.93	19948.67	17842.18	1310.03	69.75	10.37	18.78	13.62
19948.67	20018.42	19264.00	1371.71	69.75	11.20	19.67	14.04
20018.42	20088.16	18483.64	1338.74	69.83	10.75	19.19	13.81
20088.16	20157.91	12311.48	1050.24	70.03	7.16	15.06	11.72
20157.91	20227.65	10006.28	926.11	69.79	5.82	13.28	10.80
20227.65	20297.40	13003.61	1083.71	69.78	7.56	15.54	12.00
20297.40	20367.14	11714.01	1018.01	69.80	6.81	14.60	11.51
20367.14	20436.89	2896.38	444.06	71.34	1.68	6.37	6.52
20436.89	20506.63 RB	121.32	39.59	19.75	0.07	2.04	3.06

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 221.40

INPUT
Description:
Station Elevation Data num= 257

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18652.1	120	518671.59	1200.55	18699.2	1192.2	318707.99	1189.4	118714.68	1186.79
18723.36	118	518763.39	1171.9	318779.65	1168.3	18828.27	1168.4	118858.97	1168.65
18906.14	1168.7	18911.84	1168.8	18935.5	1168.3	18948.16	1164.5	318978.02	1157.09
18991.43	1153.9	18993.58	1154.1	419033.37	1154.6	919043.37	1154.2	719048.94	1154.21
19058.77	1155.4	19061	1155.4	319072.37	1156.3	719083.23	1155.7	119097.13	1154.73
19138.46	1157.5	19155.07	1158.69	19166.8	1160.4	819213.05	1159.5	419241.37	1159.48
19249.06	1159.7	19254.05	1160.3	219283.37	1155.5	219311.47	1150.07	19324	1147.37
19346.26	114	319354.28	1142.1	619356.11	1143.0	319383.67	1149.5	519407.07	1154.11
19408.59	1154.5	19441.58	1164.73	19445	1164.1	819449.43	1164.8	919456.36	1167
19480.62	1155.8	19493.16	1155.2	619503.91	1155.0	919516.58	1152.8	119532.23	1150.2
19549.14	1149.4	19559.75	1150.4	919570.58	1151.7	319577.91	1151.2	619582.95	1144.43
19585.63	1141.6	19594.37	1142.4	919600.79	1143.5	19607.14	1144.8	319609.31	1143.89
19614.57	1142.9	19642.3	1142.5	519646.34	1142.3	119655.98	1142.2	319677.03	1141.26
19785.47	1136.2	19807.92	1135.8	319895.92	1136.1	519914.19	1136.14	20045.5	1133.76
20050.59	1133.8	20171.35	1133.2	120255.63	1134.7	920306.82	1135.7	920337.14	1138.04
20387.05	1141.8	20396.05	1145.8	720408.08	1150.7	920422.65	1151.3	220452.05	1152.87
20470.54	1154.6	20487.47	1155.9	20500.27	1157.3	720515.11	1158.7	220540.48	1158.55
20565.02	1164.5	20574.62	1165.2	420584.25	1172.1	720634.72	1172.0	620641.89	1172.43
20707.14	1172.3	20716.33	1172.3	720721.03	1172.3	20750.05	1170.1	20764.44	1169.4
20772.33	1167.6	20776.01	1167.4	420794.23	1162.0	120800.86	1161.7	20810.3	1161.98
20838.2	1163.3	20845.54	1160.1	720866.66	1166.5	920871.05	1167.99	20875.8	1166.2
20899.66	1165.7	20912.01	1164.9	220916.66	1164.9	320938.55	1165.6	820948.58	1166.45
20975.14	1171.2	21020.84	1175.8	221052.25	1177.7	721102.75	1181.2	521116.56	1182.68
21155.53	1188.3	21201.77	1195.6	521207.52	1195.9	721276.43	1202.8	821289.39	1204.13
21317.85	1200.1	21330.02	1198.3	121339.16	1199.1	121370.97	1200.8	721397.84	1202.14
21460.04	1212.6	21461.59	1212.93	21511.7	1221.68	21546.9	1227.7	821568.77	1231.32
21596.38	1236.7	21640.13	1248.9	921665.43	1254.4	621692.78	1259.56	21697.2	1261.03
21707.51	1262.8	21716.32	1264.1	421791.55	1258.9	721850.25	1252.0	221857.65	1251.19
21863.4	1250.9	21873.08	1249.5	221962.35	1236.3	21967.51	1234.8	822016.88	1223.25
22023.23	122	122031.27	1218.5	822051.75	1221.3	922060.31	1222.41	22065.8	1221.88
22075.24	1221.8	22110.52	1220.6	22144.58	1217.8	22155.42	1217.2	122158.53	1218.51
22163.19	1217.9	22183.22	1217.3	822190.13	1217.5	522193.29	1217.3	122226.28	1216.97
22232.43	1216.4	22242.46	1216.5	22284.81	1216.1	322320.94	1222.5	322333.23	1223.12
22342.68	1222.8	22351.29	1224.6	722382.67	1218.2	622390.51	1216.7	722398.53	1216.19
22438.98	121	222481.19	1205.9	622485.17	1205.8	422495.98	1207.0	122527.13	1211.09
22538.15	1210.5	22559.76	1210.6	422596.84	1207.2	322607.16	1206.6	422631.18	1207.75
22642.13	1208.9	22661.99	1211.4	922692.22	1215.9	622711.98	1218.9	922736.36	1222.44
22759.23	1226.6	22790.77	1230.6	122805.91	1232.9	622825.04	1233.1	522836.73	1232.68
22882.49	1227	22887	1226.6	22917.78	1225.0	722938.05	1223.2	122955.82	1221.49

```
22986.03  1220.122992.72 1219.9423006.88 1220.1423022.46 1219.8223026.55 1219.54
23080.52  1217.323088.12 1216.7923104.31 1216.5723143.27 1215.0623148.76 1213.09
23210.02  1216.323269.57 1218.8923283.38  1221.523289.05 1222.3223321.66 1224.79
23339.03  1223.923382.95 1229.7323387.74 1229.7423463.23  1228.723483.01 1229.12
23493.93  1229.123502.63 1230.1723505.14 1230.0323546.35 1228.46 23548.8 1228.39
23564.58  1228.623601.96 1229.2423609.11 1229.5323678.59 1231.4823685.07    1231
 23726.3  1231.623727.36 1231.35 23756.2 1229.7323766.62 1230.4923771.63 1230.44
23785.18  1231.523801.99 1230.46 23826.7 1232.6923886.44 1237.0223911.27 1238.22
23924.45  1235.923934.49 1236.5723940.75 1237.1523973.91 1242.3323982.18  1242.1
24021.62    124224040.01 1246.7524072.75 1251.9524101.71 1252.04 24161.4 1253.55
24168.61  1253.724171.81 1255.3924181.98 1263.1424201.38  1262.624227.48 1260.64
24240.14  1254.924260.47 1254.1824287.05 1247.7624294.26 1248.0924294.86 1247.75
24296.66  1255.9 24312.7 1255.49

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 18652.1     .0519456.36    .03520584.25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19456.3620584.25              460   504.7     540              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 18652.119456.36    116720584.25 24312.7 1172.17
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1153.68	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.28	Wt. n-Val.		0.035	
E.G. Elev (ft)	1155.96	Reach Len. (ft)	460.00	504.70	540.00
Crit W.S. (ft)	1147.84	Flow Area (sq ft)		14189.97	
E.G. Slope (ft/ft)	0.002238	Area (sq ft)	641.93	14189.97	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1061.05	Top Width (ft)	112.04	949.01	
Vel Total (ft/s)	12.12	Avg. Vel. (ft/s)		12.12	
Max Chl Dpth (ft)	20.47	Hydr. Depth (ft)		14.95	
Conv. Total (cfs)	3635879.0	Conv. (cfs)		3635879.0	
Length Wtd. (ft)	504.70	Wetted Per. (ft)		957.04	
Min Ch El (ft)	1133.21	Shear (lb/sq ft)		2.07	
Alpha	1.00	Stream Power (lb/ft s)		25.11	
Frctn Loss (ft)	1.17	Cum Volume (acre-ft)	2451.37	13595.49	1276.57
C & E Loss (ft)	0.02	Cum SA (acres)	211.16	831.02	244.36

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1153.69	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.28	Wt. n-Val.		0.035	
E.G. Elev (ft)	1155.97	Reach Len. (ft)	460.00	504.70	540.00
Crit W.S. (ft)	1147.84	Flow Area (sq ft)		14192.17	
E.G. Slope (ft/ft)	0.002237	Area (sq ft)		14192.17	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	949.01	Top Width (ft)		949.01	
Vel Total (ft/s)	12.12	Avg. Vel. (ft/s)		12.12	
Max Chl Dpth (ft)	20.48	Hydr. Depth (ft)		14.95	
Conv. Total (cfs)	3636810.3	Conv. (cfs)		3636810.3	
Length Wtd. (ft)	504.70	Wetted Per. (ft)		957.04	
Min Ch El (ft)	1133.21	Shear (lb/sq ft)		2.07	
Alpha	1.00	Stream Power (lb/ft s)		25.10	
Frctn Loss (ft)	1.17	Cum Volume (acre-ft)		13596.50	0.32
C & E Loss (ft)	0.02	Cum SA (acres)		831.01	0.18

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19456.36 LB	19531.55	88.80	33.88	20.11	0.05	1.71	2.62
19531.55	19606.74	2501.14	436.82	80.28	1.45	5.81	5.73
19606.74	19681.94	7901.50	850.04	75.53	4.59	11.30	9.30

19681.94	19757.13	11862.22	1083.27	75.28	6.90	14.41	10.95
19757.13	19832.32	16247.23	1307.94	75.23	9.45	17.39	12.42
19832.32	19907.52	16622.50	1325.76	75.19	9.66	17.63	12.54
19907.52	19982.71	17377.70	1361.66	75.20	10.10	18.11	12.76
19982.71	20057.90	19565.56	1462.05	75.20	11.38	19.44	13.38
20057.90	20133.09	20684.01	1511.58	75.19	12.03	20.10	13.68
20133.09	20208.29	20945.89	1523.08	75.20	12.18	20.26	13.75
20208.29	20283.48	18944.09	1434.03	75.21	11.01	19.07	13.21
20283.48	20358.67	15064.74	1250.74	75.34	8.76	16.63	12.04
20358.67	20433.87	4144.44	582.07	77.14	2.41	7.74	7.12
20433.87	20509.06	50.16	27.04	26.94	0.03	1.01	1.86

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19456.36 LB	19531.55	88.98	33.93	20.11	0.05	1.71	2.62
19531.55	19606.74	2502.22	436.99	80.28	1.45	5.81	5.73
19606.74	19681.94	7902.36	850.22	75.53	4.59	11.31	9.29
19681.94	19757.13	11862.63	1083.44	75.28	6.90	14.41	10.95
19757.13	19832.32	16247.04	1308.12	75.23	9.45	17.40	12.42
19832.32	19907.52	16622.26	1325.94	75.19	9.66	17.63	12.54
19907.52	19982.71	17377.35	1361.83	75.20	10.10	18.11	12.76
19982.71	20057.90	19564.88	1462.23	75.20	11.37	19.45	13.38
20057.90	20133.09	20683.16	1511.75	75.19	12.03	20.10	13.68
20133.09	20208.29	20944.99	1523.25	75.20	12.18	20.26	13.75
20208.29	20283.48	18943.50	1434.21	75.21	11.01	19.07	13.21
20283.48	20358.67	15064.73	1250.92	75.34	8.76	16.64	12.04
20358.67	20433.87	4145.54	582.24	77.14	2.41	7.74	7.12
20433.87	20509.06	50.34	27.10	26.94	0.03	1.01	1.86

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 221.31

INPUT
Description:
Station Elevation Data num= 360

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14992.66	116	815026.77	1165.5	815030.91	1165.4	315037.28	1165.7	915069.86	1165.82
15070.88	1165.4	15076.04	1166.05	15112.2	1165.5	615117.18	1165.4	215176.25	1165.01
15268.31	1164.9	15278.91	1164.6	415310.35	1164.4	715385.32	1164.7	515490.94	1165.08
15609.05	1165.4	15625.53	1165.2	915743.82	1165.4	515753.35	1165.4	515780.48	1165.01
15782.39	116	515782.71	1165.6	115787.31	1165.6	15811.68	1165.0	215873.21	1164.99
15876.97	1165.2	15893.61	1165.5	815958.36	1166.1	215987.66	1165.4	815998.23	1165.4
16040.32	1164.6	16069.32	1164.2	116070.86	1164.1	16186.62	1164.7	16236.42	1164.9
16259.59	1165.2	16271.17	1164.7	416276.84	1164.6	116297.25	1164.4	116321.85	1164.32
16329.32	1164.4	16345.93	1164.9	116406.44	1165.3	116457.25	1164.3	716498.72	1164.04
16502.17	1164.4	16544.29	1164.36	16621.4	1164.5	616666.91	1163.6	16685.69	1163.52
16694.4	1163.8	16717.07	1164.3	616743.19	1164.8	116765.72	1164.1	516823.31	1163.91
16851.5	1163.8	16935.43	1163.8	416940.48	1163.7	917003.31	1163.5	117032.32	1163.48
17077.17	1163.3	17096.38	1163.1	517107.31	1163.3	917112.64	1163.2	117125.84	1163.24
17161.34	1163.5	17169.83	1163.4	217179.29	1163.5	617207.69	1163.2	117221.38	1162.96
17239.25	1163.1	17363.03	1164.3	317429.76	1164.3	517603.57	1163.9	817646.95	1164.09
17662.19	1163.4	17722.37	1164.3	217801.03	1165.3	117825.03	1166.6	117856.64	1166.07
17901.38	1165.3	17920.15	1165.3	17958.22	1165.9	118003.49	1166.1	918024.75	1170.8
18038.49	1173.9	18053.57	1174.2	818097.69	1178.8	118109.61	1179.78	18124.8	1180.63
18152.51	1181.8	18164.97	1181.25	18180.7	1181.3	718206.05	1183.77	18213.6	1183.47
18219.9	1182.1	18233.66	1176.7	818241.03	1176.4	18270.87	1176.4	518283.06	1176.9
18335.33	1176.8	18373.63	1176.5	118418.06	1176.2	318454.07	1175.5	818466.72	1174.93
18495.09	1174.4	18504.69	1173.4	118523.54	1171.2	718563.58	1165.3	718572.61	1163.79
18588.35	1162.8	18593.96	1161.4	218608.67	1160.4	218622.35	1160.4	518651.41	1161.09
18709.57	1159.2	18728.59	1158.67	18749.8	1157.6	618796.71	1157.2	618803.75	1157.23
18846.73	1156.1	18868.26	1155.6	818901.47	1155.89	18906	1156.0	818912.34	1155.78
18948.25	1154.7	18955.06	1155.9	418961.51	1156.8	218967.74	1155.5	618980.99	1153.68
19023.11	1154.3	19073.86	1154.52	19114	1153.94	19122.7	1153.8	519156.14	1152.27
19180.43	1151.5	19195.14	1153.55	19209.9	1154.8	619219.29	1153.9	19227.23	1151.53
19234.54	1149.8	19264.72	1148.6	119301.88	1149.1	819312.66	1149.2	419321.63	1153.07

19345.79	1160.519359.34	1163.9319372.89	1160.0119413.94	1149.2719424.31	1150.02
19429.24	1151.419449.21	1156.05 19463.2	1155.7519470.75	1155.3719482.11	1155.91
19490.16	1156.519515.24	1157.13 19531.2	1156.8519538.57	1156.7519557.52	1156.05
19569.37	1154.319578.77	1150.9819621.52	1135.6919639.77	1137.6619664.83	1138.36
19683.76	1139.619696.55	1140.219792.75	1135.9519801.48	1135.6319809.81	1135.64
19930.61	1135.6 19952.6	1135.0220048.27	1131.9820062.35	1131.4320118.13	1132.03
20188.61	1132.820256.01	1133.8320328.23	1134.9920344.49	1135.7320398.32	1150.33
20444.56	1149.320448.72	1149.2420500.55	1153.6220532.37	1161.4920549.57	1160.51
20591.58	1159.620597.21	1163.8720601.99	1167.9620608.04	1168.4920623.32	1170.4
20633.95	1185.320664.73	1188.4320691.02	1193.520695.44	1193.75 20731.2	1194.65
20757.37	1194.220802.53	1193.12 20875.7	1170.62 20935.8	1151.7721005.31	1151.38
21015.05	1151.421032.49	1159.2121042.59	1162.2821067.91	1162.0621078.72	1162.04
21087.43	1159.821108.55	1164.4321119.27	1166.3721136.51	1168.7821156.97	1171.78
21181.55	1173.221224.13	1174.0921225.45	1174.0321237.16	1172.621259.28	1173.37
21263.15	1173.921265.76	1174.5421290.93	1181.321294.11	1181.6821307.93	1184.1
21311.44	1183.921323.42	1186.2721330.86	1188 21350.2	1190.65 21383.8	1193.88
21398.66	1195.921412.73	1196.4821457.15	1199.4621465.59	1200.2921472.67	1200.3
21494.72	1199.821504.66	1199.8721507.38	1199.5221513.07	1199.3721550.52	1198.95
21556.04	1198.4 21565.5	119721600.52	1193.2121641.91	1195.5321657.62	1196.55
21668.48	1196.821700.06	1197.98 21737.6	1200.921761.14	1203.2121776.72	1202.99
21809.75	1199.321823.95	1196.4121841.35	1193.7221860.33	1190.621870.81	1190.21
21876.3	1189.321877.32	1189.7321886.39	1182.7921889.31	1181.9321924.92	1198.54
21961.7	1215.821975.74	1215.3122016.97	1216.2222055.35	1216.9922056.74	1217.21
22068.24	1217.522085.46	1210.45 22117.6	1198.1722144.34	1201.08 22149.1	1201.3
22172.26	1201.822186.69	1198.3822212.74	1192.7822227.35	1191.2322233.87	1190.29
22238.41	1190.522264.25	1201.5422293.82	1203.8922306.88	1204.9622329.48	1205.83
22355.06	1204.2 22362.7	120522381.95	1207.7322409.35	1210.8322422.38	1213.82
22452.03	1217.322465.67	1218.1822486.12	1219.922521.14	1223.9922541.54	1227.41
22565.51	1228.622593.47	1229.64 22599.6	1229.7422632.35	1229.8822692.15	1230.21
22784.26	1230.222789.94	1230.1722834.18	1226.2422845.95	1225.0822870.24	1222.04
22905.22	1217.122943.77	1215.8322971.27	1217.64 22987.3	1217.5323025.79	1216.08
23041.13	121423057.71	1212.1823080.55	1212.9723085.19	1212.623101.56	1209.96
23105.4	1210.623114.94	1213.9723128.29	1214.0623160.28	1220.45 23227.7	1228.4
23255.87	122723295.71	1225.98 23316.8	122523353.75	1229.123362.76	1229.54
23379.03	1231.9 23383.4	1231.6123400.86	1232.7623414.28	1233.17 23442.3	1232.57
23485.54	1233.523504.28	1234.0523519.98	1232.6823538.44	1233.3823551.81	1234
23569.64	1228.823593.85	1222.623612.35	1221.1423617.94	1220.7723666.63	1216.36
23697.32	1211.923718.26	1215.2423733.11	1216.4123754.02	1217.7123795.87	1220.44
23802.27	1220.723810.78	1221.2423853.34	1227.82 23875.7	1228.4323907.31	1226.99
23909.33	1227.223932.78	1230.3323960.12	1231.3523975.15	1230.8224031.74	1235.23
24040.61	123624080.63	1234.3324095.36	1232.62 24155.4	1226.3824156.92	1226.27
24172.86	1226.224184.42	1228.2624192.42	1228.4324207.32	1228.1624216.38	1228.09
24250.41	1227.724277.05	1230.7924281.21	1231.1724306.16	1232.5824320.27	1232.46

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
14992.66	.05	19515.24	.035	20532.37	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19515.24	20532.37	220	262.31	780	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14992.66	19515.24	1157.13	20532.37	24320.27	1161.49

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1152.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.46	Wt. n-Val.		0.035	
E.G. Elev (ft)	1154.78	Reach Len. (ft)	220.00	262.31	780.00
Crit W.S. (ft)	1146.78	Flow Area (sq ft)		13661.73	
E.G. Slope (ft/ft)	0.002394	Area (sq ft)	346.89	13661.73	62.03
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1150.50	Top Width (ft)	157.31	910.15	83.04
Vel Total (ft/s)	12.59	Avg. Vel. (ft/s)		12.59	
Max Chl Dpth (ft)	20.89	Hydr. Depth (ft)		15.01	
Conv. Total (cfs)	3515598.3	Conv. (cfs)		3515598.3	
Length Wtd. (ft)	262.31	Wetted Per. (ft)		915.49	
Min Ch El (ft)	1131.43	Shear (lb/sq ft)		2.23	
Alpha	1.00	Stream Power (lb/ft s)		28.08	
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)	2446.15	13434.14	1276.18
C & E Loss (ft)	0.33	Cum SA (acres)	209.73	820.25	243.85

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1152.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.46	Wt. n-Val.		0.035	
E.G. Elev (ft)	1154.78	Reach Len. (ft)	220.00	262.31	780.00
Crit W.S. (ft)	1146.78	Flow Area (sq ft)		13665.17	
E.G. Slope (ft/ft)	0.002392	Area (sq ft)		13665.17	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	910.15	Top Width (ft)		910.15	
Vel Total (ft/s)	12.59	Avg. Vel. (ft/s)		12.59	
Max Chl Dpth (ft)	20.89	Hydr. Depth (ft)		15.01	
Conv. Total (cfs)	3517052.0	Conv. (cfs)		3517052.0	
Length Wtd. (ft)	262.31	Wetted Per. (ft)		915.50	
Min Ch El (ft)	1131.43	Shear (lb/sq ft)		2.23	
Alpha	1.00	Stream Power (lb/ft s)		28.05	
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)		13435.11	0.32
C & E Loss (ft)	0.33	Cum SA (acres)		820.24	0.18

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19515.24 LB	19583.05	27.12	11.53	8.56	0.02	1.43	2.35
19583.05	19650.86	8154.41	821.26	70.31	4.74	12.11	9.93
19650.86	19718.67	9504.32	887.82	67.89	5.53	13.09	10.71
19718.67	19786.47	11388.08	989.47	67.87	6.62	14.59	11.51
19786.47	19854.28	14156.20	1127.10	67.82	8.23	16.62	12.56
19854.28	19922.09	14273.57	1132.62	67.81	8.30	16.70	12.60
19922.09	19989.90	15357.97	1183.67	67.84	8.93	17.46	12.97
19989.90	20057.71	18570.74	1326.64	67.85	10.80	19.56	14.00
20057.71	20125.52	20185.08	1394.44	67.82	11.74	20.56	14.48
20125.52	20193.33	19007.06	1345.00	67.81	11.05	19.84	14.13
20193.33	20261.13	17577.81	1283.40	67.82	10.22	18.93	13.70
20261.13	20328.94	15957.80	1211.07	67.82	9.28	17.86	13.18
20328.94	20396.75	7204.39	759.86	69.71	4.19	11.21	9.48
20396.75	20464.56	604.13	169.97	67.93	0.35	2.51	3.55
20464.56	20532.37 RB	31.34	17.88	20.65	0.02	0.87	1.75

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19515.24 LB	19583.05	27.21	11.56	8.57	0.02	1.43	2.35
19583.05	19650.86	8155.54	821.52	70.31	4.74	12.12	9.93
19650.86	19718.67	9505.27	888.08	67.89	5.53	13.10	10.70
19718.67	19786.47	11388.65	989.73	67.87	6.62	14.60	11.51
19786.47	19854.28	14156.17	1127.35	67.82	8.23	16.63	12.56
19854.28	19922.09	14273.50	1132.87	67.81	8.30	16.71	12.60
19922.09	19989.90	15357.65	1183.93	67.84	8.93	17.46	12.97
19989.90	20057.71	18569.64	1326.90	67.85	10.80	19.57	13.99
20057.71	20125.52	20183.56	1394.70	67.82	11.73	20.57	14.47
20125.52	20193.33	19005.84	1345.26	67.81	11.05	19.84	14.13
20193.33	20261.13	17576.96	1283.66	67.82	10.22	18.93	13.69
20261.13	20328.94	15957.34	1211.33	67.82	9.28	17.86	13.17
20328.94	20396.75	7205.70	760.11	69.71	4.19	11.21	9.48
20396.75	20464.56	605.42	170.22	67.93	0.35	2.51	3.56
20464.56	20532.37 RB	31.56	17.96	20.65	0.02	0.87	1.76

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 221.26

INPUT
Description: Upstream face of New Mill Ave Bridge

Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19250.65	1153.419	328.32	116	19346.95	115	19365.49	115	19373.18	1148
19379.27	1147.819	405.67	1147.219	421.12	114	719428.81	114	819435.43	1150
19440.82	1151	19460.6	115	219485.32	115	319495.66	1152.211	9516.22	1152.05
19528.92	1144.09	19563.1	1136.951	9641.28	1134.4	19667	1129.59	19688.2	1134.81
19787.1	1134.031	9809.84	1128.071	9835.67	1132.661	9929.08	1131.171	9952.46	1124.29
19982.57	1130.012	0059.41	1129.662	0080.56	1127.322	0095.93	1126.572	0108.75	1125.93
20132.81	1129.242	0168.05	1130.172	0215.61	1131.512	0238.76	1127.622	0269.26	1131.4
20316.63	1134.362	0387.64	1136.472	0404.56	1148.372	0438.76	1149.182	0479.33	1160.19
20557.7	1158.232	0571.28	1158	20594.5	1157.82	0611.72	115	720615.34	1157
20632.65	1156.22	0645.98	1155.92	0657.81	1156.5	20658.7	1155.12	0676.27	1156.3
20734.91	1175.52	0745.77	1179.22	0783.91	1191.92	0790.27	1195.4		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19250.65	.05	19495.66	.03	20479.33	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19495.66	20479.33	101.04	101.04	101.04	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19250.65	19495.66	115	520479.33	20790.27	1160.19

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1152.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.34	Wt. n-Val.		0.035	
E.G. Elev (ft)	1154.06	Reach Len. (ft)	26.50	26.50	26.50
Crit W.S. (ft)	1142.61	Flow Area (sq ft)		18173.49	
E.G. Slope (ft/ft)	0.000962	Area (sq ft)	405.19	18173.49	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1085.78	Top Width (ft)	129.64	956.14	
Vel Total (ft/s)	9.30	Avg. Vel. (ft/s)		9.30	
Max Chl Dpth (ft)	28.43	Hydr. Depth (ft)		19.01	
Conv. Total (cfs)	5448803.0	Conv. (cfs)		5448803.0	
Length Wtd. (ft)	26.50	Wetted Per. (ft)		968.36	
Min Ch El (ft)	1124.29	Shear (lb/sq ft)		1.13	
Alpha	1.00	Stream Power (lb/ft s)		10.48	
Frctn Loss (ft)		Cum Volume (acre-ft)	2444.25	13338.29	1275.63
C & E Loss (ft)		Cum SA (acres)	209.01	814.63	243.10

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1152.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.34	Wt. n-Val.		0.035	
E.G. Elev (ft)	1154.06	Reach Len. (ft)	26.50	26.50	26.50
Crit W.S. (ft)	1142.61	Flow Area (sq ft)		18176.53	
E.G. Slope (ft/ft)	0.000962	Area (sq ft)		18176.53	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	956.14	Top Width (ft)		956.14	
Vel Total (ft/s)	9.30	Avg. Vel. (ft/s)		9.30	
Max Chl Dpth (ft)	28.43	Hydr. Depth (ft)		19.01	
Conv. Total (cfs)	5448386.5	Conv. (cfs)		5448386.5	
Length Wtd. (ft)	26.50	Wetted Per. (ft)		968.87	
Min Ch El (ft)	1124.29	Shear (lb/sq ft)		1.13	
Alpha	1.00	Stream Power (lb/ft s)		10.48	
Frctn Loss (ft)		Cum Volume (acre-ft)		13339.24	0.32
C & E Loss (ft)		Cum SA (acres)		814.62	0.18

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19495.66 LB	19561.24	2038.16	459.13	68.56	1.21	7.00	4.44
19561.24	19626.82	8999.25	1099.97	65.65	5.33	16.77	8.18
19626.82	19692.39	11840.40	1304.78	66.67	7.01	19.90	9.07
19692.39	19757.97	10319.12	1193.58	65.58	6.11	18.20	8.65
19757.97	19823.55	12623.36	1355.04	66.56	7.47	20.66	9.32
19823.55	19889.13	12665.24	1351.29	65.77	7.49	20.61	9.37
19889.13	19954.71	14876.37	1495.83	66.61	8.80	22.81	9.95
19954.71	20020.28	16147.72	1566.17	66.07	9.55	23.88	10.31
20020.28	20085.86	15869.55	1546.53	65.71	9.39	23.58	10.26
20085.86	20151.44	17437.19	1637.71	65.84	10.32	24.97	10.65
20151.44	20217.02	14246.67	1448.79	65.62	8.43	22.09	9.83
20217.02	20282.60	14893.88	1492.63	66.14	8.81	22.76	9.98
20282.60	20348.17	10772.76	1225.37	65.66	6.37	18.69	8.79
20348.17	20413.75	5955.01	877.69	69.36	3.52	13.38	6.78
20413.75	20479.33 RB	315.33	118.99	38.53	0.19	3.13	2.65

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19495.66 LB	19561.24	2029.19	459.34	69.08	1.20	7.00	4.42
19561.24	19626.82	9000.28	1100.18	65.65	5.33	16.78	8.18
19626.82	19692.39	11841.17	1304.98	66.67	7.01	19.90	9.07
19692.39	19757.97	10320.04	1193.79	65.58	6.11	18.20	8.64
19757.97	19823.55	12624.05	1355.25	66.56	7.47	20.67	9.31
19823.55	19889.13	12665.94	1351.50	65.77	7.49	20.61	9.37
19889.13	19954.71	14876.83	1496.04	66.61	8.80	22.81	9.94
19954.71	20020.28	16148.04	1566.37	66.07	9.56	23.89	10.31
20020.28	20085.86	15869.92	1546.74	65.71	9.39	23.59	10.26
20085.86	20151.44	17437.38	1637.91	65.84	10.32	24.98	10.65
20151.44	20217.02	14247.21	1449.00	65.62	8.43	22.10	9.83
20217.02	20282.60	14894.34	1492.84	66.14	8.81	22.76	9.98
20282.60	20348.17	10773.64	1225.58	65.66	6.37	18.69	8.79
20348.17	20413.75	5956.17	877.89	69.36	3.52	13.39	6.78
20413.75	20479.33 RB	315.78	119.11	38.53	0.19	3.13	2.65

BRIDGE RIVER: Salt River
REACH: Reach 4 RS: 221.25

INPUT
Description: New Mill Avenue Bridge (North Bound)
Distance from Upstream XS = 26.5
Deck/Roadway Width = 48
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 23

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19250.65	1175	115	19250.66	1175	116	19321.13	1175.65	1170.65
19391.61	1175.95	116	19462.08	1176.25	1171.25	19532.56	1176.55	1164.8
19603.04	1176.85	1171.85	19673.52	1177.15	1165.2	19743.99	1177.45	1172.45
19814.47	1177.82	1165.8	19884.95	1177.52	1172.52	19955.43	1177.22	1165.2
20025.9	1176.92	1171.92	20096.38	1176.62	1164.82	20166.86	1176.32	1171.32
20237.34	1176.02	116	20307.81	1175.72	1170.72	20378.29	1175.42	1163.5
20448.77	1175.12	1170.12	20519.25	1174.82	116	20589.72	1174.52	1169.52
20660.19	1174.22	1163	20660.2	1174.22	1150			

Upstream Bridge Cross Section Data
Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19250.65	1153.4	19328.32	116	19346.95	115	19365.49	115	19373.18	1148
19379.27	1147.8	19405.67	1147.2	19421.12	114	19428.81	114	19435.43	1150
19440.82	1151	19460.6	115	19485.32	115	19495.66	1152.21	19516.22	1152.05
19528.92	1144.09	19563.1	1136.95	19641.28	1134.4	19667	1129.59	19688.2	1134.81
19787.1	1134.03	19809.84	1128.07	19835.67	1132.66	19929.08	1131.17	19952.46	1124.29
19982.57	1130.01	20059.41	1129.66	20080.56	1127.32	20095.93	1126.57	20108.75	1125.93

```
20132.81 1129.2420168.05 1130.1720215.61 1131.5120238.76 1127.6220269.26  1131.4
20316.63 1134.3620387.64 1136.4720404.56 1148.3720438.76 1149.1820479.33 1160.19
 20557.7 1158.2320571.28    1158 20594.5  1157.820611.72    115720615.34    1157
20632.65  1156.220645.98  1155.920657.81  1156.5 20658.7  1155.120676.27  1156.3
20734.91  1175.520745.77  1179.220783.91  1191.920790.27  1195.4

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
19250.65     .0519495.66    .03520479.33     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19495.6620479.33             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
19250.6519495.66    115520479.3320790.27 1160.19

Downstream  Deck/Roadway Coordinates
    num=      23
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
19250.65    1175    115019250.66    1175    116419321.13 1175.65 1170.65
19391.61 1175.95    116419462.08 1176.25 1171.2519532.56 1176.55  1164.8
19603.04 1176.85 1171.8519673.52 1177.15  1165.219743.99 1177.45 1172.45
19814.47 1177.82  1165.819884.95 1177.52 1172.5219955.43 1177.22  1165.2
 20025.9 1176.92 1171.9220096.38 1176.62  1164.820166.86 1176.32 1171.32
20237.34 1176.02    116420307.81 1175.72 1170.7220378.29 1175.42  1163.5
20448.77 1175.12 1170.1220519.25 1174.82    116320589.72 1174.52 1169.52
20660.19 1174.22    1163 20660.2 1174.22    1150

Downstream Bridge Cross Section Data
Station Elevation Data    num=      54
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
19250.65  1153.419328.32    116019346.95    115519365.49    115019373.18    1148
19379.27  1147.819405.67  1147.219421.12    114719428.81    114819435.43    1150
19440.82    1151 19460.6    115219485.32    115319495.66 1152.2119516.22 1152.05
19528.92 1144.09 19563.1 1136.9519641.28  1134.4   19667 1129.59 19688.2 1134.81
 19787.1 1134.0319809.84 1128.0719835.67 1132.6619929.08 1131.1719952.46 1124.29
19982.57 1130.0120059.41 1129.6620080.56 1127.3220095.93 1126.5720108.75 1125.93
20132.81 1129.2420168.05 1130.1720215.61 1131.5120238.76 1127.6220269.26  1131.4
20316.63 1134.3620387.64 1136.4720404.56 1148.3720438.76 1149.1820479.33 1160.19
 20557.7 1158.2320571.28    1158 20594.5  1157.820611.72    115720615.34    1157
20632.65  1156.220645.98  1155.920657.81  1156.5 20658.7  1155.120676.27  1156.3
20734.91  1175.520745.77  1179.220783.91  1191.920790.27  1195.4

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
19250.65     .0519495.66    .03520479.33     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19495.6620479.33             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
19250.6519495.66    115520479.3320790.27 1160.19

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  9

Pier Data
Pier Station     Upstream=19391.61    Downstream=19391.61
Upstream     num=       2
    Width   Elev    Width   Elev
      10    1140      10    1165
Downstream     num=       2
    Width   Elev    Width   Elev
      10    1140      10    1165

Pier Data
Pier Station     Upstream=19532.56    Downstream=19532.56
Upstream     num=       2
    Width   Elev    Width   Elev
```

```
      10     1140       10     1165
 Downstream      num=        2
     Width    Elev     Width    Elev
      10     1140       10     1165

 Pier Data
 Pier Station      Upstream=19673.52     Downstream=19673.52
 Upstream      num=        2
     Width    Elev     Width    Elev
      10     1130       10     1166
 Downstream      num=        2
     Width    Elev     Width    Elev
      10     1130       10     1166

 Pier Data
 Pier Station      Upstream=19814.47     Downstream=19814.47
 Upstream      num=        2
     Width    Elev     Width    Elev
      10     1130       10     1166
 Downstream      num=        2
     Width    Elev     Width    Elev
      10     1130       10     1166

 Pier Data
 Pier Station      Upstream=19955.43     Downstream=19955.43
 Upstream      num=        2
     Width    Elev     Width    Elev
      10     1028       10     1166
 Downstream      num=        2
     Width    Elev     Width    Elev
      10     1028       10     1166

 Pier Data
 Pier Station      Upstream=20096.38     Downstream=20096.38
 Upstream      num=        2
     Width    Elev     Width    Elev
      10     1025       10     1166
 Downstream      num=        2
     Width    Elev     Width    Elev
      10     1025       10     1166

 Pier Data
 Pier Station      Upstream=20237.34     Downstream=20237.34
 Upstream      num=        2
     Width    Elev     Width    Elev
      10     1125       10     1165
 Downstream      num=        2
     Width    Elev     Width    Elev
      10     1125       10     1165

 Pier Data
 Pier Station      Upstream=20378.29     Downstream=20378.29
 Upstream      num=        2
     Width    Elev     Width    Elev
      10     1128       10     1165
 Downstream      num=        2
     Width    Elev     Width    Elev
      10     1128       10     1165

 Pier Data
 Pier Station      Upstream=20519.25     Downstream=20519.25
 Upstream      num=        2
     Width    Elev     Width    Elev
      10     1125       10     1165
 Downstream      num=        2
     Width    Elev     Width    Elev
      10     1125       10     1165

 Number of Bridge Coefficient Sets =  1

 Low Flow Methods and Data
       Energy
       Momentum                Cd   =     1.2
       Yarnell                 KVal =    1.05
 Selected Low Flow Methods = Highest Energy Answer
```

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth inside the bridge at the downstream end
Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT Profile #PF#1
Opening : Bridge #1

E.G. US. (ft)	1154.06	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1152.72	E.G. Elev (ft)	1153.87	1153.79
Q Total (cfs)	169000.00	W.S. Elev (ft)	1152.18	1152.09
Q Bridge (cfs)	169000.00	Crit W.S. (ft)	1143.29	1143.27
Q Weir (cfs)		Max Chl Dpth (ft)	27.29	27.20
Weir Sta Lft (ft)		Vel Total (ft/s)	10.43	10.49
Weir Sta Rgt (ft)		Flow Area (sq ft)	16196.93	16115.10
Weir Submerg		Froude # Chl	0.43	0.43
Weir Max Depth (ft)		Specif Force (cu ft)	218650.50	217415.97
Min Top Rd (ft)	1160.19	Hydr Depth (ft)	18.40	18.57
Min El Prs (ft)	1172.52	W.P. Total (ft)	1181.06	1167.35
Delta EG (ft)	0.28	Conv. Total (cfs)	3939732.3	3937139.3
Delta WS (ft)	0.33	Top Width (ft)	977.78	962.73
BR Open Area (sq ft)	35810.05	Frctn Loss (ft)		
BR Open Vel (ft/s)	10.49	C & E Loss (ft)		
Coef of Q		Shear Total (lb/sq ft)	1.58	1.59
Br Sel Mthd	Momentum	Power Total (lb/ft s)	16.44	16.65

BRIDGE OUTPUT Profile #PF#2
Opening : Bridge #1

E.G. US. (ft)	1154.06	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1152.72	E.G. Elev (ft)	1153.88	1153.80
Q Total (cfs)	169000.00	W.S. Elev (ft)	1152.19	1152.09
Q Bridge (cfs)	169000.00	Crit W.S. (ft)	1143.29	1143.27
Q Weir (cfs)		Max Chl Dpth (ft)	27.30	27.20
Weir Sta Lft (ft)		Vel Total (ft/s)	10.43	10.48
Weir Sta Rgt (ft)		Flow Area (sq ft)	16206.60	16119.87
Weir Submerg		Froude # Chl	0.43	0.43
Weir Max Depth (ft)		Specif Force (cu ft)	218795.83	217488.20
Min Top Rd (ft)	1175.12	Hydr Depth (ft)	18.41	18.56
Min El Prs (ft)	1172.52	W.P. Total (ft)	1181.21	1168.16
Delta EG (ft)	0.28	Conv. Total (cfs)	3943318.5	3937268.3
Delta WS (ft)	0.33	Top Width (ft)	880.16	868.51
BR Open Area (sq ft)	30473.00	Frctn Loss (ft)		
BR Open Vel (ft/s)	10.48	C & E Loss (ft)		
Coef of Q		Shear Total (lb/sq ft)	1.57	1.59
Br Sel Mthd	Momentum	Power Total (lb/ft s)	16.41	16.64

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 221.24

INPUT
Description: Downstream face of New Mill Ave Bridge

Station Elevation Data num= 54

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19250.65	1153.419	328.32	116	019	346.95	115	519	365.49	115
019373.18	1148	19379.27	1147.819	405.67	1147.219	421.12	114	719	428.81
114	819	435.43	1150	19440.82	1151	19460.6	115	219	485.32
115	319	495.66	1152.211	9516.22	1152.05	19528.92	1144.09	19563.1	1136.951
9641.28	1134.4	19667	1129.59	19688.2	1134.81	19787.1	1134.031	9809.84	1128.071
9835.67	1132.661	9929.08	1131.171	9952.46	1124.29	19982.57	1130.012	0059.41	1129.662
0080.56	1127.322	0095.93	1126.572	0108.75	1125.93	20132.81	1129.242	0168.05	1130.172
0215.61	1131.512	0238.76	1127.622	0269.26	1131.4	20316.63	1134.362	0387.64	1136.472
0404.56	1148.372	0438.76	1149.182	0479.33	1160.19	20557.7	1158.232	0571.28	1158
20594.5	1157.82	0611.72	115	720	615.34	1157	20632.65	1156.22	0645.98
1155.92	0657.81	1156.5	20658.7	1155.12	0676.27	1156.3	20734.91	1175.52	0745.77
1179.22	0783.91	1191.92	0790.27	1195.4					

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19250.65	.05	19495.66	.03	20479.33	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19495.66	20479.33	185.11	185.11	185.11	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19250.65	19495.66	1155	20479.33	20790.27	1160.19

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1152.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.39	Wt. n-Val.		0.035	
E.G. Elev (ft)	1153.78	Reach Len. (ft)	185.11	185.11	185.11
Crit W.S. (ft)	1142.62	Flow Area (sq ft)		17860.54	
E.G. Slope (ft/ft)	0.001018	Area (sq ft)	364.96	17860.54	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1070.97	Top Width (ft)	116.04	954.93	
Vel Total (ft/s)	9.46	Avg. Vel. (ft/s)		9.46	
Max Chl Dpth (ft)	28.10	Hydr. Depth (ft)		18.70	
Conv. Total (cfs)	5297881.5	Conv. (cfs)		5297881.5	
Length Wtd. (ft)	185.11	Wetted Per. (ft)		967.11	
Min Ch El (ft)	1124.29	Shear (lb/sq ft)		1.17	
Alpha	1.00	Stream Power (lb/ft s)		11.10	
Frctn Loss (ft)	0.19	Cum Volume (acre-ft)	2443.52	13299.68	1275.63
C & E Loss (ft)	0.00	Cum SA (acres)	208.77	812.56	243.10

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1152.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.39	Wt. n-Val.		0.035	
E.G. Elev (ft)	1153.78	Reach Len. (ft)	185.11	185.11	185.11
Crit W.S. (ft)	1142.62	Flow Area (sq ft)		17860.31	
E.G. Slope (ft/ft)	0.001018	Area (sq ft)		17860.31	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	954.93	Top Width (ft)		954.93	
Vel Total (ft/s)	9.46	Avg. Vel. (ft/s)		9.46	
Max Chl Dpth (ft)	28.10	Hydr. Depth (ft)		18.70	
Conv. Total (cfs)	5297115.0	Conv. (cfs)		5297115.0	
Length Wtd. (ft)	185.11	Wetted Per. (ft)		967.28	
Min Ch El (ft)	1124.29	Shear (lb/sq ft)		1.17	
Alpha	1.00	Stream Power (lb/ft s)		11.10	
Frctn Loss (ft)	0.19	Cum Volume (acre-ft)		13300.62	0.32
C & E Loss (ft)	0.00	Cum SA (acres)		812.55	0.18

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19495.66 LB	19561.24	1933.41	437.66	68.56	1.14	6.67	4.42
19561.24	19626.82	8947.40	1078.49	65.65	5.29	16.45	8.30
19626.82	19692.39	11833.57	1283.30	66.67	7.00	19.57	9.22
19692.39	19757.97	10286.38	1172.10	65.58	6.09	17.87	8.78
19757.97	19823.55	12629.13	1333.56	66.56	7.47	20.34	9.47
19823.55	19889.13	12670.09	1329.81	65.77	7.50	20.28	9.53
19889.13	19954.71	14920.80	1474.35	66.61	8.83	22.48	10.12
19954.71	20020.28	16213.62	1544.69	66.07	9.59	23.56	10.50
20020.28	20085.86	15929.61	1525.05	65.71	9.43	23.26	10.45
20085.86	20151.44	17526.06	1616.23	65.84	10.37	24.65	10.84
20151.44	20217.02	14277.95	1427.31	65.62	8.45	21.77	10.00
20217.02	20282.60	14937.58	1471.15	66.14	8.84	22.43	10.15
20282.60	20348.17	10747.09	1203.90	65.66	6.36	18.36	8.93
20348.17	20413.75	5871.02	856.21	69.36	3.47	13.06	6.86
20413.75	20479.33 RB	276.28	106.73	37.28	0.16	2.90	2.59

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

19495.66 LB	19561.24	1929.97	437.64	68.75	1.14	6.67	4.41
19561.24	19626.82	8947.54	1078.47	65.65	5.29	16.45	8.30
19626.82	19692.39	11833.80	1283.28	66.67	7.00	19.57	9.22
19692.39	19757.97	10286.56	1172.08	65.58	6.09	17.87	8.78
19757.97	19823.55	12629.39	1333.55	66.56	7.47	20.34	9.47
19823.55	19889.13	12670.34	1329.80	65.77	7.50	20.28	9.53
19889.13	19954.71	14921.13	1474.34	66.61	8.83	22.48	10.12
19954.71	20020.28	16213.99	1544.67	66.07	9.59	23.56	10.50
20020.28	20085.86	15929.98	1525.04	65.71	9.43	23.26	10.45
20085.86	20151.44	17526.48	1616.21	65.84	10.37	24.65	10.84
20151.44	20217.02	14278.26	1427.30	65.62	8.45	21.76	10.00
20217.02	20282.60	14937.91	1471.14	66.14	8.84	22.43	10.15
20282.60	20348.17	10747.29	1203.88	65.66	6.36	18.36	8.93
20348.17	20413.75	5871.07	856.19	69.36	3.47	13.06	6.86
20413.75	20479.33 RB	276.26	106.72	37.27	0.16	2.90	2.59

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 221.2

INPUT
Description: Upstream face of Old Mill Ave Bridge

Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19150	1163.219	151.72	1163.3	19171.3	1159.719	182.63	1153.219	194.41	1153.2
19194.5	1154.119	194.68	1155.119	215.25	1150.119	236.37	115	019248.15	1150
19268.09	115	619282.77	116	019303.26	116	019324.72	115	519340.96	1151
19362.53	1150.919	373.13	115	219396.42	1151.919	419.26	115	219443.64	1150.2
19452.61	115	019459.68	115	119483.61	115	119487.05	115	019493.21	1147.7
19497.2	1146.819	510.34	114	019518.41	1138.419	520.86	1138.319	530.74	1135.8
19541.7	113	519562.09	1133.119	589.92	113	219604.42	1131.819	611.22	1131.4
19619.1	1131.519	649.46	113	119658.43	113	119682.63	113	119704.66	1131
19713.07	1131	19754.5	113	119776.89	113	119797.37	1131	19817.4	1130.1
19836.52	113	019839.42	113	019861.27	1129.419	867.06	1129.419	900.87	1129
19922.35	112	919945.55	112	919963.49	1128.219	984.25	112	820003.37	1128.7
20014.97	1128.8	20036.9	112	920062.37	1129.220	084.03	1129.420	099.26	1129.8
20128.71	113	020145.21	113	020161.79	1131.120	183.09	113	220199.13	1132.8
20227.41	1133.420	254.78	1134.420	274.45	1135.120	298.28	113	620315.23	1137.3
20321.57	1138	20342.6	1143.720	347.59	114	520352.93	1146	20377.4	1147
20396.98	115	420410.66	115	920427.79	115	920440.12	1156	20468.5	1155.2
20484.07	115	620494.69	115	620509.54	1157.620	525.22	115	920533.29	1160
20550.32	116	120562.56	116	220580.14	116	320602.54	1164.820	606.89	1165.6
20617.12	1166.620	624.55	1166.620	643.58	1168.320	667.87	1168.6		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19150	.05	19419.26	.03	20410.66	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19419.26	20410.66	91.95	91.95	91.95	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19150	19419.26	115	20410.66	20667.87	1159

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1152.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.42	Wt. n-Val.		0.035	
E.G. Elev (ft)	1153.59	Reach Len. (ft)	22.98	22.98	22.98
Crit W.S. (ft)	1142.32	Flow Area (sq ft)		17696.37	
E.G. Slope (ft/ft)	0.001065	Area (sq ft)	133.87	17696.37	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1104.28	Top Width (ft)	131.68	972.60	
Vel Total (ft/s)	9.55	Avg. Vel. (ft/s)		9.55	
Max Chl Dpth (ft)	24.17	Hydr. Depth (ft)		18.19	
Conv. Total (cfs)	5178484.5	Conv. (cfs)		5178484.5	
Length Wtd. (ft)	22.98	Wetted Per. (ft)		977.91	
Min Ch El (ft)	1128.00	Shear (lb/sq ft)		1.20	
Alpha	1.00	Stream Power (lb/ft s)		11.49	
Frctn Loss (ft)	0.03	Cum Volume (acre-ft)	2442.46	13224.13	1275.63
C & E Loss (ft)	0.04	Cum SA (acres)	208.24	808.46	243.10

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1152.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.42	Wt. n-Val.		0.035	
E.G. Elev (ft)	1153.59	Reach Len. (ft)	22.98	22.98	22.98
Crit W.S. (ft)	1142.32	Flow Area (sq ft)		17696.13	
E.G. Slope (ft/ft)	0.001065	Area (sq ft)		17696.13	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	972.60	Top Width (ft)		972.60	
Vel Total (ft/s)	9.55	Avg. Vel. (ft/s)		9.55	
Max Chl Dpth (ft)	24.17	Hydr. Depth (ft)		18.19	
Conv. Total (cfs)	5177774.0	Conv. (cfs)		5177774.0	
Length Wtd. (ft)	22.98	Wetted Per. (ft)		978.07	
Min Ch El (ft)	1128.00	Shear (lb/sq ft)		1.20	
Alpha	1.00	Stream Power (lb/ft s)		11.49	
Frctn Loss (ft)	0.03	Cum Volume (acre-ft)		13225.07	0.32
C & E Loss (ft)	0.04	Cum SA (acres)		808.45	0.18

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19419.26 LB	19485.35	133.78	86.95	66.30	0.08	1.32	1.54
19485.35	19551.45	5292.01	802.09	68.88	3.13	12.14	6.60
19551.45	19617.54	12287.43	1308.50	66.17	7.27	19.80	9.39
19617.54	19683.63	13613.62	1390.86	66.10	8.06	21.04	9.79
19683.63	19749.73	13750.78	1399.22	66.09	8.14	21.17	9.83
19749.73	19815.82	13873.67	1406.86	66.11	8.21	21.29	9.86
19815.82	19881.91	15172.21	1484.39	66.10	8.98	22.46	10.22
19881.91	19948.01	15947.69	1529.37	66.10	9.44	23.14	10.43
19948.01	20014.10	16695.79	1572.28	66.12	9.88	23.79	10.62
20014.10	20080.19	15892.50	1526.20	66.10	9.40	23.09	10.41
20080.19	20146.29	15041.51	1476.68	66.10	8.90	22.34	10.19
20146.29	20212.38	12876.43	1345.75	66.17	7.62	20.36	9.57
20212.38	20278.47	10576.00	1195.56	66.13	6.26	18.09	8.85
20278.47	20344.57	6983.63	937.04	67.02	4.13	14.18	7.45
20344.57	20410.66 RB	862.95	234.62	48.41	0.51	4.96	3.68

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19419.26 LB	19485.35	133.52	86.94	66.47	0.08	1.32	1.54
19485.35	19551.45	5291.94	802.08	68.88	3.13	12.14	6.60
19551.45	19617.54	12287.44	1308.48	66.17	7.27	19.80	9.39
19617.54	19683.63	13613.65	1390.84	66.10	8.06	21.04	9.79
19683.63	19749.73	13750.81	1399.20	66.09	8.14	21.17	9.83
19749.73	19815.82	13873.70	1406.85	66.11	8.21	21.29	9.86
19815.82	19881.91	15172.26	1484.37	66.10	8.98	22.46	10.22
19881.91	19948.01	15947.76	1529.35	66.10	9.44	23.14	10.43
19948.01	20014.10	16695.86	1572.26	66.12	9.88	23.79	10.62
20014.10	20080.19	15892.56	1526.18	66.10	9.40	23.09	10.41
20080.19	20146.29	15041.56	1476.66	66.10	8.90	22.34	10.19
20146.29	20212.38	12876.45	1345.74	66.17	7.62	20.36	9.57
20212.38	20278.47	10575.99	1195.55	66.13	6.26	18.09	8.85
20278.47	20344.57	6983.58	937.02	67.02	4.13	14.18	7.45
20344.57	20410.66 RB	862.92	234.61	48.40	0.51	4.96	3.68

BRIDGE RIVER: Salt River
REACH: Reach 4 RS: 221.195

INPUT
Description: Old Mill Avenue Bridge (South Bound)
Distance from Upstream XS = 22.98
Deck/Roadway Width = 46
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 27

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19150	1175	1175	19150.1	1175	1175	19200	1175	1156

19244.57	1175	116919302.58	1175	116119361.94	1175	1169	
19421.3	1175	115319480.67	1175	116919540.03	1175	1150	
19599.39	1175	116919658.75	1175	115019718.12	1175	1169	
19777.48	1175	115019836.84	1175	1169 19896.2	1175	1150	
19955.57	1175	116920014.93	1175	115020074.29	1175	1169	
20133.65	1175	115020193.02	1175	116920252.38	1175	1150	
20311.74	1175	1169 20371.1	1175	115020429.11	1175	1169	
20487.11	1175	1156.520517.01	1175	117520517.02	1175	1175	

Upstream Bridge Cross Section Data
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19150	1163.219	151.72	1163.3	19171.3	1159.719	182.63	1153.219	194.41	1153.2
19194.5	1154.119	194.68	1155.119	215.25	1150.119	236.37	115019	248.15	1150
19268.09	115619	282.77	116019	303.26	116019	324.72	115519	340.96	1151
19362.53	1150.919	373.13	115219	396.42	1151.919	419.26	115219	443.64	1150.2
19452.61	115019	459.68	115119	483.61	115119	487.05	115019	493.21	1147.7
19497.2	1146.819	510.34	114019	518.41	1138.419	520.86	1138.319	530.74	1135.8
19541.7	113519	562.09	1133.119	589.92	113219	604.42	1131.819	611.22	1131.4
19619.1	1131.519	649.46	113119	658.43	113119	682.63	113119	704.66	1131
19713.07	1131	19754.5	113119	776.89	113119	797.37	1131	19817.4	1130.1
19836.52	113019	839.42	113019	861.27	1129.419	867.06	1129.419	900.87	1129
19922.35	112919	945.55	112919	963.49	1128.219	984.25	112820	003.37	1128.7
20014.97	1128.8	20036.9	112920	062.37	1129.220	084.03	1129.420	099.26	1129.8
20128.71	113020	145.21	113020	161.79	1131.120	183.09	113220	199.13	1132.8
20227.41	1133.420	254.78	1134.420	274.45	1135.120	298.28	113620	315.23	1137.3
20321.57	1138	20342.6	1143.720	347.59	114520	352.93	1146	20377.4	1147
20396.98	115420	410.66	115920	427.79	115920	440.12	1156	20468.5	1155.2
20484.07	115620	494.69	115620	509.54	1157.620	525.22	115920	533.29	1160
20550.32	116120	562.56	116220	580.14	116320	602.54	1164.820	606.89	1165.6
20617.12	1166.620	624.55	1166.620	643.58	1168.320	667.87	1168.6		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19150	.05	19419.26	.03	520410.66	.05

Bank Sta: Left Right Coeff Contr. Expan.
19419.2620410.66 .1 .3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
1915	019419.26	115	520410.66	20667.87	1159

Downstream Deck/Roadway Coordinates
num= 27

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19150	1175	1175	19150.1	1175	1175	19200	1175	1156
19244.57	1175	116919302.58		1175	116119361.94		1175	1169
19421.3	1175	115319480.67		1175	116919540.03		1175	1150
19599.39	1175	116919658.75		1175	115019718.12		1175	1169
19777.48	1175	115019836.84		1175	1169 19896.2		1175	1150
19955.57	1175	116920014.93		1175	115020074.29		1175	1169
20133.65	1175	115020193.02		1175	116920252.38		1175	1150
20311.74	1175	1169 20371.1		1175	115020429.11		1175	1169
20487.11	1175	1156.520517.01		1175	117520517.02		1175	1175

Downstream Bridge Cross Section Data
Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19150	1163.219	151.72	1163.3	19171.3	1159.719	182.63	1153.219	194.41	1153.2
19194.5	1154.119	194.68	1155.119	215.25	1150.119	236.37	115019	248.15	1150
19268.09	115619	282.77	116019	303.26	116019	324.72	115519	340.96	1151
19362.53	1150.919	373.13	115219	396.42	1151.919	419.26	115219	443.64	1150.2
19452.61	115019	459.68	115119	483.61	115119	487.05	115019	493.21	1147.7
19497.2	1146.819	510.34	114019	518.41	1138.419	520.86	1138.319	530.74	1135.8
19541.7	113519	562.09	1133.119	589.92	113219	604.42	1131.819	611.22	1131.4
19619.1	1131.519	649.46	113119	658.43	113119	682.63	113119	704.66	1131
19713.07	1131	19754.5	113119	776.89	113119	797.37	1131	19817.4	1130.1
19836.52	113019	839.42	113019	861.27	1129.419	867.06	1129.419	900.87	1129
19922.35	112919	945.55	112919	963.49	1128.219	984.25	112820	003.37	1128.7
20014.97	1128.8	20036.9	112920	062.37	1129.220	084.03	1129.420	099.26	1129.8
20128.71	113020	145.21	113020	161.79	1131.120	183.09	113220	199.13	1132.8
20227.41	1133.420	254.78	1134.420	274.45	1135.120	298.28	113620	315.23	1137.3
20321.57	1138	20342.6	1143.720	347.59	114520	352.93	1146	20377.4	1147
20396.98	115420	410.66	115920	427.79	115920	440.12	1156	20468.5	1155.2
20484.07	115620	494.69	115620	509.54	1157.620	525.22	115920	533.29	1160
20550.32	116120	562.56	116220	580.14	116320	602.54	1164.820	606.89	1165.6

```
20617.12  1166.620624.55  1166.620643.58  1168.320667.87  1168.6

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   19150     .0519419.26    .03520410.66     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
     19419.2620410.66             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1915019419.26    115520410.6620667.87    1159

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  10

Pier Data
Pier Station     Upstream=19302.58    Downstream=19302.58
Upstream     num=       2
    Width   Elev    Width   Elev
      14    1125      14    1155
Downstream     num=       2
    Width   Elev    Width   Elev
      14    1125      14    1155

Pier Data
Pier Station     Upstream= 19421.3    Downstream= 19421.3
Upstream     num=       2
    Width   Elev    Width   Elev
       9    1125       9    1155
Downstream     num=       2
    Width   Elev    Width   Elev
       9    1125       9    1155

Pier Data
Pier Station     Upstream=19540.03    Downstream=19540.03
Upstream     num=       2
    Width   Elev    Width   Elev
       9    1125       9    1155
Downstream     num=       2
    Width   Elev    Width   Elev
       9    1125       9    1155

Pier Data
Pier Station     Upstream=19658.75    Downstream=19658.75
Upstream     num=       2
    Width   Elev    Width   Elev
      14    1125      14    1155
Downstream     num=       2
    Width   Elev    Width   Elev
      14    1125      14    1155

Pier Data
Pier Station     Upstream=19777.48    Downstream=19777.48
Upstream     num=       2
    Width   Elev    Width   Elev
       9    1125       9    1155
Downstream     num=       2
    Width   Elev    Width   Elev
       9    1125       9    1155

Pier Data
Pier Station     Upstream= 19896.2    Downstream= 19896.2
Upstream     num=       2
    Width   Elev    Width   Elev
       9    1125       9    1155
Downstream     num=       2
    Width   Elev    Width   Elev
       9    1125       9    1155
```

```
Pier Data
Pier Station     Upstream=20014.93    Downstream=20014.93
Upstream     num=       2
    Width   Elev    Width   Elev
        9    1125       9    1155
Downstream     num=       2
    Width   Elev    Width   Elev
        9    1125       9    1155

Pier Data
Pier Station     Upstream=20133.65    Downstream=20133.65
Upstream     num=       2
    Width   Elev    Width   Elev
       14    1125      14    1155
Downstream     num=       2
    Width   Elev    Width   Elev
       14    1125      14    1155

Pier Data
Pier Station     Upstream=20252.38    Downstream=20252.38
Upstream     num=       2
    Width   Elev    Width   Elev
        9    1125       9    1155
Downstream     num=       2
    Width   Elev    Width   Elev
        9    1125       9    1155

Pier Data
Pier Station     Upstream= 20371.1    Downstream= 20371.1
Upstream     num=       2
    Width   Elev    Width   Elev
        9    1125       9    1155
Downstream     num=       2
    Width   Elev    Width   Elev
        9    1125       9    1155

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
       Momentum                Cd   =     1.2
       Yarnell                 KVal =    1.05
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Do not add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the downstream end
       Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT    Profile #PF#1
Opening : Bridge #1
```

E.G. US. (ft)	1153.59	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1152.17	E.G. Elev (ft)	1153.52	1153.42
Q Total (cfs)	169000.00	W.S. Elev (ft)	1151.72	1151.60
Q Bridge (cfs)	169000.00	Crit W.S. (ft)	1143.06	1143.05
Q Weir (cfs)		Max Chl Dpth (ft)	23.72	23.60
Weir Sta Lft (ft)		Vel Total (ft/s)	10.75	10.83
Weir Sta Rgt (ft)		Flow Area (sq ft)	15715.22	15607.93
Weir Submerg		Froude # Chl	0.56	0.57
Weir Max Depth (ft)		Specif Force (cu ft)	215378.17	213844.78
Min Top Rd (ft)	1159.00	Hydr Depth (ft)	18.01	17.80
Min El Prs (ft)	1175.00	W.P. Total (ft)	1191.22	1185.42
Delta EG (ft)	0.31	Conv. Total (cfs)	3725064.5	3694765.0
Delta WS (ft)	0.37	Top Width (ft)	950.13	951.78
BR Open Area (sq ft)	26765.37	Frctn Loss (ft)	0.10	0.03
BR Open Vel (ft/s)	10.83	C & E Loss (ft)	0.00	0.10
Coef of Q		Shear Total (lb/sq ft)	1.70	1.72
Br Sel Mthd	Energy only	Power Total (lb/ft s)	18.23	18.62

BRIDGE OUTPUT Profile #PF#2
Opening : Bridge #1

E.G. US. (ft)	1153.59	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1152.17	E.G. Elev (ft)	1153.51	1153.42
Q Total (cfs)	169000.00	W.S. Elev (ft)	1151.72	1151.60
Q Bridge (cfs)	169000.00	Crit W.S. (ft)	1143.06	1143.05
Q Weir (cfs)		Max Chl Dpth (ft)	23.72	23.60
Weir Sta Lft (ft)		Vel Total (ft/s)	10.75	10.83
Weir Sta Rgt (ft)		Flow Area (sq ft)	15715.01	15607.72
Weir Submerg		Froude # Chl	0.45	0.45
Weir Max Depth (ft)		Specif Force (cu ft)	215375.08	213841.73
Min Top Rd (ft)	1175.00	Hydr Depth (ft)	18.01	17.80
Min El Prs (ft)	1175.00	W.P. Total (ft)	1191.21	1185.42
Delta EG (ft)	0.31	Conv. Total (cfs)	3724996.0	3694688.0
Delta WS (ft)	0.37	Top Width (ft)	872.47	876.71
BR Open Area (sq ft)	23287.79	Frctn Loss (ft)	0.10	0.03
BR Open Vel (ft/s)	10.83	C & E Loss (ft)	0.00	0.10
Coef of Q		Shear Total (lb/sq ft)	1.70	1.72
Br Sel Mthd	Energy only	Power Total (lb/ft s)	18.23	18.62

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 221.19

INPUT
Description: Downstream face of Old Mill Ave Bridge

Station Elevation Data num= 94

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19150	1163.219151.72	1163.3 19171.3	1159.719182.63	1153.219194.41	1153.2				
19194.5	1154.119194.68	1155.119215.25	1150.119236.37	115019248.15	1150				
19268.09	115619282.77	116019303.26	116019324.72	115519340.96	1151				
19362.53	1150.919373.13	115219396.42	1151.919419.26	115219443.64	1150.2				
19452.61	115019459.68	115119483.61	115119487.05	115019493.21	1147.7				
19497.2	1146.819510.34	114019518.41	1138.419520.86	1138.319530.74	1135.8				
19541.7	113519562.09	1133.119589.92	113219604.42	1131.819611.22	1131.4				
19619.1	1131.519649.46	113119658.43	113119682.63	113119704.66	1131				
19713.07	1131 19754.5	113119776.89	113119797.37	1131 19817.4	1130.1				
19836.52	113019839.42	113019861.27	1129.419867.06	1129.419900.87	1129				
19922.35	112919945.55	112919963.49	1128.219984.25	112820003.37	1128.7				
20014.97	1128.8 20036.9	112920062.37	1129.220084.03	1129.420099.26	1129.8				
20128.71	113020145.21	113020161.79	1131.120183.09	113220199.13	1132.8				
20227.41	1133.420254.78	1134.420274.45	1135.120298.28	113620315.23	1137.3				
20321.57	1138 20342.6	1143.720347.59	114520352.93	1146 20377.4	1147				
20396.98	115420410.66	115920427.79	115920440.12	1156 20468.5	1155.2				
20484.07	115620494.69	115620509.54	1157.620525.22	115920533.29	1160				
20550.32	116120562.56	116220580.14	116320602.54	1164.820606.89	1165.6				
20617.12	1166.620624.55	1166.620643.58	1168.320667.87	1168.6					

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19150	.05	19419.26	.03	20410.66	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19419.26	20410.66	790	650.87	300	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19150	19419.26	1159	20410.66	20667.87	1159

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1151.80	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.47	Wt. n-Val.		0.035	
E.G. Elev (ft)	1153.28	Reach Len. (ft)	790.00	650.87	300.00
Crit W.S. (ft)	1142.33	Flow Area (sq ft)		17340.64	
E.G. Slope (ft/ft)	0.001134	Area (sq ft)	93.34	17340.64	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1048.37	Top Width (ft)	79.45	968.92	
Vel Total (ft/s)	9.75	Avg. Vel. (ft/s)		9.75	
Max Chl Dpth (ft)	23.80	Hydr. Depth (ft)		17.90	
Conv. Total (cfs)	5018996.0	Conv. (cfs)		5018996.0	
Length Wtd. (ft)	650.87	Wetted Per. (ft)		974.16	
Min Ch El (ft)	1128.00	Shear (lb/sq ft)		1.26	
Alpha	1.00	Stream Power (lb/ft s)		12.28	
Frctn Loss (ft)	0.72	Cum Volume (acre-ft)	2442.27	13190.09	1275.63

C & E Loss (ft)	0.00	Cum SA (acres)	208.07	806.56	243.10

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1151.80	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.47	Wt. n-Val.		0.035	
E.G. Elev (ft)	1153.28	Reach Len. (ft)	790.00	650.87	300.00
Crit W.S. (ft)	1142.33	Flow Area (sq ft)		17340.40	
E.G. Slope (ft/ft)	0.001134	Area (sq ft)		17340.40	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	968.92	Top Width (ft)		968.92	
Vel Total (ft/s)	9.75	Avg. Vel. (ft/s)		9.75	
Max Chl Dpth (ft)	23.80	Hydr. Depth (ft)		17.90	
Conv. Total (cfs)	5018894.0	Conv. (cfs)		5018894.0	
Length Wtd. (ft)	650.87	Wetted Per. (ft)		974.15	
Min Ch El (ft)	1128.00	Shear (lb/sq ft)		1.26	
Alpha	1.00	Stream Power (lb/ft s)		12.28	
Frctn Loss (ft)	0.72	Cum Volume (acre-ft)		13191.03	0.32
C & E Loss (ft)	0.00	Cum SA (acres)		806.55	0.18

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19419.26 LB	19485.35	82.87	63.01	63.64	0.05	0.99	1.32
19485.35	19551.45	5184.49	777.89	68.88	3.07	11.77	6.66
19551.45	19617.54	12280.37	1284.30	66.17	7.27	19.43	9.56
19617.54	19683.63	13631.11	1366.66	66.10	8.07	20.68	9.97
19683.63	19749.73	13770.87	1375.01	66.09	8.15	20.80	10.02
19749.73	19815.82	13896.15	1382.66	66.11	8.22	20.92	10.05
19815.82	19881.91	15219.96	1460.18	66.10	9.01	22.09	10.42
19881.91	19948.01	16010.90	1505.16	66.10	9.47	22.77	10.64
19948.01	20014.10	16774.21	1548.08	66.12	9.93	23.42	10.84
20014.10	20080.19	15954.59	1501.99	66.10	9.44	22.73	10.62
20080.19	20146.29	15086.68	1452.47	66.10	8.93	21.98	10.39
20146.29	20212.38	12880.21	1321.55	66.17	7.62	20.00	9.75
20212.38	20278.47	10538.58	1171.36	66.13	6.24	17.72	9.00
20278.47	20344.57	6892.92	912.83	67.02	4.08	13.81	7.55
20344.57	20410.66 RB	796.06	217.49	47.32	0.47	4.70	3.66

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19419.26 LB	19485.35	82.84	62.99	63.64	0.05	0.99	1.32
19485.35	19551.45	5184.42	777.87	68.88	3.07	11.77	6.66
19551.45	19617.54	12280.37	1284.28	66.17	7.27	19.43	9.56
19617.54	19683.63	13631.12	1366.64	66.10	8.07	20.68	9.97
19683.63	19749.73	13770.89	1375.00	66.09	8.15	20.80	10.02
19749.73	19815.82	13896.17	1382.64	66.11	8.22	20.92	10.05
19815.82	19881.91	15220.00	1460.17	66.10	9.01	22.09	10.42
19881.91	19948.01	16010.95	1505.15	66.10	9.47	22.77	10.64
19948.01	20014.10	16774.26	1548.06	66.12	9.93	23.42	10.84
20014.10	20080.19	15954.63	1501.97	66.10	9.44	22.72	10.62
20080.19	20146.29	15086.71	1452.46	66.10	8.93	21.98	10.39
20146.29	20212.38	12880.21	1321.53	66.17	7.62	19.99	9.75
20212.38	20278.47	10538.56	1171.34	66.13	6.24	17.72	9.00
20278.47	20344.57	6892.86	912.82	67.02	4.08	13.81	7.55
20344.57	20410.66 RB	796.00	217.48	47.32	0.47	4.70	3.66

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 221.06

INPUT
Description: Upstream face of SPRR bridge

Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18840	1164.719	100.66	1166.53	19100.76	1162.219	100.86	1158.719	131.19	1154.4
19133.48	1154.419	162.91	1152	19165.2	1152	19194.54	1148.619	195.73	1148.6
19196.93	1148.619	226.26	1148	19228.55	1148	19257.89	1148	19260.28	1148
19289.61	1147.6	19291.9	1147.61	19321.44	1146	19326.41	1146	19331.88	1145.7
19359.72	1145	19370.37	1145	19402.49	1144	19419.89	1144.51	9427.85	1144.5
19432.82	1146.31	9452.71	1147.81	9498.46	1150	19517.35	1151	19571.55	1150.3
19579.51	1150.31	9619.89	1132.11	9682.54	1126	19723.61	1128	19731.57	1128
19801.88	1126.81	9874.97	1126	19882.93	1126	19953.04	1126	20026.94	1126.1
20034.89	1126.12	0110.17	1130	20187.95	1133.4	20196.3	1133.42	0272.28	1135
20350.05	1135.22	0358.01	1135.22	0380.68	1135	20414.49	1145.72	0440.35	1151.3
20479.13	1157.42	0494.05	1151.82	0501.31	1150	20509.27	1150	20515.93	1150
20603.15	1151.42	0611.11	1151.62	0631.99	1167.52	20640.04	1167.52	0868.78	1168

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18840	.05	19517.35	.03	20479.13	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19517.35	20479.13	84.74	84.74	84.74	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18840	19517.35	1155	20479.13	20868.78	1157.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1151.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.48	Wt. n-Val.		0.035	
E.G. Elev (ft)	1152.56	Reach Len. (ft)	31.00	31.00	31.00
Crit W.S. (ft)	1140.98	Flow Area (sq ft)		17282.71	
E.G. Slope (ft/ft)	0.001076	Area (sq ft)	1326.93	17282.71	53.91
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1351.93	Top Width (ft)	344.15	921.95	85.83
Vel Total (ft/s)	9.78	Avg. Vel. (ft/s)		9.78	
Max Chl Dpth (ft)	25.07	Hydr. Depth (ft)		18.75	
Conv. Total (cfs)	5152827.0	Conv. (cfs)		5152827.0	
Length Wtd. (ft)	31.00	Wetted Per. (ft)		928.65	
Min Ch El (ft)	1126.00	Shear (lb/sq ft)		1.25	
Alpha	1.00	Stream Power (lb/ft s)		12.22	
Frctn Loss (ft)	0.04	Cum Volume (acre-ft)	2429.39	12931.42	1275.44
C & E Loss (ft)	0.02	Cum SA (acres)	204.23	792.44	242.81

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1151.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.48	Wt. n-Val.		0.035	
E.G. Elev (ft)	1152.56	Reach Len. (ft)	31.00	31.00	31.00
Crit W.S. (ft)	1140.98	Flow Area (sq ft)		17282.60	
E.G. Slope (ft/ft)	0.001076	Area (sq ft)		17282.60	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	921.95	Top Width (ft)		921.95	
Vel Total (ft/s)	9.78	Avg. Vel. (ft/s)		9.78	
Max Chl Dpth (ft)	25.07	Hydr. Depth (ft)		18.75	
Conv. Total (cfs)	5152506.0	Conv. (cfs)		5152506.0	
Length Wtd. (ft)	31.00	Wetted Per. (ft)		928.72	
Min Ch El (ft)	1126.00	Shear (lb/sq ft)		1.25	
Alpha	1.00	Stream Power (lb/ft s)		12.22	
Frctn Loss (ft)	0.04	Cum Volume (acre-ft)		12932.37	0.32
C & E Loss (ft)	0.02	Cum SA (acres)		792.43	0.18

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19517.35 LB	19581.47	25.00	31.49	64.31	0.01	0.49	0.79
19581.47	19645.59	6631.69	916.03	67.96	3.92	14.29	7.24
19645.59	19709.71	16055.75	1523.20	64.32	9.50	23.76	10.54
19709.71	19773.82	15669.34	1499.39	64.14	9.27	23.38	10.45
19773.82	19837.94	16684.62	1556.79	64.13	9.87	24.28	10.72
19837.94	19902.06	17467.66	1600.19	64.12	10.34	24.96	10.92
19902.06	19966.18	17602.65	1607.57	64.12	10.42	25.07	10.95

19966.18	20030.30	17532.86	1603.73	64.12	10.37	25.01	10.93
20030.30	20094.42	15836.16	1509.49	64.20	9.37	23.54	10.49
20094.42	20158.54	12450.25	1306.51	64.19	7.37	20.38	9.53
20158.54	20222.66	9992.88	1144.80	64.15	5.91	17.85	8.73
20222.66	20286.78	8740.54	1056.27	64.13	5.17	16.47	8.27
20286.78	20350.89	8286.42	1022.91	64.12	4.90	15.95	8.10
20350.89	20415.01	5870.94	840.43	65.78	3.47	13.11	6.99
20415.01	20479.13 RB	153.27	63.89	24.85	0.09	2.63	2.40

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19517.35 LB	19581.47	24.97	31.48	64.39	0.01	0.49	0.79
19581.47	19645.59	6631.66	916.03	67.96	3.92	14.29	7.24
19645.59	19709.71	16055.77	1523.19	64.32	9.50	23.76	10.54
19709.71	19773.82	15669.35	1499.39	64.14	9.27	23.38	10.45
19773.82	19837.94	16684.64	1556.78	64.13	9.87	24.28	10.72
19837.94	19902.06	17467.69	1600.18	64.12	10.34	24.96	10.92
19902.06	19966.18	17602.67	1607.57	64.12	10.42	25.07	10.95
19966.18	20030.30	17532.88	1603.72	64.12	10.37	25.01	10.93
20030.30	20094.42	15836.18	1509.48	64.20	9.37	23.54	10.49
20094.42	20158.54	12450.24	1306.50	64.19	7.37	20.38	9.53
20158.54	20222.66	9992.86	1144.79	64.15	5.91	17.85	8.73
20222.66	20286.78	8740.51	1056.27	64.13	5.17	16.47	8.27
20286.78	20350.89	8286.39	1022.91	64.12	4.90	15.95	8.10
20350.89	20415.01	5870.90	840.43	65.78	3.47	13.11	6.99
20415.01	20479.13 RB	153.27	63.89	24.85	0.09	2.63	2.40

BRIDGE RIVER: Salt River
REACH: Reach 4 RS: 221.055

INPUT
Description: Southern Pacific Railraod
Distance from Upstream XS = 31
Deck/Roadway Width = 23
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 20

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
18840	1164.7	1164.719	100.66	1166.53	1166.531	9100.76	1166.53	1162.23
19131.19	1166.6	1162.319	162.91	1166.65	1162.351	9194.54	1166.72	1162.42
19226.26	1166.78	1162.519	257.89	1166.84	1162.541	9289.61	1167.09	1161.79
19321.44	1167.09	1161.791	9419.89	1167.45	1162.151	9571.55	1167.45	1162.15
19723.61	1167.46	1162.161	9874.97	1167.48	1162.182	0026.94	1167.51	1162.21
20187.95	1167.53	1162.232	0350.05	1167.55	1162.252	0501.31	1167.57	1162.27
20603.15	1167.5	1162.22	0631.99	1167.52	1163.07			

Upstream Bridge Cross Section Data
Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18840	1164.719	100.66	1166.531	9100.76	1162.21	9100.86	1158.71	9131.19	1154.4
19133.48	1154.41	9162.91	1152	19165.2	1152	19194.54	1148.61	9195.73	1148.6
19196.93	1148.61	9226.26	1148	19228.55	1148	19257.89	1148	19260.28	1148
19289.61	1147.6	19291.9	1147.61	9321.44	1146	19326.41	1146	19331.88	1145.7
19359.72	1145	19370.37	1145	19402.49	1144	19419.89	1144.51	9427.85	1144.5
19432.82	1146.31	9452.71	1147.81	9498.46	1150	19517.35	1151	19571.55	1150.3
19579.51	1150.31	9619.89	1132.11	9682.54	1126	19723.61	1128	19731.57	1128
19801.88	1126.81	9874.97	1126	19882.93	1126	19953.04	1126	20026.94	1126.1
20034.89	1126.12	0110.17	1130	20187.95	1133.4	20196.3	1133.42	0272.28	1135
20350.05	1135.22	0358.01	1135.22	0380.68	1135	20414.49	1145.72	0440.35	1151.3
20479.13	1157.42	0494.05	1151.82	0501.31	1150	20509.27	1150	20515.93	1150
20603.15	1151.42	0611.11	1151.62	0631.99	1167.5	220640.04	1167.52	0868.78	1168

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18840	.05	19517.35	.03	20479.13	.05

Bank Sta: Left	Right	Coeff Contr.	Expan.
19517.35	20479.13	.1	.3

Ineffective Flow num= 2

```
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1884019517.35    115520479.1320868.78  1157.4

Downstream  Deck/Roadway Coordinates
    num=      20
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
   18840  1164.7  1164.719100.66 1166.53 1166.5319100.76 1166.53 1162.23
19131.19  1166.6  1162.319162.91 1166.65 1162.3519194.54 1166.72 1162.42
19226.26 1166.78  1162.519257.89 1166.84 1162.5419289.61 1167.09 1161.79
19321.44 1167.09 1161.7919419.89 1167.45 1162.1519571.55 1167.45 1162.15
19723.61 1167.46 1162.1619874.97 1167.48 1162.1820026.94 1167.51 1162.21
20187.95 1167.53 1162.2320350.05 1167.55 1162.2520501.31 1167.57 1162.27
20603.15  1167.5  1162.220631.99 1167.52 1163.07

Downstream Bridge Cross Section Data
Station Elevation Data    num=      60
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   18840  1164.719100.66 1166.5319100.76  1162.219100.86  1158.719131.19  1154.4
19133.48  1154.419162.91    1152 19165.2    115219194.54  1148.619195.73  1148.6
19196.93  1148.619226.26    114819228.55    114819257.89    114819260.28    1148
19289.61  1147.6 19291.9  1147.619321.44    114619326.41    114619331.88  1145.7
19359.72    114519370.37    114519402.49    114419419.89  1144.519427.85  1144.5
19432.82  1146.319452.71  1147.819498.46    115019517.35    115119571.55  1150.3
19579.51  1150.319619.89  1132.119682.54    112619723.61    112819731.57    1128
19801.88  1126.819874.97    112619882.93    112619953.04    112620026.94  1126.1
20034.89  1126.120110.17    113020187.95  1133.4 20196.3  1133.420272.28    1135
20350.05  1135.220358.01  1135.220380.68    113520414.49  1145.720440.35  1151.3
20479.13  1157.420494.05  1151.820501.31    115020509.27    115020515.93    1150
20603.15  1151.420611.11  1151.620631.99 1167.5220640.04  1167.520868.78    1168

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   18840    .03519517.35    .03520479.13    .035

Bank Sta: Left   Right    Coeff Contr.   Expan.
     19517.3520479.13             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1884019517.35    115520479.1320868.78  1157.4

Upstream Embankment side slope              =         horiz. to 1.0 vertical
Downstream Embankment side slope            =         horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  16

Pier Data
Pier Station     Upstream=19133.34    Downstream=19133.34
Upstream     num=       2
    Width   Elev    Width   Elev
     2.3    1120     2.3    1163
Downstream     num=       2
    Width   Elev    Width   Elev
     2.3    1120     2.3    1163

Pier Data
Pier Station     Upstream=19165.06    Downstream=19165.06
Upstream     num=       2
    Width   Elev    Width   Elev
     2.3    1120     2.3    1163
Downstream     num=       2
    Width   Elev    Width   Elev
     2.3    1120     2.3    1163

Pier Data
Pier Station     Upstream= 19193.7    Downstream= 19193.7
Upstream     num=       2
    Width   Elev    Width   Elev
     2.3    1120     2.3    1163
Downstream     num=       2
    Width   Elev    Width   Elev
     2.3    1120     2.3    1163
```

```
Pier Data
Pier Station     Upstream=19228.41    Downstream=19228.41
Upstream     num=        2
    Width   Elev    Width   Elev
     2.3    1120     2.3    1163
Downstream     num=        2
    Width   Elev    Width   Elev
     2.3    1120     2.3    1163

Pier Data
Pier Station     Upstream=19260.04    Downstream=19260.04
Upstream     num=        2
    Width   Elev    Width   Elev
     2.3    1120     2.3    1163
Downstream     num=        2
    Width   Elev    Width   Elev
     2.3    1120     2.3    1163

Pier Data
Pier Station     Upstream=19291.76    Downstream=19291.76
Upstream     num=        2
    Width   Elev    Width   Elev
     2.3    1120     2.3    1163
Downstream     num=        2
    Width   Elev    Width   Elev
     2.3    1120     2.3    1163

Pier Data
Pier Station     Upstream=19323.59    Downstream=19323.59
Upstream     num=        2
    Width   Elev    Width   Elev
     2.3    1120     2.3    1163
Downstream     num=        2
    Width   Elev    Width   Elev
     2.3    1120     2.3    1163

Pier Data
Pier Station     Upstream=19424.89    Downstream=19424.89
Upstream     num=        2
    Width   Elev    Width   Elev
       8    1120       8    1163
Downstream     num=        2
    Width   Elev    Width   Elev
       8    1120       8    1163

Pier Data
Pier Station     Upstream=19576.55    Downstream=19576.55
Upstream     num=        2
    Width   Elev    Width   Elev
       8    1120       8    1163
Downstream     num=        2
    Width   Elev    Width   Elev
       8    1120       8    1163

Pier Data
Pier Station     Upstream=19728.61    Downstream=19728.61
Upstream     num=        2
    Width   Elev    Width   Elev
       8    1120       8    1163
Downstream     num=        2
    Width   Elev    Width   Elev
       8    1120       8    1163

Pier Data
Pier Station     Upstream=19879.97    Downstream=19879.97
Upstream     num=        2
    Width   Elev    Width   Elev
       8    1120       8    1163
Downstream     num=        2
    Width   Elev    Width   Elev
       8    1120       8    1163

Pier Data
Pier Station     Upstream=20031.94    Downstream=20031.94
Upstream     num=        2
```

```
    Width   Elev    Width   Elev
      8    1120       8    1163
Downstream     num=        2
    Width   Elev    Width   Elev
      8    1120       8    1163

Pier Data
Pier Station     Upstream=20192.95    Downstream=20192.95
Upstream     num=        2
    Width   Elev    Width   Elev
      8    1120       8    1163
Downstream     num=        2
    Width   Elev    Width   Elev
      8    1120       8    1163

Pier Data
Pier Station     Upstream=20355.05    Downstream=20355.05
Upstream     num=        2
    Width   Elev    Width   Elev
      8    1120       8    1163
Downstream     num=        2
    Width   Elev    Width   Elev
      8    1120       8    1163

Pier Data
Pier Station     Upstream=20506.31    Downstream=20506.31
Upstream     num=        2
    Width   Elev    Width   Elev
      8    1120       8    1163
Downstream     num=        2
    Width   Elev    Width   Elev
      8    1120       8    1163

Pier Data
Pier Station     Upstream=20608.15    Downstream=20608.15
Upstream     num=        2
    Width   Elev    Width   Elev
      8    1120       8    1163
Downstream     num=        2
    Width   Elev    Width   Elev
      8    1120       8    1163

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
      Energy
      Momentum                Cd   =     1.2
      Yarnell                 KVal =    1.05
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
      Energy Only

Additional Bridge Parameters
      Add Friction component to Momentum
      Add Weight component to Momentum
      Class B flow critical depth computations use critical depth
          inside the bridge at the downstream end
      Criteria to check for pressure flow = Upstream energy grade line

BRIDGE OUTPUT    Profile #PF#1
Opening : Bridge #1

  E.G. US. (ft)                1152.56   Element                  Inside BR US  Inside BR DS
  W.S. US. (ft)                1151.07   E.G. Elev (ft)               1152.50       1152.46
  Q Total (cfs)              169000.00   W.S. Elev (ft)               1150.80       1150.76
  Q Bridge (cfs)             169000.00   Crit W.S. (ft)               1141.39       1141.38
  Q Weir (cfs)                           Max Chl Dpth (ft)              24.80         24.76
  Weir Sta Lft (ft)                      Vel Total (ft/s)               10.44         10.46
  Weir Sta Rgt (ft)                      Flow Area (sq ft)           16189.90      16149.89
  Weir Submerg                           Froude # Chl                   0.42          0.42
  Weir Max Depth (ft)                    Specif Force (cu ft)       227777.16     227156.89
  Min Top Rd (ft)              1164.70   Hydr Depth (ft)                18.88         18.92
  Min El Prs (ft)              1166.53   W.P. Total (ft)             1076.26       1071.86
  Delta EG (ft)                   0.19   Conv. Total (cfs)          4188476.0     4182654.8
  Delta WS (ft)                   0.23   Top Width (ft)              1236.27       1228.04
```

BR Open Area (sq ft)	33186.61	Frctn Loss (ft)	0.04	0.04
BR Open Vel (ft/s)	10.46	C & E Loss (ft)	0.00	0.05
Coef of Q		Shear Total (lb/sq ft)	1.53	1.54
Br Sel Mthd	Energy only	Power Total (lb/ft s)	15.96	16.07

BRIDGE OUTPUT Profile #PF#2
Opening : Bridge #1

		Element	Inside BR US	Inside BR DS
E.G. US. (ft)	1152.56	E.G. Elev (ft)	1152.50	1152.46
W.S. US. (ft)	1151.07	W.S. Elev (ft)	1150.80	1150.76
Q Total (cfs)	169000.00	Crit W.S. (ft)	1141.39	1141.38
Q Bridge (cfs)	169000.00	Max Chl Dpth (ft)	24.80	24.76
Q Weir (cfs)		Vel Total (ft/s)	10.44	10.46
Weir Sta Lft (ft)		Flow Area (sq ft)	16189.79	16149.79
Weir Sta Rgt (ft)		Froude # Chl	0.42	0.42
Weir Submerg		Specif Force (cu ft)	227775.53	227155.27
Weir Max Depth (ft)		Hydr Depth (ft)	18.88	18.92
Min Top Rd (ft)	1167.45	W.P. Total (ft)	1076.25	1071.85
Min El Prs (ft)	1166.53	Conv. Total (cfs)	4188460.0	4182634.0
Delta EG (ft)	0.19	Top Width (ft)	857.60	853.76
Delta WS (ft)	0.23	Frctn Loss (ft)	0.04	0.04
BR Open Area (sq ft)	25997.88	C & E Loss (ft)	0.00	0.05
BR Open Vel (ft/s)	10.46	Shear Total (lb/sq ft)	1.53	1.54
Coef of Q		Power Total (lb/ft s)	15.96	16.07
Br Sel Mthd	Energy only			

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 221.05

INPUT
Description: Downstream face of SPRR bridge

Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18840	1164.719	100.66	1166.5	319100.76	1162.219	100.86	1158.719	131.19	1154.4
19133.48	1154.419	162.91	1152	19165.2	1152	19194.54	1148.619	195.73	1148.6
19196.93	1148.619	226.26	1148	19228.55	1148	19257.89	1148	19260.28	1148
19289.61	1147.6	19291.9	1147.6	19321.44	1146	19326.41	1146	19331.88	1145.7
19359.72	1145	19370.37	1145	19402.49	1144	19419.89	1144.5	19427.85	1144.5
19432.82	1146.3	19452.71	1147.8	19498.46	1150	19517.35	1151	19571.55	1150.3
19579.51	1150.3	19619.89	1132.1	19682.54	1126	19723.61	1128	19731.57	1128
19801.88	1126.8	19874.97	1126	19882.93	1126	19953.04	1126	20026.94	1126.1
20034.89	1126.1	20110.17	1130	20187.95	1133.4	20196.3	1133.4	20272.28	1135
20350.05	1135.2	20358.01	1135.2	20380.68	1135	20414.49	1145.7	20440.35	1151.3
20479.13	1157.4	20494.05	1151.8	20501.31	1150	20509.27	1150	20515.93	1150
20603.15	1151.4	20611.11	1151.6	20631.99	1167.5	20640.04	1167.5	20868.78	1168

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18840	.035	19517.35	.035	20479.13	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19517.35	20479.13	210	167.68	80	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18840	19517.35	1155	20479.13	20868.78	1157.4

CROSS SECTION OUTPUT Profile #PF#1

		Element	Left OB	Channel	Right OB
W.S. Elev (ft)	1150.84	Wt. n-Val.		0.035	
Vel Head (ft)	1.52	Reach Len. (ft)	210.00	167.68	80.00
E.G. Elev (ft)	1152.36	Flow Area (sq ft)		17070.64	
Crit W.S. (ft)	1140.99	Area (sq ft)	1247.82	17070.64	35.84
E.G. Slope (ft/ft)	0.001100	Flow (cfs)		169000.00	
Q Total (cfs)	169000.00	Top Width (ft)	339.18	908.67	70.49
Top Width (ft)	1318.35	Avg. Vel. (ft/s)		9.90	
Vel Total (ft/s)	9.90	Hydr. Depth (ft)		18.79	
Max Chl Dpth (ft)	24.84	Conv. (cfs)		5096675.5	
Conv. Total (cfs)	5096675.5	Wetted Per. (ft)		915.35	
Length Wtd. (ft)	167.68	Shear (lb/sq ft)		1.28	
Min Ch El (ft)	1126.00	Stream Power (lb/ft s)		12.67	
Alpha	1.00				

Frctn Loss (ft)	0.21	Cum Volume (acre-ft)	2427.07	12899.25	1275.38
C & E Loss (ft)	0.03	Cum SA (acres)	203.59	790.73	242.68

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1150.84	Element			
Vel Head (ft)	1.52	Wt. n-Val.		0.035	
E.G. Elev (ft)	1152.36	Reach Len. (ft)	210.00	167.68	80.00
Crit W.S. (ft)	1140.99	Flow Area (sq ft)		17070.54	
E.G. Slope (ft/ft)	0.001100	Area (sq ft)		17070.54	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	908.66	Top Width (ft)		908.66	
Vel Total (ft/s)	9.90	Avg. Vel. (ft/s)		9.90	
Max Chl Dpth (ft)	24.84	Hydr. Depth (ft)		18.79	
Conv. Total (cfs)	5096664.0	Conv. (cfs)		5096664.0	
Length Wtd. (ft)	167.68	Wetted Per. (ft)		915.33	
Min Ch El (ft)	1126.00	Shear (lb/sq ft)		1.28	
Alpha	1.00	Stream Power (lb/ft s)		12.67	
Frctn Loss (ft)	0.21	Cum Volume (acre-ft)		12900.20	0.32
C & E Loss (ft)	0.03	Cum SA (acres)		790.72	0.18

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19517.35 LB	19581.47	11.14	17.63	52.10	0.01	0.34	0.63
19581.47	19645.59	6573.58	901.21	67.96	3.89	14.06	7.29
19645.59	19709.71	16089.39	1508.38	64.32	9.52	23.53	10.67
19709.71	19773.82	15698.08	1484.57	64.14	9.29	23.15	10.57
19773.82	19837.94	16725.48	1541.97	64.13	9.90	24.05	10.85
19837.94	19902.06	17518.04	1585.36	64.12	10.37	24.73	11.05
19902.06	19966.18	17654.68	1592.75	64.12	10.45	24.84	11.08
19966.18	20030.30	17584.04	1588.90	64.12	10.40	24.78	11.07
20030.30	20094.42	15866.97	1494.66	64.20	9.39	23.31	10.62
20094.42	20158.54	12442.45	1291.69	64.19	7.36	20.15	9.63
20158.54	20222.66	9959.65	1129.98	64.15	5.89	17.62	8.81
20222.66	20286.78	8695.51	1041.45	64.13	5.15	16.24	8.35
20286.78	20350.89	8237.36	1008.09	64.12	4.87	15.72	8.17
20350.89	20415.01	5805.15	825.61	65.78	3.44	12.88	7.03
20415.01	20479.13 RB	138.48	58.40	23.76	0.08	2.51	2.37

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19517.35 LB	19581.47	11.14	17.62	52.09	0.01	0.34	0.63
19581.47	19645.59	6573.55	901.20	67.96	3.89	14.06	7.29
19645.59	19709.71	16089.40	1508.37	64.32	9.52	23.53	10.67
19709.71	19773.82	15698.09	1484.56	64.14	9.29	23.15	10.57
19773.82	19837.94	16725.50	1541.96	64.13	9.90	24.05	10.85
19837.94	19902.06	17518.07	1585.36	64.12	10.37	24.73	11.05
19902.06	19966.18	17654.71	1592.74	64.12	10.45	24.84	11.08
19966.18	20030.30	17584.07	1588.90	64.12	10.40	24.78	11.07
20030.30	20094.42	15866.98	1494.66	64.20	9.39	23.31	10.62
20094.42	20158.54	12442.44	1291.68	64.19	7.36	20.14	9.63
20158.54	20222.66	9959.63	1129.97	64.15	5.89	17.62	8.81
20222.66	20286.78	8695.49	1041.44	64.13	5.15	16.24	8.35
20286.78	20350.89	8237.34	1008.08	64.12	4.87	15.72	8.17
20350.89	20415.01	5805.11	825.60	65.78	3.43	12.88	7.03
20415.01	20479.13 RB	138.48	58.40	23.76	0.08	2.51	2.37

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 221.02

INPUT
Description:
Station Elevation Data num= 285

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

15044.3	116115046.74	1160.8115054.99	1160.9915067.31	1160.6915118.09	1159.67
15188.86	1159.915261.54	1159.9715295.45	1160.1415332.02	1158.6115339.82	1158.24
15380.65	1157.715388.69	1157.7615513.83	1159.1115577.72	1158.4215622.59	1158.37
15670.19	1158.315740.55	1159.1815755.81	1159.1915780.94	1158.42 15794.9	1158.07
15840.15	1157 15862.8	1158.0415868.58	1158.2515878.24	1158.2715931.25	1157.44
16026.39	1158.3 16042.1	1158.3516063.87	1158.0616173.44	1157.7216198.77	1157.57
16240.13	1156.916263.89	1157.7716286.32	1156.4916315.25	1157.6816425.38	1156.64
16472.1	1156.216481.97	1156.1316484.62	1156.2416543.72	1155.97 16656.3	1155.75
16680.03	1156.416701.67	1155.6816728.06	1157.12 16750.9	1156.9516855.76	1157.05
16901.91	1157.116958.94	1156.6217074.38	1155.6617090.35	1156.28 17098.2	1156.49
17121.74	1155.117157.02	1155.3917177.67	1155.3717290.67	1155.8117359.48	1156.44
17401.65	1156.617496.83	1157.4717533.23	1157.7117610.32	1157.9617651.54	1158.27
17781.11	1158.517812.58	1158.8317889.77	1158.4817945.95	1158.4318065.89	1158.44
18105.38	1158.318202.28	1157.8818260.45	1157.8418310.83	1158.05 18378	1158.54
18419.2	1157.718429.86	1157.3818444.45	1157.7718468.43	1158.2518483.22	1156.71
18487.84	1156.7 18552	1157.6218598.58	1157.51 18671.6	1157.4718724.73	1157.28
18802.71	1157.118855.51	1156.8918882.85	1156.418939.89	1157.0118962.01	1156.9
18980.67	1156.718996.52	1156.7519046.82	1156.3919054.65	1155.9519125.72	1152.64
19144.8	1157.3 19147.3	1157.8119158.87	1158.7819187.22	1152.7319199.35	1150.01
19201.06	1149.319219.83	1149.8719235.69	1149.9519258.88	1149.0119304.33	1148.04
19324	1149.519332.28	1149.3819355.27	1148.9819376.72	1147.7219403.68	1146.08
19419.08	1147.1 19423.4	1147.2919495.54	1154.05 19517.5	1152.0319549.33	1135.36
19552.87	1133.419554.34	1133.5319573.39	1132.4719596.68	1135.0219601.53	1134.82
19702.75	113119732.46	1130.5319814.47	1130.3419836.04	1130.1819975.05	1131.8
20064.35	1130.620095.86	1130.06 20155.2	1130.7520233.83	1131.55 20325.5	1131.38
20386.81	1145.120408.54	1147.820419.42	1150.0620451.78	1156.5920491.77	1150.65
20510.97	1153.420514.94	1153.3720528.31	1152.7620572.59	1150.3120585.04	1150.64
20626.37	1151.520662.58	1160.2420712.66	1177.620718.86	1179.5720725.27	1182.13
20753.98	1190.920766.38	1193.5620794.56	1193.4920802.53	1193.0320860.02	1192.48
20891.04	118920921.83	1184.5520973.53	1176.5821007.78	1169.71 21020.9	1166.7
21043.59	1167.921058.76	1167.3921077.96	1165.121084.16	1164.5121125.91	1172.49
21137.04	1175.421155.09	1177.0621179.84	1178.32 21199.1	1179.721217.63	1179.96
21324.45	1182.921329.09	1182.8921337.12	1180.9721339.29	1181.3121359.14	1183.27
21368.63	1182.221379.89	1181.421410.49	1180.9921439.46	1180.7821455.92	1180.06
21468.95	1179.321470.21	1179.7421475.48	1179.9821499.92	1177.2821505.23	1176.9
21509.4	1177.821555.88	1191.1721570.26	1193.9721572.09	1194.7821600.37	1195.61
21610.52	1195.621618.72	1196.1321666.21	1196.3721680.57	1195.6921714.58	1194.78
21730.11	1194.521742.46	1194.7221795.72	1191.81 21831.3	1190.321844.02	1190.21
21857.8	1193.421868.24	1193.7721900.08	1195.1721920.57	1195.0221934.48	1195.09
21969.69	1194.521976.39	1193.8721983.44	1192.3322009.08	1186.9922014.93	1184.49
22029.94	1180.922037.04	1182.4622091.03	1189.922162.07	1190.8722166.94	1190.86
22215.5	1190.322266.04	1190.12 22298.3	1190.6622366.78	1191.9122403.52	1189.31
22423.03	1187.822445.82	1188.4322464.84	1187.8522480.95	1189.1422494.56	1191.3
22503.83	1193.722519.51	1197.4522549.87	1199.2322551.71	1199.2822593.44	1188.58
22602.18	1185.622606.36	1186.2422646.46	1190.4822659.37	1191.9222679.25	1194.21
22689.24	1194.122712.89	1193.6422724.02	1195.1522742.53	1197.0522793.34	1205.23
22794.69	1205.422840.11	1208.5922859.08	1209.79 22867.2	1210.3722871.18	1210.29
22901.97	1208.622925.46	1204.6423009.68	1186.9123011.18	1186.9423034.04	1191.67
23060.11	1195.323082.52	1198.0423142.98	1202.9323146.07	1203.2723211.74	1208.21
23222.67	1208.123242.42	1208.1323281.11	1207.76 23320.2	1206.15 23334.1	1205.52
23424.31	120223453.03	1200.923472.73	1201.06 23496.6	1201.1623505.04	1201.36
23591.98	1201.9 23598	1201.4423626.23	1199.923657.13	1197.9823660.64	1198.11
23675.64	1198.123734.52	1195.3923759.52	1194.3723785.55	1193.0323838.22	1191.33
23861.28	1192.223891.49	1195.2623911.55	1198.0423951.75	1201.5423963.55	1202.44
23973	1202.723990.63	1205.124027.75	1209.5124034.76	1210.3724051.49	1211.52
24083.81	1214.424148.96	1215.7424163.71	1211.2224178.37	1212.1424204.33	1211.22
24212.4	1210.124281.78	1202.424340.67	1209.424367.64	1210.2124376.47	1210.31

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
15044.3	.035	19495.54	.035	20451.78	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19495.54	20451.78	530	503.55	450	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15044.31	19495.54	1154.05	20451.78	24376.47	1156.59

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1150.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.77	Wt. n-Val.		0.035	
E.G. Elev (ft)	1152.13	Reach Len. (ft)	530.00	503.55	450.00
Crit W.S. (ft)	1142.60	Flow Area (sq ft)		15806.92	
E.G. Slope (ft/ft)	0.001403	Area (sq ft)	450.49	15806.92	0.06
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	

Top Width (ft)	1161.10	Top Width (ft)	258.32	900.19	2.59
Vel Total (ft/s)	10.69	Avg. Vel. (ft/s)		10.69	
Max Chl Dpth (ft)	20.30	Hydr. Depth (ft)		17.56	
Conv. Total (cfs)	4512207.5	Conv. (cfs)		4512207.5	
Length Wtd. (ft)	503.55	Wetted Per. (ft)		906.62	
Min Ch El (ft)	1130.06	Shear (lb/sq ft)		1.53	
Alpha	1.00	Stream Power (lb/ft s)		16.32	
Frctn Loss (ft)	0.77	Cum Volume (acre-ft)	2422.97	12835.97	1275.35
C & E Loss (ft)	0.02	Cum SA (acres)	202.15	787.25	242.61

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1150.36	Element			
Vel Head (ft)	1.78	Wt. n-Val.		0.035	
E.G. Elev (ft)	1152.13	Reach Len. (ft)	530.00	503.55	450.00
Crit W.S. (ft)	1142.60	Flow Area (sq ft)		15806.81	
E.G. Slope (ft/ft)	0.001403	Area (sq ft)		15806.81	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	900.19	Top Width (ft)		900.19	
Vel Total (ft/s)	10.69	Avg. Vel. (ft/s)		10.69	
Max Chl Dpth (ft)	20.30	Hydr. Depth (ft)		17.56	
Conv. Total (cfs)	4512162.5	Conv. (cfs)		4512162.5	
Length Wtd. (ft)	503.55	Wetted Per. (ft)		906.62	
Min Ch El (ft)	1130.06	Shear (lb/sq ft)		1.53	
Alpha	1.00	Stream Power (lb/ft s)		16.33	
Frctn Loss (ft)	0.77	Cum Volume (acre-ft)		12836.92	0.32
C & E Loss (ft)	0.02	Cum SA (acres)		787.24	0.18

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19495.54 LB	19559.29	2509.03	380.05	42.80	1.48	9.85	6.60
19559.29	19623.04	10467.26	1051.31	63.93	6.19	16.49	9.96
19623.04	19686.79	11628.63	1118.88	63.80	6.88	17.55	10.39
19686.79	19750.54	13899.10	1245.02	63.77	8.22	19.53	11.16
19750.54	19814.29	14393.51	1271.27	63.75	8.52	19.94	11.32
19814.29	19878.04	14448.29	1274.21	63.75	8.55	19.99	11.34
19878.04	19941.79	13647.52	1231.37	63.75	8.08	19.32	11.08
19941.79	20005.53	12993.91	1195.63	63.75	7.69	18.76	10.87
20005.53	20069.28	13741.11	1236.44	63.76	8.13	19.40	11.11
20069.28	20133.03	14553.74	1279.81	63.76	8.61	20.08	11.37
20133.03	20196.78	13880.80	1243.93	63.75	8.21	19.51	11.16
20196.78	20260.53	13192.56	1206.55	63.75	7.81	18.93	10.93
20260.53	20324.28	13179.72	1205.83	63.75	7.80	18.92	10.93
20324.28	20388.03	6174.07	772.31	65.27	3.65	12.11	7.99
20388.03	20451.78 RB	290.75	94.30	33.28	0.17	2.87	3.08

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19495.54 LB	19559.29	2509.09	380.05	42.80	1.48	9.85	6.60
19559.29	19623.04	10467.24	1051.30	63.93	6.19	16.49	9.96
19623.04	19686.79	11628.62	1118.87	63.80	6.88	17.55	10.39
19686.79	19750.54	13899.10	1245.01	63.77	8.22	19.53	11.16
19750.54	19814.29	14393.52	1271.26	63.75	8.52	19.94	11.32
19814.29	19878.04	14448.30	1274.21	63.75	8.55	19.99	11.34
19878.04	19941.79	13647.52	1231.36	63.75	8.08	19.32	11.08
19941.79	20005.53	12993.90	1195.62	63.75	7.69	18.76	10.87
20005.53	20069.28	13741.10	1236.43	63.76	8.13	19.40	11.11
20069.28	20133.03	14553.74	1279.80	63.76	8.61	20.08	11.37
20133.03	20196.78	13880.80	1243.92	63.75	8.21	19.51	11.16
20196.78	20260.53	13192.56	1206.54	63.75	7.81	18.93	10.93
20260.53	20324.28	13179.72	1205.83	63.75	7.80	18.91	10.93
20324.28	20388.03	6174.03	772.30	65.27	3.65	12.11	7.99
20388.03	20451.78 RB	290.73	94.30	33.28	0.17	2.87	3.08

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 220.92

INPUT
Description:
Station Elevation Data num= 308

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15056.94	1158.315	076.82	1156.241	5078.01	1156.51	5085.42	1156.98	15091.4	1157.54
15092.38	1157.715	132.68	1156.191	5136.58	1156.011	5142.69	1156.041	5285.82	1156.09
15333.21	1155.41	5354.33	1154.781	5385.82	1155.3	15402	1155.471	5501.97	1156.32
15525.24	1156.11	5590.72	1155.4	15610.6	1155.341	5746.64	1155.41	5775.17	1154.91
15792.22	1154.91	5831.19	1154.71	5850.08	1154.581	5854.93	1154.511	5860.35	1153.76
15861.43	1153.81	5883.33	1156.141	5928.57	1155.611	5962.04	1155.281	5975.13	1155.33
15996.69	1155.31	6126.78	1154.931	6218.25	1154.61	6274.39	1155.21	6288.62	1155.19
16354.88	1154.61	6404.13	1154.61	6519.19	1154.571	6521.31	1154.67	16544.3	1155.19
16674.08	1156.21	6693.66	1155.391	6704.58	1155.211	6754.43	1154.751	6767.64	1154.51
16947.93	1153.91	7054.56	1153.291	7089.35	1154.581	7115.83	1153.75	17124.3	1154.05
17152.88	1154.71	7229.24	1155.171	7259.62	1155.51	7358.95	1154.931	7368.96	1155.12
17384.65	1156.21	7408.17	1154.91	7428.41	1156.271	7434.19	1156.341	7506.93	1156.38
17532.5	1156.61	7643.84	1156.481	7662.16	1156.611	7702.03	1156.7	17817.4	1156.92
17830.58	115	71791 7.79	1157.63	17979.7	1157.651	8018.43	1157.521	8084.18	1157.06
18143.35	1157.51	8147.32	1157.531	8297.14	1157.231	8301.96	1157.211	8323.41	1156.76
18375.77	1155.81	8380.73	1155.791	8409.33	1155.731	8422.82	1155.511	8452.23	1155.53
18468.78	1155.91	8481.68	1155.861	8496.53	1156.031	8551.56	1155.671	8647.29	1154.57
18693.89	1153.91	8707.39	1153.641	8754.24	1153.761	8813.55	1153.871	8864.59	1154.06
18887.41	1154.71	8913.94	1155.011	8934.68	1156.231	8984.13	1150.57	18986.8	1150.32
19004.77	1153.31	9026.27	1156.881	9040.29	1157.531	9050.92	1155.851	9073.98	1152.34
19092.01	1151.61	9116.39	1150.051	9123.92	1149.361	9138.68	1149.361	9192.02	1149.53
19214.34	1149.91	9229.37	1152.641	9252.46	1158.11	19262.2	1158.871	9297.45	1157.11
19318.87	1155.81	9324.16	1154.79	19345.6	1150.211	9393.36	1149.071	9440.17	1147.87
19483.52	1147.71	9505.95	1147.451	9520.91	1149.261	9533.07	1150.961	9545.94	1150.41
19576.51	1134.61	9587.17	1129.16	19608.3	1130.091	9676.46	1131.71	19705.2	1131.96
19733.24	1131.71	9838.63	1130.351	9914.22	1131.581	9977.78	1132.572	0015.93	1131.94
20098.73	1130.32	0220.32	1131.442	0236.84	1131.562	0266.69	1131.62	0358.46	1131.61
20387.17	1140.32	0398.68	1143.622	0414.42	1144.912	0423.49	1145.322	0434.59	1145.09
20452.66	114	92047 8.34	1155.862	0500.34	1153.662	0517.26	1151.782	0534.04	1153.66
20550.83	1155.22	0586.97	1152.942	0612.39	1156.752	0658.12	1163.332	0671.02	1163.53
20687.74	1163.42	0738.56	1179.82	0774.83	1191.372	0800.66	1191.22	20804.1	1190.88
20824.56	1189.42	0851.13	1190.842	0874.18	1191.082	0941.46	1192.162	0978.01	1191.07
20982.4	1190.82	1008.46	1193.532	1016.52	1192.82	1033.82	1192.712	1056.09	1192.73
21105.45	1178.52	1154.97	1162.942	1224.56	1163.922	1300.76	1165.7	21334.6	1167.81
21348.51	1166.72	1358.61	1165.472	1385.06	1167.952	1409.45	1166	21414.6	1165.77
21417.39	1168.52	1429.15	1178.662	1433.72	1178.432	1441.24	1177.662	1447.86	1177.93
21464.7	1178.42	1471.88	1177.932	1486.87	1177.452	1524.71	1176.692	1570.22	1175.12
21579.81	1175.32	1582.09	1175.22	1594.81	1172.452	1597.81	1172.452	1618.81	1176.85
21623.8	1177.72	1636.86	1177.422	1646.82	1176.732	1679.64	1174.782	1702.01	1174.22
21704.67	1174.72	1721.42	1174.942	1740.46	1176.132	1746.66	1176.352	1773.81	1176.59
21787.05	1176.12	1792.77	1175.452	1822.28	1176.862	1838.23	1177.122	1868.53	1177.94
21871.44	1178.12	1877.86	1177.852	1903.56	1176.52	1908.69	1173.642	1921.88	1172.56
21936.7	1176.72	1948.26	1177.522	1955.08	1178.182	1978.05	1179.642	1987.23	1181.32
21991.73	1181.92	2001.18	1181.92	2022.78	1184.122	2029.69	1184.962	2051.86	1185.91
22081.2	1187.12	2087.57	1187.452	2112.52	1185.662	2122.29	1184.332	2146.68	1182.16
22172.21	1180.52	2189.25	1177.512	2196.21	1176.862	2204.41	1176.372	2207.61	1176.5
22229.25	1175.42	2252.83	1180.492	2263.35	1181.242	2272.03	1180.542	2326.75	1180.19
22330.68	1180.42	2367.48	1183.922	2408.32	1184.912	2434.33	1185.422	2440.61	1185.34
22461.3	1184.82	2481.54	1184.432	2517.74	1184.532	2541.33	1184.812	2553.21	1185.68
22570.11	1186.42	2584.93	1186.97	22604.7	1184.442	2607.62	1184.482	2721.99	1184.8
22726.6	1184.92	2765.21	1185.962	2787.42	1186.262	2818.78	1187.462	2872.88	1187.93
22898.91	1188.52	2965.49	1188.222	2983.54	1188.292	3016.85	1188.23	23021.3	1188.26
23043.47	1188.12	3076.97	1188.942	3136.37	1189.852	3145.85	1189.96	23155.9	1189.9
23179.9	119	23187.54	1189.8	23204.3	1186.572	3224.62	1187.032	3236.98	1187.6
23243.05	1187.72	3255.26	1188.012	3303.44	1189.192	3309.59	1188.482	3351.25	1190.31
23380.47	1191.82	3416.36	1197.29	23505.4	1208.942	3549.46	1211.232	3567.19	1208.6
23587.21	1206.32	3594.62	1205.28	23633.5	1204.442	3643.71	1204.582	3649.32	1204.52
23711.69	1196.82	3723.75	1196.142	3748.17	1199.052	3751.46	1199.62	3757.89	1199.8
23799.99	1196.22	3808.97	1197.42	3828.15	1197.932	3867.37	1201.752	3874.94	1203.82
23883.19	1204.32	3910.05	1204.92	3941.39	1204.66	23953.4	1204.662	3981.76	1204.51
24044.8	1204.32	4075.27	1204.092	4100.71	1203.752	4146.43	1203.52	4160.54	1203.4
24169.47	1203.12	4242.01	1203.072	4250.55	1203.64				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
15056.94	.035	19533.07	.035	20478.34	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19533.0	720478.34	560	518.52	450	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15056.94	19533.07	1150.96	20478.34	24250.55	1155.86

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1149.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.96	Wt. n-Val.		0.035	
E.G. Elev (ft)	1151.35	Reach Len. (ft)	560.00	518.52	450.00
Crit W.S. (ft)	1142.46	Flow Area (sq ft)		15058.51	
E.G. Slope (ft/ft)	0.001666	Area (sq ft)	171.52	15058.51	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1072.33	Top Width (ft)	166.12	906.20	
Vel Total (ft/s)	11.22	Avg. Vel. (ft/s)		11.22	
Max Chl Dpth (ft)	20.23	Hydr. Depth (ft)		16.62	
Conv. Total (cfs)	4140889.0	Conv. (cfs)		4140889.0	
Length Wtd. (ft)	518.52	Wetted Per. (ft)		913.49	
Min Ch El (ft)	1129.16	Shear (lb/sq ft)		1.71	
Alpha	1.00	Stream Power (lb/ft s)		19.24	
Frctn Loss (ft)	0.87	Cum Volume (acre-ft)	2419.19	12657.57	1275.35
C & E Loss (ft)	0.00	Cum SA (acres)	199.57	776.81	242.60

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1149.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.96	Wt. n-Val.		0.035	
E.G. Elev (ft)	1151.34	Reach Len. (ft)	560.00	518.52	450.00
Crit W.S. (ft)	1142.46	Flow Area (sq ft)		15058.40	
E.G. Slope (ft/ft)	0.001666	Area (sq ft)		15058.40	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	906.20	Top Width (ft)		906.20	
Vel Total (ft/s)	11.22	Avg. Vel. (ft/s)		11.22	
Max Chl Dpth (ft)	20.23	Hydr. Depth (ft)		16.62	
Conv. Total (cfs)	4140837.5	Conv. (cfs)		4140837.5	
Length Wtd. (ft)	518.52	Wetted Per. (ft)		913.49	
Min Ch El (ft)	1129.16	Shear (lb/sq ft)		1.71	
Alpha	1.00	Stream Power (lb/ft s)		19.24	
Frctn Loss (ft)	0.87	Cum Volume (acre-ft)		12658.52	0.32
C & E Loss (ft)	0.00	Cum SA (acres)		776.80	0.18

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19533.07 LB	19596.09	4748.65	576.77	53.09	2.81	11.97	8.23
19596.09	19659.11	14135.87	1188.80	63.04	8.36	18.86	11.89
19659.11	19722.13	12634.46	1111.23	63.03	7.48	17.63	11.37
19722.13	19785.14	13019.95	1131.42	63.02	7.70	17.95	11.51
19785.14	19848.16	13979.60	1180.75	63.02	8.27	18.74	11.84
19848.16	19911.18	13528.02	1157.73	63.03	8.00	18.37	11.68
19911.18	19974.20	12316.62	1094.36	63.03	7.29	17.37	11.25
19974.20	20037.21	12233.63	1089.96	63.03	7.24	17.30	11.22
20037.21	20100.23	13678.53	1165.47	63.03	8.09	18.49	11.74
20100.23	20163.25	14033.52	1183.46	63.02	8.30	18.78	11.86
20163.25	20226.27	13306.18	1146.26	63.02	7.87	18.19	11.61
20226.27	20289.29	12848.72	1122.44	63.02	7.60	17.81	11.45
20289.29	20352.30	12815.48	1120.70	63.02	7.58	17.78	11.44
20352.30	20415.32	5273.81	665.33	64.83	3.12	10.56	7.93
20415.32	20478.34 RB	446.92	123.84	39.27	0.26	3.19	3.61

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19533.07 LB	19596.09	4748.61	576.76	53.09	2.81	11.97	8.23
19596.09	19659.11	14135.89	1188.80	63.04	8.36	18.86	11.89
19659.11	19722.13	12634.47	1111.22	63.03	7.48	17.63	11.37
19722.13	19785.14	13019.96	1131.41	63.02	7.70	17.95	11.51
19785.14	19848.16	13979.62	1180.74	63.02	8.27	18.74	11.84

19848.16	19911.18	13528.03	1157.72	63.03	8.00	18.37	11.69
19911.18	19974.20	12316.63	1094.35	63.03	7.29	17.37	11.25
19974.20	20037.21	12233.64	1089.95	63.03	7.24	17.30	11.22
20037.21	20100.23	13678.55	1165.46	63.03	8.09	18.49	11.74
20100.23	20163.25	14033.54	1183.45	63.02	8.30	18.78	11.86
20163.25	20226.27	13306.20	1146.26	63.02	7.87	18.19	11.61
20226.27	20289.29	12848.73	1122.43	63.02	7.60	17.81	11.45
20289.29	20352.30	12815.49	1120.70	63.02	7.58	17.78	11.44
20352.30	20415.32	5273.77	665.32	64.83	3.12	10.56	7.93
20415.32	20478.34 RB	446.90	123.83	39.27	0.26	3.19	3.61

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 220.82

INPUT
Description:
Station Elevation Data num= 315

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14966.67	1155.7	14994.9	1155.2	15013.71	1154.01	15021.11	1153.24	15050.66	1152.65
15099.94	1152.7	15126.2	1152.59	15191.9	1152.86	15243.19	1152.47	15250.24	1152.37
15320	1152.91	15352.84	1153.54	15386.05	1153.48	15392.04	1153.2	15408	1152.23
15416.37	1152.31	15429.68	1152.57	15444.43	1152.34	15469.09	1152.25	15557.75	1151.86
15628.53	1152.5	15672.2	1152.98	15686.44	1151.53	15728.08	1152.16	15748.26	1152.35
15782.75	1153.41	15803.31	1152.78	15849.34	1152.41	15922.54	1151.54	15965.71	1151.57
16105.59	1151.51	16112.76	1151.61	16148.28	1154.03	16175.63	1153.91	16187.03	1153.49
16210.44	1153.41	16219.87	1153.16	16229.03	1153.43	16231.92	1153.72	16303.07	1152.63
16354.15	1152.71	16380.98	1152.72	16394.77	1152.62	16430.95	1152.89	16514.83	1153.13
16560.89	1153.41	16578.84	1152.58	16629.65	1150.42	16648.01	1150.45	16695.46	1150.95
16724.6	1151.11	16832.81	1151.84	16937.42	1151.78	16970.15	1152.39	16981.11	1152.48
16989.67	1152.91	17011.25	1152.77	17034.73	1153.11	17039.76	1153.32	17062.09	1155.14
17147.1	1153.91	17172.08	1154.02	17193.39	1155.52	17202.14	1155.88	17248.97	1155.9
17265.63	1155.71	17297.38	1154.76	17315.73	1153.87	17319.73	1153.61	17352.48	1154.26
17361.43	1154.41	17372.68	1154.31	17442.96	1153.64	17471.11	1154.41	17499.21	1155.65
17565.37	1155.41	17596.88	1155.26	17615.1	1155.85	17640.73	1156.45	17653.51	1156.31
17664.8	1156.1	17677	1156.53	17703.8	1156.62	17762.99	1156.09	17805.4	1156.21
17842.82	1156.41	17871.78	1156.85	17885.61	1156.37	17937.13	1156.86	17965.61	1157.26
17997.08	1157.11	18162.42	1157.13	18212.41	1157.01	18217.42	1156.95	18247.84	1155.01
18291.62	1156.81	18294.91	1157.06	18323.51	1154.6	18349.5	11541	8364.36	1153.56
18380.47	1154.61	18411.31	1153.67	18465.27	1153.46	18533.94	1152.58	18551.54	1152.58
18577.54	1152.41	18629.65	1152.66	18635.6	1152.83	18686.63	1153.78	18723.07	1154.13
18733.12	1154.81	18806.96	1153.95	18815.49	1153.63	18848.51	1149.72	18861.19	1148.53
18876.01	1148.81	18879.55	1149.32	18908.05	1153.79	18919.3	1153.41	18983.58	1152.3
19000.8	1151.8	19010	1153.74	19023.73	1156.27	19034.07	1157.29	19037.58	1156.53
19073.99	1149.11	19089.08	1149.28	19093.85	1149.07	19102.34	1150.42	19115.72	1150.38
19135.01	1150.61	19152.18	1149.59	19196.97	1148.97	19202.14	1148.81	19216.01	1149.13
19228.26	1148.91	19235.07	1147.76	19299.3	1147.92	19335.62	1148.25	19357.09	1148.57
19390.82	1155.41	19394.26	1155.99	19404.6	1156.66	19422.48	1152.71	19456.86	1145.22
19466.2	1146.6	19492.6	1150.15	19507.76	1150.84	19513.3	1145.13	19521.34	1137.9
19535.91	1139.41	19554.48	1132.94	19565.22	1129.56	19593.76	1130.31	19639.73	1131.73
19657.19	1131.51	19773.87	1129.98	19873.48	1130.98	19913.76	1131.19	19944.72	1131
20035.35	1130	20064.49	1130.01	20174.19	1130.04	20216.93	1129.99	20301.27	1129.71
20329.01	1130.72	20343.21	1135.16	20365.9	1143.69	20387.28	1144.46	20416.82	1145.17
20440.64	1151.12	20462.85	1156.62	20480.62	1156.26	20503.43	1156.02	20520.86	1155.78
20610.58	1177.32	20618.09	1178.97	20650.23	1177.92	20654.43	1179.08	20672.84	1182.98
20691.43	1182.52	20711.77	1182.31	20726.85	1180.57	20751.98	1176.53	20790.42	1177.83
20866.31	1179.42	20886.86	1179.88	20891.78	1179.88	20945.2	1178.33	20946.24	1178.46
20970.97	1183	20977.55	1183.62	20990.97	1182.36	21016.54	1183.84	21027.23	1184.24
21049.3	1185.62	21139.77	1162.31	21157.79	1157.66	21160.49	1157.42	21179.51	1154.73
21238.31	1153.5	21243.5	1153.81	21315.86	1157.29	21324.45	1157.58	21363.1	1159.48
21380.83	1160.52	21399.61	1165.32	21437.88	1163.96	21447.56	1160.68	21454.8	1158.03
21473.7	1158.4	21494.5	1158.62	21549.92	1158.29	21575.58	1159.94	21603.97	1164.9
21625.71	1169.52	21631.47	1171.18	21647.04	1167.92	21667.64	1170.41	21673.43	1170.97
21685.04	1170.72	21720.26	1171.33	21734.34	1171.52	21777.94	1171.02	21794.5	1171.13
21803.73	1171.32	21815.17	1171.71	21830.12	1169.92	21841.34	1168.28	21848.75	1169.53
21866.74	1173.42	21873.12	1174.92	21919.28	1175.27	21939.52	1175.22	21987.72	1175.35
22008.71	1176.12	22022.69	1176.31	22044.47	1176.42	22061.01	1176.71	22105.28	1176.92
22127.76	1176.8	22155.6	1177.46	22185.01	1176.68	22253.65	1177.12	22327.29	1175.37
22341.26	1175.32	22408.59	1175.97	22420.56	1182.12	22430.93	1184.41	22455.02	1185.54
22498.64	1186.42	22528.32	1187.08	22547.85	1187.37	22613.03	1189.77	22628.56	1190.15
22692.42	1189.82	22729.49	1189.32	22816.03	1184.92	22825.01	1184.52	22851.72	1184.29
22871.37	1184.42	22899.79	1183.29	22924.29	1182.57	22945.8	1182.41	22971.38	1183.08
23000.84	1183.12	23020.21	1182.82	23025.73	1182.66	23052.98	1181.42	23076.38	1181.53
23096.7	1183.22	23121.44	1183.42	23159.34	1183.85	23161.94	1183.95	23164.26	1183.42
23185.17	1177.5	23201.8	1179.43	23212.44	1181.82	23218.91	1181.03	23257.33	1180.08
23268.82	1179.92	23272.49	1179.99	23283.71	1180.69	23311.15	1184.38	23344.13	1191.98

```
23371.97    119323403.29 1193.4523452.17 1193.4923455.92 1193.2223484.16 1191.65
23502.65  1190.223526.76 1188.9323566.97 1189.7423575.16 1189.7123648.69 1209.57
23653.44  1209.323683.28 1207.3723709.76 1198.46 23757.7 1193.1823760.97 1193.22
23768.31  1193.723820.08 1193.0623832.26 1193.0323856.11 1193.4623876.79 1194.23
23913.62    1195 23920.1    1195 23937.7 1196.5823939.72 1197.1523954.29 1198.94
 23987.9  1197.123991.34 1197.1324013.63 1197.9624016.42 1197.9624029.48 1194.99

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
14966.67    .03519507.76    .03520462.85    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
     19507.7620462.85              500  494.93     490            .1        .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
14966.6719507.76 1150.8420462.8524029.48  1156.6

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1148.53   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                1.94   Wt. n-Val.                              0.035
  E.G. Elev (ft)            1150.47   Reach Len. (ft)            500.00     494.93     490.00
  Crit W.S. (ft)            1141.72   Flow Area (sq ft)                   15100.60
  E.G. Slope (ft/ft)       0.001688   Area (sq ft)               127.85   15100.60
  Q Total (cfs)           169000.00   Flow (cfs)                          169000.00
  Top Width (ft)            1082.87   Top Width (ft)             162.57     920.30
  Vel Total (ft/s)            11.19   Avg. Vel. (ft/s)                        11.19
  Max Chl Dpth (ft)           18.97   Hydr. Depth (ft)                        16.41
  Conv. Total (cfs)       4113951.8   Conv. (cfs)                         4113951.8
  Length Wtd. (ft)           494.93   Wetted Per. (ft)                       928.94
  Min Ch El (ft)            1129.56   Shear (lb/sq ft)                         1.71
  Alpha                        1.00   Stream Power (lb/ft s)                  19.17
  Frctn Loss (ft)              0.84   Cum Volume (acre-ft)      2417.26   12478.07    1275.35
  C & E Loss (ft)              0.01   Cum SA (acres)             197.46     765.94     242.60


Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1148.53   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                1.94   Wt. n-Val.                              0.035
  E.G. Elev (ft)            1150.47   Reach Len. (ft)            500.00     494.93     490.00
  Crit W.S. (ft)            1141.72   Flow Area (sq ft)                   15100.49
  E.G. Slope (ft/ft)       0.001688   Area (sq ft)                        15100.49
  Q Total (cfs)           169000.00   Flow (cfs)                          169000.00
  Top Width (ft)             920.30   Top Width (ft)                         920.30
  Vel Total (ft/s)            11.19   Avg. Vel. (ft/s)                        11.19
  Max Chl Dpth (ft)           18.97   Hydr. Depth (ft)                        16.41
  Conv. Total (cfs)       4113910.3   Conv. (cfs)                         4113910.3
  Length Wtd. (ft)           494.93   Wetted Per. (ft)                       928.94
  Min Ch El (ft)            1129.56   Shear (lb/sq ft)                         1.71
  Alpha                        1.00   Stream Power (lb/ft s)                  19.17
  Frctn Loss (ft)              0.84   Cum Volume (acre-ft)              12479.02       0.32
  C & E Loss (ft)              0.01   Cum SA (acres)                       765.93       0.18


FLOW DISTRIBUTION OUTPUT    Profile #PF#1

  Left Sta      Right Sta        Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                 (ft)     (ft/s)
  19507.76 LB   19571.43       6115.76     738.21     67.33       3.62      12.02       8.28
  19571.43      19635.11      13101.09    1140.46     63.70       7.75      17.91      11.49
  19635.11      19698.78      12201.77    1092.67     63.68       7.22      17.16      11.17
  19698.78      19762.45      13192.69    1145.08     63.68       7.81      17.98      11.52
  19762.45      19826.12      13604.62    1166.37     63.68       8.05      18.32      11.66
  19826.12      19889.79      12863.55    1127.81     63.67       7.61      17.71      11.41
  19889.79      19953.47      12534.79    1110.44     63.68       7.42      17.44      11.29
  19953.47      20017.14      13181.91    1144.49     63.68       7.80      17.97      11.52
  20017.14      20080.81      13821.95    1177.51     63.67       8.18      18.49      11.74
  20080.81      20144.49      13835.35    1178.17     63.67       8.19      18.50      11.74
  20144.49      20208.16      13829.96    1177.90     63.67       8.18      18.50      11.74
  20208.16      20271.83      13974.42    1185.28     63.67       8.27      18.61      11.79
  20271.83      20335.50      13626.59    1169.89     64.00       8.06      18.37      11.65
  20335.50      20399.18       2835.97     460.74     65.61       1.68       7.24       6.16
  20399.18      20462.85 RB     279.55      85.60     31.54       0.17       2.75       3.27
```

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19507.76 LB	19571.43	6115.74	738.21	67.33	3.62	12.02	8.28
19571.43	19635.11	13101.09	1140.45	63.70	7.75	17.91	11.49
19635.11	19698.78	12201.77	1092.66	63.68	7.22	17.16	11.17
19698.78	19762.45	13192.70	1145.07	63.68	7.81	17.98	11.52
19762.45	19826.12	13604.62	1166.36	63.68	8.05	18.32	11.66
19826.12	19889.79	12863.56	1127.81	63.67	7.61	17.71	11.41
19889.79	19953.47	12534.79	1110.43	63.68	7.42	17.44	11.29
19953.47	20017.14	13181.91	1144.48	63.68	7.80	17.97	11.52
20017.14	20080.81	13821.96	1177.50	63.67	8.18	18.49	11.74
20080.81	20144.49	13835.36	1178.16	63.67	8.19	18.50	11.74
20144.49	20208.16	13829.97	1177.89	63.67	8.18	18.50	11.74
20208.16	20271.83	13974.44	1185.27	63.67	8.27	18.61	11.79
20271.83	20335.50	13626.60	1169.88	64.00	8.06	18.37	11.65
20335.50	20399.18	2835.93	460.73	65.61	1.68	7.24	6.16
20399.18	20462.85 RB	279.55	85.60	31.54	0.17	2.75	3.27

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 220.73

INPUT
Description:
Station Elevation Data num= 313

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14797.3	1154.31	4913.57	1152.42	14944.1	1152.26	14944.42	1151.47	14966.97	1151.88
14980.8	1152.31	5003.23	1152.21	5059.05	1152.19	15081.02	1152.11	15093.12	1152.34
15126.06	1152.11	5181.19	1151.61	15210.79	1150.47	15233.66	1151.47	15251.43	1150.94
15273.4	1151	15362.88	1150.59	15379.06	1150.05	15423.88	1149.95	15459.88	1149.65
15539.57	1149.31	5572.44	1149.28	15584.29	1149.51	5599.68	1150.44	15612.48	1148.8
15672.24	1149.41	5700.28	1151.35	15798	1151.37	15867.6	1150.99	15916.69	1151.03
15952.86	1151	16008.14	1150.91	16080.12	1151.75	16088.31	1151.84	16116.46	1153.28
16139.26	1152.91	6148.32	1152.62	16153.19	1153.23	16160.23	1153.56	16218.88	1151.88
16243.62	1151.31	6274.61	1151.3	16363.6	1151.49	16393.63	1151.52	16435.51	1151.52
16490.57	1151.81	6564.86	1151.81	16567.24	1151.77	16703.9	1151.52	16710.5	1151.66
16724.61	1151.71	6797.96	1151.77	16899.05	1151.75	16906.7	1152.02	16932.49	1152.13
16942.39	1152.2	16955.5	1152.76	16971.52	1153.25	16982.43	1153.08	16998.31	1153.1
17049.19	1153.11	7072.46	1153.08	17121.46	1152.89	17145.41	1153.03	17192.67	1153.2
17215.62	1153.21	7238.43	1153.03	17247.66	1152.63	17269.82	1153.19	17281.82	1153.38
17364.73	1153.4	17374.5	1153.64	17397.24	1153.36	17437.21	1153.78	17481	1154.3
17525.1	1153.81	7548.55	1153.43	17626.8	1154.29	17747.58	1156.28	17767.79	1154.13
17778.06	1154.21	7792.77	1154.55	17840.7	1154.96	17896.44	1155.19	17915.02	1155.09
17924.66	1154.91	7968.81	1154.31	8001.48	1154.43	18082.98	1154.32	18106.55	1154.56
18117.14	1154.61	8144.52	1155.13	18166.73	1155.06	18183.2	1155.13	18210.02	1155.28
18218.19	1155.21	8251.96	1154.51	18271.92	1154.17	18289.25	1153.69	18309.93	1154.27
18348.27	1153.31	8353.67	1153.17	18492.05	1153.31	18501.57	1153.27	18558.69	1153.22
18604.41	1153.21	8618.27	1152.91	18676.89	1152.15	18726.4	1149.04	18748.84	1147.58
18787.16	1146.91	8832.85	1146.21	18862.62	1152.72	18869.61	1154.01	18945.35	1153.81
18952.13	1152.51	8954.69	1152.24	18985.94	1152.96	19036.14	1153.25	19045.15	1154.09
19057.29	1152.31	9087.96	1150.45	19132.13	1150.49	19162.52	1150.91	19192.54	1151.69
19218.75	1151.21	9232.69	1151.84	19251.32	1151.43	19302.95	1151.56	19341.3	1150.74
19381.97	1149.61	9439.95	1151.67	19450.97	1151.96	19479.57	1151	9490.11	1159.02
19492.12	1158.5	19515.2	1153.56	19531.14	1150.79	19555.44	1133.36	19557.72	1132.21
19576.93	1131.51	9658.15	1128.96	19701.95	1127.69	19712.81	1128.35	19715.3	1128.61
19760.95	1129.31	9803.61	1129.34	19851.53	1129.51	19950.1	1130.61	9973.26	1130.69
20100.83	1130.92	0112.26	1130.99	20141.19	1130.47	20222.72	1129.06	20239.48	1128.75
20265.71	1129.52	0365.39	1132.38	20374.45	1134.07	20381.94	1136.31	20423.81	1148.67
20441.46	1153.62	0453.82	1155.55	20476.74	1158.07	20495.14	1160.26	20503.4	1162.18
20564.01	1175.52	0578.57	1176.65	20595.22	1178.91	20620.06	1178.54	20631.53	1178.69
20644.53	1178.72	0676.97	1173.58	20739.84	1163.12	20756.44	1163.61	20786.35	1163.92
20833.99	1164.9	20861.4	1164.23	20868.64	1164.33	20875.76	1164.24	20907.84	1164.16
20926.94	1165.92	0936.61	1166.42	0963.09	1168.25	20978.69	1174.43	21014.75	1188.53
21036.74	1188.62	1049.33	1188.61	21126.03	1167.39	21141.74	1163.46	21147.25	1162.17
21162.06	1159.52	1169.27	1159.28	21221.77	1159.61	21288.72	1159.11	21296.9	1160.02
21311.98	1162.22	1324.94	1161.83	21345.92	1161.38	21351.63	1158.53	21364.03	1152
21386.28	1152.22	1402.73	1143.16	21406.95	1140.73	21424.81	1142.25	21442.17	1149.28
21451.75	1153.32	1477.29	1153.24	21492.55	1153.12	21565.24	1152.78	21589.18	1151.51
21648.09	1151	21676.81	1150.71	21687.2	1153.03	21691.96	1153.87	21694	1153.58
21705.22	1153.52	1747.92	1152.74	21763.65	1155.18	21768.74	1156.06	21780.97	1157.01

```
21785.19  1157.721799.01 1160.8421849.66  1162.721868.62 1160.9921880.15 1161.95
21897.96  1164.421923.34 1164.5521939.34 1165.0921967.35 1166.1321991.87 1166.37
22036.99  1167.122046.99 1168.0922070.54 1166.3422091.72 1167.65   22094 1167.89
22100.85  1167.622114.57 1167.4822158.49 1166.67 22173.5    116722193.46 1166.44
22234.87  1166.222258.75 1166.4522292.82  1167.3 22320.1 1167.4322329.22 1167.07
 22352.2  1166.422366.09 1167.1422415.22 1167.4722453.69 1167.7722492.16 1168.56
22642.92  1170.222688.53 1170.4822739.89 1170.7622822.87 1170.7622871.73 1170.39
22889.98  1170.722937.42 1171.8823028.91 1173.8123031.57 1173.9123070.19 1175.98
23095.28  1176.523102.86 1176.88 23148.1  1179.423163.39 1179.8523165.07    1180
23188.47  1180.423213.41  1179.723249.54 1179.9323278.98 1180.03 23290.4 1180.18
23363.69  1180.823383.38 1180.4223401.79 1180.0723419.41 1180.2123433.68 1178.29
23452.43  1175.523471.84 1176.6323487.22 1174.6823499.32 1176.0923523.76 1176.96
23530.78    117723580.84 1178.8723599.92 1179.7323610.68 1180.2423668.01  1183.3
23684.49  1183.123737.23 1183.1823753.82 1183.9923771.45 1184.5123788.82 1185.45
23802.17  1184.923805.38 1184.6723809.24 1184.8723813.53 1184.6423851.27 1183.72
23864.52  1183.823891.02 1183.2623892.96 1183.3223897.08  1182.723973.88 1172.66
24039.67  1173.424085.52  1187.324090.47 1189.0824151.58 1190.7824165.54 1191.26
24172.71  1191.424192.87 1191.5924242.54 1192.2624276.93 1192.6124289.34 1195.49
24302.68  1197.9   24332 1197.6224347.55 1198.15

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
 14797.3    .03519490.11    .03520495.14    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19490.1120495.14              510  501.55     490              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 14797.319490.11 1159.0220495.1424347.55 1160.26

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1147.59   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.03   Wt. n-Val.                            0.035
  E.G. Elev (ft)            1149.62   Reach Len. (ft)            510.00     501.55     490.00
  Crit W.S. (ft)            1141.05   Flow Area (sq ft)                   14782.77
  E.G. Slope (ft/ft)       0.001715   Area (sq ft)                65.13   14782.77     185.87
  Q Total (cfs)           169000.00   Flow (cfs)                         169000.00
  Top Width (ft)            1018.38   Top Width (ft)              90.49     884.55      43.33
  Vel Total (ft/s)            11.43   Avg. Vel. (ft/s)                      11.43
  Max Chl Dpth (ft)           19.90   Hydr. Depth (ft)                      16.71
  Conv. Total (cfs)       4080422.3   Conv. (cfs)                        4080422.3
  Length Wtd. (ft)           501.55   Wetted Per. (ft)                     891.71
  Min Ch El (ft)            1127.69   Shear (lb/sq ft)                       1.78
  Alpha                        1.00   Stream Power (lb/ft s)                20.30
  Frctn Loss (ft)              0.87   Cum Volume (acre-ft)      2416.16   12308.30    1274.30
  C & E Loss (ft)              0.01   Cum SA (acres)             196.00     755.68     242.36


Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1147.59   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.03   Wt. n-Val.                            0.035
  E.G. Elev (ft)            1149.62   Reach Len. (ft)            510.00     501.55     490.00
  Crit W.S. (ft)            1141.05   Flow Area (sq ft)                   14782.65
  E.G. Slope (ft/ft)       0.001715   Area (sq ft)                        14782.65
  Q Total (cfs)           169000.00   Flow (cfs)                         169000.00
  Top Width (ft)             884.55   Top Width (ft)                       884.55
  Vel Total (ft/s)            11.43   Avg. Vel. (ft/s)                      11.43
  Max Chl Dpth (ft)           19.90   Hydr. Depth (ft)                      16.71
  Conv. Total (cfs)       4080381.0   Conv. (cfs)                        4080381.0
  Length Wtd. (ft)           501.55   Wetted Per. (ft)                     891.70
  Min Ch El (ft)            1127.69   Shear (lb/sq ft)                       1.78
  Alpha                        1.00   Stream Power (lb/ft s)                20.30
  Frctn Loss (ft)              0.87   Cum Volume (acre-ft)               12309.25       0.32
  C & E Loss (ft)              0.01   Cum SA (acres)                       755.67       0.18


FLOW DISTRIBUTION OUTPUT    Profile #PF#1

  Left Sta      Right Sta        Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                 (ft)     (ft/s)
  19490.11 LB   19557.11        974.21     165.67     26.29       0.58       7.70       5.88
  19557.11      19624.11      12337.54    1105.58     67.11       7.30      16.50      11.16
```

19624.11	19691.12	15068.84	1245.94	67.03	8.92	18.60	12.09
19691.12	19758.12	15614.09	1272.90	67.04	9.24	19.00	12.27
19758.12	19825.12	14614.53	1223.05	67.00	8.65	18.25	11.95
19825.12	19892.12	14228.54	1203.58	67.00	8.42	17.96	11.82
19892.12	19959.12	13319.64	1156.85	67.01	7.88	17.27	11.51
19959.12	20026.13	12818.32	1130.51	67.00	7.58	16.87	11.34
20026.13	20093.13	12674.36	1122.86	67.00	7.50	16.76	11.29
20093.13	20160.13	12883.89	1134.02	67.01	7.62	16.93	11.36
20160.13	20227.13	14312.81	1207.90	67.01	8.47	18.03	11.85
20227.13	20294.13	14513.34	1218.14	67.03	8.59	18.18	11.91
20294.13	20361.14	12100.17	1092.24	67.03	7.16	16.30	11.08
20361.14	20428.14	3539.72	503.53	61.13	2.09	8.53	7.03

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19490.11 LB	19557.11	974.17	165.66	26.29	0.58	7.70	5.88
19557.11	19624.11	12337.53	1105.57	67.11	7.30	16.50	11.16
19624.11	19691.12	15068.85	1245.93	67.03	8.92	18.60	12.09
19691.12	19758.12	15614.10	1272.89	67.04	9.24	19.00	12.27
19758.12	19825.12	14614.54	1223.04	67.00	8.65	18.25	11.95
19825.12	19892.12	14228.54	1203.57	67.00	8.42	17.96	11.82
19892.12	19959.12	13319.63	1156.84	67.01	7.88	17.27	11.51
19959.12	20026.13	12818.31	1130.50	67.00	7.58	16.87	11.34
20026.13	20093.13	12674.35	1122.86	67.00	7.50	16.76	11.29
20093.13	20160.13	12883.88	1134.01	67.01	7.62	16.93	11.36
20160.13	20227.13	14312.81	1207.90	67.01	8.47	18.03	11.85
20227.13	20294.13	14513.34	1218.13	67.03	8.59	18.18	11.91
20294.13	20361.14	12100.17	1092.23	67.03	7.16	16.30	11.08
20361.14	20428.14	3539.78	503.53	61.13	2.09	8.53	7.03

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 220.63

INPUT
Description:
Station Elevation Data num= 293

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14824	1150.31	4870.19	1149.97	14906.61	1150.46	14934.6	1150.27	14996.54	1149.63
15005.4	1149.3	15035.6	1149.72	15073.05	1149.71	15119.49	1149.51	15140.51	1148.65
15164.17	1149.51	5176.48	1149.81	5188.71	1149.76	15222.37	1149.92	15284.22	1149.41
15311.03	1149.71	5339.76	1150.26	15407.72	1149.71	5469.64	1149.48	15540.95	1149.31
15601.47	1148.5	15631.9	1149.31	15681.89	1149.86	15766.94	1149.98	15791.74	1149.81
15882.72	1150.61	5969.23	1150.48	16026.97	1151.37	16037.23	1150.87	16047.44	1150.22
16051.03	1150.21	6077.31	1149.22	16098.49	1151.22	16164.63	1150.5	16172.4	1150.53
16267.84	1150.41	6308.54	1150.71	6383.35	1151.49	16440.92	1151.52	16503.85	1151.17
16547.1	1151.11	6625.17	1151.01	16666.85	1151.61	6686.26	1152.15	16703.27	1151.91
16750.45	1151.51	6831.13	1151.71	6846.42	1151.65	16860.48	1151.37	16872.44	1151.59
16891.43	1151.51	6919.41	1152.14	16929.14	1152.23	17034.57	1152.16	17112.73	1152.31
17151.56	115317	4174.16	1152.47	17213.39	1152.61	7256.25	1152.15	17300.25	1151.98
17312.74	1152.61	7370.38	1154.25	17456.04	1154.23	17496.26	1154.11	17547.83	1153.9
17604.31	1153.81	7688.93	1153.57	17722.82	1153.27	17729.13	1153.5	17744.1	1153.57
17804.7	1154.11	7925.11	1154.32	17981.54	1154.57	18023.62	1154.59	18059.13	1154.52
18113.05	1154.11	8137.88	1154.13	18140.35	1154.19	18159.61	1154.66	18172.45	1154.58
18185.1	1154.31	8215.34	1153.57	18233.36	1153.99	18307.25	1153.15	18360.97	1153.08
18408.08	1153.51	8500.25	1153.05	18520.71	1152.71	8535.53	1152.69	18539.52	1152.17
18551.01	1151.71	8558.74	1151.53	18573.36	1151.01	18611.78	1150.64	18625.8	1150.46
18647.75	1153	18657.7	1153.83	18674.43	1152.77	18723.13	1152.74	18734.97	1152.54
18743.63	1152.31	8780.43	1150.66	18816	1152.11	8843.95	1154.42	18864.43	1154.66
18922.43	1156.41	8936.63	1156.43	18972.93	1153.51	9047.63	1154.08	19180.2	1154.87
19184.81	1154.81	9228.77	1154.53	19245.97	1154.48	19262.55	1154.51	19312.33	1154.65
19339.84	1154.71	9364.44	1154.11	9384.69	1152.64	19429.36	1143.55	19434.17	1143.26
19437.42	114419	487.14	1156.18	19502.33	1159.18	19508.86	1156.13	19533.27	1145.86
19545.56	114719	552.18	1142.25	19562.89	1133.64	19591.04	1132.37	19650.01	1129.14
19773.79	1129.51	9790.22	1129.49	19802.35	1129.25	19912.09	1127.17	19968.5	1127.1
19998.74	1127.32	0051.26	1129.37	20068.85	1129.42	0178.63	1128.86	20268.5	1129.8
20304.69	1130.52	0328.46	1130.71	20359.22	1130.61	20416.92	1138.24	20430.96	1145.24
20440.58	1147.42	0475.73	1155.96	20483.75	1156.09	20494.25	1156.75	20495.83	1156.24
20517.61	1161.22	0571.44	1174.47	20606.77	1174.27	20610.81	1174.13	20641.95	1166.52
20689.44	115520	692.07	1155.08	20726.24	1156.44	20766.82	1157.25	20783.96	1157.5
20815.62	1157.22	0830.99	1157.13	20842.11	1156.87	20875.53	1156.85	20911.76	1160.68

```
20935.56  1160.520937.82 1160.6120985.04 1183.8420990.99 1183.96 21011.6 1182.74
21099.54  1158.421115.04 1154.1821117.51 1154.2621170.33 1155.5921193.48 1158.99
21199.07  1159.921207.28 1159.7521228.86 1158.6121250.98 1150.8821272.44 1151.36
 21291.3  1141.221314.36  1141.121321.72 1145.03 21333.2 1151.5321348.91 1151.86
21376.92  1151.521411.05 1151.4221474.01 1151.0921553.59 1151.1121637.39 1150.79
21722.63  1150.721785.67 1150.7321874.62 1151.9921878.38 1152.0321921.19 1159.69
21948.69  1160.721992.61 1162.1922000.71  1160.522008.81 1158.6122018.63 1159.95
 22032.5  1161.722048.31 1161.6422055.74 1161.93   22094 1163.0822134.12 1164.39
22143.98  1165.122154.38 1163.8722176.46 1161.48 22190.1 1164.8922195.05 1164.95
22228.55  1165.122302.09 1165.7922385.05 1167.1522394.52 1167.2222452.52 1166.41
22520.66  1165.622561.39 1165.1922580.78 1165.3522602.39  1165.622636.28 1164.69
22655.55  1164.422690.77 1163.5122697.75 1163.3822702.64  1162.322753.06 1152.71
 22801.2    115422825.88 1154.6122880.79 1160.43 22884.4 1160.7322888.09 1161.52
   22924  1165.522955.81  1163.922967.88 1163.3822985.75 1163.4523003.91 1166.93
 23020.6  1168.423039.26 1170.1523047.39  1171.7   23059 1174.3223113.46 1183.75
23129.96  1186.623137.87 1187.1623234.39 1195.15 23268.4 1196.11 23278.9 1196.22
23289.67  1196.623300.62 1197.46   23329    119523354.08 1190.0723359.12 1190.93
23364.81  1192.823377.13 1196.3123381.26 1196.9523402.82 1194.9923412.98  1193.6
23418.94  1192.523442.23 1187.8523455.44 1185.93 23473.3 1182.7723480.12 1183.18
23500.09  1183.523511.29 1183.9223528.38 1179.1323531.54 1177.8723542.35 1178.74
23558.13  1179.723564.97 1179.9723576.86  1179.4 23611.1  1177.423628.94  1181.9
 23666.9  1192.123690.06 1192.8823754.42  1196.123759.24 1196.8323774.42  1193.2
23805.81  1186.423842.08 1186.1223884.13 1185.9323889.09 1185.6423923.01 1182.75
23994.76  1183.224012.39 1183.04 24030.1 1180.4624046.96 1185.0124084.61 1190.55
 24101.8    119124136.25 1191.4224170.43 1192.0824211.66 1193.0424220.01 1193.29
24252.23  1192.824282.41 1193.1324299.04 1193.29

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   14824    .03519502.33    .03520494.25    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19502.3320494.25              490  501.08     510              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1482419502.33 1159.1820494.2524299.04 1156.75

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1146.74   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.01   Wt. n-Val.                            0.035
  E.G. Elev (ft)            1148.75   Reach Len. (ft)             490.00    501.08    510.00
  Crit W.S. (ft)            1140.24   Flow Area (sq ft)                   14857.16
  E.G. Slope (ft/ft)       0.001734   Area (sq ft)                 66.47  14857.16    187.02
  Q Total (cfs)           169000.00   Flow (cfs)                         169000.00
  Top Width (ft)             981.94   Top Width (ft)               34.92    903.29     43.72
  Vel Total (ft/s)            11.37   Avg. Vel. (ft/s)                      11.37
  Max Chl Dpth (ft)           19.64   Hydr. Depth (ft)                      16.45
  Conv. Total (cfs)       4057886.5   Conv. (cfs)                        4057886.5
  Length Wtd. (ft)           501.08   Wetted Per. (ft)                     910.50
  Min Ch El (ft)            1127.10   Shear (lb/sq ft)                      1.77
  Alpha                        1.00   Stream Power (lb/ft s)               20.10
  Frctn Loss (ft)              0.88   Cum Volume (acre-ft)       2415.39  12137.66   1272.20
  C & E Loss (ft)              0.00   Cum SA (acres)              195.27    745.39    241.87


Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1146.74   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.01   Wt. n-Val.                            0.035
  E.G. Elev (ft)            1148.75   Reach Len. (ft)             490.00    501.08    510.00
  Crit W.S. (ft)            1140.24   Flow Area (sq ft)                   14857.05
  E.G. Slope (ft/ft)       0.001735   Area (sq ft)                        14857.05
  Q Total (cfs)           169000.00   Flow (cfs)                         169000.00
  Top Width (ft)             903.29   Top Width (ft)                       903.29
  Vel Total (ft/s)            11.38   Avg. Vel. (ft/s)                      11.38
  Max Chl Dpth (ft)           19.64   Hydr. Depth (ft)                      16.45
  Conv. Total (cfs)       4057847.5   Conv. (cfs)                        4057847.5
  Length Wtd. (ft)           501.08   Wetted Per. (ft)                     910.50
  Min Ch El (ft)            1127.10   Shear (lb/sq ft)                      1.77
  Alpha                        1.00   Stream Power (lb/ft s)               20.10
  Frctn Loss (ft)              0.88   Cum Volume (acre-ft)               12138.62      0.32
  C & E Loss (ft)              0.00   Cum SA (acres)                       745.38      0.18
```

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19502.33 LB	19568.46	916.01	186.98	38.81	0.54	5.48	4.90
19568.46	19634.59	10330.29	990.67	66.22	6.11	14.98	10.43
19634.59	19700.71	13323.08	1153.61	66.15	7.88	17.44	11.55
19700.71	19766.84	13213.26	1147.72	66.13	7.82	17.36	11.51
19766.84	19832.97	13416.11	1158.32	66.14	7.94	17.52	11.58
19832.97	19899.10	14955.98	1236.37	66.14	8.85	18.70	12.10
19899.10	19965.23	16143.03	1294.29	66.13	9.55	19.57	12.47
19965.23	20031.35	15601.19	1268.21	66.15	9.23	19.18	12.30
20031.35	20097.48	13396.29	1157.35	66.14	7.93	17.50	11.57
20097.48	20163.61	13579.48	1166.70	66.13	8.04	17.64	11.64
20163.61	20229.74	13607.26	1168.16	66.13	8.05	17.66	11.65
20229.74	20295.87	12699.86	1120.80	66.13	7.51	16.95	11.33
20295.87	20361.99	11687.63	1066.45	66.16	6.92	16.13	10.96
20361.99	20428.12	6109.57	730.27	67.92	3.62	11.04	8.37
20428.12	20494.25 RB	20.96	11.28	10.02	0.01	1.18	1.86

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19502.33 LB	19568.46	916.04	186.98	38.81	0.54	5.48	4.90
19568.46	19634.59	10330.28	990.66	66.22	6.11	14.98	10.43
19634.59	19700.71	13323.08	1153.60	66.15	7.88	17.44	11.55
19700.71	19766.84	13213.26	1147.71	66.13	7.82	17.36	11.51
19766.84	19832.97	13416.11	1158.32	66.14	7.94	17.52	11.58
19832.97	19899.10	14955.99	1236.36	66.14	8.85	18.70	12.10
19899.10	19965.23	16143.04	1294.28	66.13	9.55	19.57	12.47
19965.23	20031.35	15601.20	1268.20	66.15	9.23	19.18	12.30
20031.35	20097.48	13396.29	1157.34	66.14	7.93	17.50	11.58
20097.48	20163.61	13579.49	1166.69	66.13	8.04	17.64	11.64
20163.61	20229.74	13607.26	1168.15	66.13	8.05	17.66	11.65
20229.74	20295.87	12699.86	1120.79	66.13	7.51	16.95	11.33
20295.87	20361.99	11687.62	1066.44	66.16	6.92	16.13	10.96
20361.99	20428.12	6109.53	730.26	67.92	3.62	11.04	8.37
20428.12	20494.25 RB	20.96	11.28	10.02	0.01	1.18	1.86

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 220.54

INPUT
Description:
Station Elevation Data num= 318

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14801.12	1148.114	812.54	1148.07	14917.34	1147.38	14942.26	1146.51	14971.01	1147.44
14987.16	1147.615	014.67	1147.51	5087.52	1147.27	15174.13	1146.91	15179.25	1146.71
15198.73	114	515227.13	1146.94	15255.43	1148.17	15326.06	1148.53	15350.94	1148.42
15371.84	1147.71	5395.39	1147.66	15403.6	1147.58	15438.23	1147.87	15442.3	1149.14
15474.44	114	815485.49	1148.24	15528.24	1149.06	15544.24	1148.76	15568.11	1147.38
15645.6	1147.2	15695.2	1147.44	15712.03	1150.09	15760.49	1149.27	15778.54	1148.93
15796.55	1148.91	5878.15	1149.43	15936.34	1149.46	16036.67	1148.95	16081.24	1148.97
16132.26	1149.4	16138.4	1149.41	6193.74	1149.93	16245.08	1150.16	16287.42	1149.78
16328.17	1149.91	6408.16	1150.19	16436.34	1149.18	16469.09	1150.55	16478.31	1150.91
16494.71	1150.11	6516.71	1150.01	16578.93	1150.06	16592.92	1150.04	16698.21	1150.06
16766.45	1150.81	6795.37	1151.58	16822.36	1151.34	16839.56	1150.86	16850.28	1150.99
16914.07	1151.51	6976.42	1151.49	17033.22	1151.69	17080.06	1151.62	17109.07	1151.67
17180.95	1151.71	7204.63	1151.85	17265.71	1151.93	17282.42	1151.89	17301.8	1151.62
17351.35	1151.81	7381.17	1151.71	17423.14	1151.85	17451.37	1151.55	17471.72	1151.43
17490.39	1151.21	7550.02	1151.43	17577.93	1151.85	17591.81	1152.31	7603.93	1153.05
17616.04	1153.61	7638.31	115	417648.83	1154.09	17661.78	1153.85	17698.43	1153.35
17750.33	1152.91	7802.96	1152.58	17845.63	1152.33	17856.54	1152.76	17871.73	1153.13
17899.64	1153.41	7932.91	1153.42	18011.33	1152.71	18028.57	1152.71	18060.3	1152.8
18070.9	1152.21	8125.61	1152.41	8139.99	1152.37	18143.34	1152.62	18154.39	1153.04
18165.9	1151.81	8176.18	1150.86	18193.98	1152.21	8210.24	1153.28	18363.83	1153.68

```
18515.17  1151.318533.63 1151.1518547.59 1150.9318583.44 1149.8718589.14 1149.66
18591.13  1149.818623.29 1151.3918643.25 1151.8818663.74 1152.2118689.11  1152.2
 18762.5  1153.218764.59 1154.0118797.54 1153.8518841.07 1153.6818888.92 1153.68
18894.16  1154.518906.46 1156.0118923.78 1154.1618930.74 1153.33 18931.5 1153.54
18944.76  1153.718973.23 1154.4819043.11 1154.46 19057.5 1154.41 19086.5 1154.14
19126.25  1154.119221.41 1155.1819262.48  1155.419316.88 1155.9219322.58 1155.97
19351.74    115619373.63 1146.84 19398.6 1135.7119415.07 1133.4519418.42 1133.67
19443.87  1140.8 19492.1 1154.0819508.34  1157.819536.59 1143.1319546.11 1145.24
19563.04  1133.219565.48 1131.5419567.11 1131.5719586.71 1130.7919664.41 1129.89
19726.79  1129.619754.39 1129.2519798.54 1128.6919848.54 1128.0119888.08 1128.08
19987.58  1127.820102.16 1127.3920114.83 1127.3220125.16 1127.3820240.77 1127.91
20326.68  1128.420349.68 1128.48 20357.7 1128.5720425.53 1139.1520428.07 1139.71
20437.09  1143.820447.18 1145.9620460.57 1149.8520481.21 1155.3120491.27  1156.3
 20505.8  1155.520544.78 1163.9720582.75 1163.9320596.25 1163.6320608.52 1160.71
20642.57  1152.3 20672.4 1152.4620684.76 1152.5220753.51 1154.3220766.23  1154.3
20791.41  1154.120805.86  1153.820841.26 1153.7220868.87 1156.8320900.95 1156.86
 20917.6  1158.720924.05 1159.2720934.41  1159.920951.83 1161.3620968.01 1154.61
20989.78  1146.5 21025.2 1145.4321038.38 1147.04   21076 1157.7221110.76 1156.47
21129.93  1151.621132.61 1150.8521158.94 1153.3721176.73 1153.6221197.09  1154.4
21203.78  1150.121217.27 1140.3621245.34 1139.7921262.49 1139.6821275.44 1145.24
 21284.3  1150.721302.26 1150.4721311.98 1150.8221327.71 1151.0821377.48 1150.22
21401.21  1149.8   21454 1149.8521556.04 1149.7321633.17 1149.7321650.47 1149.83
21796.34  1150.221872.57 1150.2121917.66 1149.9321954.45 1149.8721974.64 1154.51
 21994.3  1158.722036.34  1159.522058.49 1155.5322082.22 1159.6522098.66 1158.78
22143.89  1160.722168.86 1159.9122182.01 1159.4222189.91 1159.8422193.83 1159.44
22212.89  1157.9 22227.2 1159.9722231.65 1160.35   22233 1161.4522274.63 1161.04
22292.93  1157.122314.39 1152.5522336.43  1152.722394.74 1152.7222536.32 1152.44
22549.68  1154.122578.44 1156.5522587.09 1157.5922601.62 1158.3222634.03 1160.85
22649.16  1163.222652.36 1164.7622698.86 1170.8822732.02  1178.522750.13 1180.51
22764.69  1183.822786.36 1185.0922801.42 1186.7722807.62 1186.9522821.79  1185.8
22837.43  1182.4 22869.3 1183.02 22895.2 1182.5222904.25 1179.5822933.69 1169.33
 22950.9  1170.822965.88  1173.222982.72 1171.5723029.35 1168.28 23037.9 1169.19
23050.74  1171.323094.46 1178.9623104.35 1180.55 23113.1 1181.4323129.31 1184.41
23158.01  1185.823167.19 1186.1223175.38 1186.0823251.08 1186.5223315.44 1186.17
23330.46  1186.923340.75 1188.0823347.56 1187.9923361.34  1188.323374.98 1185.09
23384.93  1182.523392.12 1183.48 23403.1  1183.123417.07 1183.02 23439.8 1181.66
23467.05  1173.623510.61 1166.0723546.75  1173.923560.99 1175.2423605.58  1179.9
23610.35  1180.223648.59 1176.5123658.04 1177.0623679.04 1179.3723737.48 1184.35
23746.68  1185.423757.51 1186.2123782.27 1187.8323806.71 1188.2923814.08 1187.68
23822.57  1185.6 23836.1 1184.4523839.74 1183.76 23876.7 1183.32 23932.7 1183.22
23939.22  1185.2 23942.1 1185.6123948.18 1186.9323956.29  1188.123973.47 1189.62
23995.43  1189.424030.29 1190.38 24061.1  1191.724079.65 1192.3124092.29 1193.11
24108.39  1192.1 24116.9 1191.9224122.12 1191.1124132.53 1189.8524183.32 1184.77
24208.61  1178.324227.19 1182.9124228.22  1183.1

Manning's n Values          num=        3
      Sta   n Val      Sta   n Val      Sta   n Val
14801.12    .03519508.34    .03520491.27    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19508.3420491.27              470  492.46     510            .1        .3
Ineffective Flow      num=        2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
14801.1219508.34  1157.820491.2724228.22  1156.3

CROSS SECTION OUTPUT     Profile #PF#1

  W.S. Elev (ft)            1145.84   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.03   Wt. n-Val.                            0.035
  E.G. Elev (ft)            1147.86   Reach Len. (ft)            470.00     492.46     510.00
  Crit W.S. (ft)            1139.51   Flow Area (sq ft)                   14796.15
  E.G. Slope (ft/ft)       0.001789   Area (sq ft)               615.92   14796.15     334.79
  Q Total (cfs)           169000.00   Flow (cfs)                          169000.00
  Top Width (ft)            1107.01   Top Width (ft)             108.14     915.24      83.63
  Vel Total (ft/s)            11.42   Avg. Vel. (ft/s)                      11.42
  Max Chl Dpth (ft)           18.52   Hydr. Depth (ft)                      16.17
  Conv. Total (cfs)        3995105.3  Conv. (cfs)                         3995105.3
  Length Wtd. (ft)           492.46   Wetted Per. (ft)                     922.51
  Min Ch El (ft)            1127.32   Shear (lb/sq ft)                       1.79
  Alpha                        1.00   Stream Power (lb/ft s)                20.47
  Frctn Loss (ft)              0.87   Cum Volume (acre-ft)      2411.55   11967.11    1269.15
  C & E Loss (ft)              0.00   Cum SA (acres)             194.46     734.93     241.12


Warning - Divided flow computed for this cross-section.
```

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1145.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.03	Wt. n-Val.		0.035	
E.G. Elev (ft)	1147.86	Reach Len. (ft)	470.00	492.46	510.00
Crit W.S. (ft)	1139.51	Flow Area (sq ft)		14796.04	
E.G. Slope (ft/ft)	0.001789	Area (sq ft)		14796.04	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	915.24	Top Width (ft)		915.24	
Vel Total (ft/s)	11.42	Avg. Vel. (ft/s)		11.42	
Max Chl Dpth (ft)	18.52	Hydr. Depth (ft)		16.17	
Conv. Total (cfs)	3995054.8	Conv. (cfs)		3995054.8	
Length Wtd. (ft)	492.46	Wetted Per. (ft)		922.51	
Min Ch El (ft)	1127.32	Shear (lb/sq ft)		1.79	
Alpha	1.00	Stream Power (lb/ft s)		20.47	
Frctn Loss (ft)	0.87	Cum Volume (acre-ft)		11968.06	0.32
C & E Loss (ft)	0.00	Cum SA (acres)		734.92	0.18

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19508.34 LB	19573.87	1666.67	288.39	47.75	0.99	6.79	5.78
19573.87	19639.40	10700.46	998.93	65.54	6.33	15.24	10.71
19639.40	19704.93	11542.82	1045.33	65.53	6.83	15.95	11.04
19704.93	19770.46	12096.09	1075.12	65.53	7.16	16.41	11.25
19770.46	19835.98	13109.11	1128.28	65.53	7.76	17.22	11.62
19835.98	19901.51	13832.16	1165.20	65.53	8.18	17.78	11.87
19901.51	19967.04	13972.59	1172.27	65.53	8.27	17.89	11.92
19967.04	20032.57	14228.39	1185.09	65.53	8.42	18.09	12.01
20032.57	20098.10	14534.36	1200.33	65.53	8.60	18.32	12.11
20098.10	20163.63	14664.82	1206.78	65.53	8.68	18.42	12.15
20163.63	20229.15	14290.31	1188.18	65.53	8.46	18.13	12.03
20229.15	20294.68	13866.08	1166.91	65.53	8.20	17.81	11.88
20294.68	20360.21	13388.89	1142.86	65.56	7.92	17.44	11.72
20360.21	20425.74	6895.18	771.04	66.32	4.08	11.77	8.94
20425.74	20491.27 RB	212.07	61.43	22.03	0.13	2.94	3.45

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19508.34 LB	19573.87	1666.64	288.39	47.75	0.99	6.79	5.78
19573.87	19639.40	10700.44	998.92	65.54	6.33	15.24	10.71
19639.40	19704.93	11542.81	1045.32	65.53	6.83	15.95	11.04
19704.93	19770.46	12096.09	1075.12	65.53	7.16	16.41	11.25
19770.46	19835.98	13109.11	1128.27	65.53	7.76	17.22	11.62
19835.98	19901.51	13832.17	1165.19	65.53	8.18	17.78	11.87
19901.51	19967.04	13972.60	1172.26	65.53	8.27	17.89	11.92
19967.04	20032.57	14228.40	1185.08	65.53	8.42	18.09	12.01
20032.57	20098.10	14534.38	1200.32	65.53	8.60	18.32	12.11
20098.10	20163.63	14664.84	1206.78	65.53	8.68	18.42	12.15
20163.63	20229.15	14290.33	1188.18	65.53	8.46	18.13	12.03
20229.15	20294.68	13866.09	1166.90	65.53	8.20	17.81	11.88
20294.68	20360.21	13388.90	1142.85	65.56	7.92	17.44	11.72
20360.21	20425.74	6895.15	771.03	66.32	4.08	11.77	8.94
20425.74	20491.27 RB	212.05	61.43	22.03	0.13	2.94	3.45

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 220.45

INPUT
Description:
Station Elevation Data num= 300

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14746.98	1146.214	752.11	1146.161	4851.06	1146.061	4881.09	1144.141	4910.13	1145.7
14925.3	1146.214	999.81	1146.241	5023.75	1146.271	5115.38	1145.811	5137.82	1145.45
15144.01	1145.315	160.69	1145.381	5176.34	1145.681	5184.15	1146.331	5241.95	1146.63
15281.17	1146.915	309.12	1146.71	5343.83	11471	5371.59	1147.271	5386.45	1147.23
15467.17	1146.815	478.24	1147.041	5519.72	1147.261	5566.17	1147.44	15703.9	1148.08
15879.53	1149.315	903.48	1149.441	6002.54	1148.821	6043.15	1148.71	6096.54	1148.58

```
16155.73  1148.316205.69  1148.416292.19 1148.4916344.01 1148.0616355.56 1149.08
 16366.8  1149.516377.57 1150.2516384.06 1149.3116467.03 1150.6416629.45 1154.53
16647.95  1154.4 16654.8 1154.4816671.82 1152.76 16685.8 1149.8216704.38  1150.2
16731.97  1150.516753.89 1149.6616759.47 1149.5416774.45 1150.0116781.12 1150.37
 16822.5  1150.216914.48 1150.3916964.07 1150.2517015.87 1150.1817115.48 1150.27
17187.88  1150.717261.47 1150.67 17330.5 1150.5317389.14 1150.5417454.55 1150.76
 17484.6  1150.717564.97 1150.2817593.47 1150.3217606.17 1150.2717616.31    1150
17625.19  1150.517645.56 1151.2317649.08 1151.2317705.84 1152.0317761.81 1152.59
17778.02  1151.717799.36 1151.1417813.13 1151.0917884.85 1151.54 17965.3 1150.68
18001.45  1150.418020.96 1150.1318030.58 1149.7618070.55 1149.5518080.22 1149.88
18090.73  1150.118108.23 1149.2918115.98 1148.8418187.96 1148.5718459.38 1149.73
18486.51  1149.818492.09 1149.6618519.46 1148.9918529.99 1150.0518545.81 1150.22
18609.17  1148.218628.58 1148.6118662.47  1151.718721.65 1156.1918808.58 1156.99
18824.67  1156.718860.42 1155.8618934.66 1154.0418956.18 1153.3718972.54 1154.24
18977.64  1154.918986.44 1154.3919001.14 1153.6219022.53  1154.219085.01  1153.2
19149.05  1152.419204.31 1151.8819229.04 1153.6719242.84  1154.819261.71 1156.74
19263.03  1156.919275.24 1157.38 19303.4    115819310.63 1156.9519326.37 1154.84
19333.35  1154.419355.52 1153.5919361.74 1154.7619392.06 1140.4819416.73 1129.63
19490.61  1151.619495.17 1152.9419510.69 1154.9219520.68 1151.3319544.52 1143.35
19553.74  1145.619572.14 1129.7819665.24  1130.6 19786.7 1126.5519856.98 1127.38
19925.41  1128.220052.36 1125.95   20178 1126.88 20308.6 1125.4320337.05 1126.91
20359.69  1128.1 20418.9 1136.7720433.54 1138.95 20442.6 1142.9720452.11 1145.04
20459.98    114720486.73 1153.9820501.85  1152.220505.69 1151.8420508.94 1152.23
20520.58  1154.920536.79 1154.8820579.49 1153.9820596.08 1152.7320626.31 1153.04
20638.92    115320676.95 1152.0420712.89 1150.9420732.98 1151.7420744.81  1151.6
20771.95  1151.720800.57 1150.8220804.59 1150.6620830.42 1153.22   20875 1152.73
 20887.8  1152.8 20896.5 1150.8620922.93 1145.5220938.03 1144.7720957.31 1143.67
20981.34  1145.2 21015.1  1155.521034.51 1153.2821041.76 1152.6621066.29 1144.28
21135.83    114421154.19 1144.24 21225.1 1144.7721232.85 1146.0921249.91 1149.32
21275.87  1149.621280.71 1149.5421284.16 1148.1521300.98 1140.5821329.25 1140.09
 21345.2  1140.121351.19 1143.0121365.21 1149.0121385.23 1148.6221389.35 1148.63
21391.53  1148.321406.85 1147.2221414.28 1147.4621430.38 1147.5121459.89 1147.66
21501.59  1148.421669.43 1148.6921698.08 1148.7121706.27 1148.7621828.84 1149.75
21966.13  1148.821975.32 1148.8421988.33 1149.16 22026.1 1156.0122047.67 1158.88
22052.31  1158.922066.78 1157.4622089.29 1162.0122094.55 1163.0222102.22 1160.22
22108.11  1160.522126.83 1162.3522134.31 1162.3122140.23 1162.1422171.87 1161.82
22185.25  1161.822223.04 1161.0622229.65 1160.8922241.59 1158.9322247.22 1158.16
22263.02  1155.722277.72 1160.44   22295 1158.7122312.49 1164.6222323.46 1167.71
22326.51  1168.422334.35 1169.15 22354.2 1171.2822358.34 1170.9122366.27 1170.67
22389.93  1162.722426.46 1165.3522447.68 1166.6122460.42  1164.922478.36 1161.88
22493.23  1158.822548.65 1168.96 22557.7 1170.7722571.15 1171.6722589.76  1171.8
 22608.2  1171.822632.49 1165.5422655.97 1165.2122666.17 1165.2122706.69 1158.21
22733.65  1159.722770.59 1156.4322796.01 1159.7722799.92 1160.1522833.84 1160.25
 22864.9  1161.2 22880.6 1162.6722890.85  1164.422917.15 1165.0522930.23 1166.18
 22940.6  1166.122971.53 1172.2822986.71 1172.4923002.29 1172.9423015.56 1171.39
23034.78  1168.723058.87 1169.2223069.85 1169.3623104.84 1169.6223151.57 1170.04
23174.83  1169.823201.95 1169.7423205.45 1168.8823214.31 1167.4123241.36 1161.69
 23247.9  1164.623269.96 1170.2123283.36 1169.65   23293 1169.8223295.79 1169.72
23312.61  1169.923326.72 1172.2923338.48 1174.1123365.04 1174.7823374.67 1175.28
23401.49  1178.323428.88 1181.8923450.92 1183.1123467.59 1185.44 23529.2 1187.78
23533.18  1187.7 23583.4 1181.3623609.86 1183.1123613.57 1183.2923632.88 1182.66
23672.89  1182.4 23712.1 1182.3223727.43 1181.9423751.66 1181.0823776.53 1180.43
23781.57  1180.223801.96 1180.4923855.26 1180.9723873.06 1182.9523882.04 1182.85
23890.47  1182.2 23941.5 1180.4824011.76 1178.4824062.88  1178.924078.81 1178.99

Manning's n Values         num=        3
      Sta   n Val     Sta   n Val     Sta   n Val
14746.98    .03519510.69    .03520486.73    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19510.6920486.73              500  506.77     520              .1       .3
Ineffective Flow     num=        2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
14746.9819510.69 1154.9220486.7324078.81 1153.98

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)          1144.97   Element                    Left OB    Channel   Right OB
  Vel Head (ft)              2.01   Wt. n-Val.                            0.035
  E.G. Elev (ft)          1146.99   Reach Len. (ft)            500.00     506.77     520.00
  Crit W.S. (ft)          1138.52   Flow Area (sq ft)                   14836.82
  E.G. Slope (ft/ft)     0.001759   Area (sq ft)               673.78   14836.82     391.17
  Q Total (cfs)         169000.00   Flow (cfs)                         169000.00
  Top Width (ft)          1293.58   Top Width (ft)             114.33     908.83     270.42
  Vel Total (ft/s)          11.39   Avg. Vel. (ft/s)                      11.39
  Max Chl Dpth (ft)         19.54   Hydr. Depth (ft)                      16.33
```

Conv. Total (cfs)	4029584.3	Conv. (cfs)		4029584.3	
Length Wtd. (ft)	506.77	Wetted Per. (ft)		916.96	
Min Ch El (ft)	1125.43	Shear (lb/sq ft)		1.78	
Alpha	1.00	Stream Power (lb/ft s)		20.24	
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)	2404.59	11799.60	1264.90
C & E Loss (ft)	0.05	Cum SA (acres)	193.26	724.62	239.05

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1144.97	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.01	Wt. n-Val.		0.035	
E.G. Elev (ft)	1146.99	Reach Len. (ft)	500.00	506.77	520.00
Crit W.S. (ft)	1138.52	Flow Area (sq ft)		14836.82	
E.G. Slope (ft/ft)	0.001759	Area (sq ft)		14836.82	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	908.83	Top Width (ft)		908.83	
Vel Total (ft/s)	11.39	Avg. Vel. (ft/s)		11.39	
Max Chl Dpth (ft)	19.54	Hydr. Depth (ft)		16.33	
Conv. Total (cfs)	4029583.5	Conv. (cfs)		4029583.5	
Length Wtd. (ft)	506.77	Wetted Per. (ft)		916.96	
Min Ch El (ft)	1125.43	Shear (lb/sq ft)		1.78	
Alpha	1.00	Stream Power (lb/ft s)		20.24	
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)		11800.56	0.32
C & E Loss (ft)	0.05	Cum SA (acres)		724.61	0.18

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19510.69 LB	19575.76	1014.63	198.50	38.88	0.60	6.05	5.11
19575.76	19640.83	10091.56	967.86	65.07	5.97	14.87	10.43
19640.83	19705.90	10047.15	965.43	65.09	5.95	14.84	10.41
19705.90	19770.97	12373.79	1094.03	65.10	7.32	16.81	11.31
19770.97	19836.04	14045.31	1180.28	65.08	8.31	18.14	11.90
19836.04	19901.11	13172.92	1135.67	65.07	7.79	17.45	11.60
19901.11	19966.18	12673.83	1109.69	65.08	7.50	17.05	11.42
19966.18	20031.24	13959.49	1175.92	65.08	8.26	18.07	11.87
20031.24	20096.31	14979.70	1226.73	65.07	8.86	18.85	12.21
20096.31	20161.38	14459.51	1200.95	65.07	8.56	18.46	12.04
20161.38	20226.45	14267.11	1191.37	65.07	8.44	18.31	11.98
20226.45	20291.52	15164.81	1235.78	65.07	8.97	18.99	12.27
20291.52	20356.59	14632.14	1210.03	65.14	8.66	18.60	12.09
20356.59	20421.66	7556.95	816.97	65.73	4.47	12.56	9.25
20421.66	20486.73 RB	561.11	127.63	31.34	0.33	4.23	4.40

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19510.69 LB	19575.76	1014.63	198.50	38.88	0.60	6.05	5.11
19575.76	19640.83	10091.56	967.86	65.07	5.97	14.87	10.43
19640.83	19705.90	10047.15	965.43	65.09	5.95	14.84	10.41
19705.90	19770.97	12373.79	1094.03	65.10	7.32	16.81	11.31
19770.97	19836.04	14045.31	1180.28	65.08	8.31	18.14	11.90
19836.04	19901.11	13172.92	1135.67	65.07	7.79	17.45	11.60
19901.11	19966.18	12673.83	1109.69	65.08	7.50	17.05	11.42
19966.18	20031.24	13959.49	1175.92	65.08	8.26	18.07	11.87
20031.24	20096.31	14979.70	1226.73	65.07	8.86	18.85	12.21
20096.31	20161.38	14459.51	1200.95	65.07	8.56	18.46	12.04
20161.38	20226.45	14267.11	1191.37	65.07	8.44	18.31	11.98
20226.45	20291.52	15164.81	1235.78	65.07	8.97	18.99	12.27
20291.52	20356.59	14632.14	1210.03	65.14	8.66	18.60	12.09
20356.59	20421.66	7556.95	816.97	65.73	4.47	12.56	9.25
20421.66	20486.73 RB	561.11	127.63	31.34	0.33	4.23	4.40

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 220.35

INPUT
Description:
Station Elevation Data num= 282

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14725.39	1145.514	734.14	1145.47	14749.59	1144.96	14753.94	1145.18	14770.5	1144.77
14783.72	1144.614	795.36	1144.65	14804.37	1144.86	14823.99	1144.88	14829.06	1145.62
14835.67	1145.614	923.33	1146.68	14966.39	1146.48	15039.52	1144.92	15045.24	1145.66
15049.3	1145.415	062.11	1143.81	15082.92	1144.63	15099.12	1144.93	15101.95	1145.22
15117.01	1145.315	160.07	1146.38	15194.51	1145.68	15220.11	1146.58	15232.48	1147.61
15296.52	1147.915	307.85	1148.16	15314.28	1147.78	15336.75	1146.06	15367.99	1146.25
15380.22	1146.615	393.86	1146.71	15413.12	1147.56	15440.83	1147	15456.8	1146.91
15523.42	1146.915	540.82	1146.81	15642.16	1148.26	15661.09	1148.15	15833.01	1148.5
15861.97	1148.515	964.59	1148.29	16035.38	1148.94	16050.56	1148.78	16104.11	1147.66
16136.13	1146.716	148.11	1146.78	16172.71	1148.11	16238.71	1147.11	16270.89	1146.98
16286.77	1146.816	359.94	1147.92	16384.15	1146.65	16386.33	1146.61	16400.88	1146.88
16413.24	1147.316	428.09	1148.89	16462.01	1149.01	16531.58	1147.92	16596.51	1149.25
16636.45	1149.316	648.83	1148.01	16654.62	1147.92	16676.35	1148.07	16697.82	1148.6
16721.43	1149.416	751.94	1149.35	16845.03	1149.61	16937.24	1149.04	16966	1148.95
16985.73	1148.717	000.91	1148.64	17010.69	1148.76	17021.47	1148.78	17049.3	1150.14
17054.03	1150.317	064.58	1150.36	17143.42	1150.37	17240.43	1150.21	17273.08	1150.21
17281.85	115	017305.82	1149.49	17311.15	1149.61	17331.18	1149.71	17358.67	1150.37
17459.87	115	017469.16	1149.98	17595.87	1150.09	17634.61	1150.01	17716.87	1150.04
17758.47	115	017893.22	1148.82	17925.8	1148.53	17948.2	1148.85	17992.64	1147.73
18001.09	1148.418	006.03	1148.57	18044.3	1147.65	18078.29	1147.21	18112.96	1147.66
18176.17	1147.818	180.45	1147.91	8266.54	1148.71	8279.26	1148.73	18359.82	1148.08
18394.67	1147.718	462.46	1146.66	18497.19	1146.24	18505.15	1145.95	18558.58	1146.42
18561.93	1146.518	574.15	1145.89	18595.21	1146.52	18611.09	1146.71	18633.45	1146.7
18642.24	1147.418	655.46	1146.77	18672.4	1144.13	18674.03	1143.14	18695.73	1143.25
18701.34	1143.418	727.85	1146.68	18745.64	1149.85	18777.23	1154.18	18821.24	1153.45
18871.15	1153.118	908.75	1152.91	8933.78	1152.31	8959.08	1151.78	18968.95	1152.17
18989.29	1152.319	036.39	1152.82	19038.88	1152.96	19060.44	1153.52	19080.83	1154.35
19090.67	1152.719	128.69	1153.01	19148.78	1152.98	19202.42	1153.73	19280.2	1153.64
19308.46	1156.219	353.13	1154.11	9365.17	1153.43	19392.88	1154.11	9395.59	1153.96
19400.85	1151.119	432.33	113	319500.71	1151.37	19502.69	1151.82	19519.66	1156.41
19539	1146.619	549.07	1141.97	19557.01	1144.42	19564.03	1141.72	19603.77	1127.37
19631.86	1127.419	687.85	1127.18	19723.5	1126.71	9825.47	1126.68	19862.39	1126.52
19883.63	1126.319	989.51	1124.35	20081.1	1126.42	0115.32	1127.13	20127.17	1126.67
20175.73	1125.820	246.04	1123.99	20276.03	1124.85	20290.12	1125.32	0372.13	1127.3
20426.97	113	020449.72	1141.49	20458.5	1143.77	20477.29	1147.73	20496.54	1151.9
20511.6	115	020518.58	1149.22	20530.19	1149.95	20547.5	1151.15	20575.07	1150.27
20578.53	1150.420	588.29	1151.29	20610.78	1150.92	20640.86	1150.55	20660.11	1150.35
20675.24	1149.720	706.15	1147.94	20728.63	1148.98	20731.37	1149.64	20735.97	1149.28
20740.15	1149.220	789.02	1148.11	20809.2	1148.18	20846.38	1150.59	20864.44	1151.29
20872.47	1151.620	873.77	1151.34	20912.02	1145.62	20928.49	1145.14	20966.28	1143.83
20978.93	1143.820	990.28	1143.47	21008.25	1148.15	21024.38	1152.29	21058.78	1151.06
21066.86	1148.221	075.46	1144.24	21155.96	1144.04	21229.4	1143.88	21316.03	1143.34
21317.74	1144.121	331.92	1148.75	21359.64	1149.11	21360.18	1148.63	21373.89	1139.71
21393.03	1139.1	21415.4	1138.92	21429.42	1143.57	21439.44	1147.28	21455.6	1147.16
21462.13	114	721473.03	1146.38	21482.38	1145.75	21499.16	1145.16	21579.66	1145.51
21791.94	1147.221	856.09	1147.32	1869.98	1147.39	21943.36	1147.49	21995.53	1147.19
22028.65	1147.122	031.46	1149.1	22070.6	1152.48	22088.35	1151.62	22103.06	1146.47
22110.94	1143.922	119.14	1148.61	22129.17	1155.66	22158.73	1155.28	22205.83	1154.86
22246.47	1161.822	259.44	1164.16	22279.81	1167.24	22295.82	1166.59	22298.17	1166.8
22321.53	1168.122	331.99	1168.55	22364.86	1167.86	22419.41	1167.48	22478.6	1167.24
22491.1	1167.122	538.98	1166.33	22594.96	1166.61	22606.99	1166.52	22640.11	1166.05
22667.95	1165.422	685.57	1166.12	22706.79	1167.22	2735.69	1165.75	22764.9	1163.86
22804.35	1162.422	865.92	1157.04	22891.83	1157.29	22902.1	1157.06	22941.33	1156.81
22981.98	1166.723	006.53	1173.76	23009.37	1172.41	23011.72	1171.79	23017.67	1172.14
23044.31	1173.1	23056.5	1172.55	23110.78	1172.98	23119.28	1173.12	23122.8	1173.01
23172.06	1172.223	191.68	1172.52	23195.02	1172.36	23209.6	1170.94	23219.89	1172.82
23223.55	1173.223	263.08	1166.54						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
14725.39	.035	19519.66	.035	20496.54	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19519.66	20496.54	490	500.81	520	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14725.39	19519.66	1156.41	20496.54	23263.08	1151.9

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1144.24	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.86	Wt. n-Val.		0.035	
E.G. Elev (ft)	1146.10	Reach Len. (ft)	490.00	500.81	520.00
Crit W.S. (ft)	1137.09	Flow Area (sq ft)		15436.37	
E.G. Slope (ft/ft)	0.001554	Area (sq ft)	380.15	15436.37	369.24
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1375.54	Top Width (ft)	112.37	915.59	347.58
Vel Total (ft/s)	10.95	Avg. Vel. (ft/s)		10.95	
Max Chl Dpth (ft)	20.25	Hydr. Depth (ft)		16.86	
Conv. Total (cfs)	4286780.5	Conv. (cfs)		4286780.5	
Length Wtd. (ft)	500.81	Wetted Per. (ft)		922.69	
Min Ch El (ft)	1123.99	Shear (lb/sq ft)		1.62	
Alpha	1.00	Stream Power (lb/ft s)		17.77	
Frctn Loss (ft)	0.86	Cum Volume (acre-ft)	2398.54	11623.51	1260.36
C & E Loss (ft)	0.02	Cum SA (acres)	191.96	714.01	235.36

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1144.24	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.86	Wt. n-Val.		0.035	
E.G. Elev (ft)	1146.10	Reach Len. (ft)	490.00	500.81	520.00
Crit W.S. (ft)	1137.09	Flow Area (sq ft)		15436.25	
E.G. Slope (ft/ft)	0.001554	Area (sq ft)		15436.25	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	915.58	Top Width (ft)		915.58	
Vel Total (ft/s)	10.95	Avg. Vel. (ft/s)		10.95	
Max Chl Dpth (ft)	20.25	Hydr. Depth (ft)		16.86	
Conv. Total (cfs)	4286746.5	Conv. (cfs)		4286746.5	
Length Wtd. (ft)	500.81	Wetted Per. (ft)		922.69	
Min Ch El (ft)	1123.99	Shear (lb/sq ft)		1.62	
Alpha	1.00	Stream Power (lb/ft s)		17.77	
Frctn Loss (ft)	0.86	Cum Volume (acre-ft)		11624.46	0.32
C & E Loss (ft)	0.02	Cum SA (acres)		714.00	0.18

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19519.66 LB	19584.79	580.57	152.43	42.25	0.34	3.85	3.81
19584.79	19649.91	10439.58	1033.48	66.32	6.18	15.87	10.10
19649.91	19715.04	11963.74	1113.39	65.13	7.08	17.10	10.75
19715.04	19780.16	12487.31	1142.38	65.13	7.39	17.54	10.93
19780.16	19845.29	12525.59	1144.46	65.13	7.41	17.57	10.94
19845.29	19910.41	12965.10	1168.43	65.13	7.67	17.94	11.10
19910.41	19975.54	14309.76	1239.74	65.14	8.47	19.04	11.54
19975.54	20040.66	14788.15	1264.47	65.14	8.75	19.42	11.70
20040.66	20105.79	13064.10	1173.84	65.14	7.73	18.02	11.13
20105.79	20170.91	12724.53	1155.46	65.14	7.53	17.74	11.01
20170.91	20236.04	14462.33	1247.72	65.15	8.56	19.16	11.59
20236.04	20301.16	14964.67	1273.61	65.15	8.85	19.56	11.75
20301.16	20366.29	12889.29	1164.42	65.14	7.63	17.88	11.07
20366.29	20431.41	10155.30	1012.83	65.73	6.01	15.55	10.03
20431.41	20496.54 RB	680.00	149.73	31.87	0.40	5.10	4.54

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19519.66 LB	19584.79	580.58	152.42	42.25	0.34	3.85	3.81
19584.79	19649.91	10439.56	1033.47	66.32	6.18	15.87	10.10
19649.91	19715.04	11963.73	1113.38	65.13	7.08	17.10	10.75
19715.04	19780.16	12487.31	1142.37	65.13	7.39	17.54	10.93
19780.16	19845.29	12525.59	1144.45	65.13	7.41	17.57	10.94
19845.29	19910.41	12965.09	1168.42	65.13	7.67	17.94	11.10
19910.41	19975.54	14309.77	1239.73	65.14	8.47	19.04	11.54

19975.54	20040.66	14788.16	1264.46	65.14	8.75	19.42	11.70
20040.66	20105.79	13064.10	1173.84	65.14	7.73	18.02	11.13
20105.79	20170.91	12724.53	1155.45	65.14	7.53	17.74	11.01
20170.91	20236.04	14462.33	1247.72	65.15	8.56	19.16	11.59
20236.04	20301.16	14964.68	1273.60	65.15	8.85	19.56	11.75
20301.16	20366.29	12889.29	1164.41	65.14	7.63	17.88	11.07
20366.29	20431.41	10155.28	1012.82	65.73	6.01	15.55	10.03
20431.41	20496.54 RB	680.00	149.73	31.87	0.40	5.10	4.54

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 220.25

INPUT
Description:
Station Elevation Data num= 349

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14669.3	1141.2	14696	1141.4	14716.46	1141.8	14734.89	1140.2	14738.34	1140
14768.15	1141.6	14812.37	1141.57	14838.8	1141.98	14890.22	1142.54	14893.45	1142.47
14952.96	1141.9	14990.54	1141.84	15014.65	1141.27	15045.5	1141.81	15053.65	1141.8
15146.97	1141.5	15157.23	1141.78	15244.56	1144.04	15266.24	1144	15326.43	1145.26
15385.32	1145.5	15516.41	1144.47	15540.47	1144.35	15579.56	1145.66	15680.58	1144.02
15706.7	1143.6	15726.55	1143.59	15754.97	1145.08	15769.83	1145.79	15806.78	1145.19
15847.95	1144.8	15908.04	1146.06	15939.34	1146.54	15962.83	1146.19	15972.94	1145.65
15986.85	1145.3	16000.95	1145.12	16024.19	1145.64	16105.28	1146.18	16115.42	1146.22
16230.86	1148	16244.42	1147.27	16258.68	1146.6	16266.61	1146.32	16293.47	1146.09
16301.66	1146.1	16383.22	1146.72	16414.9	1146.72	16482.81	1147.23	16504.83	1147.38
16572.16	1147.3	16578.56	1146.95	16609.46	1146.19	16633.03	1146.98	16649.47	1147.34
16683.41	1147.6	16741.32	1147.91	16756.58	1147.76	16770.63	1147.55	16808.89	1147.46
16851.53	1147.9	16901.19	1148.2	16920.3	1147.67	16939.23	1147.32	16953.12	1147.51
16967.88	1147.9	16989.95	1147.73	17061.99	1148.65	17131.84	1148.85	17184.33	1148.44
17227.94	1148.5	17239.04	1148.39	17265.97	1149.68	17292	1147.85	17303.04	1148.05
17309.99	1148.7	17320.73	1148.48	17366.68	1149.69	17373.41	1149.83	17389.09	1149.83
17504.52	1149.7	17533.74	1148.09	17546.98	1147.46	17587.64	1147.77	17659.68	1148.62
17759.26	1148.1	17829.13	1147.44	17834.45	1147.4	17847.61	1146.59	17850.37	1146.8
17860.97	1146.2	17879.42	1146.04	17912.16	1145.86	17921.91	1145.94	17941.62	1146.82
17978.97	1146.7	18099.37	1145.69	18178.51	1145.8	18227.54	1145.46	18292.64	1145.2
18360.29	1144.4	18416.44	1142.63	18447.34	1143.24	18474.49	1144.51	18542.66	1145.67
18546.53	1145.8	18577.13	1147.42	18602.8	1148.65	18619.79	1147.89	18649.25	1147.01
18663.27	1146.8	18687.94	1145.93	18750.86	1146.48	18782.2	1147.01	18849.61	1148.48
18902.85	1149.5	18980.06	1149.7	18987.95	1150.06	19004.24	1149.56	19011.28	1149.54
19087.34	1151.9	19090.48	1151.93	19116.5	1151.97	19124.55	1151.04	19130.34	1150.2
19136.83	1150.8	19146.03	1152.04	19162.08	1151.79	19184.38	1151.37	19206.42	1149.61
19218	1148.3	19242.91	1147.73	19260.28	1147.37	19277.78	1146.6	19296.05	1145.93
19315.11	1148.3	19336.56	1151.3	19384.06	1151.85	19403.77	1151.97	19432.88	1151.94
19442.06	1151.6	19447	1147.99	19457.65	1140.9	19488.89	1147.45	19507.63	1151.32
19522.87	1153.5	19554.33	1141.08	19559.11	1142.3	19561.79	1142.76	19577.69	1136.68
19600.27	1127.1	19613.8	1127.06	19660.05	1126.55	19717.39	1125.99	19739.56	1126.02
19798.63	1126.8	19898.04	1124.57	19925.47	1124.01	19948.27	1124.37	20038.98	1126.03
20051.01	1126.2	20181.25	1124.15	20280.79	1127.5	20309.66	1128.59	20371.33	1129.09
20431.79	1129.7	20446.94	1136.33	20454.8	1139.62	20497.24	1150.31	20498.94	1150.8
20540.34	1145.8	20550	1146.62	20568.14	1147.9	20569.31	1148.14	20569.71	1149.34
20592.92	1148.8	20615.52	1148.57	20619.54	1149.05	20637.93	1149.76	20641.95	1149.18
20651.88	1149.3	20653.82	1148.88	20662.5	1149.85	20690.24	1147.95	20704.98	1147.45
20728.18	1147.4	20749.28	1147.14	20765.93	1149.29	20797.28	1149.1	20812	1148.78
20834.04	1147.3	20847.92	1146.9	20861.76	1147.1	20865.13	1146.46	20867.65	1146.92
20905.04	1152.1	20905.07	1153.14	20907.01	1154.11	20925.14	1154.01	20942.62	1153.22
20957.29	1149.5	20973.44	1145.2	20977.87	1146.61	20993.54	1145.95	21027.21	1144.25
21036.39	1143.9	21082.58	1143.71	21083.18	1145.31	21084.35	1145.06	21107.03	1150.4
21112.26	1151.5	21115.86	1151.52	21117.26	1152.57	21125.17	1149.51	21134.03	1149.45
21148.61	1149.9	21148.7	1150.66	21156.06	1144.26	21157.4	1143.32	21171.27	1144.61
21173.46	1144.1	21197.06	1143.4	21201.63	1142.89	21219.1	1142.81	21272.36	1142.43
21272.7	1143	21303.18	1142.46	21324.66	1142.4	21372.84	1143.31	21390.94	1143.96
21395.65	1143.8	21402.53	1145.51	21413.78	1148.64	21416.07	1150.17	21438.9	1150.43
21442.05	1149	21444.91	1144.69	21449.4	1138.83	21459.3	1140.66	21484.71	1140.34
21496.57	1140.1	21500.37	1138.96	21509.3	1143.17	21515	1145.99	21516.27	1146.41
21546.73	1147.8	21548.94	1145.99	21550.77	1145.87	21558.28	1146.9	21558.63	1146.08
21583.57	1147.6	21585.59	1147.63	21600.87	1147.86	21609.33	1146.65	21625.89	1145.94
21667.88	1145.6	21692.76	1145.5	21702.11	1146.17	21712.99	1147.58	21755.73	1146.47
21773.13	1145.8	21804.28	1146.57	21809.78	1146.82	21824.28	1146.55	21830.5	1146.34
21838.18	1146.4	21853.31	1147.62	21862.39	1148.2	21878.77	1148.57	21886.99	1147.25
21892.55	1146.9	21912.24	1146.83	21949.06	1146.88	21955.72	1147.1	21992.39	1148.08
21993.27	1147.6	22003.04	1147.13	22013.87	1147.64	22020.58	1148.74	22023.8	1151.5
22024.87	1151.9	22029.37	1150.56	22030.61	1149.95	22030.9	1147.68	22032.04	1148.3

22032.09	1151.922033.36	1151.0522035.83	1147.6122045.88	1147.6522054.82	1147.85
22058.73	1148.1 22068.2	1147.8722076.26	1147.4422083.29	1151.88 22088.5	1152.85
22095	1153.722102.18	1152.4722111.71	1147.84 22113.2	1147.2722117.92	1149.93
22123.62	1153.522130.31	1157.38 22135.7	1154.4822157.41	1155.91 22163.5	1154.36
22180.59	1149.122181.12	1148.0622186.75	1150.0122199.13	1153.6922201.91	1154.62
22205.97	1155.622211.34	1155.3222231.42	1153.9522233.49	1154.2422248.76	1154.93
22294.99	1152.7 22358.5	1153.4722364.22	1153.5322412.11	1154.8322415.49	1155.76
22415.89	1156.822419.27	1155.9522429.54	1155.0922450.54	1157.8922483.44	1163.47
22508.73	1163.122514.12	1162.8622521.49	1163.24 22541.1	1163.8922546.09	1164.17
22553.57	1165.122559.79	116622607.78	1166.6422685.95	1168.0322694.88	1168.1
22712.45	1167.922738.54	1167.6422764.84	1166.4922775.76	1163.4422783.83	1165.1
22785.1	1165.522819.35	1165.8922846.71	1163.9122860.22	1164.0522888.52	1161.7
22898.03	1162.322908.01	1162.0322927.09	1162.6822936.67	1162.76	

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
14669.3	.03519522.87		.03520498.94		.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19522.8720498.94		500	500.83	490	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14669.319522.87		1153.520498.9422936.67			1150.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1143.14	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.09	Wt. n-Val.		0.035	
E.G. Elev (ft)	1145.23	Reach Len. (ft)	500.00	500.83	490.00
Crit W.S. (ft)	1137.06	Flow Area (sq ft)		14576.74	
E.G. Slope (ft/ft)	0.001890	Area (sq ft)	770.84	14576.74	249.90
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1743.60	Top Width (ft)	596.42	919.66	227.52
Vel Total (ft/s)	11.59	Avg. Vel. (ft/s)		11.59	
Max Chl Dpth (ft)	19.13	Hydr. Depth (ft)		15.85	
Conv. Total (cfs)	3887181.3	Conv. (cfs)		3887181.3	
Length Wtd. (ft)	500.83	Wetted Per. (ft)		925.95	
Min Ch El (ft)	1124.01	Shear (lb/sq ft)		1.86	
Alpha	1.00	Stream Power (lb/ft s)		21.54	
Frctn Loss (ft)	1.05	Cum Volume (acre-ft)	2392.07	11450.98	1256.66
C & E Loss (ft)	0.03	Cum SA (acres)	187.98	703.46	231.93

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1143.14	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.09	Wt. n-Val.		0.035	
E.G. Elev (ft)	1145.23	Reach Len. (ft)	500.00	500.83	490.00
Crit W.S. (ft)	1137.06	Flow Area (sq ft)		14576.63	
E.G. Slope (ft/ft)	0.001890	Area (sq ft)		14576.63	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	919.65	Top Width (ft)		919.65	
Vel Total (ft/s)	11.59	Avg. Vel. (ft/s)		11.59	
Max Chl Dpth (ft)	19.13	Hydr. Depth (ft)		15.85	
Conv. Total (cfs)	3887143.0	Conv. (cfs)		3887143.0	
Length Wtd. (ft)	500.83	Wetted Per. (ft)		925.95	
Min Ch El (ft)	1124.01	Shear (lb/sq ft)		1.86	
Alpha	1.00	Stream Power (lb/ft s)		21.54	
Frctn Loss (ft)	1.05	Cum Volume (acre-ft)		11451.93	0.32
C & E Loss (ft)	0.03	Cum SA (acres)		703.45	0.18

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19522.87 LB	19587.94	679.97	156.80	41.42	0.40	4.04	4.34

19587.94	19653.01	11314.12	1021.74	66.14	6.69	15.70	11.07
19653.01	19718.08	12848.73	1095.65	65.08	7.60	16.84	11.73
19718.08	19783.15	12967.35	1101.70	65.07	7.67	16.93	11.77
19783.15	19848.23	12783.56	1092.39	65.09	7.56	16.79	11.70
19848.23	19913.30	14596.02	1182.84	65.09	8.64	18.18	12.34
19913.30	19978.37	15369.33	1220.03	65.08	9.09	18.75	12.60
19978.37	20043.44	13862.35	1146.76	65.08	8.20	17.62	12.09
20043.44	20108.51	13500.23	1128.69	65.08	7.99	17.35	11.96
20108.51	20173.58	14836.58	1194.44	65.08	8.78	18.36	12.42
20173.58	20238.65	14529.49	1179.75	65.11	8.60	18.13	12.32
20238.65	20303.72	11729.69	1037.58	65.11	6.94	15.95	11.30
20303.72	20368.80	9833.41	933.23	65.08	5.82	14.34	10.54
20368.80	20433.87	9129.22	893.55	65.26	5.40	13.73	10.22
20433.87	20498.94 RB	1019.95	191.58	37.20	0.60	5.49	5.32

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19522.87 LB	19587.94	679.97	156.80	41.42	0.40	4.04	4.34
19587.94	19653.01	11314.11	1021.73	66.14	6.69	15.70	11.07
19653.01	19718.08	12848.73	1095.65	65.08	7.60	16.84	11.73
19718.08	19783.15	12967.35	1101.70	65.07	7.67	16.93	11.77
19783.15	19848.23	12783.55	1092.38	65.09	7.56	16.79	11.70
19848.23	19913.30	14596.03	1182.83	65.09	8.64	18.18	12.34
19913.30	19978.37	15369.35	1220.02	65.08	9.09	18.75	12.60
19978.37	20043.44	13862.36	1146.76	65.08	8.20	17.62	12.09
20043.44	20108.51	13500.23	1128.68	65.08	7.99	17.35	11.96
20108.51	20173.58	14836.60	1194.44	65.08	8.78	18.36	12.42
20173.58	20238.65	14529.50	1179.74	65.11	8.60	18.13	12.32
20238.65	20303.72	11729.68	1037.58	65.11	6.94	15.95	11.30
20303.72	20368.80	9833.39	933.22	65.08	5.82	14.34	10.54
20368.80	20433.87	9129.19	893.54	65.26	5.40	13.73	10.22
20433.87	20498.94 RB	1019.96	191.57	37.20	0.60	5.49	5.32

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 220.16

INPUT
Description:
Station Elevation Data num= 259

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14558.26	1140.1	14601.34	1139.88	14620.29	1139.89	14648.79	1141.51	14664.25	1140.61
14699.34	1141.6	14718.01	1141.59	14790.33	1141.59	14818.53	1141.86	14895.67	1142.18
15034.84	1143.9	15053.17	1143.67	15096.39	1143.07	15111.3	1142.95	15132.96	1142.95
15169.64	1143.4	15197.82	1143.9	15251.91	1143.9	15289.9	1145.84	15300.92	1146.51
15495.98	1143.6	15524.65	1143.33	15535.19	1143.51	15572.76	1144.26	15589.11	1144.43
15614.98	1144.5	15687.06	1145.09	15734.3	1145.41	15803.62	1144.76	15859.66	1144.21
15868.89	1144	15893.57	1144.05	15934.43	1145.12	15967.5	1145.13	15993.08	1145.16
16008.42	1145	16039.76	1144.54	16055.43	1144.95	16152.98	1145.98	16156.28	1146.02
16187.56	1145	16196.71	1144.99	16210.32	1145.41	16216.18	1145.43	16233.87	1145
16271.52	1145.1	16327.67	1145.42	16366.09	1145.96	16374.17	1146.13	16417.1	1146.31
16484.92	1146.4	16497.32	1146.59	16513.78	1146.68	16539.16	1145.37	16560.28	1145.35
16577.35	1145.4	16668.97	1146.28	16689.1	1145.34	16700.4	1144.95	16728.75	1145.08
16832.02	1147.6	16837	1147.63	16858.13	1146.39	16867.63	1146.61	16879.67	1146.67
16908.91	1146.3	17022.46	1147.49	17149.3	1147.82	17167.69	1146.39	17175.6	1146.74
17193.26	1148.3	17217.1	1148.31	17227.91	1148.15	17242.49	1147.81	17354.23	1148.45
17382.23	1148.5	17409.55	1147.81	17425.59	1147.5	17568.1	1145.11	17649.12	1144.43
17682.1	1144	17710.46	1144.26	17771.01	1145.21	17778.25	1145.31	17792.86	1145.15
17804.62	1145.2	17817.29	1145.1	17852.1	1144.98	17869.04	1144.88	17987.97	1145.36
18006.3	1145.7	18056.03	1146.18	18068.08	1145.93	18098.69	1146.56	18107.36	1146.63
18142.42	1145.7	18202.88	1144.16	18218.04	1144.52	18233.08	1145.35	18252.18	1145.25
18278.9	1145.3	18290.75	1145.45	18340.71	1145.96	18372.38	1145.71	18379.92	1145.53
18409.63	1146.3	18413.87	1146.29	18430.47	1145.18	18457.38	1145.05	18514.13	1144.57
18547.44	1145	18575.72	1145.16	18655.55	1145.41	18750.49	1145.44	18839.08	1144.51

```
 18847.3  1144.318925.78 1141.8419006.31 1143.6819012.55 1143.7919121.56 1145.48
19156.79    114519203.49 1146.0219209.43 1146.3419219.89 1146.3819234.21 1146.33
19241.65  1147.119268.87 1147.9919272.29 1147.9719289.79 1150.2519300.47 1154.06
19315.85  1159.119322.74 1156.4619341.28 1149.8619361.08 1149.4319367.81 1149.26
19378.01  1149.519399.76 1149.5319414.12 1149.7719415.39  1149.719451.58 1138.81
 19454.2  1137.919501.23 1151.1519510.31 1154.0819515.25  1152.719522.24 1151.84
   19532  1151.219539.77 1147.8819547.51  1145.919556.05 1144.17 19561.2 1141.76
19575.95  1134.219608.44 1130.73   19637 1126.5319664.14    112619716.23 1126.18
19735.51  1126.219805.41 1126.3419854.78 1126.2319862.41 1126.2419977.89 1125.59
   19988  1125.620055.71 1125.5720098.15 1125.8920118.29 1125.4620225.13 1126.19
20246.76  1126.320256.27 1126.1120377.74 1124.5820386.58 1125.4320451.67    1132
20465.75  1138.520490.53 1148.3420493.76 1149.9420502.77 1150.2120505.34 1151.16
20515.14  1151.320526.39  1151.220530.89 1151.2520537.96    115120557.56 1150.15
 20577.7  1150.1 20612.4 1148.9920650.93 1150.9220676.41 1152.4220699.12 1147.44
20720.21  1143.7 20762.3 1144.7220828.37 1145.5220830.49 1145.6420878.51 1145.14
20899.15    114520915.75  1144.320933.85 1142.5120938.75 1142.3520943.08 1141.87
20946.54    1143 20949.2 1143.0520955.72 1146.9220979.74 1153.8221012.55 1164.51
21027.23  1164.521059.64 1164.5821097.75 1151.75 21122.9  1143.621126.93 1143.42
21131.64  1141.121138.96 1141.4821158.51 1134.1421211.22 1134.05 21230.9 1140.88
21249.19  1141.7 21275.9 1150.2321278.43 1150.9921287.42    115121297.37 1149.81
21321.46  1148.5 21328.5 1143.8621330.79  1142.521351.03 1141.66 21363.9 1141.47
21393.58  1141.921405.26 1141.3121438.19 1141.29 21452.4 1141.3521473.13 1141.81
21484.79  1145.4 21494.9 1148.1921509.25 1148.8521523.37 1149.9721530.92 1145.09
21541.36  1138.521588.15 1139.0721600.99 1144.8421630.49 1145.3621652.18 1145.66
21693.37  1145.921699.87 1145.9421757.41  1147.221786.74  1147.821819.64 1148.51
21823.23  1148.421876.31 1147.9821940.69 1150.4721968.32 1151.6621985.13 1153.34
21989.98  1154.122011.31 1154.5622029.38 1154.7822035.21  1152.322042.51 1148.88
22067.57  1152.922071.58 1152.8822102.57 1153.0922111.37 1153.5522128.28 1154.08
 22141.3  1159.122153.18 1163.8722186.69 1177.0722190.01 1177.08

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
14558.26    .03519510.31    .03520515.14    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19510.3120515.14              480  495.84     550             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
14558.2619510.31 1154.0820515.1422190.01  1151.3

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)          1141.74   Element                  Left OB    Channel   Right OB
  Vel Head (ft)              2.40   Wt. n-Val.                           0.035
  E.G. Elev (ft)          1144.14   Reach Len. (ft)           480.00    495.84    550.00
  Crit W.S. (ft)          1136.90   Flow Area (sq ft)                 13591.57
  E.G. Slope (ft/ft)     0.002357   Area (sq ft)              237.01  13591.57    760.95
  Q Total (cfs)         169000.00   Flow (cfs)                       169000.00
  Top Width (ft)          1469.89   Top Width (ft)            273.72    912.67    283.50
  Vel Total (ft/s)          12.43   Avg. Vel. (ft/s)                    12.43
  Max Chl Dpth (ft)         17.16   Hydr. Depth (ft)                    14.89
  Conv. Total (cfs)     3480660.3   Conv. (cfs)                      3480660.3
  Length Wtd. (ft)         495.84   Wetted Per. (ft)                   917.43
  Min Ch El (ft)          1124.58   Shear (lb/sq ft)                     2.18
  Alpha                      1.00   Stream Power (lb/ft s)              27.11
  Frctn Loss (ft)            1.11   Cum Volume (acre-ft)     2386.28  11289.04   1250.98
  C & E Loss (ft)            0.04   Cum SA (acres)            182.98    692.93    229.05


Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water
surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)          1141.74   Element                  Left OB    Channel   Right OB
  Vel Head (ft)              2.40   Wt. n-Val.                           0.035
  E.G. Elev (ft)          1144.14   Reach Len. (ft)           480.00    495.84    550.00
  Crit W.S. (ft)          1136.90   Flow Area (sq ft)                 13591.23
  E.G. Slope (ft/ft)     0.002358   Area (sq ft)                      13591.23
  Q Total (cfs)         169000.00   Flow (cfs)                       169000.00
  Top Width (ft)           912.67   Top Width (ft)                     912.67
  Vel Total (ft/s)          12.43   Avg. Vel. (ft/s)                    12.43
  Max Chl Dpth (ft)         17.16   Hydr. Depth (ft)                    14.89
```

Conv. Total (cfs)	3480520.8	Conv. (cfs)	3480520.8	
Length Wtd. (ft)	495.84	Wetted Per. (ft)	917.43	
Min Ch El (ft)	1124.58	Shear (lb/sq ft)	2.18	
Alpha	1.00	Stream Power (lb/ft s)	27.11	
Frctn Loss (ft)	1.11	Cum Volume (acre-ft)	11290.00	0.32
C & E Loss (ft)	0.04	Cum SA (acres)	692.91	0.18

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19510.31 LB	19577.30	316.35	65.73	17.89	0.19	4.09	4.81
19577.30	19644.29	8005.23	776.86	67.47	4.74	11.60	10.30
19644.29	19711.28	13221.02	1046.74	66.99	7.82	15.63	12.63
19711.28	19778.27	13069.83	1039.50	66.99	7.73	15.52	12.57
19778.27	19845.25	12957.38	1034.13	66.99	7.67	15.44	12.53
19845.25	19912.24	13192.32	1045.34	66.99	7.81	15.60	12.62
19912.24	19979.23	13709.33	1069.73	66.99	8.11	15.97	12.82
19979.23	20046.22	13972.54	1082.01	66.99	8.27	16.15	12.91
20046.22	20113.21	13799.96	1073.99	66.99	8.17	16.03	12.85
20113.21	20180.20	13869.04	1077.20	66.99	8.21	16.08	12.88
20180.20	20247.19	13234.18	1047.33	66.99	7.83	15.63	12.64
20247.19	20314.17	13657.10	1067.32	66.99	8.08	15.93	12.80
20314.17	20381.16	14874.65	1123.54	67.01	8.80	16.77	13.24
20381.16	20448.15	10295.35	902.65	67.33	6.09	13.47	11.41
20448.15	20515.14 RB	825.74	139.48	27.82	0.49	5.42	5.92

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19510.31 LB	19577.30	316.33	65.73	17.89	0.19	4.09	4.81
19577.30	19644.29	8005.13	776.83	67.47	4.74	11.60	10.30
19644.29	19711.28	13221.03	1046.71	66.99	7.82	15.62	12.63
19711.28	19778.27	13069.83	1039.48	66.99	7.73	15.52	12.57
19778.27	19845.25	12957.39	1034.10	66.99	7.67	15.44	12.53
19845.25	19912.24	13192.33	1045.32	66.99	7.81	15.60	12.62
19912.24	19979.23	13709.35	1069.71	66.99	8.11	15.97	12.82
19979.23	20046.22	13972.57	1081.99	66.99	8.27	16.15	12.91
20046.22	20113.21	13799.98	1073.97	66.99	8.17	16.03	12.85
20113.21	20180.20	13869.07	1077.18	66.99	8.21	16.08	12.88
20180.20	20247.19	13234.19	1047.31	66.99	7.83	15.63	12.64
20247.19	20314.17	13657.12	1067.30	66.99	8.08	15.93	12.80
20314.17	20381.16	14874.70	1123.52	67.01	8.80	16.77	13.24
20381.16	20448.15	10295.29	902.63	67.33	6.09	13.47	11.41
20448.15	20515.14 RB	825.68	139.47	27.82	0.49	5.42	5.92

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 220.06

INPUT
Description: Upstream face of Preist Rd Bridge
Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18820	1144	19040	1148	19210	1152	19541.7	1156.02	19541.8	1149.07
19541.9	1148.5	19555.9	1148.27	19568.6	1138.69	19576.6	1137.91	19594.4	1126.86
19652.1	1126.1	19661.1	1124.14	19665.1	1124.14	19728.4	1122.9	19781.5	1123.99
19785.5	1123.99	19844.6	1123.1	19903	1123.46	19963	1123	20023.2	1123.05
20101.5	1123.6	20105.9	1125.63	20146.2	1126.4	20204.1	1126.31	20267.2	1126.5
20327.5	1126.27	20388.2	1126.3	20452.8	1126.86	20488.2	1148.53	20494.5	1148.52
20504.7	1148.55	20504.8	1158.3	20504.9	1165.2	21100	1180		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18820	.035	19541.8	.035	20504.8	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19541.8	20504.8	176.4	176.4	176.4	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18820	19541.8	1149.07	20504.8	21100	1158.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1140.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.27	Wt. n-Val.		0.035	
E.G. Elev (ft)	1142.99	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1135.39	Flow Area (sq ft)		13992.86	
E.G. Slope (ft/ft)	0.002141	Area (sq ft)		13992.86	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	909.54	Top Width (ft)		909.54	
Vel Total (ft/s)	12.08	Avg. Vel. (ft/s)		12.08	
Max Chl Dpth (ft)	17.82	Hydr. Depth (ft)		15.38	
Conv. Total (cfs)	3652051.8	Conv. (cfs)		3652051.8	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		918.02	
Min Ch El (ft)	1122.90	Shear (lb/sq ft)		2.04	
Alpha	1.00	Stream Power (lb/ft s)		24.61	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	2384.98	11132.05	1246.18
C & E Loss (ft)	0.02	Cum SA (acres)	181.47	682.55	227.26

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1140.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.27	Wt. n-Val.		0.035	
E.G. Elev (ft)	1142.99	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1135.39	Flow Area (sq ft)		13992.42	
E.G. Slope (ft/ft)	0.002142	Area (sq ft)		13992.42	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	909.53	Top Width (ft)		909.53	
Vel Total (ft/s)	12.08	Avg. Vel. (ft/s)		12.08	
Max Chl Dpth (ft)	17.82	Hydr. Depth (ft)		15.38	
Conv. Total (cfs)	3651871.5	Conv. (cfs)		3651871.5	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		918.01	
Min Ch El (ft)	1122.90	Shear (lb/sq ft)		2.04	
Alpha	1.00	Stream Power (lb/ft s)		24.61	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)		11133.01	0.32
C & E Loss (ft)	0.02	Cum SA (acres)		682.54	0.18

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19541.80 LB	19606.00	2468.86	332.18	43.96	1.46	8.29	7.43
19606.00	19670.20	11059.21	951.64	64.42	6.54	14.82	11.62
19670.20	19734.40	14336.62	1110.58	64.21	8.48	17.30	12.91
19734.40	19798.60	14072.00	1098.25	64.21	8.33	17.11	12.81
19798.60	19862.80	14418.49	1114.34	64.20	8.53	17.36	12.94
19862.80	19927.00	14441.34	1115.37	64.20	8.55	17.37	12.95
19927.00	19991.20	14811.49	1132.45	64.20	8.76	17.64	13.08
19991.20	20055.40	14786.44	1131.28	64.20	8.75	17.62	13.07
20055.40	20119.60	13467.71	1072.61	64.65	7.97	16.71	12.56
20119.60	20183.80	10614.98	927.29	64.20	6.28	14.44	11.45
20183.80	20248.00	10514.51	921.99	64.20	6.22	14.36	11.40
20248.00	20312.20	10428.34	917.46	64.20	6.17	14.29	11.37
20312.20	20376.40	10605.04	926.74	64.20	6.28	14.44	11.44
20376.40	20440.60	10362.98	914.01	64.20	6.13	14.24	11.34
20440.60	20504.80 RB	2612.00	326.68	38.75	1.55	9.38	8.00

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19541.80 LB	19606.00	2468.83	332.16	43.96	1.46	8.29	7.43
19606.00	19670.20	11059.16	951.61	64.42	6.54	14.82	11.62

19670.20	19734.40	14336.67	1110.55	64.21	8.48	17.30	12.91
19734.40	19798.60	14072.04	1098.21	64.21	8.33	17.11	12.81
19798.60	19862.80	14418.55	1114.31	64.20	8.53	17.36	12.94
19862.80	19927.00	14441.40	1115.34	64.20	8.55	17.37	12.95
19927.00	19991.20	14811.56	1132.41	64.20	8.76	17.64	13.08
19991.20	20055.40	14786.50	1131.25	64.20	8.75	17.62	13.07
20055.40	20119.60	13467.74	1072.58	64.65	7.97	16.71	12.56
20119.60	20183.80	10614.92	927.26	64.20	6.28	14.44	11.45
20183.80	20248.00	10514.44	921.95	64.20	6.22	14.36	11.40
20248.00	20312.20	10428.27	917.43	64.20	6.17	14.29	11.37
20312.20	20376.40	10604.99	926.71	64.20	6.28	14.43	11.44
20376.40	20440.60	10362.91	913.98	64.20	6.13	14.24	11.34
20440.60	20504.80 RB	2612.00	326.66	38.75	1.55	9.38	8.00

BRIDGE RIVER: Salt River
REACH: Reach 4 RS: 220.05

INPUT
Description: Priest Road
Distance from Upstream XS = 0
Deck/Roadway Width = 105
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 13

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
18820	1144	1144	19040	1148	1148	19210	1152	1152
19541.7	1156.02	1156.02	19541.7	1156.02	1149.07	19661.1	1157.26	1150.31
19781.5	1158.44	1151.49	19903	1159.65	1152.7	20023.2	1160.89	1153.94
20142.2	1162.1	1155.11	20263.2	1163.32	1156.37	20384.2	1164.33	1157.4
20504.7	1165.2	1158.25						

Upstream Bridge Cross Section Data
Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18820	1144	19040	1148	19210	1152	19541.7	1156.02	19541.8	1149.07
19541.9	1148.5	19555.9	1148.27	19568.6	1138.69	19576.6	1137.91	19594.4	1126.86
19652.1	1126.1	19661.1	1124.14	19665.1	1124.14	19728.4	1122.9	19781.5	1123.99
19785.5	1123.99	19844.6	1123.1	19903	1123.46	19963	1123	20023.2	1123.05
20101.5	1123.6	20105.9	1125.63	20146.2	1126.4	20204.1	1126.31	20267.2	1126.5
20327.5	1126.27	20388.2	1126.3	20452.8	1126.86	20488.2	1148.53	20494.5	1148.52
20504.7	1148.55	20504.8	1158.3	20504.9	1165.2	21100	1180		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18820	.035	19541.8	.035	20504.8	.035

Bank Sta: Left	Right	Coeff Contr.	Expan.
19541.8	20504.8	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18820	19541.8	1149.07	20504.8	21100	1158.3

Downstream Deck/Roadway Coordinates
num= 13

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
18820	1144	1144	19040	1148	1148	19210	1152	1152
19541.7	1156.02	1156.02	19541.7	1156.02	1149.07	19661.1	1157.26	1150.31
19781.5	1158.44	1151.49	19903	1159.65	1152.7	20023.2	1160.89	1153.94
20142.2	1162.1	1155.11	20263.2	1163.32	1156.37	20384.2	1164.33	1157.4
20504.7	1165.2	1158.25						

Downstream Bridge Cross Section Data
Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18820	1144	19040	1148	19210	1152	19541.7	1156.02	19541.8	1149.07
19541.9	1148.5	19555.9	1148.27	19568.6	1138.69	19576.6	1137.91	19594.4	1126.86
19652.1	1126.1	19661.1	1124.14	19665.1	1124.14	19728.4	1122.9	19781.5	1123.99
19785.5	1123.99	19844.6	1123.1	19903	1123.46	19963	1123	20023.2	1123.05
20101.5	1123.6	20105.9	1125.63	20146.2	1126.4	20204.1	1126.31	20267.2	1126.5
20327.5	1126.27	20388.2	1126.3	20452.8	1126.86	20488.2	1148.53	20494.5	1148.52
20504.7	1148.55	20504.8	1158.3	20504.9	1165.2	21100	1180		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val

```
   18820    .035 19541.8    .035 20504.8    .035

 Bank Sta: Left   Right    Coeff Contr.   Expan.
       19541.8 20504.8             .1       .3
 Ineffective Flow     num=       2
    Sta L   Sta R    Elev   Sta L   Sta R    Elev
    18820 19541.8 1149.07 20504.8   21100  1158.3

 Upstream Embankment side slope              =         horiz. to 1.0 vertical
 Downstream Embankment side slope            =         horiz. to 1.0 vertical
 Maximum allowable submergence for weir flow =     .95
 Elevation at which weir flow begins         =
 Energy head used in spillway design         =
 Spillway height used in design              =
 Weir crest shape                            = Broad Crested

 Number of Piers =  7

 Pier Data
 Pier Station     Upstream= 19663.1    Downstream= 19663.1
 Upstream     num=       2
    Width   Elev    Width   Elev
       4    1123       4    1151
 Downstream     num=       2
    Width   Elev    Width   Elev
       4    1123       4    1151

 Pier Data
 Pier Station     Upstream= 19783.5    Downstream= 19783.5
 Upstream     num=       2
    Width   Elev    Width   Elev
       4    1123       4    1152
 Downstream     num=       2
    Width   Elev    Width   Elev
       4    1123       4    1152

 Pier Data
 Pier Station     Upstream=   19905    Downstream=   19905
 Upstream     num=       2
    Width   Elev    Width   Elev
       4    1123       4    1153
 Downstream     num=       2
    Width   Elev    Width   Elev
       4    1123       4    1153

 Pier Data
 Pier Station     Upstream= 20025.2    Downstream= 20025.2
 Upstream     num=       2
    Width   Elev    Width   Elev
       4    1123       4    1154
 Downstream     num=       2
    Width   Elev    Width   Elev
       4    1123       4    1154

 Pier Data
 Pier Station     Upstream= 20144.2    Downstream= 20144.2
 Upstream     num=       2
    Width   Elev    Width   Elev
       4    1126       4    1156
 Downstream     num=       2
    Width   Elev    Width   Elev
       4    1126       4    1156

 Pier Data
 Pier Station     Upstream= 20265.2    Downstream= 20265.2
 Upstream     num=       2
    Width   Elev    Width   Elev
       4    1126       4    1157
 Downstream     num=       2
    Width   Elev    Width   Elev
       4    1126       4    1157

 Pier Data
 Pier Station     Upstream= 20386.2    Downstream= 20386.2
 Upstream     num=       2
    Width   Elev    Width   Elev
```

```
      4    1126       4    1158
Downstream      num=        2
    Width   Elev    Width   Elev
      4    1126       4    1158

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
      Energy
      Momentum                Cd   =     1.2
      Yarnell                 KVal =    1.05
Selected Low Flow Methods = Energy

High Flow Method
      Energy Only

Additional Bridge Parameters
      Add Friction component to Momentum
      Do not add Weight component to Momentum
      Class B flow critical depth computations use critical depth
          inside the bridge at the downstream end
      Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT    Profile #PF#1
Opening : Bridge #1

  E.G. US. (ft)                 1142.99   Element                  Inside BR US  Inside BR DS
  W.S. US. (ft)                 1140.72   E.G. Elev (ft)               1142.96       1142.58
  Q Total (cfs)               169000.00   W.S. Elev (ft)               1140.46       1139.87
  Q Bridge (cfs)              169000.00   Crit W.S. (ft)               1135.63       1135.62
  Q Weir (cfs)                            Max Chl Dpth (ft)              17.56         16.97
  Weir Sta Lft (ft)                       Vel Total (ft/s)               12.69         13.20
  Weir Sta Rgt (ft)                       Flow Area (sq ft)           13320.24      12799.20
  Weir Submerg                            Froude # Chl                    0.57          0.61
  Weir Max Depth (ft)                     Specif Force (cu ft)       170784.95     165762.31
  Min Top Rd (ft)               1148.55   Hydr Depth (ft)                15.12         14.56
  Min El Prs (ft)               1158.25   W.P. Total (ft)              1107.99       1097.59
  Delta EG (ft)                    0.67   Conv. Total (cfs)          2967717.3     2794297.5
  Delta WS (ft)                    0.99   Top Width (ft)               880.77        879.02
  BR Open Area (sq ft)         25521.96   Frctn Loss (ft)                0.36          0.22
  BR Open Vel (ft/s)              13.20   C & E Loss (ft)                0.02          0.04
  Coef of Q                               Shear Total (lb/sq ft)         2.43          2.66
  Br Sel Mthd               Energy only   Power Total (lb/ft s)         30.88         35.16


BRIDGE OUTPUT    Profile #PF#2
Opening : Bridge #1

  E.G. US. (ft)                 1142.99   Element                  Inside BR US  Inside BR DS
  W.S. US. (ft)                 1140.72   E.G. Elev (ft)               1142.96       1142.58
  Q Total (cfs)               169000.00   W.S. Elev (ft)               1140.46       1139.87
  Q Bridge (cfs)              169000.00   Crit W.S. (ft)               1135.63       1135.62
  Q Weir (cfs)                            Max Chl Dpth (ft)              17.56         16.97
  Weir Sta Lft (ft)                       Vel Total (ft/s)               12.69         13.20
  Weir Sta Rgt (ft)                       Flow Area (sq ft)           13318.76      12799.09
  Weir Submerg                            Froude # Chl                    0.57          0.61
  Weir Max Depth (ft)                     Specif Force (cu ft)       170777.64     165761.33
  Min Top Rd (ft)               1156.28   Hydr Depth (ft)                15.15         14.56
  Min El Prs (ft)               1158.25   W.P. Total (ft)              1105.86       1097.58
  Delta EG (ft)                    0.67   Conv. Total (cfs)          2970977.5     2794269.3
  Delta WS (ft)                    0.99   Top Width (ft)               879.02        879.02
  BR Open Area (sq ft)         25097.55   Frctn Loss (ft)                0.36          0.22
  BR Open Vel (ft/s)              13.20   C & E Loss (ft)                0.02          0.04
  Coef of Q                               Shear Total (lb/sq ft)         2.43          2.66
  Br Sel Mthd               Energy only   Power Total (lb/ft s)         30.87         35.16


CROSS SECTION          RIVER: Salt River
REACH: Reach 4            RS: 220.03

INPUT
Description: Downstream face of Preist Rd Bridge
Station Elevation Data    num=      34
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   18820    1144   19040    1148   19210    1152 19541.7 1156.02 19541.8 1149.07
 19541.9  1148.5 19555.9 1148.27 19568.6 1138.69 19576.6 1137.91 19594.4 1126.86
```

19652.1	1126.1	19661.1	1124.14	19665.1	1124.14	19728.4	1122.9	19781.5	1123.99
19785.5	1123.99	19844.6	1123.1	19903	1123.46	19963	1123	20023.2	1123.05
20101.5	1123.6	20105.9	1125.63	20146.2	1126.4	20204.1	1126.31	20267.2	1126.5
20327.5	1126.27	20388.2	1126.3	20452.8	1126.86	20488.2	1148.53	20494.5	1148.52
20504.7	1148.55	20504.8	1158.3	20504.9	1165.2	21100	1180		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18820	.035	19541.8	.035	20504.8	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19541.8	20504.8	840	799.9	720	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18820	19541.8	1149.07	20504.8	21100	1158.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1139.74	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.59	Wt. n-Val.		0.035	
E.G. Elev (ft)	1142.32	Reach Len. (ft)	840.00	799.90	720.00
Crit W.S. (ft)	1135.39	Flow Area (sq ft)		13097.09	
E.G. Slope (ft/ft)	0.002656	Area (sq ft)		13097.09	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	906.62	Top Width (ft)		906.62	
Vel Total (ft/s)	12.90	Avg. Vel. (ft/s)		12.90	
Max Chl Dpth (ft)	16.84	Hydr. Depth (ft)		14.45	
Conv. Total (cfs)	3279183.3	Conv. (cfs)		3279183.3	
Length Wtd. (ft)	799.90	Wetted Per. (ft)		914.49	
Min Ch El (ft)	1122.90	Shear (lb/sq ft)		2.37	
Alpha	1.00	Stream Power (lb/ft s)		30.64	
Frctn Loss (ft)	2.20	Cum Volume (acre-ft)	2384.98	11079.34	1246.18
C & E Loss (ft)	0.01	Cum SA (acres)	181.47	678.97	227.26

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1139.73	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.59	Wt. n-Val.		0.035	
E.G. Elev (ft)	1142.32	Reach Len. (ft)	840.00	799.90	720.00
Crit W.S. (ft)	1135.39	Flow Area (sq ft)		13096.98	
E.G. Slope (ft/ft)	0.002656	Area (sq ft)		13096.98	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	906.62	Top Width (ft)		906.62	
Vel Total (ft/s)	12.90	Avg. Vel. (ft/s)		12.90	
Max Chl Dpth (ft)	16.83	Hydr. Depth (ft)		14.45	
Conv. Total (cfs)	3279137.8	Conv. (cfs)		3279137.8	
Length Wtd. (ft)	799.90	Wetted Per. (ft)		914.49	
Min Ch El (ft)	1122.90	Shear (lb/sq ft)		2.37	
Alpha	1.00	Stream Power (lb/ft s)		30.64	
Frctn Loss (ft)	2.20	Cum Volume (acre-ft)		11080.31	0.32
C & E Loss (ft)	0.01	Cum SA (acres)		678.96	0.18

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19541.80 LB	19606.00	2290.53	293.28	42.32	1.36	7.56	7.81
19606.00	19670.20	10976.93	888.31	64.42	6.50	13.84	12.36
19670.20	19734.40	14472.81	1047.26	64.21	8.56	16.31	13.82
19734.40	19798.60	14189.55	1034.92	64.21	8.40	16.12	13.71
19798.60	19862.80	14560.40	1051.01	64.20	8.62	16.37	13.85
19862.80	19927.00	14584.83	1052.04	64.20	8.63	16.39	13.86
19927.00	19991.20	14981.25	1069.11	64.20	8.86	16.65	14.01
19991.20	20055.40	14954.44	1067.95	64.20	8.85	16.63	14.00
20055.40	20119.60	13547.13	1009.28	64.65	8.02	15.72	13.42
20119.60	20183.80	10503.19	863.96	64.20	6.21	13.46	12.16
20183.80	20248.00	10396.46	858.66	64.20	6.15	13.37	12.11
20248.00	20312.20	10304.97	854.13	64.20	6.10	13.30	12.06

20312.20	20376.40	10492.60	863.41	64.20	6.21	13.45	12.15
20376.40	20440.60	10235.61	850.68	64.20	6.06	13.25	12.03
20440.60	20504.80 RB	2509.30	293.11	36.86	1.48	8.82	8.56

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19541.80 LB	19606.00	2290.49	293.27	42.33	1.36	7.56	7.81
19606.00	19670.20	10976.92	888.30	64.42	6.50	13.84	12.36
19670.20	19734.40	14472.83	1047.25	64.21	8.56	16.31	13.82
19734.40	19798.60	14189.57	1034.91	64.21	8.40	16.12	13.71
19798.60	19862.80	14560.42	1051.00	64.20	8.62	16.37	13.85
19862.80	19927.00	14584.85	1052.03	64.20	8.63	16.39	13.86
19927.00	19991.20	14981.28	1069.11	64.20	8.86	16.65	14.01
19991.20	20055.40	14954.46	1067.94	64.20	8.85	16.63	14.00
20055.40	20119.60	13547.14	1009.27	64.65	8.02	15.72	13.42
20119.60	20183.80	10503.17	863.95	64.20	6.21	13.46	12.16
20183.80	20248.00	10396.45	858.65	64.20	6.15	13.37	12.11
20248.00	20312.20	10304.95	854.12	64.20	6.10	13.30	12.07
20312.20	20376.40	10492.58	863.40	64.20	6.21	13.45	12.15
20376.40	20440.60	10235.59	850.67	64.20	6.06	13.25	12.03
20440.60	20504.80 RB	2509.30	293.10	36.86	1.48	8.82	8.56

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 219.88

INPUT
Description:
Station Elevation Data num= 261

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14514.07	1139	14534.1	1138.85	14545.54	1138.98	14568.07	1140.1	14616.5	1140.32
14716.7	1141	14745.12	1140.86	14840.33	1140.22	14862.85	1139.85	14909.77	1139.33
14931.77	1140.71	4961.51	1141.91	4973.84	1141.54	14992.46	1141.19	15030.45	1141.06
15047.06	1140.91	5059.77	1141.35	15078.45	1141.79	15107.01	1139.96	15123.4	1140.12
15199.13	1140.21	5217.64	1140.41	5301.85	1142.54	15323.64	1141.01	15345.17	1140.24
15380.24	1140.31	5441.95	1139.88	15464.09	1139.76	15548.89	1141.78	15563.61	1142.06
15578.38	1140.71	5601.21	1140.06	15608.94	1140.05	15634.45	1140.81	5649.04	1140.83
15719.22	1141.11	5815.93	1141.63	15837.84	1140.63	15860.05	1140.15	15893.02	1140.86
15939.51	1140.71	5978.38	1140.66	16064.4	1143.15	16070.41	1143.22	16095.29	1141.64
16115.96	1141.31	6119.03	1141.41	6134.54	1141.57	16146.86	1141.89	16169.82	1142.09
16236.82	1143.51	6306.63	1144.91	6330.96	1145.55	16356.32	1145.04	16390.25	1144.9
16418.37	1146.11	6499.77	1146.41	16543.51	1146.58	16545.29	1146.44	16607.82	1144.66
16624.62	1144.81	6876.38	1145.05	16916.17	1145.31	16938.38	1145.38	16953.95	1145.54
16977.85	1144.51	6984.79	1144.21	7015.75	1144.05	17019.85	1144.41	17024.96	1143.93
17076.6	1143.61	7080.54	1143.81	7109.82	1143.58	17203.42	1142.58	17223.3	1142.22
17320.75	1142.51	7338.45	1142.89	17457.6	1141.91	17572.79	1141.51	17582.93	1141.38
17588.97	1141.51	7626.53	1141.14	17630.9	1142.01	17642.89	1143.31	17665.29	1142.28
17673.37	1142	17690.74	1141.91	17757.85	1141.63	17933.69	1140.81	18090.1	1139.93
18246.31	1140.21	8269.96	1140.23	18307.92	1140.47	18469.32	1140.38	18475.89	1140.37
18530.05	1136.11	8574.27	1136.19	18616.16	1136.32	18617.38	1136.07	18669.45	1135.5
18722.74	1135.61	8758.73	1136.08	18801.35	1134.81	18813.29	1134.54	18825.95	1134.44
18948.97	1133.11	9124.49	1134.17	19150.71	1134.31	9175.81	1134.26	19242.66	1133.74
19280.61	1132.31	9300.45	1131.84	19312.63	1131.16	19339.53	1130.99	19367.29	1130.67
19377.92	1131.71	9385.17	1132.68	19400.47	1133.23	19437.39	1135.05	19458.1	1136.05
19516.39	1148	19523.8	1146.61	9527.76	1145.41	19551.27	1140.23	19567.62	1136.33
19583.83	1126.81	9590.67	1122.29	19682.49	1119.51	9806.82	1121.44	19858.6	1121.91
19875.84	1122.21	9937.15	1123.86	20067.48	1122.26	20073.13	1122.35	20196.5	1124.7
20230.3	1124.9	20327.1	1125.51	20344.25	1125.14	20441.63	1124.51	20459.19	1124.5
20462.04	1124.8	20473.1	1132.22	20494.93	1145.83	20511.31	1147.13	20520.67	1147.25
20532.47	1143	20552.33	1139.54	20569.55	1144.11	20630.63	1158.52	20644.87	1158.83
20659.44	1158.92	0689.08	1158.57	20709.23	1158.61	20742.28	1150.78	20786	1140.17
20820.66	1139.5	20838.8	1133.35	20851.83	1135.71	20873.02	1138.62	20904.34	1139.63
20914.53	1139.9	20930.3	1137.24	20954.89	1142.78	20967.13	1145.69	21028.23	1143.73
21038.71	1143.32	1109.85	1143.72	1125.63	1139.49	21156.43	1131.77	21173.08	1134.84
21202.67	1140.22	1223.83	1140.41	21235.54	1140.68	21249.54	1140.67	21256.44	1139.08
21276.33	1134.72	1309.24	1141.74	21343.49	1149.28	21373.03	1150.39	21382.21	1150.93
21405.52	1145.32	1425.87	1140.36	21435.22	1142.98	21447.44	1146.12	21457.15	1145.21

```
21464.44    114521476.64  1148.621498.65 1140.9221504.19 1139.1421507.27 1139.27
 21525.4  1140.621536.85 1145.3321548.26 1150.5621562.18 1151.0821573.25 1151.75
 21581.8    114421586.19 1140.4221590.74 1137.0321614.98 1137.7421621.41  1144.2
21627.18  1149.221647.99  1149.8 21676.5 1150.3921698.78 1150.07 21704.8 1149.87
 21714.9  1149.921718.82 1149.7721741.72 1150.2721756.99 1151.8521761.84 1152.29
21770.32  1152.321786.83 1151.7721798.92 1151.1621812.42 1151.1921825.82 1150.99
21841.46  1151.2 21860.1  1150.721867.61 1153.49 21875.5 1156.1121881.43 1153.28
21885.28  1151.321896.51 1150.9421900.43 1152.4121904.66  1153.521912.81 1153.49
21913.99  1153.121919.15  1152.321957.76 1150.7221960.81 1150.53 22016.2 1147.91
22029.46  1147.522127.03 1149.3122174.32 1150.1222250.23 1150.3622289.13  1150.5
22314.04  1150.822475.21 1153.3722608.07 1155.77 22672.8 1156.7422834.76    1159
22874.27  1159.322935.54  1159.822958.25 1160.0923019.14 1167.4423077.95 1168.76
23103.21  1168.623119.43 1169.0623164.87 1169.3323224.52 1170.5523231.74 1170.44
23235.16  1170.923266.86 1171.7123290.08 1172.1123294.62 1172.4523314.61 1171.39
23332.24  1171.523335.15 1171.4723373.54 1177.4523376.52 1178.07 23468.6  1178.9
23524.62  1178.2

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
14514.07    .03519516.39    .03520520.67    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19516.3920520.67              460   484.7     520             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
14514.0719516.39    114820520.6723524.62 1147.25

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)          1137.44   Element                  Left OB    Channel   Right OB
  Vel Head (ft)              2.67   Wt. n-Val.                          0.035
  E.G. Elev (ft)          1140.11   Reach Len. (ft)           460.00    484.70     520.00
  Crit W.S. (ft)          1133.46   Flow Area (sq ft)                 12889.63
  E.G. Slope (ft/ft)     0.002850   Area (sq ft)             3074.04  12889.63     263.08
  Q Total (cfs)         169000.00   Flow (cfs)                        169000.00
  Top Width (ft)          2003.65   Top Width (ft)            951.85    918.51     133.29
  Vel Total (ft/s)          13.11   Avg. Vel. (ft/s)                    13.11
  Max Chl Dpth (ft)         17.94   Hydr. Depth (ft)                    14.03
  Conv. Total (cfs)      3165450.5  Conv. (cfs)                       3165450.5
  Length Wtd. (ft)         484.70   Wetted Per. (ft)                   926.49
  Min Ch El (ft)          1119.50   Shear (lb/sq ft)                     2.48
  Alpha                      1.00   Stream Power (lb/ft s)              32.46
  Frctn Loss (ft)            1.42   Cum Volume (acre-ft)     2355.34  10840.75    1244.00
  C & E Loss (ft)            0.01   Cum SA (acres)            172.30    662.21     226.16

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)          1137.44   Element                  Left OB    Channel   Right OB
  Vel Head (ft)              2.67   Wt. n-Val.                          0.035
  E.G. Elev (ft)          1140.11   Reach Len. (ft)           460.00    484.70     520.00
  Crit W.S. (ft)          1133.46   Flow Area (sq ft)                 12889.52
  E.G. Slope (ft/ft)     0.002850   Area (sq ft)                      12889.52
  Q Total (cfs)         169000.00   Flow (cfs)                        169000.00
  Top Width (ft)           918.51   Top Width (ft)                     918.51
  Vel Total (ft/s)          13.11   Avg. Vel. (ft/s)                    13.11
  Max Chl Dpth (ft)         17.94   Hydr. Depth (ft)                    14.03
  Conv. Total (cfs)      3165410.3  Conv. (cfs)                       3165410.3
  Length Wtd. (ft)         484.70   Wetted Per. (ft)                   926.48
  Min Ch El (ft)          1119.50   Shear (lb/sq ft)                     2.48
  Alpha                      1.00   Stream Power (lb/ft s)              32.46
  Frctn Loss (ft)            1.42   Cum Volume (acre-ft)             10841.71       0.32
  C & E Loss (ft)            0.01   Cum SA (acres)                     662.20       0.18

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF#1

  Left Sta     Right Sta       Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                (ft)     (ft/s)
```

19516.39 LB	19583.34	521.31	92.72	23.03	0.31	4.55	5.62
19583.34	19650.29	14421.72	1050.74	68.41	8.53	15.69	13.73
19650.29	19717.25	17648.72	1176.02	66.97	10.44	17.57	15.01
19717.25	19784.20	16512.84	1129.94	66.96	9.77	16.88	14.61
19784.20	19851.15	14994.76	1066.38	66.96	8.87	15.93	14.06
19851.15	19918.10	13495.75	1001.16	66.97	7.99	14.95	13.48
19918.10	19985.05	11899.82	928.31	66.96	7.04	13.87	12.82
19985.05	20052.01	12940.86	976.17	66.96	7.66	14.58	13.26
20052.01	20118.96	13259.89	990.58	66.96	7.85	14.80	13.39
20118.96	20185.91	11495.30	909.24	66.96	6.80	13.58	12.64
20185.91	20252.86	10166.98	844.62	66.95	6.02	12.62	12.04
20252.86	20319.81	9599.99	816.03	66.95	5.68	12.19	11.76
20319.81	20386.77	9751.23	823.73	66.96	5.77	12.30	11.84
20386.77	20453.72	10398.26	856.09	66.95	6.15	12.79	12.15
20453.72	20520.67 RB	1892.57	227.89	31.52	1.12	8.21	8.30

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19516.39 LB	19583.34	521.30	92.72	23.03	0.31	4.55	5.62
19583.34	19650.29	14421.72	1050.73	68.41	8.53	15.69	13.73
19650.29	19717.25	17648.76	1176.01	66.97	10.44	17.57	15.01
19717.25	19784.20	16512.86	1129.93	66.96	9.77	16.88	14.61
19784.20	19851.15	14994.77	1066.37	66.96	8.87	15.93	14.06
19851.15	19918.10	13495.75	1001.15	66.97	7.99	14.95	13.48
19918.10	19985.05	11899.80	928.30	66.96	7.04	13.86	12.82
19985.05	20052.01	12940.85	976.17	66.96	7.66	14.58	13.26
20052.01	20118.96	13259.89	990.58	66.96	7.85	14.80	13.39
20118.96	20185.91	11495.29	909.23	66.96	6.80	13.58	12.64
20185.91	20252.86	10166.96	844.61	66.95	6.02	12.62	12.04
20252.86	20319.81	9599.96	816.02	66.95	5.68	12.19	11.76
20319.81	20386.77	9751.20	823.72	66.96	5.77	12.30	11.84
20386.77	20453.72	10398.24	856.08	66.95	6.15	12.79	12.15
20453.72	20520.67 RB	1892.64	227.88	31.52	1.12	8.21	8.31

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 219.79

INPUT
Description:
Station Elevation Data num= 223

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14407.68	1139.2	14468.83	1139.82	14485.33	1139.93	14518	1139.89	14548.99	1139.18
14620.03	1139.3	14668.12	1139.75	14706.45	1139.75	14832.3	1138.32	14892.5	1138.09
14904.61	1138.4	14928.04	1139.27	14997.05	1138.81	15025.99	1136.92	15055.19	1137.74
15090.5	1138.5	15126.36	1138.71	15276.76	1139.29	15340.82	1138.87	15451.12	1139.3
15529.41	1139.4	15612.27	1139.35	15725.83	1139.71	15741.08	1140.08	15775.12	1140.19
15873.79	1141.1	15910.11	1141.26	16021.21	1142.59	16027.75	1142.65	16074.81	1142.62
16203.28	1142.4	16247.36	1143.16	16274.57	1144.1	16342.63	1144.7	16451.28	1144.81
16487.53	1144.7	16516.2	1144.89	16536.79	1144.25	16570.44	1145.22	16584.21	1144.78
16632.47	1144.4	16744.74	1143.92	16831.02	1144.41	16889.17	1144.84	16901.11	1144.25
16918.3	1143.2	16943.53	1142.68	16949.05	1142.49	16952.26	1142.81	16973.17	1144.37
17009.58	1142.6	17012.25	1142.58	17042.77	1142.62	17159.75	1142.88	17191.74	1142.05
17223.52	1140	17234.95	1139.83	17330.48	1139.51	17360.77	1139.37	17365.29	1139.49
17445.7	1142.1	17479.75	1141.55	17492.77	1141.49	17510.85	1141.8	17541.66	1142.67
17553.26	1141.2	17563.12	1140.38	17572.19	1140.38	17574.51	1140.27	17590.06	1142.39
17593.85	1142.2	17613.7	1140.41	17649.97	1140.06	17656.94	1140.18	17712.79	1140.21
17932.29	1139.9	17938.1	1139.86	18254.9	1138.88	18262.6	1138.82	18381.92	1137.77
18518.03	1136.2	18535.5	1135.61	18599	1133.35	18634.5	1133.97	18668.91	1134.64
18727.87	1134.5	18773.84	1134.05	18956.07	1133.56	18965.29	1133.44	19059.1	1132.9
19149.42	1133.9	19199.61	1132.91	19285.53	1130.67	19300.58	1130.71	19327.48	1130.9
19342.87	1132.3	19349.94	1132.81	19375.09	1133.54	19402.26	1134.42	19422.93	1134.51
19423.57	1134.7	19466.98	1147.51	19474.09	1146.36	19481.23	1144.92	19507.83	1138.04
19514.17	1136	19520.98	1131.62	19534.67	1122.98	19592.24	1120.55	19613.26	1119.63
19623.23	1119.3	19688.14	1120.23	19747.16	1121.33	19877.07	1122.5	19969.89	1120.9
20006.98	1120.3	20045.82	1121.08	20135.59	1122.53	20261.98	1121.59	20265.76	1121.6

```
20295.54  1122.620397.76 1126.4220419.57 1124.74 20440.4 1133.4120472.23 1147.56
20487.01  1145.720493.02 1145.2820504.32 1143.7720510.94 1142.2720531.87 1138.63
20596.65  1152.720619.85 1157.4520637.69 1159.2620644.03 1159.7920670.81 1161.71
20683.95  1159.720702.44 1157.3620720.83 1150.4920759.31 1140.3120765.94 1139.93
20789.25  1140.220811.57 1140.6220865.32 1141.1120911.37 1158.9320922.09 1158.31
20932.71    115920934.31 1158.7820968.75 1152.6221013.76 1144.3221015.69 1144.31
 21022.9  1143.121061.13 1154.7121124.06 1152.7221135.53 1154.6221141.27 1155.41
21152.79    1155 21206.9 1153.2421239.23 1145.1821269.78 1140.3821302.85  1132.7
21322.67  1134.821350.48 1138.3921372.98 1139.9421392.52 1142.1321424.09 1142.33
21440.91  1142.721452.58 1144.8121463.84  1145.121485.26 1145.44 21502.6  1143.2
21531.89  1138.721567.05 1130.0121573.87 1128.1321581.65  1128.2 21617.3 1128.89
 21677.8    112921696.74 1134.5721704.97 1135.9521714.07 1137.8421721.93 1138.03
21766.84  1148.121770.48 1148.9121794.34 1149.1921802.49 1149.1321828.42 1149.17
21837.25    114421853.31 1137.0321870.03 1137.7821879.62 1143.2621892.74 1147.42
 21907.6  1147.621916.48 1148.1521934.61 1150.2321941.35 1153.1721953.82 1152.82
21966.37  1149.821979.15 1150.1321998.44  1152.2 22030.3 1150.0522129.14 1150.78
22161.16  1151.122177.76  1151.422249.65 1151.8622358.89 1153.65 22474.2 1154.86
22489.84    115522654.62 1155.9222702.02 1155.8522777.01 1156.42 22806.8 1156.72
22838.75  1158.322897.88  1162.222928.01 1163.1622940.21 1163.2122970.64 1163.66
22986.06  1163.823007.96 1163.52   23070 1163.8923246.96 1167.5623338.09 1168.22
23382.44  1168.723389.54 1168.2823399.66 1167.31

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
14407.68    .03519466.98    .03520472.23    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19466.9820472.23              420  490.52     550             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
14407.6819466.98 1147.5120472.2323399.66 1147.56

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)          1135.96   Element                  Left OB    Channel   Right OB
  Vel Head (ft)              2.73   Wt. n-Val.                          0.035
  E.G. Elev (ft)          1138.69   Reach Len. (ft)           420.00    490.52    550.00
  Crit W.S. (ft)          1132.24   Flow Area (sq ft)                 12747.50
  E.G. Slope (ft/ft)     0.003008   Area (sq ft)             2254.97  12747.50   1024.48
  Q Total (cfs)         169000.00   Flow (cfs)                       169000.00
  Top Width (ft)          2039.42   Top Width (ft)            902.66    931.90    204.86
  Vel Total (ft/s)          13.26   Avg. Vel. (ft/s)                    13.26
  Max Chl Dpth (ft)         16.66   Hydr. Depth (ft)                    13.68
  Conv. Total (cfs)      3081485.3  Conv. (cfs)                      3081485.3
  Length Wtd. (ft)         490.52   Wetted Per. (ft)                   938.24
  Min Ch El (ft)          1119.30   Shear (lb/sq ft)                     2.55
  Alpha                      1.00   Stream Power (lb/ft s)              33.82
  Frctn Loss (ft)            1.43   Cum Volume (acre-ft)     2327.20  10698.11   1236.32
  C & E Loss (ft)            0.04   Cum SA (acres)            162.50    651.92    224.14

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)          1135.96   Element                  Left OB    Channel   Right OB
  Vel Head (ft)              2.73   Wt. n-Val.                          0.035
  E.G. Elev (ft)          1138.69   Reach Len. (ft)           420.00    490.52    550.00
  Crit W.S. (ft)          1132.24   Flow Area (sq ft)                 12747.28
  E.G. Slope (ft/ft)     0.003008   Area (sq ft)                      12747.28
  Q Total (cfs)         169000.00   Flow (cfs)                       169000.00
  Top Width (ft)           931.90   Top Width (ft)                      931.90
  Vel Total (ft/s)          13.26   Avg. Vel. (ft/s)                    13.26
  Max Chl Dpth (ft)         16.66   Hydr. Depth (ft)                    13.68
  Conv. Total (cfs)      3081397.0  Conv. (cfs)                      3081397.0
  Length Wtd. (ft)         490.52   Wetted Per. (ft)                   938.24
  Min Ch El (ft)          1119.30   Shear (lb/sq ft)                     2.55
  Alpha                      1.00   Stream Power (lb/ft s)              33.83
  Frctn Loss (ft)            1.43   Cum Volume (acre-ft)             10699.08      0.32
  C & E Loss (ft)            0.04   Cum SA (acres)                    651.91      0.18

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.
```

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19466.98 LB	19534.00	868.83	124.59	23.41	0.51	6.30	6.97
19534.00	19601.01	12989.82	962.59	67.20	7.69	14.36	13.49
19601.01	19668.03	16080.78	1093.08	67.04	9.52	16.31	14.71
19668.03	19735.05	14718.72	1036.46	67.03	8.71	15.47	14.20
19735.05	19802.06	13138.76	968.18	67.02	7.77	14.45	13.57
19802.06	19869.08	12221.01	926.99	67.02	7.23	13.83	13.18
19869.08	19936.10	12336.53	932.29	67.03	7.30	13.91	13.23
19936.10	20003.11	14057.24	1008.25	67.02	8.32	15.05	13.94
20003.11	20070.13	14106.72	1010.41	67.03	8.35	15.08	13.96
20070.13	20137.15	12386.73	934.55	67.02	7.33	13.95	13.25
20137.15	20204.16	12011.61	917.44	67.02	7.11	13.69	13.09
20204.16	20271.18	12728.93	949.93	67.02	7.53	14.17	13.40
20271.18	20338.20	11015.85	871.23	67.06	6.52	13.00	12.64
20338.20	20405.21	7788.17	707.67	67.08	4.61	10.56	11.01
20405.21	20472.23 RB	2550.30	303.83	43.24	1.51	7.42	8.39

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19466.98 LB	19534.00	868.80	124.59	23.41	0.51	6.30	6.97
19534.00	19601.01	12989.83	962.57	67.20	7.69	14.36	13.49
19601.01	19668.03	16080.85	1093.06	67.04	9.52	16.31	14.71
19668.03	19735.05	14718.76	1036.45	67.03	8.71	15.47	14.20
19735.05	19802.06	13138.77	968.16	67.02	7.77	14.45	13.57
19802.06	19869.08	12221.00	926.98	67.02	7.23	13.83	13.18
19869.08	19936.10	12336.52	932.27	67.03	7.30	13.91	13.23
19936.10	20003.11	14057.26	1008.24	67.02	8.32	15.04	13.94
20003.11	20070.13	14106.75	1010.39	67.03	8.35	15.08	13.96
20070.13	20137.15	12386.73	934.53	67.02	7.33	13.95	13.25
20137.15	20204.16	12011.60	917.42	67.02	7.11	13.69	13.09
20204.16	20271.18	12728.94	949.92	67.02	7.53	14.17	13.40
20271.18	20338.20	11015.83	871.22	67.06	6.52	13.00	12.64
20338.20	20405.21	7788.10	707.66	67.08	4.61	10.56	11.01
20405.21	20472.23 RB	2550.28	303.82	43.23	1.51	7.43	8.39

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 219.70

INPUT
Description:
Station Elevation Data num= 215

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14633.62	1140.4	14764.84	1139.6	14844.88	1138.8	14895.18	1138.2	14947.92	1139.47
14963.26	1139.8	14966.51	1139.6	14991.08	1137.8	15049.71	1138.8	15058.26	1138.83
15086.6	1137.8	15264.28	1140.2	15343.48	1140.9	15407.52	1140.7	15507.95	1139.72
15562.35	1140.1	15691.2	1140.2	15750.02	1140.5	15864.61	1140.6	15930.64	1140.63
16007.91	1141	16038.86	1140.9	16078.48	1141.21	16114.7	1143.4	16117.13	1143.72
16132.24	1143.8	16319.58	1144.1	16329.22	1144.7	16335.73	1144.8	16362.18	1144.66
16407.68	1144.8	16486.45	1144.5	16566.52	1145.1	16580.76	1145.0	16604.06	1143.08
16634.35	1144.6	16658.71	1144.9	16665.82	1145.2	16684.38	1144.7	16816.17	1142.9
16816.85	1143	16945.54	1143.75	16958	1143.85	16965.7	1143.5	16989.86	1142.72
17017.43	1142.2	17023.42	1143.57	17028	1144.3	17070.17	1142.5	17071.47	1142.53
17250.94	1143.2	17259.15	1142.5	17296.62	1139.9	17355.46	1140.5	17369.68	1140.64
17502.59	1141.1	17532.54	1140.9	17570.73	1140.9	17608.36	1139.8	17626.76	1138.78
17637.22	1138.5	17654.23	1140.8	17673.44	1139.2	17682.64	1139.17	17842.4	1139.03
18023.52	1139.5	18102	1139.6	18204.04	1139.3	18279.06	1139.1	18308.99	1138.59
18495.46	1136.3	18551.03	1135.6	18588.44	1133.9	18714.96	1128.2	18826.61	1128.03
18839.02	1128.1	18938.73	1128.52	19017.9	1128.6	19037.93	1128.9	19100.52	1128.87
19215.21	1128.7	19248.29	1128.8	19280.17	1128.3	19285.54	1128.3	19377.57	1128.99
19395.02	1129.1	19399.73	1129.4	19421.42	1131.0	19429.68	1131.5	19452.68	1133.19
19491.29	1141.6	19513.76	1146.6	19524.58	1142.8	19527.35	1142.2	19559.25	1136.62

```
19567.04  1134.6 19575.1 1128.5519581.75 1122.9919637.42 1122.6719690.95  1122.4
 19797.6  1121.419814.69 1121.2519944.41 1122.6719984.25 1121.3720074.13 1118.48
20130.98    111920202.55 1119.7920273.94 1117.5720313.19 1116.1320332.53 1115.81
20402.51  1119.220464.33 1122.1320480.18 1122.2420528.41 1140.9920544.81 1147.24
20549.49  1144.320565.63 1141.6120590.33 1140.7220662.36 1137.1320667.43 1136.89
20671.64  1135.720680.37 1133.5520690.16  1132.8 20707.5 1138.3320711.62 1139.31
20731.52  1141.720768.16 1143.3820787.42 1141.6920798.95 1140.1220809.29 1138.44
 20869.2  1140.220902.92 1135.4520947.18 1134.4920962.23 1131.89 20977.7 1128.91
20991.82  1132.421009.72 1135.7721050.94 1133.8521052.85 1133.8121105.52 1135.74
 21109.2  1135.821221.24    113521227.41 1134.8521230.59    113521252.61 1135.61
 21276.6  1135.421303.51 1135.3621333.85 1136.77 21360.7 1137.0121389.07 1138.72
21409.47  1137.321419.54 1137.7921465.27 1139.8721480.19 1138.1721506.69 1150.76
21546.35  1168.721550.48 1169.9721604.24  1167.321613.96 1166.8721616.47 1166.63
 21645.1  1163.321671.54 1163.5121686.93 1163.0721711.68 1162.5421739.31 1154.45
21794.52  1140.921869.82 1128.8221877.11 1128.89 21907.6  1129.621954.37 1143.66
21956.14  1144.421959.45 1144.43 21987.8 1141.7922006.39 1147.7522022.35 1151.08
22052.98  1150.322078.71 1149.3422092.62 1142.1922103.59 1136.1922124.51 1136.06
22138.52  1144.322141.96 1147.6922156.81 1149.3122167.82 1149.4322200.31 1153.08
22222.88  1151.422229.35 1150.6322241.45 1150.9822343.53 1154.4922382.64 1154.34
22464.86  1152.822498.09 1153.02 22580.2 1152.4122599.65 1152.7522733.11    1156
22805.72  1157.522816.51 1157.7922822.49 1157.6822872.27 1158.8722908.77 1159.42
22937.69  1160.222950.05 1160.2522960.03 1161.3922979.67 1162.5323004.16 1164.17
23009.95  1164.823114.11 1165.3223142.08 1165.5823151.18 1165.5523172.79  1165.8
23290.13  1165.923336.65 1165.86 23397.6  1166.723466.81 1167.6723469.22 1167.72

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
14633.62    .03519513.76    .03520544.81    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19513.7620544.81              460  477.05     540              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
14633.6219513.76 1146.6120544.8123469.22 1147.24
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1134.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.59	Wt. n-Val.		0.035	
E.G. Elev (ft)	1137.22	Reach Len. (ft)	460.00	477.05	540.00
Crit W.S. (ft)	1130.64	Flow Area (sq ft)		13091.68	
E.G. Slope (ft/ft)	0.002805	Area (sq ft)	4786.64	13091.68	550.38
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	2045.78	Top Width (ft)	885.57	945.15	215.06
Vel Total (ft/s)	12.91	Avg. Vel. (ft/s)		12.91	
Max Chl Dpth (ft)	18.82	Hydr. Depth (ft)		13.85	
Conv. Total (cfs)	3190673.8	Conv. (cfs)		3190673.8	
Length Wtd. (ft)	477.05	Wetted Per. (ft)		951.82	
Min Ch El (ft)	1115.81	Shear (lb/sq ft)		2.41	
Alpha	1.00	Stream Power (lb/ft s)		31.10	
Frctn Loss (ft)	1.14	Cum Volume (acre-ft)	2293.25	10552.63	1226.37
C & E Loss (ft)	0.16	Cum SA (acres)	153.88	641.35	221.49

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1134.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.59	Wt. n-Val.		0.035	
E.G. Elev (ft)	1137.22	Reach Len. (ft)	460.00	477.05	540.00
Crit W.S. (ft)	1130.64	Flow Area (sq ft)		13091.33	
E.G. Slope (ft/ft)	0.002806	Area (sq ft)		13091.33	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	945.15	Top Width (ft)		945.15	
Vel Total (ft/s)	12.91	Avg. Vel. (ft/s)		12.91	
Max Chl Dpth (ft)	18.82	Hydr. Depth (ft)		13.85	
Conv. Total (cfs)	3190541.8	Conv. (cfs)		3190541.8	
Length Wtd. (ft)	477.05	Wetted Per. (ft)		951.82	
Min Ch El (ft)	1115.81	Shear (lb/sq ft)		2.41	
Alpha	1.00	Stream Power (lb/ft s)		31.10	
Frctn Loss (ft)	1.14	Cum Volume (acre-ft)		10553.60	0.32

C & E Loss (ft) 0.16 Cum SA (acres) 641.34 0.18

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19513.76 LB	19582.50	569.63	92.29	19.63	0.34	5.92	6.17
19582.50	19651.23	9302.66	814.16	68.74	5.50	11.84	11.43
19651.23	19719.97	9817.23	840.90	68.74	5.81	12.23	11.67
19719.97	19788.71	10625.16	881.76	68.74	6.29	12.83	12.05
19788.71	19857.44	11136.06	906.96	68.74	6.59	13.19	12.28
19857.44	19926.18	10229.68	861.92	68.74	6.05	12.54	11.87
19926.18	19994.92	10303.23	865.76	68.76	6.10	12.60	11.90
19994.92	20063.65	13346.94	1011.26	68.77	7.90	14.71	13.20
20063.65	20132.39	15198.74	1093.06	68.74	8.99	15.90	13.90
20132.39	20201.13	14157.22	1047.46	68.74	8.38	15.24	13.52
20201.13	20269.86	15142.04	1090.77	68.77	8.96	15.87	13.88
20269.86	20338.60	18790.17	1241.64	68.77	11.12	18.06	15.13
20338.60	20407.34	16751.76	1159.27	68.82	9.91	16.86	14.45
20407.34	20476.07	11728.86	935.96	68.80	6.94	13.62	12.53
20476.07	20544.81 RB	1900.60	248.50	38.31	1.12	6.91	7.65

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19513.76 LB	19582.50	569.64	92.29	19.63	0.34	5.92	6.17
19582.50	19651.23	9302.58	814.13	68.74	5.50	11.84	11.43
19651.23	19719.97	9817.16	840.87	68.74	5.81	12.23	11.67
19719.97	19788.71	10625.11	881.73	68.74	6.29	12.83	12.05
19788.71	19857.44	11136.02	906.94	68.74	6.59	13.19	12.28
19857.44	19926.18	10229.62	861.90	68.74	6.05	12.54	11.87
19926.18	19994.92	10303.17	865.73	68.76	6.10	12.59	11.90
19994.92	20063.65	13346.95	1011.24	68.77	7.90	14.71	13.20
20063.65	20132.39	15198.81	1093.04	68.74	8.99	15.90	13.91
20132.39	20201.13	14157.25	1047.44	68.74	8.38	15.24	13.52
20201.13	20269.86	15142.11	1090.75	68.77	8.96	15.87	13.88
20269.86	20338.60	18790.33	1241.61	68.77	11.12	18.06	15.13
20338.60	20407.34	16751.86	1159.25	68.82	9.91	16.86	14.45
20407.34	20476.07	11728.84	935.93	68.80	6.94	13.62	12.53
20476.07	20544.81 RB	1900.57	248.49	38.31	1.12	6.91	7.65

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 219.61

INPUT
Description:
Station Elevation Data num= 247

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14651.85	113914697.71	1139.0414706.79	1139.2614797.41	1139.2514832.95	1139.2				
14844.59	1139.614933.07	1139.2814966.85	1138.8	14984	1138.8215010.87	1138.63			
15043.23	1138.615099.91	1138.9115111.66	1138.8915134.51	1137.9215148.37	1137.92				
15170.52	1139.215175.81	1139.4815229.08	1140.1515270.91	1139.9215321.35	1138.54				
15375.73	1138.715408.15	1139.8315518.03	1140.66	15549.8	1140.815558.72	1140.49			
15632	1141.515661.19	1142.4115682.16	1142.2915689.74	1142.5915770.19	1141.99				
15835.24	1141.415897.66	1140.4	15980.3	1141.5216082.87	1141.2816109.07	1142.53			
16147.7	1142.216164.41	1142.0816230.45	1141.9416252.58	1141.7816272.83	1141.24				

```
16331.44  1142.716387.34 1141.6716436.59 1141.59 16504.6 1141.9116621.43  1142.3
16634.06  1142.416667.37 1142.9816680.81 1143.2616687.07 1143.5316701.14 1143.11
16713.57  1143.116747.97 1144.2616848.16 1142.4416890.73 1141.8916912.08 1142.01
17022.75  1142.317052.97 1141.5717071.64 1141.2217081.48 1141.2817101.73  1141.8
17111.26  1143.217137.12 1142.3617146.81 1142.3717267.43 1141.9417308.32 1143.04
17345.72  1140.617355.11  1139.917473.15 1139.0917558.32 1139.8817564.58 1139.88
 17633.8  1139.617650.52 1138.62 17664.3 1137.9517680.79 1137.3217692.86 1137.23
17708.67  1139.817728.45 1138.1117754.54 1137.9917807.05 1138.0617893.02 1137.96
17960.54  1138.918084.72 1139.0518124.45 1139.3118170.64 1139.3618306.01 1139.48
18513.36    113618525.09 1135.4918583.09 1132.5918644.56 1131.7118654.84  1131.2
18688.32  1130.218706.18  1130.118794.11 1129.9918840.37 1129.3418887.46 1129.98
18906.22    113018996.02 1129.8419017.85 1130.2819115.34 1130.2519143.84 1129.67
19176.75  1130.419191.32 1130.7419203.48 1131.6619219.44 1132.6819254.19 1133.06
19278.79  1133.119306.96 1132.4419356.04 1132.4719384.96 1131.2519394.54 1130.47
19402.54  1130.1   19406 1129.5319422.11 1130.32 19422.9 1131.1519452.59 1130.78
19474.18  1130.519479.79 1131.7119521.95 1141.9819538.73    114319567.21 1132.83
19578.53  1133.719586.01 1126.9319591.37 1123.0319602.42 1122.5619639.62 1122.19
 19707.4    1122 19754.2 1121.5219835.67 1120.8619908.35 1120.4419950.69 1119.77
20036.32  1118.920140.17 1116.92 20150.7 1116.66 20252.9 1115.7320301.64 1115.21
20353.37  1113.520368.53 1112.3920394.53 1112.4220422.02 1114.24   20533 1122.59
20538.69  1123.720567.99 1144.3920580.96 1144.9320583.69  1144.820590.96 1144.01
 20610.7  1141.320627.36 1137.2520651.52 1136.4920666.08 1136.3720680.19 1136.77
20701.25    113620726.85 1130.6620736.71 1131.1620750.66 1137.8920758.46 1137.99
20777.34  1138.620826.99 1139.6820833.14 1139.7820839.92 1138.7620884.09 1131.99
20911.21  1132.320923.05 1132.4620996.31 1131.9121019.84 1131.3821081.49 1131.24
21118.96  1136.121149.81 1140.1621211.27 1140.2421225.22 1139.7821242.25 1137.36
21291.23    112921297.81  1128.821317.56 1127.8921350.78 1125.1521363.69 1125.19
21393.12  1125.521440.76  1125.6 21481.2 1129.1721521.37 1131.2921550.21 1132.19
21583.63  1131.121639.47 1128.3121672.65 1126.5121687.56 1126.7321734.61 1126.85
21739.13  1127.121789.72 1128.7121824.55 1128.3421840.03 1128.8721848.07 1128.71
21859.98  1128.721864.54 1128.5421904.22 1128.7121949.34 1128.6521963.01 1130.96
22011.99  1135.422017.42 1136.9822038.21 1141.8522075.75 1150.3722107.68 1155.01
22114.05  1154.422129.53 1153.5422138.87 1150.2222145.72 1149.0722175.39 1149.55
22194.88  1149.922212.13  1139.722217.47 1136.4722241.39 1136.4722243.16 1137.31
22256.99  1145.122272.64 1146.1322275.06 1147.2422276.96 1147.1622290.77 1144.06
 22302.5  1144.522334.77 1145.6922344.24  1146.622351.31 1148.6622385.92 1154.54
22400.67  1153.222413.67 1151.8922423.88 1154.03   22433 1157.7622450.45  1154.1
22462.91  1151.622469.36 1154.7622484.16 1164.5322493.46 1168.4522501.87 1170.86
22504.27  1171.9 22524.4 1178.5822529.11 1177.8522539.59 1176.7622577.15 1166.66
22590.78  1163.6 22595.1 1162.9422601.97 1159.9422605.98 1159.8822666.91 1156.76
22700.56  1156.522804.52 1154.99 22876.8 1155.0722934.19 1156.52 22999.2 1156.68
23150.41  1183.423163.78 1183.43

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
14651.85    .03519538.73    .03520567.99    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19538.7320567.99              470  499.49     550              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
14651.8519538.73    114320567.9923163.78 1144.39
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1133.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.07	Wt. n-Val.		0.035	
E.G. Elev (ft)	1135.93	Reach Len. (ft)	470.00	499.49	550.00
Crit W.S. (ft)	1128.49	Flow Area (sq ft)		14649.74	
E.G. Slope (ft/ft)	0.002051	Area (sq ft)	2779.51	14649.74	4408.14
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	2912.62	Top Width (ft)	930.96	988.76	992.90
Vel Total (ft/s)	11.54	Avg. Vel. (ft/s)		11.54	
Max Chl Dpth (ft)	21.47	Hydr. Depth (ft)		14.82	
Conv. Total (cfs)	3731983.0	Conv. (cfs)		3731983.0	
Length Wtd. (ft)	499.49	Wetted Per. (ft)		996.68	
Min Ch El (ft)	1112.39	Shear (lb/sq ft)		1.88	
Alpha	1.00	Stream Power (lb/ft s)		21.71	
Frctn Loss (ft)	1.00	Cum Volume (acre-ft)	2253.30	10400.72	1195.64
C & E Loss (ft)	0.03	Cum SA (acres)	144.29	630.76	214.00

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1133.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.07	Wt. n-Val.		0.035	
E.G. Elev (ft)	1135.93	Reach Len. (ft)	470.00	499.49	550.00
Crit W.S. (ft)	1128.49	Flow Area (sq ft)		14649.25	
E.G. Slope (ft/ft)	0.002051	Area (sq ft)		14649.25	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	988.76	Top Width (ft)		988.76	
Vel Total (ft/s)	11.54	Avg. Vel. (ft/s)		11.54	
Max Chl Dpth (ft)	21.47	Hydr. Depth (ft)		14.82	
Conv. Total (cfs)	3731781.8	Conv. (cfs)		3731781.8	
Length Wtd. (ft)	499.49	Wetted Per. (ft)		996.68	
Min Ch El (ft)	1112.39	Shear (lb/sq ft)		1.88	
Alpha	1.00	Stream Power (lb/ft s)		21.71	
Frctn Loss (ft)	1.00	Cum Volume (acre-ft)		10401.70	0.32
C & E Loss (ft)	0.03	Cum SA (acres)		630.75	0.18

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19538.73 LB	19607.35	1513.16	260.47	47.13	0.90	6.05	5.81
19607.35	19675.96	7604.51	797.54	68.62	4.50	11.62	9.54
19675.96	19744.58	7958.40	819.60	68.62	4.71	11.94	9.71
19744.58	19813.20	8630.52	860.46	68.62	5.11	12.54	10.03
19813.20	19881.82	9236.84	896.23	68.62	5.47	13.06	10.31
19881.82	19950.43	9875.24	932.92	68.62	5.84	13.60	10.59
19950.43	20019.05	10914.84	990.66	68.62	6.46	14.44	11.02
20019.05	20087.67	12030.19	1050.26	68.63	7.12	15.31	11.45
20087.67	20156.29	13774.67	1139.16	68.63	8.15	16.60	12.09
20156.29	20224.90	15133.22	1205.23	68.62	8.95	17.56	12.56
20224.90	20293.52	16068.04	1249.37	68.62	9.51	18.21	12.86
20293.52	20362.14	18082.50	1341.50	68.67	10.70	19.55	13.48
20362.14	20430.76	20023.64	1426.55	68.72	11.85	20.79	14.04
20430.76	20499.37	13449.72	1124.14	68.81	7.96	16.38	11.96
20499.37	20567.99 RB	4704.51	555.65	57.14	2.78	10.35	8.47

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19538.73 LB	19607.35	1513.08	260.45	47.12	0.90	6.05	5.81
19607.35	19675.96	7604.38	797.50	68.62	4.50	11.62	9.54
19675.96	19744.58	7958.28	819.57	68.62	4.71	11.94	9.71
19744.58	19813.20	8630.42	860.43	68.62	5.11	12.54	10.03
19813.20	19881.82	9236.75	896.20	68.62	5.47	13.06	10.31
19881.82	19950.43	9875.17	932.89	68.62	5.84	13.60	10.59
19950.43	20019.05	10914.79	990.62	68.62	6.46	14.44	11.02
20019.05	20087.67	12030.18	1050.23	68.63	7.12	15.31	11.45
20087.67	20156.29	13774.72	1139.13	68.63	8.15	16.60	12.09
20156.29	20224.90	15133.31	1205.19	68.62	8.95	17.56	12.56
20224.90	20293.52	16068.17	1249.33	68.62	9.51	18.21	12.86
20293.52	20362.14	18082.70	1341.47	68.67	10.70	19.55	13.48
20362.14	20430.76	20023.90	1426.52	68.72	11.85	20.79	14.04
20430.76	20499.37	13449.76	1124.11	68.81	7.96	16.38	11.96
20499.37	20567.99 RB	4704.39	555.62	57.14	2.78	10.35	8.47

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 219.51

INPUT
Description:

Station Elevation Data num= 242

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14907.1	1137.714	918.73	1137.5614	943.68	1136.914	991.19	1137.3315	029.11	1136.79
15038.26	1137.415	056.17	1137.4915	077.68	1136.7415	084.36	1136.3615	145.62	1137.65
15159.83	1138.115	191.79	1138.62	15219.5	1138.3115	314.53	1137.8715	372.32	1137.67
15419.74	1137.9	15530.8	1137.8915	575.07	1138.6315	616.57	1139.5415	715.85	1139.83
15727.73	1139.915	781.62	1140.1515	840.29	1140.3315	854.62	1140.2415	893.97	1140.25
15961.21	1140.416	003.39	1140.32	16029.7	1142.2516	075.73	1142.3116	283.73	1142.46
16362.84	1142.816	386.02	1142.7316	472.11	1142.65	16477.3	1142.4616	543.73	1142.86
16653.27	1142.816	670.33	1142.6816	703.08	1141.8916	716.48	1141.9816	736.38	1140.55
16769.06	1140.416	801.48	1141.57	16866.3	1141.5716	886.73	1141.516	948.97	1141.02
17014.66	1140.917	033.21	1140.6217	052.23	1140.4417	116.76	1139.5417	168.51	1138.92
17181.51	1138.8	17196.8	1138.89	17299.4	1138.9917	325.94	1138.8617	385.87	1138.88
17413.69	1138.817	461.57	1138.1417	509.77	1137.9517	545.89	1137.6817	558.05	1137.47
17599.64	1136.917	623.36	1137.117	657.94	1136.8917	675.27	1136.6417	692.51	1136.22
17714.36	1136.217	724.37	1135.8317	742.56	1137.4317	752.02	1136.6417	767.46	1136.54
17774.03	1136.817	783.01	1134.9817	787.08	1133.8517	793.02	1134.85	17805.5	1136.75
17828.82	1136.617	884.99	1135.8217	895.95	1135.817	940.12	1136.2517	951.48	1136.31
17977.27	1135.7	17988	1135.2118	036.31	1135.1218	041.95	1135.2618	062.82	1135.39
18123.49	1135.818	159.15	1135.6118	203.12	1135.6218	239.59	1135.77	18296.3	1135.65
18329.98	1135.618	390.66	1135.5818	422.21	1135.3918	476.58	1135.1918	517.78	1135.18
18538.38	1135.218	544.05	1135.0818	639.41	1133.5118	667.57	1132.9218	700.21	1133.48
18714.34	1133.418	716.44	1133.1618	733.91	1130.6318	744.18	1131.4818	768.41	1133.61
18843.86	1150.318	891.18	1160.5818	941.06	1161.9818	957.81	1162.1219	011.57	1181.38
19169.29	1180.219	211.07	118019	230.82	1180.2419	273.33	118119	315.33	1181.79
19356.71	1169.719	383.56	1161.6819	385.62	1161.5	19429.2	1158.9219	434.44	1158.89
19478.03	1145.419	488.25	1142.3119	493.28	1140.5919	501.81	1142.0819	510.14	1141.72
19517.38	1141.6	19542.2	1132.64	19548.7	1130.519	559.57	1131.4119	570.41	1123.16
19581.96	1121.919	595.79	1121.31	19725.6	1121.4719	755.91	1121.6919	812.57	1121.45
19889.13	1120.719	969.48	1119.3320	064.29	1117.4520	129.14	1116.0520	175.09	1115.73
20184.45	1115.520	262.78	1112.9720	304.95	1112.120	375.67	1111.6420	433.28	1112.87
20459.44	1113.620	487.19	1115.0320	510.33	1116.6320	522.25	1117.2620	554.82	1137.43
20564.57	1144.120	581.79	1143.4720	589.29	1141.9320	590.28	1141.4320	616.53	1139.57
20622.56	1139.2	20683.6	1138.1920	692.96	1137.8520	705.62	1136.820	732.71	1132.48
20735	1132.420	740.07	1132.8720	748.73	1135.9220	753.07	1137.6120	755.82	1138.25
20763.22	113820	775.75	1137.6320	812.37	1139.3120	825.87	1139.8720	839.04	1137.72
20866.18	1133.5	20882.4	1133.2620	889.04	1133.37	20922.3	1137.6620	933.37	1138.59
20961.26	1138.8	20989.1	1138.3320	997.01	1137.6621	014.79	1133.9621	019.19	1134.13
21021.53	1135.321	064.97	1129.99	21128.4	1128.5121	138.81	1128.3221	180.03	1126.32
21212.36	1126.721	232.49	1126.48	21238.9	1126.2721	265.92	1125.9321	350.77	1126.01
21412.28	1126.121	431.15	1126.221	465.26	1126.0321	542.92	1127.5621	549.51	1127.62
21567.64	1127.121	620.01	1125.9221	642.33	1125.4921	694.68	1125.7821	703.12	1126.65
21734.34	1127.721	742.84	1128.18	21778.7	112821	854.71	1126.0921	911.52	1136.78
21941	1142.721	967.33	1142.9122	014.55	1143.422	037.84	1143.2822	067.55	1143.66
22085.53	1144.522	100.03	1145.4422	104.75	1143.3922	121.49	1135.5322	139.24	1135.99
22150.56	1140.922	158.78	1144.3622	180.45	1145.44	22223	1147.23	22227.4	1147.33
22270.04	1149.522	316.45	1151.4122	326.33	1151.722	388.88	1151.6822	435.89	1152.28
22483.7	1153.122	562.58	1154.9322	591.21	1155.5622	600.01	1156.2122	604.66	1156.84
22623.42	1159.622	642.13	1156.9122	666.24	1158.4322	703.02	1161.0722	911.95	1162.55
23047.74	1163.6	23098.1	1170.3523	103.39	1170.6523	146.48	1170.0823	170.95	1170.08
23186.03	1170.223	222.21	1170.81						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
14907.1	.035	19517.38	.035	20564.57	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19517.38	20564.57	450	497.52	570	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14907.11	19517.38	1141.62	20564.57	23222.21	1144.1

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1132.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.97	Wt. n-Val.		0.035	
E.G. Elev (ft)	1134.90	Reach Len. (ft)	450.00	497.52	570.00
Crit W.S. (ft)	1127.37	Flow Area (sq ft)		14993.73	
E.G. Slope (ft/ft)	0.001942	Area (sq ft)	49.50	14993.73	5002.07
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1910.40	Top Width (ft)	43.74	1006.16	860.50
Vel Total (ft/s)	11.27	Avg. Vel. (ft/s)		11.27	
Max Chl Dpth (ft)	21.29	Hydr. Depth (ft)		14.90	
Conv. Total (cfs)	3834489.0	Conv. (cfs)		3834489.0	
Length Wtd. (ft)	497.52	Wetted Per. (ft)		1014.15	
Min Ch El (ft)	1111.64	Shear (lb/sq ft)		1.79	

Alpha	1.00	Stream Power (lb/ft s)		20.21	
Frctn Loss (ft)	0.95	Cum Volume (acre-ft)	2238.04	10230.76	1136.23
C & E Loss (ft)	0.01	Cum SA (acres)	139.03	619.32	202.30

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1132.93	Element			
Vel Head (ft)	1.97	Wt. n-Val.		0.035	
E.G. Elev (ft)	1134.90	Reach Len. (ft)	450.00	497.52	570.00
Crit W.S. (ft)	1127.37	Flow Area (sq ft)		14993.11	
E.G. Slope (ft/ft)	0.001943	Area (sq ft)		14993.11	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1006.15	Top Width (ft)		1006.15	
Vel Total (ft/s)	11.27	Avg. Vel. (ft/s)		11.27	
Max Chl Dpth (ft)	21.29	Hydr. Depth (ft)		14.90	
Conv. Total (cfs)	3834241.0	Conv. (cfs)		3834241.0	
Length Wtd. (ft)	497.52	Wetted Per. (ft)		1014.15	
Min Ch El (ft)	1111.64	Shear (lb/sq ft)		1.79	
Alpha	1.00	Stream Power (lb/ft s)		20.21	
Frctn Loss (ft)	0.95	Cum Volume (acre-ft)		10231.75	0.32
C & E Loss (ft)	0.01	Cum SA (acres)		619.31	0.18

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19517.38 LB	19587.19	1509.35	270.06	49.09	0.89	5.90	5.59
19587.19	19657.01	7403.89	807.35	69.82	4.38	11.56	9.17
19657.01	19726.82	7337.50	802.97	69.81	4.34	11.50	9.14
19726.82	19796.63	7160.64	791.30	69.81	4.24	11.33	9.05
19796.63	19866.44	7523.79	815.15	69.82	4.45	11.68	9.23
19866.44	19936.26	8389.83	870.24	69.82	4.96	12.47	9.64
19936.26	20006.07	9766.64	953.33	69.82	5.78	13.66	10.24
20006.07	20075.88	11446.30	1048.59	69.83	6.77	15.02	10.92
20075.88	20145.70	13327.13	1148.79	69.83	7.89	16.46	11.60
20145.70	20215.51	14763.13	1221.59	69.83	8.74	17.50	12.09
20215.51	20285.32	17710.46	1362.63	69.84	10.48	19.52	13.00
20285.32	20355.13	19838.52	1458.43	69.82	11.74	20.89	13.60
20355.13	20424.95	19851.01	1459.04	69.82	11.75	20.90	13.61
20424.95	20494.76	17071.91	1333.23	69.88	10.10	19.10	12.80
20494.76	20564.57 RB	5899.92	651.02	57.31	3.49	12.33	9.06

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19517.38 LB	19587.19	1509.23	270.03	49.08	0.89	5.90	5.59
19587.19	19657.01	7403.70	807.31	69.82	4.38	11.56	9.17
19657.01	19726.82	7337.32	802.92	69.81	4.34	11.50	9.14
19726.82	19796.63	7160.45	791.26	69.81	4.24	11.33	9.05
19796.63	19866.44	7523.61	815.11	69.82	4.45	11.68	9.23
19866.44	19936.26	8389.68	870.20	69.82	4.96	12.46	9.64
19936.26	20006.07	9766.54	953.29	69.82	5.78	13.66	10.25
20006.07	20075.88	11446.25	1048.55	69.83	6.77	15.02	10.92
20075.88	20145.70	13327.15	1148.75	69.83	7.89	16.45	11.60
20145.70	20215.51	14763.21	1221.54	69.83	8.74	17.50	12.09
20215.51	20285.32	17710.66	1362.59	69.84	10.48	19.52	13.00
20285.32	20355.13	19838.81	1458.39	69.82	11.74	20.89	13.60
20355.13	20424.95	19851.30	1459.00	69.82	11.75	20.90	13.61
20424.95	20494.76	17072.08	1333.18	69.88	10.10	19.10	12.81
20494.76	20564.57 RB	5900.02	650.99	57.31	3.49	12.33	9.06

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 219.42

INPUT
Description:
Station Elevation Data num= 283

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14620.63	1134.2	14673.5	1134.58	14680.49	1134.59	14707.56	1134.81	14736.04	1134.79
14744.71	1134.71	14800.61	1134.96	14852.42	1135.36	14872.53	1135.34	14996.62	1136.02
15024.81	113	15040.07	1134.95	15072.78	1135.34	15104.52	1135.28	15154.61	1136.63
15165.85	1136.91	15189.91	1138.62	15193.62	1137.78	15202.22	1134.63	15208.04	1134.7
15230.27	1135.6	15279.9	1136.41	15359.95	1138.11	5389.72	1138.11	5395.67	1137.87
15416.25	1137.31	5441.94	1137.36	15550.39	1137.84	15645.01	1138.21	5651.61	1138.28
15660.76	1138.91	5673.51	1139.01	15715.64	1139.32	15799.73	1139.66	15841.82	1139.75
15849.26	1139.31	6021.57	1139.04	16032.03	1139.09	16042.84	113	16062.45	1138.95
16064.41	1139.11	6223.75	1141.61	16265.53	1141.86	16287.67	1141.71	16449.11	1141.24
16462.9	1141.21	6484.58	1141.5	16497.9	1141.99	16504	1141.19	16513.84	1141.32
16535.01	1142.11	6564.67	1143.51	16604.72	1143.49	16672.76	1142.67	16718.88	1142.56
16728.56	1142.31	6754.76	1139.66	16760.38	1139.18	16766.02	1139.21	16791.74	1139.76
16802.67	1140.31	6809.73	1140.71	6853.31	1141.09	16866.4	1141.58	16896.15	1140.65
16991.5	1140.61	7013.35	1140.6	17024.6	1141.76	17043.95	1141.65	17087.99	1141.09
17208.6	1141.51	7267.12	1141.49	17365.55	1140.08	17436.94	1139.43	17452.76	1138.9
17466.98	1138.51	7497.46	1138.11	7509.21	1139.75	17513.99	1138.97	17519.24	1138.8
17531.44	1137.81	7538.37	1137.48	17552.39	1137.16	17562.24	1136.64	17576.82	1135.79
17610.19	113	7630.25	1136.33	17662.06	1137.81	7672.48	1138.21	7695.69	1138.05
17714.32	1139.71	7717.99	1140.23	17745.18	1138.98	17754.43	1138.61	17769.56	1141.21
17783.85	114	17790.83	1142.19	17810.4	1136.62	17845.26	1136.48	17930.63	1135.13
17975.54	1135.11	7978.83	1135.24	18025.92	1134.71	18058.25	1134.61	8076.99	1134.66
18217.18	1135.71	8226.55	1133.31	18241.01	1135.62	18256.47	1135.64	18279.52	1135.46
18286.14	1135.61	8295.02	1135.55	18333.81	1132.12	18340.04	1131.71	18387.94	1135.18
18393.95	1135.71	8463.66	1136.29	18499.34	1133.16	18545.13	1133.66	18628.93	1133.24
18656.03	1133.31	8678.14	1132.98	18714.94	1133.01	18758.06	1133.42	18795.14	1133.9
18830.65	1134.5	18880	1128.29	18906.58	1125.31	8940.59	1122.71	18983.81	1122.31
19027.77	112	19068.19	1122.01	19132.24	1122.18	19198.69	1121.96	19255.29	1121.89
19282.93	112	19295.93	1122.19	19333.76	1122.29	19352.48	1122.25	19363.04	1122.92
19404.32	1129.51	9408.06	1130.11	19449.44	1140.89	19462.92	1140.81	19472.78	1137.63
19494.42	1130.11	9504.35	1130.32	19516.83	1121.32	19539.04	1120.05	19623.47	1120.98
19657.78	1121.11	9662.93	1121.27	19766.98	1119.81	19812.7	1119.45	19910	1117.34
19929.43	111	20002.58	1116.53	20063.35	1115.04	20103.33	1113.83	20178.65	1112.08
20203.64	1111.92	0267.44	1112.02	20326.95	1111.83	20341.15	1112.13	20358.47	1112.72
20387.52	1113.92	0468.61	1117.09	20476.84	1117.21	20495.66	1129.72	20514.18	1141.84
20532.19	1142.12	0544.18	1142.07	20576.7	1134.02	20592.21	1134.48	20598.18	1133.02
20609.17	1133.72	0613.05	1134.14	20628.23	1134.44	20637.8	1135.18	20652.72	1136.85
20684.01	1135.62	0695.37	1136.77	20707.99	1136.04	20716.2	1135.09	20749.84	1137.24
20759.31	1137.42	0786.29	1138.82	20810.01	1139.99	20832.42	1139.22	0870.53	1137.79
20878.86	1136.52	0928.26	1128.47	20940.8	1128.72	20962.91	1129.54	20981.03	1130.3
21015.89	1131.72	1089.81	1134.48	21093.81	1134.46	21134.01	113	21148.67	1133.8
21157.69	1133.32	1183.89	1133.33	21227.68	1132.85	21268.38	1132.12	21273.64	1131.97
21336.46	1126.72	1392.95	1125.05	21397.81	1124.76	21407.96	1124.58	21460.82	1124.5
21471.44	1124.42	1512.83	1124.18	21533.57	1124.14	21553.12	1123.41	21623.27	1124.22
21637.25	1124.62	1691.89	1124.62	21698.28	1124.72	1741.53	1125.07	21808.74	1125.6
21829.98	1126.82	1869.21	1129.35	21894.88	1128.16	21924.41	1126.44	21938.23	1126.38
21949.98	1126.22	2000.57	1138.93	22008.84	1141.25	22012.87	1141.22	2064.49	1140.14
22080.36	1141.42	2100.73	1143.47	22110.57	1143.87	22133.37	1145.12	22145.89	1139.12
22155.02	1135.12	2171.69	1134.72	22193.79	1144.29	22211.23	1146.11	22231.01	1146.26
22232.93	1146.42	2244.68	1146.54	22338.9	1148.34	22367.96	1148.69	22424.19	1149.5
22497.87	1151.42	2554.89	1152.66	22637.92	1153.26	22674.7	1153.66	22750.04	1154.03
22794.83	1157.12	2799.99	1157.42	22831.07	1159.41	22855.05	1158.97	22870.31	1158.88
22901.38	115	22946.92	1159.65	22974.31	1160.22	23008.94	1161.16	23025.1	1161.51
23092.92	1161.82	3115.83	1162.42	23147.8	1163.88	23158.86	1165.59	23168.54	1165.75
23183.72	1165.12	3195.54	1165.37	23227.06	1164.54	23241.21	1164.76	23252.68	1164.69
23266.75	1165.62	3333.43	1166.79	23388.4	1168.04	23423.21	1168.14	23441.97	1167.96
23471.66	1167.12	3478.89	1168.57	23509.38	1171.02	23539.8	1170.63	23560.68	1171.68
23569.43	1171.42	3601.93	1170.37	23628.07	1170				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
14620.63	.035	19462.92	.035	20514.18	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19462.92	20514.18	410	470.96	560	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14620.63	19462.92	1140.81	20514.18	23628.07	1141.84

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1132.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.94	Wt. n-Val.		0.035	
E.G. Elev (ft)	1133.94	Reach Len. (ft)	410.00	470.96	560.00
Crit W.S. (ft)	1126.37	Flow Area (sq ft)		15121.63	
E.G. Slope (ft/ft)	0.001898	Area (sq ft)	4887.83	15121.63	4552.80

Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	2400.89	Top Width (ft)	573.11	1010.17	817.60
Vel Total (ft/s)	11.18	Avg. Vel. (ft/s)		11.18	
Max Chl Dpth (ft)	20.17	Hydr. Depth (ft)		14.97	
Conv. Total (cfs)	3879095.3	Conv. (cfs)		3879095.3	
Length Wtd. (ft)	470.96	Wetted Per. (ft)		1018.10	
Min Ch El (ft)	1111.83	Shear (lb/sq ft)		1.76	
Alpha	1.00	Stream Power (lb/ft s)		19.67	
Frctn Loss (ft)	0.90	Cum Volume (acre-ft)	2212.54	10058.78	1073.72
C & E Loss (ft)	0.00	Cum SA (acres)	135.85	607.81	191.32

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1132.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.94	Wt. n-Val.		0.035	
E.G. Elev (ft)	1133.94	Reach Len. (ft)	410.00	470.96	560.00
Crit W.S. (ft)	1126.37	Flow Area (sq ft)		15120.89	
E.G. Slope (ft/ft)	0.001898	Area (sq ft)		15120.89	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1010.17	Top Width (ft)		1010.17	
Vel Total (ft/s)	11.18	Avg. Vel. (ft/s)		11.18	
Max Chl Dpth (ft)	20.17	Hydr. Depth (ft)		14.97	
Conv. Total (cfs)	3878791.5	Conv. (cfs)		3878791.5	
Length Wtd. (ft)	470.96	Wetted Per. (ft)		1018.10	
Min Ch El (ft)	1111.83	Shear (lb/sq ft)		1.76	
Alpha	1.00	Stream Power (lb/ft s)		19.67	
Frctn Loss (ft)	0.90	Cum Volume (acre-ft)		10059.77	0.32
C & E Loss (ft)	0.00	Cum SA (acres)		607.80	0.18

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19462.92 LB	19533.00	1635.42	280.21	47.29	0.97	6.36	5.84
19533.00	19603.09	7436.02	813.70	70.10	4.40	11.61	9.14
19603.09	19673.17	6769.73	769.10	70.09	4.01	10.97	8.80
19673.17	19743.26	7174.30	796.37	70.09	4.25	11.36	9.01
19743.26	19813.34	8134.26	858.68	70.09	4.81	12.25	9.47
19813.34	19883.42	9350.60	933.63	70.10	5.53	13.32	10.02
19883.42	19953.51	11067.61	1032.96	70.09	6.55	14.74	10.71
19953.51	20023.59	11951.99	1081.71	70.09	7.07	15.43	11.05
20023.59	20093.68	13872.41	1183.00	70.11	8.21	16.88	11.73
20093.68	20163.76	16532.79	1314.28	70.10	9.78	18.75	12.58
20163.76	20233.84	18375.15	1400.16	70.09	10.87	19.98	13.12
20233.84	20303.93	18444.66	1403.30	70.08	10.91	20.02	13.14
20303.93	20374.01	17963.23	1381.41	70.11	10.63	19.71	13.00
20374.01	20444.10	14382.42	1209.10	70.14	8.51	17.25	11.90
20444.10	20514.18 RB	5909.42	664.02	59.52	3.50	12.06	8.90

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19462.92 LB	19533.00	1635.30	280.17	47.29	0.97	6.36	5.84
19533.00	19603.09	7435.81	813.65	70.10	4.40	11.61	9.14
19603.09	19673.17	6769.50	769.05	70.09	4.01	10.97	8.80
19673.17	19743.26	7174.08	796.32	70.09	4.25	11.36	9.01
19743.26	19813.34	8134.07	858.62	70.09	4.81	12.25	9.47
19813.34	19883.42	9350.46	933.57	70.10	5.53	13.32	10.02
19883.42	19953.51	11067.55	1032.91	70.09	6.55	14.74	10.71
19953.51	20023.59	11951.97	1081.66	70.09	7.07	15.43	11.05
20023.59	20093.68	13872.48	1182.95	70.11	8.21	16.88	11.73
20093.68	20163.76	16532.98	1314.23	70.10	9.78	18.75	12.58
20163.76	20233.84	18375.44	1400.11	70.09	10.87	19.98	13.12
20233.84	20303.93	18444.95	1403.25	70.08	10.91	20.02	13.14
20303.93	20374.01	17963.49	1381.36	70.11	10.63	19.71	13.00
20374.01	20444.10	14382.51	1209.05	70.14	8.51	17.25	11.90
20444.10	20514.18 RB	5909.41	663.98	59.52	3.50	12.06	8.90

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 219.33

INPUT
Description:
Station Elevation Data num= 258

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14841.36	1134.914	851.62	1134.921	4986.39	1135.691	5015.71	1134.231	5048.43	1132.55
15064.99	1135.615	077.24	1137.371	5090.55	1136.921	5107.89	1135.84	15137.1	1136.5
15169.63	1137.115	190.15	1138.281	5199.59	1138.641	5219.78	1136.061	5223.87	1135.36
15243.59	1135.7	15361	1137.531	5386.12	1137.481	5405.99	1137.391	5495.79	1137.51
15535.52	1137.615	568.85	1137.361	5587.44	1137.511	5612.13	1137.351	5647.48	1137.44
15656.66	1137.415	694.61	1137.921	5725.84	1137.721	5731.28	1137.311	5778.13	1136.69
15789.04	1136.415	803.97	1137.111	5947.32	1137.421	5958.36	1137.491	5987.54	1137.58
16219.35	113916	282.77	1139.371	6338.88	1139.041	6423.21	1139.11	6549.15	1140.03
16592.29	1140.116	707.93	1140.281	6713.27	1139.921	6735.83	1138.91	6737.63	1138.91
16763.34	1138.316	797.85	1139.291	6807.74	1139.211	6836.98	1139.631	6863.67	1140.18
16869.35	1140.116	878.64	1140.141	6942.64	1139.781	7051.78	1139.761	7102.12	1139.21
17127.15	1137.317	133.29	1137.341	7184.62	1136.951	7193.09	1137.13	17194.3	1137.62
17205.76	1138.317	211.37	1139.671	7229.73	1139.66	17245.6	1139.771	7263.96	1139.51
17304.03	113917	333.74	1138.611	7347.51	1138.611	7381.09	1138.751	7419.19	1138.53
17430.86	1138.417	481.44	1137.25	17507.6	1136.841	7512.96	1135.861	7526.61	1134.7
17560.02	113617	577.76	1136.211	7583.19	1136.451	7642.53	1137.15	17674.8	1136.95
17726.24	1136.417	754.01	1138.81	7771.95	1138.641	7779.81	1137.991	7783.59	1137.84
17805.2	1137.617	819.74	1135.941	7851.93	1135.31	7952.13	1134.631	7978.25	1135.43
17987.86	1135.918	048.27	1135.611	8082.89	1135.761	8091.62	1135.241	8115.85	1132.38
18121.19	1130.418	173.85	1132.841	8204.13	1134.871	8215.33	1134.731	8235.15	1134.23
18245.91	1133.6	18272.8	1133.671	8524.41	1132.891	8554.65	1132.981	8633.36	1134.09
18649.38	1133.71	8657.54	1134.171	8734.52	1134.71	8736.34	1134.811	8743.56	1133.61
18823.84	1122.51	8836.47	1121.391	8886.49	1121.321	9032.83	1121.331	9164.54	1121.16
19273.71	1120.81	9316.38	1120.731	9353.68	1129.46	19356.3	1130.111	9387.11	1140.42
19401.15	1140.71	9430.58	1131.031	9433.25	1130.441	9440.95	1130.281	9456.11	1120.51
19466.61	1119.11	9470.89	1118.66	19509.1	1118.071	9568.12	1117.48	19622.9	1116.83
19650.25	1116.81	9723.26	1116.481	9829.07	1115.461	9902.92	1114.712	0012.93	1113.82
20033.87	1113.42	0068.17	1113.682	0220.97	1114.562	0303.43	1115.97	20407.5	1117.25
20417.61	1116.82	0425.97	1121.552	0432.73	1126.22	20441.7	1127.142	0446.02	1127
20448.12	1126.42	0468.98	1140.192	0472.46	1142.72	0489.35	1141.512	0513.06	1134.97
20534.13	1128.82	0589.19	1128.852	0625.02	1128.482	0653.51	1130.922	0708.31	1135.72
20718.59	1136.72	0761.09	1141.52	20808.6	1143.362	0830.76	1144.032	0884.38	1143.63
20943.28	1131.62	0945.41	1131.362	0993.85	1128.942	1054.83	1125.322	1097.16	1124.39
21129	1123.42	1157.24	1123.072	1195.02	1121.712	1198.85	1121.422	1223.93	1120.31
21232.62	1120.32	1244.16	1119.732	1265.72	1118.532	1292.93	1119.832	1308.98	1120.4
21324.3	1119.6	21342.6	1119.272	1353.11	1119.162	1376.01	1119.892	1408.57	1119.63
21420.04	1119.4	21551.9	1119.032	1578.61	1118.912	1611.11	1118.982	1630.95	1118.96
21654.33	1118.92	1754.59	1117.242	1853.36	1118.952	1863.14	1118.922	1865.77	1119.91
21871.39	1121.52	1913.22	1132.432	1950.91	1133.382	1985.87	1133.912	2014.52	1134.22
22035.73	1134.32	2065.09	1139.782	2077.42	1142.282	2107.86	1143.592	2122.28	1143.72
22126.11	1141.82	2139.29	1136.342	2162.26	1135.112	2173.92	1141.742	2176.48	1142.95
22185.97	1143.72	2202.29	1144.872	2217.97	1146.342	2251.08	1145.932	2299.83	1147
22323.78	1146.22	2335.91	114722	349.03	1146.972	2415.35	1147.952	2509.12	1148.69
22562.42	1148.62	2614.12	1149.012	2625.45	1148.92	2636.25	1151.032	2650.36	1153.26
22663.97	1152.22	2680.81	1150.172	2694.38	1148.962	2708.16	1148.652	2727.33	1148.54
22807.97	1149.42	2847.56	1150.342	2868.91	1151.052	2935.83	1151.852	2981.91	1153.39
23005.61	1153.72	3057.16	1155.262	3071.69	1156.242	3083.89	1156.692	3100.19	1154.27
23104.54	1153.82	3117.44	1154.142	3135.42	1154.822	3144.94	1155.62	3159.22	1156.91
23196.77	1157.62	3229.58	1158.082	3258.36	1158.67	23280.1	1158.612	3480.04	1157.24
23577.25	1156.92	3595.16	1157.212	3646.88	1159.32	3719.99	1162.42	3735.38	1163.17
23741.97	1163.42	3751.71	1163.122	3801.94	1162.732	3824.49	1163.932	3832.95	1164.01
23842.9	1163.5	23866.3	1162.332	3879.96	1162.97				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
14841.36	.035	19401.15	.035	20468.98	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19401.15	20468.98	380	467.92	590	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14841.36	19401.15	1140.72	20468.98	23879.96	1140.19

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1131.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.94	Wt. n-Val.		0.035	
E.G. Elev (ft)	1133.03	Reach Len. (ft)	380.00	467.92	590.00

Crit W.S. (ft)	1125.53	Flow Area (sq ft)		15131.52	
E.G. Slope (ft/ft)	0.001929	Area (sq ft)	5378.12	15131.52	9929.08
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	2726.06	Top Width (ft)	614.48	1024.85	1086.72
Vel Total (ft/s)	11.17	Avg. Vel. (ft/s)		11.17	
Max Chl Dpth (ft)	17.70	Hydr. Depth (ft)		14.76	
Conv. Total (cfs)	3847780.5	Conv. (cfs)		3847780.5	
Length Wtd. (ft)	467.92	Wetted Per. (ft)		1032.24	
Min Ch El (ft)	1113.40	Shear (lb/sq ft)		1.77	
Alpha	1.00	Stream Power (lb/ft s)		19.72	
Frctn Loss (ft)	0.92	Cum Volume (acre-ft)	2164.23	9895.24	980.63
C & E Loss (ft)	0.00	Cum SA (acres)	130.26	596.81	179.08

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1131.10	Element			
Vel Head (ft)	1.94	Wt. n-Val.		0.035	
E.G. Elev (ft)	1133.03	Reach Len. (ft)	380.00	467.92	590.00
Crit W.S. (ft)	1125.53	Flow Area (sq ft)		15130.65	
E.G. Slope (ft/ft)	0.001929	Area (sq ft)		15130.65	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1024.85	Top Width (ft)		1024.85	
Vel Total (ft/s)	11.17	Avg. Vel. (ft/s)		11.17	
Max Chl Dpth (ft)	17.70	Hydr. Depth (ft)		14.76	
Conv. Total (cfs)	3847426.8	Conv. (cfs)		3847426.8	
Length Wtd. (ft)	467.92	Wetted Per. (ft)		1032.24	
Min Ch El (ft)	1113.40	Shear (lb/sq ft)		1.77	
Alpha	1.00	Stream Power (lb/ft s)		19.72	
Frctn Loss (ft)	0.92	Cum Volume (acre-ft)		9896.24	0.32
C & E Loss (ft)	0.00	Cum SA (acres)		596.80	0.18

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19401.15 LB	19472.34	1749.77	282.04	45.04	1.04	6.72	6.20
19472.34	19543.53	9300.04	922.92	71.19	5.50	12.96	10.08
19543.53	19614.72	10266.34	979.31	71.19	6.07	13.76	10.48
19614.72	19685.90	10979.75	1019.56	71.19	6.50	14.32	10.77
19685.90	19757.09	11405.13	1043.10	71.19	6.75	14.65	10.93
19757.09	19828.28	12240.30	1088.29	71.19	7.24	15.29	11.25
19828.28	19899.47	13193.99	1138.39	71.19	7.81	15.99	11.59
19899.47	19970.66	14109.51	1185.15	71.19	8.35	16.65	11.91
19970.66	20041.85	15015.12	1230.23	71.19	8.88	17.28	12.21
20041.85	20113.04	15153.26	1237.00	71.19	8.97	17.38	12.25
20113.04	20184.23	14545.42	1206.98	71.19	8.61	16.95	12.05
20184.23	20255.41	13830.34	1171.04	71.19	8.18	16.45	11.81
20255.41	20326.60	12334.83	1093.36	71.20	7.30	15.36	11.28
20326.60	20397.79	11085.38	1025.46	71.19	6.56	14.41	10.81
20397.79	20468.98 RB	3790.83	508.70	61.70	2.24	8.86	7.45

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19401.15 LB	19472.34	1749.67	282.00	45.03	1.04	6.72	6.20
19472.34	19543.53	9299.88	922.86	71.19	5.50	12.96	10.08
19543.53	19614.72	10266.24	979.25	71.19	6.07	13.76	10.48
19614.72	19685.90	10979.68	1019.50	71.19	6.50	14.32	10.77
19685.90	19757.09	11405.08	1043.04	71.19	6.75	14.65	10.93
19757.09	19828.28	12240.30	1088.23	71.19	7.24	15.29	11.25
19828.28	19899.47	13194.04	1138.33	71.19	7.81	15.99	11.59
19899.47	19970.66	14109.61	1185.09	71.19	8.35	16.65	11.91
19970.66	20041.85	15015.28	1230.17	71.19	8.88	17.28	12.21
20041.85	20113.04	15153.43	1236.94	71.19	8.97	17.38	12.25
20113.04	20184.23	14545.55	1206.92	71.19	8.61	16.95	12.05
20184.23	20255.41	13830.43	1170.97	71.19	8.18	16.45	11.81
20255.41	20326.60	12334.83	1093.30	71.20	7.30	15.36	11.28
20326.60	20397.79	11085.31	1025.40	71.19	6.56	14.40	10.81

20397.79	20468.98	RB	3790.67	508.65	61.70	2.24	8.86	7.45

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 219.24

INPUT
Description:
Station Elevation Data num= 257

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14646.32	1134.4	14764.4	1134.8	14831.71	1135.2	14844.69	1135.3	14892.21	1135.13
14921.24	1136.1	14974.7	1136.8	15052.31	1137.3	15099.21	1135.7	15106.88	1135.32
15191.55	1136.5	15221.5	1135.0	15226.48	1134.8	15290.32	1135.3	15323.23	1136.13
15326.62	1135.5	15337.03	1133.2	15387.5	1136.9	15433.06	1136.8	15539.19	1136.44
15563.61	1136.5	15584.96	1136.2	15688.79	1136.3	15695.05	1135.9	15719.52	1135.69
15887.11	1136.8	15940.24	1136.78	16059.1	1137.2	16082.72	1136.7	16111.12	1137
16127.59	1137.3	16170.82	1136.9	16226.37	1137.0	16275.63	1137.5	16304.44	1137.29
16307.79	1137.3	16370.75	1137.2	16425.82	1138.2	16473.32	1137.3	16495.94	1137.47
16507.5	1137.5	16558.97	1137.71	16592.8	1137.7	16628.27	1137.7	16662.48	1138.27
16689.32	1138.4	16702.03	1138.5	16719.82	1138.5	16738.98	1138.6	16748.91	1139.41
16767.6	1138.5	16784.38	1138.4	16821.91	1138.9	16850.35	1139.4	16859.33	1140.14
16912.28	1140.5	16970.34	1140.0	17198.01	1139.3	17221.24	1137.3	17234.49	1136.34
17272.18	1136	17407.34	1136.8	17431.72	1137.0	17446.85	1138.0	17480.31	1136.81
17503.82	1136.6	17552.53	1136.83	17569.7	1136.94	17610.6	1137.2	17626.55	1136.28
17635.29	1136	17643.59	1134.9	17663.91	1133.89	17678.4	1134.4	17692.56	1134.59
17721.15	1136	17738.84	1136.6	17764.86	1136.6	17777.72	1136.8	17849.78	1136.8
17857.28	1136.8	17920.2	1136.6	17947.94	1136.02	17966.4	1133.7	18068.06	1132.7
18108.56	1132.6	18142.81	1132.7	18249.02	1134.2	18324.26	1134.3	18363.86	1134.1
18388.07	1134	18408.92	1134.1	18487.59	1133.9	18590	1133.7	18649.24	1133.42
18688.62	1133.4	18708	1134.8	18788.17	1134.32	18850.1	1125.4	18883.57	1120.97
18904.83	1120.9	18973.61	1120.9	19117.02	1121.6	19122.76	1121.7	19163.61	1121.65
19204.77	1120.9	19305.4	1121.68	19367.5	1122.1	19377.18	1124.5	19399.49	1130.11
19405.74	1131.9	19428.05	1138.8	19436.24	1138.9	19441.07	1138.7	19464.52	1131.35
19472.76	1128.6	19475.72	1128.9	19481.84	1129.2	19490.28	1123.7	19495.88	1119.82
19503.56	1119.1	19575.02	1115.2	19583.91	1115	19682.24	1114.3	19737.43	1113.53
19806.63	1112.1	19846.97	1112.4	19977.39	1113.8	20018.91	1114.3	20027.94	1114.39
20058.13	1114.6	20207.74	1115.4	20265.72	1116.1	20322.01	1116.5	20376.48	1116.2
20413.78	1116.1	20439.92	1115.7	20457.36	1115.0	20474.25	1128.7	20483.45	1128.29
20490.4	1125.7	20496.83	1127.9	20517.22	1140.0	20530.41	1139.8	20544.69	1136.8
20554.93	1135	20563.19	1131.38	20602.3	1126.1	20608.87	1125.9	20653.81	1124.9
20698.56	1125.3	20771.04	1126.2	20771.61	1126.2	20807.58	1129.5	20831.36	1132.98
20878.82	1134.4	20898.67	1136.1	20912.37	1137.1	20969.84	1138.0	20996.46	1138.65
21043.1	1138.5	21053.53	1138.3	21079.47	1137.9	21082.55	1138	21086.12	1137.57
21103.33	1135.9	21110.2	1136.1	21117.68	1136.1	21123.72	1136.7	21137.71	1137.27
21143.9	1136.4	21154.24	1135.8	21198.86	1135.4	21233.74	1134.8	21241.56	1134.96
21272.19	1135.8	21279.85	1135.0	21422.76	1121.1	21458.02	1117.8	21468.74	1117.79
21523.76	1116.2	21590.37	1116.0	21601.66	1117.2	21641.76	1117.1	21703.21	1117.25
21782.66	1117.9	21808.93	1117.7	21876.88	1123.4	21880.78	1123.5	21951.95	1122.71
21979.11	1130.6	21989.42	1133.9	22008.61	1134.67	22014.2	1134.9	22020.74	1132.65
22039.31	1125.6	22058.15	1119.4	22076.68	1119.4	22090.39	1119.6	22107.16	1118.76
22119.61	1119.8	22181.31	1120.1	22186.64	1122.02	22214.9	1132.6	22243.91	1132.68
22264.09	1132.8	22473.5	1134.7	22506.19	1134.9	22560.06	1135.8	22567.51	1135.83
22587.56	1137.4	22634.1	1143.6	22671.68	1141.5	22679.57	1139.3	22697.08	1134.87
22713.99	1135	22737.51	1135.3	22749.5	1140.24	22757.1	1142.88	22793.1	1142.58
22801.02	1142.7	22827.93	1143.2	22856.02	1143.2	22872.09	1143.1	22876.42	1143.53
22909.59	1145.1	22925.78	1146.0	22929.43	1146.1	23082.04	1146.0	23143.84	1147.23
23171.14	1147.1	23190.17	1146.9	23218.04	1147.7	23270.26	1148.0	23343.11	1149.1
23374.31	1149.5	23407.84	1150.1	23457.49	1151.5	23483.69	1152.1	23507.96	1153.18
23515.86	1152.5	23528.25	1151.8	23547.44	1152.9	23572.23	1153.9	23612.48	1153.79
23645.45	1153.9	23690.07	1154.0	23716.54	1154.3	23755.06	1154.7	23786.78	1154.49
23851.78	1155.1	23862.13	1155.0	23875.66	1155.2	23957.31	1155.8	23980.42	1155.71
24063.68	1154.6	24074.39	1154.64						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
14646.32	.035	19436.24	.035	20517.22	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19436.24	20517.22	510	511.34	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14646.32	19436.24	1138.93	20517.22	24074.39	1140.09

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1130.16	Element	Left OB	Channel	Right OB

Vel Head (ft)	1.96	Wt. n-Val.		0.035	
E.G. Elev (ft)	1132.12	Reach Len. (ft)	510.00	511.34	500.00
Crit W.S. (ft)	1124.65	Flow Area (sq ft)		15051.51	
E.G. Slope (ft/ft)	0.001989	Area (sq ft)	4698.73	15051.51	9173.83
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	2682.75	Top Width (ft)	582.44	1032.45	1067.87
Vel Total (ft/s)	11.23	Avg. Vel. (ft/s)		11.23	
Max Chl Dpth (ft)	18.06	Hydr. Depth (ft)		14.58	
Conv. Total (cfs)	3789818.8	Conv. (cfs)		3789818.8	
Length Wtd. (ft)	511.34	Wetted Per. (ft)		1042.11	
Min Ch El (ft)	1112.10	Shear (lb/sq ft)		1.79	
Alpha	1.00	Stream Power (lb/ft s)		20.13	
Frctn Loss (ft)	0.99	Cum Volume (acre-ft)	2120.27	9733.12	851.26
C & E Loss (ft)	0.01	Cum SA (acres)	125.04	585.76	164.49

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1130.16	Element			
Vel Head (ft)	1.96	Wt. n-Val.		0.035	
E.G. Elev (ft)	1132.12	Reach Len. (ft)	510.00	511.34	500.00
Crit W.S. (ft)	1124.65	Flow Area (sq ft)		15050.38	
E.G. Slope (ft/ft)	0.001989	Area (sq ft)		15050.38	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1032.44	Top Width (ft)		1032.44	
Vel Total (ft/s)	11.23	Avg. Vel. (ft/s)		11.23	
Max Chl Dpth (ft)	18.06	Hydr. Depth (ft)		14.58	
Conv. Total (cfs)	3789355.3	Conv. (cfs)		3789355.3	
Length Wtd. (ft)	511.34	Wetted Per. (ft)		1042.10	
Min Ch El (ft)	1112.10	Shear (lb/sq ft)		1.79	
Alpha	1.00	Stream Power (lb/ft s)		20.14	
Frctn Loss (ft)	0.99	Cum Volume (acre-ft)		9734.13	0.32
C & E Loss (ft)	0.01	Cum SA (acres)		585.75	0.18

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19436.24 LB	19508.30	1266.39	227.73	43.38	0.75	5.66	5.56
19508.30	19580.37	9835.33	954.91	72.17	5.82	13.25	10.30
19580.37	19652.44	12594.26	1107.02	72.07	7.45	15.36	11.38
19652.44	19724.50	13381.31	1148.06	72.07	7.92	15.93	11.66
19724.50	19796.57	15074.37	1233.17	72.08	8.92	17.11	12.22
19796.57	19868.63	16108.64	1283.21	72.07	9.53	17.81	12.55
19868.63	19940.70	15042.30	1231.53	72.07	8.90	17.09	12.21
19940.70	20012.76	13905.81	1174.84	72.07	8.23	16.30	11.84
20012.76	20084.83	12957.82	1126.08	72.07	7.67	15.63	11.51
20084.83	20156.89	12372.05	1095.27	72.07	7.32	15.20	11.30
20156.89	20228.96	11791.98	1064.15	72.07	6.98	14.77	11.08
20228.96	20301.03	10892.40	1014.69	72.07	6.45	14.08	10.73
20301.03	20373.09	10437.54	989.03	72.07	6.18	13.72	10.55
20373.09	20445.16	10949.16	1017.88	72.07	6.48	14.12	10.76
20445.16	20517.22 RB	2390.63	383.93	61.72	1.41	6.93	6.23

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19436.24 LB	19508.30	1266.21	227.68	43.38	0.75	5.66	5.56
19508.30	19580.37	9835.17	954.83	72.17	5.82	13.25	10.30
19580.37	19652.44	12594.29	1106.94	72.07	7.45	15.36	11.38
19652.44	19724.50	13381.39	1147.98	72.07	7.92	15.93	11.66
19724.50	19796.57	15074.58	1233.09	72.08	8.92	17.11	12.23

19796.57	19868.63	16108.93	1283.13	72.07	9.53	17.80	12.55
19868.63	19940.70	15042.51	1231.45	72.07	8.90	17.09	12.22
19940.70	20012.76	13905.93	1174.77	72.07	8.23	16.30	11.84
20012.76	20084.83	12957.87	1126.00	72.07	7.67	15.62	11.51
20084.83	20156.89	12372.06	1095.19	72.07	7.32	15.20	11.30
20156.89	20228.96	11791.94	1064.07	72.07	6.98	14.77	11.08
20228.96	20301.03	10892.31	1014.61	72.07	6.45	14.08	10.74
20301.03	20373.09	10437.41	988.95	72.07	6.18	13.72	10.55
20373.09	20445.16	10949.07	1017.80	72.07	6.48	14.12	10.76
20445.16	20517.22 RB	2390.34	383.87	61.72	1.41	6.93	6.23

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 219.14

INPUT
Description:
Station Elevation Data num= 234

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15164.78	1136.4	15208.2	1137.09	15256.23	1136.88	15380.96	1136.55	15422.24	1136.39
15435.33	1136.41	5446.04	1136.21	15465.53	1135.94	15519.25	1134.24	15542.67	1133.6
15565.73	1134.21	5589.49	1134.66	15597.77	1134.62	15670.72	1135.49	15802.44	1135.74
15827.2	1135.61	6196.09	1135.61	16201.64	1135.61	16664.74	1136.68	16758.6	1135.75
16870.13	1135.91	6954.81	1136.28	17040.55	1135.21	7082.77	1134.73	17168.23	1133.92
17192.15	1135.11	7206.81	1134.71	7223.42	1134.49	17230.65	1134.28	17259.46	1132.73
17365	1132.61	7440.14	1133.08	17514.47	1132.95	17584.53	1132.65	17773.68	1137.58
17780.81	1138.21	7796.97	1138.18	17831.92	1137.07	17866.27	1136.67	17871.77	1136.17
17888.74	1135.21	7911.91	1133.48	17919.2	1133	17927.9	1133	17951.44	1132.88
17984.39	1135.21	7989.89	1135.61	8002.57	1135.72	18097.83	1135.86	18160.79	1136.77
18183.72	1136.91	8208.57	1134.27	18242.11	1129.94	18247.45	1129.99	18284.14	1130.13
18376.13	1130.81	8429.04	1131.11	8436.08	1131.21	8491.49	1131.73	18511.74	1132.63
18546.94	1134.41	8670.73	1133.53	18717.03	1133.31	8776.64	1132.84	18789.6	1133.66
18817.97	1134.81	8852.69	1134.41	8893.54	1134.25	18904.92	1133.31	8910.67	1132.7
19016.8	1119.61	9037.75	1117.31	9042.38	1117.54	19090.57	1117.81	19140.69	1117.58
19217.98	1116.81	9251.56	1116.43	19288.52	1117.02	19303.43	1118.65	19325.43	1118.5
19342.44	1119.31	9372.01	1123.37	19386.41	1125.47	19406.2	1130.49	19430.09	1138.01
19445.31	1137.9	19448.4	1137.32	19468.34	1137.05	19470.09	1136.95	19495.93	1119.9
19497.57	1119.41	9524.89	1116.26	19534.77	1115.24	19568.82	1113.75	19629.2	1110.42
19649.81	1110.41	9773.39	1111.38	19866.54	1111.87	19893.37	1112.11	9927.72	1112.67
20063.1	1115	20149.03	1116.87	20181.57	1116.61	20245.29	1115.66	20275.45	1115.54
20310.17	1115.12	0452.52	1113.92	0463.91	1114.32	0480.07	1124.6	20483.3	1126.74
20492.82	1126.32	0496.53	1124.32	0511.26	1132.71	20520.48	1138.24	20530.15	1138.08
20534.29	1138.62	0543.75	1136.11	20548.42	1135.04	20558.57	1131.51	20568.89	1128.37
20596.43	1129.2	20621.7	1130.19	20681.66	1129.79	20717.17	1129.36	20767.68	1128.58
20836.05	1134.32	0871.71	1137.19	20937.38	1130.12	0964.21	1130.25	20977.27	1129.96
20988.72	1131	20999.08	1131.67	21036.18	1132.48	21072.43	1126.93	21081.9	1127.27
21087.68	1128.72	1133.93	1128.98	21141.15	1129.12	21151.53	1126.39	21185.85	1126.17
21209.44	1126.3	21212.2	1126.37	21217.6	1127.61	21219.95	1127.93	21263.22	1138.51
21266.96	1137.22	1284.09	1133.42	21291.61	1133.18	21300.74	1133.32	21322.62	1133.52
21361.86	1132.9	21390.2	1132.22	21394.13	1132.23	21454.34	1132.01	21464.97	1132.11
21476.33	1132	21540.74	1130.12	1568.29	1129.44	21620.64	1129.17	21647.09	1129.18
21664.31	1127.6	21721.5	1124.24	21749.96	1123.15	21761.9	1122.55	21827.64	1121.5
21865.73	1121.62	1878.81	1121.44	21934.36	1121.98	21941.03	1122.68	21973.53	1124.83
22017.41	1131.82	2035.36	1133.11	22053.41	1133.29	22108.52	1123.12	2141.46	1123.59
22167.67	1120.62	2180.34	1119.63	22268.31	1119.63	22278.16	1119.76	22302.79	1119.7
22329.17	1119.8	22368	1119.36	22378.55	1119.39	22389.88	1120.52	22476.5	1126.06
22551.91	1133.12	2556.71	1133.47	22560.92	1134.05	22592.74	1134.85	22613.6	1135.73
22620.2	1135.72	2655.58	1135.15	22684.66	1135.14	22717.56	1134.83	22753.82	1134.64
22781.4	1134.82	2794.68	1134.92	22875.32	1135.38	22948.92	1135.38	22981.01	1138.44
23018.92	1140.62	3038.12	1141.63	23095.2	1141.91	23112.63	1142.09	23153.66	1142.77
23186.62	1143	23201.76	1139.76	23217.3	1135.32	23240.34	1135.36	23254.3	1135.04
23274.71	1140.72	3282.92	1142.72	23291.34	1142.62	23321.33	1142.66	23331.53	1143.07
23349.27	1144.82	3367.87	1144.86	23401.72	1143.91	23459.98	1143.28	23542.75	1142.68
23622.63	1143.62	3653.75	1143.68	23696.07	1143.77	23727.01	1145.17	23773.37	1151.8
23779.91	1151.32	3805.74	1149.97	23818.61	1151.19	23823.91	1151.56	23874.31	1151.28
23926.63	1151.22	3980.52	1151.08	24041.38	1151.27	24067.8	1151.47		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
15164.78	.05	19470.09	.03	20520.48	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19470.09	20520.48	760	550.34	260	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15164.78	19470.09	1136.95	20520.48	24067.8	1138.24

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1129.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.91	Wt. n-Val.		0.035	
E.G. Elev (ft)	1131.11	Reach Len. (ft)	760.00	550.34	260.00
Crit W.S. (ft)	1123.56	Flow Area (sq ft)		15229.89	
E.G. Slope (ft/ft)	0.001887	Area (sq ft)	4504.22	15229.89	5457.17
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	2551.53	Top Width (ft)	462.09	1023.28	1066.17
Vel Total (ft/s)	11.10	Avg. Vel. (ft/s)		11.10	
Max Chl Dpth (ft)	18.80	Hydr. Depth (ft)		14.88	
Conv. Total (cfs)	3890078.8	Conv. (cfs)		3890078.8	
Length Wtd. (ft)	550.34	Wetted Per. (ft)		1032.04	
Min Ch El (ft)	1110.40	Shear (lb/sq ft)		1.74	
Alpha	1.00	Stream Power (lb/ft s)		19.29	
Frctn Loss (ft)	1.14	Cum Volume (acre-ft)	2066.40	9555.39	767.29
C & E Loss (ft)	0.02	Cum SA (acres)	118.92	573.69	152.24

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1129.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.91	Wt. n-Val.		0.035	
E.G. Elev (ft)	1131.11	Reach Len. (ft)	760.00	550.34	260.00
Crit W.S. (ft)	1123.56	Flow Area (sq ft)		15228.51	
E.G. Slope (ft/ft)	0.001888	Area (sq ft)		15228.51	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1023.27	Top Width (ft)		1023.27	
Vel Total (ft/s)	11.10	Avg. Vel. (ft/s)		11.10	
Max Chl Dpth (ft)	18.80	Hydr. Depth (ft)		14.88	
Conv. Total (cfs)	3889507.0	Conv. (cfs)		3889507.0	
Length Wtd. (ft)	550.34	Wetted Per. (ft)		1032.03	
Min Ch El (ft)	1110.40	Shear (lb/sq ft)		1.74	
Alpha	1.00	Stream Power (lb/ft s)		19.30	
Frctn Loss (ft)	1.14	Cum Volume (acre-ft)		9556.42	0.32
C & E Loss (ft)	0.02	Cum SA (acres)		573.68	0.18

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19470.09 LB	19540.12	4946.43	599.96	61.38	2.93	10.29	8.24
19540.12	19610.14	12639.90	1110.98	70.12	7.48	15.86	11.38
19610.14	19680.17	16480.29	1302.22	70.06	9.75	18.60	12.66
19680.17	19750.19	16022.21	1280.17	70.03	9.48	18.28	12.52
19750.19	19820.22	15279.72	1244.25	70.03	9.04	17.77	12.28
19820.22	19890.25	14721.72	1216.77	70.03	8.71	17.38	12.10
19890.25	19960.27	13593.97	1160.01	70.04	8.04	16.57	11.72
19960.27	20030.30	11994.99	1076.12	70.04	7.10	15.37	11.15
20030.30	20100.32	10412.39	988.54	70.04	6.16	14.12	10.53
20100.32	20170.35	8757.78	891.04	70.04	5.18	12.72	9.83
20170.35	20240.38	9019.72	906.92	70.03	5.34	12.95	9.95
20240.38	20310.40	9946.52	961.70	70.03	5.89	13.73	10.34
20310.40	20380.43	10760.29	1008.16	70.03	6.37	14.40	10.67
20380.43	20450.46	11505.89	1049.53	70.03	6.81	14.99	10.96
20450.46	20520.48 RB	2918.19	433.53	60.13	1.73	7.93	6.73

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19470.09 LB	19540.12	4946.23	599.88	61.38	2.93	10.29	8.25
19540.12	19610.14	12639.96	1110.88	70.12	7.48	15.86	11.38
19610.14	19680.17	16480.71	1302.12	70.06	9.75	18.59	12.66
19680.17	19750.19	16022.57	1280.08	70.03	9.48	18.28	12.52
19750.19	19820.22	15280.02	1244.16	70.03	9.04	17.77	12.28
19820.22	19890.25	14721.96	1216.68	70.03	8.71	17.37	12.10
19890.25	19960.27	13594.11	1159.92	70.04	8.04	16.56	11.72
19960.27	20030.30	11994.99	1076.03	70.04	7.10	15.37	11.15
20030.30	20100.32	10412.25	988.45	70.04	6.16	14.12	10.53
20100.32	20170.35	8757.51	890.94	70.04	5.18	12.72	9.83
20170.35	20240.38	9019.47	906.82	70.03	5.34	12.95	9.95
20240.38	20310.40	9946.34	961.61	70.03	5.89	13.73	10.34
20310.40	20380.43	10760.18	1008.07	70.03	6.37	14.40	10.67
20380.43	20450.46	11505.84	1049.43	70.03	6.81	14.99	10.96
20450.46	20520.48 RB	2917.86	433.46	60.12	1.73	7.93	6.73

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 219.03

INPUT
Description: Upstream face of Hohokam Bridge

Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17290	113617865.96	1134.318102.01	113618281.41	114018715.74	1144				
19304.64	1144.319304.73	1137.619326.92	1137.68 19359.5	1113.8819387.82	1113.1				
19395.38	1112.919424.18	1112.919429.84	1112.919484.41	1112.919548.81	1112.9				
19554.47	1112.919606.22	1112.919673.45	1112.919679.11	1112.919728.96	1112.9				
19771.17	1112.919781.55	1113.619798.08	1113.519803.74	1113.519853.13	1113.3				
19922.71	1113.8519928.38	1113.8519976.81	1113.520047.35	1113.520053.01	1113.5				
20104.28	1113.720171.98	1114.320177.65	1114.320228.45	1114.3520296.62	1114.65				
20299.45	1114.6520343.83	1114.720383.48	113720420.31	1137 20420.4	1138.5				
20420.49	1145.2421293.41	114421737.18	114021793.83	114022171.51	1144				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17290	.05	19304.73	.035	20420.4	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19304.73	20420.4	190.12	190.12	190.12	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17290	19304.73	1137.6	20420.4	22171.51	1138.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1127.80	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.15	Wt. n-Val.		0.035	
E.G. Elev (ft)	1129.94	Reach Len. (ft)	31.50	31.50	31.50
Crit W.S. (ft)	1123.15	Flow Area (sq ft)		14369.34	
E.G. Slope (ft/ft)	0.002299	Area (sq ft)		14369.34	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1026.67	Top Width (ft)		1026.67	
Vel Total (ft/s)	11.76	Avg. Vel. (ft/s)		11.76	
Max Chl Dpth (ft)	14.90	Hydr. Depth (ft)		14.00	
Conv. Total (cfs)	3524654.0	Conv. (cfs)		3524654.0	
Length Wtd. (ft)	31.50	Wetted Per. (ft)		1034.68	
Min Ch El (ft)	1112.90	Shear (lb/sq ft)		1.99	
Alpha	1.00	Stream Power (lb/ft s)		23.44	
Frctn Loss (ft)	0.09	Cum Volume (acre-ft)	2027.11	9368.41	751.00
C & E Loss (ft)	0.04	Cum SA (acres)	114.89	560.74	149.06

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1127.79	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.15	Wt. n-Val.		0.035	
E.G. Elev (ft)	1129.94	Reach Len. (ft)	31.50	31.50	31.50

Crit W.S. (ft)	1123.15	Flow Area (sq ft)	14367.08	
E.G. Slope (ft/ft)	0.002300	Area (sq ft)	14367.08	
Q Total (cfs)	169000.00	Flow (cfs)	169000.00	
Top Width (ft)	1026.66	Top Width (ft)	1026.66	
Vel Total (ft/s)	11.76	Avg. Vel. (ft/s)	11.76	
Max Chl Dpth (ft)	14.89	Hydr. Depth (ft)	13.99	
Conv. Total (cfs)	3523750.8	Conv. (cfs)	3523750.8	
Length Wtd. (ft)	31.50	Wetted Per. (ft)	1034.68	
Min Ch El (ft)	1112.90	Shear (lb/sq ft)	1.99	
Alpha	1.00	Stream Power (lb/ft s)	23.46	
Frctn Loss (ft)	0.09	Cum Volume (acre-ft)	9369.46	0.32
C & E Loss (ft)	0.04	Cum SA (acres)	560.73	0.18

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19304.73 LB	19379.11	3717.30	410.76	43.21	2.20	10.62	9.05
19379.11	19453.49	13455.07	1104.43	74.38	7.96	14.85	12.18
19453.49	19527.87	13528.15	1108.00	74.38	8.00	14.90	12.21
19527.87	19602.24	13527.79	1107.97	74.38	8.00	14.90	12.21
19602.24	19676.62	13528.15	1108.00	74.38	8.00	14.90	12.21
19676.62	19751.00	13527.79	1107.97	74.38	8.00	14.90	12.21
19751.00	19825.38	12924.30	1078.20	74.40	7.65	14.50	11.99
19825.38	19899.75	12725.42	1068.07	74.38	7.53	14.36	11.91
19899.75	19974.13	12309.32	1046.99	74.38	7.28	14.08	11.76
19974.13	20048.51	12631.45	1063.32	74.38	7.47	14.30	11.88
20048.51	20122.89	12427.31	1053.00	74.38	7.35	14.16	11.80
20122.89	20197.27	11676.36	1014.34	74.38	6.91	13.64	11.51
20197.27	20271.64	11336.68	996.53	74.38	6.71	13.40	11.38
20271.64	20346.02	10930.30	976.62	74.70	6.47	13.13	11.19
20346.02	20420.40 RB	754.60	125.14	24.20	0.45	5.93	6.03

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19304.73 LB	19379.11	3717.21	410.67	43.21	2.20	10.62	9.05
19379.11	19453.49	13455.22	1104.27	74.38	7.96	14.85	12.18
19453.49	19527.87	13528.31	1107.84	74.38	8.00	14.89	12.21
19527.87	19602.24	13527.95	1107.81	74.38	8.00	14.89	12.21
19602.24	19676.62	13528.30	1107.84	74.38	8.00	14.89	12.21
19676.62	19751.00	13527.95	1107.81	74.38	8.00	14.89	12.21
19751.00	19825.38	12924.36	1078.03	74.40	7.65	14.49	11.99
19825.38	19899.75	12725.45	1067.91	74.38	7.53	14.36	11.92
19899.75	19974.13	12309.29	1046.83	74.38	7.28	14.07	11.76
19974.13	20048.51	12631.47	1063.16	74.38	7.47	14.29	11.88
20048.51	20122.89	12427.30	1052.83	74.38	7.35	14.15	11.80
20122.89	20197.27	11676.23	1014.17	74.38	6.91	13.64	11.51
20197.27	20271.64	11336.50	996.37	74.38	6.71	13.40	11.38
20271.64	20346.02	10930.06	976.46	74.70	6.47	13.13	11.19
20346.02	20420.40 RB	754.42	125.09	24.20	0.45	5.93	6.03

BRIDGE RIVER: Salt River
REACH: Reach 4 RS: 219.02

INPUT
Description: Hohokam Expressway (SR 143)
Distance from Upstream XS = 31.5
Deck/Roadway Width = 127
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 16

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
17290	1136	1136	17865.96	1134.3	1134.3	18102.01	1136	1136
18281.41	1140	1140	18715.74	1144	1144	19304.73	1144.3	1144.3
19304.73	1144.3	1137.6	19424.18	1144.43	1137.7	19548.81	1145.27	1138.56
19673.45	1145.64	1138.9	19798.08	1146.04	1139.3	19922.71	1146.44	1139.73
20047.35	1146.71	1140	20171.98	1146.99	1140.2	20299.45	1146.24	1139.53
20420.31	1145.24	1138.53						

Upstream Bridge Cross Section Data

```
Station Elevation Data    num=      45
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   17290   113617865.96  1134.318102.01   113618281.41   114018715.74    1144
19304.64  1144.319304.73  1137.619326.92 1137.68 19359.5 1113.8819387.82  1113.1
19395.38  1112.919424.18  1112.919429.84  1112.919484.41  1112.919548.81  1112.9
19554.47  1112.919606.22  1112.919673.45  1112.919679.11  1112.919728.96  1112.9
19771.17  1112.919781.55  1113.619798.08  1113.519803.74  1113.519853.13  1113.3
19922.71 1113.8519928.38 1113.8519976.81  1113.520047.35  1113.520053.01  1113.5
20104.28  1113.720171.98  1114.320177.65  1114.320228.45 1114.3520296.62 1114.65
20299.45 1114.6520343.83  1114.720383.48    113720420.31    1137 20420.4  1138.5
20420.49 1145.2421293.41    114421737.18    114021793.83    114022171.51    1144

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   17290     .0519304.73    .035 20420.4     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19304.73 20420.4             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1729019304.73  1137.6 20420.422171.51  1138.5

Downstream  Deck/Roadway Coordinates
    num=      16
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
   17290    1136    113617865.96  1134.3  1134.318102.01    1136    1136
18281.41    1140    114018715.74    1144    114419304.73  1144.3  1144.3
19304.73  1144.3 1137.6819424.18 1144.43 1137.7219548.81 1145.27 1138.56
19673.45 1145.64 1138.9319798.08 1146.04 1139.3319922.71 1146.44 1139.73
20047.35 1146.71    114020171.98 1146.99 1140.2820299.45 1146.24 1139.53
20420.31 1145.24 1138.53

Downstream Bridge Cross Section Data
Station Elevation Data    num=      45
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   17290   113617865.96  1134.318102.01   113618281.41   114018715.74    1144
19304.64  1144.319304.73  1137.619326.92 1137.68 19359.5 1113.8819387.82  1113.1
19395.38  1112.919424.18  1112.919429.84  1112.919484.41  1112.919548.81  1112.9
19554.47  1112.919606.22  1112.919673.45  1112.919679.11  1112.919728.96  1112.9
19771.17  1112.919781.55  1113.619798.08  1113.519803.74  1113.519853.13  1113.3
19922.71 1113.8519928.38 1113.8519976.81  1113.520047.35  1113.520053.01  1113.5
20104.28  1113.720171.98  1114.320177.65  1114.320228.45 1114.3520296.62 1114.65
20299.45 1114.6520343.83  1114.720383.48    113720420.31    1137 20420.4  1138.5
20420.49 1145.2421293.41    114421737.18    114021793.83    114022171.51    1144

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   17290     .0519304.73    .035 20420.4     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19304.73 20420.4             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1729019304.73  1137.6 20420.422171.51  1138.5

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  8

Pier Data
Pier Station     Upstream=   19427    Downstream=   19427
Upstream     num=       2
    Width   Elev    Width   Elev
    5.66    1110    5.66    1141
Downstream     num=       2
    Width   Elev    Width   Elev
    5.66    1110    5.66    1141

Pier Data
Pier Station     Upstream= 19551.6    Downstream= 19551.6
```

```
 Upstream      num=        2
     Width    Elev    Width    Elev
     5.66     1110    5.66     1141
 Downstream      num=        2
     Width    Elev    Width    Elev
     5.66     1110    5.66     1141

 Pier Data
 Pier Station      Upstream= 19676.3    Downstream= 19676.3
 Upstream      num=        2
     Width    Elev    Width    Elev
     5.66     1110    5.66     1141
 Downstream      num=        2
     Width    Elev    Width    Elev
     5.66     1110    5.66     1141

 Pier Data
 Pier Station      Upstream= 19800.9    Downstream= 19800.9
 Upstream      num=        2
     Width    Elev    Width    Elev
     5.66     1110    5.66     1141
 Downstream      num=        2
     Width    Elev    Width    Elev
     5.66     1110    5.66     1141

 Pier Data
 Pier Station      Upstream= 19925.5    Downstream= 19925.5
 Upstream      num=        2
     Width    Elev    Width    Elev
     5.66     1110    5.66     1141
 Downstream      num=        2
     Width    Elev    Width    Elev
     5.66     1110    5.66     1141

 Pier Data
 Pier Station      Upstream= 20050.2    Downstream= 20050.2
 Upstream      num=        2
     Width    Elev    Width    Elev
     5.66     1110    5.66     1141
 Downstream      num=        2
     Width    Elev    Width    Elev
     5.66     1110    5.66     1141

 Pier Data
 Pier Station      Upstream= 20174.8    Downstream= 20174.8
 Upstream      num=        2
     Width    Elev    Width    Elev
     5.66     1110    5.66     1141
 Downstream      num=        2
     Width    Elev    Width    Elev
     5.66     1110    5.66     1141

 Pier Data
 Pier Station      Upstream= 20299.8    Downstream= 20299.8
 Upstream      num=        2
     Width    Elev    Width    Elev
     5.66     1110    5.66     1141
 Downstream      num=        2
     Width    Elev    Width    Elev
     5.66     1110    5.66     1141

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
       Momentum                Cd   =     1.2
       Yarnell                 KVal =    1.05
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
       Pressure and Weir flow
           Submerged Inlet Cd           =
           Submerged Inlet + Outlet Cd =       .8
           Max Low Cord                 =

Additional Bridge Parameters
```

Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth
inside the bridge at the downstream end
Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT Profile #PF#1
Opening : Bridge #1

E.G. US. (ft)	1129.94	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1127.80	E.G. Elev (ft)	1129.81	1129.24
Q Total (cfs)	169000.00	W.S. Elev (ft)	1127.27	1126.28
Q Bridge (cfs)	169000.00	Crit W.S. (ft)	1123.46	1123.45
Q Weir (cfs)		Max Chl Dpth (ft)	14.37	13.38
Weir Sta Lft (ft)		Vel Total (ft/s)	12.79	13.81
Weir Sta Rgt (ft)		Flow Area (sq ft)	13208.65	12238.60
Weir Submerg		Froude # Chl	0.61	0.69
Weir Max Depth (ft)		Specif Force (cu ft)	157678.77	150383.59
Min Top Rd (ft)	1137.00	Hydr Depth (ft)	13.48	12.53
Min El Prs (ft)	1144.30	W.P. Total (ft)	1206.76	1187.19
Delta EG (ft)	0.92	Conv. Total (cfs)	2764461.0	2461124.3
Delta WS (ft)	1.43	Top Width (ft)	979.73	976.61
BR Open Area (sq ft)	25161.30	Frctn Loss (ft)	0.53	0.12
BR Open Vel (ft/s)	13.81	C & E Loss (ft)	0.04	0.09
Coef of Q		Shear Total (lb/sq ft)	2.55	3.03
Br Sel Mthd	Energy only	Power Total (lb/ft s)	32.67	41.91

BRIDGE OUTPUT Profile #PF#2
Opening : Bridge #1

E.G. US. (ft)	1129.94	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1127.79	E.G. Elev (ft)	1129.81	1129.24
Q Total (cfs)	169000.00	W.S. Elev (ft)	1127.27	1126.28
Q Bridge (cfs)	169000.00	Crit W.S. (ft)	1123.46	1123.45
Q Weir (cfs)		Max Chl Dpth (ft)	14.37	13.38
Weir Sta Lft (ft)		Vel Total (ft/s)	12.80	13.81
Weir Sta Rgt (ft)		Flow Area (sq ft)	13203.88	12237.52
Weir Submerg		Froude # Chl	0.61	0.69
Weir Max Depth (ft)		Specif Force (cu ft)	157658.97	150376.50
Min Top Rd (ft)	1144.34	Hydr Depth (ft)	13.52	12.53
Min El Prs (ft)	1144.30	W.P. Total (ft)	1203.00	1187.17
Delta EG (ft)	0.92	Conv. Total (cfs)	2768549.0	2460795.3
Delta WS (ft)	1.43	Top Width (ft)	976.61	976.61
BR Open Area (sq ft)	24870.28	Frctn Loss (ft)	0.53	0.12
BR Open Vel (ft/s)	13.81	C & E Loss (ft)	0.04	0.09
Coef of Q		Shear Total (lb/sq ft)	2.55	3.04
Br Sel Mthd	Energy only	Power Total (lb/ft s)	32.68	41.92

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 219.01

INPUT
Description: Downstream face of Hohokam Bridge

Station Elevation Data num= 45

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17290	113	617865.96	1134.3	18102.01	113	618281.41	1140	18715.74	1144
19304.64	1144.3	19304.73	1137.6	19326.92	1137.68	19359.5	1113.8	19387.82	1113.1
19395.38	1112.9	19424.18	1112.9	19429.84	1112.9	19484.41	1112.9	19548.81	1112.9
19554.47	1112.9	19606.22	1112.9	19673.45	1112.9	19679.11	1112.9	19728.96	1112.9
19771.17	1112.9	19781.55	1113.6	19798.08	1113.5	19803.74	1113.5	19853.13	1113.3
19922.71	1113.8	19928.38	1113.8	19976.81	1113.5	20047.35	1113.5	20053.01	1113.5
20104.28	1113.7	20171.98	1114.3	20177.65	1114.3	20228.45	1114.3	20296.62	1114.65
20299.45	1114.6	20343.83	1114.7	20383.48	113	720420.31	1137	20420.4	1138.5
20420.49	1145.2	421293.41	1144	21737.18	1140	21793.83	1140	22171.51	1144

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17290	.05	19304.73	.035	20420.4	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19304.73	20420.4	111.97	111.97	111.97	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17290	19304.73	1137.6	20420.42	21171.51	1138.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1126.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.67	Wt. n-Val.		0.035	
E.G. Elev (ft)	1129.03	Reach Len. (ft)	111.97	111.97	111.97
Crit W.S. (ft)	1123.16	Flow Area (sq ft)		12900.13	
E.G. Slope (ft/ft)	0.003271	Area (sq ft)		12900.13	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1022.15	Top Width (ft)		1022.15	
Vel Total (ft/s)	13.10	Avg. Vel. (ft/s)		13.10	
Max Chl Dpth (ft)	13.46	Hydr. Depth (ft)		12.62	
Conv. Total (cfs)	2954936.5	Conv. (cfs)		2954936.5	
Length Wtd. (ft)	111.97	Wetted Per. (ft)		1029.33	
Min Ch El (ft)	1112.90	Shear (lb/sq ft)		2.56	
Alpha	1.00	Stream Power (lb/ft s)		33.53	
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	2027.11	9312.22	751.00
C & E Loss (ft)	0.27	Cum SA (acres)	114.89	556.44	149.06

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1126.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.67	Wt. n-Val.		0.035	
E.G. Elev (ft)	1129.03	Reach Len. (ft)	111.97	111.97	111.97
Crit W.S. (ft)	1123.16	Flow Area (sq ft)		12899.13	
E.G. Slope (ft/ft)	0.003272	Area (sq ft)		12899.13	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1022.15	Top Width (ft)		1022.15	
Vel Total (ft/s)	13.10	Avg. Vel. (ft/s)		13.10	
Max Chl Dpth (ft)	13.46	Hydr. Depth (ft)		12.62	
Conv. Total (cfs)	2954562.3	Conv. (cfs)		2954562.3	
Length Wtd. (ft)	111.97	Wetted Per. (ft)		1029.32	
Min Ch El (ft)	1112.90	Shear (lb/sq ft)		2.56	
Alpha	1.00	Stream Power (lb/ft s)		33.54	
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)		9313.28	0.32
C & E Loss (ft)	0.27	Cum SA (acres)		556.44	0.18

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19304.73 LB	19379.11	3645.50	356.72	40.78	2.16	9.72	10.22
19379.11	19453.49	13558.86	997.76	74.38	8.02	13.41	13.59
19453.49	19527.87	13640.27	1001.33	74.38	8.07	13.46	13.62
19527.87	19602.24	13639.91	1001.30	74.38	8.07	13.46	13.62
19602.24	19676.62	13640.27	1001.33	74.38	8.07	13.46	13.62
19676.62	19751.00	13639.91	1001.30	74.38	8.07	13.46	13.62
19751.00	19825.38	12967.51	971.52	74.40	7.67	13.06	13.35
19825.38	19899.75	12745.89	961.40	74.38	7.54	12.93	13.26
19899.75	19974.13	12283.19	940.32	74.38	7.27	12.64	13.06
19974.13	20048.51	12641.32	956.65	74.38	7.48	12.86	13.21
20048.51	20122.89	12414.30	946.32	74.38	7.35	12.72	13.12
20122.89	20197.27	11580.79	907.66	74.38	6.85	12.20	12.76
20197.27	20271.64	11204.51	889.85	74.38	6.63	11.96	12.59
20271.64	20346.02	10758.95	869.95	74.70	6.37	11.70	12.37
20346.02	20420.40 RB	638.81	96.71	21.28	0.38	5.22	6.61

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

19304.73 LB	19379.11	3645.43	356.68	40.78	2.16	9.72	10.22
19379.11	19453.49	13558.94	997.69	74.38	8.02	13.41	13.59
19453.49	19527.87	13640.35	1001.26	74.38	8.07	13.46	13.62
19527.87	19602.24	13640.00	1001.23	74.38	8.07	13.46	13.62
19602.24	19676.62	13640.36	1001.26	74.38	8.07	13.46	13.62
19676.62	19751.00	13640.00	1001.23	74.38	8.07	13.46	13.62
19751.00	19825.38	12967.55	971.45	74.40	7.67	13.06	13.35
19825.38	19899.75	12745.90	961.33	74.38	7.54	12.93	13.26
19899.75	19974.13	12283.17	940.24	74.38	7.27	12.64	13.06
19974.13	20048.51	12641.33	956.58	74.38	7.48	12.86	13.22
20048.51	20122.89	12414.29	946.25	74.38	7.35	12.72	13.12
20122.89	20197.27	11580.72	907.59	74.38	6.85	12.20	12.76
20197.27	20271.64	11204.41	889.78	74.38	6.63	11.96	12.59
20271.64	20346.02	10758.83	869.87	74.70	6.37	11.70	12.37
20346.02	20420.40 RB	638.73	96.70	21.27	0.38	5.21	6.61

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 218.97

INPUT
Description: Upstream face of SR153 bridge

Station Elevation Data num= 32

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19459.46	1135.87	19459.49	1135.86	19466.11	1135.15	19468.94	1133.64	19479.54	1133.83
19514.5	1110.28	19546.88	1106.45	19567	1107.56	19619.62	1109.13	19692.07	1108.21
19758.59	1107.67	19818.56	1108.54	19830.19	1110.47	19898.06	1111.21	19960.72	1111.55
20034.81	1112.57	20102.55	1113.82	20108.76	1113.82	20114.29	1112.03	20176.09	1111.76
20220.38	1112.24	20246.16	1111.64	20315.81	1109.66	20366.41	1111.16	20389.63	1110.76
20460.12	1110.52	20486.51	1126.39	20497.67	1126.12	20529.61	1135.47	20537.11	1136.26
20575.51	1125.32	20617.67	1125.62						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19459.46	.05	19459.46	.03	20537.11	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19459.46	20537.11	138.88	138.88	138.88	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19459.46	19459.46	1135.87	20537.11	20617.67	1136.26

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1126.74	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.76	Wt. n-Val.		0.035	
E.G. Elev (ft)	1128.50	Reach Len. (ft)	10.90	10.90	10.90
Crit W.S. (ft)	1120.31	Flow Area (sq ft)		15870.96	
E.G. Slope (ft/ft)	0.001620	Area (sq ft)		15870.96	57.26
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1056.96	Top Width (ft)		1009.81	47.16
Vel Total (ft/s)	10.65	Avg. Vel. (ft/s)		10.65	
Max Chl Dpth (ft)	20.29	Hydr. Depth (ft)		15.72	
Conv. Total (cfs)	4199080.5	Conv. (cfs)		4199080.5	
Length Wtd. (ft)	10.90	Wetted Per. (ft)		1020.16	
Min Ch El (ft)	1106.45	Shear (lb/sq ft)		1.57	
Alpha	1.00	Stream Power (lb/ft s)		16.75	
Frctn Loss (ft)	0.02	Cum Volume (acre-ft)	2027.11	9275.24	750.93
C & E Loss (ft)	0.03	Cum SA (acres)	114.89	553.83	149.00

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1126.74	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.76	Wt. n-Val.		0.035	
E.G. Elev (ft)	1128.50	Reach Len. (ft)	10.90	10.90	10.90

Crit W.S. (ft)	1120.31	Flow Area (sq ft)	15869.98	
E.G. Slope (ft/ft)	0.001620	Area (sq ft)	15869.98	
Q Total (cfs)	169000.00	Flow (cfs)	169000.00	
Top Width (ft)	1009.80	Top Width (ft)	1009.80	
Vel Total (ft/s)	10.65	Avg. Vel. (ft/s)	10.65	
Max Chl Dpth (ft)	20.29	Hydr. Depth (ft)	15.72	
Conv. Total (cfs)	4198662.5	Conv. (cfs)	4198662.5	
Length Wtd. (ft)	10.90	Wetted Per. (ft)	1020.15	
Min Ch El (ft)	1106.45	Shear (lb/sq ft)	1.57	
Alpha	1.00	Stream Power (lb/ft s)	16.76	
Froth Loss (ft)	0.02	Cum Volume (acre-ft)	9276.31	0.32
C & E Loss (ft)	0.03	Cum SA (acres)	553.82	0.18

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19459.46 LB	19531.30	4002.04	494.57	46.39	2.37	11.99	8.09
19531.30	19603.15	16368.26	1372.81	72.00	9.69	19.11	11.92
19603.15	19674.99	14755.37	1288.95	71.86	8.73	17.94	11.45
19674.99	19746.83	15779.72	1341.86	71.85	9.34	18.68	11.76
19746.83	19818.68	15812.71	1343.58	71.85	9.36	18.70	11.77
19818.68	19890.52	12366.39	1160.30	72.00	7.32	16.15	10.66
19890.52	19962.36	11417.97	1105.09	71.85	6.76	15.38	10.33
19962.36	20034.21	10558.46	1054.42	71.85	6.25	14.68	10.01
20034.21	20106.05	9212.15	971.59	71.86	5.45	13.52	9.48
20106.05	20177.89	10559.19	1056.08	72.12	6.25	14.70	10.00
20177.89	20249.74	10682.25	1061.85	71.85	6.32	14.78	10.06
20249.74	20321.58	12461.72	1164.81	71.87	7.37	16.21	10.70
20321.58	20393.42	12298.04	1155.57	71.87	7.28	16.08	10.64
20393.42	20465.27	12106.05	1150.01	72.70	7.16	16.01	10.53
20465.27	20537.11 RB	619.69	149.49	38.24	0.37	4.32	4.15

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19459.46 LB	19531.30	4002.00	494.53	46.39	2.37	11.99	8.09
19531.30	19603.15	16368.50	1372.74	72.00	9.69	19.11	11.92
19603.15	19674.99	14755.50	1288.88	71.86	8.73	17.94	11.45
19674.99	19746.83	15779.92	1341.79	71.85	9.34	18.68	11.76
19746.83	19818.68	15812.92	1343.51	71.85	9.36	18.70	11.77
19818.68	19890.52	12366.38	1160.23	72.00	7.32	16.15	10.66
19890.52	19962.36	11417.91	1105.02	71.85	6.76	15.38	10.33
19962.36	20034.21	10558.34	1054.35	71.85	6.25	14.68	10.01
20034.21	20106.05	9211.97	971.52	71.86	5.45	13.52	9.48
20106.05	20177.89	10559.08	1056.01	72.12	6.25	14.70	10.00
20177.89	20249.74	10682.14	1061.78	71.85	6.32	14.78	10.06
20249.74	20321.58	12461.72	1164.74	71.87	7.37	16.21	10.70
20321.58	20393.42	12298.02	1155.50	71.87	7.28	16.08	10.64
20393.42	20465.27	12106.03	1149.94	72.70	7.16	16.01	10.53
20465.27	20537.11 RB	619.57	149.45	38.24	0.37	4.32	4.15

BRIDGE RIVER: Salt River
REACH: Reach 4 RS: 218.965

INPUT
Description: SR 153
Distance from Upstream XS = 10.9
Deck/Roadway Width = 117
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 10

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19480.19	1148.46	1141.79	19595.74	1149.67	1143	19720.43	1150.63	1143.96
19851.65	1151.18	1144.51	19988.08	1151.3	1144.63	20128.34	1151.01	1144.34
20271.02	1150.29	1143.62	20414.69	1149.15	1142.48	20557.89	1147.59	1140.92
20670.18	1146.05	1139.38						

```
Upstream Bridge Cross Section Data
Station Elevation Data    num=      32
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
19459.46 1135.8719459.491135.86719466.11 1135.1519468.94 1133.6419479.54 1133.83
 19514.5 1110.2819546.88 1106.45   19567 1107.5619619.62 1109.1319692.07 1108.21
19758.59 1107.6719818.56 1108.5419830.19 1110.4719898.06 1111.2119960.72 1111.55
20034.81 1112.5720102.55 1113.8220108.76 1113.8220114.29 1112.0320176.09 1111.76
20220.38 1112.2420246.16 1111.6420315.81 1109.6620366.41 1111.1620389.63 1110.76
20460.12 1110.5220486.51 1126.3920497.67  1126.120529.61 1135.4720537.11 1136.26
20575.51 1125.3220617.67 1125.62

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
19459.46     .0519459.46    .03520537.11     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19459.4620537.11             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
19459.4619459.46 1135.8720537.1120617.67 1136.26

Downstream  Deck/Roadway Coordinates
    num=      10
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
19480.19 1148.46 1141.7919595.74 1149.67    114319720.43 1150.63 1143.96
19851.65 1151.18 1144.5119988.08  1151.3 1144.6320128.34 1151.01 1144.34
20271.02 1150.29 1143.6220414.69 1149.15 1142.4820557.89 1147.59 1140.92
20670.18 1146.05 1139.38

Downstream Bridge Cross Section Data
Station Elevation Data    num=      27
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
19456.79 1136.1819464.29 1135.7619489.35  1117.819499.81 1118.12 19527.2 1106.31
19575.01 1106.8619638.48 1107.0819694.95 1108.06 19764.4 1108.5219823.34 1109.68
19828.52 1110.8419896.81 1110.9319965.33 1111.4520032.89 1111.9220105.85  1113.1
20175.18 1113.6320247.98 1113.2220326.04 1112.5620392.18 1111.7220465.08 1112.15
20485.85 1125.4920496.63  1125.520529.33 1135.7420537.91 1135.9420572.86 1123.41
20600.86 1123.9220641.85 1122.84

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
19456.79     .0519456.79    .03520537.91     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19456.7920537.91             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
19456.7919456.79 1136.1820537.9120641.85 1135.94

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  8

Pier Data
Pier Station     Upstream=19595.74    Downstream=19595.74
Upstream     num=       2
    Width   Elev    Width   Elev
     6.5    1110     6.5    1145
Downstream     num=       2
    Width   Elev    Width   Elev
     6.5    1110     6.5    1145

Pier Data
Pier Station     Upstream=19720.43    Downstream=19720.43
Upstream     num=       2
    Width   Elev    Width   Elev
     6.5    1110     6.5    1145
Downstream     num=       2
    Width   Elev    Width   Elev
```

```
      6.5     1110      6.5     1145

 Pier Data
 Pier Station     Upstream=19851.65    Downstream=19851.65
 Upstream     num=        2
     Width    Elev     Width    Elev
      6.5     1110      6.5     1145
 Downstream     num=        2
     Width    Elev     Width    Elev
      6.5     1110      6.5     1145

 Pier Data
 Pier Station     Upstream=19988.08    Downstream=19988.08
 Upstream     num=        2
     Width    Elev     Width    Elev
      6.5     1110      6.5     1145
 Downstream     num=        2
     Width    Elev     Width    Elev
      6.5     1110      6.5     1145

 Pier Data
 Pier Station     Upstream=20128.34    Downstream=20128.34
 Upstream     num=        2
     Width    Elev     Width    Elev
      6.5     1110      6.5     1145
 Downstream     num=        2
     Width    Elev     Width    Elev
      6.5     1110      6.5     1145

 Pier Data
 Pier Station     Upstream=20271.02    Downstream=20271.02
 Upstream     num=        2
     Width    Elev     Width    Elev
      6.5     1110      6.5     1145
 Downstream     num=        2
     Width    Elev     Width    Elev
      6.5     1110      6.5     1145

 Pier Data
 Pier Station     Upstream=20414.69    Downstream=20414.69
 Upstream     num=        2
     Width    Elev     Width    Elev
      6.5     1110      6.5     1145
 Downstream     num=        2
     Width    Elev     Width    Elev
      6.5     1110      6.5     1145

 Pier Data
 Pier Station     Upstream=20557.89    Downstream=20557.89
 Upstream     num=        2
     Width    Elev     Width    Elev
      6.5     1110      6.5     1145
 Downstream     num=        2
     Width    Elev     Width    Elev
      6.5     1110      6.5     1145

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
       Momentum                Cd   =     1.2
       Yarnell                 KVal =    1.05
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Do not add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the downstream end
       Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT    Profile #PF#1
Opening : Bridge #1
```

E.G. US. (ft)	1128.50	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1126.74	E.G. Elev (ft)	1128.46	1128.12
Q Total (cfs)	169000.00	W.S. Elev (ft)	1126.44	1125.89
Q Bridge (cfs)	169000.00	Crit W.S. (ft)	1120.63	1120.99
Q Weir (cfs)		Max Chl Dpth (ft)	19.99	19.58
Weir Sta Lft (ft)		Vel Total (ft/s)	11.39	11.98
Weir Sta Rgt (ft)		Flow Area (sq ft)	14835.06	14101.14
Weir Submerg		Froude # Chl	0.51	0.56
Weir Max Depth (ft)		Specif Force (cu ft)	178986.39	170349.45
Min Top Rd (ft)	1133.39	Hydr Depth (ft)	15.41	14.47
Min El Prs (ft)	1144.63	W.P. Total (ft)	1198.01	1195.82
Delta EG (ft)	0.49	Conv. Total (cfs)	3371074.5	3101506.8
Delta WS (ft)	0.72	Top Width (ft)	1008.93	1050.19
BR Open Area (sq ft)	32826.68	Frctn Loss (ft)	0.32	0.03
BR Open Vel (ft/s)	11.99	C & E Loss (ft)	0.02	0.07
Coef of Q		Shear Total (lb/sq ft)	1.94	2.19
Br Sel Mthd	Energy only	Power Total (lb/ft s)	22.13	26.20

Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir
flow. The momentum answer has been disregarded.

BRIDGE OUTPUT Profile #PF#2
Opening : Bridge #1

E.G. US. (ft)	1128.50	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1126.74	E.G. Elev (ft)	1128.46	1128.12
Q Total (cfs)	169000.00	W.S. Elev (ft)	1126.44	1125.88
Q Bridge (cfs)	169000.00	Crit W.S. (ft)	1120.63	1120.99
Q Weir (cfs)		Max Chl Dpth (ft)	19.99	19.57
Weir Sta Lft (ft)		Vel Total (ft/s)	11.39	11.99
Weir Sta Rgt (ft)		Flow Area (sq ft)	14834.24	14100.31
Weir Submerg		Froude # Chl	0.51	0.56
Weir Max Depth (ft)		Specif Force (cu ft)	178977.03	170341.11
Min Top Rd (ft)	1133.39	Hydr Depth (ft)	15.41	14.47
Min El Prs (ft)	1144.63	W.P. Total (ft)	1198.00	1195.81
Delta EG (ft)	0.49	Conv. Total (cfs)	3370795.5	3101228.0
Delta WS (ft)	0.72	Top Width (ft)	1008.92	1050.18
BR Open Area (sq ft)	32826.68	Frctn Loss (ft)	0.32	0.03
BR Open Vel (ft/s)	11.99	C & E Loss (ft)	0.02	0.07
Coef of Q		Shear Total (lb/sq ft)	1.94	2.19
Br Sel Mthd	Energy only	Power Total (lb/ft s)	22.14	26.20

Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir
flow. The momentum answer has been disregarded.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 218.96

INPUT
Description: Downsteam face of SR 153 Bridge

Station Elevation Data num= 27

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19456.79	1136.181	9464.29	1135.761	9489.35	1117.81	9499.81	1118.12	19527.2	1106.31
19575.01	1106.861	9638.48	1107.081	9694.95	1108.06	19764.4	1108.521	9823.34	1109.68
19828.52	1110.841	9896.81	1110.931	9965.33	1111.452	0032.89	1111.922	0105.85	1113.1
20175.18	1113.632	0247.98	1113.222	0326.04	1112.562	0392.18	1111.722	0465.08	1112.15
20485.85	1125.492	0496.63	1125.52	0529.33	1135.742	0537.91	1135.942	0572.86	1123.41
20600.86	1123.922	0641.85	1122.84						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19456.79	.05	19456.79	.035	20537.91	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19456.79	20537.91	570	812.27	860	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19456.79	19456.79	1136.182	0537.91	20641.85	1135.94

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1126.03	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.99	Wt. n-Val.		0.035	
E.G. Elev (ft)	1128.02	Reach Len. (ft)	570.00	812.27	860.00
Crit W.S. (ft)	1120.64	Flow Area (sq ft)		14931.39	
E.G. Slope (ft/ft)	0.002010	Area (sq ft)		14931.39	184.24
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1096.74	Top Width (ft)		1020.45	76.29
Vel Total (ft/s)	11.32	Avg. Vel. (ft/s)		11.32	
Max Chl Dpth (ft)	19.72	Hydr. Depth (ft)		14.63	
Conv. Total (cfs)	3769509.8	Conv. (cfs)		3769509.8	
Length Wtd. (ft)	812.27	Wetted Per. (ft)		1029.71	
Min Ch El (ft)	1106.31	Shear (lb/sq ft)		1.82	
Alpha	1.00	Stream Power (lb/ft s)		20.60	
Frctn Loss (ft)	1.44	Cum Volume (acre-ft)	2027.11	9228.88	750.58
C & E Loss (ft)	0.08	Cum SA (acres)	114.89	550.73	148.81

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1126.03	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.99	Wt. n-Val.		0.035	
E.G. Elev (ft)	1128.02	Reach Len. (ft)	570.00	812.27	860.00
Crit W.S. (ft)	1120.67	Flow Area (sq ft)		14930.52	
E.G. Slope (ft/ft)	0.002010	Area (sq ft)		14930.52	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1020.44	Top Width (ft)		1020.44	
Vel Total (ft/s)	11.32	Avg. Vel. (ft/s)		11.32	
Max Chl Dpth (ft)	19.72	Hydr. Depth (ft)		14.63	
Conv. Total (cfs)	3769156.8	Conv. (cfs)		3769156.8	
Length Wtd. (ft)	812.27	Wetted Per. (ft)		1029.70	
Min Ch El (ft)	1106.31	Shear (lb/sq ft)		1.82	
Alpha	1.00	Stream Power (lb/ft s)		20.60	
Frctn Loss (ft)	1.44	Cum Volume (acre-ft)		9229.95	
C & E Loss (ft)	0.08	Cum SA (acres)		550.72	

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19456.79 LB	19528.86	4564.07	542.73	56.08	2.70	10.64	8.41
19528.86	19600.94	18568.07	1392.62	72.08	10.99	19.32	13.33
19600.94	19673.01	17799.42	1357.74	72.08	10.53	18.84	13.11
19673.01	19745.09	16362.38	1290.86	72.08	9.68	17.91	12.68
19745.09	19817.16	15212.80	1235.69	72.08	9.00	17.14	12.31
19817.16	19889.24	12570.72	1102.79	72.21	7.44	15.30	11.40
19889.24	19961.31	12013.22	1072.41	72.08	7.11	14.88	11.20
19961.31	20033.39	11316.18	1034.63	72.08	6.70	14.36	10.94
20033.39	20105.46	10235.72	974.21	72.08	6.06	13.52	10.51
20105.46	20177.54	9173.08	912.18	72.08	5.43	12.66	10.06
20177.54	20249.61	9122.60	909.15	72.08	5.40	12.61	10.03
20249.61	20321.69	9748.10	946.06	72.08	5.77	13.13	10.30
20321.69	20393.76	10686.18	999.69	72.08	6.32	13.87	10.69
20393.76	20465.84	10947.40	1015.07	72.22	6.48	14.08	10.78
20465.84	20537.91 RB	680.08	145.58	36.33	0.40	4.48	4.67

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19456.79 LB	19528.86	4563.99	542.69	56.08	2.70	10.64	8.41
19528.86	19600.94	18568.43	1392.56	72.08	10.99	19.32	13.33
19600.94	19673.01	17799.73	1357.68	72.08	10.53	18.84	13.11
19673.01	19745.09	16362.61	1290.79	72.08	9.68	17.91	12.68
19745.09	19817.16	15212.96	1235.63	72.08	9.00	17.14	12.31
19817.16	19889.24	12570.73	1102.73	72.21	7.44	15.30	11.40
19889.24	19961.31	12013.19	1072.35	72.08	7.11	14.88	11.20
19961.31	20033.39	11316.11	1034.57	72.08	6.70	14.35	10.94
20033.39	20105.46	10235.60	974.15	72.08	6.06	13.52	10.51
20105.46	20177.54	9172.91	912.11	72.08	5.43	12.65	10.06
20177.54	20249.61	9122.42	909.08	72.08	5.40	12.61	10.03
20249.61	20321.69	9747.95	946.00	72.08	5.77	13.13	10.30
20321.69	20393.76	10686.08	999.63	72.08	6.32	13.87	10.69
20393.76	20465.84	10947.32	1015.01	72.22	6.48	14.08	10.79
20465.84	20537.91 RB	679.98	145.55	36.33	0.40	4.48	4.67

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 218.80

INPUT
Description:
Station Elevation Data num= 213

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19230.12	1143.619	275.95	1142.49	19298.4	1144.28	19303.6	1144.21	9362.21	1142.77
19364.55	1140.419	366.35	1142.66	19389.24	1134.99	19390.52	1122.55	19391.85	1122.6
19416.06	1130.919	425.99	1133.92	19434.92	1133.99	19474.23	1134.44	19480.09	1134.58
19492.34	1124.519	519.89	1106.57	19533.48	1106.11	19592.78	1106.48	19642.24	1105.7
19715.63	1105.819	775.16	1106.68	19831.61	1107.97	19872.3	1108.48	19895.6	1109.05
19928.19	1109.119	966.84	1109.25	20037.5	1109.54	20055.76	1109.49	20162.44	1109.04
20198.37	1109.220	274.27	1110.13	20332.25	1110.08	20384.73	1109.79	20452.41	1109.37
20471.54	1109.420	477.22	1113.16	20493.52	1124.59	20502.73	1124.47	20535.08	1134.09
20552.07	1133.620	585.31	1120.96	20621.87	1120.87	20643.27	1121.36	20749.27	1124.15
20777.33	1124.620	801.74	1125.33	20805.79	1123.69	20853.71	1105.09	20865.69	1106.02
20888.39	1108.620	913.05	1110.62	20935.57	1109.46	20977.88	1108.47	20986.53	1107.98
21008.91	1108.321	050.42	1110.13	21079.18	1111.25	21102.02	1113.49	21107.04	1113.8
21135.68	111	321151.72	1113.01	21172.25	1114.74	21188.09	1114.92	21191.61	1115.1
21258.86	1116.221	268.91	1117.35	21306.2	1120.52	21325.06	1121.57	21339.08	1121.32
21382.66	1125.721	405.75	1126.63	21437.56	1128.92	21454.27	1129.03	21463.86	1128.46
21487.06	1127.421	495.49	1126.21	21514.26	1120.72	21537.98	1114.56	21552.41	1114.4
21626.08	1115.621	671.81	1116.62	21688.82	1117.07	21700.81	1117.32	21702.91	1117.56
21721.4	1117.6	21734.8	1117.71	21761.1	1118.03	21780.54	1118.06	21807.71	1118.39
21822.7	1117.721	848.49	1123.88	21868.08	1123.86	21893.84	1130.12	21938.83	1140.09
21950.2	1143.221	956.33	1142.65	21973.66	1141.52	22005.29	1142.49	22008.68	1142.57
22014.31	1141.122	068.94	1126.05	22071.3	112	622075.71	1124.28	22103.57	1119.37
22106.12	1119.722	113.78	1118.48	22125.91	1118.72	22153.35	1120.12	22180.4	1121.54
22185.65	1123.222	195.49	1122.37	22234.58	1132.05	22241.99	1132.93	22266.04	1139.38
22272.8	1139.422	279.88	1141.29	22314.52	1141.18	22318.47	1140.52	22367.43	1137.26
22376.61	1137.122	424.35	1134.59	22441.67	1134.27	22484.91	1130.71	22499.19	1130.52
22523.07	113	022552.05	1128.58	22597.93	1126.72	22608.56	1125.94	22634.89	1124.45
22654.45	1123.622	664.92	1123.94	22741.48	1124.02	22747.42	1124.54	22755.92	1124.96
22779.02	1124.222	788.15	1123.91	22812.66	1125.82	22823.63	1126.74	22839.46	1126.96
22899.37	1127.522	912.58	1126.92	22915.4	1127.09	22947.98	1126.54	22957.23	1126.42
22968.67	1126.4	22995	1126.78	23026.16	1124.07	23056.06	1126.06	23079.88	1125.62
23086.46	1125.723	110.22	1126.06	23151.93	1126.56	23168.97	1129.09	23194.38	1132.61
23290.06	1134.1	23301.8	1134.35	23310.28	1134.37	23321.13	1134.27	23395.93	1133.92
23443.43	1133.8	23480.6	1133.82	23509.86	1133.92	23529.21	1135.85	23552.04	1138.26
23569.37	1136.923	592.68	1135.69	23612.48	1136.22	23630.71	1140.44	23636.28	1140.87
23652.07	1139.923	682.97	1137.81	23713.99	1140.52	23764.56	1138.68	23773.35	1139.1
23815.87	1141.323	837.66	1142.12	23901.64	1136.62	23913.74	1135.72	3925.44	1138.06
23940.8	114	123974.94	1136.28	23984.38	1134.56	24000.07	1133.48	24033.62	1133.42
24086.89	1133.424	105.37	1133.39	24131.81	1133.58	24293.82	1135.36	24310.94	1135.55
24349.58	1135.124	361.28	1135.14	24407	1137.49	24417.24	1138.04	24455.36	1133.54
24462.51	1132.424	534.87	1133.12	24550.07	1133.15	24640.38	1134.37	24663.08	1138.06
24668.93	1138.924	699.68	1141.62	24715.43	1139.48	24720.82	1140.09	24732.47	1141.2
24750.1	114	124759.71	1139.53	24790.49	1134.52	24804.27	1134.55	24813.68	1134.9
24876.08	1134.924	898.65	1135.07	24949.53	1135.35				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19230.12	.05	19480.09	.035	20535.08	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
19480.0920535.08 480 483.7 500 .1 .3
Ineffective Flow num= 2
Sta L Sta R Elev Sta L Sta R Elev
19230.1219480.09 1134.5820535.0824949.53 1134.09

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1124.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.73	Wt. n-Val.		0.035	
E.G. Elev (ft)	1126.50	Reach Len. (ft)	480.00	483.70	500.00
Crit W.S. (ft)	1118.20	Flow Area (sq ft)		16025.58	
E.G. Slope (ft/ft)	0.001572	Area (sq ft)	10.06	16025.58	10158.77
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	2479.30	Top Width (ft)	7.90	1011.74	1459.67
Vel Total (ft/s)	10.55	Avg. Vel. (ft/s)		10.55	
Max Chl Dpth (ft)	19.68	Hydr. Depth (ft)		15.84	
Conv. Total (cfs)	4262347.0	Conv. (cfs)		4262347.0	
Length Wtd. (ft)	483.70	Wetted Per. (ft)		1022.00	
Min Ch El (ft)	1105.70	Shear (lb/sq ft)		1.54	
Alpha	1.00	Stream Power (lb/ft s)		16.23	
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)	2027.04	8940.25	648.48
C & E Loss (ft)	0.03	Cum SA (acres)	114.84	531.78	133.64

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1124.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.73	Wt. n-Val.		0.035	
E.G. Elev (ft)	1126.50	Reach Len. (ft)	480.00	483.70	500.00
Crit W.S. (ft)	1118.22	Flow Area (sq ft)		16023.85	
E.G. Slope (ft/ft)	0.001573	Area (sq ft)		16023.85	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1011.73	Top Width (ft)		1011.73	
Vel Total (ft/s)	10.55	Avg. Vel. (ft/s)		10.55	
Max Chl Dpth (ft)	19.07	Hydr. Depth (ft)		15.84	
Conv. Total (cfs)	4261604.5	Conv. (cfs)		4261604.5	
Length Wtd. (ft)	483.70	Wetted Per. (ft)		1021.99	
Min Ch El (ft)	1105.70	Shear (lb/sq ft)		1.54	
Alpha	1.00	Stream Power (lb/ft s)		16.24	
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)		8941.34	
C & E Loss (ft)	0.03	Cum SA (acres)		531.78	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19480.09 LB	19550.42	7460.29	820.34	63.84	4.41	14.04	9.09
19550.42	19620.76	15032.83	1298.39	70.34	8.90	18.46	11.58
19620.76	19691.09	15769.62	1336.17	70.33	9.33	19.00	11.80
19691.09	19761.42	15439.07	1319.32	70.34	9.14	18.76	11.70
19761.42	19831.75	13871.96	1237.35	70.35	8.21	17.59	11.21
19831.75	19902.09	12205.75	1145.85	70.34	7.22	16.29	10.65
19902.09	19972.42	11387.04	1099.03	70.33	6.74	15.63	10.36
19972.42	20042.75	11062.08	1080.12	70.33	6.55	15.36	10.24
20042.75	20113.08	11087.23	1081.58	70.33	6.56	15.38	10.25
20113.08	20183.42	11410.81	1100.41	70.33	6.75	15.65	10.37
20183.42	20253.75	11008.79	1077.02	70.34	6.51	15.31	10.22
20253.75	20324.08	10278.21	1033.52	70.33	6.08	14.69	9.94
20324.08	20394.41	10453.67	1044.06	70.33	6.19	14.84	10.01
20394.41	20464.75	10937.23	1072.79	70.34	6.47	15.25	10.20
20464.75	20535.08 RB	1595.42	279.62	43.79	0.94	7.17	5.71

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19480.09 LB	19550.42	7460.28	820.24	63.84	4.41	14.04	9.10
19550.42	19620.76	15033.14	1298.27	70.34	8.90	18.46	11.58

19620.76	19691.09	15770.01	1336.05	70.33	9.33	19.00	11.80
19691.09	19761.42	15439.43	1319.20	70.34	9.14	18.76	11.70
19761.42	19831.75	13872.14	1237.23	70.35	8.21	17.59	11.21
19831.75	19902.09	12205.75	1145.73	70.34	7.22	16.29	10.65
19902.09	19972.42	11386.96	1098.91	70.33	6.74	15.62	10.36
19972.42	20042.75	11061.97	1080.00	70.33	6.55	15.36	10.24
20042.75	20113.08	11087.12	1081.46	70.33	6.56	15.38	10.25
20113.08	20183.42	11410.73	1100.29	70.33	6.75	15.64	10.37
20183.42	20253.75	11008.67	1076.90	70.34	6.51	15.31	10.22
20253.75	20324.08	10278.01	1033.40	70.33	6.08	14.69	9.95
20324.08	20394.41	10453.49	1043.94	70.33	6.19	14.84	10.01
20394.41	20464.75	10937.10	1072.67	70.34	6.47	15.25	10.20
20464.75	20535.08 RB	1595.22	279.55	43.78	0.94	7.17	5.71

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 218.71

INPUT
Description:
Station Elevation Data num= 291

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13108.87	1138.413	278.13	1138.5313	307.83	1138.3813	369.82	1138.4613	396.93	1138.8
13681.94	113	913897.73	1137.1313	907.57	1136.8614	314.75	1139.514	476.52	1139.45
14689.5	1132.7	15041.7	1130.2615	083.77	1130.6815	151.48	1130.9315	504.29	1131.44
15564.72	1132.815	830.77	1134.2616	062.47	1135.1616	238.42	1135.1616	416.42	1136.23
16480.68	113	416485.06	1133.4916	492.54	1134.8916	507.64	1135.516	531.61	1133.05
16537.1	113	316566.43	1133.8216	604.42	1135.2316	704.47	1133.4716	721.25	1133.25
16727.23	1132.9	16808.6	1132.5416	818.38	1132.5516	874.33	1132.7316	906.02	1132.65
16975.84	1132.416	982.59	1132.4617	030.46	1132.4217	080.83	1132.8317	122.75	1133.03
17174.22	1133.517	207.36	1134.33	17218.2	1134.6417	224.56	1134.4417	340.33	1133.83
17601.54	1131.9	17628	1131.7617	647.96	1131.4517	657.08	1131.2817	666.42	1129.12
17724.79	1131.917	772.56	1133.17	17777.1	1130.1817	790.25	1130.3417	836.23	1130.75
18016.48	1129.918	128.88	1129.2318	194.29	1129.3	18238	1129.3318	243.61	1130.64
18256.49	1132.618	278.83	1129.23	18287	1129.3418	316.96	1129.9418	323.31	1130.38
18332.92	1130.918	344.89	1130.5318	358.07	1130.0518	382.67	1130.0518	587.59	1129.78
18623.24	1130.118	624.56	1130.48	18746.1	1132.918	749.34	1132.718	766.91	1132.42
18775.97	113	118795.74	1129.27	18814.3	1130.0618	834.44	1128.8518	838.62	1130.36
18846.35	113	418864.57	1138.9818	879.51	1138.8818	912.85	1137.7318	930.83	1137.25
18944.55	1137.718	973.23	1137.5419	001.84	1137.5619	025.44	1131.3819	066.86	1120.02
19083.85	1118.419	144.47	1118.3419	171.15	1118.04	19215.4	1117.9819	224.64	1119.98
19233.12	111	819300.65	1117.8119	361.77	1118.419	378.92	1122.1419	405.15	1131.47
19410.65	1130.919	436.06	1130.4619	437.98	1131.0719	444.77	1134.3419	448.35	1134.51
19476.64	1135.319	500.13	1124.4819	501.23	1124.1319	509.49	1123.8619	528.44	1113.43
19542.17	110	619564.08	1105.7819	571.57	1105.61	19630.1	1105.3819	746.14	1105.97
19859.52	1107.919	892.83	1108.8719	921.72	1109.0520	003.31	1109.120	074.85	1108.65
20166.82	1109.320	212.22	1109.320	321.34	1109.9720	337.16	1110.0320	349.18	1109.84
20411.63	110	920450.83	1108.8420	472.69	1108.84	20504.8	1128.6420	519.04	1131.65
20524.71	1132.620	547.92	1133.2720	556.12	1133.4720	580.57	1126.420	603.69	1119.89
20612.35	1121.520	637.84	1125.53	20641.6	1125.24	20677.4	1121.7120	712.93	1119.5
20739.22	1118.420	808.72	1114.5920	856.68	1113.7720	868.49	1113.5320	875.65	1113.13
20940.08	1111.821	015.17	1111.1821	108.82	1109.8821	109.54	1109.9121	184.42	1110.28
21206.58	1110.621	258.63	1112.2121	369.54	1112.4521	478.56	1112.17	21503.8	1112.42
21620.62	1112.721	626.81	1112.5321	638.76	1111.6421	660.46	1111.9521	684.09	1112.65
21719.47	111	721739.99	1119.4521	752.31	1120.9921	757.21	1121.2221	797.09	1122.35
21830.57	1123.121	858.67	1123.4121	923.95	1109.0721	958.12	1109.2421	967.64	1112.07
22011.58	1125.422	044.59	1124.6522	088.13	1117.2622	090.44	1116.7322	092.67	1117.05
22120.97	1120	22146.3	1119.622	181.35	1119.6922	189.51	1118.1622	194.81	1119.97
22213.55	112	722229.71	1130.1122	266.38	1131.5722	288.71	1134.4822	301.95	1135.03
22316.34	1135.322	365.48	1136.8722	375.39	1136.93	22387.6	1136.1522	431.44	1133.09
22484.06	1132.722	493.44	1133.522	540.73	1131.8422	546.12	1132.2122	556.56	1131.39
22566.44	1130.322	599.84	1128.46	22620.5	1127.4422	635.98	1126.1622	664.49	1125.49
22685.81	1124.422	701.91	1125.3522	717.77	1125.7922	736.68	1126.5322	746.98	1127.1
22783.01	1126.222	829.29	1124.8122	848.45	1124.6422	869.88	1124.5322	899.64	1123.26
22923.72	1122.622	943.69	1122.14	22948.5	1121.9722	986.22	1120.4623	019.17	1119.18
23039.9	1118.623	068.79	1116.0923	110.64	1113.6223	133.17	1116.2623	146.64	1118.45
23171.6	112	123212.57	1124.4323	232.65	1124.8523	281.57	1124.7423	307.15	1125.08
23324.89	1125.423	375.35	1125.6623	416.55	1127.2923	447.76	1128.5523	475.32	1129.54
23493.64	1130.623	506.14	1131.0823	535.86	1132.1323	602.75	1133.1323	621.85	1133.17
23649.32	1133.723	722.66	1132.9123	759.51	1132.77	23785.2	1132.8123	802.65	1133.05
23884.02	1133.723	946.91	1133.73	23971.7	1136.6823	990.48	1135.9624	014.85	1136.68
24039.25	1135.1	24044.2	1135.3524	063.83	1137.1724	124.43	1137.1924	168.68	1136.85
24191.37	1136.624	236.32	1137.1224	243.91	1137.324	299.17	1137.3224	337.13	1136.68
24392.36	1137.524	404.14	1136.6724	453.95	1134.3124	469.33	1134.7724	501.82	1136.19
24514.8	1135.524	528.89	1135.2824	550.09	1133.6924	574.19	1133.9324	611.53	1134.04
24618.78	1134.124	640.33	1134.5824	672.32	1135.5424	677.18	1135.7224	706.31	1138.81

```
24724.88  1138.524729.54 1138.2224740.65 1137.2224765.72 1134.4724778.49 1132.36
24788.01  1132.324815.55 1132.1624847.55 1135.1524859.82  1136.424883.17 1136.98
24886.57  1137.124910.41 1138.8424915.93 1138.4924941.99  1138.924953.01 1136.56
24968.51  1138.424999.47 1133.9325033.02  1135.225040.52  1135.325101.43 1135.95
25106.12  1135.7

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
13108.87     .0519476.64    .03520556.12     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19476.6420556.12           508.24  508.24  508.24            .1        .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
13108.8719476.64  1135.320556.1225106.12 1133.47
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1123.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.00	Wt. n-Val.		0.035	
E.G. Elev (ft)	1125.63	Reach Len. (ft)	508.24	508.24	508.24
Crit W.S. (ft)	1118.10	Flow Area (sq ft)		14892.50	
E.G. Slope (ft/ft)	0.001938	Area (sq ft)	1679.18	14892.50	14920.79
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	3165.49	Top Width (ft)	329.42	986.77	1849.30
Vel Total (ft/s)	11.35	Avg. Vel. (ft/s)		11.35	
Max Chl Dpth (ft)	18.25	Hydr. Depth (ft)		15.09	
Conv. Total (cfs)	3838605.8	Conv. (cfs)		3838605.8	
Length Wtd. (ft)	508.24	Wetted Per. (ft)		995.52	
Min Ch El (ft)	1105.38	Shear (lb/sq ft)		1.81	
Alpha	1.00	Stream Power (lb/ft s)		20.54	
Frctn Loss (ft)	1.00	Cum Volume (acre-ft)	2017.73	8768.59	504.54
C & E Loss (ft)	0.00	Cum SA (acres)	112.98	520.68	114.65

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1123.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.00	Wt. n-Val.		0.035	
E.G. Elev (ft)	1125.63	Reach Len. (ft)	508.24	508.24	508.24
Crit W.S. (ft)	1118.10	Flow Area (sq ft)		14890.33	
E.G. Slope (ft/ft)	0.001939	Area (sq ft)		14890.33	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	986.76	Top Width (ft)		986.76	
Vel Total (ft/s)	11.35	Avg. Vel. (ft/s)		11.35	
Max Chl Dpth (ft)	18.25	Hydr. Depth (ft)		15.09	
Conv. Total (cfs)	3837697.8	Conv. (cfs)		3837697.8	
Length Wtd. (ft)	508.24	Wetted Per. (ft)		995.51	
Min Ch El (ft)	1105.38	Shear (lb/sq ft)		1.81	
Alpha	1.00	Stream Power (lb/ft s)		20.55	
Frctn Loss (ft)	1.00	Cum Volume (acre-ft)		8769.70	
C & E Loss (ft)	0.00	Cum SA (acres)		520.68	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19476.64 LB	19548.61	3236.51	399.27	43.20	1.92	10.32	8.11
19548.61	19620.57	16412.69	1297.12	71.97	9.71	18.02	12.65
19620.57	19692.54	16544.82	1303.37	71.97	9.79	18.11	12.69
19692.54	19764.50	15957.24	1275.40	71.97	9.44	17.72	12.51
19764.50	19836.47	14503.18	1204.39	71.98	8.58	16.74	12.04
19836.47	19908.43	12554.36	1104.54	71.98	7.43	15.35	11.37
19908.43	19980.40	11518.17	1048.80	71.97	6.82	14.57	10.98
19980.40	20052.36	11603.39	1053.47	71.97	6.87	14.64	11.01
20052.36	20124.33	11868.76	1067.85	71.97	7.02	14.84	11.11
20124.33	20196.29	11315.48	1037.69	71.97	6.70	14.42	10.90
20196.29	20268.26	11025.86	1021.68	71.97	6.52	14.20	10.79
20268.26	20340.22	10482.59	991.17	71.97	6.20	13.77	10.58
20340.22	20412.19	10968.92	1018.55	71.97	6.49	14.15	10.77
20412.19	20484.15	10811.31	1020.85	73.97	6.40	14.19	10.59
20484.15	20556.12 RB	196.70	48.35	14.71	0.12	3.86	4.07

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19476.64 LB	19548.61	3236.36	399.19	43.20	1.92	10.32	8.11
19548.61	19620.57	16413.25	1296.96	71.97	9.71	18.02	12.66
19620.57	19692.54	16545.40	1303.21	71.97	9.79	18.11	12.70
19692.54	19764.50	15957.73	1275.24	71.97	9.44	17.72	12.51
19764.50	19836.47	14503.45	1204.23	71.98	8.58	16.73	12.04
19836.47	19908.43	12554.34	1104.39	71.98	7.43	15.35	11.37
19908.43	19980.40	11518.00	1048.64	71.97	6.82	14.57	10.98
19980.40	20052.36	11603.24	1053.31	71.97	6.87	14.64	11.02
20052.36	20124.33	11868.65	1067.69	71.97	7.02	14.84	11.12
20124.33	20196.29	11315.29	1037.54	71.97	6.70	14.42	10.91
20196.29	20268.26	11025.64	1021.52	71.97	6.52	14.19	10.79
20268.26	20340.22	10482.29	991.01	71.97	6.20	13.77	10.58
20340.22	20412.19	10968.68	1018.39	71.97	6.49	14.15	10.77
20412.19	20484.15	10811.09	1020.69	73.97	6.40	14.18	10.59
20484.15	20556.12 RB	196.60	48.32	14.71	0.12	3.86	4.07

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 218.61

INPUT
Description:
Station Elevation Data num= 310

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13289.47	1137.613	346.61	1137.691	3482.79	1137.641	3524.63	1137.741	3688.14	1137.42
13855.31	1137.513	919.18	1137.151	4090.61	1136.221	4232.62	1137.051	4635.33	1135.72
14873.58	1129.114	982.81	1127.91	5191.31	1129.821	5261.79	1130.521	5396.44	1131.02
15844.49	1132.3	16148.8	1133.451	6363.69	1134.421	6707.94	1132.891	6805.22	1133.12
16983.62	1131.71	7212.16	1130.321	7224.59	1131.281	7233.14	1130.171	7346.12	1131.24
17604.77	1129.81	7635.65	1129.541	7645.26	1130.851	7654.92	1132.21	7662.71	1132.17
17810.2	1129.81	7837.84	1129.511	7849.59	1129.211	7930.21	1128.691	7940.16	1128.66
17952.59	1128.9	17980.9	1128.291	8009.99	1130.181	8183.13	1130.411	8387.14	1131.31
18397.06	1129.61	8417.48	1129.661	8465.37	1129.591	8493.07	1128.781	8564.61	1129.68
18609.66	11	3018660.73	1130.831	8672.49	1131.37	18695.9	1131.971	8703.44	1132.15
18755.9	1134.11	8816.02	1117.881	8839.85	1111.271	8852.69	11	0918869.25	1109.3
18881.75	1109.11	8916.84	1107.931	8921.76	1107.491	8952.11	1106.181	8955.67	1105.93
18981.82	1112.41	9003.97	1116.781	9055.59	1116.521	9074.97	1115.831	9079.61	1118.02
19087.8	11	2019098.23	1123.381	9124.36	1122.121	9140.32	1121.591	9170.65	1121.15
19193.18	1121.11	9207.75	1125.351	9228.42	1131.111	9242.79	1130.861	9263.02	1130.77
19306.93	1125.11	9312.04	1124.121	9319.87	1124.131	9366.08	1124.031	9392.22	1125.51
19396.62	1125.51	9421.36	1127.211	9427.81	1128.631	9442.05	1132.251	9449.11	1132.57
19482.22	1133.61	9499.23	1124.64	19504.2	1122.211	9514.31	1122.761	9528.38	1116
19541.06	1107.41	9630.81	1106.191	9658.86	1105.781	9730.79	1106.281	9780.04	1107.2
19894.68	11	0919936.32	1109.721	9984.17	1109.112	0102.24	1108.022	0114.96	1107.83
20134.74	1106.22	0205.93	1103.112	0220.47	1101.912	0244.57	1102.682	0310.43	1106.81
20324.3	1107.92	0346.83	1108.062	0468.14	11	0820471.94	1107.812	0491.39	1120.07
20494.43	1121.82	0504.21	1123.072	0506.16	1123.652	0537.49	1132.232	0544.75	1132.58
20551.74	1132.32	0579.63	1121.772	0586.05	1119.882	0608.67	1118.89	20662	1116.23
20674.67	1116.32	0680.85	1115.172	0694.05	1109.812	0719.15	1109.522	0728.31	1108.98
20752.41	1108.42	0762.22	1108.252	0766.77	1108.32	0790.72	1110.442	0816.61	1110.84
20839.45	1110.8	20861.8	1111.352	0877.19	1110.612	0884.38	1110.512	0897.32	1110.56
20916.71	1110.92	0990.92	1110.952	1014.14	1110.932	1065.12	1110.292	1077.78	1110.01
21117.21	1109.62	1156.35	1109.62	1163.52	1109.432	1238.03	1109.762	1256.45	1109.92
21291.06	11	1021327.34	1110.522	1360.83	1110.912	1389.39	1110.952	1433.02	1111.25
21460.08	1111.12	1531.74	1112.152	1537.12	1112.182	1549.16	1113.182	1603.09	1112.3
21607.6	1112.12	1670.02	1112.45	21678.5	1112.51	21688.3	1114.352	1710.39	1116.34
21720.35	1117.42	1727.17	1117.252	1766.26	1119.95	21770.7	1119.742	1792.95	1120.46
21804.93	1121.72	1837.79	1126.912	1846.13	1126.562	1906.58	1124.642	1909.29	1125.34
21929.66	1128.22	1936.81	1129.6	21962.3	1131.312	1980.76	1130.592	1985.59	1129.73
21993.41	1129.42	1996.46	1129.522	2045.28	1130.362	2052.37	1130.052	2059.43	1128.13
22063.42	1127.82	2076.54	1124.232	2084.51	1124.12	2127.04	1123.192	2132.06	1123.02
22150.35	1124.52	2178.85	1122.642	2191.89	1120.922	2200.66	1120.65	22216.9	1120.48
22251.77	1123.72	2265.75	1128.572	2296.06	1127.412	2308.55	1127.042	2323.19	1126.36
22367.62	1127.32	2418.57	1128.292	2437.08	1130.372	2455.65	1129.542	2486.69	1124.45
22502.31	1123.82	2519.76	1124.97	22562.1	1124.32	2602.04	1123.912	2615.19	1122.85
22623.99	1123.42	2655.54	1121.832	2660.03	1123.112	2676.42	1123.872	2690.98	1124
22711.45	1123.72	2730.92	1123.352	2784.64	1123.532	2809.85	1123.582	2842.56	1123.8
22895.97	11	2422931.57	1124.542	2956.78	1124.772	3019.28	1125.092	3038.53	1124.54
23047.09	1124.62	3076.14	1125.332	3083.49	1125.472	3128.33	1125.852	3138.25	1125.61

```
23155.78  1125.923235.12  1126.6 23303.4 1126.69 23334.8 1126.57   23363 1126.56
23393.12  1126.923442.45    112723477.82 1127.5123509.64 1128.3223529.43 1128.91
23554.38  1129.323596.01 1129.3123619.55 1129.4823629.35  1129.423639.35  1129.2
23687.46  1129.523751.05 1124.6923803.22 1123.9123830.76 1122.5523869.72 1121.45
23929.15  1119.723934.29 1118.8423957.84  1118.823973.32  1120.424001.29 1119.61
 24018.6  1118.424053.99 1118.2624070.18 1117.5324089.61  1117.824139.08 1118.67
24148.68  1120.324159.19 1121.0224170.32 1128.4724184.95 1129.0724197.81 1135.17
24205.02  1134.924232.89 1126.2224279.33 1127.4324318.02 1124.7624353.43 1123.93
24413.74  1126.524459.64 1127.9824527.69 1128.7724546.54  1129.524611.74 1132.52
24627.28  1134.3 24674.5 1134.8224685.21 1134.7724700.05 1134.9124713.14 1134.95
 24799.3    113524804.43 1135.02 24807.1 1135.4424821.43 1140.4624826.53 1139.51
24850.13  1137.324872.13 1135.5224876.66 1134.9224944.38 1134.8624960.25 1134.97
24973.27  1138.2 24980.7 1140.3225022.17 1134.4525025.06 1134.1625048.29 1133.48
25064.13  1133.7 25071.8  1133.725105.59 1133.9725116.87 1134.9325132.09 1136.51
25153.12  1136.225164.17 1136.28 25189.7 1137.7325214.04 1133.4425223.69 1132.41
25242.27  1135.725245.39 1136.3525248.39 1135.9825256.53 1134.5825272.47 1134.91
25348.94  1135.725355.24 1129.0125359.63 1134.7925370.17  1135.925396.51 1136.84

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
13289.47     .0519482.22    .03520544.75     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19482.2220544.75              510  503.43  503.43            .1        .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
13289.4719482.22  1133.620544.7525396.51 1132.58

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1122.61   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.02   Wt. n-Val.                              0.035
  E.G. Elev (ft)            1124.63   Reach Len. (ft)            510.00     503.43     503.43
  Crit W.S. (ft)            1117.10   Flow Area (sq ft)                    14828.60
  E.G. Slope (ft/ft)       0.001986   Area (sq ft)              3008.45    14828.60   14043.17
  Q Total (cfs)           169000.00   Flow (cfs)                          169000.00
  Top Width (ft)            3020.93   Top Width (ft)             381.66     994.35    1644.91
  Vel Total (ft/s)            11.40   Avg. Vel. (ft/s)                        11.40
  Max Chl Dpth (ft)           20.70   Hydr. Depth (ft)                        14.91
  Conv. Total (cfs)       3792009.8   Conv. (cfs)                         3792009.8
  Length Wtd. (ft)           503.43   Wetted Per. (ft)                      1003.08
  Min Ch El (ft)            1101.91   Shear (lb/sq ft)                         1.83
  Alpha                        1.00   Stream Power (lb/ft s)                  20.89
  Frctn Loss (ft)              1.01   Cum Volume (acre-ft)      1990.39    8595.21     335.57
  C & E Loss (ft)              0.00   Cum SA (acres)             108.83     509.13      94.27


Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1122.61   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.02   Wt. n-Val.                              0.035
  E.G. Elev (ft)            1124.63   Reach Len. (ft)            510.00     503.43     503.43
  Crit W.S. (ft)            1117.08   Flow Area (sq ft)                    14825.69
  E.G. Slope (ft/ft)       0.001987   Area (sq ft)                         14825.69
  Q Total (cfs)           169000.00   Flow (cfs)                          169000.00
  Top Width (ft)             994.26   Top Width (ft)                         994.26
  Vel Total (ft/s)            11.40   Avg. Vel. (ft/s)                        11.40
  Max Chl Dpth (ft)           20.70   Hydr. Depth (ft)                        14.91
  Conv. Total (cfs)       3790997.3   Conv. (cfs)                         3790997.3
  Length Wtd. (ft)           503.43   Wetted Per. (ft)                      1002.99
  Min Ch El (ft)            1101.91   Shear (lb/sq ft)                         1.83
  Alpha                        1.00   Stream Power (lb/ft s)                  20.90
  Frctn Loss (ft)              1.01   Cum Volume (acre-ft)                   8596.34
  C & E Loss (ft)              0.00   Cum SA (acres)                          509.12


Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF#1
```

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19482.22 LB	19553.06	2552.32	369.08	50.96	1.51	7.90	6.92
19553.06	19623.89	13091.54	1122.98	70.84	7.75	15.85	11.66
19623.89	19694.73	14200.04	1179.11	70.84	8.40	16.65	12.04
19694.73	19765.56	13626.14	1150.30	70.84	8.06	16.24	11.85
19765.56	19836.40	12057.23	1068.90	70.84	7.13	15.09	11.28
19836.40	19907.23	10605.31	989.70	70.84	6.28	13.97	10.72
19907.23	19978.07	9591.97	931.82	70.84	5.68	13.15	10.29
19978.07	20048.90	10356.84	975.68	70.84	6.13	13.77	10.61
20048.90	20119.74	11218.96	1023.74	70.86	6.64	14.45	10.96
20119.74	20190.57	15039.33	1221.12	70.94	8.90	17.24	12.32
20190.57	20261.41	18958.44	1403.18	70.94	11.22	19.81	13.51
20261.41	20332.24	14168.48	1178.43	70.98	8.38	16.64	12.02
20332.24	20403.08	11381.84	1032.52	70.84	6.73	14.58	11.02
20403.08	20473.91	11364.22	1033.66	71.20	6.72	14.59	10.99
20473.91	20544.75 RB	787.36	148.38	30.48	0.47	5.54	5.31

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19482.22 LB	19553.06	2553.78	368.95	50.89	1.51	7.91	6.92
19553.06	19623.89	13091.47	1122.78	70.84	7.75	15.85	11.66
19623.89	19694.73	14200.18	1178.90	70.84	8.40	16.64	12.05
19694.73	19765.56	13626.18	1150.09	70.84	8.06	16.24	11.85
19765.56	19836.40	12056.98	1068.69	70.84	7.13	15.09	11.28
19836.40	19907.23	10604.82	989.50	70.84	6.28	13.97	10.72
19907.23	19978.07	9591.32	931.61	70.84	5.68	13.15	10.30
19978.07	20048.90	10356.30	975.47	70.84	6.13	13.77	10.62
20048.90	20119.74	11218.57	1023.53	70.86	6.64	14.45	10.96
20119.74	20190.57	15039.63	1220.91	70.94	8.90	17.24	12.32
20190.57	20261.41	18959.51	1402.97	70.94	11.22	19.81	13.51
20261.41	20332.24	14168.61	1178.22	70.98	8.38	16.63	12.03
20332.24	20403.08	11381.47	1032.31	70.84	6.73	14.57	11.03
20403.08	20473.91	11363.86	1033.45	71.20	6.72	14.59	11.00
20473.91	20544.75 RB	787.31	148.30	30.46	0.47	5.54	5.31

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 218.52

INPUT
Description:
Station Elevation Data num= 293

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13520.55	1136.713	713.31	1136.58	13814.93	1136.79	13884.19	1136.65	13954.33	1136.67
14334.5	1134.91	4700.72	1132.22	15036.75	1128.41	5107.35	1127.72	15258.92	1127.77
15377.61	112815	613.04	1130.02	15863.4	1130.72	16367.69	1132.43	16490.01	1132.98
16574.82	1132.61	6937.95	1133.47	17050.22	1132.54	17078.18	1132.35	17107.8	1131.82
17136.29	1131.41	7179.59	1130.97	17232.08	1130.51	7279.59	1130.4	17321.3	1130.07
17369.88	1130.71	7412.05	1130.49	17523.48	1130.19	17566.99	1129.85	17625	1129.36
17694.84	112917	720.53	1129.08	17760.84	1129.37	17779.61	1129.61	17856.52	1130.91
17893.45	1130.71	8025.87	1130.81	18040.83	1130.66	18114.49	1130.63	18192.45	1130.49
18208.3	1130.41	8225.32	1131.03	18235.41	1130.78	18236.01	1129.64	18240.94	1128.75
18278.92	1128.31	8333.44	1127.39	18352.18	1127.16	18457.54	1125.47	18481.2	1125.43
18498.98	1124.61	8527.85	1124.48	18554.49	112318	599.47	1123.54	18650.02	1123.68
18712.82	1123.31	8730.78	1123.41	8795.31	1124.92	18810.33	1124.81	8831.47	1118.31
18835.93	1117.21	8838.89	1117.08	18857.05	1114.35	18866.76	1114.19	18868.51	1114.6
18877.42	1118.91	8880.85	1118.98	18881.54	1118.35	18887.17	1118.44	18910.52	1123.14
18920.95	1122.21	8941.87	1126.29	18947.26	1126.65	18960.51	1128.52	18981.6	1132.7
18994.16	1132.51	9018.91	1132.42	19050.87	1138.81	19159.68	1158.41	19182.71	1158.2
19323.86	1157.5	19325	115719	327.65	1154.57	19344.49	1147.91	9382.47	1133.65
19388.43	1133.71	9432.59	1133.27	19466.14	1133.08	19479.04	1133.63	19487.75	1129.05
19501.3	1121.11	9510.55	1121.58	19534.34	1109.08	19551.4	1108.39	19665.81	1106.79
19705.17	1106.21	9721.96	1106.14	19884.09	1107.21	19912.48	1107.43	20050.27	1107.75
20057.61	1107.8	20166.9	1106.19	20204.03	1104.43	20244.72	1102.84	20285.16	1101.37

```
 20301.5  1101.620369.81 1104.6420374.23    110520394.86 1105.6820436.47 1106.97
20477.38    110720481.03 1109.6420496.77 1120.4120506.37 1120.8920538.63 1131.04
20553.62  1131.720591.55 1119.7420594.81 1118.6820613.68 1114.9120635.98 1112.62
20675.54  1099.720678.64 1099.0320682.23 1099.0220739.38 1097.1520788.35 1097.76
20801.92    109820829.02 1101.2220859.02 1103.3320894.78 1102.81 20900.6 1103.25
20903.68  1103.720932.83 1108.6920940.53 1108.8220991.79 1112.0921058.92  1118.3
21085.19  1117.921088.69 1117.4221095.04 1116.2121131.47 1117.0321156.06 1117.27
21195.65  1117.121219.18 1117.0121276.88 1116.14 21291.3 1116.07 21338.7 1121.85
21356.23  1124.221399.91 1130.7921407.41 1130.7921452.82 1132.1521536.82  1131.9
21555.83  1131.921588.13 1131.9721636.88    113221650.96 1131.9621685.86 1132.35
21690.23  1132.321700.14 1132.2621733.05  1132.521757.59 1132.7621778.07  1133.8
21802.82  1137.621804.23 1137.5921846.73 1137.2521857.32 1136.1521880.77  1131.1
 21896.4  1127.621903.63 1126.5321921.13 1126.5521933.54 1125.2421956.75 1124.42
21973.29  1123.222020.69 1122.1722035.17 1121.93 22056.8 1128.4722089.51 1136.91
22103.55  1135.922107.83 1135.8722119.52  1136.522126.06 1135.16 22163.1 1126.68
22182.81    113122194.22  1133.922210.19  1134.722244.21 1134.8422256.17 1134.43
22267.18    112922274.88 1126.53 22290.5 1125.9122312.48 1125.7722319.59  1122.2
22323.34  1119.722374.63 1118.7722379.21 1118.6322386.82 1118.0522403.27 1123.76
22410.86  1125.622415.81 1125.8822424.66 1126.0922436.88 1120.6422441.79 1119.13
22453.68  1119.322527.01 1121.7122532.78 1121.5522534.67 1120.3522554.12 1122.78
22567.56    112522589.46 1123.6522635.82 1123.8722659.76 1122.6722672.91 1121.96
22677.08    112222703.59 1123.3122710.13 1126.07 22728.4 1131.3422748.95 1131.15
22794.47    113022834.69  1129.922844.73 1129.7922923.99  1131.222935.86  1131.3
22965.43  1131.122981.01 1131.4123053.43 1131.9623080.08 1131.8823100.03 1130.64
23174.29  1130.423197.67 1130.3723225.76  1129.823498.31 1126.5123522.66 1127.21
23529.18  1126.923544.73 1126.4923582.11 1126.6423598.43 1126.8123711.29  1128.3
23742.87  1128.7 23753.9 1128.8823845.68 1130.2923893.22 1127.8123934.64 1128.42
 23960.7  1129.124032.63 1130.6724099.62 1132.4924106.15  1132.424183.48 1131.53
24227.48  1131.624250.72 1131.2224308.44 1129.7724349.13 1129.1524384.59 1128.57
24410.64  1128.524453.99 1129.4224470.86 1129.6524490.94 1129.8524539.99 1129.93
24662.52  1130.524667.04 1130.4724710.85 1129.8924728.61 1129.9924749.63 1126.91
24760.99  1127.424799.79 1129.1424828.87 1131.4624914.09 1132.1624924.15 1132.05
   24953  1131.324972.86 1131.6224988.29 1131.6925008.74 1132.2725053.34 1132.33
25062.05  1132.125126.76 1132.72 25187.6  1132.6 25219.2 1132.1625232.25 1131.65
25245.66    113125279.69 1131.7125286.23 1132.0425289.47    113225314.49 1132.24
25348.03  1135.225375.67 1134.8725378.89 1134.7525383.39 1134.9725408.48 1134.65
25435.96  1133.5 25444.9 1133.8425468.99 1134.2325552.04 1133.7925558.09 1133.72
25566.36  1133.4 25567.2 1133.6325571.42 1133.78

Manning's n Values          num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
13520.55     .0519487.75    .03520553.62     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19487.7520553.62              520  496.02     460              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
13520.5519487.75 1129.0520553.6225571.42  1131.7

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1121.59   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.03   Wt. n-Val.                              0.035
  E.G. Elev (ft)            1123.62   Reach Len. (ft)             520.00     496.02     460.00
  Crit W.S. (ft)            1116.20   Flow Area (sq ft)                    14790.92
  E.G. Slope (ft/ft)       0.002037   Area (sq ft)                335.00   14790.92    8938.81
  Q Total (cfs)           169000.00   Flow (cfs)                          169000.00
  Top Width (ft)            2019.39   Top Width (ft)               82.03    1008.13     929.24
  Vel Total (ft/s)            11.43   Avg. Vel. (ft/s)                        11.43
  Max Chl Dpth (ft)           24.44   Hydr. Depth (ft)                        14.67
  Conv. Total (cfs)       3744078.5   Conv. (cfs)                         3744078.5
  Length Wtd. (ft)           496.02   Wetted Per. (ft)                      1015.92
  Min Ch El (ft)            1101.37   Shear (lb/sq ft)                         1.85
  Alpha                        1.00   Stream Power (lb/ft s)                  21.16
  Frctn Loss (ft)              1.11   Cum Volume (acre-ft)       1970.81    8424.05     202.77
  C & E Loss (ft)              0.03   Cum SA (acres)              106.12     497.55      79.39


Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1121.59   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.03   Wt. n-Val.                              0.035
```

E.G. Elev (ft)	1123.62	Reach Len. (ft)	520.00	496.02	460.00
Crit W.S. (ft)	1116.20	Flow Area (sq ft)		14789.44	
E.G. Slope (ft/ft)	0.002038	Area (sq ft)		14789.44	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1008.12	Top Width (ft)		1008.12	
Vel Total (ft/s)	11.43	Avg. Vel. (ft/s)		11.43	
Max Chl Dpth (ft)	20.22	Hydr. Depth (ft)		14.67	
Conv. Total (cfs)	3743477.8	Conv. (cfs)		3743477.8	
Length Wtd. (ft)	496.02	Wetted Per. (ft)		1015.91	
Min Ch El (ft)	1101.37	Shear (lb/sq ft)		1.85	
Alpha	1.00	Stream Power (lb/ft s)		21.17	
Frctn Loss (ft)	1.11	Cum Volume (acre-ft)		8425.21	
C & E Loss (ft)	0.02	Cum SA (acres)		497.55	

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19487.75 LB	19558.81	3385.80	468.91	61.59	2.00	8.04	7.22
19558.81	19629.87	10524.98	980.59	71.06	6.23	13.80	10.73
19629.87	19700.92	11830.09	1051.85	71.07	7.00	14.80	11.25
19700.92	19771.98	12529.22	1088.69	71.06	7.41	15.32	11.51
19771.98	19843.04	11940.53	1057.69	71.06	7.07	14.89	11.29
19843.04	19914.10	11311.04	1023.88	71.06	6.69	14.41	11.05
19914.10	19985.16	10875.59	1000.04	71.06	6.44	14.07	10.88
19985.16	20056.21	10662.20	988.21	71.06	6.31	13.91	10.79
20056.21	20127.27	11158.84	1015.63	71.07	6.60	14.29	10.99
20127.27	20198.33	12861.00	1106.13	71.10	7.61	15.57	11.63
20198.33	20269.39	16856.67	1301.17	71.11	9.97	18.31	12.96
20269.39	20340.45	18765.86	1387.68	71.11	11.10	19.53	13.52
20340.45	20411.50	14458.20	1186.77	71.12	8.56	16.70	12.18
20411.50	20482.56	11446.15	1038.06	72.25	6.77	14.61	11.03
20482.56	20553.62 RB	393.84	95.63	29.16	0.23	3.67	4.12

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19487.75 LB	19558.81	3385.43	468.82	61.58	2.00	8.04	7.22
19558.81	19629.87	10524.80	980.49	71.06	6.23	13.80	10.73
19629.87	19700.92	11830.04	1051.75	71.07	7.00	14.80	11.25
19700.92	19771.98	12529.24	1088.58	71.06	7.41	15.32	11.51
19771.98	19843.04	11940.49	1057.58	71.06	7.07	14.88	11.29
19843.04	19914.10	11310.94	1023.78	71.06	6.69	14.41	11.05
19914.10	19985.16	10875.45	999.93	71.06	6.44	14.07	10.88
19985.16	20056.21	10662.04	988.10	71.06	6.31	13.91	10.79
20056.21	20127.27	11158.72	1015.52	71.07	6.60	14.29	10.99
20127.27	20198.33	12861.05	1106.02	71.10	7.61	15.56	11.63
20198.33	20269.39	16857.12	1301.06	71.11	9.97	18.31	12.96
20269.39	20340.45	18766.53	1387.57	71.11	11.10	19.53	13.52
20340.45	20411.50	14458.40	1186.67	71.12	8.56	16.70	12.18
20411.50	20482.56	11446.07	1037.96	72.25	6.77	14.61	11.03
20482.56	20553.62 RB	393.69	95.59	29.15	0.23	3.67	4.12

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 218.42

INPUT
Description:
Station Elevation Data num= 280

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13775.01	1135.11	4010.58	1134.98	14024.29	1135.01	14476.92	1133.61	14664.6	1132.73
15249.61	1129.11	5272.55	1128.97	15497.69	1128.24	15619.78	1128.22	15827.23	1129.02

```
16085.44  1129.916488.61 1131.2716651.78 1131.7716720.37  1131.716732.64 1131.77
16747.49  1131.717267.73 1130.1917278.36 1129.9117295.48 1129.3317322.39  1128.3
17469.28  1122.417486.47 1122.64 17548.9 1123.8817669.09 1120.3517792.62 1129.96
17835.52  1130.417876.22 1131.3517910.24 1141.8217925.46 1146.3617942.58 1150.47
17951.24  1151.517959.47 1149.1717971.21 1147.4218007.39 1147.4918021.48 1147.48
18076.85  1147.618098.93  1147.618120.08  1147.718230.52 1148.6918247.11 1148.77
18361.71    115018371.34 1149.9718405.87 1150.5818450.66 1137.6318465.78  1133.1
18474.03  1133.718490.29 1135.4418519.06  1127.518528.95 1124.8418568.93 1123.21
18584.02  1127.318596.35 1127.0318661.21 1125.6518663.21 1126.4118720.01 1146.17
18757.32  1157.918760.54 1157.8418779.39 1157.1518835.55 1157.2718916.49 1156.91
19045.66  1156.619319.48 1155.8519374.57 1155.8119417.64 1137.3719430.47 1131.73
 19443.1  1130.719449.06 1131.0419466.92 1131.6219480.61 1131.4819502.37 1122.14
19524.32  1112.519564.21 1107.96 19571.3 1107.3919585.69 1107.2619627.57 1107.72
19738.83  1106.219816.62 1105.5419875.67 1106.3219888.83 1106.3119942.45 1107.02
20038.66  1108.120092.59  1106.720123.26 1105.9720163.88 1104.9320218.93 1103.78
20266.68    110320272.84 1101.5620385.12 1103.6320394.06 1104.0420401.77 1103.76
20412.72  1104.420467.02    110620482.46 1105.7420499.22 1117.0320502.07 1119.07
20512.29  1119.420536.34 1127.8120543.39 1130.1820557.73 1130.9220566.34 1128.05
20582.27  1124.520585.48 1123.5220594.97  1122.220621.82 1117.38 20631.3 1119.51
20652.33  1122.720668.26 1123.2620702.27 1127.3720710.06 1128.6320732.51  1131.4
20758.16  1131.520795.49 1132.1620806.82 1129.1220847.88 1118.3320864.52 1114.75
20898.27  1114.620944.31 1128.2220955.86 1127.9220972.57 1127.7221005.35 1118.14
21017.74  1113.521036.21 1113.5421093.74 1129.3421102.08  1131.821107.21 1131.77
21139.91  1131.421173.22 1130.6821186.04  1130.621251.13 1130.84 21275.6 1130.51
21298.56  1130.521347.39 1130.5521368.37 1130.5521373.25 1129.9421378.56 1129.69
21406.12  1129.521442.19 1129.4921465.44 1127.6421476.37 1126.6121490.38 1127.15
21525.98  1128.621556.47 1129.2721651.65 1131.1621678.33 1131.3421733.77 1131.79
21746.38  1131.821762.15 1132.0121788.93 1131.6621846.42 1131.7821880.42 1131.26
 21911.5  1129.821973.41 1129.2321986.11  1128.722032.49  1129.7 22039.2 1128.83
22056.94    112622063.39 1126.3722071.03 1125.3422087.39 1125.6222100.05 1123.67
22130.04  1117.222141.04 1118.8522154.83 1118.8122204.54 1117.0422224.25 1118.25
22232.98  1118.122247.02 1117.3822266.11 1118.25   22310 1105.5122315.56 1105.31
22357.67    110522362.33 1105.0622383.86 1109.9822420.72 1117.9522423.69 1118.09
22446.86  1116.9   22480 1117.1822481.83 1117.13 22486.8 1124.0722500.99  1127.9
22531.09  1117.322533.46 1117.2622556.26 1115.9622566.75 1114.7622569.13 1115.35
 22577.1  1114.722588.06  1116.922596.98 1118.4522609.35 1120.2922621.47 1124.08
22640.38  1124.122662.28 1121.4322713.76 1120.6422722.87  1121.122742.51 1122.87
22748.68  1122.222764.92 1120.5122801.71 1123.0422827.81 1122.4122857.28 1121.58
22879.07  1130.9 22884.7 1133.3722887.08 1133.2422893.55 1132.3822908.19 1132.36
 22913.5  1132.323065.86 1131.5823176.13 1129.96 23301.7 1129.8923359.12 1129.96
23409.31  1129.223692.08 1127.7723732.77 1125.6423760.65 1124.8323763.49 1124.63
23786.32  1125.123812.67 1126.6623836.06 1127.4823846.11 1127.6823930.48  1129.1
23972.68  1129.324063.93 1130.0124113.45 1130.52 24141.3 1130.9824223.71 1131.91
24249.38    113224295.28  1131.924327.93 1131.9824404.92 1132.5724410.12 1132.43
24465.19  1130.624471.68 1130.5524546.64 1129.19 24597.6 1128.8324622.78 1128.68
24686.97  1129.424688.17 1129.4724758.56 1129.1524761.02 1129.1224913.06 1129.62
24922.11  1129.524944.11 1128.3124988.23 1129.1425003.98 1129.1425033.94 1129.55
25070.29  1130.425102.72 1130.8525114.57 1130.5225116.25 1131.0625122.69 1129.84
25127.81  1129.525153.98 1129.4125177.68 1129.1425187.58 1129.1325234.01 1129.23
25282.86  1129.225300.51 1129.9125358.34 1130.0725365.57 1129.7525404.43 1131.61
 25414.9  1131.725448.77 1131.5725457.29 1131.6825468.39 1131.4825513.33 1131.41
25547.39  1134.725565.27  1134.825590.42 1133.6525626.59 1130.45 25655.8 1132.23
25661.35  1132.325709.11 1132.8325724.62 1132.5425726.43 1131.35 25730.8 1132.12
 25743.2  1131.625745.24 1132.2825797.56 1134.1525803.07 1134.9225849.59 1134.74

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
13775.01     .0519480.61    .03520557.73     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19480.6120557.73              520  502.97     490             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
13775.0119480.61 1131.4820557.7325849.59 1130.92

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1120.20   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.28   Wt. n-Val.                              0.035
  E.G. Elev (ft)            1122.48   Reach Len. (ft)             520.00     502.97     490.00
  Crit W.S. (ft)            1115.71   Flow Area (sq ft)                    13956.46
  E.G. Slope (ft/ft)       0.002467   Area (sq ft)                         13956.46    3063.84
  Q Total (cfs)           169000.00   Flow (cfs)                          169000.00
  Top Width (ft)            1630.10   Top Width (ft)                        1007.81     622.29
  Vel Total (ft/s)            12.11   Avg. Vel. (ft/s)                        12.11
  Max Chl Dpth (ft)           18.64   Hydr. Depth (ft)                        13.85
```

Conv. Total (cfs)	3402340.0	Conv. (cfs)		3402340.0	
Length Wtd. (ft)	502.97	Wetted Per. (ft)		1014.29	
Min Ch El (ft)	1101.56	Shear (lb/sq ft)		2.12	
Alpha	1.00	Stream Power (lb/ft s)		25.66	
Frctn Loss (ft)	1.04	Cum Volume (acre-ft)	1968.81	8260.37	139.39
C & E Loss (ft)	0.14	Cum SA (acres)	105.63	486.08	71.20

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1120.20	Element			
Vel Head (ft)	2.28	Wt. n-Val.		0.035	
E.G. Elev (ft)	1122.48	Reach Len. (ft)	520.00	502.97	490.00
Crit W.S. (ft)	1115.71	Flow Area (sq ft)		13956.33	
E.G. Slope (ft/ft)	0.002467	Area (sq ft)		13956.33	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1007.81	Top Width (ft)		1007.81	
Vel Total (ft/s)	12.11	Avg. Vel. (ft/s)		12.11	
Max Chl Dpth (ft)	18.64	Hydr. Depth (ft)		13.85	
Conv. Total (cfs)	3402297.3	Conv. (cfs)		3402297.3	
Length Wtd. (ft)	502.97	Wetted Per. (ft)		1014.29	
Min Ch El (ft)	1101.56	Shear (lb/sq ft)		2.12	
Alpha	1.00	Stream Power (lb/ft s)		25.67	
Frctn Loss (ft)	1.04	Cum Volume (acre-ft)		8261.55	
C & E Loss (ft)	0.14	Cum SA (acres)		486.08	

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19480.61 LB	19552.42	2458.79	328.98	47.44	1.45	7.21	7.47
19552.42	19624.22	9995.06	901.28	71.91	5.91	12.55	11.09
19624.22	19696.03	10513.35	928.55	71.82	6.22	12.93	11.32
19696.03	19767.84	11830.36	996.68	71.81	7.00	13.88	11.87
19767.84	19839.65	12687.94	1039.42	71.81	7.51	14.47	12.21
19839.65	19911.46	11944.84	1002.45	71.81	7.07	13.96	11.92
19911.46	19983.27	10801.77	943.75	71.81	6.39	13.14	11.45
19983.27	20055.07	9794.04	889.91	71.82	5.80	12.39	11.01
20055.07	20126.88	11217.34	965.46	71.83	6.64	13.44	11.62
20126.88	20198.69	13772.18	1091.92	71.83	8.15	15.21	12.61
20198.69	20270.50	16068.73	1198.42	71.92	9.51	16.69	13.41
20270.50	20342.31	18260.11	1293.69	71.88	10.80	18.02	14.11
20342.31	20414.12	16050.45	1197.12	71.85	9.50	16.67	13.41
20414.12	20485.92	13022.47	1060.07	72.54	7.71	14.76	12.28
20485.92	20557.73 RB	582.58	118.75	32.20	0.34	4.14	4.91

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19480.61 LB	19552.42	2458.80	328.97	47.44	1.45	7.21	7.47
19552.42	19624.22	9995.04	901.27	71.91	5.91	12.55	11.09
19624.22	19696.03	10513.33	928.55	71.82	6.22	12.93	11.32
19696.03	19767.84	11830.35	996.68	71.81	7.00	13.88	11.87
19767.84	19839.65	12687.94	1039.41	71.81	7.51	14.47	12.21
19839.65	19911.46	11944.84	1002.44	71.81	7.07	13.96	11.92
19911.46	19983.27	10801.75	943.74	71.81	6.39	13.14	11.45
19983.27	20055.07	9794.01	889.90	71.82	5.80	12.39	11.01
20055.07	20126.88	11217.32	965.45	71.83	6.64	13.44	11.62
20126.88	20198.69	13772.19	1091.91	71.83	8.15	15.21	12.61
20198.69	20270.50	16068.76	1198.42	71.92	9.51	16.69	13.41
20270.50	20342.31	18260.16	1293.68	71.88	10.80	18.02	14.11
20342.31	20414.12	16050.47	1197.11	71.85	9.50	16.67	13.41

20414.12	20485.92	13022.47	1060.06	72.54	7.71	14.76	12.28
20485.92	20557.73 RB	582.58	118.75	32.20	0.34	4.14	4.91

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 218.33

INPUT
Description:
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19387.78	1144.119	429.55	1124.7119	449.63	1126.119	472.34	1127.571	9492.02	1118.59
19511.87	1110	19534.79	1108.419	542.81	1107.94	19578.9	1108.511	9663.53	1107.59
19764.35	1106.319	769.36	1106.1919	825.17	1104.821	9868.37	1104.81	9892.81	1103.54
19948.78	1100.119	973.71	1100.7419	988.39	1101.012	0011.72	1104.562	0091.58	1101.71
20153.7	1099.320	209.26	1100.8620	254.62	1101.942	0337.67	1102.612	0362.43	1102.91
20378.77	1103	20387.77	1103.2320	508.48	1105.632	0514.91	1109.432	0529.36	1118.94
20540.63	1119.220	571.05	1129.2120	584.85	1130.742	0606.94	1123.92	0614.38	1126.66
20618.72	1127.820	652.72	1127.3520	707.48	1126.982	0729.09	1127.422	0739.18	1126.24
20744.96	1125.820	766.02	1127.0820	810.51	1127.52	0886.12	1128.01		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19387.78	.05	19472.34	.03	20584.85	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19472.34	20584.85	540	490.24	430	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19387.78	19472.34	1127.57	20584.85	20886.12	1130.74

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1119.49	Element			
Vel Head (ft)	1.80	Wt. n-Val.		0.035	
E.G. Elev (ft)	1121.29	Reach Len. (ft)	540.00	490.24	430.00
Crit W.S. (ft)	1113.65	Flow Area (sq ft)		15675.27	
E.G. Slope (ft/ft)	0.001772	Area (sq ft)		15675.27	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1051.46	Top Width (ft)		1051.46	
Vel Total (ft/s)	10.78	Avg. Vel. (ft/s)		10.78	
Max Chl Dpth (ft)	20.19	Hydr. Depth (ft)		14.91	
Conv. Total (cfs)	4014311.0	Conv. (cfs)		4014311.0	
Length Wtd. (ft)	490.24	Wetted Per. (ft)		1058.06	
Min Ch El (ft)	1099.30	Shear (lb/sq ft)		1.64	
Alpha	1.00	Stream Power (lb/ft s)		17.67	
Frctn Loss (ft)	0.97	Cum Volume (acre-ft)	1968.81	8089.30	122.16
C & E Loss (ft)	0.03	Cum SA (acres)	105.63	474.19	67.70

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1119.49	Element			
Vel Head (ft)	1.80	Wt. n-Val.		0.035	
E.G. Elev (ft)	1121.29	Reach Len. (ft)	540.00	490.24	430.00
Crit W.S. (ft)	1113.65	Flow Area (sq ft)		15675.14	
E.G. Slope (ft/ft)	0.001772	Area (sq ft)		15675.14	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1051.46	Top Width (ft)		1051.46	
Vel Total (ft/s)	10.78	Avg. Vel. (ft/s)		10.78	
Max Chl Dpth (ft)	20.19	Hydr. Depth (ft)		14.91	
Conv. Total (cfs)	4014266.0	Conv. (cfs)		4014266.0	
Length Wtd. (ft)	490.24	Wetted Per. (ft)		1058.06	
Min Ch El (ft)	1099.30	Shear (lb/sq ft)		1.64	
Alpha	1.00	Stream Power (lb/ft s)		17.67	
Frctn Loss (ft)	0.97	Cum Volume (acre-ft)		8090.47	
C & E Loss (ft)	0.03	Cum SA (acres)		474.19	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

19472.34 LB	19546.51	3296.78	473.25	58.50	1.95	8.38	6.97
19546.51	19620.67	7209.01	832.11	74.17	4.27	11.22	8.66
19620.67	19694.84	7896.94	878.89	74.17	4.67	11.85	8.99
19694.84	19769.01	8952.41	947.60	74.17	5.30	12.78	9.45
19769.01	19843.18	10610.93	1049.38	74.18	6.28	14.15	10.11
19843.18	19917.34	12428.15	1154.18	74.25	7.35	15.56	10.77
19917.34	19991.51	16832.94	1384.81	74.27	9.96	18.67	12.16
19991.51	20065.68	13061.51	1190.32	74.43	7.73	16.05	10.97
20065.68	20139.85	16179.65	1351.92	74.22	9.57	18.23	11.97
20139.85	20214.01	18033.73	1442.70	74.20	10.67	19.45	12.50
20214.01	20288.18	15489.10	1316.70	74.18	9.17	17.75	11.76
20288.18	20362.35	14359.09	1258.15	74.17	8.50	16.96	11.41
20362.35	20436.52	13046.88	1187.90	74.18	7.72	16.02	10.98
20436.52	20510.68	11062.36	1077.99	74.54	6.55	14.53	10.26
20510.68	20584.85 RB	540.51	129.34	34.41	0.32	4.20	4.18

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19472.34 LB	19546.51	3296.84	473.24	58.50	1.95	8.38	6.97
19546.51	19620.67	7208.97	832.10	74.17	4.27	11.22	8.66
19620.67	19694.84	7896.90	878.88	74.17	4.67	11.85	8.99
19694.84	19769.01	8952.38	947.59	74.17	5.30	12.78	9.45
19769.01	19843.18	10610.91	1049.37	74.18	6.28	14.15	10.11
19843.18	19917.34	12428.15	1154.18	74.25	7.35	15.56	10.77
19917.34	19991.51	16832.97	1384.80	74.27	9.96	18.67	12.16
19991.51	20065.68	13061.51	1190.31	74.43	7.73	16.05	10.97
20065.68	20139.85	16179.67	1351.91	74.22	9.57	18.23	11.97
20139.85	20214.01	18033.77	1442.69	74.20	10.67	19.45	12.50
20214.01	20288.18	15489.12	1316.69	74.18	9.17	17.75	11.76
20288.18	20362.35	14359.09	1258.14	74.17	8.50	16.96	11.41
20362.35	20436.52	13046.87	1187.89	74.18	7.72	16.02	10.98
20436.52	20510.68	11062.34	1077.98	74.54	6.55	14.53	10.26
20510.68	20584.85 RB	540.51	129.33	34.41	0.32	4.20	4.18

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 218.24

INPUT
Description:
Station Elevation Data num= 324

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14281.15	1132.3	14294.13	1132.2	14327.07	1132.6	14444.34	1132.29	14473.6	1132.04
14812.04	1130.9	14850.4	1130.5	14891.53	1130.3	14908.34	1133.1	14928.23	1130.3
14933.22	1129.3	14941.85	1129.4	14974.01	1130.3	15003.74	1128.6	15020.27	1127.76
15079.03	1128	15088.04	1128.2	15242.58	1127.5	15489.93	1126.2	15549.45	1127.35
15564.61	1127.3	15608.44	1126.2	15682.97	1124.7	15687.27	1125.3	15695.05	1127.11
15710.18	1127	15715.16	1124.2	15719.03	1124.1	15721.97	1127.2	15752.54	1127.65
15752.69	1126.6	15758.62	1126.8	15770.79	1127.7	15776.01	1126.38	15788.1	1124.29
15819.42	1123	15835.05	1124.8	15867.55	1123.5	15876.02	1123.3	15906.46	1123.78
15954.59	1124.5	15982.54	1124.5	15994.01	1125.7	16063.25	1125.7	16151.28	1126.16
16207.83	1126	16278.28	1126.6	16282.62	1126.6	16355.64	1127.3	16388.04	1127.58
16531.67	1127.2	16541.91	1127.1	16583.04	1127.0	16727.63	1127.3	16824.43	1128
17061.82	1129	17085.46	1129	17100.15	1129.2	17106.77	1126.8	17117.12	1130.56
17126.18	1130.4	17134.91	1128.7	17146.65	1128.3	17165.73	1127.8	17174.12	1127.92
17185.89	1127.6	17191.97	1127.9	17318.87	1128.8	17332.85	1125.9	17334.08	1125.62
17402.7	1125.9	17412.17	1125.4	17472.29	1125.8	17497.5	1125.7	17532.13	1125.67
17545.25	1126	17566.52	1125.8	17671.52	1125.35	17788.5	1124.8	17813.93	1125.31
17823.82	1125	17839.63	1125.0	17863.14	1125.0	17870.61	1125.1	17934.37	1124.27
18023.41	1123.1	18035.66	1122.5	18059.85	1122.0	18125.47	1122.1	18138.27	1121.98
18168.78	1121.6	18186.76	1121.7	18198.69	1121.4	18233.59	1123.1	18242.95	1122.77
18246.99	1123.3	18267.59	1124.23	18314.4	1142.9	18321.06	1145.1	18345.79	1144.88
18349.32	1145	18373.63	1155.5	18376.41	1156.82	18433.9	1156.8	18630.99	1157.04
18777.37	1156.1	18818.63	1145	18867.89	1131.9	18880.1	1128	18893.85	1127.32
18901.85	1128.6	18916.95	1125.8	18935.45	1122.0	18951.27	1119.2	18982.36	1119.01
19005.36	1121.5	19011.28	1122.0	19015.06	1122.1	19031.88	1122.5	19106.52	1148.14
19125.17	1146.8	19181.33	1148.3	19228.76	1149	19283.57	1150.0	19313.78	1135.95
19331.42	1127	19342.2	1127.4	19354.24	1125.99	19367.3	1123.05	19381.9	1123.21
19402.58	1124.2	19443.72	1108.3	19471.62	1106.8	19480.14	1106.6	19516.23	1106.49
19589.68	1106.4	19697.03	1105.6	19730.91	1105.3	19746.01	1105.3	19769.76	1104.71
19868.35	1102.7	19883.89	1102.2	19931.39	1101.5	19957.76	1100.8	20042.64	1097.97
20126.23	1100.3	20176.46	1102.5	20207.92	1103.7	20250.28	1102.8	20326.23	1103.73
20432.28	1109.3	20433.99	1109.4	20471.71	1126.7	20485.96	1127.1	20523.63	1128.2

```
 20544.5  1129.320568.69  1129.620603.51 1127.9420701.54 1124.6320702.21 1124.62
20813.09  1126.220826.16 1126.8920863.31 1128.3520894.59 1129.7420903.36 1129.71
20970.77  1129.820996.41 1129.6221048.71 1129.5721056.52 1129.1821080.73 1127.63
21108.17  1127.121228.87 1124.2621241.08 1124.1621263.84 1122.9321272.69    1124
21322.72  1126.521331.62 1127.0321340.68 1127.1321364.71 1127.1321401.73 1128.31
21452.16  1129.621476.08 1129.4321492.69 1128.8321504.29 1128.6921528.64 1128.66
21545.85  1128.721577.95 1128.9721623.11 1129.8221660.11 1130.5421702.15 1130.95
21744.94  1131.1 21774.1 1130.6521789.64 1130.2921839.52 1130.4221874.34  1130.7
21913.79  1131.222022.05 1131.96   22073  1132.422076.85 1132.4722200.69 1133.72
22214.11  1133.822287.79 1134.3422314.82 1134.37 22325.6 1134.8222363.39 1124.23
22406.05  1114.122426.12 1113.7222470.29 1116.5722488.42 1119.1722498.19 1120.38
22507.98  1120.922525.74 1124.0122567.51 1122.3822578.13 1122.8922586.38 1122.09
22647.15  1120.522666.66 1120.7222681.19 1120.8122705.18 1119.7522736.27 1121.34
22749.25  1119.822756.63 1119.0722784.53 1116.0522790.26 1115.62 22815.2 1115.09
22841.03  1115.322876.59 1134.9622878.62 1135.7322910.16 1134.8922922.83 1134.86
23114.14  1133.523169.47    1133 23215.7 1132.3923407.55 1131.4123450.64 1131.42
23490.55  1131.223528.56 1130.8723563.62 1130.4623799.81  1131.923848.96 1132.08
23871.12  1131.5 23921.1 1130.6923993.48 1127.4424002.94 1127.0724049.87  1125.6
24092.02  1128.224104.78 1129.0824133.99 1129.3624163.13 1129.6924173.94 1129.75
24244.74  1127.124277.59 1126.5724286.89 1126.4624303.01 1126.5124345.78 1126.75
24387.44  1127.924411.12 1128.5324423.87 1128.99 24460.4 1130.5424490.97 1131.01
24506.05  1131.424531.86 1131.6224575.75 1132.1224649.38 1131.3924700.08 1129.79
24754.03  1128.924776.59 1128.5624817.88 1126.6624822.08 1126.4424842.73 1126.58
24894.53  1127.424961.15 1128.47 24972.7 1128.5725001.71 1128.1625084.39 1126.72
25096.93  1128.225109.76  1131.225129.07 1129.0625136.25 1128.4225145.94 1128.72
25171.53  1129.9 25181.2 1126.9725186.07 1128.4925187.12 1129.0425249.47 1128.45
 25258.1  1128.425264.74  1128.525299.93 1128.3525328.56 1127.3825343.06 1127.07
25363.92  1127.325390.79 1127.4625409.45 1127.9625420.07 1128.0925436.16 1129.31
25469.58  1128.925521.34 1128.9125613.95  1128.625666.19 1129.0825710.72 1128.79
25731.38    113025741.87 1129.2525760.39 1127.4825768.13 1128.9525782.49 1131.99
 25787.4  1131.825792.25 1132.0325810.17 1129.4625817.06 1128.5725835.57 1132.57
25872.44  1127.7 25891.8 1129.42 25901.1  1130.725922.95 1129.3725964.82 1129.19
25969.18  1128.925975.96  1128.125978.38 1127.9425982.79 1128.5725987.59 1128.38
25991.84  1129.826007.52 1130.3326009.17 1130.5626057.44 1130.37

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
14281.15     .0519402.58    .03520471.71     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19402.5820471.71              530   499.8     460              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
14281.1519402.58  1124.220471.7126057.44 1126.79

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1118.20   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.09   Wt. n-Val.                              0.035
  E.G. Elev (ft)            1120.30   Reach Len. (ft)            530.00     499.80     460.00
  Crit W.S. (ft)            1113.34   Flow Area (sq ft)                    14552.93
  E.G. Slope (ft/ft)       0.002216   Area (sq ft)                         14552.93     457.37
  Q Total (cfs)           169000.00   Flow (cfs)                          169000.00
  Top Width (ft)            1209.42   Top Width (ft)                        1034.87     174.55
  Vel Total (ft/s)            11.61   Avg. Vel. (ft/s)                        11.61
  Max Chl Dpth (ft)           20.23   Hydr. Depth (ft)                        14.06
  Conv. Total (cfs)       3589986.3   Conv. (cfs)                         3589986.3
  Length Wtd. (ft)           499.80   Wetted Per. (ft)                      1039.03
  Min Ch El (ft)            1097.97   Shear (lb/sq ft)                         1.94
  Alpha                        1.00   Stream Power (lb/ft s)                  22.50
  Frctn Loss (ft)              1.04   Cum Volume (acre-ft)      1968.81     7919.20     119.90
  C & E Loss (ft)              0.04   Cum SA (acres)             105.63      462.45      66.84


Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1118.20   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.09   Wt. n-Val.                              0.035
  E.G. Elev (ft)            1120.30   Reach Len. (ft)            530.00     499.80     460.00
  Crit W.S. (ft)            1113.34   Flow Area (sq ft)                    14552.80
  E.G. Slope (ft/ft)       0.002216   Area (sq ft)                         14552.80
  Q Total (cfs)           169000.00   Flow (cfs)                          169000.00
```

Top Width (ft)	1034.87	Top Width (ft)	1034.87
Vel Total (ft/s)	11.61	Avg. Vel. (ft/s)	11.61
Max Chl Dpth (ft)	20.23	Hydr. Depth (ft)	14.06
Conv. Total (cfs)	3589937.5	Conv. (cfs)	3589937.5
Length Wtd. (ft)	499.80	Wetted Per. (ft)	1039.03
Min Ch El (ft)	1097.97	Shear (lb/sq ft)	1.94
Alpha	1.00	Stream Power (lb/ft s)	22.50
Frctn Loss (ft)	1.04	Cum Volume (acre-ft)	7920.38
C & E Loss (ft)	0.04	Cum SA (acres)	462.45

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19402.58 LB	19473.86	3398.32	446.82	57.56	2.01	8.02	7.61
19473.86	19545.13	8308.16	832.16	71.28	4.92	11.68	9.98
19545.13	19616.41	8481.75	842.53	71.28	5.02	11.82	10.07
19616.41	19687.68	8980.54	871.93	71.28	5.31	12.23	10.30
19687.68	19758.96	9652.39	910.52	71.28	5.71	12.77	10.60
19758.96	19830.23	11236.57	997.50	71.29	6.65	14.00	11.26
19830.23	19901.51	13297.53	1103.56	71.29	7.87	15.48	12.05
19901.51	19972.78	15360.19	1203.34	71.30	9.09	16.88	12.76
19972.78	20044.06	18836.98	1360.19	71.32	11.15	19.08	13.85
20044.06	20115.33	19031.85	1368.52	71.30	11.26	19.20	13.91
20115.33	20186.61	15180.76	1195.15	71.34	8.98	16.77	12.70
20186.61	20257.88	12554.27	1066.16	71.30	7.43	14.96	11.78
20257.88	20329.16	12410.49	1058.74	71.28	7.34	14.85	11.72
20329.16	20400.44	9236.15	887.21	71.37	5.47	12.45	10.41
20400.44	20471.71 RB	3034.07	408.59	54.56	1.80	7.77	7.43

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19402.58 LB	19473.86	3398.30	446.81	57.56	2.01	8.02	7.61
19473.86	19545.13	8308.13	832.15	71.28	4.92	11.68	9.98
19545.13	19616.41	8481.72	842.53	71.28	5.02	11.82	10.07
19616.41	19687.68	8980.51	871.92	71.28	5.31	12.23	10.30
19687.68	19758.96	9652.37	910.51	71.28	5.71	12.77	10.60
19758.96	19830.23	11236.56	997.49	71.29	6.65	13.99	11.26
19830.23	19901.51	13297.54	1103.55	71.29	7.87	15.48	12.05
19901.51	19972.78	15360.21	1203.33	71.30	9.09	16.88	12.76
19972.78	20044.06	18837.03	1360.18	71.32	11.15	19.08	13.85
20044.06	20115.33	19031.91	1368.51	71.30	11.26	19.20	13.91
20115.33	20186.61	15180.78	1195.14	71.34	8.98	16.77	12.70
20186.61	20257.88	12554.27	1066.16	71.30	7.43	14.96	11.78
20257.88	20329.16	12410.49	1058.73	71.28	7.34	14.85	11.72
20329.16	20400.44	9236.12	887.21	71.37	5.47	12.45	10.41
20400.44	20471.71 RB	3034.06	408.58	54.56	1.80	7.77	7.43

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 218.14

INPUT
Description:
Station Elevation Data num= 318

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14350.76	1131.4	14360.5	1131.19	14380.3	1130.99	14402.86	1130.31	14523.31	1130.4
14558.91	1130.51	14601.58	1131.52	14607.6	1130.75	14614.45	1130.71	14640.8	1131.37
14643.11	1131.41	14662.14	1128.62	14674.8	1128.07	14682.93	1127.22	14744.46	1126.69
14768.12	1126.21	14773.04	1126.98	14787.2	1127.72	14806.51	1129.24	14824.82	1129.08
14866.74	1129.51	14881.86	1129.59	14910.06	1129.44	14927.4	1129.43	14943.48	1130.9
14952.89	1130.71	14977.11	1130.14	14989.12	1130.08	15017.11	1130.16	15033.54	1128.84

```
15048.73  1127.515056.11 1127.2815085.71 1127.16 15209.5 1126.3715261.62 1126.35
15295.84  1125.615419.85 1124.9315690.95 1123.2315720.15 1122.9515785.69 1122.08
15800.05    112215804.38 1122.83 15816.3 1124.5715819.09 1125.6615835.48 1125.52
15874.31    112615894.58 1124.9115895.96 1124.9415900.13 1124.3115906.72 1123.58
15930.36  1121.415936.63 1121.8115947.56  1121.915974.16 1121.9516016.36 1121.83
16077.77  1122.816092.84 1123.0616119.47  1123.116337.61 1124.3616489.75 1125.38
16571.31  1125.916583.51 1126.7116603.58 1126.5316652.76 1125.7816711.29  1127.7
16721.78  1127.716820.47 1126.8416870.62 1127.2317155.31 1127.5417209.46 1127.64
17241.33    112817289.47 1126.6517295.26 1126.45 17420.9 1127.1917443.24 1127.22
17523.36  1125.8 17640.8 1124.8317661.78 1124.5117675.93 1125.4917683.63 1123.97
17705.03  1125.317723.81 1125.9117732.55 1125.8717905.79 1124.2817944.72 1124.69
17946.94  1124.617957.23  1123.317970.64 1123.1917998.24 1123.37   18014 1124.37
18044.09  1124.2 18096.7 1123.3618131.43 1122.8718157.23  1122.618197.27 1122.04
18331.89  1120.218345.39 1122.9818370.13 1125.5918378.71 1125.3218383.68 1126.39
18385.72  1126.618396.44 1126.46 18430.4 1137.8218473.63 1146.4618488.54  1147.2
18500.26    1147 18510.1 1146.8918524.49 1150.3218537.76 1151.9718547.33 1151.61
18562.12  1150.5 18577.7 1149.0318587.35  1148.218612.13 1146.5418643.16 1145.07
18662.15    114518718.32  1145.418740.77  1146.518765.55 1145.56 18774.7 1144.91
18811.46  1141.918825.91 1140.0318866.94  1137.418884.39 1135.9418897.58  1133.7
18937.82    112618957.94 1126.0618969.28 1125.61   18988 1126.6219020.92 1127.19
 19025.1  1127.719059.91 1119.4119064.89 1119.32   19147 1118.7319196.03 1119.11
19302.51  1119.619337.55 1123.7719356.32  1124.1 19371.2 1124.6619394.21 1115.35
19415.94  1106.719425.04  1106.319434.74 1106.0319498.22 1106.0819552.71 1106.72
19581.09    110719629.75 1106.9519660.81 1107.3219690.23 1103.8319697.76    1103
19716.45  1102.6 19829.2 1098.8519866.79  1097.819909.76 1097.4419995.42 1096.58
20006.26  1096.820023.96 1097.2420085.84 1099.1520115.65 1099.97 20182.6 1101.96
   20283  1103.620349.46 1104.7320371.68 1105.2220380.43 1105.4920405.54 1107.57
20407.13  1108.420439.17 1127.5920443.28  1127.420479.36 1125.2520486.53 1125.45
20510.81  1126.320537.57 1126.6920540.25 1126.5720544.23 1126.7920562.34 1127.27
 20603.9  1127.720612.27 1127.7820633.08 1128.2320685.44 1128.5720713.21 1128.87
 20724.9  1128.920808.95 1128.2920843.53 1128.5720884.76 1128.7920923.99 1129.06
21008.49  1130.321041.05 1130.5621067.09 1131.0621146.87 1131.1921252.16 1128.62
21277.89  1128.621308.89  1128.421329.11 1128.6621348.83 1128.5521371.59 1128.78
21421.52  1129.821460.12 1130.5221478.73 1130.9921495.99 1130.6121545.78 1128.71
21560.66  1128.521593.98 1127.5921596.07 1127.7321611.54 1127.5721667.83 1128.58
21730.45  1130.321779.03  1131.221797.76  1131.521816.59 1131.4421855.31 1130.98
22073.65  1132.822372.55 1135.2122384.75  1135.322428.62 1133.2822438.48 1132.72
22443.59  1132.822447.83 1131.9722490.73  1117.222493.13 1116.2222529.32 1116.88
22536.55  1117.622574.86 1116.7222618.58 1118.3422640.82 1117.39 22645.3 1117.04
22669.98  1114.722675.32 1114.3522697.34 1113.8422704.24 1114.37 22721.9  1113.9
22722.46    1114 22765.5 1116.01 22773.6 1115.6622832.46 1115.1222868.61 1114.72
22882.99  1115.122920.52 1116.4822958.38 1131.9622995.46 1135.4823196.44 1135.17
23243.36  1135.223337.14 1135.1123455.35 1134.0223586.54 1133.4223625.18 1133.11
23674.29  1133.123740.74 1133.0523928.91 1132.5823999.09 1132.0724023.54 1131.05
24073.23  1128.824088.58 1128.2124125.81 1126.3424169.63 1128.8524178.41 1129.23
24251.68  1130.724280.87 1129.6424321.48 1128.0324333.82 1127.6524363.84 1126.83
24421.49  1127.724483.92 1128.0924515.57 1129.2624532.73 1129.9524581.95 1131.16
24615.01  1131.1 24653.2 1131.17 24709.3 1130.59 24725.8  1130.524735.01 1130.31
24777.12  1129.924856.35 1128.12 24865.8 1127.9424907.23  1125.724920.27 1125.79
24973.31  1126.725051.33 1127.0725079.85 1127.07 25153.6 1126.5825188.05 1128.94
25223.43    112925254.08 1130.2425269.45 1130.3325273.77 1129.9325317.22 1127.88
25328.61  1127.425354.49 1127.4525380.43  1126.7 25385.4 1126.62 25436.9 1127.12
25502.21  1127.725527.97 1127.0625535.81    112725554.55 1127.55 25570.5 1127.35
25633.81  1128.325699.62 1128.6725742.65 1129.15 25771.9 1129.3725792.08 1128.67
25835.89  1127.825850.73 1131.8325853.04 1132.2825866.15 1133.2125876.19 1131.85
25898.18  1130.425909.01 1131.6925913.03 1131.6125938.93 1130.5925954.13 1128.84
25961.67  1127.925966.17 1127.8525975.16 1128.3826017.24 1128.4326055.88 1128.69
26064.78  1128.826071.65 1128.5326202.12 1128.02

Manning's n Values          num=        3
     Sta    n Val      Sta    n Val      Sta    n Val
14350.76      .05 19371.2     .03520439.17      .05

Bank Sta: Left    Right     Lengths: Left Channel    Right      Coeff Contr.    Expan.
       19371.220439.17                570  508.89     460              .1         .3
Ineffective Flow      num=        2
   Sta L    Sta R     Elev    Sta L    Sta R     Elev
14350.76 19371.2 1124.6620439.1726202.12 1127.59

CROSS SECTION OUTPUT     Profile #PF#1

  W.S. Elev (ft)            1117.26   Element                    Left OB    Channel    Right OB
  Vel Head (ft)                1.96   Wt. n-Val.                            0.035
  E.G. Elev (ft)            1119.21   Reach Len. (ft)            570.00     508.89     460.00
  Crit W.S. (ft)            1111.91   Flow Area (sq ft)                   15057.10
  E.G. Slope (ft/ft)       0.001975   Area (sq ft)                        15057.10     626.96
```

Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1392.54	Top Width (ft)		1032.41	360.13
Vel Total (ft/s)	11.22	Avg. Vel. (ft/s)		11.22	
Max Chl Dpth (ft)	20.68	Hydr. Depth (ft)		14.58	
Conv. Total (cfs)	3803016.0	Conv. (cfs)		3803016.0	
Length Wtd. (ft)	508.89	Wetted Per. (ft)		1037.65	
Min Ch El (ft)	1096.58	Shear (lb/sq ft)		1.79	
Alpha	1.00	Stream Power (lb/ft s)		20.08	
Frctn Loss (ft)	1.00	Cum Volume (acre-ft)	1968.81	7749.33	114.18
C & E Loss (ft)	0.01	Cum SA (acres)	105.63	450.59	64.02

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1117.26	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.96	Wt. n-Val.		0.035	
E.G. Elev (ft)	1119.21	Reach Len. (ft)	570.00	508.89	460.00
Crit W.S. (ft)	1111.91	Flow Area (sq ft)		15056.97	
E.G. Slope (ft/ft)	0.001975	Area (sq ft)		15056.97	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1032.41	Top Width (ft)		1032.41	
Vel Total (ft/s)	11.22	Avg. Vel. (ft/s)		11.22	
Max Chl Dpth (ft)	20.68	Hydr. Depth (ft)		14.58	
Conv. Total (cfs)	3802968.0	Conv. (cfs)		3802968.0	
Length Wtd. (ft)	508.89	Wetted Per. (ft)		1037.65	
Min Ch El (ft)	1096.58	Shear (lb/sq ft)		1.79	
Alpha	1.00	Stream Power (lb/ft s)		20.08	
Frctn Loss (ft)	1.00	Cum Volume (acre-ft)		7750.51	
C & E Loss (ft)	0.01	Cum SA (acres)		450.59	

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19371.20 LB	19442.40	3088.33	431.23	54.94	1.83	8.15	7.16
19442.40	19513.60	7208.76	795.50	71.20	4.27	11.17	9.06
19513.60	19584.79	6593.68	754.06	71.20	3.90	10.59	8.74
19584.79	19655.99	6226.58	728.58	71.20	3.68	10.23	8.55
19655.99	19727.19	9251.83	925.32	71.46	5.47	13.00	10.00
19727.19	19798.39	13379.66	1153.14	71.24	7.92	16.20	11.60
19798.39	19869.59	16704.52	1317.35	71.23	9.88	18.50	12.68
19869.59	19940.78	18688.27	1408.85	71.20	11.06	19.79	13.26
19940.78	20011.98	19700.67	1454.21	71.21	11.66	20.42	13.55
20011.98	20083.18	17890.62	1372.68	71.23	10.59	19.28	13.03
20083.18	20154.38	14756.70	1222.88	71.23	8.73	17.18	12.07
20154.38	20225.58	12104.39	1085.76	71.22	7.16	15.25	11.15
20225.58	20296.77	10510.92	997.53	71.21	6.22	14.01	10.54
20296.77	20367.97	9045.31	911.60	71.21	5.35	12.80	9.92
20367.97	20439.17 RB	3849.76	498.41	56.69	2.28	9.24	7.72

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19371.20 LB	19442.40	3088.30	431.23	54.94	1.83	8.15	7.16
19442.40	19513.60	7208.73	795.49	71.20	4.27	11.17	9.06
19513.60	19584.79	6593.64	754.05	71.20	3.90	10.59	8.74
19584.79	19655.99	6226.53	728.57	71.20	3.68	10.23	8.55
19655.99	19727.19	9251.80	925.31	71.46	5.47	13.00	10.00
19727.19	19798.39	13379.66	1153.13	71.24	7.92	16.20	11.60
19798.39	19869.59	16704.55	1317.34	71.23	9.88	18.50	12.68
19869.59	19940.78	18688.33	1408.85	71.20	11.06	19.79	13.26
19940.78	20011.98	19700.72	1454.20	71.21	11.66	20.42	13.55

20011.98	20083.18	17890.66	1372.68	71.23	10.59	19.28	13.03
20083.18	20154.38	14756.71	1222.87	71.23	8.73	17.18	12.07
20154.38	20225.58	12104.38	1085.75	71.22	7.16	15.25	11.15
20225.58	20296.77	10510.90	997.52	71.21	6.22	14.01	10.54
20296.77	20367.97	9045.28	911.59	71.21	5.35	12.80	9.92
20367.97	20439.17 RB	3849.80	498.40	56.69	2.28	9.24	7.72

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 218.04

INPUT
Description:
Station Elevation Data num= 130

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17025.05	1126.717	046.46	1126.66	17139.85	1126.68	17265.6	1126.98	17285.3	1126.99
17339.8	1127.117	368.81	1127.71	17375.93	1127.96	17387.18	1128.17	17399.25	1127.84
17425.14	1126.717	437.07	1126.49	17443.1	1125.66	17467.12	1123.75	17508.82	1122.55
17536.65	112	317568.13	1123.01	17580.98	1122.38	17590.29	1122.43	17737.66	1123.45
17892.94	1124.617	942.04	1124.67	17951.06	1123.71	18005.77	1119.67	18021	1119.54
18108.49	1118.518	113.14	1118.56	18129.44	1118.31	8131.07	1118.62	18140.77	1119.36
18159.33	1118.818	165.64	1118.81	18293.58	1119.51	18321.22	1119.54	18390.72	1121.27
18439.76	1122.1	18441.1	1121.71	18457.03	1122.65	18466.03	1121.87	18467.4	1121.17
18470.13	1120.7	18474.7	1120.97	18485.79	1120.98	18515.24	1116.82	18517.3	1116.63
18549.38	1118.918	564.81	1119.31	18595.58	1120.05	18630.98	1121.32	18644.41	1121.61
18659.16	1121.718	670.18	1126.32	18672.29	1126.72	18689.39	1126.03	18707.18	1125.77
18714.82	1125.718	750.94	1125.49	18765.73	1124.81	18771.4	1124.44	18787.46	1123.56
18862.77	1122.218	887.84	1121.67	18909.59	1121.52	19049.37	1120.93	19094.29	1121.96
19129.54	112	119132.79	1120.92	19136.43	1127.46	19145.96	1127.51	19158.33	1126.69
19170.06	1126.9	19198.7	1121.98	19200.91	1121.77	19219.25	1120.75	19316.08	1120.12
19340.27	1123.51	9351.62	1123.19	19368.53	1123.61	19373.14	1123.59	19383	1119.27
19413.55	1106.41	9423.75	1106.15	19454.2	1106.07	19510.81	1106.92	19515.21	1106.82
19530.82	1106.71	9539.61	1106.08	19596.44	1104.64	19612.21	1104.48	19614.42	1104.01
19628.94	1100.21	9678.34	1099.73	19708.5	1099.86	19778.52	1097.91	9799.29	1097.18
19818.75	1096.91	9885.99	1095.51	19934.83	1096.6	19989.8	1097.91	20057.89	1098.84
20096.88	1099.82	0130.66	1100.64	20148.07	1100.96	20181.53	1101.77	20219.75	1102.33
20259.67	1103.22	0339.61	1104.92	20350.78	1105.16	20367.87	1105.35	20406.19	1105.85
20408.5	1105.9	20411.5	1107.53	20446.86	1125.39	20467.7	1124.19	20481.88	1123.33
20490.04	1123.82	0513.05	1125.27	20532.42	1125.51	20536.37	1125.64	20537.8	1125.4
20549.12	1124.62	0567.27	1125.66	20581.06	1126.07	20588.15	1125.72	20618.54	1126.06
20620.89	1126.22	0648.58	1126.33	20670.2	1127.85	20705.59	1128.49	20744.91	1129.44

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17025.05	.035	19373.14	.035	20446.86	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19373.14	20446.86	540	508.91	460	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17025.05	19373.14	1123.59	20446.86	20744.91	1125.39

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1116.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.93	Wt. n-Val.		0.035	
E.G. Elev (ft)	1118.21	Reach Len. (ft)	540.00	508.91	460.00
Crit W.S. (ft)	1110.88	Flow Area (sq ft)		15165.97	
E.G. Slope (ft/ft)	0.001944	Area (sq ft)		15165.97	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1038.71	Top Width (ft)		1038.71	
Vel Total (ft/s)	11.14	Avg. Vel. (ft/s)		11.14	
Max Chl Dpth (ft)	20.77	Hydr. Depth (ft)		14.60	
Conv. Total (cfs)	3833415.5	Conv. (cfs)		3833415.5	
Length Wtd. (ft)	508.91	Wetted Per. (ft)		1043.97	
Min Ch El (ft)	1095.51	Shear (lb/sq ft)		1.76	
Alpha	1.00	Stream Power (lb/ft s)		19.64	
Frctn Loss (ft)	0.88	Cum Volume (acre-ft)	1968.81	7572.79	110.87
C & E Loss (ft)	0.07	Cum SA (acres)	105.63	438.49	62.12

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1116.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.93	Wt. n-Val.		0.035	
E.G. Elev (ft)	1118.21	Reach Len. (ft)	540.00	508.91	460.00
Crit W.S. (ft)	1110.88	Flow Area (sq ft)		15165.85	
E.G. Slope (ft/ft)	0.001944	Area (sq ft)		15165.85	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1038.71	Top Width (ft)		1038.71	
Vel Total (ft/s)	11.14	Avg. Vel. (ft/s)		11.14	
Max Chl Dpth (ft)	20.77	Hydr. Depth (ft)		14.60	
Conv. Total (cfs)	3833361.5	Conv. (cfs)		3833361.5	
Length Wtd. (ft)	508.91	Wetted Per. (ft)		1043.97	
Min Ch El (ft)	1095.51	Shear (lb/sq ft)		1.76	
Alpha	1.00	Stream Power (lb/ft s)		19.64	
Frctn Loss (ft)	0.88	Cum Volume (acre-ft)		7573.97	
C & E Loss (ft)	0.07	Cum SA (acres)		438.49	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19373.14 LB	19444.72	2996.38	430.81	56.62	1.77	7.89	6.96
19444.72	19516.30	5784.44	702.16	71.59	3.42	9.81	8.24
19516.30	19587.88	6410.73	746.96	71.62	3.79	10.44	8.58
19587.88	19659.46	10567.20	1011.01	72.13	6.25	14.12	10.45
19659.46	19731.05	13838.22	1185.05	71.59	8.19	16.56	11.68
19731.05	19802.63	16018.39	1293.93	71.61	9.48	18.08	12.38
19802.63	19874.21	18640.27	1416.98	71.59	11.03	19.80	13.15
19874.21	19945.79	19261.22	1445.16	71.60	11.40	20.19	13.33
19945.79	20017.37	16828.02	1332.65	71.60	9.96	18.62	12.63
20017.37	20088.95	15075.65	1247.56	71.60	8.92	17.43	12.08
20088.95	20160.54	12826.62	1132.34	71.60	7.59	15.82	11.33
20160.54	20232.12	10856.91	1024.51	71.59	6.42	14.31	10.60
20232.12	20303.70	9132.58	923.55	71.60	5.40	12.90	9.89
20303.70	20375.28	7433.99	816.25	71.59	4.40	11.40	9.11
20375.28	20446.86 RB	3329.36	457.05	56.04	1.97	8.54	7.28

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19373.14 LB	19444.72	2996.35	430.80	56.62	1.77	7.89	6.96
19444.72	19516.30	5784.40	702.15	71.59	3.42	9.81	8.24
19516.30	19587.88	6410.69	746.96	71.62	3.79	10.43	8.58
19587.88	19659.46	10567.19	1011.00	72.13	6.25	14.12	10.45
19659.46	19731.05	13838.24	1185.04	71.59	8.19	16.55	11.68
19731.05	19802.63	16018.42	1293.92	71.61	9.48	18.08	12.38
19802.63	19874.21	18640.33	1416.97	71.59	11.03	19.80	13.16
19874.21	19945.79	19261.28	1445.16	71.60	11.40	20.19	13.33
19945.79	20017.37	16828.06	1332.64	71.60	9.96	18.62	12.63
20017.37	20088.95	15075.68	1247.55	71.60	8.92	17.43	12.08
20088.95	20160.54	12826.62	1132.33	71.60	7.59	15.82	11.33
20160.54	20232.12	10856.90	1024.50	71.59	6.42	14.31	10.60
20232.12	20303.70	9132.55	923.54	71.60	5.40	12.90	9.89
20303.70	20375.28	7433.96	816.24	71.59	4.40	11.40	9.11
20375.28	20446.86 RB	3329.32	457.04	56.04	1.97	8.54	7.28

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 217.95

INPUT
Description:
Station Elevation Data num= 119

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17269.81	1125.117	273.65	1125.3	117289.07	1126.8	517434.97	1126.9	17475.06	1126.89
17493.89	1126.9	17506.3	1125.66	17546.6	1125.0	417678.95	1124.7	617692.55	1124.75
17751.24	1124	17816.86	1123.93	17839.6	1123.7	417848.23	1120.8	817852.14	1119.42
17876.17	1119.5	17936.73	1119.7	17973.64	1119.46	18018.6	1119.0	918087.43	1119.08
18147.97	1119.4	18189.16	1119.4	418196.58	1119.5	518235.93	1118.5	418249.03	1118.3
18334.83	1119.2	18407.85	1119.58	18448.5	1119.97	18467.9	1120.2	118500.62	1120.46
18563.9	1120.3	18638.14	1120.5	118712.75	1120.52	18765.5	1120.3	918793.15	1120.44
18809.28	1120.7	18831	1120.7	18971.29	1120.2	519017.17	1120.1	919080.19	1119.71
19143.83	1118.8	19163.6	1118.7	519200.56	1118.0	319203.44	1117.9	119216.64	1117.75
19241.81	1118	19247.01	1117.8	19304.49	1117.7	319309.51	1117.5	919327.42	1119.41

```
19336.96  1118.419344.65 1119.8119356.41 1119.6419373.44 1119.52   19392 1123.52
19396.21  1124.219414.44 1123.6919423.35 1123.3219457.46 1104.92 19459.3 1104.34
19465.43  1103.219478.29 1102.7119502.95  1101.119508.31 1100.6119520.09 1099.29
19534.74  1100.319561.92 1099.9919566.24 1099.9819579.98 1099.1319594.74 1100.04
19601.92    110019624.85 1101.1919633.23 1102.0319644.34 1102.0419679.09 1099.62
19718.32  1096.719722.87 1096.4919748.34  1095.819755.07 1095.0219785.83 1093.62
19805.29  1092.619835.21 1092.47 19858.9 1093.2619871.17 1093.8219898.88 1094.42
19903.64  1094.419955.08 1095.5920015.76 1097.41 20028.6 1097.5220053.19 1096.86
20096.73  1097.9 20112.7 1097.9920160.62 1102.6720177.69  1104.320185.65 1104.19
20231.67  1103.720255.62 1103.7320324.77 1103.8520340.48 1103.9520344.93 1104.06
20373.56  1104.5 20423.2 1105.2220458.01 1105.2220489.12 1119.9420495.39  1123.1
20526.71  1121.920546.88 1122.8320551.73 1122.9220575.75 1125.5320590.74 1123.37
20615.29  1124.320618.98 1124.3120712.77 1126.2620722.68 1126.42 20743.4 1126.07
 20762.2  1127.320768.52 1127.1720797.01 1127.1720837.27 1127.58

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
17269.81    .03519423.35    .03520495.39    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19423.3520495.39              480  489.76  489.76            .1        .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
17269.8119423.35 1123.3220495.3920837.27  1123.1
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1115.57	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.68	Wt. n-Val.		0.035	
E.G. Elev (ft)	1117.25	Reach Len. (ft)	480.00	489.76	489.76
Crit W.S. (ft)	1109.16	Flow Area (sq ft)		16247.70	
E.G. Slope (ft/ft)	0.001554	Area (sq ft)		16247.70	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1042.17	Top Width (ft)		1042.17	
Vel Total (ft/s)	10.40	Avg. Vel. (ft/s)		10.40	
Max Chl Dpth (ft)	23.10	Hydr. Depth (ft)		15.59	
Conv. Total (cfs)	4287686.5	Conv. (cfs)		4287686.5	
Length Wtd. (ft)	489.76	Wetted Per. (ft)		1048.42	
Min Ch El (ft)	1092.47	Shear (lb/sq ft)		1.50	
Alpha	1.00	Stream Power (lb/ft s)		15.63	
Frctn Loss (ft)	0.76	Cum Volume (acre-ft)	1968.81	7389.29	110.87
C & E Loss (ft)	0.01	Cum SA (acres)	105.63	426.33	62.12

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1115.57	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.68	Wt. n-Val.		0.035	
E.G. Elev (ft)	1117.25	Reach Len. (ft)	480.00	489.76	489.76
Crit W.S. (ft)	1109.16	Flow Area (sq ft)		16247.57	
E.G. Slope (ft/ft)	0.001554	Area (sq ft)		16247.57	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1042.16	Top Width (ft)		1042.16	
Vel Total (ft/s)	10.40	Avg. Vel. (ft/s)		10.40	
Max Chl Dpth (ft)	23.10	Hydr. Depth (ft)		15.59	
Conv. Total (cfs)	4287640.0	Conv. (cfs)		4287640.0	
Length Wtd. (ft)	489.76	Wetted Per. (ft)		1048.42	
Min Ch El (ft)	1092.47	Shear (lb/sq ft)		1.50	
Alpha	1.00	Stream Power (lb/ft s)		15.63	
Frctn Loss (ft)	0.76	Cum Volume (acre-ft)		7390.47	
C & E Loss (ft)	0.01	Cum SA (acres)		426.33	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19423.35 LB	19494.82	4236.92	581.29	60.03	2.51	10.18	7.29
19494.82	19566.29	10851.93	1096.83	71.62	6.42	15.35	9.89
19566.29	19637.76	10717.88	1088.52	71.60	6.34	15.23	9.85
19637.76	19709.23	11164.45	1115.77	71.64	6.61	15.61	10.01
19709.23	19780.70	16829.62	1426.86	71.58	9.96	19.96	11.79
19780.70	19852.17	20921.02	1625.23	71.51	12.38	22.74	12.87
19852.17	19923.63	19024.86	1535.06	71.50	11.26	21.48	12.39
19923.63	19995.11	16617.81	1415.39	71.50	9.83	19.80	11.74
19995.11	20066.57	14685.88	1314.19	71.49	8.69	18.39	11.17

20066.57	20138.04	13305.24	1239.34	71.60	7.87	17.34	10.74
20138.04	20209.51	7617.31	887.16	71.66	4.51	12.41	8.59
20209.51	20280.98	7022.51	844.04	71.47	4.16	11.81	8.32
20280.98	20352.45	6908.32	835.78	71.47	4.09	11.69	8.27
20352.45	20423.92	6106.89	776.21	71.48	3.61	10.86	7.87
20423.92	20495.39 RB	2989.37	466.01	58.29	1.77	8.33	6.41

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19423.35 LB	19494.82	4236.97	581.28	60.03	2.51	10.18	7.29
19494.82	19566.29	10851.92	1096.82	71.62	6.42	15.35	9.89
19566.29	19637.76	10717.86	1088.52	71.60	6.34	15.23	9.85
19637.76	19709.23	11164.44	1115.76	71.64	6.61	15.61	10.01
19709.23	19780.70	16829.65	1426.86	71.58	9.96	19.96	11.79
19780.70	19852.17	20921.08	1625.22	71.51	12.38	22.74	12.87
19852.17	19923.63	19024.90	1535.05	71.50	11.26	21.48	12.39
19923.63	19995.11	16617.83	1415.39	71.50	9.83	19.80	11.74
19995.11	20066.57	14685.89	1314.18	71.49	8.69	18.39	11.17
20066.57	20138.04	13305.24	1239.34	71.60	7.87	17.34	10.74
20138.04	20209.51	7617.27	887.16	71.66	4.51	12.41	8.59
20209.51	20280.98	7022.48	844.03	71.47	4.16	11.81	8.32
20280.98	20352.45	6908.28	835.78	71.47	4.09	11.69	8.27
20352.45	20423.92	6106.85	776.20	71.48	3.61	10.86	7.87
20423.92	20495.39 RB	2989.36	466.00	58.28	1.77	8.33	6.41

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 217.86

INPUT
Description:
Station Elevation Data num= 171

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17078.98	1127.04	17117.34	1126.61	7131.91	1126.72	17144.52	1126.53	17172.48	1126.55
17204.49	1126.51	17221.97	1126.41	7304.37	1125.36	17352.83	1125.32	17367.66	1125.48
17411.95	1125.1	17436.4	112	17508.42	1125.02	17590.84	1125.15	17616.69	1125.16
17630.56	1124.35	17685.03	1124.11	7785.59	1123.59	17806.54	1123.47	17906.06	1122.75
17936.31	1120.97	17943.18	1120.91	7953.79	1120.07	17954.8	1118.38	17967.12	1117.68
18025.43	1118.26	18041.07	1118.9	18057.5	1118.45	18082.12	1117.92	18101.97	1118.31
18116.81	1118.5	18227.91	1118.71	8336.13	1118.17	18346.49	1119.05	18368.76	1119.01
18438.69	1119.05	18469.08	1119.11	8483.98	1119.33	18499.75	1122.37	18501.49	1121.58
18541.4	1104.52	18551.36	1104.51	8573.43	1104.65	18605.75	1104.71	18623.04	1104.79
18627.6	1104.75	18659.96	1104.81	8660.85	1104.76	18684.48	1116.93	18693.71	1121.82
18696.44	1121.63	18728.94	1117.81	8748.07	1117.69	18750.8	1117.64	18782.11	1118.09
18823.37	1118.86	18877.62	1119.81	8882.44	112	18890.83	1119.91	18957.44	1119.69
18998.75	1118.93	19031.46	1118.1	19046.7	1117.94	19060.05	1117.87	19070.2	1117.66
19085.41	1117.85	19151.43	1117.21	9186.68	1118.91	9207.55	1119.12	19307.48	1120
19373.63	1120.3	19381.44	1119.91	9403.68	1119.74	19413.37	1122.09	19416.58	1123.01
19437.06	1123.78	19456.28	1123.21	9458.45	1122.62	19462.82	1122.89	19480.48	1121.89
19494.97	1115.91	19522.47	1103.61	9564.08	1103.12	19596.01	1103.38	19619	1103.74
19653.41	1104.69	19666.21	1104.51	9676.03	1104.75	19701.3	1103.7	19726.7	1103.73
19734.12	1103.51	19745.14	1102.21	9761.36	1100.14	19825.98	1088.65	19847.42	1088.6
19875.54	1088.88	19884.18	1089.11	9899.82	1089.18	19960.22	1092.66	19992.54	1093.61
20002.61	1093.03	20021.16	1093	20090.5	1093.12	0097.42	1093.05	20133.52	1094.22
20163.22	1094.97	20169.4	1095.82	0205.62	1102.61	20222.55	1102.77	20273.85	1103.07
20306.43	1102.92	20371.13	1103.12	0392.57	1102.97	20410.69	1103.27	20522.58	1103.94
20553.05	1121.71	20583.17	1122.42	0601.67	1123.28	20605.56	1123.31	20611.6	1123.86
20620.46	1123.68	20636.41	1123.72	0653.03	1122.22	20660.32	1122.91	20684.42	1125.51
20713.5	1125.43	20806.16	1125.52	0839.53	1125.62	20853.48	1126.52	20864.06	1127.29
20898.25	1126.72	20935.28	1127.4	20984.1	1126.45	21010.78	1124.94	21020.26	1124.46
21043.59	1124.29	21090.25	1124.12	1109.74	1124.23	21156.37	1124.36	21174.01	1124.86
21207.33	1126.32	21217.88	1126.72	1250.75	1127.83	21284.09	1127.78	21338.59	1127.88
21413.84	1127.42	21436.95	112	21478.69	1126.23	21507.42	1124.68	21525.41	1123.67
21549.84	1123.31	21583.05	1123.42	1640.05	1125.64	21645.23	1125.78	21650.27	1126.16
21656.45	1126.22	21740.28	112	21808.21	1125.99	21821.16	1125.64	21841.85	1124.74
21864.8	1123.94	21904.39	1125.62	1994.14	1127.25	22058.96	1127.99	22079.42	1128.33
22139.44	1128.79	22161.17	1128.72	2263.41	1129.87	22295.96	1130.14	22396.5	1130.57
22411.39	1130.72								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17078.98	.035	19437.06	.035	20611.6	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19437.06	20611.6	470	512.67	540	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17078.98	19437.06	1123.78	20611.62	24411.39	1123.86

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1114.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.66	Wt. n-Val.		0.035	
E.G. Elev (ft)	1116.49	Reach Len. (ft)	470.00	512.67	540.00
Crit W.S. (ft)	1108.27	Flow Area (sq ft)		16338.62	
E.G. Slope (ft/ft)	0.001531	Area (sq ft)	1434.10	16338.62	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1206.97	Top Width (ft)	163.11	1043.86	
Vel Total (ft/s)	10.34	Avg. Vel. (ft/s)		10.34	
Max Chl Dpth (ft)	26.23	Hydr. Depth (ft)		15.65	
Conv. Total (cfs)	4319750.5	Conv. (cfs)		4319750.5	
Length Wtd. (ft)	512.67	Wetted Per. (ft)		1051.33	
Min Ch El (ft)	1088.60	Shear (lb/sq ft)		1.48	
Alpha	1.00	Stream Power (lb/ft s)		15.36	
Frctn Loss (ft)	1.16	Cum Volume (acre-ft)	1960.91	7206.10	110.87
C & E Loss (ft)	0.18	Cum SA (acres)	104.73	414.61	62.12

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1114.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.66	Wt. n-Val.		0.035	
E.G. Elev (ft)	1116.49	Reach Len. (ft)	470.00	512.67	540.00
Crit W.S. (ft)	1108.27	Flow Area (sq ft)		16338.49	
E.G. Slope (ft/ft)	0.001531	Area (sq ft)		16338.49	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1043.86	Top Width (ft)		1043.86	
Vel Total (ft/s)	10.34	Avg. Vel. (ft/s)		10.34	
Max Chl Dpth (ft)	26.23	Hydr. Depth (ft)		15.65	
Conv. Total (cfs)	4319698.0	Conv. (cfs)		4319698.0	
Length Wtd. (ft)	512.67	Wetted Per. (ft)		1051.33	
Min Ch El (ft)	1088.60	Shear (lb/sq ft)		1.49	
Alpha	1.00	Stream Power (lb/ft s)		15.36	
Frctn Loss (ft)	1.16	Cum Volume (acre-ft)		7207.28	
C & E Loss (ft)	0.18	Cum SA (acres)		414.61	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19437.06 LB	19515.36	265.84	72.32	19.69	0.16	4.02	3.68
19515.36	19593.67	6888.76	888.50	78.99	4.08	11.35	7.75
19593.67	19671.97	6323.18	841.14	78.32	3.74	10.74	7.52
19671.97	19750.27	6719.25	872.93	78.45	3.98	11.15	7.70
19750.27	19828.57	17230.20	1543.36	79.41	10.20	19.71	11.16
19828.57	19906.88	27503.25	2032.03	78.32	16.27	25.95	13.53
19906.88	19985.18	22634.77	1808.63	78.40	13.39	23.10	12.51
19985.18	20063.48	20442.05	1700.66	78.32	12.10	21.72	12.02
20063.48	20141.78	19882.90	1672.63	78.32	11.77	21.36	11.89
20141.78	20220.09	12876.83	1293.27	79.00	7.62	16.52	9.96
20220.09	20298.39	7483.58	930.53	78.30	4.43	11.88	8.04

20298.39	20376.69	7416.93	925.55	78.30	4.39	11.82	8.01
20376.69	20454.99	7155.69	905.86	78.31	4.23	11.57	7.90
20454.99	20533.30	6131.51	832.75	79.99	3.63	10.64	7.36
20533.30	20611.60 RB	45.27	18.44	9.21	0.03	2.32	2.45

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19437.06 LB	19515.36	265.84	72.32	19.69	0.16	4.02	3.68
19515.36	19593.67	6888.71	888.49	78.99	4.08	11.35	7.75
19593.67	19671.97	6323.13	841.13	78.32	3.74	10.74	7.52
19671.97	19750.27	6719.20	872.92	78.45	3.98	11.15	7.70
19750.27	19828.57	17230.22	1543.35	79.41	10.20	19.71	11.16
19828.57	19906.88	27503.36	2032.02	78.32	16.27	25.95	13.53
19906.88	19985.18	22634.83	1808.62	78.40	13.39	23.10	12.51
19985.18	20063.48	20442.10	1700.65	78.32	12.10	21.72	12.02
20063.48	20141.78	19882.94	1672.62	78.32	11.77	21.36	11.89
20141.78	20220.09	12876.82	1293.26	79.00	7.62	16.52	9.96
20220.09	20298.39	7483.54	930.52	78.30	4.43	11.88	8.04
20298.39	20376.69	7416.89	925.54	78.30	4.39	11.82	8.01
20376.69	20454.99	7155.65	905.85	78.31	4.23	11.57	7.90
20454.99	20533.30	6131.46	832.74	79.99	3.63	10.63	7.36
20533.30	20611.60 RB	45.26	18.44	9.21	0.03	2.32	2.45

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 217.76

INPUT
Description:
Station Elevation Data num= 105

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18696.26	1131.5	18704.4	1129.2418708.16	1126.5418723.72	1113.0418733.67	1113.04			
18747.99	1112.818761.93	1118.7218768.63	1121.7118787.92	112118800.11	1120.45				
18804.79	1121.718811.76	1123.2718842.98	1128.4218872.95	1131.3618874.31	1131.55				
18898.39	1127.618914.36	1123.3 18942.8	1123.6518946.55	1123.7818977.23	1117.62				
18985.07	1117.618988.68	1116.59 18996.3	1116.519048.98	1117.1519075.91	1117.36				
19118.51	1114.319121.711114.19819125.71	1114.0719140.48	1114.46 19194.3	1115.7					
19209.65	1116.2919251.27	1116.219260.11	1114.2619269.27	1113.8819287.02	1113.49				
19302.34	1113.9719320.61	1114.7 19328.5	1115.3819416.97	1117.2419447.56	1116.72				
19454.34	1116.8619460.63	1117.619468.83	1119.719475.55	1121.5819478.28	1121.66				
19491.87	1122.61 19506.5	1122.819527.24	1121.9819532.35	1121.7119549.15	1114.56				
19560.66	1109.5519566.72	1106.619595.17	1105.419607.57	1105.4719620.51	1105.24				
19694.19	1103.619703.83	1103.519713.94	1103.6119716.38	1103.4419746.13	1103.55				
19754.83	1103.65 19810.5	1103.919814.58	1102.3219822.14	1099.8719840.89	1093.64				
19881.09	1093.8819929.82	109319952.35	1092.7119954.71	1092.520010.46	1092.19				
20012.53	1092.3820048.72	1092.220135.92	1093.05 20155.3	1093.0520177.38	1092.54				
20185.54	1093.4220204.39	1094.8 20219.2	1094.4720233.32	1095.0620239.91	1095				
20262.89	1095.6120311.58	1098.320347.84	1101.5220357.92	1102.620392.73	1117.38				
20401.2	1121.1220415.35	1121.620425.11	1121.1720435.31	1121.14 20492.9	1121.13				
20502.18	1121.1820533.15	1121.320548.06	1120.8820573.49	1120.81 20606.3	1120.63				
20642.39	1120.9720658.83	1122.220679.17	1122.4720706.16	1122.920712.94	1122.71				
20757.82	1123.6820875.26	112420913.28	1123.9920925.68	1124.0620967.17	1124.99				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18696.26	.03519532.35	.035	20401.2	.035	

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19532.35	20401.2	440	496.98	560	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1111.73	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.42	Wt. n-Val.		0.035	
E.G. Elev (ft)	1115.15	Reach Len. (ft)	440.00	496.98	560.00
Crit W.S. (ft)		Flow Area (sq ft)		11392.22	
E.G. Slope (ft/ft)	0.003709	Area (sq ft)		11392.22	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	823.79	Top Width (ft)		823.79	
Vel Total (ft/s)	14.83	Avg. Vel. (ft/s)		14.83	
Max Chl Dpth (ft)	19.54	Hydr. Depth (ft)		13.83	
Conv. Total (cfs)	2774930.8	Conv. (cfs)		2774930.8	
Length Wtd. (ft)	496.98	Wetted Per. (ft)		828.96	
Min Ch El (ft)	1092.19	Shear (lb/sq ft)		3.18	
Alpha	1.00	Stream Power (lb/ft s)		47.21	
Frctn Loss (ft)	1.31	Cum Volume (acre-ft)	1953.18	7042.91	110.87
C & E Loss (ft)	0.44	Cum SA (acres)	103.85	403.62	62.12

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1111.73	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.42	Wt. n-Val.		0.035	
E.G. Elev (ft)	1115.15	Reach Len. (ft)	440.00	496.98	560.00
Crit W.S. (ft)		Flow Area (sq ft)		11391.92	
E.G. Slope (ft/ft)	0.003709	Area (sq ft)		11391.92	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	823.78	Top Width (ft)		823.78	
Vel Total (ft/s)	14.84	Avg. Vel. (ft/s)		14.84	
Max Chl Dpth (ft)	19.54	Hydr. Depth (ft)		13.83	
Conv. Total (cfs)	2774812.5	Conv. (cfs)		2774812.5	
Length Wtd. (ft)	496.98	Wetted Per. (ft)		828.96	
Min Ch El (ft)	1092.19	Shear (lb/sq ft)		3.18	
Alpha	1.00	Stream Power (lb/ft s)		47.21	
Frctn Loss (ft)	1.31	Cum Volume (acre-ft)		7044.10	
C & E Loss (ft)	0.44	Cum SA (acres)		403.62	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19532.35 LB	19590.27	1036.26	160.24	35.78	0.61	4.63	6.47
19590.27	19648.20	3161.48	379.42	57.94	1.87	6.55	8.33
19648.20	19706.12	4173.75	448.23	57.94	2.47	7.74	9.31
19706.12	19764.04	4581.57	474.00	57.93	2.71	8.18	9.67
19764.04	19821.97	4680.11	482.29	58.60	2.77	8.33	9.70
19821.97	19879.89	15299.28	983.94	58.94	9.05	16.99	15.55
19879.89	19937.81	17603.51	1063.00	57.93	10.42	18.35	16.56
19937.81	19995.74	19034.80	1114.06	57.93	11.26	19.23	17.09
19995.74	20053.66	19416.88	1127.42	57.93	11.49	19.46	17.22
20053.66	20111.58	18985.33	1112.25	57.92	11.23	19.20	17.07
20111.58	20169.51	18282.93	1087.40	57.93	10.82	18.77	16.81
20169.51	20227.43	16669.06	1029.50	58.03	9.86	17.77	16.19
20227.43	20285.35	14201.93	934.76	57.97	8.40	16.14	15.19
20285.35	20343.28	9879.63	752.45	58.09	5.85	12.99	13.13
20343.28	20401.20 RB	1993.50	243.27	38.09	1.18	6.73	8.19

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross

section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19532.35 LB	19590.27	1036.19	160.22	35.78	0.61	4.63	6.47
19590.27	19648.20	3161.32	379.40	57.94	1.87	6.55	8.33
19648.20	19706.12	4173.59	448.21	57.94	2.47	7.74	9.31
19706.12	19764.04	4581.41	473.98	57.93	2.71	8.18	9.67
19764.04	19821.97	4679.95	482.27	58.60	2.77	8.33	9.70
19821.97	19879.89	15299.33	983.92	58.94	9.05	16.99	15.55
19879.89	19937.81	17603.62	1062.98	57.93	10.42	18.35	16.56
19937.81	19995.74	19034.96	1114.04	57.93	11.26	19.23	17.09
19995.74	20053.66	19417.04	1127.39	57.93	11.49	19.46	17.22
20053.66	20111.58	18985.48	1112.22	57.92	11.23	19.20	17.07
20111.58	20169.51	18283.07	1087.38	57.93	10.82	18.77	16.81
20169.51	20227.43	16669.15	1029.48	58.03	9.86	17.77	16.19
20227.43	20285.35	14201.95	934.74	57.97	8.40	16.14	15.19
20285.35	20343.28	9879.56	752.43	58.09	5.85	12.99	13.13
20343.28	20401.20 RB	1993.39	243.26	38.09	1.18	6.73	8.19

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 217.66

INPUT
Description:
Station Elevation Data num= 372

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
13410.42	1123.113473.99	1122.9113516.62	1131.1313543.66	1137.5113584.78	1134.64				
13596.45	1133.9 13619.3	1136.4913626.52	1135.6813677.48	1130.6713717.14	1128.34				
13776.9	1126.813804.61	1126.1713834.66	1126.1313859.65	1126.9113882.59	1127.2				
13906.27	1122.3 13927	1115.9513935.96	1115.9313966.69	1123.9913988.92	1124.03				
14057.49	1124.114168.71	1123.9714185.98	1122.6314226.67	1131.8814260.04	1138.88				
14284.22	1139.214296.65	1139.3714303.35	1133.8314318.65	1123.1614381.69	1123.02				
14395.23	1123.914409.22	1123.6814451.38	1122.8514686.66	1123.414708.91	1123.48				
14720.56	1123.514771.92	1123.714775.61	1124.0714783.01	1124.31 14893.4	1124.41				
15021.73	1124.315065.51	1124.2915152.12	1124.4215166.47	1125.4515169.36	1124.47				
15173.39	1122.315184.39	1125.3115197.33	1121.8515209.72	1122.0915221.25	1122.1				
15261.61	1122.215273.44	1122.1515472.27	1121.8515515.15	1121.7415653.06	1122.36				
15687.14	1122.615694.72	1120.4515705.26	1120.5815708.14	1120.49 15711.1	1119.23				
15718.06	1115.715726.44	1112.1415731.84	1114.8815735.56	1116.3215745.42	1119.87				
15759.29	1120.615775.81	1121.0515818.82	1120.615838.97	1120.5815981.18	1120.58				
16009.13	1120.5 16051.3	1120.9616054.83	1120.9416081.64	1121.1416107.61	1121.52				
16133.09	1121.5 16284	1121.3116355.84	1121.47 16362.6	1121.4516455.75	1121.69				
16494.23	1121.616511.76	1121.6816682.87	1121.6416751.88	1121.716772.61	1122.1				
16856.98	1122.4 16986.6	1122.7516993.55	1119.9816999.97	1117.0117006.97	1119.86				
17011.4	1121.417068.59	1121.6217330.83	1122.8817336.66	1122.7717342.37	1122.23				
17471.22	112217523.38	1121.8317537.29	1121.7517706.17	1120.5617757.42	1120.15				
17772.44	1119.7 17797.8	1119.8817843.85	1120.0217846.29	1119.9817904.52	1120.37				
17932.13	112017961.76	1119.5218098.62	1117.0418120.45	1117.2618141.36	1114.53				
18192.83	1115.818212.37	1116.3518246.14	1114.9918265.67	1115.818279.11	1116.7				
18285.4	1116.718475.61	1115.9718517.59	1115.7818527.31	1115.3518537.22	1115.4				
18634.69	1115.118636.28	1115.0518651.27	1115.71 18681.6	1115.6518721.36	1115.23				
18732.89	1119.518751.61	1125.9218796.59	1124.7218810.83	1124.4118813.56	1123.32				
18833.84	1114.518876.74	1113.9318884.46	1118.0218910.38	1113.7618939.94	1113.73				
18961.41	1113.419001.48	1113.1119015.49	1112.6819023.38	1112.7819039.73	1113.98				
19069.1	1116.319093.22	1116.419130.33	1116.14 19141.7	1115.919265.87	1121.29				
19293.94	1124.6 19334.5	1124.3319354.41	1124.15 19356.6	1123.7919410.55	1114.35				
19414.17	1113.819433.06	1111.53 19441.8	1111.5319450.12	1115.0219466.46	1122.48				
19494.33	1122.119515.26	1121.8119539.84	1121.1619580.79	1107.8819594.81	1102.95				
19596.51	110319600.29	1102.1819636.62	1102.4519670.06	1102.3119693.25	1102.1				
19724.56	110219758.95	1102.3319793.46	1101.819828.27	1101.1919869.42	1094.53				
19875.54	1093.419881.49	1093.3819915.76	1092.34 19935.3	1092.3120012.91	1091.97				
20134.14	1090.120186.97	1089.4520267.56	1088.3820280.62	1088.1420300.88	1088.56				
20321.71	1088.620370.15	1100.820444.71	1101.9720457.16	1102.0620496.87	1102.77				
20570.08	1102.420595.78	1113.720611.59	1120.9120626.26	1120.9720681.12	1121.2				
20719.24	112220730.66	1121.5420748.21	1116.07 20772.6	1117.8920794.31	1118.17				
20806.14	1118.7 20820	1118.76 20835.7	1116.7720852.57	1115.7620859.93	1116.29				
20897.72	1119.4 20914.2	1120.3920936.74	1120.96 21040	1123.0221080.02	1124.35				

```
21118.54  1124.5 21153.4 1125.1521172.76 1125.2621190.21 1125.2721198.03 1125.08
21227.59  1123.721237.84 1122.7521258.59 1121.4221286.08 1120.5421298.81  1120.2
21344.09    112121362.52 1121.2521389.25 1121.9721423.61 1122.9721444.34 1123.69
21482.28  1124.921551.91 1124.9721630.03 1125.4921686.22 1123.8521730.36  1122.5
21772.83  1120.821807.93 1118.9821829.36  1119.921889.27 1123.8921908.41 1124.61
21957.53  1125.3   22029  1124.722046.76 1124.1222096.45 1122.2822107.92 1122.52
22134.75  1123.222175.16 1123.92 22212.2 1124.6722282.56 1124.5222301.52 1124.52
22313.23  1124.422360.42 1123.9622453.56 1124.11 22499.1 1123.7722568.82 1122.85
22600.22  1123.222760.33 1123.5222795.48 1123.2922946.59 1124.8122961.54 1124.91
22973.66  1113.422976.98 1110.8323014.87  1111.723021.87  1111.8 23026.6 1112.23
23036.03  1113.323084.59 1113.5523126.41 1112.7423160.75 1112.5623187.77  1115.1
 23284.7  1112.723287.36 1112.6623310.27 1111.3123319.93 1113.0923326.38 1112.41
23354.29  1111.223358.17 1111.15 23362.3 1110.8323376.07 1110.7123397.66 1111.46
23413.46  1111.923416.02  1124.823422.05 1128.8123434.88  1127.223444.61 1131.45
23449.55  1130.123467.88 1126.6523476.08 1124.7323480.33 1123.9523513.25 1123.77
23526.72  1123.123588.94 1122.31 23609.4 1122.3223623.44 1121.5723644.03 1121.11
23660.06  1121.123672.26 1120.8723719.12  1121.123727.25 1120.9323783.98 1120.19
23804.35  1120.523833.72 1120.4323868.86 1120.21 23940.8 1119.4424000.97 1119.45
24011.32  1119.3 24030.5 1118.65 24034.9  1118.324049.97 1118.7424086.64 1119.71
24097.36  1120.524121.77 1123.0324250.12 1122.1624286.75 1122.0124299.77 1122.06
24318.71  1122.224326.95 1123.0124337.31 1124.3724362.95 1124.3924415.05 1124.63
24453.48  1124.924487.85 1125.1924508.31 1124.7424563.28 1123.7124611.54  1121.3
24670.84  1123.724744.16 1125.0424817.27 1124.2224851.05 1123.8124875.81 1123.72
24908.85    112324938.38 1122.2424984.44 1122.5524988.71 1122.5525017.47 1122.93
25071.65  1124.725147.19  1126.225219.12 1125.6125231.11 1125.1725271.87 1123.52
25310.51  1122.525363.56 1120.8525398.47 1119.6825417.31 1119.8325485.13 1120.47
25492.62    112125553.87 1121.3725595.25 1121.21 25608.8  1120.725616.61 1120.33
25621.07  1120.825635.19 1122.4225679.65    112225700.64 1121.3725714.87  1121.7
 25764.3  1122.225797.69 1122.27 25803.4 1122.7425840.75 1123.7525861.23 1122.27
25899.09  \ 112125943.38 1121.1125965.86 1120.9225997.55 1121.0326027.88 1121.03
26193.91  1121.426231.58 1120.9526242.65 1120.6526261.99 1121.4226317.07 1123.54
26345.09  1123.826357.86 1124.05 26374.6 1124.5826383.03  1124.726400.99  1124.4
26432.91  1120.626436.28 1120.1826439.46 1120.2326507.57 1122.56 26523.1 1121.51
26559.65  1120.826568.23 1120.39

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
13410.42    .03519539.84    .03520611.59    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19539.8420611.59              450  512.72     610            .1        .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
13410.4219539.84 1121.1620611.5926568.23 1120.91

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1111.44   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                1.96   Wt. n-Val.                              0.035
  E.G. Elev (ft)            1113.41   Reach Len. (ft)            450.00     512.72     610.00
  Crit W.S. (ft)            1106.01   Flow Area (sq ft)                    15024.30
  E.G. Slope (ft/ft)       0.001961   Area (sq ft)                         15024.30      29.14
  Q Total (cfs)           169000.00   Flow (cfs)                          169000.00
  Top Width (ft)            1099.68   Top Width (ft)                        1020.84      78.84
  Vel Total (ft/s)            11.25   Avg. Vel. (ft/s)                        11.25
  Max Chl Dpth (ft)           23.30   Hydr. Depth (ft)                        14.72
  Conv. Total (cfs)       3816703.5   Conv. (cfs)                         3816703.5
  Length Wtd. (ft)           512.72   Wetted Per. (ft)                      1026.46
  Min Ch El (ft)            1088.14   Shear (lb/sq ft)                         1.79
  Alpha                        1.00   Stream Power (lb/ft s)                  20.15
  Frctn Loss (ft)              1.04   Cum Volume (acre-ft)      1953.18     6892.22     110.68
  C & E Loss (ft)              0.01   Cum SA (acres)             103.85      393.09      61.61


Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1111.44   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                1.96   Wt. n-Val.                              0.035
  E.G. Elev (ft)            1113.41   Reach Len. (ft)            450.00     512.72     610.00
  Crit W.S. (ft)            1106.01   Flow Area (sq ft)                    15023.80
  E.G. Slope (ft/ft)       0.001961   Area (sq ft)                         15023.80
  Q Total (cfs)           169000.00   Flow (cfs)                          169000.00
```

Top Width (ft)	1020.83	Top Width (ft)	1020.83
Vel Total (ft/s)	11.25	Avg. Vel. (ft/s)	11.25
Max Chl Dpth (ft)	23.30	Hydr. Depth (ft)	14.72
Conv. Total (cfs)	3816505.8	Conv. (cfs)	3816505.8
Length Wtd. (ft)	512.72	Wetted Per. (ft)	1026.46
Min Ch El (ft)	1088.14	Shear (lb/sq ft)	1.79
Alpha	1.00	Stream Power (lb/ft s)	20.15
Frctn Loss (ft)	1.04	Cum Volume (acre-ft)	6893.41
C & E Loss (ft)	0.01	Cum SA (acres)	393.09

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19539.84 LB	19611.29	1428.14	253.35	42.98	0.85	6.11	5.64
19611.29	19682.74	4889.63	649.72	71.45	2.89	9.09	7.53
19682.74	19754.19	5112.17	667.30	71.45	3.02	9.34	7.66
19754.19	19825.64	5358.57	686.45	71.46	3.17	9.61	7.81
19825.64	19897.09	11435.96	1085.62	72.10	6.77	15.19	10.53
19897.09	19968.54	16813.86	1363.24	71.46	9.95	19.08	12.33
19968.54	20039.99	17423.07	1392.64	71.45	10.31	19.49	12.51
20039.99	20111.44	18859.88	1460.48	71.46	11.16	20.44	12.91
20111.44	20182.89	20503.38	1535.56	71.46	12.13	21.49	13.35
20182.89	20254.34	21988.51	1601.34	71.46	13.01	22.41	13.73
20254.34	20325.79	22890.47	1641.62	71.58	13.54	22.98	13.94
20325.79	20397.24	9944.96	1002.45	72.84	5.88	14.03	9.92
20397.24	20468.69	5426.74	691.66	71.46	3.21	9.68	7.85
20468.69	20540.14	4662.52	631.45	71.46	2.76	8.84	7.38
20540.14	20611.59 RB	2262.12	361.42	52.40	1.34	7.16	6.26

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19539.84 LB	19611.29	1428.06	253.32	42.98	0.85	6.11	5.64
19611.29	19682.74	4889.44	649.68	71.45	2.89	9.09	7.53
19682.74	19754.19	5111.97	667.26	71.45	3.02	9.34	7.66
19754.19	19825.64	5358.38	686.41	71.46	3.17	9.61	7.81
19825.64	19897.09	11435.91	1085.59	72.10	6.77	15.19	10.53
19897.09	19968.54	16813.97	1363.21	71.46	9.95	19.08	12.33
19968.54	20039.99	17423.20	1392.61	71.45	10.31	19.49	12.51
20039.99	20111.44	18860.06	1460.44	71.46	11.16	20.44	12.91
20111.44	20182.89	20503.61	1535.53	71.46	12.13	21.49	13.35
20182.89	20254.34	21988.79	1601.31	71.46	13.01	22.41	13.73
20254.34	20325.79	22890.79	1641.58	71.58	13.54	22.98	13.94
20325.79	20397.24	9944.87	1002.41	72.84	5.88	14.03	9.92
20397.24	20468.69	5426.55	691.63	71.46	3.21	9.68	7.85
20468.69	20540.14	4662.32	631.42	71.46	2.76	8.84	7.38
20540.14	20611.59 RB	2262.06	361.39	52.40	1.34	7.16	6.26

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 217.57

INPUT
Description:
Station Elevation Data num= 105

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18013.92	1116.71	8030.44	1116.77	18050.63	1116.61	8124.33	1115.87	18144.5	1115.64
18154.92	1114.41	18158.3	1113.79	18171.62	1113.41	8200.22	1113.78	18249.2	1114.76
18266.95	1115.68	18280.84	1114.76	18429.88	1113.81	8454.55	1113.62	18487.31	1113.66
18545.3	1113.61	8565.51	1114.69	18581.96	1116.61	8605.39	1116.24	18683.97	1115.91
18713.94	1116.02	18721	1115.95	18738.56	1115.91	8756.25	1116.15	18765.47	1116.71
18771.16	1116.71	18776.2	1116.45	18778.79	1116	18796.35	1115.09	18813.36	1112.34

```
18835.01 1112.4318860.91 1113.1718921.01  1113.218979.66 1113.2419077.95 1113.09
19108.89 1113.09 19154.6 1113.6719331.07  1113.719363.04 1113.7319368.48 1110.99
19386.38 1116.4119390.31 1116.8619399.78  1121.319441.79 1120.26 19485.2 1119.25
19501.28 1119.4319517.83 1111.9619542.42  1100.819562.16 1100.5119573.71 1100.43
19641.56 1100.1519684.46 1100.2719701.88  1101.319744.82 1101.1519760.44 1103.05
19763.19 1103.2619765.82 1102.7519813.71    109519882.78 1093.9519949.38 1093.86
20056.13 1091.89 20072.3 1091.5120084.44  1091.620107.99 1091.6320116.34 1091.72
20137.39 1091.4320220.85 1090.84 20249.2  1089.9 20340.4 1092.3420349.92 1092.62
20392.31 1099.2520465.11 1099.3320495.23  1099.1 20519.8 1099.62 20539.7 1100.15
20581.07 1118.5420584.26 1120.0120585.96    112020610.43 1118.8520619.07 1118.72
20644.43 1117.9320682.45 1116.39 20683.6  1117.420692.98 1116.9220718.89 1119.63
20724.51 1119.6220786.53 1119.7120817.17  1119.320836.38 1118.9520871.36 1118.94
20876.01 1118.3620886.18  1118.120897.97  1117.120918.52 1117.4620923.93 1117.42
20943.41 1117.8820969.17 1118.4420995.25  1118.521016.21 1118.74 21157.2 1120.99
21158.67 1121.2221198.38 1122.37 21205.2  1122.521244.33 1123.0521283.18  1124.4

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
18013.92    .03519501.28    .03520584.26    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19501.2820584.26              440  481.39     550            .1        .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
18013.9219501.28 1119.4320584.2621283.18 1120.01

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1110.33   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.02   Wt. n-Val.                              0.035
  E.G. Elev (ft)            1112.36   Reach Len. (ft)             440.00     481.39     550.00
  Crit W.S. (ft)            1105.33   Flow Area (sq ft)                    14800.73
  E.G. Slope (ft/ft)       0.002116   Area (sq ft)                         14800.73
  Q Total (cfs)           169000.00   Flow (cfs)                          169000.00
  Top Width (ft)            1041.19   Top Width (ft)                        1041.19
  Vel Total (ft/s)            11.42   Avg. Vel. (ft/s)                        11.42
  Max Chl Dpth (ft)           20.43   Hydr. Depth (ft)                        14.22
  Conv. Total (cfs)       3674017.5   Conv. (cfs)                         3674017.5
  Length Wtd. (ft)           481.39   Wetted Per. (ft)                      1046.86
  Min Ch El (ft)            1089.90   Shear (lb/sq ft)                         1.87
  Alpha                        1.00   Stream Power (lb/ft s)                  21.32
  Frctn Loss (ft)              0.96   Cum Volume (acre-ft)       1953.18    6716.69     110.48
  C & E Loss (ft)              0.04   Cum SA (acres)              103.85     380.96      61.06


Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1110.33   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.02   Wt. n-Val.                              0.035
  E.G. Elev (ft)            1112.36   Reach Len. (ft)             440.00     481.39     550.00
  Crit W.S. (ft)            1105.33   Flow Area (sq ft)                    14800.10
  E.G. Slope (ft/ft)       0.002116   Area (sq ft)                         14800.10
  Q Total (cfs)           169000.00   Flow (cfs)                          169000.00
  Top Width (ft)            1041.18   Top Width (ft)                        1041.18
  Vel Total (ft/s)            11.42   Avg. Vel. (ft/s)                        11.42
  Max Chl Dpth (ft)           20.43   Hydr. Depth (ft)                        14.21
  Conv. Total (cfs)       3673763.0   Conv. (cfs)                         3673763.0
  Length Wtd. (ft)           481.39   Wetted Per. (ft)                      1046.85
  Min Ch El (ft)            1089.90   Shear (lb/sq ft)                         1.87
  Alpha                        1.00   Stream Power (lb/ft s)                  21.33
  Frctn Loss (ft)              0.96   Cum Volume (acre-ft)                   6717.89
  C & E Loss (ft)              0.04   Cum SA (acres)                          380.96


Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF#1

  Left Sta      Right Sta        Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                (ft)      (ft/s)
  19501.28 LB   19573.48       2849.98     402.73     54.12       1.69       7.74       7.08
  19573.48      19645.68       6273.02     725.51     72.20       3.71      10.05       8.65
```

19645.68	19717.88	5958.15	703.56	72.23	3.53	9.74	8.47
19717.88	19790.07	5135.92	645.21	72.69	3.04	8.94	7.96
19790.07	19862.27	12132.86	1079.66	72.51	7.18	14.95	11.24
19862.27	19934.47	14136.88	1181.33	72.20	8.37	16.36	11.97
19934.47	20006.67	14902.69	1219.39	72.21	8.82	16.89	12.22
20006.67	20078.87	16885.63	1314.32	72.21	9.99	18.20	12.85
20078.87	20151.07	17768.83	1355.07	72.20	10.51	18.77	13.11
20151.07	20223.27	18542.18	1390.14	72.20	10.97	19.25	13.34
20223.27	20295.46	19553.32	1435.37	72.23	11.57	19.88	13.62
20295.46	20367.66	16441.92	1295.08	72.44	9.73	17.94	12.70
20367.66	20439.86	8087.09	846.36	72.50	4.79	11.72	9.56
20439.86	20512.06	7367.03	798.99	72.20	4.36	11.07	9.22
20512.06	20584.26 RB	2964.52	408.03	52.71	1.75	8.07	7.27

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19501.28 LB	19573.48	2849.86	402.69	54.12	1.69	7.74	7.08
19573.48	19645.68	6272.80	725.46	72.20	3.71	10.05	8.65
19645.68	19717.88	5957.93	703.51	72.23	3.53	9.74	8.47
19717.88	19790.07	5135.68	645.16	72.69	3.04	8.94	7.96
19790.07	19862.27	12132.84	1079.62	72.51	7.18	14.95	11.24
19862.27	19934.47	14136.94	1181.29	72.20	8.37	16.36	11.97
19934.47	20006.67	14902.79	1219.34	72.21	8.82	16.89	12.22
20006.67	20078.87	16885.81	1314.27	72.21	9.99	18.20	12.85
20078.87	20151.07	17769.04	1355.02	72.20	10.51	18.77	13.11
20151.07	20223.27	18542.43	1390.09	72.20	10.97	19.25	13.34
20223.27	20295.46	19553.62	1435.33	72.23	11.57	19.88	13.62
20295.46	20367.66	16442.08	1295.04	72.44	9.73	17.94	12.70
20367.66	20439.86	8086.93	846.31	72.50	4.79	11.72	9.56
20439.86	20512.06	7366.84	798.94	72.20	4.36	11.07	9.22
20512.06	20584.26 RB	2964.42	408.00	52.71	1.75	8.07	7.27

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 217.48

INPUT
Description:
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18236.01	1115.05	18272.78	1113.88	18299.5	1113.71	8461.95	1114.16	18582.8	1113.67
18624.01	1113.31	8715.24	1113.17	18745.54	1112.91	8823.91	1112.71	18846.96	1112.57
18909.1	1111.99	18953.02	1111.81	18967.9	1111.61	8979.02	1111.64	19012.67	1112.25
19020.47	1112.43	19161.51	1112.46	19286.59	1112.81	9289.43	1110.58	19291.33	1108.23
19313.73	1107.49	19325.12	1107.55	19339.03	1108.71	9355.96	1108.79	19373.28	1114.84
19386.09	1119.49	19400.18	1119.62	19414.72	1119.51	9455.38	1100.62	19458.49	1099.22
19474.03	1099	19563.4	1098.78	19603.52	1097.31	9638.95	1096.94	19660.85	1097.57
19768.13	1095.74	19800.17	1095.22	19882.6	1094.21	9956.71	1092.95	20030.08	1092.03
20076.99	1091.65	20113.27	1091.29	20220.52	1090.82	0232.88	1091.02	20294.34	1092.46
20300.97	1093.07	20325.41	1093.25	20377.34	1093.82	0417.34	1093.72	20445.53	1093.85
20450.8	1093.77	20491.19	1113.91	20498.98	1117.72	0513.25	1118.44	20542.36	1114.68
20544.57	1114.98	20555.29	1118.05	20575.97	1107.12	0599.36	1096.93	20605.23	1097.02
20634.43	1096.68	20651.66	1096.15	20664.64	1096.52	0666.24	1096.68	20691.83	1098.05
20706.82	1099.46	20720.66	1099.48	20742.45	1100.92	0758.79	1099.19	20801.19	1096.79
20811.68	1096.49	20830.24	1098.42	20839.88	1099.92	0864.97	1099.29	20911.54	1095.31
20913.45	1095.27	20932.99	1096.91	20934.71	1097.92	0962.36	1103.86	20964.19	1104.52
20985.71	1110.46	20988.58	1110.89	21014.49	1116.82	1030.88	1121.03	21042.74	1121.04
21077.31	1121.44	21112.3	1121.02	21119.26	1121	21131.41	1120.81	21157.18	1122.19
21160.98	1122.51	21216.92	1122.18	21234.98	1122.32	1275.95	1122.91	21296.32	1123
21355.12	1123.54	21359.24	1123.64						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18236.01	.035	19400.18	.035	20513.25	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19400.18	20513.25	440	502.74	570	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18236.01	19400.18	1119.62	20513.25	21359.24	1118.44

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1109.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.88	Wt. n-Val.		0.035	
E.G. Elev (ft)	1111.35	Reach Len. (ft)	440.00	502.74	570.00
Crit W.S. (ft)	1103.96	Flow Area (sq ft)		15365.66	
E.G. Slope (ft/ft)	0.001880	Area (sq ft)	90.87	15365.66	4364.06
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1524.24	Top Width (ft)	67.60	1045.98	410.66
Vel Total (ft/s)	11.00	Avg. Vel. (ft/s)		11.00	
Max Chl Dpth (ft)	18.67	Hydr. Depth (ft)		14.69	
Conv. Total (cfs)	3897752.0	Conv. (cfs)		3897752.0	
Length Wtd. (ft)	502.74	Wetted Per. (ft)		1052.08	
Min Ch El (ft)	1090.80	Shear (lb/sq ft)		1.71	
Alpha	1.00	Stream Power (lb/ft s)		18.85	
Frctn Loss (ft)	0.97	Cum Volume (acre-ft)	1952.72	6550.00	82.93
C & E Loss (ft)	0.01	Cum SA (acres)	103.51	369.43	58.46

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1109.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.88	Wt. n-Val.		0.035	
E.G. Elev (ft)	1111.35	Reach Len. (ft)	440.00	502.74	570.00
Crit W.S. (ft)	1103.96	Flow Area (sq ft)		15364.90	
E.G. Slope (ft/ft)	0.001880	Area (sq ft)		15364.90	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1045.98	Top Width (ft)		1045.98	
Vel Total (ft/s)	11.00	Avg. Vel. (ft/s)		11.00	
Max Chl Dpth (ft)	18.67	Hydr. Depth (ft)		14.69	
Conv. Total (cfs)	3897443.0	Conv. (cfs)		3897443.0	
Length Wtd. (ft)	502.74	Wetted Per. (ft)		1052.07	
Min Ch El (ft)	1090.80	Shear (lb/sq ft)		1.71	
Alpha	1.00	Stream Power (lb/ft s)		18.86	
Frctn Loss (ft)	0.97	Cum Volume (acre-ft)		6551.21	
C & E Loss (ft)	0.01	Cum SA (acres)		369.43	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19400.18 LB	19474.38	1816.56	278.93	40.33	1.07	7.33	6.51
19474.38	19548.59	6774.67	784.13	74.21	4.01	10.57	8.64
19548.59	19622.79	7799.74	853.42	74.23	4.62	11.50	9.14
19622.79	19697.00	8686.15	910.30	74.22	5.14	12.27	9.54
19697.00	19771.20	9758.30	976.12	74.22	5.77	13.15	10.00
19771.20	19845.41	11260.03	1063.64	74.21	6.66	14.33	10.59
19845.41	19919.61	12574.13	1136.47	74.21	7.44	15.32	11.06
19919.61	19993.82	14214.49	1223.22	74.21	8.41	16.48	11.62
19993.82	20068.02	15573.25	1292.08	74.21	9.21	17.41	12.05
20068.02	20142.23	16573.43	1341.24	74.21	9.81	18.07	12.36
20142.23	20216.43	17207.93	1371.80	74.21	10.18	18.49	12.54
20216.43	20290.64	16393.39	1332.59	74.22	9.70	17.96	12.30
20290.64	20364.84	13845.10	1204.20	74.24	8.19	16.23	11.50
20364.84	20439.04	13128.54	1166.23	74.21	7.77	15.72	11.26
20439.04	20513.25 RB	3394.27	431.30	46.95	2.01	9.97	7.87

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19400.18 LB	19474.38	1816.45	278.90	40.33	1.07	7.33	6.51
19474.38	19548.59	6774.43	784.07	74.21	4.01	10.57	8.64
19548.59	19622.79	7799.53	853.36	74.23	4.62	11.50	9.14
19622.79	19697.00	8685.97	910.25	74.22	5.14	12.27	9.54
19697.00	19771.20	9758.17	976.06	74.22	5.77	13.15	10.00

19771.20	19845.41	11259.97	1063.58	74.21	6.66	14.33	10.59
19845.41	19919.61	12574.12	1136.42	74.21	7.44	15.31	11.06
19919.61	19993.82	14214.56	1223.17	74.21	8.41	16.48	11.62
19993.82	20068.02	15573.39	1292.03	74.21	9.22	17.41	12.05
20068.02	20142.23	16573.63	1341.18	74.21	9.81	18.07	12.36
20142.23	20216.43	17208.15	1371.75	74.21	10.18	18.49	12.54
20216.43	20290.64	16393.57	1332.53	74.22	9.70	17.96	12.30
20290.64	20364.84	13845.16	1204.15	74.24	8.19	16.23	11.50
20364.84	20439.04	13128.56	1166.18	74.21	7.77	15.72	11.26
20439.04	20513.25 RB	3394.33	431.27	46.94	2.01	9.97	7.87

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 217.38

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18086.73	1112.05	18126.89	1112.42	18150.62	1112.09	18201.77	1113.61	8220.17	1114
18237.96	1115.41	18287.77	1111.68	18344.46	1112.07	18357.62	1112.11	8382.37	1112.5
18426.79	1112.69	18439.52	1112.56	18457.61	1112.62	18702.97	1111.81	8907.87	1111.14
19011.51	1111.12	19178.13	1111.69	19301.14	1112.1	19317.4	1105.11	9320.63	1103.76
19335.04	1103.43	19351.16	1103.26	19358.14	1104.35	19370.25	1107.21	9381.46	1110.01
19395.65	1115.67	19402.86	1118.29	19431.07	1118.71	19439.66	1118.6	19442.3	1117.62
19484.06	1098.95	19540.04	1097.31	19613.99	1095.05	19621.74	1092.71	9630.27	1093.05
19693.84	1095.34	19708.66	1095.48	19797.26	1095.47	19890.58	1095	19950.72	1094.15
19986.47	1094	20001.92	1094.55	20006.51	1094.32	20014.34	1092	20017.76	1091.13
20122.42	1091.58	20137.88	1091.52	20199.08	1090.99	20247.14	1090.72	0266.57	1090.72
20284.24	1090.81	20369.63	1090.83	20388.79	1091.04	20435.65	1091.82	0464.45	1092.28
20482.16	1100.81	20517.96	1118.46	20522.43	1118.68	20533.82	1119.82	0551.54	1116.77
20563.25	1114.98	20578.85	1118.35	20607.13	1116.88	20613.72	1115.22	0625.52	1115.32
20699.29	1112.92	0784.31	1114.33	20858.69	1114.51	20942.13	1115.22	0971.88	1115.46
20986.64	1115.62	20994.77	1115.82	21006.23	1115.73	21029.87	1116.62	1038.75	1117.47
21069.36	1118.32	1124.54	1117.91	21131.75	1118.27	21141.23	1120.1		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18086.73	.035	19431.07	.035	20533.82	.035

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
19431.07 20533.82 480 491.58 500 .1 .3
Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18086.73	19431.07	1118.71	20533.82	21141.23	1119.8

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1108.43	Element			
Vel Head (ft)	1.95	Wt. n-Val.		0.035	
E.G. Elev (ft)	1110.38	Reach Len. (ft)	480.00	491.58	500.00
Crit W.S. (ft)	1103.09	Flow Area (sq ft)		15092.83	
E.G. Slope (ft/ft)	0.001969	Area (sq ft)	245.06	15092.83	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1100.28	Top Width (ft)	65.51	1034.77	
Vel Total (ft/s)	11.20	Avg. Vel. (ft/s)		11.20	
Max Chl Dpth (ft)	17.73	Hydr. Depth (ft)		14.59	
Conv. Total (cfs)	3808763.5	Conv. (cfs)		3808763.5	
Length Wtd. (ft)	491.58	Wetted Per. (ft)		1041.46	
Min Ch El (ft)	1090.70	Shear (lb/sq ft)		1.78	
Alpha	1.00	Stream Power (lb/ft s)		19.95	
Frctn Loss (ft)	1.03	Cum Volume (acre-ft)	1951.02	6374.24	54.37
C & E Loss (ft)	0.02	Cum SA (acres)	102.84	357.42	55.78

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m), between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1108.43	Element			
Vel Head (ft)	1.95	Wt. n-Val.		0.035	
E.G. Elev (ft)	1110.38	Reach Len. (ft)	480.00	491.58	500.00
Crit W.S. (ft)	1103.08	Flow Area (sq ft)		15091.82	
E.G. Slope (ft/ft)	0.001969	Area (sq ft)		15091.82	

Q Total (cfs)	169000.00	Flow (cfs)	169000.00
Top Width (ft)	1034.77	Top Width (ft)	1034.77
Vel Total (ft/s)	11.20	Avg. Vel. (ft/s)	11.20
Max Chl Dpth (ft)	17.73	Hydr. Depth (ft)	14.58
Conv. Total (cfs)	3808349.0	Conv. (cfs)	3808349.0
Length Wtd. (ft)	491.58	Wetted Per. (ft)	1041.45
Min Ch El (ft)	1090.70	Shear (lb/sq ft)	1.78
Alpha	1.00	Stream Power (lb/ft s)	19.95
Frctn Loss (ft)	1.03	Cum Volume (acre-ft)	6375.45
C & E Loss (ft)	0.02	Cum SA (acres)	357.42

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19431.07 LB	19504.59	2008.48	301.38	43.77	1.19	7.22	6.66
19504.59	19578.10	7556.46	821.40	73.55	4.47	11.17	9.20
19578.10	19651.62	10917.69	1026.32	73.90	6.46	13.96	10.64
19651.62	19725.14	10337.18	991.28	73.54	6.12	13.48	10.43
19725.14	19798.65	9677.42	952.68	73.52	5.73	12.96	10.16
19798.65	19872.17	9922.36	967.07	73.52	5.87	13.15	10.26
19872.17	19945.69	10633.68	1008.13	73.52	6.29	13.71	10.55
19945.69	20019.20	11698.91	1070.20	73.98	6.92	14.56	10.93
20019.20	20092.72	15420.75	1259.96	73.52	9.12	17.14	12.24
20092.72	20166.24	15146.59	1246.47	73.52	8.96	16.96	12.15
20166.24	20239.75	15886.17	1282.65	73.52	9.40	17.45	12.39
20239.75	20313.27	16221.76	1298.82	73.52	9.60	17.67	12.49
20313.27	20386.79	16097.46	1292.85	73.52	9.53	17.59	12.45
20386.79	20460.30	14954.87	1237.03	73.53	8.85	16.83	12.09
20460.30	20533.82 RB	2520.20	336.58	41.04	1.49	9.02	7.49

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19431.07 LB	19504.59	2008.30	301.34	43.77	1.19	7.22	6.66
19504.59	19578.10	7556.17	821.33	73.55	4.47	11.17	9.20
19578.10	19651.62	10917.60	1026.25	73.90	6.46	13.96	10.64
19651.62	19725.14	10337.05	991.21	73.54	6.12	13.48	10.43
19725.14	19798.65	9677.25	952.61	73.52	5.73	12.96	10.16
19798.65	19872.17	9922.21	967.00	73.52	5.87	13.15	10.26
19872.17	19945.69	10633.57	1008.06	73.52	6.29	13.71	10.55
19945.69	20019.20	11698.87	1070.12	73.98	6.92	14.56	10.93
20019.20	20092.72	15420.95	1259.89	73.52	9.12	17.14	12.24
20092.72	20166.24	15146.77	1246.39	73.52	8.96	16.95	12.15
20166.24	20239.75	15886.41	1282.58	73.52	9.40	17.45	12.39
20239.75	20313.27	16222.02	1298.74	73.52	9.60	17.67	12.49
20313.27	20386.79	16097.70	1292.78	73.52	9.53	17.58	12.45
20386.79	20460.30	14955.04	1236.96	73.53	8.85	16.83	12.09
20460.30	20533.82 RB	2520.10	336.55	41.04	1.49	9.02	7.49

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 217.29

INPUT
Description:
Station Elevation Data num= 116

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17592.29	1111.71	7614.88	1111.81	7664.02	1111.71	17752.58	1111.91	17843.08	1112.08
17920.11	1112.08	17944.56	1112.41	7982.64	1112.72	18013.13	1111.94	18087.65	1112.95
18090.45	1113.06	18114.24	1114.4	18124.9	1111.85	18131.2	1112.17	18155.06	1112.5
18189.89	1113.32	18274.36	1112.51	8291.98	1112.26	18333.14	1111.91	18344.34	1111.11
18371.02	1111.34	18421.76	1111.31	8427.34	1111.67	18444.57	1113.12	18462.13	1112.67

```
18497.57 1111.9918551.54    111218610.97 1111.6718621.63 1111.5818633.54 1110.94
18648.88 1110.4218657.86  1110.918672.68 1110.0218687.43 1109.4718708.66 1109.79
18717.04 1109.6618753.11  1109.718807.22 1110.0118812.62 1110.0718948.31 1110.02
19090.58  1111.119120.56    1111 19190.9  1111.319226.21 1097.4219258.62 1084.15
19290.38 1083.8519300.61  1083.519302.57 1083.0719307.96 1083.3919316.86 1084.69
19331.74 1084.2319344.83  1083.919422.26 1108.0519444.61 1115.2119452.65 1117.55
 19462.9 1117.95 19477.1  1118.319486.17 1118.8919496.87 1114.0719531.51 1096.62
19546.03 1097.3319548.73  1097.219558.04 1097.4819574.74 1097.6119591.87 1092.21
19597.05 1090.2919618.15  1091.219660.06 1091.8619673.55 1092.9319739.34 1094.67
 19756.1 1095.1719763.03  1095.319792.66  1095.1 19850.8 1094.9319903.19 1095.06
19913.69 1090.3619933.59  1091.9   19946 1092.6720049.21 1092.8420056.98 1092.83
20077.25  1092.420174.92  1090.520182.61 1090.5420238.41 1090.7420250.25 1090.69
20267.27 1090.3520365.21  1089.720386.55 1090.1120473.48 1091.0620479.07 1091.14
 20481.6 1092.4120527.91  1116.520544.71 1117.5820551.28 1116.7920580.82  1114.1
20586.62 1115.2220592.95  1116.1 20623.3 1115.9820635.89 1116.2520639.82 1116.07
20646.67 1116.0320655.38  1116.220712.57 1116.0320739.26    111620740.92 1116.07
20762.38 1115.2820774.06  1115.320779.97 1115.24 20786.6 1115.3420835.43 1116.46
20846.42 1121.5520850.12  1121.320857.54 1119.8720878.44 1116.5320941.72 1116.53
20982.95 1116.48

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
17592.29    .03519486.17    .03520544.71    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19486.1720544.71          511.81  511.81     520              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R   Elev
17592.2919486.17 1118.8920544.7120982.95 1117.58
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1107.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.16	Wt. n-Val.		0.035	
E.G. Elev (ft)	1109.33	Reach Len. (ft)	511.81	511.81	520.00
Crit W.S. (ft)	1102.31	Flow Area (sq ft)		14339.93	
E.G. Slope (ft/ft)	0.002236	Area (sq ft)	3518.39	14339.93	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1217.44	Top Width (ft)	218.03	999.41	
Vel Total (ft/s)	11.79	Avg. Vel. (ft/s)		11.79	
Max Chl Dpth (ft)	24.10	Hydr. Depth (ft)		14.35	
Conv. Total (cfs)	3573765.3	Conv. (cfs)		3573765.3	
Length Wtd. (ft)	511.81	Wetted Per. (ft)		1008.25	
Min Ch El (ft)	1089.70	Shear (lb/sq ft)		1.99	
Alpha	1.00	Stream Power (lb/ft s)		23.40	
Frctn Loss (ft)	1.31	Cum Volume (acre-ft)	1930.29	6208.16	54.37
C & E Loss (ft)	0.05	Cum SA (acres)	101.27	345.94	55.78

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1107.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.16	Wt. n-Val.		0.035	
E.G. Elev (ft)	1109.33	Reach Len. (ft)	511.81	511.81	520.00
Crit W.S. (ft)	1102.31	Flow Area (sq ft)		14340.05	
E.G. Slope (ft/ft)	0.002236	Area (sq ft)		14340.05	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	999.40	Top Width (ft)		999.40	
Vel Total (ft/s)	11.79	Avg. Vel. (ft/s)		11.79	
Max Chl Dpth (ft)	17.47	Hydr. Depth (ft)		14.35	
Conv. Total (cfs)	3573825.5	Conv. (cfs)		3573825.5	
Length Wtd. (ft)	511.81	Wetted Per. (ft)		1008.25	
Min Ch El (ft)	1089.70	Shear (lb/sq ft)		1.99	
Alpha	1.00	Stream Power (lb/ft s)		23.40	
Frctn Loss (ft)	1.31	Cum Volume (acre-ft)		6209.38	
C & E Loss (ft)	0.05	Cum SA (acres)		345.94	

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19486.17 LB	19556.74	2743.29	364.16	48.71	1.62	7.89	7.53
19556.74	19627.31	10621.40	958.03	71.77	6.28	13.58	11.09
19627.31	19697.88	12464.22	1047.82	70.63	7.38	14.85	11.90
19697.88	19768.45	9559.36	893.43	70.59	5.66	12.66	10.70
19768.45	19839.02	8850.40	852.97	70.57	5.24	12.09	10.38
19839.02	19909.59	9068.37	868.49	71.18	5.37	12.31	10.44
19909.59	19980.16	12725.35	1063.46	71.05	7.53	15.07	11.97
19980.16	20050.72	11830.42	1015.19	70.57	7.00	14.39	11.65
20050.72	20121.29	12594.73	1054.14	70.58	7.45	14.94	11.95
20121.29	20191.86	14514.00	1147.75	70.58	8.59	16.26	12.65
20191.86	20262.43	14896.45	1165.76	70.57	8.81	16.52	12.78
20262.43	20333.00	15656.72	1201.09	70.57	9.26	17.02	13.04
20333.00	20403.57	15992.38	1216.51	70.58	9.46	17.24	13.15
20403.57	20474.14	14850.01	1163.58	70.57	8.79	16.49	12.76
20474.14	20544.71 RB	2632.88	327.55	39.74	1.56	9.14	8.04

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19486.17 LB	19556.74	2743.40	364.17	48.70	1.62	7.89	7.53
19556.74	19627.31	10621.40	958.04	71.77	6.28	13.58	11.09
19627.31	19697.88	12464.21	1047.83	70.63	7.38	14.85	11.90
19697.88	19768.45	9559.37	893.44	70.59	5.66	12.66	10.70
19768.45	19839.02	8850.42	852.98	70.57	5.24	12.09	10.38
19839.02	19909.59	9068.39	868.50	71.18	5.37	12.31	10.44
19909.59	19980.16	12725.33	1063.47	71.05	7.53	15.07	11.97
19980.16	20050.72	11830.42	1015.20	70.57	7.00	14.39	11.65
20050.72	20121.29	12594.71	1054.15	70.58	7.45	14.94	11.95
20121.29	20191.86	14513.96	1147.75	70.58	8.59	16.26	12.65
20191.86	20262.43	14896.41	1165.77	70.57	8.81	16.52	12.78
20262.43	20333.00	15656.68	1201.10	70.57	9.26	17.02	13.04
20333.00	20403.57	15992.33	1216.52	70.58	9.46	17.24	13.15
20403.57	20474.14	14849.97	1163.58	70.57	8.79	16.49	12.76
20474.14	20544.71 RB	2633.01	327.55	39.74	1.56	9.14	8.04

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 217.19

INPUT
Description:
Station Elevation Data num= 131

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17868.47	111317872.22	1112.96	17878.5	1112.4317906.06		1112.217937.27		1112.15	
17948.67	1112.0117971.46	1111.8617986.85		1112.2418013.53		1112.218096.19		1111.12	
18102.73	1111.2218134.04	1112.0518142.05		1112.118145.04		1111.718154.15		1111.25	
18183.36	1110.51	18196.9	1110.3718225.44	1110.7418234.36		1110.518292.49		1110.84	
18353.78	1110.15	18501.8	1109.9618642.55	1110.25	18712.4	1110.718716.06		1110.96	
18719.43	1110.6818726.98	1110.4418788.74		1107.8718797.78		1107.618833.04		1108.51	
18848.04	1109.0118870.09	1109.2518889.15		1109.5118904.84		1109.918911.41		1110.26	
19029.77	1111.35	19032.7	1111.3919104.02	1081.9319114.16		1081.319134.01		1080.09	
19183.28	1047.79	19188.4	1044.6119195.79	1044.5819307.62		1044.419372.04		1084.4	
19396.15	1083.2919410.84	1087.7119457.52		1102.8619482.12		111019487.07		1112.23	
19503.99	1117.8819535.55	1118.2319580.46		109619594.73		1095.619603.61		1093.85	
19631.85	1087.47	19672.7	1087.1119678.04	1087.1619701.97		1087.919714.89		1090.68	
19726.52	1092.7419728.93	1092.93	19733.6	1090.6819748.63		1092.319756.06		1090.27	
19770.57	1086.4319789.83	1089.8619799.13		1091.7919815.12		1092.219846.41		1093.75	
19880.57	1093.8319923.81	1093.8419958.55		1093.8119993.29		1094.120012.94		1094	
20084.62	1093.9220119.46	1093.7620130.95		1093.4320162.91		1092.420224.37		1089.79	
20233.29	1089.7620242.06	1089.3420265.26		1089.1420296.53		1088.620367.15		1089.11	
20390.04	1089.2620427.85	1089.5620481.37		1090.5320522.87		1110.720530.53		1114.35	
20543.32	1115.1420548.79	1115.5720580.16		1113.6320596.01		1112.520606.62		1115.42	
20633.35	1115.8520642.78	1116.0720682.36		1115.6620749.89		1114.520800.98		1114.31	
20808.82	111520811.14	1114.1220857.81		1114.0820970.04		1113.520977.08		1113.52	

```
20981.42 1114.3220985.68 1114.7821028.25 1114.9621044.92  1114.621070.55 1115.24
21135.67 1115.8421210.52 1115.05 21233.2 1114.9421353.11  1114.921435.26 1115.53
 21438.1 1115.6421457.55 1115.6821487.41 1115.4821498.25  1115.421529.39 1114.78
21567.97 1115.1221595.46  1114.821620.49 1114.8621704.77  1115.321785.89 1115.77
21855.84 1116.9821950.96 1117.8421962.58 1117.5121980.48  1117.322033.04 1117.97
22041.35 1118.12

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
17868.47    .03519535.55    .03520548.79    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19535.5520548.79              490  502.45     520            .1        .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
17868.4719535.55 1118.2320548.7922041.35 1115.57
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1105.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.65	Wt. n-Val.		0.035	
E.G. Elev (ft)	1107.97	Reach Len. (ft)	490.00	502.45	520.00
Crit W.S. (ft)	1101.53	Flow Area (sq ft)		12941.69	
E.G. Slope (ft/ft)	0.002945	Area (sq ft)	14909.15	12941.69	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1368.79	Top Width (ft)	418.62	950.18	
Vel Total (ft/s)	13.06	Avg. Vel. (ft/s)		13.06	
Max Chl Dpth (ft)	60.92	Hydr. Depth (ft)		13.62	
Conv. Total (cfs)	3113969.8	Conv. (cfs)		3113969.8	
Length Wtd. (ft)	502.45	Wetted Per. (ft)		959.17	
Min Ch El (ft)	1086.43	Shear (lb/sq ft)		2.48	
Alpha	1.00	Stream Power (lb/ft s)		32.40	
Frctn Loss (ft)	0.95	Cum Volume (acre-ft)	1822.03	6047.89	54.37
C & E Loss (ft)	0.29	Cum SA (acres)	97.53	334.49	55.78

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1105.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.65	Wt. n-Val.		0.035	
E.G. Elev (ft)	1107.97	Reach Len. (ft)	490.00	502.45	520.00
Crit W.S. (ft)	1101.53	Flow Area (sq ft)		12942.16	
E.G. Slope (ft/ft)	0.002945	Area (sq ft)		12942.16	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	950.17	Top Width (ft)		950.17	
Vel Total (ft/s)	13.06	Avg. Vel. (ft/s)		13.06	
Max Chl Dpth (ft)	18.89	Hydr. Depth (ft)		13.62	
Conv. Total (cfs)	3114163.5	Conv. (cfs)		3114163.5	
Length Wtd. (ft)	502.45	Wetted Per. (ft)		959.17	
Min Ch El (ft)	1086.43	Shear (lb/sq ft)		2.48	
Alpha	1.00	Stream Power (lb/ft s)		32.39	
Frctn Loss (ft)	0.95	Cum Volume (acre-ft)		6049.10	
C & E Loss (ft)	0.29	Cum SA (acres)		334.49	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

19535.55 LB	19603.10	2596.62	311.94	43.82	1.54	7.52	8.32
19603.10	19670.65	16245.82	1119.19	68.27	9.61	16.57	14.52
19670.65	19738.20	15382.74	1085.12	68.59	9.10	16.06	14.18
19738.20	19805.75	14449.27	1046.93	68.88	8.55	15.50	13.80
19805.75	19873.30	9753.79	820.77	67.59	5.77	12.15	11.88
19873.30	19940.85	8889.08	776.11	67.55	5.26	11.49	11.45
19940.85	20008.39	8747.68	768.68	67.55	5.18	11.38	11.38
20008.39	20075.95	8715.85	767.01	67.55	5.16	11.35	11.36
20075.95	20143.49	9065.85	785.39	67.56	5.36	11.63	11.54
20143.49	20211.04	11711.08	916.02	67.60	6.93	13.56	12.78
20211.04	20278.59	15191.91	1070.63	67.57	8.99	15.85	14.19
20278.59	20346.14	16330.09	1117.92	67.55	9.66	16.55	14.61
20346.14	20413.69	15638.72	1089.28	67.55	9.25	16.13	14.36
20413.69	20481.24	14469.70	1039.70	67.56	8.56	15.39	13.92
20481.24	20548.79 RB	1811.80	227.02	33.97	1.07	7.43	7.98

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19535.55 LB	19603.10	2596.82	311.96	43.82	1.54	7.52	8.32
19603.10	19670.65	16245.66	1119.22	68.27	9.61	16.57	14.52
19670.65	19738.20	15382.61	1085.15	68.59	9.10	16.06	14.18
19738.20	19805.75	14449.17	1046.96	68.88	8.55	15.50	13.80
19805.75	19873.30	9753.87	820.80	67.59	5.77	12.15	11.88
19873.30	19940.85	8889.18	776.14	67.55	5.26	11.49	11.45
19940.85	20008.39	8747.79	768.72	67.55	5.18	11.38	11.38
20008.39	20075.95	8715.96	767.04	67.55	5.16	11.36	11.36
20075.95	20143.49	9065.95	785.42	67.56	5.36	11.63	11.54
20143.49	20211.04	11711.09	916.05	67.60	6.93	13.56	12.78
20211.04	20278.59	15191.79	1070.66	67.57	8.99	15.85	14.19
20278.59	20346.14	16329.92	1117.95	67.55	9.66	16.55	14.61
20346.14	20413.69	15638.58	1089.31	67.55	9.25	16.13	14.36
20413.69	20481.24	14469.60	1039.73	67.56	8.56	15.39	13.92
20481.24	20548.79 RB	1811.97	227.03	33.97	1.07	7.43	7.98

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 217.10

INPUT
Description:
Station Elevation Data num= 138

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17600.59	1112.97	17620.68	1112.34	17646.86	1112.03	17688.41	1111.74	17704.24	1112.1
17719.14	1112.18	17741.7	1111.68	17756.4	1111.07	17848.24	1110.96	18074.7	1111.3
18124.9	1111.23	18130.99	1110.62	18263.83	1109.98	18349.69	1109.65	18551.23	1110
18587.18	1109.89	18617.17	1109.76	18679.02	1109.56	18790.59	1109.24	18799.21	1109.2
18826.91	1109.38	18858.24	1108.36	18865.89	1108.2	18871.8	1109.02	18888.69	1111.7
18924.73	1094.26	18950.29	1081.46	18981.7	1080.71	19039.03	1045.05	19290.6	1045.4
19355.94	1045.47	19360.51	1048.54	19414.92	1085.6	19438.51	1084.48	19442.09	1085.4
19479.15	1095.56	19513.38	1107.78	19519.12	1110.01	19523.16	1111.11	19527.72	1112
19543.34	1116.59	19557.04	1117.46	19576.88	1118.05	19625.46	1096.98	19630.49	1094.9
19636.74	1084.58	19656.27	1083.62	19664	1083.18	19707.71	1083.72	19719.1	1084.8
19752.09	1088.43	19764.19	1089.53	19778.39	1090.58	19819.8	1092.18	19851.38	1094
19859.54	1089.46	19866.15	1085.4	19901.3	1085.07	19960.76	1083.75	19990.62	1083
20044.95	1083.12	20059.64	1083.07	20069.32	1083.61	20085.24	1084.23	20093.93	1088.3
20100.95	1091.32	20119.63	1090.54	20142.57	1089.73	20157.78	1089.12	20182.35	1088.3

20238.55 1086.8320252.74 1086.5520296.58 1086.0220303.64 1086.2320311.45 1085.7
20323.94 1085.3720342.66 1084.9420355.06 1084.9520378.95 1085.8220390.46 1085.6
20408.3 1085.93 20431.7 1085.4820467.32 1085.7720478.03 1085.820495.77 1094.6
20534.13 1112.9620539.41 1113.1520545.86 1113.1620551.73 1113.3420608.55 1110.1
20612.3 1111.2420622.42 1113.6120630.42 1113.6420660.12 1113.59 20683.8 1114.2
20797.02 1116.4520802.59 1116.4820819.36 1113.920973.36 1114.1220993.05 1114.2
21007.1 1115.0521015.63 1114.9321024.21 1114.1421047.61 1114.18 21063.7 1114.3
21091.99 1114.5821217.52 1114.721282.21 1114.4421373.52 1114.5321392.21 1115
21426 1114.2421435.77 1114.1721463.99 1114.8321517.28 1114.7721539.61 1114.6
21542.9 1114.7221602.03 1114.5621650.05 1114.5321747.34 1114.6621788.15 1114.8
21843.92 1114.0621877.29 1113.7721888.46 1113.7721906.58 1113.4421918.44 1113.6
21977.61 1114.2721997.78 1114.1222002.26 1114.1922004.64 1113.8422112.68 1113.6
22115.58 1114.8722134.58 1116.15 22165.7 1115.8722209.46 1114.6722245.06 1114.7
22272.55 1114.0322349.62 1114.6822409.32 1114.41

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17600.59	.035	19576.88	.035	20551.73	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19576.88	20551.73	481.37	481.37	481.37	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17600.59	19576.88	1118.05	20551.73	22409.32	1113.34

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1105.06	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.67	Wt. n-Val.		0.035	
E.G. Elev (ft)	1106.73	Reach Len. (ft)	481.37	481.37	481.37
Crit W.S. (ft)	1097.07	Flow Area (sq ft)		16299.18	
E.G. Slope (ft/ft)	0.001306	Area (sq ft)	26224.44	16299.18	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1514.16	Top Width (ft)	603.36	910.80	
Vel Total (ft/s)	10.37	Avg. Vel. (ft/s)		10.37	
Max Chl Dpth (ft)	60.01	Hydr. Depth (ft)		17.90	
Conv. Total (cfs)	4676787.0	Conv. (cfs)		4676787.0	
Length Wtd. (ft)	481.37	Wetted Per. (ft)		927.65	
Min Ch El (ft)	1083.00	Shear (lb/sq ft)		1.43	
Alpha	1.00	Stream Power (lb/ft s)		14.85	
Frctn Loss (ft)	0.60	Cum Volume (acre-ft)	1590.68	5879.24	54.37
C & E Loss (ft)	0.02	Cum SA (acres)	91.79	323.75	55.78

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1105.06	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.67	Wt. n-Val.		0.035	
E.G. Elev (ft)	1106.73	Reach Len. (ft)	481.37	481.37	481.37
Crit W.S. (ft)	1097.08	Flow Area (sq ft)		16299.29	
E.G. Slope (ft/ft)	0.001306	Area (sq ft)		16299.29	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	910.80	Top Width (ft)		910.80	
Vel Total (ft/s)	10.37	Avg. Vel. (ft/s)		10.37	
Max Chl Dpth (ft)	22.06	Hydr. Depth (ft)		17.90	
Conv. Total (cfs)	4676842.5	Conv. (cfs)		4676842.5	
Length Wtd. (ft)	481.37	Wetted Per. (ft)		927.65	
Min Ch El (ft)	1083.00	Shear (lb/sq ft)		1.43	
Alpha	1.00	Stream Power (lb/ft s)		14.85	
Frctn Loss (ft)	0.60	Cum Volume (acre-ft)		5880.46	
C & E Loss (ft)	0.02	Cum SA (acres)		323.75	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19576.88 LB	19641.87	1845.03	322.67	42.95	1.09	9.21	5.72
19641.87	19706.86	16106.93	1397.62	65.02	9.53	21.51	11.52
19706.86	19771.85	12027.08	1175.02	65.31	7.12	18.08	10.24
19771.85	19836.84	7362.13	873.97	65.07	4.36	13.45	8.42
19836.84	19901.83	10553.53	1099.78	67.34	6.24	16.92	9.60
19901.83	19966.82	15148.46	1346.97	65.01	8.96	20.73	11.25
19966.82	20031.81	16643.03	1425.13	65.00	9.85	21.93	11.68

20031.81	20096.80	15362.56	1368.10	66.18	9.09	21.05	11.23
20096.80	20161.79	8719.85	969.39	65.40	5.16	14.92	9.00
20161.79	20226.78	10943.32	1108.29	65.02	6.48	17.05	9.87
20226.78	20291.77	12586.34	1205.20	65.00	7.45	18.54	10.44
20291.77	20356.76	13810.67	1274.39	65.02	8.17	19.61	10.84
20356.76	20421.75	13588.69	1262.00	65.01	8.04	19.42	10.77
20421.75	20486.74	13092.07	1241.63	66.01	7.75	19.10	10.54
20486.74	20551.73 RB	1210.34	229.02	34.31	0.72	7.41	5.28

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19576.88 LB	19641.87	1845.07	322.67	42.95	1.09	9.21	5.72
19641.87	19706.86	16106.90	1397.63	65.02	9.53	21.51	11.52
19706.86	19771.85	12027.08	1175.03	65.31	7.12	18.08	10.24
19771.85	19836.84	7362.16	873.98	65.07	4.36	13.45	8.42
19836.84	19901.83	10553.54	1099.79	67.34	6.24	16.92	9.60
19901.83	19966.82	15148.44	1346.98	65.01	8.96	20.73	11.25
19966.82	20031.81	16642.99	1425.13	65.00	9.85	21.93	11.68
20031.81	20096.80	15362.54	1368.11	66.18	9.09	21.05	11.23
20096.80	20161.79	8719.87	969.40	65.40	5.16	14.92	9.00
20161.79	20226.78	10943.33	1108.30	65.02	6.48	17.05	9.87
20226.78	20291.77	12586.33	1205.21	65.00	7.45	18.54	10.44
20291.77	20356.76	13810.66	1274.40	65.02	8.17	19.61	10.84
20356.76	20421.75	13588.68	1262.01	65.01	8.04	19.42	10.77
20421.75	20486.74	13092.06	1241.64	66.01	7.75	19.11	10.54
20486.74	20551.73 RB	1210.36	229.03	34.31	0.72	7.41	5.28

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 217.00

INPUT
Description:
Station Elevation Data num= 226

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14098.54	1120.514128.08	1120.14	14198.7	1120.0114421.36		1119.2814431.34		1119.84	
14448.43	1119.314456.42	1119.3414471.01		1119.0614490.05		1118.8814516.45		1119.53	
14537.44	1119.714554.43	1119.5814617.79		1119.914660.16		1119.6514666.56		1119.38	
14787.23	1118.914878.68	1119.7814889.68		1118.8714909.73		1119.614913.37		1119.56	
14934.09	1120.115004.13	1120.0215086.65		1120.83	15149.1	1119.7215170.02		1119.89	
15211.59	1120.415214.69	1119.08	15221	1117.1315223.38		1117.4115231.65		1119.09	
15369.53	1118.415529.51	1117.5815568.29		1117.6515589.35		1117.7315625.57		1117.19	
15713.69	1117.215728.81	1117.3915756.29		1117.315778.83		1118.9915786.84		1118.99	
15860.73	1118.615896.88	1118.3816022.87		111816123.06		1116.7216218.41		1116.25	
16287.25	1115.816300.33	1117.7416307.46		1117.92	16312.8	1117.77	16334	1108.63	
16334.91	110916352.76	1117.5716359.24		1117.5516368.86		1116.9516396.58		1116.92	
16404.96	1116.616496.79	1115.5816509.53		1115.7416540.83		1115.53	16545.1	1115.56	
16719.07	1116.616790.96	1116.5716831.51		1116.6116898.02		1116.8416936.04		1116.86	
16953.66	1116.716979.21	1116.8817023.76		1117.6917046.68		1117.9317068.68		1118.12	
17072.78	1118.217080.88	1114.1217095.31		1119.1417112.28		1118.8417122.51		1117.68	
17124.11	1117.717151.42	1114.417210.52		1107.3317265.35		1109.617279.62		1110.22	
17323.85	1110.717327.55	1110.7917339.24		1110.71	17455.2	1110.6817513.41		1110.58	
17539.87	1110.517573.18	1111.0417591.05		1111.1917607.24		1110.6117633.85		1110.87	
17658.39	1109.417668.45	1109.4717742.89		1109.7517841.92		1110.3517990.57		1110.29	
18050.32	1110.4	18104.4	1110.8918111.39		1110.9118127.89		1110.7118160.16		1111.14
18166.69	1111.218319.16	1110.0118410.48		1109.9818426.92		1109.8118479.03		1109.33	
18518.93	1109.618557.34	1109.9118562.47		1109.92	18596.5	1109.6718602.19		1109.68	
18677.67	1109.218690.17	1108.9918715.41		1108.7918722.39		1109.3618734.94		1110.2	
18740.09	1110.818780.12	1091.1618802.42		1080.9218813.26		108118834.72		1080.55	
18889.72	1051.618903.97	1044.4119200.31		1045.2419354.64		1046.1319368.47		1046.18	
19370.82	1047.819425.74	1084.1819443.19		1083.4919485.52		1094.1819493.29		1096.86	
19532.95	1109.919544.05	1113.8219551.29		1116.2919560.29		1116.1219574.59		1116.78	
19584.47	1117.519632.35	1094.7319637.36		1092.2819648.07		1092.4219657.88		1087.81	
19670.13	1085.619677.79	1084.8919724.59		1082.9819785.99		1083.2319801.01		1083.06	
19819.83	1083.219833.32	1083.2419843.23		1083.0619893.28		1081.9919914.53		1081.38	
19934.85	1081.319942.34	1081.8319970.45		1082.8419973.18		1082.4320001.14		1083.03	
20034.89	1084.820050.24	1084.7420065.58		1084.8320068.23		1084.6720103.24		1084.14	
20131.69	1082.720143.96	1085.3620148.75		1088.5820176.06		1087.8620181.16		1087.84	
20214.08	1088.220228.34	1087.66	20255.4	1087.7520266.51		1088.5420293.74		1088.64	
20315.95	1088.920340.21	1088.8820357.96		1088.6820368.51		1088.3220383.76		1088.06	
20393.33	1087.220428.08	1086.4620448.71		1086.9620485.81		108920518.72		1104.87	

```
20535.78  1113.320540.04 1113.4420551.23 1113.1620580.83 1111.8420589.82 1112.24
20600.75  1111.620615.43 1110.4920646.56 1110.6620697.83 1109.93   20706 1110.67
20707.21  1110.120715.01 1115.9120728.15 1118.6320730.93 1120.6620743.72 1114.93
 20745.4  1114.420785.35 1114.9420789.93 1116.83 20809.4 1122.6520837.73 1122.07
20861.48  1114.420900.21 1114.2820939.63 1114.0120945.97 1113.7120974.02 1111.87
20982.49  1112.220990.46 1113.28   21006 1113.1521055.12 1113.8221160.88 1114.41
21227.71  1114.421317.97 1113.6521340.57 1113.6621367.07 1113.8321407.84 1113.83
21455.78  1113.421480.61 1113.5621489.69  1113.421551.01 1112.9521621.93 1112.61
21681.36  1112.821734.31 1112.6221813.77 1112.2721854.83 1112.1321976.67 1111.87
22006.05  1111.8

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
14098.54    .03519584.47    .03520540.04    .035

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19584.4720540.04              510  506.49  506.49            .1        .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
14098.5419584.47  1117.520540.0422006.05 1113.44
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1104.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.61	Wt. n-Val.		0.035	
E.G. Elev (ft)	1106.11	Reach Len. (ft)	510.00	506.49	506.49
Crit W.S. (ft)	1096.14	Flow Area (sq ft)		16606.84	
E.G. Slope (ft/ft)	0.001205	Area (sq ft)	35276.75	16606.84	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1669.75	Top Width (ft)	763.60	906.15	
Vel Total (ft/s)	10.18	Avg. Vel. (ft/s)		10.18	
Max Chl Dpth (ft)	60.09	Hydr. Depth (ft)		18.33	
Conv. Total (cfs)	4867820.0	Conv. (cfs)		4867820.0	
Length Wtd. (ft)	506.49	Wetted Per. (ft)		915.39	
Min Ch El (ft)	1081.30	Shear (lb/sq ft)		1.37	
Alpha	1.00	Stream Power (lb/ft s)		13.89	
Frctn Loss (ft)	0.67	Cum Volume (acre-ft)	1250.86	5697.43	54.37
C & E Loss (ft)	0.02	Cum SA (acres)	84.23	313.71	55.78

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1104.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.61	Wt. n-Val.		0.035	
E.G. Elev (ft)	1106.11	Reach Len. (ft)	510.00	506.49	506.49
Crit W.S. (ft)	1096.12	Flow Area (sq ft)		16607.06	
E.G. Slope (ft/ft)	0.001205	Area (sq ft)		16607.06	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	906.15	Top Width (ft)		906.15	
Vel Total (ft/s)	10.18	Avg. Vel. (ft/s)		10.18	
Max Chl Dpth (ft)	23.20	Hydr. Depth (ft)		18.33	
Conv. Total (cfs)	4867919.0	Conv. (cfs)		4867919.0	
Length Wtd. (ft)	506.49	Wetted Per. (ft)		915.39	
Min Ch El (ft)	1081.30	Shear (lb/sq ft)		1.37	
Alpha	1.00	Stream Power (lb/ft s)		13.89	
Frctn Loss (ft)	0.67	Cum Volume (acre-ft)		5698.64	
C & E Loss (ft)	0.02	Cum SA (acres)		313.71	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19584.47 LB	19648.18	1553.45	286.89	39.16	0.92	7.89	5.41
19648.18	19711.88	11993.62	1197.57	64.98	7.10	18.80	10.01
19711.88	19775.58	15065.36	1362.41	63.72	8.91	21.39	11.06
19775.58	19839.29	15001.16	1358.85	63.71	8.88	21.33	11.04
19839.29	19902.99	15844.18	1404.28	63.72	9.38	22.04	11.28
19902.99	19966.70	16685.96	1448.78	63.74	9.87	22.74	11.52
19966.70	20030.40	14932.87	1355.79	63.78	8.84	21.28	11.01
20030.40	20094.11	13309.96	1264.83	63.72	7.88	19.85	10.52
20094.11	20157.81	13146.00	1265.59	65.01	7.78	19.87	10.39
20157.81	20221.52	9744.43	1049.00	63.72	5.77	16.47	9.29
20221.52	20285.22	9730.79	1048.26	63.74	5.76	16.45	9.28

20285.22	20348.93	8997.73	999.94	63.71	5.32	15.70	9.00
20348.93	20412.63	9901.37	1059.37	63.76	5.86	16.63	9.35
20412.63	20476.33	10651.16	1106.78	63.75	6.30	17.37	9.62
20476.33	20540.04 RB	2441.96	398.50	45.18	1.44	9.57	6.13

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19584.47 LB	19648.18	1553.47	286.90	39.16	0.92	7.89	5.41
19648.18	19711.88	11993.63	1197.59	64.98	7.10	18.80	10.01
19711.88	19775.58	15065.33	1362.42	63.72	8.91	21.39	11.06
19775.58	19839.29	15001.13	1358.86	63.71	8.88	21.33	11.04
19839.29	19902.99	15844.14	1404.30	63.72	9.38	22.04	11.28
19902.99	19966.70	16685.90	1448.79	63.74	9.87	22.74	11.52
19966.70	20030.40	14932.83	1355.80	63.78	8.84	21.28	11.01
20030.40	20094.11	13309.95	1264.85	63.72	7.88	19.85	10.52
20094.11	20157.81	13145.98	1265.61	65.01	7.78	19.87	10.39
20157.81	20221.52	9744.46	1049.01	63.72	5.77	16.47	9.29
20221.52	20285.22	9730.83	1048.27	63.74	5.76	16.46	9.28
20285.22	20348.93	8997.77	999.96	63.71	5.32	15.70	9.00
20348.93	20412.63	9901.40	1059.38	63.76	5.86	16.63	9.35
20412.63	20476.33	10651.19	1106.80	63.75	6.30	17.37	9.62
20476.33	20540.04 RB	2442.00	398.51	45.18	1.44	9.57	6.13

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 216.91

INPUT
Description:
Station Elevation Data num= 211

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14099.2	1119.714	559.42	1118.481	4566.97	1118.511	4578.11	1119.461	4593.53	1119.09
14601.62	1118.814	746.19	1119.111	4854.73	1118.681	4937.59	1118.431	4951.24	1117.55
14966.68	1117.414	990.32	1118.081	5006.25	1118.361	5033.56	1118.271	5048.46	1118.25
15062.29	1118	15083.6	1120.411	5093.56	1120.291	5108.89	1119.731	5234.76	1120.77
15337.22	1119	15374.11	1119.081	5404.53	1118.891	5474.81	1118.291	5587.87	1117.53
15589.63	1117.61	5604.39	1118.981	5646.54	1119.21	5679.98	1119.291	5705.15	1118.52
15713.71	1118.51	5778.73	1119.051	5798.21	1118.991	5827.48	1118.25	15897.7	1117.91
15921.07	1117.41	5929.28	1116.681	5931.21	1116	15949.88	1115.761	5973.81	1115.71
15991.09	1116.81	6180.68	1115.751	6274.57	1114.751	6288.72	1114.681	6314.26	1114.45
16402.38	1114	16429.73	1113.851	6441.14	1116.621	6451.87	1116.331	6458.12	1113.19
16470.06	1107	16487.19	1115.041	6491.62	1116.811	6504.46	1116.91	6509.38	1115.83
16514.62	1115.51	6530.29	1115.961	6543.87	1115.931	6636.54	1115.941	6757.34	1115.65
16760.46	1116	16771.55	1115.491	6775.94	1115.21	6794.31	1115.461	6813.69	1116.08
16944.03	1115.41	6966.49	1115.161	6976.03	1114.661	6993.21	1113.941	7023.17	1113.55
17058.98	1112.9	17099.6	1111.661	7134.49	1109.16	17172.2	1109.071	7315.71	1108.88
17381.63	1108.91	7422.97	1109.31	7426.29	1109.051	7446.84	1107.871	7498.83	1109.49
17518.15	1110.21	7530.75	1111.11	17545.5	1110.781	7557.96	1110.981	7596.95	1111.04
17620.83	1110.61	7686.59	1110.51	7707.19	1110.541	7803.03	1110.491	7862.12	1110.02
17903.23	1109.91	7956.17	1109.71	7992.63	1109.52	17999.6	1109.531	8086.52	1109.38
18347.34	1109	18413.24	1108.951	8479.03	1109.111	8494.69	1107.911	8513.77	1109.06
18550.3	1108.21	8568.86	1109.291	8573.12	1109.611	8584.94	1109.971	8629.91	1089.27
18649.22	1080.11	8674.53	1080.431	8684.62	1075.771	8751.76	1045.811	9017.44	1045.16
19362.16	1045.51	9380.07	1057.11	9419.67	1083.221	9469.66	1091.181	9489.79	1094.18
19494.38	1095.71	9510.69	1101.671	9550.02	1115.21	9570.88	1116.091	9579.12	1116.14
19606.91	1102.31	9629.92	1090.421	9637.51	1090.121	9644.24	1089.621	9646.83	1088.31
19648.97	1087.81	9689.66	1083.461	9695.04	1083.151	9721.45	1082.321	9750.64	1084.27
19792.85	1084.51	9827.51	1083.41	9875.56	1083.481	9883.38	1083.521	9904.38	1083.27
19946.63	1083.11	9996.87	1082.732	0001.81	1082.682	0066.92	1084.562	0106.23	1083.09
20115.87	108	20146.21	1083.12	0171.89	1082.99	20203.8	1082.962	0223.46	1082.77
20228.02	1086.32	0238.83	1092.682	0243.18	1090.642	0250.58	1090.262	0284.19	1090.18
20308.83	1090.42	0319.78	1089.82	0333.36	1089.912	0356.79	1088.912	0391.15	1089.01
20399.3	1089.22	0411.96	1089.672	0446.41	1090.792	0468.88	1091.562	0484.39	1091.9
20494.43	1095.72	0506.88	1102.162	0525.95	1111.052	0542.47	1112.352	0588.08	1111.82
20603.92	1111.92	0609.85	1113.392	0614.96	1113.152	0669.51	1112.042	0688.84	1111.49
20707	1111.22	0734.16	1111.222	0793.21	1110.582	0809.02	1110.362	0829.83	1110.92
20852.41	1112.42	0876.38	1112.752	0906.45	1112.82	20937.2	1113.442	0983.26	1114.06
21016.37	1113.32	1024.58	1113.332	1034.96	1113.182	1053.76	1112.632	1074.52	1111.84
21094.09	1111.6	21101.4	1111.142	1111.91	1110.132	1123.63	1110.322	1142.99	1110.89
21181.47	1111.82	1203.41	1112.22	1254.24	1112.212	1300.76	1111.162	1318.07	1112.06
21404.77	111	1588.54	1112.132	1607.47	1111.772	1651.58	1111.972	1678.44	1112.06

21691.4 1110.321706.27 1112.4521782.41 1112.0521815.83 1111.6121896.63 1111.46
21901.86 1111.521931.58 1112.3522003.66 1112.57 22039.7 1112.522465.13 1110.71
22514.01 1110.6

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
14099.2	.035	19579.12	.035	20542.47	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19579.12	20542.47	503.44	503.44	503.44	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14099.2	19579.12	1116.14	20542.47	22514.01	1112.35

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1103.62	Element			
Vel Head (ft)	1.80	Wt. n-Val.		0.035	
E.G. Elev (ft)	1105.42	Reach Len. (ft)	503.44	503.44	503.44
Crit W.S. (ft)	1096.30	Flow Area (sq ft)		15691.56	
E.G. Slope (ft/ft)	0.001457	Area (sq ft)	43280.55	15691.56	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1823.37	Top Width (ft)	917.62	905.75	
Vel Total (ft/s)	10.77	Avg. Vel. (ft/s)		10.77	
Max Chl Dpth (ft)	58.46	Hydr. Depth (ft)		17.32	
Conv. Total (cfs)	4427522.0	Conv. (cfs)		4427522.0	
Length Wtd. (ft)	503.44	Wetted Per. (ft)		915.83	
Min Ch El (ft)	1082.32	Shear (lb/sq ft)		1.56	
Alpha	1.00	Stream Power (lb/ft s)		16.78	
Frctn Loss (ft)	0.65	Cum Volume (acre-ft)	790.98	5509.65	54.37
C & E Loss (ft)	0.07	Cum SA (acres)	74.39	303.18	55.78

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1103.62	Element			
Vel Head (ft)	1.80	Wt. n-Val.		0.035	
E.G. Elev (ft)	1105.42	Reach Len. (ft)	503.44	503.44	503.44
Crit W.S. (ft)	1096.31	Flow Area (sq ft)		15691.79	
E.G. Slope (ft/ft)	0.001457	Area (sq ft)		15691.79	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	905.75	Top Width (ft)		905.75	
Vel Total (ft/s)	10.77	Avg. Vel. (ft/s)		10.77	
Max Chl Dpth (ft)	21.30	Hydr. Depth (ft)		17.32	
Conv. Total (cfs)	4427626.5	Conv. (cfs)		4427626.5	
Length Wtd. (ft)	503.44	Wetted Per. (ft)		915.83	
Min Ch El (ft)	1082.32	Shear (lb/sq ft)		1.56	
Alpha	1.00	Stream Power (lb/ft s)		16.78	
Frctn Loss (ft)	0.65	Cum Volume (acre-ft)		5510.86	
C & E Loss (ft)	0.07	Cum SA (acres)		303.18	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19579.12 LB	19643.34	2246.70	350.08	42.30	1.33	8.96	6.42
19643.34	19707.57	12875.88	1183.93	64.85	7.62	18.43	10.88
19707.57	19771.79	15015.93	1293.92	64.29	8.89	20.15	11.60
19771.79	19836.01	14325.27	1257.47	64.24	8.48	19.58	11.39
19836.01	19900.24	15058.19	1295.54	64.22	8.91	20.17	11.62
19900.24	19964.46	15428.40	1314.55	64.22	9.13	20.47	11.74
19964.46	20028.68	15705.06	1328.75	64.24	9.29	20.69	11.82
20028.68	20092.91	14328.34	1257.74	64.26	8.48	19.58	11.39
20092.91	20157.13	15473.32	1316.94	64.23	9.16	20.51	11.75
20157.13	20221.35	15670.16	1326.87	64.22	9.27	20.66	11.81
20221.35	20285.58	7957.47	902.08	67.64	4.71	14.05	8.82
20285.58	20349.80	7839.70	875.90	64.26	4.64	13.64	8.95
20349.80	20414.02	8695.90	932.01	64.24	5.15	14.51	9.33
20414.02	20478.25	7083.07	824.15	64.26	4.19	12.83	8.59
20478.25	20542.47 RB	1296.62	231.64	34.36	0.77	7.29	5.60

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19579.12 LB	19643.34	2246.74	350.09	42.30	1.33	8.96	6.42
19643.34	19707.57	12875.88	1183.94	64.85	7.62	18.43	10.88
19707.57	19771.79	15015.90	1293.94	64.29	8.89	20.15	11.60
19771.79	19836.01	14325.25	1257.48	64.24	8.48	19.58	11.39
19836.01	19900.24	15058.16	1295.55	64.22	8.91	20.17	11.62
19900.24	19964.46	15428.36	1314.57	64.22	9.13	20.47	11.74
19964.46	20028.68	15705.01	1328.77	64.24	9.29	20.69	11.82
20028.68	20092.91	14328.32	1257.76	64.26	8.48	19.58	11.39
20092.91	20157.13	15473.28	1316.95	64.23	9.16	20.51	11.75
20157.13	20221.35	15670.11	1326.89	64.22	9.27	20.66	11.81
20221.35	20285.58	7957.52	902.09	67.64	4.71	14.05	8.82
20285.58	20349.80	7839.76	875.92	64.26	4.64	13.64	8.95
20349.80	20414.02	8695.95	932.03	64.24	5.15	14.51	9.33
20414.02	20478.25	7083.13	824.17	64.26	4.19	12.83	8.59
20478.25	20542.47 RB	1296.66	231.64	34.36	0.77	7.29	5.60

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 216.81

INPUT
Description:
Station Elevation Data num= 207

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
14826.86	1117.3	15074.81	1117.3	215121.98	1117.4	15234.89	1117.1	615368.88	1116.83
15374.04	1117.8	15395.67	1122.3	915417.92	1122.1	115421.66	112	215554.53	1118.45
15577.36	1119.3	15719.49	1114.9	15731.96	1113.8	915742.84	1113.15	15776.7	1115.71
15945.17	1115.5	15966.24	1115.5	416005.02	1115.42	16009.4	1116.7	816018.59	1118.76
16025.55	1116.7	16031.99	1115.4	816122.77	1115.6	116131.04	1117.3	216147.34	1120.1
16169.01	1114.6	16180.01	1114.5	516219.77	1114.1	616225.87	1114.1	616240.21	1113.18
16284.9	1113.7	16305.02	1113.7	416452.71	1113.9	316465.24	1115.2	316478.67	1114.97
16487.9	1109.4	16495.05	1105.6	716508.62	1112.01	16516.7	1115.3	916523.38	1115.3
16535.02	1115.7	16550.34	1115.3	416563.07	1114.7	416568.64	1114.7	916577.33	1115.17
16611.89	1113.8	16622.88	1113.6	416644.22	1113.6	316652.51	1113.7	216696.87	1113.95
16728.68	1113.9	16734.43	1114.1	116808.69	1115.4	416840.78	1115.6	916894.19	1115.07
16942.9	111	516958.95	1114.9	916986.36	1114.4	116994.93	1114.3	117000.64	1113.59
17007.03	1113.1	17010.39	1113.14	17020.3	1114.2	17069.5	1113.4	417090.81	1113.43
17110.64	111	317117.84	1112.2	417147.92	1111.2	617188.49	111	117209.44	1110.53
17256.88	1109.8	17282.12	1109.9	617305.71	1109.8	417331.56	1109.6	517372.28	1110.32
17373.99	1110.5	17384.34	1110.4	17469.49	1110.1	417509.83	1109.2	317519.01	1108.92
17551.66	1108.2	17578.56	1108.0	517626.01	1108.6	317667.54	1108.28	17898	1109.08
17920.34	1109.2	17956.23	1109.3	118005.24	1109.0	618161.61	1108.5	818331.29	1108.01
18351.89	1108.9	18392.86	1107.6	518423.28	1108.1	918577.84	1107.6	118586.22	1107.59
18602.22	1109.4	18613.37	1109.7	518642.23	1099.7	418702.44	1081.0	718721.85	1081.29
18788.63	105	518812.86	1045.3	18834.8	1045.1	318883.55	1045.3	218988.23	1044.74
19257.63	1044.9	19316.1	1044.9	119372.68	1072.2	519385.55	1080.4	19393.08	1080.33
19411.19	1080.5	19434.69	1086.4	319442.05	1088.1	319453.88	1091.5	119464.06	1094.18
19490.85	1104.8	19511.71	1113.6	619532.66	1111.8	219548.98	1112.1	219557.65	1112.45
19562.91	1113.6	19565.56	1113.51	19577.4	1113.6	19622.58	1096.6	819646.03	1087.62
19658.12	1087.2	19664.26	1085.5	619691.93	1084.1	419727.69	1082.1	319753.37	1081.99
19779.03	1082.5	19789.25	1082.5	419834.99	1080.0	919890.35	1081.6	19933.18	1083.41
19935.92	1083.5	19961.9	1083.2	719980.83	1083.0	319995.55	1083.2	320005.99	1082.91
20022.31	1082.6	20040.29	1082.2	920080.75	1081.8	120099.51	1082.1	320130.96	1081.32
20144.15	1082.3	20145	1082.7	820156.68	1086.5	20163.67	1089.3	20168.14	1090.38
20179.75	1091.8	20183.35	1090.7	520194.66	1086.3	120205.53	1082.3	20214.36	1082.3
20220.69	1083.7	20229.44	1087.3	620251.13	1084.4	920262.14	1085.0	320271.54	1080.74
20280.37	1079.9	20287.7	1079.5	520300.81	1084.4	620358.85	1084.4	220381.15	1084.2
20397.02	1084.5	20467.37	1086.1	20517.23	1110.4	520533.96	1110.6	820570.19	1110.64
20594.26	1110.3	20610.59	1110.4	20632.61	1110.2	620674.67	1110.4	320701.11	1110.57
21037.42	1111	21124.1	1110.9	621136.91	1111.1	321179.36	1111.3	21182.02	1111.27
21202.46	1110.7	21219.63	1112.6	321221.91	1112.6	221258.72	1111.6	121333.79	1109.91
21340.19	1109.7	21388.49	1109.6	721725.44	1110.1	321891.54	1110.3	221894.05	1110.29
21912.43	1109.6	21938.45	1109.3	921983.98	1109.2	722000.48	1108.5	122023.47	1109.89
22041.79	110	22072.76	1109.9	722184.77	1110.12	22202.1	1110.2	22227.52	1110.66
22237.06	1110.8	22260.98	1110.56	22301.5	1110.59	22873.9	1109.0	722942.44	1108.51
22955.28	1107.3	22990.05	1107.36						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
14826.86	.035	19577.4	.035	20517.23	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19577.42	0517.23	498.18	498.18	498.18	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
14826.86	19577.4	1113.62	0517.23	22990.05	1110.45

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1103.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.58	Wt. n-Val.		0.035	
E.G. Elev (ft)	1104.70	Reach Len. (ft)	498.18	498.18	498.18
Crit W.S. (ft)	1094.35	Flow Area (sq ft)		16767.39	
E.G. Slope (ft/ft)	0.001159	Area (sq ft)	38502.21	16767.39	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1751.00	Top Width (ft)	854.15	896.85	
Vel Total (ft/s)	10.08	Avg. Vel. (ft/s)		10.08	
Max Chl Dpth (ft)	58.38	Hydr. Depth (ft)		18.70	
Conv. Total (cfs)	4964908.0	Conv. (cfs)		4964908.0	
Length Wtd. (ft)	498.18	Wetted Per. (ft)		910.31	
Min Ch El (ft)	1079.55	Shear (lb/sq ft)		1.33	
Alpha	1.00	Stream Power (lb/ft s)		13.43	
Frctn Loss (ft)	0.54	Cum Volume (acre-ft)	318.39	5322.08	54.37
C & E Loss (ft)	0.04	Cum SA (acres)	64.15	292.76	55.78

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1103.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.58	Wt. n-Val.		0.035	
E.G. Elev (ft)	1104.70	Reach Len. (ft)	498.18	498.18	498.18
Crit W.S. (ft)	1094.37	Flow Area (sq ft)		16767.61	
E.G. Slope (ft/ft)	0.001159	Area (sq ft)		16767.61	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	896.85	Top Width (ft)		896.85	
Vel Total (ft/s)	10.08	Avg. Vel. (ft/s)		10.08	
Max Chl Dpth (ft)	23.57	Hydr. Depth (ft)		18.70	
Conv. Total (cfs)	4965030.0	Conv. (cfs)		4965030.0	
Length Wtd. (ft)	498.18	Wetted Per. (ft)		910.30	
Min Ch El (ft)	1079.55	Shear (lb/sq ft)		1.33	
Alpha	1.00	Stream Power (lb/ft s)		13.43	
Frctn Loss (ft)	0.54	Cum Volume (acre-ft)		5323.29	
C & E Loss (ft)	0.04	Cum SA (acres)		292.76	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19577.40 LB	19640.06	1070.27	227.05	37.11	0.63	6.55	4.71
19640.06	19702.71	10267.75	1092.06	63.36	6.08	17.43	9.40
19702.71	19765.37	13823.50	1299.89	62.70	8.18	20.75	10.63
19765.37	19828.02	14404.37	1332.51	62.71	8.52	21.27	10.81
19828.02	19890.68	15637.55	1399.60	62.69	9.25	22.34	11.17
19890.68	19953.33	13350.09	1272.96	62.69	7.90	20.32	10.49
19953.33	20015.99	13034.52	1254.59	62.67	7.71	20.02	10.39
20015.99	20078.64	13989.35	1308.91	62.66	8.28	20.89	10.69
20078.64	20141.30	14472.55	1336.17	62.70	8.56	21.33	10.83
20141.30	20203.95	8343.66	978.44	65.72	4.94	15.62	8.53
20203.95	20266.61	11215.46	1158.22	64.29	6.64	18.49	9.68
20266.61	20329.26	13380.05	1285.87	64.08	7.92	20.52	10.41
20329.26	20391.92	11691.80	1175.32	62.66	6.92	18.76	9.95
20391.92	20454.57	10939.57	1129.42	62.67	6.47	18.03	9.69
20454.57	20517.23 RB	3379.50	516.39	51.59	2.00	10.84	6.54

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19577.40 LB	19640.06	1070.38	227.05	37.10	0.63	6.55	4.71
19640.06	19702.71	10267.76	1092.07	63.36	6.08	17.43	9.40
19702.71	19765.37	13823.48	1299.90	62.70	8.18	20.75	10.63

19765.37	19828.02	14404.33	1332.53	62.71	8.52	21.27	10.81
19828.02	19890.68	15637.49	1399.62	62.69	9.25	22.34	11.17
19890.68	19953.33	13350.07	1272.97	62.69	7.90	20.32	10.49
19953.33	20015.99	13034.50	1254.61	62.67	7.71	20.02	10.39
20015.99	20078.64	13989.32	1308.92	62.66	8.28	20.89	10.69
20078.64	20141.30	14472.51	1336.18	62.70	8.56	21.33	10.83
20141.30	20203.95	8343.69	978.46	65.72	4.94	15.62	8.53
20203.95	20266.61	11215.47	1158.23	64.29	6.64	18.49	9.68
20266.61	20329.26	13380.03	1285.89	64.08	7.92	20.52	10.41
20329.26	20391.92	11691.80	1175.33	62.66	6.92	18.76	9.95
20391.92	20454.57	10939.58	1129.44	62.67	6.47	18.03	9.69
20454.57	20517.23 RB	3379.55	516.40	51.59	2.00	10.84	6.54

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 216.72

INPUT
Description:
Station Elevation Data num= 166

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15417.47	1116.115474.29	1115.9515547.94	1116.2115569.22	1116.2215709.49	1115.31				
15721.83	1115.2 15778.3	1121.8115787.24	1122.3515809.79	1123.5615819.12	1123.39				
15850.98	1123.815869.71	1122.7415892.68	1118.94 15909.8	1119.1615995.41	1116.79				
16017.62	1116.116022.65	1116.4416051.43	1117.7516149.15	1115.0316186.44	1113.96				
16270.13	1124.9 16273.2	1125.3816279.29	1125.4516347.32	1125.7816403.26	1121.94				
16454.9	1115.916501.53	1111.1116536.68	1113.09 16550.6	1113.616579.09	1113.04				
16613.89	110716634.61	1103.516695.61	1103.5116721.07	1103.5716737.76	1106.35				
16753.95	1108.216757.65	1113.5816777.91	1117.7116820.39	1126.6916841.31	1129.83				
16928.63	1127.616931.47	1127.5816943.11	1124.8316992.13	1113.5417010.85	1113.65				
17025.38	1113.617038.21	1111.6817047.17	1110.4417055.95	1110.4517114.12	1110.28				
17234.89	1109.817512.57	1108.1917553.86	1107.8217598.86	1107.5717670.56	1107.36				
17804.97	110717971.68	1106.5318088.71	1106.0418104.41	1106.0218131.14	1106.19				
18186.07	1106.818226.13	1106.54 18254.5	1106.418266.22	1106.9418292.31	1106.98				
18329.34	1106.718362.99	1106.63 18447.6	1106.7618532.58	1106.9618584.51	1107.09				
18595.09	1107.318662.68	1107.7118794.66	1107.9818892.55	1108.0818911.03	1107.96				
18975.29	1107.919003.02	1107.8519134.52	1107.7819170.42	1107.9619188.23	1107.95				
19344.38	1108.519404.19	1108.5419546.41	1108.8719550.04	1108.8519559.44	1111.18				
19569.21	1112.119622.28	1093.27 19646.4	1084.6219714.35	1083.7619737.49	1083.74				
19767.27	1082.7 19787	1082.1119845.37	1080.6519898.93	1080.3319903.45	1080.5				
19973.17	1082.719976.11	1082.7420043.38	1081.0420055.06	1080.7920118.31	1080.17				
20136.87	1080.420206.06	1080.49 20212.4	1080.78 20218.2	1082.120260.96	1080.89				
20269.28	1080.620271.57	1080.9620312.74	1085.7320378.18	1082.5720456.41	1085.24				
20460.07	1085.320509.38	1109.4320523.78	1110.5820530.13	1110.5120589.99	1108.84				
20604.23	1108.920617.71	1109.5220684.05	1109.3420695.96	1109.2720804.74	1109.46				
20942.06	1109.821026.78	1109.8321215.57	1110.1621268.95	1110.4621380.55	1110.76				
21406.78	111121446.98	1110.7921469.18	1109.9921509.85	1109.9521547.67	1110.01				
21601.77	1109.821625.14	1109.8521630.48	1109.8121645.52	1108.521701.95	1107.87				
21919.77	1107.221953.35	1107.2321977.46	1107.222192.68	1107.3122212.18	1106.98				
22273.96	1107.422285.04	1106.6422291.96	1106.0422333.53	1106.4722352.34	1106.74				
22365.19	1107 22371.8	1107.0422376.74	1107.2722381.57	1107.7622404.63	1108.01				
22415.5	1108.622426.85	1109.0922439.42	1109.122503.13	1109.2322771.44	1108.9				
22782.52	1108.922824.21	1108.722825.73	1108.1422838.66	1104.7422874.12	1104.65				
22891.81	1104.7 22901.3	1104.54 22905	1105.9222919.78	1109.4522988.94	1109.12				
23211.3	1107.9								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
15417.47	.03519569.21	.03520523.78	.035		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19569.2	120523.78	500	508.39	520	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15417.47	19569.21	1112.1	20523.78	23211.3	1110.58

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1102.67	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.46	Wt. n-Val.		0.035	
E.G. Elev (ft)	1104.13	Reach Len. (ft)	500.00	508.39	520.00
Crit W.S. (ft)	1093.15	Flow Area (sq ft)		17442.59	
E.G. Slope (ft/ft)	0.001012	Area (sq ft)		17442.59	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	899.77	Top Width (ft)		899.77	
Vel Total (ft/s)	9.69	Avg. Vel. (ft/s)		9.69	

Max Chl Dpth (ft)	22.50	Hydr. Depth (ft)		19.39	
Conv. Total (cfs)	5312977.5	Conv. (cfs)		5312977.5	
Length Wtd. (ft)	508.39	Wetted Per. (ft)		907.63	
Min Ch El (ft)	1080.17	Shear (lb/sq ft)		1.21	
Alpha	1.00	Stream Power (lb/ft s)		11.76	
Frctn Loss (ft)	0.60	Cum Volume (acre-ft)	98.22	5126.46	54.37
C & E Loss (ft)	0.02	Cum SA (acres)	59.27	282.49	55.78

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1102.67	Element			
Vel Head (ft)	1.46	Wt. n-Val.		0.035	
E.G. Elev (ft)	1104.13	Reach Len. (ft)	500.00	508.39	520.00
Crit W.S. (ft)	1093.15	Flow Area (sq ft)		17442.81	
E.G. Slope (ft/ft)	0.001012	Area (sq ft)		17442.81	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	899.77	Top Width (ft)		899.77	
Vel Total (ft/s)	9.69	Avg. Vel. (ft/s)		9.69	
Max Chl Dpth (ft)	22.50	Hydr. Depth (ft)		19.39	
Conv. Total (cfs)	5313087.5	Conv. (cfs)		5313087.5	
Length Wtd. (ft)	508.39	Wetted Per. (ft)		907.64	
Min Ch El (ft)	1080.17	Shear (lb/sq ft)		1.21	
Alpha	1.00	Stream Power (lb/ft s)		11.76	
Frctn Loss (ft)	0.60	Cum Volume (acre-ft)		5127.66	
C & E Loss (ft)	0.02	Cum SA (acres)		282.49	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19569.21 LB	19632.85	1082.50	243.85	39.33	0.64	6.58	4.44
19632.85	19696.49	10050.44	1131.49	64.49	5.95	17.78	8.88
19696.49	19760.13	11351.39	1210.91	63.65	6.72	19.03	9.37
19760.13	19823.76	13010.24	1314.24	63.66	7.70	20.65	9.90
19823.76	19887.40	14469.35	1400.66	63.65	8.56	22.01	10.33
19887.40	19951.04	14061.13	1376.98	63.67	8.32	21.64	10.21
19951.04	20014.68	12704.94	1295.64	63.66	7.52	20.36	9.81
20014.68	20078.31	14044.96	1375.91	63.65	8.31	21.62	10.21
20078.31	20141.95	14814.53	1420.56	63.64	8.77	22.32	10.43
20141.95	20205.59	14702.21	1414.07	63.64	8.70	22.22	10.40
20205.59	20269.23	13749.70	1359.88	63.82	8.14	21.37	10.11
20269.23	20332.87	11106.15	1197.47	63.96	6.57	18.82	9.27
20332.87	20396.50	11546.44	1223.73	63.70	6.83	19.23	9.44
20396.50	20460.14	10719.70	1170.21	63.68	6.34	18.39	9.16
20460.14	20523.78 RB	1586.32	307.00	39.44	0.94	8.67	5.17

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19569.21 LB	19632.85	1082.51	243.86	39.34	0.64	6.58	4.44
19632.85	19696.49	10050.47	1131.50	64.49	5.95	17.78	8.88
19696.49	19760.13	11351.40	1210.93	63.65	6.72	19.03	9.37
19760.13	19823.76	13010.24	1314.26	63.66	7.70	20.65	9.90
19823.76	19887.40	14469.32	1400.67	63.65	8.56	22.01	10.33
19887.40	19951.04	14061.11	1377.00	63.67	8.32	21.64	10.21
19951.04	20014.68	12704.93	1295.66	63.66	7.52	20.36	9.81
20014.68	20078.31	14044.94	1375.92	63.65	8.31	21.62	10.21
20078.31	20141.95	14814.51	1420.57	63.64	8.77	22.32	10.43
20141.95	20205.59	14702.19	1414.09	63.64	8.70	22.22	10.40
20205.59	20269.23	13749.69	1359.90	63.82	8.14	21.37	10.11
20269.23	20332.87	11106.17	1197.49	63.96	6.57	18.82	9.27
20332.87	20396.50	11546.46	1223.74	63.70	6.83	19.23	9.44
20396.50	20460.14	10719.72	1170.23	63.68	6.34	18.39	9.16
20460.14	20523.78 RB	1586.38	307.01	39.43	0.94	8.67	5.17

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 216.62

INPUT
Description:
Station Elevation Data num= 128

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17142.5	1115.817	184.69	1109.771	7189.53	1109.321	7259.99	1108.421	7304.26	1107.66
17319.68	1105.717	329.73	1104.311	7375.77	1098.151	7385.87	1097.981	7407.25	1098.07
17460.95	1106.617	479.37	1109.471	7507.52	1109.84	17512	1109.391	7534.88	1107.69
17543.2	1106.717	614.91	1106.471	7685.22	1106.191	7854.67	1105.911	7959.61	1105.83
18032.1	110618	093.53	1106.031	8105.57	1105.61	8236.52	1106.031	8340.33	1105.88
18462.7	1105.51	8594.48	1105.591	8709.29	1105.671	8762.77	1105.761	8765.56	1105.67
18934.43	1106.31	8943.81	1106.361	8965.82	1107.91	8972.63	1108.621	9018.75	1109.19
19055.14	110919	116.38	1108.791	9165.03	1111.271	9184.54	1111.141	9250.11	1110.58
19257.95	1109.6	19289.7	1106.581	9307.87	1107.311	9324.83	1107.851	9342.73	1103.51
19352.54	110119	369.09	1100.91	9452.78	1106.87	19464.6	1108.591	9499.01	1108.85
19522.86	1108.81	9525.52	1108.621	9538.92	1108.581	9547.37	1108.681	9548.15	1108.84
19553.43	1111.21	9564.56	1111.051	9584.87	1103.891	9632.28	1086.621	9639.92	1083.9
19641.78	108419	679.02	1083.991	9738.88	1083.181	9788.98	1083.321	9815.96	1082.59
19863.35	1081.71	9910.35	1081.011	9945.76	1080.661	9965.57	1080.632	0021.96	1081.11
20032.29	1081.22	0047.02	1081.91	20104.6	1084.262	0150.01	1082.922	0158.64	1082.78
20177.75	1084.22	0227.23	1078.692	0234.38	1078.912	0239.96	1079.232	0257.65	1079.48
20264.91	1079.52	0285.15	1080.28	20290.2	1079.72	0299.23	1078.332	0302.46	1078.39
20306.78	1079.22	0322.87	1082.942	0358.89	1083.36	20360.7	1083.512	0396.11	1087.98
20423.78	1088.3	20458.1	1088.552	0465.44	1090.382	0499.35	1099.532	0505.64	1101.28
20513.86	1101.42	0540.01	1101.412	0577.65	1101.762	0608.55	1102.292	0649.81	1101.57
20650.06	1104.32	0671.03	1104.262	0754.59	1103.772	0804.75	1105.432	0840.84	1106.33
20844.54	1106.5	20876	1108.922	0900.25	1108.32	0930.29	1108.072	0960.84	1108.07
21408.47	1109.32	1426.76	1109.262	1613.71	110921	660.45	1108.612	1671.94	1107.77
21675.14	1107.42	1683.28	1109.422	1699.37	1108.9	21726.2	1108.442	1746.45	1108.84
21896.19	1108.62	1910.62	1108.032	1920.67	1107.842	1941.45	1107.872	2118.94	1108.49
22492.85	1107.62	2533.76	1108.34	22583.5	1108.99				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17142.5	.035	19564.56	.035	20876	.035

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19564.56	20876	470	499.71	570	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17142.5	19564.56	1111.05	20876	22583.5	1108.92

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1101.87	Element			
Vel Head (ft)	1.63	Wt. n-Val.		0.035	
E.G. Elev (ft)	1103.50	Reach Len. (ft)	470.00	499.71	570.00
Crit W.S. (ft)	1093.62	Flow Area (sq ft)		16495.79	
E.G. Slope (ft/ft)	0.001420	Area (sq ft)	241.52	16495.79	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1128.15	Top Width (ft)	116.87	1011.29	
Vel Total (ft/s)	10.25	Avg. Vel. (ft/s)		10.25	
Max Chl Dpth (ft)	23.54	Hydr. Depth (ft)		16.31	
Conv. Total (cfs)	4484980.5	Conv. (cfs)		4484980.5	
Length Wtd. (ft)	499.71	Wetted Per. (ft)		1017.85	
Min Ch El (ft)	1078.33	Shear (lb/sq ft)		1.44	
Alpha	1.00	Stream Power (lb/ft s)		14.72	
Frctn Loss (ft)	0.80	Cum Volume (acre-ft)	96.83	4928.41	54.37
C & E Loss (ft)	0.03	Cum SA (acres)	58.60	271.34	55.78

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1101.87	Element			
Vel Head (ft)	1.63	Wt. n-Val.		0.035	
E.G. Elev (ft)	1103.50	Reach Len. (ft)	470.00	499.71	570.00
Crit W.S. (ft)	1093.62	Flow Area (sq ft)		16496.15	
E.G. Slope (ft/ft)	0.001420	Area (sq ft)		16496.15	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1011.33	Top Width (ft)		1011.33	
Vel Total (ft/s)	10.24	Avg. Vel. (ft/s)		10.24	
Max Chl Dpth (ft)	23.54	Hydr. Depth (ft)		16.31	
Conv. Total (cfs)	4485003.5	Conv. (cfs)		4485003.5	
Length Wtd. (ft)	499.71	Wetted Per. (ft)		1017.90	
Min Ch El (ft)	1078.33	Shear (lb/sq ft)		1.44	
Alpha	1.00	Stream Power (lb/ft s)		14.72	
Frctn Loss (ft)	0.80	Cum Volume (acre-ft)		4929.61	
C & E Loss (ft)	0.03	Cum SA (acres)		271.34	

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19564.56 LB	19651.99	4573.94	662.15	64.75	2.71	10.75	6.91
19651.99	19739.42	16089.34	1588.13	87.44	9.52	18.16	10.13
19739.42	19826.85	17050.64	1644.44	87.44	10.09	18.81	10.37
19826.85	19914.28	19279.74	1770.26	87.44	11.41	20.25	10.89
19914.28	20001.71	20668.31	1845.62	87.43	12.23	21.11	11.20
20001.71	20089.14	18731.00	1740.18	87.48	11.08	19.90	10.76
20089.14	20176.57	16314.67	1602.01	87.51	9.65	18.32	10.18
20176.57	20263.99	20968.45	1864.36	87.75	12.41	21.32	11.25
20263.99	20351.42	20250.82	1828.61	88.09	11.98	20.92	11.07
20351.42	20438.85	11897.85	1326.81	87.72	7.04	15.18	8.97
20438.85	20526.28	3162.47	602.93	89.11	1.87	6.90	5.25
20526.28	20613.71	11.69	17.63	57.99	0.01	0.30	0.66
20613.71	20701.14	1.09	2.64	17.70	0.00	0.15	0.41

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19564.56 LB	19651.99	4573.98	662.17	64.75	2.71	10.75	6.91
19651.99	19739.42	16089.35	1588.16	87.44	9.52	18.17	10.13
19739.42	19826.85	17050.63	1644.47	87.44	10.09	18.81	10.37
19826.85	19914.28	19279.68	1770.29	87.44	11.41	20.25	10.89
19914.28	20001.71	20668.23	1845.65	87.43	12.23	21.11	11.20
20001.71	20089.14	18730.95	1740.22	87.48	11.08	19.90	10.76
20089.14	20176.57	16314.67	1602.04	87.51	9.65	18.32	10.18
20176.57	20263.99	20968.36	1864.39	87.75	12.41	21.32	11.25
20263.99	20351.42	20250.74	1828.64	88.09	11.98	20.92	11.07
20351.42	20438.85	11897.94	1326.84	87.72	7.04	15.18	8.97
20438.85	20526.28	3162.64	602.97	89.11	1.87	6.90	5.25
20526.28	20613.71	11.71	17.66	58.01	0.01	0.30	0.66
20613.71	20701.14	1.10	2.65	17.72	0.00	0.15	0.41

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 216.52

INPUT
Description: Upstream face of I-10 bridge

Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18100	112	019233.73	112	419487.43	1123.08	19487.53	111	619521.34	1099.5
19587.97	1098.1	19618.9	1087.75	19624.77	1087.75	19641.67	1083.2	19664.55	1083.2
19753.06	1084.45	19759.02	1084.5	19822.18	1083.2	19887.31	1083.2	19893.28	1083.2
19956.43	1083.2	20021.57	1083.2	20027.54	1083.2	20090.69	1083.2	20155.83	1083.2
20161.8	1083.2	20224.95	1083.2	20290.09	1083.2	20296.05	1083.2	20359.21	1083.2
20424.34	1083.2	20430.31	1083.2	20441.25	1083.2	20486	1097.3	20515.84	1098.2
20545.67	111	420561.59	1115.3	20561.69	1122.4	21103.4	1120		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18100	.04	19487.53	.03	20561.59	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19487.53	20561.59	256.5	256.5	256.5	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18100	19487.53	111	620561.59	21103.4	1115.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1100.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.92	Wt. n-Val.		0.035	
E.G. Elev (ft)	1102.67	Reach Len. (ft)	23.50	23.50	23.50
Crit W.S. (ft)	1094.26	Flow Area (sq ft)		15203.46	
E.G. Slope (ft/ft)	0.001838	Area (sq ft)		15203.46	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1001.88	Top Width (ft)		1001.88	
Vel Total (ft/s)	11.12	Avg. Vel. (ft/s)		11.12	
Max Chl Dpth (ft)	17.55	Hydr. Depth (ft)		15.17	
Conv. Total (cfs)	3942051.0	Conv. (cfs)		3942051.0	
Length Wtd. (ft)	23.50	Wetted Per. (ft)		1007.31	
Min Ch El (ft)	1083.20	Shear (lb/sq ft)		1.73	
Alpha	1.00	Stream Power (lb/ft s)		19.25	
Frctn Loss (ft)	0.05	Cum Volume (acre-ft)	95.53	4746.59	54.37
C & E Loss (ft)	0.03	Cum SA (acres)	57.97	259.79	55.78

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1100.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.92	Wt. n-Val.		0.035	
E.G. Elev (ft)	1102.67	Reach Len. (ft)	23.50	23.50	23.50
Crit W.S. (ft)	1094.26	Flow Area (sq ft)		15203.95	
E.G. Slope (ft/ft)	0.001838	Area (sq ft)		15203.95	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1001.88	Top Width (ft)		1001.88	
Vel Total (ft/s)	11.12	Avg. Vel. (ft/s)		11.12	
Max Chl Dpth (ft)	17.55	Hydr. Depth (ft)		15.18	
Conv. Total (cfs)	3942263.3	Conv. (cfs)		3942263.3	
Length Wtd. (ft)	23.50	Wetted Per. (ft)		1007.31	
Min Ch El (ft)	1083.20	Shear (lb/sq ft)		1.73	
Alpha	1.00	Stream Power (lb/ft s)		19.25	
Frctn Loss (ft)	0.05	Cum Volume (acre-ft)		4747.78	
C & E Loss (ft)	0.03	Cum SA (acres)		259.79	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19487.53 LB	19559.13	148.21	63.90	40.65	0.09	1.58	2.32
19559.13	19630.74	2763.30	468.48	73.51	1.64	6.54	5.90
19630.74	19702.34	14010.89	1230.56	72.00	8.29	17.19	11.39
19702.34	19773.95	13237.34	1186.79	71.61	7.83	16.57	11.15
19773.95	19845.55	14103.22	1232.79	71.61	8.35	17.22	11.44
19845.55	19917.15	14564.48	1256.77	71.61	8.62	17.55	11.59
19917.15	19988.76	14564.08	1256.73	71.60	8.62	17.55	11.59
19988.76	20060.36	14564.08	1256.73	71.60	8.62	17.55	11.59
20060.36	20131.96	14564.08	1256.73	71.60	8.62	17.55	11.59
20131.96	20203.57	14564.48	1256.77	71.61	8.62	17.55	11.59
20203.57	20275.17	14564.08	1256.73	71.60	8.62	17.55	11.59
20275.17	20346.78	14564.08	1256.73	71.60	8.62	17.55	11.59
20346.78	20418.38	14564.08	1256.73	71.60	8.62	17.55	11.59
20418.38	20489.99	7955.31	884.83	73.78	4.71	12.36	8.99
20489.99	20561.59 RB	268.30	82.18	31.32	0.16	2.68	3.26

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19487.53 LB	19559.13	148.29	63.92	40.65	0.09	1.58	2.32
19559.13	19630.74	2763.51	468.52	73.51	1.64	6.54	5.90
19630.74	19702.34	14010.86	1230.60	72.00	8.29	17.19	11.39
19702.34	19773.95	13237.33	1186.83	71.61	7.83	16.57	11.15
19773.95	19845.55	14103.18	1232.82	71.61	8.35	17.22	11.44
19845.55	19917.15	14564.43	1256.80	71.61	8.62	17.55	11.59
19917.15	19988.76	14564.03	1256.77	71.60	8.62	17.55	11.59
19988.76	20060.36	14564.03	1256.77	71.60	8.62	17.55	11.59
20060.36	20131.96	14564.03	1256.77	71.60	8.62	17.55	11.59
20131.96	20203.57	14564.43	1256.80	71.61	8.62	17.55	11.59
20203.57	20275.17	14564.03	1256.77	71.60	8.62	17.55	11.59
20275.17	20346.78	14564.03	1256.77	71.60	8.62	17.55	11.59
20346.78	20418.38	14564.03	1256.77	71.60	8.62	17.55	11.59
20418.38	20489.99	7955.44	884.86	73.78	4.71	12.36	8.99
20489.99	20561.59 RB	268.36	82.20	31.32	0.16	2.68	3.26

```
BRIDGE                    RIVER: Salt River
REACH: Reach 4              RS: 216.505

INPUT
Description: I-10 Bridge
Distance from Upstream XS =     23.5
Deck/Roadway Width        =      210
Weir Coefficient          =      2.6
Bridge Deck/Roadway Skew  =
Upstream  Deck/Roadway Coordinates
    num=       12
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
   18100    1120    112019233.73    1124    112419487.43 1123.08 1123.08
19487.53 1123.08    1116 19618.9 1123.42 1116.3419753.06 1123.48  1116.4
19887.31 1123.53 1116.4520027.54 1123.49 1116.41 20161.8 1123.26 1116.19
20296.05 1123.02 1115.9320430.31 1122.69  1115.620561.59 1122.45 1115.37

Upstream Bridge Cross Section Data
Station Elevation Data    num=      34
     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev
   18100    112019233.73    112419487.43 1123.0819487.53    111619521.34  1099.5
19587.97  1098.1 19618.9 1087.7519624.77 1087.7519641.67  1083.219664.55  1083.2
19753.06 1084.4519759.02  1084.519822.18  1083.219887.31  1083.219893.28  1083.2
19956.43  1083.220021.57  1083.220027.54  1083.220090.69  1083.220155.83  1083.2
 20161.8  1083.220224.95  1083.220290.09  1083.220296.05  1083.220359.21  1083.2
20424.34  1083.220430.31  1083.220441.25  1083.2   20486  1097.320515.84  1098.2
20545.67    111420561.59  1115.320561.69  1122.4 21103.4    1120

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   18100     .0419487.53    .03520561.59     .04

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19487.5320561.59             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1810019487.53    111620561.59 21103.4  1115.3

Downstream  Deck/Roadway Coordinates
    num=       12
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
   18100    1120    112019233.73    1124    112419487.43 1123.08 1123.08
19487.53 1123.08    1116 19618.9 1123.42 1116.3419753.06 1123.48  1116.4
19887.31 1123.53 1116.4520027.54 1123.49 1116.41 20161.8 1123.26 1116.19
20296.05 1123.02 1115.9320430.31 1122.69  1115.620561.59 1122.45 1115.37

Downstream Bridge Cross Section Data
Station Elevation Data    num=      34
     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev     Sta     Elev
   18100    112019233.73    112419487.43 1123.0819487.53    111619521.34  1099.5
19587.97  1098.1 19618.9 1087.7519624.77 1087.7519641.67  1083.219664.55  1083.2
19753.06 1084.4519759.02  1084.519822.18  1083.219887.31  1083.219893.28  1083.2
19956.43  1083.220021.57  1083.220027.54  1083.220090.69  1083.220155.83  1083.2
 20161.8  1083.220224.95  1083.220290.09  1083.220296.05  1083.220359.21  1083.2
20424.34  1083.220430.31  1083.220441.25  1083.2   20486  1097.320515.84  1098.2
20545.67    111420561.59  1115.320561.69  1122.4 21103.4    1120

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   18100     .0419487.53    .03520561.59     .04

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19487.5320561.59             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1810019487.53    111620561.59 21103.4  1115.3

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested
```

```
Number of Piers =  7

Pier Data
Pier Station     Upstream=   19620    Downstream=   19620
Upstream     num=       2
    Width   Elev    Width   Elev
        6   1080        6   1119
Downstream     num=       2
    Width   Elev    Width   Elev
        6   1080        6   1119

Pier Data
Pier Station     Upstream=   19755    Downstream=   19755
Upstream     num=       2
    Width   Elev    Width   Elev
        6   1080        6   1119
Downstream     num=       2
    Width   Elev    Width   Elev
        6   1080        6   1119

Pier Data
Pier Station     Upstream=   19890    Downstream=   19890
Upstream     num=       2
    Width   Elev    Width   Elev
        6   1080        6   1119
Downstream     num=       2
    Width   Elev    Width   Elev
        6   1080        6   1119

Pier Data
Pier Station     Upstream=   20025    Downstream=   20025
Upstream     num=       2
    Width   Elev    Width   Elev
        6   1080        6   1119
Downstream     num=       2
    Width   Elev    Width   Elev
        6   1080        6   1119

Pier Data
Pier Station     Upstream=   20160    Downstream=   20160
Upstream     num=       2
    Width   Elev    Width   Elev
        6   1080        6   1119
Downstream     num=       2
    Width   Elev    Width   Elev
        6   1080        6   1119

Pier Data
Pier Station     Upstream=   20295    Downstream=   20295
Upstream     num=       2
    Width   Elev    Width   Elev
        6   1080        6   1119
Downstream     num=       2
    Width   Elev    Width   Elev
        6   1080        6   1119

Pier Data
Pier Station     Upstream=   20430    Downstream=   20430
Upstream     num=       2
    Width   Elev    Width   Elev
        6   1080        6   1119
Downstream     num=       2
    Width   Elev    Width   Elev
        6   1080        6   1119

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
      Energy
      Momentum                Cd   =     1.2
      Yarnell                 KVal =    1.05
Selected Low Flow Methods = Energy

High Flow Method
      Energy Only
```

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth inside the bridge at the downstream end
Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT Profile #PF#1
Opening : Bridge #1

E.G. US. (ft)	1102.67	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1100.75	E.G. Elev (ft)	1102.59	1101.86
Q Total (cfs)	169000.00	W.S. Elev (ft)	1100.36	1099.27
Q Bridge (cfs)	169000.00	Crit W.S. (ft)	1094.62	1094.60
Q Weir (cfs)		Max Chl Dpth (ft)	17.16	16.07
Weir Sta Lft (ft)		Vel Total (ft/s)	11.96	12.91
Weir Sta Rgt (ft)		Flow Area (sq ft)	14130.54	13089.35
Weir Submerg		Froude # Chl	0.55	0.61
Weir Max Depth (ft)		Specif Force (cu ft)	179368.13	169526.16
Min Top Rd (ft)	1115.30	Hydr Depth (ft)	14.74	13.87
Min El Prs (ft)	1116.45	W.P. Total (ft)	1191.53	1161.22
Delta EG (ft)	0.96	Conv. Total (cfs)	3119758.0	2793714.8
Delta WS (ft)	1.35	Top Width (ft)	958.36	943.77
BR Open Area (sq ft)	29744.80	Frctn Loss (ft)	0.69	0.07
BR Open Vel (ft/s)	12.91	C & E Loss (ft)	0.04	0.08
Coef of Q		Shear Total (lb/sq ft)	2.17	2.58
Br Sel Mthd	Energy only	Power Total (lb/ft s)	25.98	33.25

BRIDGE OUTPUT Profile #PF#2
Opening : Bridge #1

E.G. US. (ft)	1102.67	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1100.75	E.G. Elev (ft)	1102.59	1101.86
Q Total (cfs)	169000.00	W.S. Elev (ft)	1100.36	1099.27
Q Bridge (cfs)	169000.00	Crit W.S. (ft)	1094.62	1094.60
Q Weir (cfs)		Max Chl Dpth (ft)	17.16	16.07
Weir Sta Lft (ft)		Vel Total (ft/s)	11.96	12.91
Weir Sta Rgt (ft)		Flow Area (sq ft)	14131.01	13089.93
Weir Submerg		Froude # Chl	0.55	0.61
Weir Max Depth (ft)		Specif Force (cu ft)	179372.95	169531.17
Min Top Rd (ft)	1115.30	Hydr Depth (ft)	14.75	13.87
Min El Prs (ft)	1116.45	W.P. Total (ft)	1191.54	1161.26
Delta EG (ft)	0.96	Conv. Total (cfs)	3119917.8	2793855.0
Delta WS (ft)	1.35	Top Width (ft)	958.36	943.80
BR Open Area (sq ft)	29744.80	Frctn Loss (ft)	0.69	0.07
BR Open Vel (ft/s)	12.91	C & E Loss (ft)	0.04	0.08
Coef of Q		Shear Total (lb/sq ft)	2.17	2.57
Br Sel Mthd	Energy only	Power Total (lb/ft s)	25.98	33.24

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 216.49

INPUT
Description: Downstream face of I-10 bridge

Station Elevation Data num= 34

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18100	112	019233.73	112	419487.43	1123.08	19487.53	111	619521.34	1099.5
19587.97	1098.1	19618.9	1087.75	19624.77	1087.75	19641.67	1083.2	19664.55	1083.2
19753.06	1084.45	19759.02	1084.5	19822.18	1083.2	19887.31	1083.2	19893.28	1083.2
19956.43	1083.2	20021.57	1083.2	20027.54	1083.2	20090.69	1083.2	20155.83	1083.2
20161.8	1083.2	20224.95	1083.2	20290.09	1083.2	20296.05	1083.2	20359.21	1083.2
20424.34	1083.2	20430.31	1083.2	20441.25	1083.2	20486	1097.3	20515.84	1098.2
20545.67	111	420561.59	1115.3	20561.69	1122.4	21103.4	1120		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18100	.04	19487.53	.03	20561.59	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19487.53	20561.59	323.25	323.25	323.25	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18100	19487.53	111620	561.59	21103.4	1115.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1099.40	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.31	Wt. n-Val.		0.035	
E.G. Elev (ft)	1101.71	Reach Len. (ft)	323.25	323.25	323.25
Crit W.S. (ft)	1094.27	Flow Area (sq ft)		13853.43	
E.G. Slope (ft/ft)	0.002471	Area (sq ft)		13853.43	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	992.00	Top Width (ft)		992.00	
Vel Total (ft/s)	12.20	Avg. Vel. (ft/s)		12.20	
Max Chl Dpth (ft)	16.20	Hydr. Depth (ft)		13.97	
Conv. Total (cfs)	3399764.0	Conv. (cfs)		3399764.0	
Length Wtd. (ft)	323.25	Wetted Per. (ft)		996.81	
Min Ch El (ft)	1083.20	Shear (lb/sq ft)		2.14	
Alpha	1.00	Stream Power (lb/ft s)		26.15	
Frctn Loss (ft)	0.71	Cum Volume (acre-ft)	95.53	4665.95	54.37
C & E Loss (ft)	0.07	Cum SA (acres)	57.97	254.17	55.78

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1099.40	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.31	Wt. n-Val.		0.035	
E.G. Elev (ft)	1101.71	Reach Len. (ft)	323.25	323.25	323.25
Crit W.S. (ft)	1094.27	Flow Area (sq ft)		13854.03	
E.G. Slope (ft/ft)	0.002471	Area (sq ft)		13854.03	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	992.01	Top Width (ft)		992.01	
Vel Total (ft/s)	12.20	Avg. Vel. (ft/s)		12.20	
Max Chl Dpth (ft)	16.20	Hydr. Depth (ft)		13.97	
Conv. Total (cfs)	3399995.3	Conv. (cfs)		3399995.3	
Length Wtd. (ft)	323.25	Wetted Per. (ft)		996.81	
Min Ch El (ft)	1083.20	Shear (lb/sq ft)		2.14	
Alpha	1.00	Stream Power (lb/ft s)		26.15	
Frctn Loss (ft)	0.71	Cum Volume (acre-ft)		4667.14	
C & E Loss (ft)	0.07	Cum SA (acres)		254.17	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19487.53 LB	19559.13	11.20	11.46	33.04	0.01	0.35	0.98
19559.13	19630.74	2167.63	371.72	73.51	1.28	5.19	5.83
19630.74	19702.34	14099.59	1133.80	72.00	8.34	15.83	12.44
19702.34	19773.95	13251.34	1090.03	71.61	7.84	15.22	12.16
19773.95	19845.55	14196.16	1136.03	71.61	8.40	15.87	12.50
19845.55	19917.15	14700.12	1160.01	71.61	8.70	16.20	12.67
19917.15	19988.76	14699.72	1159.97	71.60	8.70	16.20	12.67
19988.76	20060.36	14699.72	1159.97	71.60	8.70	16.20	12.67
20060.36	20131.96	14699.72	1159.97	71.60	8.70	16.20	12.67
20131.96	20203.57	14700.12	1160.01	71.61	8.70	16.20	12.67
20203.57	20275.17	14699.72	1159.97	71.60	8.70	16.20	12.67
20275.17	20346.78	14699.72	1159.97	71.60	8.70	16.20	12.67
20346.78	20418.38	14699.72	1159.97	71.60	8.70	16.20	12.67
20418.38	20489.99	7565.68	788.07	73.78	4.48	11.01	9.60
20489.99	20561.59 RB	109.81	42.46	28.43	0.06	1.51	2.59

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19487.53 LB	19559.13	11.23	11.48	33.04	0.01	0.35	0.98
19559.13	19630.74	2167.91	371.77	73.51	1.28	5.19	5.83
19630.74	19702.34	14099.56	1133.85	72.00	8.34	15.84	12.44
19702.34	19773.95	13251.34	1090.07	71.61	7.84	15.22	12.16
19773.95	19845.55	14196.12	1136.07	71.61	8.40	15.87	12.50
19845.55	19917.15	14700.06	1160.05	71.61	8.70	16.20	12.67
19917.15	19988.76	14699.66	1160.02	71.60	8.70	16.20	12.67
19988.76	20060.36	14699.66	1160.02	71.60	8.70	16.20	12.67
20060.36	20131.96	14699.66	1160.02	71.60	8.70	16.20	12.67

20131.96	20203.57	14700.06	1160.05	71.61	8.70	16.20	12.67
20203.57	20275.17	14699.66	1160.02	71.60	8.70	16.20	12.67
20275.17	20346.78	14699.66	1160.02	71.60	8.70	16.20	12.67
20346.78	20418.38	14699.66	1160.02	71.60	8.70	16.20	12.67
20418.38	20489.99	7565.87	788.11	73.78	4.48	11.01	9.60
20489.99	20561.59 RB	109.87	42.48	28.43	0.07	1.51	2.59

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 216.42

INPUT
Description:
Station Elevation Data num= 72

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
15777.7	1112.1	15814.7	1111.7	15831.8	1110.6	15875.7	1110.6	15885.9	1111.3
15893.7	1110.9	16065.1	1110.8	16181.6	1110.4	16240.1	1110.4	16387.1	1109.3
16549.8	1108.9	16759.7	1109.7	16884.3	1111.2	16896.3	1107.6	16901.6	1105.5
16913.6	1111	16927.7	1110.7	16938.6	1109.3	17091.4	1109.6	17141.3	1105.7
17272	1104.7	17353.3	1106.1	17450	1106.2	17489	1105.9	17502.3	1107.2
17504.8	1107.2	17515.4	1105.7	17645.7	1105.4	17957.8	1104.6	18072.2	1104.6
18179.4	1104.8	18216.5	1105	18243.2	1104.5	18287	1102.9	18295	1103.8
18318	1105.2	18344.5	1103.3	18351.5	1102	18404.5	1102.5	18478.9	1099.8
18570.3	1099.5	18605.7	1098.9	18636.3	1099	18687.6	1107.9	18696.7	1107.4
18726.1	1101.6	18730.1	1100.6	18787.2	1100.9	18803.2	1100.4	18861.6	1100.1
18886.8	1100.3	18910.6	1099.7	18933	1098.7	18949.5	1098.8	18971.8	1098.2
19069.8	1100	19105.6	1101.7	19140.3	1102.6	19190.3	1106.6	19238.1	1106.5
19263.1	1102.7	19282	1099.5	19320.5	1099.6	19503	1099	19535.3	1098.8
19593	1082.7	20065.5	1082.3	20416.4	1082	20517.4	1107.9	20540.4	1108.4
21279.3	1108.4	21332.3	1117.3						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
15777.7	.04	19535.3	.035	20517.4	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19535.3	20517.4	510	488.7	410	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
15777.7	19238.1	1106.6	20517.4	21332.3	1107.9

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1098.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.08	Wt. n-Val.	0.040	0.035	
E.G. Elev (ft)	1100.93	Reach Len. (ft)	510.00	488.70	410.00
Crit W.S. (ft)	1093.10	Flow Area (sq ft)	0.26	14613.04	
E.G. Slope (ft/ft)	0.001943	Area (sq ft)	22.02	14613.04	
Q Total (cfs)	169000.00	Flow (cfs)	0.04	168999.95	
Top Width (ft)	1034.14	Top Width (ft)	87.30	946.84	
Vel Total (ft/s)	11.56	Avg. Vel. (ft/s)	0.15	11.57	
Max Chl Dpth (ft)	16.86	Hydr. Depth (ft)	0.03	15.43	
Conv. Total (cfs)	3834042.0	Conv. (cfs)	0.9	3834041.0	
Length Wtd. (ft)	488.70	Wetted Per. (ft)	9.21	951.17	
Min Ch El (ft)	1082.00	Shear (lb/sq ft)	0.00	1.86	
Alpha	1.00	Stream Power (lb/ft s)	0.00	21.55	
Frctn Loss (ft)	0.81	Cum Volume (acre-ft)	95.45	4560.33	54.37
C & E Loss (ft)	0.13	Cum SA (acres)	57.64	246.97	55.78

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1098.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.08	Wt. n-Val.		0.035	
E.G. Elev (ft)	1100.93	Reach Len. (ft)	510.00	488.70	410.00
Crit W.S. (ft)	1093.10	Flow Area (sq ft)		14614.20	
E.G. Slope (ft/ft)	0.001943	Area (sq ft)		14614.20	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	946.84	Top Width (ft)		946.84	
Vel Total (ft/s)	11.56	Avg. Vel. (ft/s)		11.56	
Max Chl Dpth (ft)	16.86	Hydr. Depth (ft)		15.43	
Conv. Total (cfs)	3834380.0	Conv. (cfs)		3834380.0	
Length Wtd. (ft)	488.70	Wetted Per. (ft)		951.23	
Min Ch El (ft)	1082.00	Shear (lb/sq ft)		1.86	

Alpha	1.00	Stream Power (lb/ft s)	21.55
Frctn Loss (ft)	0.81	Cum Volume (acre-ft)	4561.51
C & E Loss (ft)	0.13	Cum SA (acres)	246.97

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19284.79	19535.30	0.04	0.26	9.21	0.00	0.03	0.15
19535.30 LB	19600.77	4619.45	593.39	67.68	2.73	9.06	7.78
19600.77	19666.25	12422.07	1060.13	65.47	7.35	16.19	11.72
19666.25	19731.72	12492.64	1063.72	65.47	7.39	16.25	11.74
19731.72	19797.19	12563.75	1067.35	65.47	7.43	16.30	11.77
19797.19	19862.67	12635.39	1071.01	65.47	7.48	16.36	11.80
19862.67	19928.14	12706.44	1074.61	65.47	7.52	16.41	11.82
19928.14	19993.61	12778.03	1078.24	65.47	7.56	16.47	11.85
19993.61	20059.09	12850.16	1081.90	65.47	7.60	16.52	11.88
20059.09	20124.56	12921.93	1085.51	65.47	7.65	16.58	11.90
20124.56	20190.03	12994.71	1089.17	65.47	7.69	16.64	11.93
20190.03	20255.51	13068.04	1092.87	65.47	7.73	16.69	11.96
20255.51	20320.98	13140.85	1096.50	65.47	7.78	16.75	11.98
20320.98	20386.45	13214.12	1100.17	65.47	7.82	16.80	12.01
20386.45	20451.93	10075.16	941.49	66.62	5.96	14.38	10.70
20451.93	20517.40 RB	517.23	117.01	31.19	0.31	3.87	4.42

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19535.30 LB	19600.77	4617.32	593.47	67.74	2.73	9.06	7.78
19600.77	19666.25	12422.24	1060.21	65.47	7.35	16.19	11.72
19666.25	19731.72	12492.80	1063.80	65.47	7.39	16.25	11.74
19731.72	19797.19	12563.91	1067.43	65.47	7.43	16.30	11.77
19797.19	19862.67	12635.54	1071.09	65.47	7.48	16.36	11.80
19862.67	19928.14	12706.59	1074.69	65.47	7.52	16.41	11.82
19928.14	19993.61	12778.17	1078.32	65.47	7.56	16.47	11.85
19993.61	20059.09	12850.30	1081.98	65.47	7.60	16.53	11.88
20059.09	20124.56	12922.07	1085.59	65.47	7.65	16.58	11.90
20124.56	20190.03	12994.84	1089.25	65.47	7.69	16.64	11.93
20190.03	20255.51	13068.17	1092.95	65.47	7.73	16.69	11.96
20255.51	20320.98	13140.97	1096.58	65.47	7.78	16.75	11.98
20320.98	20386.45	13214.24	1100.25	65.47	7.82	16.80	12.01
20386.45	20451.93	10075.45	941.57	66.62	5.96	14.38	10.70
20451.93	20517.40 RB	517.40	117.04	31.19	0.31	3.87	4.42

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 216.33

INPUT
Description:
Station Elevation Data num= 74

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16758.3	1108.5	16790.3	1107.7	16915.7	1107.5	16918.4	1107.9	16967.4	1107.4
17088.3	1107.2	17177.1	1106.2	17230.7	1104.1	17307.8	1103.2	17334.2	1104.9
17463	1103.9	17551.9	1102.8	17622.5	1102.7	17630	1102.1	17648.2	1103
17795.3	1103.3	17860	1103.2	17891.3	1102.2	17916.7	1102.4	17965.2	1101.9
18006.5	1101	18033.6	1102.9	18180.2	1102.5	18367.3	1102	18378.1	1101.3
18378.9	1101.5	18394.8	1101.2	18436.8	1101.5	18455.1	1100.2	18456.6	1099.1
18460.2	1098.5	18515.1	1096.6	18522	1099.8	18679.4	1098.3	18698.7	1105.3
18708.3	1106	18720.5	1103.8	18776.6	1098.7	18854.4	1098	18903.5	1095.3
18944.6	1095.5	19011.4	1101.4	19047.5	1101.5	19084.2	1098.3	19216.8	1097.9
19269.7	1097.9	19277.9	1097.7	19340.8	1106.5	19365.5	1107.1	19449.3	1085.8
19464.7	1082.2	19617.8	1081.5	19658.8	1081.1	20011.3	1080.8	20067.2	1081
20260.4	1081.5	20350	1081.5	20372.7	1082.2	20453.9	1106.7	20475	1107.5
21204.4	1107.5	21217.8	1103.3	21250.9	1104.2	21299.5	1103.3	21362.4	1102.8
21472.6	1102.9	21493.1	1102.9	21553.9	1103.7	21577.9	1103.5	21604.5	1102.4
21612.7	1101.6	21638.7	1101.3	21661.9	1095.5	21751.1	1112.9		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
16758.3	.04	19365.5	.035	20453.9	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19365.5	20453.9	600	490.24	380	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16758.3	19365.5	1107.1	20453.9	21751.1	1106.7

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1098.35	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.63	Wt. n-Val.		0.035	
E.G. Elev (ft)	1099.99	Reach Len. (ft)	600.00	490.24	380.00
Crit W.S. (ft)	1091.37	Flow Area (sq ft)		16489.69	
E.G. Slope (ft/ft)	0.001446	Area (sq ft)	370.01	16489.69	37.18
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1473.62	Top Width (ft)	421.23	1026.33	26.05
Vel Total (ft/s)	10.25	Avg. Vel. (ft/s)		10.25	
Max Chl Dpth (ft)	17.55	Hydr. Depth (ft)		16.07	
Conv. Total (cfs)	4444829.0	Conv. (cfs)		4444829.0	
Length Wtd. (ft)	490.24	Wetted Per. (ft)		1030.72	
Min Ch El (ft)	1080.80	Shear (lb/sq ft)		1.44	
Alpha	1.00	Stream Power (lb/ft s)		14.80	
Frctn Loss (ft)	0.60	Cum Volume (acre-ft)	93.15	4385.86	54.20
C & E Loss (ft)	0.10	Cum SA (acres)	54.67	235.90	55.66

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1098.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.63	Wt. n-Val.		0.035	
E.G. Elev (ft)	1099.99	Reach Len. (ft)	600.00	490.24	380.00
Crit W.S. (ft)	1091.37	Flow Area (sq ft)		16490.95	
E.G. Slope (ft/ft)	0.001445	Area (sq ft)		16490.95	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1026.33	Top Width (ft)		1026.33	
Vel Total (ft/s)	10.25	Avg. Vel. (ft/s)		10.25	
Max Chl Dpth (ft)	17.56	Hydr. Depth (ft)		16.07	
Conv. Total (cfs)	4445389.5	Conv. (cfs)		4445389.5	
Length Wtd. (ft)	490.24	Wetted Per. (ft)		1030.72	
Min Ch El (ft)	1080.80	Shear (lb/sq ft)		1.44	
Alpha	1.00	Stream Power (lb/ft s)		14.79	
Frctn Loss (ft)	0.60	Cum Volume (acre-ft)		4387.03	
C & E Loss (ft)	0.10	Cum SA (acres)		235.90	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19365.50 LB	19438.06	818.06	184.99	39.37	0.48	4.85	4.42
19438.06	19510.62	10429.77	1092.72	73.33	6.17	15.06	9.54
19510.62	19583.18	12268.21	1199.44	72.56	7.26	16.53	10.23
19583.18	19655.74	12745.63	1227.24	72.56	7.54	16.91	10.39
19655.74	19728.30	13212.30	1254.00	72.56	7.82	17.28	10.54
19728.30	19800.86	13291.44	1258.48	72.56	7.86	17.34	10.56
19800.86	19873.42	13370.79	1263.00	72.56	7.91	17.41	10.59
19873.42	19945.98	13449.96	1267.48	72.56	7.96	17.47	10.61
19945.98	20018.54	13527.21	1271.84	72.56	8.00	17.53	10.64
20018.54	20091.10	13365.79	1262.70	72.56	7.91	17.40	10.59
20091.10	20163.66	13106.13	1247.94	72.56	7.76	17.20	10.50
20163.66	20236.22	12868.55	1234.32	72.56	7.61	17.01	10.43
20236.22	20308.78	12684.94	1223.72	72.56	7.51	16.86	10.37
20308.78	20381.34	12194.12	1197.67	72.95	7.22	16.51	10.18
20381.34	20453.90 RB	1667.11	304.14	46.90	0.99	6.77	5.48

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19365.50 LB	19438.06	818.31	185.04	39.37	0.48	4.85	4.42
19438.06	19510.62	10429.89	1092.81	73.33	6.17	15.06	9.54

19510.62	19583.18	12268.20	1199.53	72.56	7.26	16.53	10.23
19583.18	19655.74	12745.59	1227.33	72.56	7.54	16.91	10.38
19655.74	19728.30	13212.23	1254.08	72.56	7.82	17.28	10.54
19728.30	19800.86	13291.36	1258.57	72.56	7.86	17.35	10.56
19800.86	19873.42	13370.70	1263.09	72.56	7.91	17.41	10.59
19873.42	19945.98	13449.87	1267.57	72.56	7.96	17.47	10.61
19945.98	20018.54	13527.12	1271.93	72.56	8.00	17.53	10.64
20018.54	20091.10	13365.71	1262.79	72.56	7.91	17.40	10.58
20091.10	20163.66	13106.07	1248.03	72.56	7.76	17.20	10.50
20163.66	20236.22	12868.50	1234.41	72.56	7.61	17.01	10.42
20236.22	20308.78	12684.91	1223.81	72.56	7.51	16.87	10.37
20308.78	20381.34	12194.13	1197.76	72.95	7.22	16.51	10.18
20381.34	20453.90 RB	1667.38	304.20	46.90	0.99	6.77	5.48

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 216.23

INPUT
Description:
Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16307.2	1106.8	16347.4	1106.3	16584.4	1106.6	16655.9	1106.7	16722.9	1105
16805.1	1104.8	16843.8	1105.4	16940.7	1105.1	17025.5	1103.7	17072.4	1104.3
17106.6	1103.9	17271.4	1105.1	17286.3	1105.2	17300.1	1103	17309.7	1103.1
17479.7	1103.3	17486.2	1103.3	17748.9	1103.1	17792.4	1103	17807.8	1101.8
17964.2	1101.2	18041.5	1100.9	18063.2	1101.5	18221.3	1101.1	18316.7	1097.6
18393.9	1100.2	18494.3	1099.7	18526.6	1100.5	18534.7	1099.9	18548.2	1097
18576.9	1100.1	18638.8	1099.4	18676.7	1096.6	18856.1	1094.3	18888.6	1092.6
18923.6	1105.7	18937.2	1105.4	18965.6	1093.9	18973.7	1091.2	18983.9	1091.1
19024.1	1096.2	19175.7	1097.7	19329.5	1097.3	19356.4	1093	19372.4	1091.7
19394.5	1090.9	19443.1	1084.8	19458.8	1083.8	19477	1083.8	19514.7	1080.5
19554.9	1078.5	19707.6	1078.8	19807	1078.7	19970	1078.7	20101	1079.1
20257.8	1079.2	20360.8	1079.3	20429.8	1103.9	20444.5	1103.8	21274.9	1103.8
21292.4	1106.1	21298.1	1106.3	21304.5	1103.8	21313.9	1101.7	21457.4	1101.4
21690	1101.2	21797.9	1101.7	21816.8	1103.7	21840.4	1102.2	21943.8	1102.1
21957.3	1102.8	21973.7	1101.5	22038.8	1101	22065.3	1102.4	22088.6	1101
22106	1098	22140.9	1104.1	22146.7	1104.5	22197.5	1114		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
16307.2	.04	19329.5	.035	20429.8	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19329.5	20429.8	590	517.61	450	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16307.2	19329.5	1105	20429.8	22197.5	1105

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1097.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.30	Wt. n-Val.		0.035	
E.G. Elev (ft)	1099.28	Reach Len. (ft)	590.00	517.61	450.00
Crit W.S. (ft)	1089.39	Flow Area (sq ft)		18502.08	
E.G. Slope (ft/ft)	0.001058	Area (sq ft)	1205.93	18502.08	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1738.50	Top Width (ft)	654.78	1083.71	
Vel Total (ft/s)	9.13	Avg. Vel. (ft/s)		9.13	
Max Chl Dpth (ft)	19.49	Hydr. Depth (ft)		17.07	
Conv. Total (cfs)	5194599.5	Conv. (cfs)		5194599.5	
Length Wtd. (ft)	517.61	Wetted Per. (ft)		1087.96	
Min Ch El (ft)	1078.50	Shear (lb/sq ft)		1.12	
Alpha	1.00	Stream Power (lb/ft s)		10.26	
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)	82.30	4188.95	54.04
C & E Loss (ft)	0.03	Cum SA (acres)	47.26	224.03	55.54

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1097.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.30	Wt. n-Val.		0.035	
E.G. Elev (ft)	1099.28	Reach Len. (ft)	590.00	517.61	450.00
Crit W.S. (ft)	1089.39	Flow Area (sq ft)		18503.28	

E.G. Slope (ft/ft)	0.001059	Area (sq ft)	18503.28
Q Total (cfs)	169000.00	Flow (cfs)	169000.00
Top Width (ft)	1083.71	Top Width (ft)	1083.71
Vel Total (ft/s)	9.13	Avg. Vel. (ft/s)	9.13
Max Chl Dpth (ft)	19.49	Hydr. Depth (ft)	17.07
Conv. Total (cfs)	5192976.0	Conv. (cfs)	5192976.0
Length Wtd. (ft)	517.61	Wetted Per. (ft)	1088.65
Min Ch El (ft)	1078.50	Shear (lb/sq ft)	1.12
Alpha	1.00	Stream Power (lb/ft s)	10.26
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)	4190.11
C & E Loss (ft)	0.03	Cum SA (acres)	224.03

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19329.50 LB	19402.85	1495.68	377.83	73.83	0.89	5.15	3.96
19402.85	19476.21	6254.70	890.87	73.70	3.70	12.14	7.02
19476.21	19549.56	10987.36	1248.10	73.54	6.50	17.01	8.80
19549.56	19622.91	13712.34	1424.14	73.36	8.11	19.41	9.63
19622.91	19696.27	13555.64	1414.31	73.35	8.02	19.28	9.58
19696.27	19769.62	13478.22	1409.45	73.35	7.98	19.21	9.56
19769.62	19842.97	13551.23	1414.03	73.35	8.02	19.28	9.58
19842.97	19916.33	13562.10	1414.69	73.35	8.02	19.29	9.59
19916.33	19989.68	13553.00	1414.14	73.35	8.02	19.28	9.58
19989.68	20063.03	13361.36	1402.11	73.35	7.91	19.11	9.53
20063.03	20136.39	13125.25	1387.19	73.35	7.77	18.91	9.46
20136.39	20209.74	13043.80	1382.02	73.35	7.72	18.84	9.44
20209.74	20283.09	12988.21	1378.48	73.35	7.69	18.79	9.42
20283.09	20356.45	12912.29	1373.64	73.35	7.64	18.73	9.40
20356.45	20429.80 RB	3418.82	571.07	60.00	2.02	10.06	5.99

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19329.50 LB	19402.85	1486.93	377.91	74.52	0.88	5.15	3.93
19402.85	19476.21	6255.33	890.95	73.70	3.70	12.15	7.02
19476.21	19549.56	10988.01	1248.18	73.54	6.50	17.02	8.80
19549.56	19622.91	13712.96	1424.23	73.36	8.11	19.42	9.63
19622.91	19696.27	13556.27	1414.39	73.35	8.02	19.28	9.58
19696.27	19769.62	13478.85	1409.53	73.35	7.98	19.22	9.56
19769.62	19842.97	13551.86	1414.11	73.35	8.02	19.28	9.58
19842.97	19916.33	13562.72	1414.78	73.35	8.03	19.29	9.59
19916.33	19989.68	13553.63	1414.22	73.35	8.02	19.28	9.58
19989.68	20063.03	13361.99	1402.19	73.35	7.91	19.12	9.53
20063.03	20136.39	13125.88	1387.27	73.35	7.77	18.91	9.46
20136.39	20209.74	13044.43	1382.10	73.35	7.72	18.84	9.44
20209.74	20283.09	12988.85	1378.56	73.35	7.69	18.79	9.42
20283.09	20356.45	12912.92	1373.72	73.35	7.64	18.73	9.40
20356.45	20429.80 RB	3419.37	571.13	60.00	2.02	10.06	5.99

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 216.13

INPUT
Description:
Station Elevation Data num= 67

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16426.6	1105.9	16587.5	1104.7	16635.7	1102.6	16819.4	1103.3	16993.1	1102.9
17098.1	1102.8	17115.4	1100.5	17132.4	1100.6	17142	1102.8	17188.2	1102.3
17212.9	1103.3	17259.7	1102.7	17444	1103	17594.1	1102.7	17626.7	1102.3
17648.9	1100.8	17726.6	1100.8	17763	1102.2	17831.1	1102.1	17922.1	1103.5
17930.8	1101.9	17948.1	1103.8	17970.1	1100.9	18007	1100.9	18014.4	1095.7
18705.2	1095.7	18812.9	1096.6	18825.4	1095.8	18974.2	1096.9	19012	1096.6
19022.3	1098.1	19071.7	1097.7	19097.3	1098.8	19117.4	1098.8	19143.8	1101.1
19154.2	1103.6	19166	1103.6	19179.4	1099.6	19318.1	1099.4	19345.1	1091.3
19390.3	1087	19444.1	1082.8	19458.1	1083	19534.5	1080	19580.9	1082.3
19595.2	1078.2	19849.2	1078.4	19937.8	1078.2	20155.1	1078	20385	1078.6
20445.7	1100.3	21392	1100.3	21412.6	1104.5	21436	1098.6	21594.6	1099.3
21748.3	1100.3	21786.3	1099.8	21807.4	1098.6	21868.2	1100	21940	1100.5

22096.1 1101.4 22142.8 1101.3 22335.7 1100 22363.4 1098.9 22490.9 1100.4
22516.1 1096.7 22597.4 1115.1

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
16426.6	.04	19318.1	.035	20445.7	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19318.1	20445.7	550	500.46	390	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16426.6	19318.1	1099.4	20445.7	22597.4	1100.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1097.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.19	Wt. n-Val.		0.035	
E.G. Elev (ft)	1098.73	Reach Len. (ft)	550.00	500.46	390.00
Crit W.S. (ft)	1088.70	Flow Area (sq ft)		19303.70	
E.G. Slope (ft/ft)	0.000954	Area (sq ft)	1650.34	19303.70	3.97
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	2129.80	Top Width (ft)	1006.68	1113.68	9.44
Vel Total (ft/s)	8.75	Avg. Vel. (ft/s)		8.75	
Max Chl Dpth (ft)	19.54	Hydr. Depth (ft)		17.33	
Conv. Total (cfs)	5471702.5	Conv. (cfs)		5471702.5	
Length Wtd. (ft)	500.46	Wetted Per. (ft)		1118.94	
Min Ch El (ft)	1078.00	Shear (lb/sq ft)		1.03	
Alpha	1.00	Stream Power (lb/ft s)		8.99	
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)	62.96	3964.33	54.02
C & E Loss (ft)	0.01	Cum SA (acres)	36.00	210.97	55.49

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1097.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.19	Wt. n-Val.		0.035	
E.G. Elev (ft)	1098.73	Reach Len. (ft)	550.00	500.46	390.00
Crit W.S. (ft)	1088.70	Flow Area (sq ft)		19304.79	
E.G. Slope (ft/ft)	0.000954	Area (sq ft)		19304.79	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1113.68	Top Width (ft)		1113.68	
Vel Total (ft/s)	8.75	Avg. Vel. (ft/s)		8.75	
Max Chl Dpth (ft)	19.54	Hydr. Depth (ft)		17.33	
Conv. Total (cfs)	5472215.0	Conv. (cfs)		5472215.0	
Length Wtd. (ft)	500.46	Wetted Per. (ft)		1118.94	
Min Ch El (ft)	1078.00	Shear (lb/sq ft)		1.03	
Alpha	1.00	Stream Power (lb/ft s)		8.99	
Frctn Loss (ft)	0.50	Cum Volume (acre-ft)		3965.48	
C & E Loss (ft)	0.01	Cum SA (acres)		210.97	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19318.10 LB	19393.27	2179.96	475.84	70.10	1.29	6.90	4.58
19393.27	19468.45	7234.45	1005.86	75.34	4.28	13.38	7.19
19468.45	19543.62	10136.94	1230.85	75.24	6.00	16.37	8.24
19543.62	19618.79	11133.46	1305.96	75.80	6.59	17.37	8.53
19618.79	19693.97	13331.72	1450.28	75.17	7.89	19.29	9.19
19693.97	19769.14	13263.26	1445.79	75.17	7.85	19.23	9.17
19769.14	19844.31	13195.63	1441.37	75.17	7.81	19.17	9.15
19844.31	19919.49	13242.45	1444.44	75.17	7.84	19.21	9.17
19919.49	19994.66	13404.26	1455.01	75.17	7.93	19.36	9.21
19994.66	20069.83	13487.30	1460.39	75.17	7.98	19.43	9.24
20069.83	20145.01	13567.76	1465.63	75.17	8.03	19.50	9.26
20145.01	20220.18	13532.68	1463.35	75.17	8.01	19.47	9.25
20220.18	20295.35	13308.92	1448.79	75.17	7.88	19.27	9.19
20295.35	20370.53	13083.50	1434.00	75.17	7.74	19.08	9.12
20370.53	20445.70 RB	4897.72	776.16	70.74	2.90	11.51	6.31

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19318.10 LB	19393.27	2180.29	475.90	70.10	1.29	6.90	4.58
19393.27	19468.45	7234.67	1005.93	75.34	4.28	13.38	7.19
19468.45	19543.62	10137.03	1230.93	75.24	6.00	16.37	8.24
19543.62	19618.79	11133.49	1306.03	75.80	6.59	17.37	8.52
19618.79	19693.97	13331.63	1450.35	75.17	7.89	19.29	9.19
19693.97	19769.14	13263.17	1445.86	75.17	7.85	19.23	9.17
19769.14	19844.31	13195.55	1441.45	75.17	7.81	19.17	9.15
19844.31	19919.49	13242.36	1444.52	75.17	7.84	19.22	9.17
19919.49	19994.66	13404.17	1455.08	75.17	7.93	19.36	9.21
19994.66	20069.83	13487.20	1460.47	75.17	7.98	19.43	9.23
20069.83	20145.01	13567.66	1465.70	75.17	8.03	19.50	9.26
20145.01	20220.18	13532.58	1463.43	75.17	8.01	19.47	9.25
20220.18	20295.35	13308.84	1448.86	75.17	7.88	19.27	9.19
20295.35	20370.53	13083.43	1434.07	75.17	7.74	19.08	9.12
20370.53	20445.70 RB	4897.93	776.23	70.74	2.90	11.51	6.31

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 216.04

INPUT
Description:
Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17056.9	1104.8	17064.5	1104.7	17069.2	1099.8	17072	1101.9	17078.9	1105
17149.1	1103.4	17162.9	1101.9	17281	1100	17549.7	1099.4	17599.6	1100.8
17818.3	1099.8	17961.6	1101.8	18091.7	1101.7	18098	1099.8	18798.9	1099.8
18807.5	1094.8	18960.8	1094.8	19054.4	1094.7	19081.9	1095.5	19098	1093.5
19151.6	1094.3	19175.6	1095	19188.4	1098.5	19201	1100	19214.9	1098.4
19219.3	1099.1	19227.7	1103.2	19386.1	1101.6	19417.8	1089	19500.7	1080.6
19516.7	1080.2	19531.5	1078.4	19608.3	1077.5	19724.9	1081.7	19739.1	1080.4
19758.6	1081.1	19770	1077.8	19800	1077.8	20231.5	1078.4	20418.1	1078.3
20424.4	1078.2	20473.4	1099.4	20478	1099	21487.5	1099	21501.9	1098.9
21528.7	1104.2	21544.2	1099.7	21573.3	1099.2	21582.6	1100.4	21586.2	1102.2
21768	1099.8	21775.2	1099	21961	1098.7	21988.6	1099.7	22183.1	1099.4
22224.8	1100.5	22465.8	1100	22481.3	1098.4	22530.7	1098.7	22555.3	1100.8
22840.9	1100.4	22866.7	1097.9	22941.8	1117.1				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17056.9	.04	19386.1	.035	20473.4	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19386.1	20473.4	540	507.78	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17056.9	19386.1	1101.6	20473.4	22941.8	1099.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1096.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.29	Wt. n-Val.		0.035	
E.G. Elev (ft)	1098.22	Reach Len. (ft)	540.00	507.78	500.00
Crit W.S. (ft)	1088.52	Flow Area (sq ft)		18515.97	
E.G. Slope (ft/ft)	0.001041	Area (sq ft)	847.18	18515.97	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1448.65	Top Width (ft)	378.81	1069.83	
Vel Total (ft/s)	9.13	Avg. Vel. (ft/s)		9.13	
Max Chl Dpth (ft)	19.43	Hydr. Depth (ft)		17.31	
Conv. Total (cfs)	5238312.5	Conv. (cfs)		5238312.5	
Length Wtd. (ft)	507.78	Wetted Per. (ft)		1076.39	
Min Ch El (ft)	1077.50	Shear (lb/sq ft)		1.12	
Alpha	1.00	Stream Power (lb/ft s)		10.20	
Frctn Loss (ft)	0.94	Cum Volume (acre-ft)	47.19	3747.08	54.00
C & E Loss (ft)	0.21	Cum SA (acres)	27.26	198.43	55.45

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less

than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1096.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.29	Wt. n-Val.		0.035	
E.G. Elev (ft)	1098.22	Reach Len. (ft)	540.00	507.78	500.00
Crit W.S. (ft)	1088.52	Flow Area (sq ft)		18517.14	
E.G. Slope (ft/ft)	0.001041	Area (sq ft)		18517.14	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1069.84	Top Width (ft)		1069.84	
Vel Total (ft/s)	9.13	Avg. Vel. (ft/s)		9.13	
Max Chl Dpth (ft)	19.43	Hydr. Depth (ft)		17.31	
Conv. Total (cfs)	5238850.5	Conv. (cfs)		5238850.5	
Length Wtd. (ft)	507.78	Wetted Per. (ft)		1076.39	
Min Ch El (ft)	1077.50	Shear (lb/sq ft)		1.12	
Alpha	1.00	Stream Power (lb/ft s)		10.20	
Frctn Loss (ft)	0.94	Cum Volume (acre-ft)		3748.21	
C & E Loss (ft)	0.21	Cum SA (acres)		198.43	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19386.10 LB	19458.59	2574.76	486.70	62.46	1.52	8.01	5.29
19458.59	19531.07	9257.56	1115.23	72.81	5.48	15.39	8.30
19531.07	19603.56	13137.95	1373.49	72.50	7.77	18.95	9.57
19603.56	19676.05	12377.76	1325.49	72.53	7.32	18.29	9.34
19676.05	19748.53	10001.87	1166.72	72.58	5.92	16.10	8.57
19748.53	19821.02	12492.61	1336.01	72.96	7.39	18.43	9.35
19821.02	19893.51	13255.25	1380.76	72.49	7.84	19.05	9.60
19893.51	19965.99	13138.87	1373.49	72.49	7.77	18.95	9.57
19965.99	20038.48	13022.27	1366.15	72.49	7.71	18.85	9.53
20038.48	20110.97	12906.43	1358.84	72.49	7.64	18.75	9.50
20110.97	20183.45	12790.94	1351.54	72.49	7.57	18.65	9.46
20183.45	20255.94	12684.95	1344.80	72.49	7.51	18.55	9.43
20255.94	20328.43	12694.58	1345.43	72.49	7.51	18.56	9.44
20328.43	20400.91	12738.58	1348.21	72.49	7.54	18.60	9.45
20400.91	20473.40 RB	5925.60	843.09	70.65	3.51	12.63	7.03

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19386.10 LB	19458.59	2575.02	486.77	62.46	1.52	8.01	5.29
19458.59	19531.07	9257.71	1115.31	72.81	5.48	15.39	8.30
19531.07	19603.56	13137.87	1373.57	72.50	7.77	18.95	9.56
19603.56	19676.05	12377.74	1325.57	72.53	7.32	18.29	9.34
19676.05	19748.53	10001.99	1166.80	72.58	5.92	16.10	8.57
19748.53	19821.02	12492.57	1336.09	72.96	7.39	18.43	9.35
19821.02	19893.51	13255.17	1380.84	72.49	7.84	19.05	9.60
19893.51	19965.99	13138.80	1373.57	72.49	7.77	18.95	9.57
19965.99	20038.48	13022.20	1366.23	72.49	7.71	18.85	9.53
20038.48	20110.97	12906.37	1358.92	72.49	7.64	18.75	9.50

20110.97	20183.45	12790.89	1351.62	72.49	7.57	18.65	9.46
20183.45	20255.94	12684.90	1344.88	72.49	7.51	18.55	9.43
20255.94	20328.43	12694.53	1345.51	72.49	7.51	18.56	9.43
20328.43	20400.91	12738.53	1348.29	72.49	7.54	18.60	9.45
20400.91	20473.40 RB	5925.73	843.16	70.65	3.51	12.63	7.03

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 215.94

INPUT
Description:
Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17234.9	1103.6	17416.5	1099.3	17481.8	1099.6	17669.1	1098.4	17750	1099.1
17946.3	1099.3	18106.7	1099.8	18125.7	1102.5	18151.3	1094.6	18167.9	1094.6
18209	1090.7	18234.4	1099.1	18274.9	1092.7	18296.5	1092.5	18324.6	1096.4
18363.1	1100	18415	1106.7	18417.8	1107.8	18426.6	1103.4	19038.8	1103.4
19077.4	1103.5	19085.3	1101.4	19097.5	1104.1	19147.9	1103.4	19268.7	1104.6
19306.1	1104.5	19526.4	1107.5	19620.3	1079.3	19632.6	1079.5	19650.2	1077.8
19673.9	1077.8	20074	1078.4	20226	1078.4	20242.2	1082.6	20312.6	1082.8
20361.4	1085.9	20380.6	1089.1	20408	1090.1	20426	1093.3	20477.9	1093.4
20496.8	1098.5	20512.7	1098	20521.3	1094.3	20544.4	1094.2	20552.5	1096.4
21573.5	1096.4	21577.1	1100.2	21638.8	1099.7	21664.8	1103.7	21680.7	1100.4
21856.5	1099.3	22065	1098.8	22070.7	1098.8	22073.1	1097.8	22355.6	1099.5
22366.6	1099.8	22599.5	1099.2	22620.8	1098.1	22669.8	1098	22679.1	1099.5
22906.4	1098.8	23101.2	1100.9	23111.4	1099.5	23139.6	1106.3	23179.1	1117.8

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17234.9	.04	19526.4	.035	20496.8	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19526.4	20496.8	560	540.02	520	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17234.9	19526.4	1107.5	20496.8	23179.1	1098.5

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1093.70	Element			
Vel Head (ft)	3.38	Wt. n-Val.		0.035	
E.G. Elev (ft)	1097.08	Reach Len. (ft)	560.00	540.02	520.00
Crit W.S. (ft)	1090.81	Flow Area (sq ft)		11461.59	
E.G. Slope (ft/ft)	0.004117	Area (sq ft)	93.26	11461.59	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	983.97	Top Width (ft)	77.30	906.67	
Vel Total (ft/s)	14.74	Avg. Vel. (ft/s)		14.74	
Max Chl Dpth (ft)	15.90	Hydr. Depth (ft)		12.64	
Conv. Total (cfs)	2633937.0	Conv. (cfs)		2633937.0	
Length Wtd. (ft)	540.02	Wetted Per. (ft)		910.11	
Min Ch El (ft)	1077.80	Shear (lb/sq ft)		3.24	
Alpha	1.00	Stream Power (lb/ft s)		47.73	
Frctn Loss (ft)	2.09	Cum Volume (acre-ft)	41.36	3572.36	54.00
C & E Loss (ft)	0.04	Cum SA (acres)	24.43	186.91	55.45

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1093.70	Element			
Vel Head (ft)	3.37	Wt. n-Val.		0.035	
E.G. Elev (ft)	1097.08	Reach Len. (ft)	560.00	540.02	520.00
Crit W.S. (ft)	1090.81	Flow Area (sq ft)		11464.57	
E.G. Slope (ft/ft)	0.004113	Area (sq ft)		11464.57	

Q Total (cfs)	169000.00	Flow (cfs)	169000.00
Top Width (ft)	906.67	Top Width (ft)	906.67
Vel Total (ft/s)	14.74	Avg. Vel. (ft/s)	14.74
Max Chl Dpth (ft)	15.90	Hydr. Depth (ft)	12.64
Conv. Total (cfs)	2635069.5	Conv. (cfs)	2635069.5
Length Wtd. (ft)	540.02	Wetted Per. (ft)	910.12
Min Ch El (ft)	1077.80	Shear (lb/sq ft)	3.23
Alpha	1.00	Stream Power (lb/ft s)	47.68
Frctn Loss (ft)	2.09	Cum Volume (acre-ft)	3573.46
C & E Loss (ft)	0.04	Cum SA (acres)	186.91

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19526.40 LB	19591.09	256.56	52.78	19.58	0.15	2.82	4.86
19591.09	19655.79	11080.38	822.18	66.07	6.56	12.71	13.48
19655.79	19720.48	16281.84	1027.09	64.69	9.63	15.88	15.85
19720.48	19785.17	16122.83	1021.06	64.69	9.54	15.78	15.79
19785.17	19849.87	15957.94	1014.79	64.69	9.44	15.69	15.73
19849.87	19914.56	15793.84	1008.51	64.69	9.35	15.59	15.66
19914.56	19979.25	15630.42	1002.24	64.69	9.25	15.49	15.60
19979.25	20043.95	15467.57	995.96	64.69	9.15	15.40	15.53
20043.95	20108.64	15328.67	990.58	64.69	9.07	15.31	15.47
20108.64	20173.33	15311.22	989.91	64.69	9.06	15.30	15.47
20173.33	20238.03	14770.40	971.15	65.09	8.74	15.01	15.21
20238.03	20302.72	8895.37	715.25	64.83	5.26	11.06	12.44
20302.72	20367.41	6784.16	608.10	64.87	4.01	9.40	11.16
20367.41	20432.11	1299.23	225.99	65.18	0.77	3.49	5.75
20432.11	20496.80 RB	19.58	16.00	46.95	0.01	0.34	1.22

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19526.40 LB	19591.09	256.94	52.84	19.58	0.15	2.82	4.86
19591.09	19655.79	11080.85	822.39	66.07	6.56	12.71	13.47
19655.79	19720.48	16281.13	1027.31	64.69	9.63	15.88	15.85
19720.48	19785.17	16122.16	1021.28	64.69	9.54	15.79	15.79
19785.17	19849.87	15957.31	1015.00	64.69	9.44	15.69	15.72
19849.87	19914.56	15793.25	1008.73	64.69	9.35	15.59	15.66
19914.56	19979.25	15629.87	1002.45	64.69	9.25	15.50	15.59
19979.25	20043.95	15467.06	996.17	64.69	9.15	15.40	15.53
20043.95	20108.64	15328.19	990.80	64.69	9.07	15.32	15.47
20108.64	20173.33	15310.75	990.12	64.69	9.06	15.30	15.46
20173.33	20238.03	14770.05	971.37	65.09	8.74	15.01	15.21
20238.03	20302.72	8896.32	715.46	64.83	5.26	11.06	12.43
20302.72	20367.41	6785.48	608.31	64.87	4.02	9.40	11.15
20367.41	20432.11	1300.77	226.20	65.18	0.77	3.50	5.75
20432.11	20496.80 RB	19.89	16.15	46.96	0.01	0.34	1.23

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 215.84

INPUT
Description:
Station Elevation Data num= 55

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17657.2	1101.6	17764.4	1101.1	17778.7	1099.6	17915.7	1096.1	18947	1096.1
18949.6	1098.8	18966	1095.8	19012.5	1096.3	19065.4	1099.6	19087.3	1099.8
19091.9	1097.4	19117.9	1099	19128.4	1100.8	19135.6	1097.9	19142.8	1097.9
19299.1	1098.5	19370.8	1098.4	19556.3	1100.9	19597.1	1077	19685.5	1077.2
19875.2	1077.5	19951	1077.7	19963.2	1080.6	19989.6	1080.1	19999.6	1077.7

20186.5	1077.9	20315.6	1078.3	20324.3	1075.8	20340	1076	20351.9	1079.6
20416.4	1079	20443.6	1092.1	20461.6	1098.2	20612.7	1096.8	20680.5	1097.4
21713	1097.4	21721.9	1098	21747.8	1102.3	21761.3	1098.5	21898.1	1098.1
22152.1	1097.3	22203.5	1096.9	22219.4	1097.9	22403	1099.1	22420.2	1097.7
22434.6	1098.7	22545.4	1098.4	22704	1099.2	22777.7	1097.8	22788.5	1100.1
22799.7	1097.6	22986.5	1097.8	23064	1099.6	23323.1	1098.4	23377.2	1117.2

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17657.2	.04	19556.3	.035	20461.6	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19556.3	20461.6	120	123.82	130	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17657.2	19556.3	1100.9	20461.6	23377.2	1098.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1091.71	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.23	Wt. n-Val.		0.035	
E.G. Elev (ft)	1094.94	Reach Len. (ft)	120.00	123.82	130.00
Crit W.S. (ft)	1088.70	Flow Area (sq ft)		11719.46	
E.G. Slope (ft/ft)	0.003651	Area (sq ft)		11719.46	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	870.81	Top Width (ft)		870.81	
Vel Total (ft/s)	14.42	Avg. Vel. (ft/s)		14.42	
Max Chl Dpth (ft)	15.91	Hydr. Depth (ft)		13.46	
Conv. Total (cfs)	2797094.8	Conv. (cfs)		2797094.8	
Length Wtd. (ft)	123.82	Wetted Per. (ft)		879.22	
Min Ch El (ft)	1075.80	Shear (lb/sq ft)		3.04	
Alpha	1.00	Stream Power (lb/ft s)		43.81	
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	40.76	3428.67	54.00
C & E Loss (ft)	0.21	Cum SA (acres)	23.93	175.89	55.45

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1091.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.23	Wt. n-Val.		0.035	
E.G. Elev (ft)	1094.94	Reach Len. (ft)	120.00	123.82	130.00
Crit W.S. (ft)	1088.70	Flow Area (sq ft)		11725.41	
E.G. Slope (ft/ft)	0.003644	Area (sq ft)		11725.41	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	870.81	Top Width (ft)		870.81	
Vel Total (ft/s)	14.41	Avg. Vel. (ft/s)		14.41	
Max Chl Dpth (ft)	15.92	Hydr. Depth (ft)		13.46	
Conv. Total (cfs)	2799436.0	Conv. (cfs)		2799436.0	
Length Wtd. (ft)	123.82	Wetted Per. (ft)		879.24	
Min Ch El (ft)	1075.80	Shear (lb/sq ft)		3.03	
Alpha	1.00	Stream Power (lb/ft s)		43.73	
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)		3429.72	
C & E Loss (ft)	0.21	Cum SA (acres)		175.89	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19556.30 LB	19616.65	5459.56	472.02	48.66	3.23	10.57	11.57
19616.65	19677.01	13385.68	881.16	60.35	7.92	14.60	15.19
19677.01	19737.36	13200.76	873.83	60.35	7.81	14.48	15.11
19737.36	19797.71	13054.99	868.02	60.35	7.72	14.38	15.04
19797.71	19858.07	12911.32	862.28	60.35	7.64	14.29	14.97
19858.07	19918.42	12743.34	855.54	60.35	7.54	14.18	14.90
19918.42	19978.77	11035.28	786.54	60.70	6.53	13.03	14.03
19978.77	20039.13	11495.73	805.77	60.64	6.80	13.35	14.27
20039.13	20099.48	12389.33	841.20	60.35	7.33	13.94	14.73
20099.48	20159.83	12293.81	837.30	60.35	7.27	13.87	14.68
20159.83	20220.19	12170.47	832.25	60.35	7.20	13.79	14.62

20220.19	20280.54	11913.65	821.66	60.35	7.05	13.61	14.50
20280.54	20340.89	12845.34	861.87	60.75	7.60	14.28	14.90
20340.89	20401.25	10419.79	760.68	60.85	6.17	12.60	13.70
20401.25	20461.60 RB	3680.93	359.35	44.45	2.18	8.65	10.24

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19556.30 LB	19616.65	5460.19	472.32	48.67	3.23	10.57	11.56
19616.65	19677.01	13384.97	881.57	60.35	7.92	14.61	15.18
19677.01	19737.36	13200.14	874.24	60.35	7.81	14.49	15.10
19737.36	19797.71	13054.45	868.43	60.35	7.72	14.39	15.03
19797.71	19858.07	12910.85	862.70	60.35	7.64	14.29	14.97
19858.07	19918.42	12742.96	855.95	60.35	7.54	14.18	14.89
19918.42	19978.77	11035.72	786.96	60.70	6.53	13.04	14.02
19978.77	20039.13	11495.96	806.18	60.64	6.80	13.36	14.26
20039.13	20099.48	12389.13	841.61	60.35	7.33	13.94	14.72
20099.48	20159.83	12293.66	837.71	60.35	7.27	13.88	14.68
20159.83	20220.19	12170.38	832.66	60.35	7.20	13.80	14.62
20220.19	20280.54	11913.69	822.07	60.35	7.05	13.62	14.49
20280.54	20340.89	12844.87	862.29	60.75	7.60	14.29	14.90
20340.89	20401.25	10420.52	761.09	60.85	6.17	12.61	13.69
20401.25	20461.60 RB	3682.53	359.63	44.45	2.18	8.66	10.24

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 *RS: 215.82*

INPUT
Description: Upstream Face of 24th St. Bridge
Station Elevation Data num= 15

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18260	1096	18620	1094.7	19170	1096	19549.9	1097.71	19550	1094.5
19550.1	1088.1	19553.1	1088.1	19587.4	1076	20384.4	1076	20407.9	1085.7
20410.9	1085.7	20410.9	1094.7	20411	1097.8	21080	1097.4	21490	1100

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18260	.04	19550	.035	20410.9	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19550	20410.9	115.96	115.96	115.96	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18260	19550	1094.5	20410.9	21490	1085.7

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1091.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.53	Wt. n-Val.		0.035	
E.G. Elev (ft)	1094.37	Reach Len. (ft)	25.98	25.98	25.98
Crit W.S. (ft)	1087.02	Flow Area (sq ft)		13249.11	
E.G. Slope (ft/ft)	0.002409	Area (sq ft)		13249.11	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	860.86	Top Width (ft)		860.86	
Vel Total (ft/s)	12.76	Avg. Vel. (ft/s)		12.76	
Max Chl Dpth (ft)	15.84	Hydr. Depth (ft)		15.39	
Conv. Total (cfs)	3443548.5	Conv. (cfs)		3443548.5	
Length Wtd. (ft)	25.98	Wetted Per. (ft)		874.68	
Min Ch El (ft)	1076.00	Shear (lb/sq ft)		2.28	
Alpha	1.00	Stream Power (lb/ft s)		29.05	
Frctn Loss (ft)	0.08	Cum Volume (acre-ft)	40.76	3393.18	54.00
C & E Loss (ft)	0.04	Cum SA (acres)	23.93	173.43	55.45

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1091.85	Element	Left OB	Channel	Right OB

Vel Head (ft)	2.52	Wt. n-Val.		0.035	
E.G. Elev (ft)	1094.37	Reach Len. (ft)	25.98	25.98	25.98
Crit W.S. (ft)	1087.02	Flow Area (sq ft)		13254.68	
E.G. Slope (ft/ft)	0.002405	Area (sq ft)		13254.68	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	860.86	Top Width (ft)		860.86	
Vel Total (ft/s)	12.75	Avg. Vel. (ft/s)		12.75	
Max Chl Dpth (ft)	15.85	Hydr. Depth (ft)		15.40	
Conv. Total (cfs)	3445927.0	Conv. (cfs)		3445927.0	
Length Wtd. (ft)	25.98	Wetted Per. (ft)		874.69	
Min Ch El (ft)	1076.00	Shear (lb/sq ft)		2.28	
Alpha	1.00	Stream Power (lb/ft s)		29.01	
Frctn Loss (ft)	0.08	Cum Volume (acre-ft)		3394.22	
C & E Loss (ft)	0.04	Cum SA (acres)		173.43	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19550.00 LB	19607.39	6594.21	663.86	63.11	3.90	11.58	9.93
19607.39	19664.79	11864.50	909.18	57.39	7.02	15.84	13.05
19664.79	19722.18	11864.09	909.15	57.39	7.02	15.84	13.05
19722.18	19779.57	11864.50	909.18	57.39	7.02	15.84	13.05
19779.57	19836.97	11864.09	909.15	57.39	7.02	15.84	13.05
19836.97	19894.36	11864.09	909.15	57.39	7.02	15.84	13.05
19894.36	19951.75	11864.50	909.18	57.39	7.02	15.84	13.05
19951.75	20009.15	11864.09	909.15	57.39	7.02	15.84	13.05
20009.15	20066.54	11864.50	909.18	57.39	7.02	15.84	13.05
20066.54	20123.93	11864.09	909.15	57.39	7.02	15.84	13.05
20123.93	20181.33	11864.09	909.15	57.39	7.02	15.84	13.05
20181.33	20238.72	11864.50	909.18	57.39	7.02	15.84	13.05
20238.72	20296.11	11864.09	909.15	57.39	7.02	15.84	13.05
20296.11	20353.51	11864.50	909.18	57.39	7.02	15.84	13.05
20353.51	20410.90 RB	8170.14	766.08	65.46	4.83	13.35	10.66

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19550.00 LB	19607.39	6595.34	664.24	63.11	3.90	11.58	9.93
19607.39	19664.79	11864.38	909.55	57.39	7.02	15.85	13.04
19664.79	19722.18	11863.98	909.52	57.39	7.02	15.85	13.04
19722.18	19779.57	11864.38	909.55	57.39	7.02	15.85	13.04
19779.57	19836.97	11863.98	909.52	57.39	7.02	15.85	13.04
19836.97	19894.36	11863.98	909.52	57.39	7.02	15.85	13.04
19894.36	19951.75	11864.38	909.55	57.39	7.02	15.85	13.04
19951.75	20009.15	11863.98	909.52	57.39	7.02	15.85	13.04
20009.15	20066.54	11864.38	909.55	57.39	7.02	15.85	13.04
20066.54	20123.93	11863.98	909.52	57.39	7.02	15.85	13.04
20123.93	20181.33	11863.98	909.52	57.39	7.02	15.85	13.04
20181.33	20238.72	11864.38	909.55	57.39	7.02	15.85	13.04
20238.72	20296.11	11863.98	909.52	57.39	7.02	15.85	13.04
20296.11	20353.51	11864.38	909.55	57.39	7.02	15.85	13.04
20353.51	20410.90 RB	8170.56	766.45	65.46	4.83	13.35	10.66

BRIDGE RIVER: Salt River
REACH: Reach 4 RS: 215.815

INPUT
Description: 24th Street
Distance from Upstream XS = 25.98
Deck/Roadway Width = 64
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 13

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19550	1097.71	1094.54	19618.9	1098.05	1094.87	19690.9	1098.45	1095.27
19762.9	1098.66	1095.48	19837.9	1098.67	1095.5	19906.9	1098.93	1095.76
19978.9	1098.93	1095.76	20053.9	1098.94	1095.77	20125.9	1098.83	1095.66
20197.9	1098.69	1095.51	20269.9	1098.47	1095.3	20341.9	1098.19	1095.01
20410.9	1097.85	1094.68						

Upstream Bridge Cross Section Data
Station Elevation Data num= 15

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18260	1096	18620	1094.7	19170	1096	19549.9	1097.71	19550	1094.5
19550.1	1088.1	19553.1	1088.1	19587.4	1076	20384.4	1076	20407.9	1085.7
20410.9	1085.7	20410.9	1094.7	20411	1097.8	21080	1097.4	21490	1100

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18260	.04	19550	.035	20410.9	.04

Bank Sta: Left	Right	Coeff Contr.	Expan.
19550	20410.9	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18260	19550	1094.5	20410.9	21490	1085.7

Downstream Deck/Roadway Coordinates
num= 13

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19550	1097.71	1094.54	19618.9	1098.05	1094.87	19690.9	1098.45	1095.27
19762.9	1098.66	1095.48	19837.9	1098.67	1095.5	19906.9	1098.93	1095.76
19978.9	1098.93	1095.76	20053.9	1098.94	1095.77	20125.9	1098.83	1095.66
20197.9	1098.69	1095.51	20269.9	1098.47	1095.3	20341.9	1098.19	1095.01
20410.9	1097.85	1094.68						

Downstream Bridge Cross Section Data
Station Elevation Data num= 15

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18260	1096	18620	1094.7	19170	1096	19549.9	1097.71	19550	1094.5
19550.1	1088.1	19553.1	1088.1	19587.4	1076	20384.4	1076	20407.9	1085.7
20410.9	1085.7	20410.9	1094.7	20411	1097.8	21080	1097.4	21490	1100

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18260	.04	19550	.035	20410.9	.04

Bank Sta: Left	Right	Coeff Contr.	Expan.
19550	20410.9	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18260	19550	1094.5	20410.9	21490	1085.7

Upstream Embankment side slope = horiz. to 1.0 vertical
Downstream Embankment side slope = horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins =
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Piers = 11

Pier Data
Pier Station Upstream= 19620.4 Downstream= 19620.4
Upstream num= 2

Width	Elev	Width	Elev
3	1076	3	1094.8

Downstream num= 2

Width	Elev	Width	Elev
3	1076	3	1094.8

Pier Data
Pier Station Upstream= 19692.4 Downstream= 19692.4
Upstream num= 2

Width	Elev	Width	Elev
3	1076	3	1095.27

Downstream num= 2

Width	Elev	Width	Elev
3	1076	3	1095.27

Pier Data
Pier Station Upstream= 19764.4 Downstream= 19764.4
Upstream num= 2

Width	Elev	Width	Elev
3	1076	3	1095.48

```
Downstream      num=        2
    Width   Elev    Width   Elev
        3    1076        3 1095.48

Pier Data
Pier Station     Upstream= 19836.4    Downstream= 19836.4
Upstream      num=        2
    Width   Elev    Width   Elev
        3    1076        3  1095.5
Downstream      num=        2
    Width   Elev    Width   Elev
        3    1076        3  1095.5

Pier Data
Pier Station     Upstream= 19908.4    Downstream= 19908.4
Upstream      num=        2
    Width   Elev    Width   Elev
        3    1076        3  1095.7
Downstream      num=        2
    Width   Elev    Width   Elev
        3    1076        3  1095.7

Pier Data
Pier Station     Upstream= 19980.4    Downstream= 19980.4
Upstream      num=        2
    Width   Elev    Width   Elev
        3    1076        3  1095.7
Downstream      num=        2
    Width   Elev    Width   Elev
        3    1076        3  1095.7

Pier Data
Pier Station     Upstream= 20052.4    Downstream= 20052.4
Upstream      num=        2
    Width   Elev    Width   Elev
        3    1076        3  1095.7
Downstream      num=        2
    Width   Elev    Width   Elev
        3    1076        3  1095.7

Pier Data
Pier Station     Upstream= 20124.4    Downstream= 20124.4
Upstream      num=        2
    Width   Elev    Width   Elev
        3    1076        3  1095.6
Downstream      num=        2
    Width   Elev    Width   Elev
        3    1076        3  1095.6

Pier Data
Pier Station     Upstream= 20196.4    Downstream= 20196.4
Upstream      num=        2
    Width   Elev    Width   Elev
        3    1076        3  1095.5
Downstream      num=        2
    Width   Elev    Width   Elev
        3    1076        3  1095.5

Pier Data
Pier Station     Upstream= 20268.4    Downstream= 20268.4
Upstream      num=        2
    Width   Elev    Width   Elev
        3    1076        3  1095.3
Downstream      num=        2
    Width   Elev    Width   Elev
        3    1076        3  1095.3

Pier Data
Pier Station     Upstream= 20340.4    Downstream= 20340.4
Upstream      num=        2
    Width   Elev    Width   Elev
        3    1076        3    1095
Downstream      num=        2
    Width   Elev    Width   Elev
        3    1076        3    1095
```

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data
Energy
Momentum Cd = 1.2
Yarnell KVal = 1.05
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth
inside the bridge at the downstream end
Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT Profile #PF#1
Opening : Bridge #1

E.G. US. (ft)	1094.37	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1091.84	E.G. Elev (ft)	1094.24	1093.90
Q Total (cfs)	169000.00	W.S. Elev (ft)	1091.30	1090.71
Q Bridge (cfs)	169000.00	Crit W.S. (ft)	1087.33	1087.32
Q Weir (cfs)		Max Chl Dpth (ft)	15.30	14.71
Weir Sta Lft (ft)		Vel Total (ft/s)	13.77	14.33
Weir Sta Rgt (ft)		Flow Area (sq ft)	12274.94	11791.49
Weir Submerg		Froude # Chl	0.63	0.67
Weir Max Depth (ft)		Specif Force (cu ft)	164743.48	160678.91
Min Top Rd (ft)	1094.50	Hydr Depth (ft)	14.83	14.24
Min El Prs (ft)	1095.77	W.P. Total (ft)	1177.03	1163.08
Delta EG (ft)	0.65	Conv. Total (cfs)	2487522.5	2344965.3
Delta WS (ft)	1.03	Top Width (ft)	827.85	827.84
BR Open Area (sq ft)	15655.29	Frctn Loss (ft)	0.31	0.10
BR Open Vel (ft/s)	14.33	C & E Loss (ft)	0.02	0.09
Coef of Q		Shear Total (lb/sq ft)	3.01	3.29
Br Sel Mthd	Energy only	Power Total (lb/ft s)	41.37	47.12

BRIDGE OUTPUT Profile #PF#2
Opening : Bridge #1

E.G. US. (ft)	1094.37	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1091.85	E.G. Elev (ft)	1094.24	1093.90
Q Total (cfs)	169000.00	W.S. Elev (ft)	1091.30	1090.71
Q Bridge (cfs)	169000.00	Crit W.S. (ft)	1087.33	1087.32
Q Weir (cfs)		Max Chl Dpth (ft)	15.30	14.71
Weir Sta Lft (ft)		Vel Total (ft/s)	13.76	14.33
Weir Sta Rgt (ft)		Flow Area (sq ft)	12281.21	11792.30
Weir Submerg		Froude # Chl	0.63	0.67
Weir Max Depth (ft)		Specif Force (cu ft)	164799.55	160685.28
Min Top Rd (ft)	1094.50	Hydr Depth (ft)	14.84	14.24
Min El Prs (ft)	1095.77	W.P. Total (ft)	1177.27	1163.10
Delta EG (ft)	0.66	Conv. Total (cfs)	2489299.8	2345201.5
Delta WS (ft)	1.03	Top Width (ft)	827.85	827.84
BR Open Area (sq ft)	15655.29	Frctn Loss (ft)	0.31	0.10
BR Open Vel (ft/s)	14.33	C & E Loss (ft)	0.03	0.09
Coef of Q		Shear Total (lb/sq ft)	3.00	3.29
Br Sel Mthd	Energy only	Power Total (lb/ft s)	41.31	47.11

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 215.81

INPUT
Description: Downstream Face of 24th St. Bridge
Station Elevation Data num= 15

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18260	1096	18620	1094.7	19170	1096	19549.9	1097.71	19550	1094.5
19550.1	1088.1	19553.1	1088.1	19587.4	1076	20384.4	1076	20407.9	1085.7
20410.9	1085.7	20410.9	1094.7	20411	1097.8	21080	1097.4	21490	1100

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18260	.04	19550	.035	20410.9	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19550	20410.9	300	264.36	230	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18260	19550	1094.5	20410.9	21490	1085.7

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1090.81	Element			
Vel Head (ft)	2.90	Wt. n-Val.		0.035	
E.G. Elev (ft)	1093.71	Reach Len. (ft)	300.00	264.36	230.00
Crit W.S. (ft)	1087.03	Flow Area (sq ft)		12363.67	
E.G. Slope (ft/ft)	0.003024	Area (sq ft)		12363.67	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	860.84	Top Width (ft)		860.84	
Vel Total (ft/s)	13.67	Avg. Vel. (ft/s)		13.67	
Max Chl Dpth (ft)	14.81	Hydr. Depth (ft)		14.36	
Conv. Total (cfs)	3073424.0	Conv. (cfs)		3073424.0	
Length Wtd. (ft)	264.36	Wetted Per. (ft)		872.62	
Min Ch El (ft)	1076.00	Shear (lb/sq ft)		2.67	
Alpha	1.00	Stream Power (lb/ft s)		36.56	
Frctn Loss (ft)	1.04	Cum Volume (acre-ft)	40.76	3360.68	54.00
C & E Loss (ft)	0.12	Cum SA (acres)	23.93	171.21	55.45

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1090.81	Element			
Vel Head (ft)	2.90	Wt. n-Val.		0.035	
E.G. Elev (ft)	1093.71	Reach Len. (ft)	300.00	264.36	230.00
Crit W.S. (ft)	1087.03	Flow Area (sq ft)		12364.51	
E.G. Slope (ft/ft)	0.003023	Area (sq ft)		12364.51	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	860.84	Top Width (ft)		860.84	
Vel Total (ft/s)	13.67	Avg. Vel. (ft/s)		13.67	
Max Chl Dpth (ft)	14.81	Hydr. Depth (ft)		14.36	
Conv. Total (cfs)	3073767.5	Conv. (cfs)		3073767.5	
Length Wtd. (ft)	264.36	Wetted Per. (ft)		872.62	
Min Ch El (ft)	1076.00	Shear (lb/sq ft)		2.67	
Alpha	1.00	Stream Power (lb/ft s)		36.55	
Frctn Loss (ft)	1.04	Cum Volume (acre-ft)		3361.71	
C & E Loss (ft)	0.12	Cum SA (acres)		171.21	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19550.00 LB	19607.39	6396.48	604.88	62.08	3.78	10.55	10.57
19607.39	19664.79	11885.60	850.15	57.39	7.03	14.81	13.98
19664.79	19722.18	11885.20	850.12	57.39	7.03	14.81	13.98
19722.18	19779.57	11885.60	850.15	57.39	7.03	14.81	13.98
19779.57	19836.97	11885.20	850.12	57.39	7.03	14.81	13.98
19836.97	19894.36	11885.20	850.12	57.39	7.03	14.81	13.98
19894.36	19951.75	11885.60	850.15	57.39	7.03	14.81	13.98
19951.75	20009.15	11885.20	850.12	57.39	7.03	14.81	13.98
20009.15	20066.54	11885.60	850.15	57.39	7.03	14.81	13.98
20066.54	20123.93	11885.20	850.12	57.39	7.03	14.81	13.98
20123.93	20181.33	11885.20	850.12	57.39	7.03	14.81	13.98
20181.33	20238.72	11885.60	850.15	57.39	7.03	14.81	13.98
20238.72	20296.11	11885.20	850.12	57.39	7.03	14.81	13.98
20296.11	20353.51	11885.60	850.15	57.39	7.03	14.81	13.98
20353.51	20410.90 RB	8093.54	707.05	64.43	4.79	12.32	11.45

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19550.00 LB	19607.39	6396.66	604.94	62.08	3.79	10.55	10.57
19607.39	19664.79	11885.58	850.21	57.39	7.03	14.81	13.98
19664.79	19722.18	11885.17	850.18	57.39	7.03	14.81	13.98
19722.18	19779.57	11885.58	850.21	57.39	7.03	14.81	13.98
19779.57	19836.97	11885.17	850.18	57.39	7.03	14.81	13.98
19836.97	19894.36	11885.17	850.18	57.39	7.03	14.81	13.98
19894.36	19951.75	11885.58	850.21	57.39	7.03	14.81	13.98
19951.75	20009.15	11885.17	850.18	57.39	7.03	14.81	13.98
20009.15	20066.54	11885.58	850.21	57.39	7.03	14.81	13.98
20066.54	20123.93	11885.17	850.18	57.39	7.03	14.81	13.98
20123.93	20181.33	11885.17	850.18	57.39	7.03	14.81	13.98
20181.33	20238.72	11885.58	850.21	57.39	7.03	14.81	13.98
20238.72	20296.11	11885.17	850.18	57.39	7.03	14.81	13.98
20296.11	20353.51	11885.58	850.21	57.39	7.03	14.81	13.98
20353.51	20410.90 RB	8093.62	707.10	64.43	4.79	12.32	11.45

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 215.75

INPUT
Description:
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17125.3	1100.1	17248.5	1099.8	17267.3	1100.8	17468.2	1100.1	17719.4	1099.7
17947.7	1097.8	18060.6	1099.3	18081.3	1096.7	18136.4	1097.4	19508	1097.7
19508.1	1097.6	19524	1097.4	19542.9	1095.1	19551.7	1095.7	19565.8	1090.9
19639.9	1074.2	19781.5	1073.6	19800.3	1075	20035.2	1074.5	20197.2	1075.1
20278.8	1076.8	20300	1074.7	20349.4	1079.3	20362	1082.9	20390.2	1083.6
20417.4	1087.3	20492.6	1093.4	20522.5	1094.6	21418.5	1094.6	21459.6	1096.1
21491.5	1096.3	21500.1	1097.2	21614.1	1094.5	21671.6	1098.1	21725.1	1102
21736.3	1098.2	21746.9	1098.3	21761.2	1095.9	21937.7	1095.8	22101	1095.7
22107.9	1097.1	22124.7	1093.9	22195.8	1094.6	22429.3	1094.9	22460.5	1094.9
22651.2	1094.2	22731.5	1094.6	22743.8	1096.2	22841.4	1095.8	22852.4	1097.3
23039.9	1097.6	23152.1	1097.4	23353.9	1096.6	23520.2	1097.5	23562	1097.4
23577.6	1110.7								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17125.3	.04	19508.1	.035	20522.5	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19508.1	20522.5	520	500.69	470	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17125.3	19508.1	1097.6	20522.5	23577.6	1094.6

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1088.44	Element			
Vel Head (ft)	4.11	Wt. n-Val.		0.035	
E.G. Elev (ft)	1092.56	Reach Len. (ft)	520.00	500.69	470.00
Crit W.S. (ft)	1086.81	Flow Area (sq ft)		10385.16	
E.G. Slope (ft/ft)	0.005283	Area (sq ft)		10385.16	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	854.81	Top Width (ft)		854.81	
Vel Total (ft/s)	16.27	Avg. Vel. (ft/s)		16.27	
Max Chl Dpth (ft)	14.84	Hydr. Depth (ft)		12.15	
Conv. Total (cfs)	2325027.8	Conv. (cfs)		2325027.8	
Length Wtd. (ft)	500.69	Wetted Per. (ft)		857.59	
Min Ch El (ft)	1073.60	Shear (lb/sq ft)		3.99	
Alpha	1.00	Stream Power (lb/ft s)		65.00	

Frctn Loss (ft)	1.52	Cum Volume (acre-ft)	40.76	3291.65	54.00
C & E Loss (ft)	0.58	Cum SA (acres)	23.93	166.00	55.45

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1088.45	Element			
Vel Head (ft)	4.11	Wt. n-Val.		0.035	
E.G. Elev (ft)	1092.56	Reach Len. (ft)	520.00	500.69	470.00
Crit W.S. (ft)	1086.81	Flow Area (sq ft)		10389.02	
E.G. Slope (ft/ft)	0.005277	Area (sq ft)		10389.02	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	854.81	Top Width (ft)		854.81	
Vel Total (ft/s)	16.27	Avg. Vel. (ft/s)		16.27	
Max Chl Dpth (ft)	14.85	Hydr. Depth (ft)		12.15	
Conv. Total (cfs)	2326448.0	Conv. (cfs)		2326448.0	
Length Wtd. (ft)	500.69	Wetted Per. (ft)		857.60	
Min Ch El (ft)	1073.60	Shear (lb/sq ft)		3.99	
Alpha	1.00	Stream Power (lb/ft s)		64.92	
Frctn Loss (ft)	1.51	Cum Volume (acre-ft)		3292.67	
C & E Loss (ft)	0.58	Cum SA (acres)		166.00	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19575.73	19643.35	5571.62	499.35	68.24	3.30	7.49	11.16
19643.35	19710.98	17067.27	973.97	67.63	10.10	14.40	17.52
19710.98	19778.61	17636.49	993.32	67.63	10.44	14.69	17.76
19778.61	19846.23	15755.69	928.63	67.68	9.32	13.73	16.97
19846.23	19913.86	15539.14	920.67	67.63	9.19	13.61	16.88
19913.86	19981.49	15813.90	930.40	67.63	9.36	13.76	17.00
19981.49	20049.11	16074.55	939.57	67.63	9.51	13.89	17.11
20049.11	20116.74	15832.21	931.05	67.63	9.37	13.77	17.00
20116.74	20184.37	15355.03	914.11	67.63	9.09	13.52	16.80
20184.37	20251.99	14177.96	871.46	67.64	8.39	12.89	16.27
20251.99	20319.62	13323.83	840.46	67.82	7.88	12.43	15.85
20319.62	20387.25	6311.19	538.21	68.27	3.73	7.96	11.73
20387.25	20454.87	541.11	103.93	44.56	0.32	2.35	5.21

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19575.73	19643.35	5573.75	499.65	68.24	3.30	7.50	11.16
19643.35	19710.98	17066.18	974.28	67.63	10.10	14.41	17.52
19710.98	19778.61	17635.18	993.63	67.63	10.44	14.69	17.75
19778.61	19846.23	15755.08	928.94	67.68	9.32	13.74	16.96
19846.23	19913.86	15538.62	920.98	67.63	9.19	13.62	16.87
19913.86	19981.49	15813.27	930.71	67.63	9.36	13.76	16.99

19981.49	20049.11	16073.83	939.88	67.63	9.51	13.90	17.10
20049.11	20116.74	15831.58	931.36	67.63	9.37	13.77	17.00
20116.74	20184.37	15354.58	914.42	67.63	9.09	13.52	16.79
20184.37	20251.99	14177.92	871.76	67.64	8.39	12.89	16.26
20251.99	20319.62	13324.09	840.77	67.82	7.88	12.43	15.85
20319.62	20387.25	6313.46	538.52	68.27	3.74	7.96	11.72
20387.25	20454.87	542.45	104.13	44.57	0.32	2.35	5.21

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 215.65

INPUT
Description:
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17237.9	1100	17294.9	1096.4	17506.5	1098	17570	1097.1	17577.1	1095.1
17602.5	1096.9	17605.7	1096.1	17674.7	1096.1	17931.2	1097.4	17961.2	1099.7
18192.8	1099.1	18200.6	1096.9	18232.2	1096.2	18235	1095.4	19571.5	1095.4
19624.9	1079.1	19666.3	1071.3	19745.1	1071	19765.3	1069.6	19937	1074.4
19947.9	1074.8	19985.2	1069.8	20174.6	1072.1	20310.4	1071.3	20317.9	1069.1
20354.5	1069.6	20364.9	1068.3	20392.2	1069.1	20433.1	1070.7	20501.7	1094
20596.4	1094.2	20609.1	1096.1	21422	1096.1	21423.7	1096.4	21575	1098
21679	1097.1	21682	1100.7	21704.4	1100.7	21722.1	1093.9	21744.5	1094.6
21842.9	1093.7	22013.6	1093.5	22043.6	1093.5	22083.7	1091.8	22095.5	1090.2
22108.8	1092.3	22174.7	1093.2	22431	1094.3	22454	1092.8	22649.2	1092.4
22655.2	1091.7	22737.1	1093.4	22922.4	1093.5	23042.9	1093.2	23072.9	1091.9
23243.1	1091.8	23338.1	1092	23510.7	1093.7	23552.2	1093.6	23611.8	1095.2
23634.8	1117.2								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17237.9	.04	19571.5	.035	20501.7	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19571.5	20501.7	500	495.44	490	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17237.9	19571.5	1095.4	20501.7	23634.8	1094

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1088.27	Element			
Vel Head (ft)	2.19	Wt. n-Val.		0.035	
E.G. Elev (ft)	1090.46	Reach Len. (ft)	500.00	495.44	490.00
Crit W.S. (ft)	1082.38	Flow Area (sq ft)		14232.62	
E.G. Slope (ft/ft)	0.001959	Area (sq ft)		14232.62	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	890.00	Top Width (ft)		890.00	
Vel Total (ft/s)	11.87	Avg. Vel. (ft/s)		11.87	
Max Chl Dpth (ft)	19.97	Hydr. Depth (ft)		15.99	
Conv. Total (cfs)	3818479.8	Conv. (cfs)		3818479.8	
Length Wtd. (ft)	495.44	Wetted Per. (ft)		895.92	
Min Ch El (ft)	1068.30	Shear (lb/sq ft)		1.94	
Alpha	1.00	Stream Power (lb/ft s)		23.07	
Frctn Loss (ft)	0.73	Cum Volume (acre-ft)	40.76	3150.17	54.00
C & E Loss (ft)	0.19	Cum SA (acres)	23.93	155.98	55.45

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1088.28	Element			
Vel Head (ft)	2.19	Wt. n-Val.		0.035	
E.G. Elev (ft)	1090.47	Reach Len. (ft)	500.00	495.44	490.00
Crit W.S. (ft)	1082.38	Flow Area (sq ft)		14237.18	

E.G. Slope (ft/ft)	0.001957	Area (sq ft)	14237.18
Q Total (cfs)	169000.00	Flow (cfs)	169000.00
Top Width (ft)	890.00	Top Width (ft)	890.00
Vel Total (ft/s)	11.87	Avg. Vel. (ft/s)	11.87
Max Chl Dpth (ft)	19.98	Hydr. Depth (ft)	16.00
Conv. Total (cfs)	3820484.5	Conv. (cfs)	3820484.5
Length Wtd. (ft)	495.44	Wetted Per. (ft)	895.93
Min Ch El (ft)	1068.30	Shear (lb/sq ft)	1.94
Alpha	1.00	Stream Power (lb/ft s)	23.04
Frctn Loss (ft)	0.73	Cum Volume (acre-ft)	3151.14
C & E Loss (ft)	0.19	Cum SA (acres)	155.97

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19571.50 LB	19633.51	1288.86	223.89	40.19	0.76	5.79	5.76
19633.51	19695.53	10724.81	953.00	62.59	6.35	15.37	11.25
19695.53	19757.54	13123.15	1071.90	62.04	7.77	17.29	12.24
19757.54	19819.55	14009.24	1114.84	62.05	8.29	17.98	12.57
19819.55	19881.57	11890.14	1010.26	62.04	7.04	16.29	11.77
19881.57	19943.58	9853.36	902.56	62.04	5.83	14.55	10.92
19943.58	20005.59	12211.58	1028.63	62.35	7.23	16.59	11.87
20005.59	20067.61	13849.27	1106.92	62.02	8.19	17.85	12.51
20067.61	20129.62	12889.74	1060.26	62.02	7.63	17.10	12.16
20129.62	20191.63	12009.12	1016.18	62.02	7.11	16.39	11.82
20191.63	20253.65	12096.38	1020.58	62.01	7.16	16.46	11.85
20253.65	20315.66	12596.99	1047.21	62.24	7.45	16.89	12.03
20315.66	20377.67	15562.74	1188.54	62.20	9.21	19.17	13.09
20377.67	20439.69	14515.79	1141.55	62.42	8.59	18.41	12.72
20439.69	20501.70 RB	2378.84	346.30	47.69	1.41	7.67	6.87

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19571.50 LB	19633.51	1289.90	224.08	40.20	0.76	5.79	5.76
19633.51	19695.53	10725.23	953.32	62.59	6.35	15.37	11.25
19695.53	19757.54	13122.86	1072.22	62.04	7.77	17.29	12.24
19757.54	19819.55	14008.66	1115.16	62.05	8.29	17.98	12.56
19819.55	19881.57	11890.23	1010.58	62.04	7.04	16.30	11.77
19881.57	19943.58	9854.05	902.88	62.04	5.83	14.56	10.91
19943.58	20005.59	12211.56	1028.95	62.35	7.23	16.59	11.87
20005.59	20067.61	13848.75	1107.24	62.02	8.19	17.86	12.51
20067.61	20129.62	12889.52	1060.58	62.02	7.63	17.10	12.15
20129.62	20191.63	12009.18	1016.49	62.02	7.11	16.39	11.81
20191.63	20253.65	12096.41	1020.90	62.01	7.16	16.46	11.85
20253.65	20315.66	12596.86	1047.53	62.24	7.45	16.89	12.03
20315.66	20377.67	15561.64	1188.86	62.20	9.21	19.17	13.09
20377.67	20439.69	14515.04	1141.86	62.42	8.59	18.41	12.71
20439.69	20501.70 RB	2380.12	346.53	47.69	1.41	7.67	6.87

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 215.56

INPUT
Description:
Station Elevation Data num= 59

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17244.5	1098.1	17272.8	1096	17490.4	1096.7	17563.5	1095.2	17636	1095.1
17908.7	1094.9	17949.5	1094.8	18148.7	1095.2	18255.9	1095.3	18329.2	1093.3
18342.1	1093.5	18349	1091.5	19576.8	1091.5	19646	1068.5	19758.9	1068.7
19783.4	1070.3	19891.8	1071.1	19918.1	1069.5	19960.4	1066.1	19980	1066.1
20229.6	1066.6	20268.2	1066.9	20299.5	1068.6	20316.3	1068.8	20323.7	1066.5

20361	1067.1	20366.3	1068.2	20406.8	1070.9	20445.6	1071.5	20469	1079.6
20510	1092.7	20617	1091.5	20632.4	1095.1	21437.6	1095.1	21444	1099.4
21597.8	1096.9	21664.2	1096.1	21674.8	1099.6	21689.5	1099.9	21706.3	1092.8
21832.1	1092.2	22077.5	1091.9	22106.9	1090.7	22148.1	1091.8	22286.4	1092
22419.1	1092.6	22464.2	1091.4	22630.1	1091.1	22636.8	1090.6	22754	1091.4
22759.4	1092.2	22832.1	1091.7	22984	1091.4	23017.5	1091.4	23054.9	1093
23104	1092.4	23477.4	1092.3	23608.9	1093.9	23646	1111.5		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17244.5	.04	19576.8	.035	20510	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19576.8	20510	500	498.23	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17244.5	19576.8	1091.5	20510	23646	1092.7

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1087.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.56	Wt. n-Val.		0.035	
E.G. Elev (ft)	1089.55	Reach Len. (ft)	500.00	498.23	500.00
Crit W.S. (ft)	1079.15	Flow Area (sq ft)		16859.61	
E.G. Slope (ft/ft)	0.001145	Area (sq ft)		16859.61	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	907.87	Top Width (ft)		907.87	
Vel Total (ft/s)	10.02	Avg. Vel. (ft/s)		10.02	
Max Chl Dpth (ft)	21.89	Hydr. Depth (ft)		18.57	
Conv. Total (cfs)	4995001.5	Conv. (cfs)		4995001.5	
Length Wtd. (ft)	498.23	Wetted Per. (ft)		914.55	
Min Ch El (ft)	1066.10	Shear (lb/sq ft)		1.32	
Alpha	1.00	Stream Power (lb/ft s)		13.21	
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	40.76	2973.36	54.00
C & E Loss (ft)	0.06	Cum SA (acres)	23.93	145.75	55.45

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1087.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.56	Wt. n-Val.		0.035	
E.G. Elev (ft)	1089.55	Reach Len. (ft)	500.00	498.23	500.00
Crit W.S. (ft)	1079.15	Flow Area (sq ft)		16864.71	
E.G. Slope (ft/ft)	0.001144	Area (sq ft)		16864.71	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	907.88	Top Width (ft)		907.88	
Vel Total (ft/s)	10.02	Avg. Vel. (ft/s)		10.02	
Max Chl Dpth (ft)	21.89	Hydr. Depth (ft)		18.58	
Conv. Total (cfs)	4997458.5	Conv. (cfs)		4997458.5	
Length Wtd. (ft)	498.23	Wetted Per. (ft)		914.56	
Min Ch El (ft)	1066.10	Shear (lb/sq ft)		1.32	
Alpha	1.00	Stream Power (lb/ft s)		13.19	
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)		2974.27	
C & E Loss (ft)	0.06	Cum SA (acres)		145.75	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19576.80 LB	19639.01	2501.97	443.18	54.42	1.48	8.58	5.65
19639.01	19701.23	12013.52	1201.47	62.59	7.11	19.31	10.00
19701.23	19763.44	12071.76	1202.16	62.22	7.14	19.32	10.04
19763.44	19825.65	10513.57	1106.72	62.26	6.22	17.79	9.50
19825.65	19887.87	9890.84	1066.62	62.21	5.85	17.14	9.27
19887.87	19950.08	11421.18	1163.90	62.36	6.76	18.71	9.81
19950.08	20012.29	14756.39	1356.27	62.25	8.73	21.80	10.88
20012.29	20074.51	14715.39	1353.74	62.21	8.71	21.76	10.87
20074.51	20136.72	14574.71	1345.94	62.21	8.62	21.63	10.83
20136.72	20198.93	14435.05	1338.19	62.21	8.54	21.51	10.79
20198.93	20261.15	14244.42	1327.56	62.21	8.43	21.34	10.73
20261.15	20323.36	12823.90	1249.51	62.59	7.59	20.08	10.26
20323.36	20385.57	13279.51	1274.30	62.39	7.86	20.48	10.42
20385.57	20447.79	9834.94	1064.21	62.39	5.82	17.11	9.24
20447.79	20510.00 RB	1922.87	365.83	50.00	1.14	7.71	5.26

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19576.80 LB	19639.01	2503.25	443.47	54.43	1.48	8.59	5.64
19639.01	19701.23	12013.52	1201.82	62.59	7.11	19.32	10.00
19701.23	19763.44	12071.76	1202.51	62.22	7.14	19.33	10.04
19763.44	19825.65	10514.01	1107.07	62.26	6.22	17.79	9.50
19825.65	19887.87	9891.45	1066.97	62.21	5.85	17.15	9.27
19887.87	19950.08	11421.36	1164.25	62.36	6.76	18.71	9.81
19950.08	20012.29	14755.58	1356.62	62.25	8.73	21.81	10.88
20012.29	20074.51	14714.59	1354.09	62.21	8.71	21.76	10.87
20074.51	20136.72	14573.96	1346.29	62.21	8.62	21.64	10.83
20136.72	20198.93	14434.33	1338.54	62.21	8.54	21.52	10.78
20198.93	20261.15	14243.77	1327.91	62.21	8.43	21.34	10.73
20261.15	20323.36	12823.66	1249.85	62.59	7.59	20.09	10.26
20323.36	20385.57	13279.14	1274.65	62.39	7.86	20.49	10.42
20385.57	20447.79	9835.56	1064.56	62.39	5.82	17.11	9.24
20447.79	20510.00 RB	1924.06	366.09	50.01	1.14	7.71	5.26

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 215.46

INPUT
Description:
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17157.6	1097	17197.5	1096.6	17218.9	1095.4	17367.9	1095.7	17545.9	1094.6
17740.4	1094.3	17965.1	1094.4	18148.7	1093.9	18153.7	1093.7	18356.5	1094.4
18485.3	1095.5	18487.7	1094.7	18549.4	1094.8	18565.7	1098.7	18592.7	1095.4
18606.4	1087.7	18625.8	1094.7	18648.9	1093.4	18656.9	1091.5	18657.5	1090.8
19591	1090.8	19645.5	1070	19690.6	1068.5	19884.9	1068	19970.8	1067.7
20003.1	1064.6	20025.6	1064.6	20257.6	1065.1	20338.3	1065.3	20360.8	1069
20415.1	1068.3	20460.8	1066.1	20521.1	1089.5	20665.6	1090.6	20667	1089
21339.6	1089	21437	1088.7	21480.8	1089.5	21632.1	1087.7	21658.8	1098.3
21669	1098.1	21686	1091.3	21692.6	1092.4	21873.1	1090.1	21942.8	1090.1
21975.7	1091.4	22045.5	1090.4	22054.9	1090.9	22073.1	1090	22126.3	1089.8
22139.4	1091.2	22375.5	1090	22396.5	1089.8	22591.1	1088.8	22602.5	1088.7
22603.9	1089.5	22794	1090.1	22983.8	1090.8	23032.5	1092.7	23062.2	1092.6
23377	1091.1	23496.3	1091.1	23528.4	1091.9	23621.3	1105.3		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17157.6	.04	19591	.035	20521.1	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19591	20521.1	510	519.75	530	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17157.6	19591	1090.8	20521.1	23621.3	1089.5

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1087.61	Element			
Vel Head (ft)	1.37	Wt. n-Val.		0.035	
E.G. Elev (ft)	1088.97	Reach Len. (ft)	510.00	519.75	530.00
Crit W.S. (ft)	1077.65	Flow Area (sq ft)		18009.56	
E.G. Slope (ft/ft)	0.000932	Area (sq ft)		18009.56	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	916.86	Top Width (ft)		916.86	
Vel Total (ft/s)	9.38	Avg. Vel. (ft/s)		9.38	
Max Chl Dpth (ft)	23.01	Hydr. Depth (ft)		19.64	
Conv. Total (cfs)	5534893.0	Conv. (cfs)		5534893.0	
Length Wtd. (ft)	519.75	Wetted Per. (ft)		924.66	
Min Ch El (ft)	1064.60	Shear (lb/sq ft)		1.13	
Alpha	1.00	Stream Power (lb/ft s)		10.64	
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	40.76	2773.94	54.00
C & E Loss (ft)	0.06	Cum SA (acres)	23.93	135.32	55.45

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1087.61	Element			
Vel Head (ft)	1.37	Wt. n-Val.		0.035	

E.G. Elev (ft)	1088.98	Reach Len. (ft)	510.00	519.75	530.00
Crit W.S. (ft)	1077.65	Flow Area (sq ft)		18015.04	
E.G. Slope (ft/ft)	0.000931	Area (sq ft)		18015.04	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	916.85	Top Width (ft)		916.85	
Vel Total (ft/s)	9.38	Avg. Vel. (ft/s)		9.38	
Max Chl Dpth (ft)	23.01	Hydr. Depth (ft)		19.65	
Conv. Total (cfs)	5537668.5	Conv. (cfs)		5537668.5	
Length Wtd. (ft)	519.75	Wetted Per. (ft)		924.67	
Min Ch El (ft)	1064.60	Shear (lb/sq ft)		1.13	
Alpha	1.00	Stream Power (lb/ft s)		10.63	
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)		2774.79	
C & E Loss (ft)	0.06	Cum SA (acres)		135.32	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19591.00 LB	19653.01	3058.24	539.26	56.89	1.81	10.05	5.67
19653.01	19715.01	10379.31	1162.08	62.03	6.14	18.74	8.93
19715.01	19777.02	10855.73	1193.62	62.01	6.42	19.25	9.09
19777.02	19839.03	11006.45	1203.55	62.01	6.51	19.41	9.14
19839.03	19901.03	11159.13	1213.53	62.01	6.60	19.57	9.20
19901.03	19963.04	11350.78	1225.99	62.01	6.72	19.77	9.26
19963.04	20025.05	13346.43	1352.42	62.16	7.90	21.81	9.87
20025.05	20087.05	14542.91	1422.53	62.01	8.61	22.94	10.22
20087.05	20149.06	14402.44	1414.29	62.01	8.52	22.81	10.18
20149.06	20211.07	14261.66	1405.96	62.01	8.44	22.67	10.14
20211.07	20273.07	14121.21	1397.64	62.01	8.36	22.54	10.10
20273.07	20335.08	13967.34	1388.50	62.01	8.26	22.39	10.06
20335.08	20397.09	11157.65	1215.82	62.31	6.60	19.61	9.18
20397.09	20459.09	11587.65	1241.71	62.06	6.86	20.03	9.33
20459.09	20521.10 RB	3803.05	632.64	61.16	2.25	11.07	6.01

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19591.00 LB	19653.01	3059.64	539.58	56.89	1.81	10.06	5.67
19653.01	19715.01	10379.72	1162.45	62.03	6.14	18.75	8.93
19715.01	19777.02	10856.01	1193.99	62.01	6.42	19.26	9.09
19777.02	19839.03	11006.68	1203.93	62.01	6.51	19.42	9.14
19839.03	19901.03	11159.33	1213.90	62.01	6.60	19.58	9.19
19901.03	19963.04	11350.92	1226.36	62.01	6.72	19.78	9.26
19963.04	20025.05	13345.96	1352.79	62.16	7.90	21.82	9.87
20025.05	20087.05	14542.07	1422.91	62.01	8.60	22.95	10.22
20087.05	20149.06	14401.65	1414.66	62.01	8.52	22.81	10.18
20149.06	20211.07	14260.91	1406.33	62.01	8.44	22.68	10.14
20211.07	20273.07	14120.50	1398.01	62.01	8.36	22.55	10.10
20273.07	20335.08	13966.68	1388.87	62.01	8.26	22.40	10.06
20335.08	20397.09	11157.83	1216.19	62.31	6.60	19.61	9.17
20397.09	20459.09	11587.71	1242.08	62.06	6.86	20.03	9.33
20459.09	20521.10 RB	3804.40	632.98	61.16	2.25	11.08	6.01

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 215.36

INPUT
Description:
Station Elevation Data num= 64

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17106.4	1095.4	17213.1	1093.4	17305.8	1093	17386.4	1093.9	17614.5	1092.9
17741.1	1093.2	17826.6	1091.9	17953.5	1092.2	17968	1091.5	17977.8	1092.7
18139.6	1091.8	18170.3	1091.2	18258.3	1093.1	18362.4	1091.3	18522.8	1092.1
18599.4	1092.9	18641.9	1094.1	18654.3	1087.1	19618	1087.1	19693.8	1066.8
19739.6	1066.6	19764.2	1064.8	19975	1063.2	20080.9	1063	20309.6	1064
20382.2	1064.8	20413.8	1065.9	20478.9	1065.5	20537	1086.8	21350.7	1086.8
21356.2	1089.5	21442.6	1086.9	21548.9	1086	21595	1088.3	21621.4	1088.7
21647.6	1094.8	21684.8	1088.3	21717.1	1090.1	21875.2	1088.9	21917	1089.2
22096.8	1089.1	22215.6	1086.1	22360.8	1085.8	22395.8	1085.8	22542	1086.6
22595.4	1085.7	22650.1	1086.5	22655.9	1087.2	22804.8	1086.6	22841.4	1086.7
22875	1086.4	22885	1088.1	22968.8	1087.7	23111.1	1087.6	23285.5	1087.4
23328.3	1087.9	23371.5	1087.5	23577	1087.6	23593.2	1090.2	23609.1	1088.9

23648.3 1097.3 23658.9 1096 23675.8 1090.6 23715.5 1101.6

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17106.4	.04	19618	.035	20537	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19618	20537	500	489.19	470	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17106.4	19618	1100	20537	23715.5	1100

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1087.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.15	Wt. n-Val.		0.035	
E.G. Elev (ft)	1088.49	Reach Len. (ft)	500.00	489.19	470.00
Crit W.S. (ft)	1075.36	Flow Area (sq ft)		19624.04	
E.G. Slope (ft/ft)	0.000701	Area (sq ft)	231.68	19624.04	1263.00
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	3559.77	Top Width (ft)	964.13	919.00	1676.65
Vel Total (ft/s)	8.61	Avg. Vel. (ft/s)		8.61	
Max Chl Dpth (ft)	24.34	Hydr. Depth (ft)		21.35	
Conv. Total (cfs)	6382255.0	Conv. (cfs)		6382255.0	
Length Wtd. (ft)	489.19	Wetted Per. (ft)		925.55	
Min Ch El (ft)	1063.00	Shear (lb/sq ft)		0.93	
Alpha	1.00	Stream Power (lb/ft s)		7.99	
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)	39.40	2549.42	46.32
C & E Loss (ft)	0.01	Cum SA (acres)	18.29	124.36	45.25

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1087.35	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.15	Wt. n-Val.		0.035	
E.G. Elev (ft)	1088.50	Reach Len. (ft)	500.00	489.19	470.00
Crit W.S. (ft)	1075.36	Flow Area (sq ft)		19629.43	
E.G. Slope (ft/ft)	0.000701	Area (sq ft)		19629.43	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	919.00	Top Width (ft)		919.00	
Vel Total (ft/s)	8.61	Avg. Vel. (ft/s)		8.61	
Max Chl Dpth (ft)	24.35	Hydr. Depth (ft)		21.36	
Conv. Total (cfs)	6381531.0	Conv. (cfs)		6381531.0	
Length Wtd. (ft)	489.19	Wetted Per. (ft)		926.34	
Min Ch El (ft)	1063.00	Shear (lb/sq ft)		0.93	
Alpha	1.00	Stream Power (lb/ft s)		7.99	
Frctn Loss (ft)	0.38	Cum Volume (acre-ft)		2550.21	
C & E Loss (ft)	0.01	Cum SA (acres)		124.36	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19618.00 LB	19679.27	2287.31	517.36	63.43	1.35	8.44	4.42
19679.27	19740.53	9923.99	1234.93	61.78	5.87	20.16	8.04
19740.53	19801.80	11796.10	1365.86	61.33	6.98	22.29	8.64
19801.80	19863.07	12486.34	1412.68	61.27	7.39	23.06	8.84
19863.07	19924.33	12909.26	1441.21	61.27	7.64	23.52	8.96
19924.33	19985.60	13332.17	1469.34	61.27	7.89	23.98	9.07
19985.60	20046.87	13551.43	1483.79	61.27	8.02	24.22	9.13
20046.87	20108.13	13623.58	1488.51	61.27	8.06	24.30	9.15
20108.13	20169.40	13429.48	1475.77	61.27	7.95	24.09	9.10
20169.40	20230.67	13181.01	1459.31	61.27	7.80	23.82	9.03
20230.67	20291.93	12935.28	1442.94	61.27	7.65	23.55	8.96
20291.93	20353.20	12596.75	1420.17	61.27	7.45	23.18	8.87
20353.20	20414.47	11825.39	1367.51	61.29	7.00	22.32	8.65
20414.47	20475.73	11226.53	1325.34	61.27	6.64	21.63	8.47
20475.73	20537.00 RB	3895.39	719.31	65.05	2.30	11.74	5.42

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19618.00 LB	19679.27	2283.41	517.72	63.67	1.35	8.45	4.41
19679.27	19740.53	9926.03	1235.29	61.78	5.87	20.16	8.04
19740.53	19801.80	11797.98	1366.22	61.33	6.98	22.30	8.64
19801.80	19863.07	12488.15	1413.04	61.27	7.39	23.06	8.84
19863.07	19924.33	12911.02	1441.57	61.27	7.64	23.53	8.96
19924.33	19985.60	13333.89	1469.70	61.27	7.89	23.99	9.07
19985.60	20046.87	13553.12	1484.15	61.27	8.02	24.22	9.13
20046.87	20108.13	13625.26	1488.87	61.27	8.06	24.30	9.15
20108.13	20169.40	13431.19	1476.13	61.27	7.95	24.09	9.10
20169.40	20230.67	13182.74	1459.67	61.27	7.80	23.83	9.03
20230.67	20291.93	12937.05	1443.30	61.27	7.66	23.56	8.96
20291.93	20353.20	12598.55	1420.53	61.27	7.45	23.19	8.87
20353.20	20414.47	11827.27	1367.87	61.29	7.00	22.33	8.65
20414.47	20475.73	11228.47	1325.70	61.27	6.64	21.64	8.47
20475.73	20537.00 RB	3875.88	719.67	65.60	2.29	11.75	5.39

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 215.27

INPUT
Description:
Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17090.5	1092.5	17125.9	1091.8	17271.2	1091	17438.5	1089.2	17533.4	1088.9
17640	1089.9	17664.2	1089.2	17876.8	1089	17899.3	1089.2	18048.7	1090.8
18192.2	1092.2	18319.4	1092.6	18358.5	1091.5	18364.6	1092	18578.6	1091.7
18646.5	1091.7	18655.9	1091.3	18680.5	1096.9	18688.1	1094.3	18692.1	1091.9
18696.3	1090.6	18744.7	1089	18753.3	1083.4	19610.6	1083.4	19638.3	1081.9
19658.6	1082	19664.5	1078.4	19689.8	1074.5	19734.4	1072.4	19788.6	1068.1
19800.7	1064.5	19816.1	1063.5	19988.7	1063.7	20291.3	1064	20359.1	1064.8
20485.4	1064	20492.7	1064.5	20543.3	1084.9	20553.9	1085.3	20674.7	1084.1
20741.1	1082.7	20810.5	1083.9	20988.4	1084.7	21096.9	1085.3	21291.5	1086.3
21372.9	1086.6	21433.7	1087.4	21444.6	1088.4	21500.3	1090	21568.4	1090
21595.8	1088	21615.4	1088.1	21621.3	1086.5	21640.8	1086.3	21657.4	1087.6
21816	1087.7	21877.8	1087.7	22012.9	1086.8	22120.8	1086.1	22257	1086.3
22398.5	1085.7	22567.9	1085.3	22633.4	1085.1	22673	1086	22821.6	1086.1
22954.1	1086.7	22955.4	1086.7	23113.9	1086.3	23261	1086.3	23311.5	1086.2
23360.5	1088.2	23492.9	1089	23595.2	1089.4	23637	1094.2	23668.2	1090
23685.9	1088.4	23765.1	1104.7						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17090.5	.04	19610.6	.035	20553.9	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19610.6	20553.9	550	493.27	420	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17090.5	19610.6	1100	20553.9	23765.1	1100

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1086.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.26	Wt. n-Val.		0.035	
E.G. Elev (ft)	1088.10	Reach Len. (ft)	550.00	493.27	420.00
Crit W.S. (ft)	1076.00	Flow Area (sq ft)		18736.49	
E.G. Slope (ft/ft)	0.000846	Area (sq ft)	2959.30	18736.49	2611.68
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	3991.40	Top Width (ft)	862.58	943.30	2185.52
Vel Total (ft/s)	9.02	Avg. Vel. (ft/s)		9.02	
Max Chl Dpth (ft)	23.34	Hydr. Depth (ft)		19.86	
Conv. Total (cfs)	5809018.0	Conv. (cfs)		5809018.0	
Length Wtd. (ft)	493.27	Wetted Per. (ft)		949.42	
Min Ch El (ft)	1063.50	Shear (lb/sq ft)		1.04	
Alpha	1.00	Stream Power (lb/ft s)		9.41	
Frctn Loss (ft)	0.82	Cum Volume (acre-ft)	21.09	2334.02	25.41
C & E Loss (ft)	0.38	Cum SA (acres)	7.81	113.91	24.41

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1086.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.26	Wt. n-Val.		0.035	
E.G. Elev (ft)	1088.11	Reach Len. (ft)	550.00	493.27	420.00
Crit W.S. (ft)	1076.00	Flow Area (sq ft)		18740.87	
E.G. Slope (ft/ft)	0.000852	Area (sq ft)		18740.87	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	943.30	Top Width (ft)		943.30	
Vel Total (ft/s)	9.02	Avg. Vel. (ft/s)		9.02	
Max Chl Dpth (ft)	23.35	Hydr. Depth (ft)		19.87	
Conv. Total (cfs)	5790998.5	Conv. (cfs)		5790998.5	
Length Wtd. (ft)	493.27	Wetted Per. (ft)		954.41	
Min Ch El (ft)	1063.50	Shear (lb/sq ft)		1.04	
Alpha	1.00	Stream Power (lb/ft s)		9.41	
Frctn Loss (ft)	0.82	Cum Volume (acre-ft)		2334.75	
C & E Loss (ft)	0.38	Cum SA (acres)		113.91	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19610.60 LB	19673.49	1199.21	336.66	64.05	0.71	5.35	3.56
19673.49	19736.37	5195.09	806.72	63.14	3.07	12.83	6.44
19736.37	19799.26	8509.49	1087.28	63.51	5.04	17.29	7.83
19799.26	19862.15	13940.74	1457.18	62.98	8.25	23.17	9.57
19862.15	19925.03	14035.12	1462.21	62.89	8.30	23.25	9.60
19925.03	19987.92	13961.88	1457.63	62.89	8.26	23.18	9.58
19987.92	20050.81	13894.01	1453.37	62.89	8.22	23.11	9.56
20050.81	20113.69	13831.60	1449.45	62.89	8.18	23.05	9.54
20113.69	20176.58	13769.27	1445.53	62.89	8.15	22.99	9.53
20176.58	20239.47	13707.05	1441.61	62.89	8.11	22.92	9.51
20239.47	20302.35	13634.41	1437.03	62.89	8.07	22.85	9.49
20302.35	20365.24	13134.76	1405.22	62.89	7.77	22.35	9.35
20365.24	20428.13	13070.61	1401.08	62.89	7.73	22.28	9.33
20428.13	20491.01	13442.00	1424.95	62.90	7.95	22.66	9.43
20491.01	20553.90 RB	3674.77	670.58	66.86	2.17	10.66	5.48

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19610.60 LB	19673.49	1159.94	336.95	67.49	0.69	5.36	3.44
19673.49	19736.37	5199.29	807.01	63.14	3.08	12.83	6.44
19736.37	19799.26	8515.04	1087.58	63.51	5.04	17.29	7.83
19799.26	19862.15	13948.26	1457.47	62.98	8.25	23.18	9.57
19862.15	19925.03	14042.67	1462.50	62.89	8.31	23.26	9.60
19925.03	19987.92	13969.40	1457.92	62.89	8.27	23.18	9.58
19987.92	20050.81	13901.51	1453.67	62.89	8.23	23.12	9.56
20050.81	20113.69	13839.09	1449.75	62.89	8.19	23.05	9.55
20113.69	20176.58	13776.74	1445.82	62.89	8.15	22.99	9.53

20176.58	20239.47	13714.50	1441.90	62.89	8.12	22.93	9.51
20239.47	20302.35	13641.83	1437.32	62.89	8.07	22.86	9.49
20302.35	20365.24	13142.00	1405.51	62.89	7.78	22.35	9.35
20365.24	20428.13	13077.83	1401.37	62.89	7.74	22.28	9.33
20428.13	20491.01	13449.35	1425.24	62.90	7.96	22.66	9.44
20491.01	20553.90 RB	3622.56	670.87	68.40	2.14	10.67	5.40

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 215.18

INPUT
Description:
Station Elevation Data num= 82

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17264.2	1090.8	17267.2	1089.3	17273	1087.3	17291.3	1090.2	17304	1090.3
17325	1088.7	17458.3	1088	17486.9	1086.8	17535	1086.4	17628.8	1087.9
17696.9	1090.1	17830.5	1089.7	17979.7	1089.7	18157.5	1090.9	18287.9	1091.3
18300.1	1090.7	18347.7	1091.3	18585.6	1090.1	18646.8	1090.3	18667.5	1089.9
18679.9	1092.5	18692.8	1096.2	18714.9	1089.4	18737.9	1089.2	18743.1	1085.6
19632.1	1085.6	19675.5	1084.4	19680.3	1082.6	19742.5	1067.1	19752.8	1067.2
19761.7	1067.9	19783.3	1067.4	19806.4	1062.2	19944.1	1062.7	20163.9	1063.5
20177.3	1063.5	20291.4	1084.5	20332.7	1088.4	20361.5	1080.3	20367.6	1077.9
20376.7	1078.6	20417.9	1079.6	20435.7	1084.6	20442.6	1085.5	20492.9	1084.1
20569.6	1084.3	20749.1	1084.6	20914.6	1084.5	21029.5	1083.7	21215.8	1083.6
21233.3	1083.6	21261.9	1088.4	21398.3	1089.8	21450.7	1091.6	21475.8	1079.6
21498.2	1082.4	21659.9	1084.5	21881.6	1084.7	22049.7	1085.2	22106.3	1085.4
22138.4	1086	22270.3	1086.2	22336.5	1086.7	22396.7	1085.4	22535.4	1085.6
22591.4	1086	22633	1087	22652.7	1088.3	22794.6	1088.5	23004.1	1088.8
23096.1	1088.2	23105.4	1089.3	23217.9	1088.7	23251.2	1087.2	23262.6	1087.5
23297	1086.7	23345.6	1087.8	23359.3	1088.6	23512.7	1088.2	23575.8	1087.7
23635.4	1088.2	23708.6	1103.3						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17264.2	.04	19632.1	.035	20332.7	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19632.1	20332.7	560	481.96	420	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17264.2	19632.1	1085.6	20332.7	23708.6	1088.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1081.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	5.04	Wt. n-Val.		0.035	
E.G. Elev (ft)	1086.91	Reach Len. (ft)	560.00	481.96	420.00
Crit W.S. (ft)	1079.42	Flow Area (sq ft)		9382.04	
E.G. Slope (ft/ft)	0.004584	Area (sq ft)		9382.04	203.69
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	686.90	Top Width (ft)		593.90	93.00
Vel Total (ft/s)	18.01	Avg. Vel. (ft/s)		18.01	
Max Chl Dpth (ft)	19.67	Hydr. Depth (ft)		15.80	
Conv. Total (cfs)	2496246.8	Conv. (cfs)		2496246.8	
Length Wtd. (ft)	481.96	Wetted Per. (ft)		598.00	
Min Ch El (ft)	1062.20	Shear (lb/sq ft)		4.49	
Alpha	1.00	Stream Power (lb/ft s)		80.87	
Frctn Loss (ft)	1.73	Cum Volume (acre-ft)	2.41	2174.82	11.84
C & E Loss (ft)	0.41	Cum SA (acres)	2.36	105.20	13.43

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1081.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	5.04	Wt. n-Val.		0.035	
E.G. Elev (ft)	1086.91	Reach Len. (ft)	560.00	481.96	420.00
Crit W.S. (ft)	1079.42	Flow Area (sq ft)		9382.77	
E.G. Slope (ft/ft)	0.004582	Area (sq ft)		9382.77	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	593.90	Top Width (ft)		593.90	
Vel Total (ft/s)	18.01	Avg. Vel. (ft/s)		18.01	
Max Chl Dpth (ft)	19.67	Hydr. Depth (ft)		15.80	
Conv. Total (cfs)	2496562.5	Conv. (cfs)		2496562.5	
Length Wtd. (ft)	481.96	Wetted Per. (ft)		598.00	
Min Ch El (ft)	1062.20	Shear (lb/sq ft)		4.49	
Alpha	1.00	Stream Power (lb/ft s)		80.85	
Frctn Loss (ft)	1.73	Cum Volume (acre-ft)		2175.52	
C & E Loss (ft)	0.41	Cum SA (acres)		105.20	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19678.81	19725.51	1786.25	222.85	43.58	1.06	5.27	8.02
19725.51	19772.22	9880.02	642.31	47.26	5.85	13.75	15.38
19772.22	19818.93	14221.25	799.42	47.29	8.41	17.12	17.79
19818.93	19865.63	17883.77	912.73	46.71	10.58	19.54	19.59
19865.63	19912.34	17625.90	904.81	46.71	10.43	19.37	19.48
19912.34	19959.05	17369.42	896.89	46.71	10.28	19.20	19.37
19959.05	20005.75	17113.31	888.91	46.71	10.13	19.03	19.25
20005.75	20052.46	16860.03	881.01	46.71	9.98	18.86	19.14
20052.46	20099.17	16607.47	873.07	46.71	9.83	18.69	19.02
20099.17	20145.87	16356.53	865.13	46.71	9.68	18.52	18.91
20145.87	20192.58	15429.60	837.20	46.96	9.13	17.92	18.43
20192.58	20239.29	7058.17	525.98	47.49	4.18	11.26	13.42
20239.29	20285.99	808.27	131.74	38.47	0.48	3.48	6.14

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19678.81	19725.51	1786.65	222.90	43.59	1.06	5.27	8.02
19725.51	19772.22	9880.31	642.37	47.26	5.85	13.75	15.38
19772.22	19818.93	14221.25	799.48	47.29	8.41	17.12	17.79
19818.93	19865.63	17883.51	912.79	46.71	10.58	19.54	19.59
19865.63	19912.34	17625.65	904.87	46.71	10.43	19.37	19.48
19912.34	19959.05	17369.20	896.94	46.71	10.28	19.20	19.36
19959.05	20005.75	17113.10	888.97	46.71	10.13	19.03	19.25
20005.75	20052.46	16859.85	881.07	46.71	9.98	18.86	19.14
20052.46	20099.17	16607.31	873.13	46.71	9.83	18.69	19.02
20099.17	20145.87	16356.39	865.19	46.71	9.68	18.52	18.91
20145.87	20192.58	15429.52	837.26	46.96	9.13	17.93	18.43
20192.58	20239.29	7058.60	526.03	47.49	4.18	11.26	13.42
20239.29	20285.99	808.66	131.78	38.47	0.48	3.48	6.14

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 215.09

INPUT
Description:
Station Elevation Data num= 85

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17408.5	1090.9	17416.6	1088.2	17421.3	1086	17442.5	1089.1	17476.3	1089.2
17546	1088.1	17558.7	1086.5	17572.7	1085.3	17703.3	1086	17806.6	1085.5
17909.6	1086.8	17924.4	1087.8	17983.8	1088.9	18162.6	1089.2	18175.2	1089.2
18515.9	1088.2	18545.9	1088.1	18607.3	1088.6	18713.9	1088.5	18807.7	1087.4
18955	1087.1	18958.8	1087.1	18981.5	1088.6	18992.5	1088.9	19625.7	1088.9
19652.2	1090.1	19661.5	1090.9	19663	1088.6	19671.4	1082.4	19701.2	1068.5
19706.6	1065.2	19710.4	1063.8	19728.4	1062.2	19740	1061.7	19850.6	1061.7
20037.2	1062.4	20199.1	1063	20266.5	1063.2	20300.4	1085.9	20376.8	1085
20573.3	1084.2	20754.5	1084.4	20797.5	1084.5	20844	1088.4	20895.9	1096.6
20944	1100	20968.9	1099.8	21092.4	1085.1	21164.6	1085.1	21295.4	1085.8
21349.7	1087.3	21430.1	1089	21447.6	1082.9	21471.4	1082.9	21513.2	1084.1
21561.7	1084	21748.6	1085.6	21846.1	1086.5	22044.7	1085.1	22068.2	1085.1
22104.8	1086.2	22198.3	1085.4	22331	1086.6	22392.4	1085.5	22427.1	1085.7
22569.2	1086.2	22579.3	1086.1	22596.4	1086.5	22617.4	1086.4	22634.7	1087.5
22750	1087.9	22789.2	1087.3	22835.4	1087.8	22986	1087.7	23133.3	1088.2
23240.2	1087.3	23275.3	1086.4	23337	1086.7	23342.5	1087.3	23353.1	1087.8
23397.8	1087.8	23559.8	1086.9	23602	1086.8	23694.4	1090.1	23776.7	1107.1

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17408.5	.04	19661.5	.035	20300.4	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19661.5	20300.4	510	506.22	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17408.5	19661.5	1090.9	20300.4	23776.7	1085.9

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1081.09	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.67	Wt. n-Val.		0.035	
E.G. Elev (ft)	1084.77	Reach Len. (ft)	510.00	506.22	510.00
Crit W.S. (ft)	1076.37	Flow Area (sq ft)		10986.08	
E.G. Slope (ft/ft)	0.002894	Area (sq ft)		10986.08	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	619.02	Top Width (ft)		619.02	
Vel Total (ft/s)	15.38	Avg. Vel. (ft/s)		15.38	
Max Chl Dpth (ft)	19.39	Hydr. Depth (ft)		17.75	
Conv. Total (cfs)	3141385.8	Conv. (cfs)		3141385.8	
Length Wtd. (ft)	506.22	Wetted Per. (ft)		628.51	
Min Ch El (ft)	1061.70	Shear (lb/sq ft)		3.16	
Alpha	1.00	Stream Power (lb/ft s)		48.58	
Frctn Loss (ft)	1.47	Cum Volume (acre-ft)	2.41	2062.14	10.86
C & E Loss (ft)	0.13	Cum SA (acres)	2.36	98.49	12.98

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1081.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.67	Wt. n-Val.		0.035	
E.G. Elev (ft)	1084.77	Reach Len. (ft)	510.00	506.22	510.00
Crit W.S. (ft)	1076.37	Flow Area (sq ft)		10987.06	
E.G. Slope (ft/ft)	0.002893	Area (sq ft)		10987.06	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	619.02	Top Width (ft)		619.02	
Vel Total (ft/s)	15.38	Avg. Vel. (ft/s)		15.38	
Max Chl Dpth (ft)	19.40	Hydr. Depth (ft)		17.75	
Conv. Total (cfs)	3141842.0	Conv. (cfs)		3141842.0	
Length Wtd. (ft)	506.22	Wetted Per. (ft)		628.52	
Min Ch El (ft)	1061.70	Shear (lb/sq ft)		3.16	
Alpha	1.00	Stream Power (lb/ft s)		48.57	
Frctn Loss (ft)	1.47	Cum Volume (acre-ft)		2062.83	
C & E Loss (ft)	0.13	Cum SA (acres)		98.49	

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19661.50 LB	19704.09	1590.63	209.02	33.18	0.94	6.99	7.61
19704.09	19746.69	11908.61	778.42	43.36	7.05	18.28	15.30
19746.69	19789.28	13303.48	826.02	42.59	7.87	19.39	16.11
19789.28	19831.87	13304.09	826.05	42.59	7.87	19.39	16.11
19831.87	19874.47	13275.37	824.99	42.59	7.86	19.37	16.09
19874.47	19917.06	13110.81	818.84	42.59	7.76	19.22	16.01
19917.06	19959.65	12929.69	812.03	42.59	7.65	19.06	15.92
19959.65	20002.25	12748.99	805.19	42.59	7.54	18.90	15.83
20002.25	20044.84	12570.53	798.42	42.59	7.44	18.74	15.74
20044.84	20087.43	12393.88	791.67	42.59	7.33	18.59	15.66
20087.43	20130.03	12218.96	784.95	42.59	7.23	18.43	15.57
20130.03	20172.62	12045.04	778.22	42.59	7.13	18.27	15.48
20172.62	20215.21	11874.02	771.56	42.59	7.03	18.12	15.39
20215.21	20257.81	11730.19	765.95	42.59	6.94	17.98	15.31
20257.81	20300.40 RB	3995.68	394.75	40.85	2.36	11.15	10.12

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19661.50 LB	19704.09	1590.89	209.07	33.19	0.94	6.99	7.61
19704.09	19746.69	11908.61	778.49	43.36	7.05	18.28	15.30
19746.69	19789.28	13303.38	826.08	42.59	7.87	19.40	16.10
19789.28	19831.87	13303.98	826.12	42.59	7.87	19.40	16.10
19831.87	19874.47	13275.26	825.05	42.59	7.86	19.37	16.09
19874.47	19917.06	13110.72	818.90	42.59	7.76	19.23	16.01
19917.06	19959.65	12929.61	812.10	42.59	7.65	19.07	15.92
19959.65	20002.25	12748.93	805.25	42.59	7.54	18.91	15.83
20002.25	20044.84	12570.48	798.49	42.59	7.44	18.75	15.74
20044.84	20087.43	12393.85	791.74	42.59	7.33	18.59	15.65
20087.43	20130.03	12218.95	785.01	42.59	7.23	18.43	15.57
20130.03	20172.62	12045.04	778.29	42.59	7.13	18.27	15.48
20172.62	20215.21	11874.03	771.63	42.59	7.03	18.12	15.39
20215.21	20257.81	11730.22	766.02	42.59	6.94	17.98	15.31
20257.81	20300.40 RB	3996.02	394.81	40.85	2.36	11.15	10.12

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 214.99

INPUT
Description:
Station Elevation Data num= 83

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17407.8	1089.5	17423.9	1089.2	17429.3	1087.9	17485.8	1086.4	17505.6	1086.4
17523	1085.7	17609.3	1085.7	17618.9	1085.4	17743	1084.6	17878.9	1086.3
18005.4	1087.2	18122.3	1087.5	18136.6	1087.3	18144.6	1088.4	18167.8	1087.2
18307.7	1087.4	18356.8	1087.4	18518.3	1087.2	18532.6	1087.2	18670.1	1087.4
18800.7	1087	18814.1	1087.3	18841.1	1087	18876.6	1088.6	19535	1088.6
19537.3	1089.4	19576.5	1090	19647.7	1061.3	19774.3	1061.6	19811	1063.5
19862.3	1062.3	19880.7	1061.4	20041	1063.2	20098.1	1067.8	20122.6	1070.7
20129.8	1067.6	20144.8	1063.2	20173.6	1063.1	20299.7	1063	20317	1072.8
20339.8	1086.2	20525.1	1086.2	20650.8	1085.7	20674.7	1085.6	20699.2	1086.5
20716.1	1086.6	20846.1	1088.1	20861.2	1088.3	20978.5	1087.6	21008	1084.2
21091.3	1083.5	21285.7	1083.9	21419.6	1084.3	21479.2	1084.8	21650.3	1085.6
22046	1085.5	22169.3	1084.9	22233.7	1085.5	22353.8	1085.3	22372.2	1085.3
22392.8	1084.4	22402.3	1085	22421.9	1084.9	22433.5	1085.2	22439.7	1085.8
22461.8	1085.4	22651.2	1085.4	22691.6	1085.5	22821.4	1086.1	22866.5	1086.4
22987.8	1086.7	23105.7	1086.9	23132.5	1085	23156.1	1084.5	23177.8	1087
23227.7	1086.3	23297	1086	23335.6	1086.6	23474.8	1086.3	23490.7	1088.5
23517.5	1088.2	23570.5	1089.8	23652.7	1107.1				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17407.8	.04	19576.5	.035	20339.8	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19576.5	20339.8	480	505.18	530	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17407.8	19576.5	1090	20339.8	23652.7	1086.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1079.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.25	Wt. n-Val.		0.035	
E.G. Elev (ft)	1083.17	Reach Len. (ft)	480.00	505.18	530.00
Crit W.S. (ft)	1075.58	Flow Area (sq ft)		11672.67	
E.G. Slope (ft/ft)	0.002926	Area (sq ft)		11672.67	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	727.58	Top Width (ft)		727.58	
Vel Total (ft/s)	14.48	Avg. Vel. (ft/s)		14.48	
Max Chl Dpth (ft)	18.61	Hydr. Depth (ft)		16.04	
Conv. Total (cfs)	3124136.5	Conv. (cfs)		3124136.5	
Length Wtd. (ft)	505.18	Wetted Per. (ft)		737.43	
Min Ch El (ft)	1061.30	Shear (lb/sq ft)		2.89	
Alpha	1.00	Stream Power (lb/ft s)		41.87	
Frctn Loss (ft)	1.63	Cum Volume (acre-ft)	2.41	1930.48	10.86
C & E Loss (ft)	0.01	Cum SA (acres)	2.36	90.67	12.98

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1079.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.25	Wt. n-Val.		0.035	
E.G. Elev (ft)	1083.17	Reach Len. (ft)	480.00	505.18	530.00
Crit W.S. (ft)	1075.58	Flow Area (sq ft)		11674.45	
E.G. Slope (ft/ft)	0.002925	Area (sq ft)		11674.45	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	727.58	Top Width (ft)		727.58	
Vel Total (ft/s)	14.48	Avg. Vel. (ft/s)		14.48	
Max Chl Dpth (ft)	18.62	Hydr. Depth (ft)		16.05	
Conv. Total (cfs)	3124912.0	Conv. (cfs)		3124912.0	
Length Wtd. (ft)	505.18	Wetted Per. (ft)		737.44	
Min Ch El (ft)	1061.30	Shear (lb/sq ft)		2.89	
Alpha	1.00	Stream Power (lb/ft s)		41.85	
Frctn Loss (ft)	1.63	Cum Volume (acre-ft)		1931.15	
C & E Loss (ft)	0.01	Cum SA (acres)		90.67	

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19576.50 LB	19627.39	864.00	134.82	27.89	0.51	5.21	6.41
19627.39	19678.27	12506.53	862.91	52.47	7.40	16.96	14.49
19678.27	19729.16	14733.19	940.42	50.89	8.72	18.48	15.67
19729.16	19780.05	14550.67	933.47	50.89	8.61	18.34	15.59
19780.05	19830.93	12801.12	864.68	50.93	7.57	16.99	14.80
19830.93	19881.82	13537.30	894.06	50.92	8.01	17.57	15.14
19881.82	19932.71	14381.45	926.91	50.89	8.51	18.22	15.52
19932.71	19983.59	13637.43	897.83	50.89	8.07	17.64	15.19
19983.59	20034.48	12909.38	868.76	50.89	7.64	17.07	14.86
20034.48	20085.37	10570.91	771.44	51.03	6.25	15.16	13.70
20085.37	20136.25	6583.90	585.10	52.01	3.90	11.50	11.25
20136.25	20187.14	12212.17	842.65	51.25	7.23	16.56	14.49
20187.14	20238.03	12623.81	857.15	50.89	7.47	16.84	14.73
20238.03	20288.91	12674.25	859.21	50.89	7.50	16.88	14.75
20288.91	20339.80 RB	4413.89	433.26	44.71	2.61	10.78	10.19

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19576.50 LB	19627.39	864.35	134.89	27.89	0.51	5.21	6.41
19627.39	19678.27	12506.45	863.03	52.47	7.40	16.96	14.49
19678.27	19729.16	14732.81	940.55	50.89	8.72	18.48	15.66
19729.16	19780.05	14550.32	933.60	50.89	8.61	18.35	15.59
19780.05	19830.93	12801.04	864.80	50.93	7.57	16.99	14.80
19830.93	19881.82	13537.11	894.19	50.92	8.01	17.57	15.14
19881.82	19932.71	14381.13	927.03	50.89	8.51	18.22	15.51
19932.71	19983.59	13637.22	897.96	50.89	8.07	17.65	15.19
19983.59	20034.48	12909.28	868.88	50.89	7.64	17.07	14.86
20034.48	20085.37	10571.15	771.57	51.03	6.26	15.16	13.70
20085.37	20136.25	6584.61	585.22	52.01	3.90	11.50	11.25
20136.25	20187.14	12212.16	842.77	51.25	7.23	16.56	14.49
20187.14	20238.03	12623.76	857.28	50.89	7.47	16.85	14.73
20238.03	20288.91	12674.18	859.33	50.89	7.50	16.89	14.75
20288.91	20339.80 RB	4414.44	433.36	44.71	2.61	10.78	10.19

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 214.9

INPUT
Description:
Station Elevation Data num= 90

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17273.7	1090.9	17286.3	1084.9	17295.6	1086.7	17304.6	1089	17343.3	1087.2
17361	1086.8	17420	1086.8	17464	1086.4	17476.4	1085.5	17563.2	1085.1
17570.1	1085.5	17695.7	1085.2	17812.7	1085.2	17858	1085.6	18002.1	1086.5
18035.5	1086.6	18055.5	1087.1	18135.4	1086.5	18262.5	1086	18362.4	1086
18497.3	1086.1	18624.5	1086.1	18665	1086.1	18714.4	1086.8	19289	1086.8
19292	1088	19353.9	1088.5	19494.2	1088.1	19537.4	1088	19609.3	1061.2
19764.9	1061.4	19806	1062.4	19829	1061.4	20013.5	1062.6	20062.9	1062.8
20089.1	1068.5	20158.2	1066.8	20297.6	1062.8	20315.9	1062.4	20373.4	1077.9
20419	1088.6	20423.3	1089	20466.5	1103.6	20501.8	1104.2	20532.8	1102.4
20550.3	1104.7	20579.1	1099.4	20585.2	1096.6	20607.1	1084.9	20640.5	1084.3
20667.3	1083	20680.5	1078.6	20687.2	1078	20808.2	1077.9	20840	1082.7
20852.6	1085.5	20855.2	1084.5	20889.3	1084.2	20907.9	1083.6	20920.2	1082.1
20931.6	1081.2	21060.7	1081.2	21142.3	1081.4	21160.5	1082.7	21218.3	1083.3
21443.8	1084.2	21688.5	1083.8	21722.5	1083.8	21848.4	1083.6	21865.2	1084.2
22041	1084.3	22200.7	1085.2	22219.2	1085	22278.4	1086	22363	1085
22451.4	1085.4	22567.2	1086.6	22662.3	1086.2	22753.5	1086.2	22924.8	1085
22954.2	1085.1	22991.2	1084.4	22997.7	1085.1	23004.4	1086.9	23029.6	1086.4
23200.8	1088.7	23354.3	1090.2	23416.1	1090.1	23433.4	1089.7	23466.2	1098.9

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17273.7	.04	19537.4	.035	20466.5	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19537.4	20466.5	340	568.44	730	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17273.7	19537.4	1088	20466.5	23466.2	1103.6

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1078.13	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.39	Wt. n-Val.		0.035	
E.G. Elev (ft)	1081.52	Reach Len. (ft)	340.00	568.44	730.00
Crit W.S. (ft)	1074.91	Flow Area (sq ft)		11434.89	
E.G. Slope (ft/ft)	0.003589	Area (sq ft)		11434.89	22.14
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	934.49	Top Width (ft)		810.50	123.99
Vel Total (ft/s)	14.78	Avg. Vel. (ft/s)		14.78	
Max Chl Dpth (ft)	16.93	Hydr. Depth (ft)		14.11	
Conv. Total (cfs)	2820910.8	Conv. (cfs)		2820910.8	
Length Wtd. (ft)	568.44	Wetted Per. (ft)		816.37	
Min Ch El (ft)	1061.20	Shear (lb/sq ft)		3.14	
Alpha	1.00	Stream Power (lb/ft s)		46.39	
Frctn Loss (ft)	1.11	Cum Volume (acre-ft)	2.41	1796.49	10.72
C & E Loss (ft)	0.59	Cum SA (acres)	2.36	81.75	12.23

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1078.14	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.39	Wt. n-Val.		0.035	
E.G. Elev (ft)	1081.53	Reach Len. (ft)	340.00	568.44	730.00
Crit W.S. (ft)	1074.91	Flow Area (sq ft)		11439.94	
E.G. Slope (ft/ft)	0.003584	Area (sq ft)		11439.94	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	810.50	Top Width (ft)		810.50	
Vel Total (ft/s)	14.77	Avg. Vel. (ft/s)		14.77	
Max Chl Dpth (ft)	16.94	Hydr. Depth (ft)		14.11	
Conv. Total (cfs)	2822963.0	Conv. (cfs)		2822963.0	
Length Wtd. (ft)	568.44	Wetted Per. (ft)		816.38	
Min Ch El (ft)	1061.20	Shear (lb/sq ft)		3.14	
Alpha	1.00	Stream Power (lb/ft s)		46.32	
Frctn Loss (ft)	1.11	Cum Volume (acre-ft)		1797.12	
C & E Loss (ft)	0.58	Cum SA (acres)		81.75	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19537.40 LB	19599.34	1946.74	234.37	37.84	1.15	6.61	8.31
19599.34	19661.28	16369.98	1028.49	62.61	9.69	16.60	15.92
19661.28	19723.22	16852.73	1042.08	61.94	9.97	16.82	16.17
19723.22	19785.16	16592.08	1032.41	61.95	9.82	16.67	16.07
19785.16	19847.10	15943.96	1008.17	61.97	9.43	16.28	15.81
19847.10	19909.04	16169.93	1016.56	61.94	9.57	16.41	15.91
19909.04	19970.98	15513.27	991.57	61.94	9.18	16.01	15.65
19970.98	20032.92	14880.09	967.08	61.94	8.80	15.61	15.39
20032.92	20094.86	11789.04	844.31	62.55	6.98	13.63	13.96
20094.86	20156.80	7721.90	652.51	61.96	4.57	10.53	11.83
20156.80	20218.74	9833.36	754.38	61.96	5.82	12.18	13.04
20218.74	20280.68	12339.42	864.46	61.96	7.30	13.96	14.27
20280.68	20342.62	12195.89	863.60	62.90	7.22	13.94	14.12
20342.62	20404.56	851.62	134.92	32.89	0.50	4.25	6.31

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19537.40 LB	19599.34	1948.25	234.59	37.85	1.15	6.62	8.31
19599.34	19661.28	16368.65	1028.87	62.61	9.69	16.61	15.91
19661.28	19723.22	16851.22	1042.46	61.94	9.97	16.83	16.16
19723.22	19785.16	16590.69	1032.80	61.95	9.82	16.67	16.06
19785.16	19847.10	15942.86	1008.56	61.97	9.43	16.28	15.81

19847.10	19909.04	16168.73	1016.94	61.94	9.57	16.42	15.90
19909.04	19970.98	15512.37	991.95	61.94	9.18	16.01	15.64
19970.98	20032.92	14879.47	967.47	61.94	8.80	15.62	15.38
20032.92	20094.86	11789.68	844.69	62.55	6.98	13.64	13.96
20094.86	20156.80	7724.05	652.90	61.96	4.57	10.54	11.83
20156.80	20218.74	9834.79	754.76	61.96	5.82	12.19	13.03
20218.74	20280.68	12339.88	864.85	61.96	7.30	13.96	14.27
20280.68	20342.62	12196.36	863.98	62.90	7.22	13.95	14.12
20342.62	20404.56	853.01	135.12	32.89	0.50	4.25	6.31

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 214.79

INPUT
Description: Upstream Face of 16th St. Bridge
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18602	1086.519	189.33	1088	19457.59	1093.05	19457.68	1080.34	19457.78	1078.84
19460.58	1078.819	510.81	1060.85	19571.38	1058.819	576.21	1059	19603.16	1059
19676.68	1059	19690.2	1059	19695.03	1057.619	728.16	1059.919	809.02	1058.85
19813.85	1059	19875	1059.619	927.64	1060.319	932.47	1060.819	991.88	1060.7
20046.65	1059.852	0051.48	1059.852	0100.07	1060.620	148.37	1059	20165.47	1062.5
20170.3	1062.520	230.48	1063.452	0284.29	1062.952	0289.12	1062.952	0312.59	1063.7
20346.4	1064.152	0403.11	1063.920	407.94	1063.952	0471.98	1064.220	518.83	1078.6
20521.63	1078.620	521.73	1080.122	0521.83	1092.832	0590.03	1088	20744.59	1084
20957.11	1080	21227.59	1080	21923.11	1084	22261.21	1086.5		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18602	.04	19457.68	.03	20521.73	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19457.68	20521.73	116.34	116.34	116.34	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18602	19457.68	1080.34	20521.73	22261.21	1080.12

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1078.39	Element			
Vel Head (ft)	1.44	Wt. n-Val.		0.035	
E.G. Elev (ft)	1079.83	Reach Len. (ft)	26.17	26.17	26.17
Crit W.S. (ft)	1070.68	Flow Area (sq ft)		17557.55	
E.G. Slope (ft/ft)	0.001221	Area (sq ft)		17557.55	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1056.41	Top Width (ft)		1056.41	
Vel Total (ft/s)	9.63	Avg. Vel. (ft/s)		9.63	
Max Chl Dpth (ft)	20.79	Hydr. Depth (ft)		16.62	
Conv. Total (cfs)	4836428.5	Conv. (cfs)		4836428.5	
Length Wtd. (ft)	26.17	Wetted Per. (ft)		1062.34	
Min Ch El (ft)	1057.60	Shear (lb/sq ft)		1.26	
Alpha	1.00	Stream Power (lb/ft s)		12.13	
Frctn Loss (ft)	0.04	Cum Volume (acre-ft)	2.41	1607.32	10.54
C & E Loss (ft)	0.02	Cum SA (acres)	2.36	69.57	11.19

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1078.40	Element			
Vel Head (ft)	1.44	Wt. n-Val.		0.035	
E.G. Elev (ft)	1079.83	Reach Len. (ft)	26.17	26.17	26.17
Crit W.S. (ft)	1070.68	Flow Area (sq ft)		17564.39	
E.G. Slope (ft/ft)	0.001219	Area (sq ft)		17564.39	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1056.41	Top Width (ft)		1056.41	
Vel Total (ft/s)	9.62	Avg. Vel. (ft/s)		9.62	
Max Chl Dpth (ft)	20.80	Hydr. Depth (ft)		16.63	

Conv. Total (cfs)	4839537.0	Conv. (cfs)	4839537.0
Length Wtd. (ft)	26.17	Wetted Per. (ft)	1062.35
Min Ch El (ft)	1057.60	Shear (lb/sq ft)	1.26
Alpha	1.00	Stream Power (lb/ft s)	12.11
Frctn Loss (ft)	0.04	Cum Volume (acre-ft)	1607.87
C & E Loss (ft)	0.02	Cum SA (acres)	69.57

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19457.68 LB	19528.62	5279.72	748.09	69.94	3.12	11.18	7.06
19528.62	19599.55	14045.61	1353.46	70.96	8.31	19.08	10.38
19599.55	19670.49	14430.92	1375.41	70.94	8.54	19.39	10.49
19670.49	19741.43	14407.84	1376.24	71.22	8.53	19.40	10.47
19741.43	19812.36	14095.79	1356.21	70.94	8.34	19.12	10.39
19812.36	19883.30	14017.45	1351.66	70.94	8.29	19.05	10.37
19883.30	19954.24	13045.91	1294.63	70.94	7.72	18.25	10.08
19954.24	20025.17	12604.58	1268.19	70.94	7.46	17.88	9.94
20025.17	20096.11	13070.62	1296.13	70.94	7.73	18.27	10.08
20096.11	20167.05	13007.66	1295.11	71.32	7.70	18.26	10.04
20167.05	20237.98	9818.22	1091.68	70.95	5.81	15.39	8.99
20237.98	20308.92	9628.02	1078.95	70.95	5.70	15.21	8.92
20308.92	20379.86	8796.70	1022.02	70.94	5.21	14.41	8.61
20379.86	20450.79	8778.99	1020.75	70.94	5.19	14.39	8.60
20450.79	20521.73 RB	3971.98	629.02	69.48	2.35	9.34	6.31

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19457.68 LB	19528.62	5281.14	748.52	69.94	3.12	11.19	7.06
19528.62	19599.55	14044.69	1353.92	70.96	8.31	19.09	10.37
19599.55	19670.49	14429.83	1375.87	70.94	8.54	19.40	10.49
19670.49	19741.43	14406.75	1376.70	71.22	8.52	19.41	10.46
19741.43	19812.36	14094.85	1356.67	70.94	8.34	19.12	10.39
19812.36	19883.30	14016.54	1352.12	70.94	8.29	19.06	10.37
19883.30	19954.24	13045.38	1295.09	70.94	7.72	18.26	10.07
19954.24	20025.17	12604.22	1268.65	70.94	7.46	17.88	9.94
20025.17	20096.11	13070.09	1296.59	70.94	7.73	18.28	10.08
20096.11	20167.05	13007.13	1295.57	71.32	7.70	18.26	10.04
20167.05	20237.98	9818.90	1092.14	70.95	5.81	15.40	8.99
20237.98	20308.92	9628.77	1079.41	70.95	5.70	15.22	8.92
20308.92	20379.86	8797.73	1022.48	70.94	5.21	14.41	8.60
20379.86	20450.79	8780.02	1021.21	70.94	5.20	14.40	8.60
20450.79	20521.73 RB	3973.93	629.45	69.49	2.35	9.35	6.31

BRIDGE RIVER: Salt River
REACH: Reach 4 RS: 214.785

INPUT
Description: 16th Street
Distance from Upstream XS = 26.17
Deck/Roadway Width = 64
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 13

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
18602	1086.5	1086.5	19189.33	1088	1088	19457.59	1093.05	1093.05
19457.68	1093.05	1080.3	19571.38	1095.18	1082.43	19690.2	1096.76	1084.02
19809.02	1097.88	1085.15	19927.64	1098.32	1085.63	20051.48	1098.32	1085.6
20170.3	1097.7	1085.03	20289.12	1096.59	1083.86	20407.94	1094.99	1082.24
20521.73	1092.8	1080.12						

Upstream Bridge Cross Section Data
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18602	1086.5	19189.33	1088	19457.59	1093.05	19457.68	1080.3	19457.78	1078.84
19460.58	1078.8	19510.81	1060.85	19571.38	1058.8	19576.21	1059	19603.16	1059
19676.68	1059	19690.2	1059	19695.03	1057.6	19728.16	1059.9	19809.02	1058.85
19813.85	1059	19875	1059.6	19927.64	1060.3	19932.47	1060.3	19991.88	1060.7
20046.65	1059.85	20051.48	1059.85	20100.07	1060.6	20148.37	1059	20165.47	1062.5

```
 20170.3  1062.520230.48 1063.4520284.29 1062.9520289.12 1062.9520312.59  1063.7
 20346.4 1064.1520403.11  1063.920407.94 1063.9520471.98  1064.220518.83  1078.6
20521.63  1078.620521.73 1080.1220521.83 1092.8320590.03    108820744.59    1084
20957.11    108021227.59    108021923.11    108422261.21  1086.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   18602     .0419457.68    .03520521.73     .04

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19457.6820521.73             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1860219457.68 1080.3420521.7322261.21 1080.12

Downstream  Deck/Roadway Coordinates
    num=      13
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
   18602  1086.5  1086.519189.33    1088    108819457.59 1093.05 1093.05
19457.68 1093.05 1080.3419571.38 1095.18 1082.43 19690.2 1096.76 1084.02
19809.02 1097.88 1085.1519927.64 1098.32 1085.6320051.48 1098.32  1085.6
 20170.3  1097.7 1085.0320289.12 1096.59 1083.8620407.94 1094.99 1082.24
20521.73  1092.8 1080.12

Downstream Bridge Cross Section Data
Station Elevation Data    num=      44
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   18602  1086.519189.33    108819457.59 1093.0519457.68 1080.3419457.78 1078.84
19460.58  1078.819510.81 1060.8519571.38  1058.819576.21    105919603.16    1059
19676.68    1059 19690.2    105919695.03    105919728.16  1059.919809.02 1058.85
19813.85 1058.85   19875  1059.619927.64  1060.319932.47  1060.319991.88  1060.7
20046.65 1059.8520051.48 1059.8520100.07  1060.620148.37    105920165.47  1062.5
 20170.3  1062.520230.48 1063.4520284.29 1062.9520289.12 1062.9520312.59  1063.7
 20346.4 1064.1520403.11  1063.920407.94 1063.9520471.98  1064.220518.83  1078.6
20521.63  1078.620521.73 1080.1220521.83 1092.8320590.03    108820744.59    1084
20957.11    108021227.59    108021923.11    108422261.21  1086.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   18602     .0419457.68    .03520521.73     .04

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19457.6820521.73             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1860219457.68 1080.3420521.7322261.21 1080.12

Upstream Embankment side slope              =         horiz. to 1.0 vertical
Downstream Embankment side slope            =         horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  8

Pier Data
Pier Station     Upstream= 19574.1    Downstream= 19574.1
Upstream     num=       2
    Width   Elev    Width   Elev
    4.83  1058.8    4.83 1082.51
Downstream     num=       2
    Width   Elev    Width   Elev
    4.83  1058.8    4.83 1082.51

Pier Data
Pier Station     Upstream= 19692.8    Downstream= 19692.8
Upstream     num=       2
    Width   Elev    Width   Elev
    4.83  1057.6    4.83  1084.1
Downstream     num=       2
    Width   Elev    Width   Elev
    4.83  1057.6    4.83  1084.1

Pier Data
```

```
 Pier Station     Upstream= 19811.6    Downstream= 19811.6
 Upstream     num=       2
     Width   Elev    Width   Elev
     4.83 1058.85    4.83  1085.2
 Downstream     num=       2
     Width   Elev    Width   Elev
     4.83 1058.85    4.83  1085.2

 Pier Data
 Pier Station     Upstream= 19930.5    Downstream= 19930.5
 Upstream     num=       2
     Width   Elev    Width   Elev
     4.83  1060.3    4.83  1085.6
 Downstream     num=       2
     Width   Elev    Width   Elev
     4.83  1060.3    4.83  1085.6

 Pier Data
 Pier Station     Upstream= 20049.5    Downstream= 20049.5
 Upstream     num=       2
     Width   Elev    Width   Elev
     4.83 1059.85    4.83  1085.6
 Downstream     num=       2
     Width   Elev    Width   Elev
     4.83 1059.85    4.83  1085.6

 Pier Data
 Pier Station     Upstream= 20167.6    Downstream= 20167.6
 Upstream     num=       2
     Width   Elev    Width   Elev
     4.83  1062.5    4.83  1085.1
 Downstream     num=       2
     Width   Elev    Width   Elev
     4.83  1062.5    4.83  1085.1

 Pier Data
 Pier Station     Upstream= 20286.4    Downstream= 20286.4
 Upstream     num=       2
     Width   Elev    Width   Elev
     4.83 1062.95    4.83  1083.9
 Downstream     num=       2
     Width   Elev    Width   Elev
     4.83 1062.95    4.83  1083.9

 Pier Data
 Pier Station     Upstream= 20405.8    Downstream= 20405.8
 Upstream     num=       2
     Width   Elev    Width   Elev
     4.83  1063.9    4.83  1082.3
 Downstream     num=       2
     Width   Elev    Width   Elev
     4.83  1063.9    4.83  1082.3

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
       Momentum                Cd   =     1.2
       Yarnell                 KVal =    1.05
Selected Low Flow Methods = Highest Energy Answer

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Do not add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the downstream end
       Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT    Profile #PF#1
Opening : Bridge #1

  E.G. US. (ft)                1079.83   Element                  Inside BR US  Inside BR DS
  W.S. US. (ft)                1078.39   E.G. Elev (ft)               1079.77       1079.65
```

Q Total (cfs)	169000.00	W.S. Elev (ft)	1078.17	1078.01
Q Bridge (cfs)	169000.00	Crit W.S. (ft)	1071.00	1071.00
Q Weir (cfs)		Max Chl Dpth (ft)	20.56	19.21
Weir Sta Lft (ft)		Vel Total (ft/s)	10.15	10.26
Weir Sta Rgt (ft)		Flow Area (sq ft)	16656.43	16472.73
Weir Submerg		Froude # Chl	0.44	0.45
Weir Max Depth (ft)		Specif Force (cu ft)	196198.91	193742.33
Min Top Rd (ft)	1080.12	Hydr Depth (ft)	16.39	16.22
Min El Prs (ft)	1085.63	W.P. Total (ft)	1301.74	1296.74
Delta EG (ft)	0.26	Conv. Total (cfs)	3868540.5	3807459.5
Delta WS (ft)	0.33	Top Width (ft)	1016.55	1015.56
BR Open Area (sq ft)	22419.11	Frctn Loss (ft)	0.12	0.04
BR Open Vel (ft/s)	10.26	C & E Loss (ft)	0.00	0.04
Coef of Q		Shear Total (lb/sq ft)	1.52	1.56
Br Sel Mthd	Energy only	Power Total (lb/ft s)	15.47	16.03

BRIDGE OUTPUT Profile #PF#2
Opening : Bridge #1

E.G. US. (ft)	1079.83	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1078.40	E.G. Elev (ft)	1079.78	1079.65
Q Total (cfs)	169000.00	W.S. Elev (ft)	1078.18	1078.02
Q Bridge (cfs)	169000.00	Crit W.S. (ft)	1071.00	1071.00
Q Weir (cfs)		Max Chl Dpth (ft)	20.57	19.22
Weir Sta Lft (ft)		Vel Total (ft/s)	10.14	10.25
Weir Sta Rgt (ft)		Flow Area (sq ft)	16663.08	16479.79
Weir Submerg		Froude # Chl	0.44	0.45
Weir Max Depth (ft)		Specif Force (cu ft)	196287.41	193833.88
Min Top Rd (ft)	1092.89	Hydr Depth (ft)	16.40	16.23
Min El Prs (ft)	1085.63	W.P. Total (ft)	1301.14	1296.89
Delta EG (ft)	0.26	Conv. Total (cfs)	3872308.5	3809880.0
Delta WS (ft)	0.33	Top Width (ft)	1015.88	1015.60
BR Open Area (sq ft)	22402.95	Frctn Loss (ft)	0.12	0.04
BR Open Vel (ft/s)	10.25	C & E Loss (ft)	0.00	0.04
Coef of Q		Shear Total (lb/sq ft)	1.52	1.56
Br Sel Mthd	Energy only	Power Total (lb/ft s)	15.45	16.01

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 214.78

INPUT
Description: Downstream Face of 16th St. Bridge
Station Elevation Data num= 44

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18602	1086.519189.33		108819457.59	1093.0519457.68		1080.3419457.78		1078.84	
19460.58	1078.819510.81		1060.8519571.38	1058.819576.21		105919603.16		1059	
19676.68	1059	19690.2	105919695.03	105919728.16		1059.919809.02		1058.85	
19813.85	1058.85	19875	1059.619927.64	1060.319932.47		1060.319991.88		1060.7	
20046.65	1059.8520051.48		1059.8520100.07	1060.620148.37		105920165.47		1062.5	
20170.3	1062.520230.48		1063.4520284.29	1062.9520289.12		1062.9520312.59		1063.7	
20346.4	1064.1520403.11		1063.920407.94	1063.9520471.98		1064.220518.83		1078.6	
20521.63	1078.620521.73		1080.1220521.83	1092.8320590.03		108820744.59		1084	
20957.11	108021227.59		108021923.11	108422261.21		1086.5			

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18602	.0419457.68		.03520521.73		.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19457.6820521.73		520	310.05	80	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
1860219457.68		1080.3420521.7322261.21			1080.12

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1078.06	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.50	Wt. n-Val.		0.035	
E.G. Elev (ft)	1079.56	Reach Len. (ft)	520.00	310.05	80.00
Crit W.S. (ft)	1070.73	Flow Area (sq ft)		17192.07	
E.G. Slope (ft/ft)	0.001306	Area (sq ft)		17192.07	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1054.44	Top Width (ft)		1054.44	
Vel Total (ft/s)	9.83	Avg. Vel. (ft/s)		9.83	

Max Chl Dpth (ft)	19.26	Hydr. Depth (ft)		16.30	
Conv. Total (cfs)	4676684.5	Conv. (cfs)		4676684.5	
Length Wtd. (ft)	310.05	Wetted Per. (ft)		1059.99	
Min Ch El (ft)	1058.80	Shear (lb/sq ft)		1.32	
Alpha	1.00	Stream Power (lb/ft s)		13.00	
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)	2.41	1562.59	10.54
C & E Loss (ft)	0.02	Cum SA (acres)	2.36	66.83	11.19

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1078.07	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.50	Wt. n-Val.		0.035	
E.G. Elev (ft)	1079.57	Reach Len. (ft)	520.00	310.05	80.00
Crit W.S. (ft)	1070.73	Flow Area (sq ft)		17199.27	
E.G. Slope (ft/ft)	0.001304	Area (sq ft)		17199.27	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1054.44	Top Width (ft)		1054.44	
Vel Total (ft/s)	9.83	Avg. Vel. (ft/s)		9.83	
Max Chl Dpth (ft)	19.27	Hydr. Depth (ft)		16.31	
Conv. Total (cfs)	4679914.5	Conv. (cfs)		4679914.5	
Length Wtd. (ft)	310.05	Wetted Per. (ft)		1060.01	
Min Ch El (ft)	1058.80	Shear (lb/sq ft)		1.32	
Alpha	1.00	Stream Power (lb/ft s)		12.98	
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)		1563.13	
C & E Loss (ft)	0.02	Cum SA (acres)		66.83	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19457.68 LB	19528.62	5248.58	726.45	68.97	3.11	11.01	7.23
19528.62	19599.55	14116.23	1330.35	70.96	8.35	18.75	10.61
19599.55	19670.49	14510.16	1352.30	70.94	8.59	19.06	10.73
19670.49	19741.43	14051.20	1326.55	70.95	8.31	18.70	10.59
19741.43	19812.36	14170.77	1333.27	70.94	8.39	18.80	10.63
19812.36	19883.30	14171.74	1333.33	70.94	8.39	18.80	10.63
19883.30	19954.24	13094.25	1271.52	70.94	7.75	17.93	10.30
19954.24	20025.17	12643.28	1245.08	70.94	7.48	17.55	10.15
20025.17	20096.11	13119.52	1273.02	70.94	7.76	17.95	10.31
20096.11	20167.05	13056.00	1272.00	71.32	7.73	17.93	10.26
20167.05	20237.98	9799.15	1068.57	70.95	5.80	15.06	9.17
20237.98	20308.92	9605.25	1055.84	70.95	5.68	14.88	9.10
20308.92	20379.86	8758.06	998.91	70.94	5.18	14.08	8.77
20379.86	20450.79	8740.01	997.64	70.94	5.17	14.06	8.76
20450.79	20521.73 RB	3915.78	607.25	68.37	2.32	9.16	6.45

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19457.68 LB	19528.62	5250.01	726.90	68.98	3.11	11.02	7.22
19528.62	19599.55	14115.22	1330.83	70.96	8.35	18.76	10.61
19599.55	19670.49	14508.98	1352.78	70.94	8.59	19.07	10.73
19670.49	19741.43	14050.22	1327.04	70.95	8.31	18.71	10.59
19741.43	19812.36	14169.74	1333.76	70.94	8.38	18.80	10.62
19812.36	19883.30	14170.71	1333.81	70.94	8.39	18.80	10.62
19883.30	19954.24	13093.68	1272.01	70.94	7.75	17.93	10.29
19954.24	20025.17	12642.91	1245.56	70.94	7.48	17.56	10.15
20025.17	20096.11	13118.94	1273.50	70.94	7.76	17.95	10.30
20096.11	20167.05	13055.43	1272.48	71.32	7.73	17.94	10.26
20167.05	20237.98	9799.91	1069.05	70.95	5.80	15.07	9.17
20237.98	20308.92	9606.08	1056.33	70.95	5.68	14.89	9.09
20308.92	20379.86	8759.20	999.40	70.94	5.18	14.09	8.76
20379.86	20450.79	8741.16	998.12	70.94	5.17	14.07	8.76
20450.79	20521.73 RB	3917.81	607.70	68.38	2.32	9.17	6.45

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 214.71

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16537.2	1088.3	16558.9	1085.9	16592.9	1085.9	16763.8	1086.2	16859.7	1086.5
16868.8	1087	17046.9	1087.1	17161.4	1088.2	17171.7	1082.1	17181.2	1086.1
17183.9	1086.7	17186.7	1087.9	17200.4	1088.1	17218.3	1086.4	17227.2	1087.1
17278.8	1086.7	17455.3	1086.4	17496.2	1085.4	17655	1084.9	17741.4	1083.4
17806.6	1083.9	18000.9	1084.3	18157.7	1083.7	18217.1	1085.5	18338.5	1084.8
18351.8	1084.1	18406.2	1083.5	18423.6	1082.7	18570.8	1083.4	18631.7	1082.3
18689.9	1082.2	18730.4	1083	18877.7	1084.3	18897.5	1084.2	18913.9	1085.7
19052.5	1085.8	19136.3	1086.3	19280	1085.5	19302.7	1085.3	19375.5	1086.5
19516.2	1085.3	19591.2	1085.2	19613	1086.9	19679.3	1064	19710.2	1055.3
19776.6	1057.1	19789.2	1055.6	19878.5	1055.1	19950.4	1058.1	19985.7	1058.8
20217.6	1058.8	20282.8	1058.4	20409.7	1059.5	20459.9	1062.1	20501.3	1063.5
20513.5	1067.4	20556	1082.5	20564.1	1082	20574.4	1082.3	20578.1	1079.7
20580.1	1079.2	20718.7	1080.6	20735	1083.7	20810.9	1083.1	21042.8	1082.6
21165.2	1083.1	21184.4	1080.5	21197	1079.9	21225.3	1082.8	21322.8	1082.6
21486.4	1082.2	21544.2	1082	21551.3	1081.1	21570.6	1084.8	21585.1	1084.6
21759.9	1083.1	21812.7	1083.8	21931.7	1084.3	22062.2	1085.4	22077.8	1085.4
22114.7	1086.6	22227.5	1086.1	22315.6	1086.8	22453.6	1087.2	22491.4	1087.2
22621.3	1087.6	22727.1	1088.5	22765.4	1088.2	22839.8	1088.5	23019.9	1089.1
23040.6	1089.4	23089.5	1088	23154	1089.2	23157.8	1090.1	23161.9	1089.9
23206.9	1107.7								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
16537.2	.04	19613	.035	20556	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19613	20556	500	508.55	450	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16537.2	19613	1086.9	20556	23206.9	1082.5

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1077.48	Element			
Vel Head (ft)	1.67	Wt. n-Val.		0.035	
E.G. Elev (ft)	1079.15	Reach Len. (ft)	500.00	508.55	450.00
Crit W.S. (ft)	1069.29	Flow Area (sq ft)		16287.19	
E.G. Slope (ft/ft)	0.001272	Area (sq ft)		16287.19	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	901.57	Top Width (ft)		901.57	
Vel Total (ft/s)	10.38	Avg. Vel. (ft/s)		10.38	
Max Chl Dpth (ft)	22.38	Hydr. Depth (ft)		18.07	
Conv. Total (cfs)	4739388.0	Conv. (cfs)		4739388.0	
Length Wtd. (ft)	508.55	Wetted Per. (ft)		907.66	
Min Ch El (ft)	1055.10	Shear (lb/sq ft)		1.42	
Alpha	1.00	Stream Power (lb/ft s)		14.78	
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	2.41	1443.44	10.54
C & E Loss (ft)	0.11	Cum SA (acres)	2.36	59.87	11.19

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1077.48	Element			
Vel Head (ft)	1.67	Wt. n-Val.		0.035	
E.G. Elev (ft)	1079.15	Reach Len. (ft)	500.00	508.55	450.00
Crit W.S. (ft)	1069.29	Flow Area (sq ft)		16294.01	
E.G. Slope (ft/ft)	0.001270	Area (sq ft)		16294.01	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	901.57	Top Width (ft)		901.57	
Vel Total (ft/s)	10.37	Avg. Vel. (ft/s)		10.37	
Max Chl Dpth (ft)	22.38	Hydr. Depth (ft)		18.07	
Conv. Total (cfs)	4742644.5	Conv. (cfs)		4742644.5	
Length Wtd. (ft)	508.55	Wetted Per. (ft)		907.67	
Min Ch El (ft)	1055.10	Shear (lb/sq ft)		1.42	
Alpha	1.00	Stream Power (lb/ft s)		14.76	
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)		1443.93	
C & E Loss (ft)	0.11	Cum SA (acres)		59.87	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19613.00 LB	19675.87	1039.88	218.63	37.64	0.62	6.14	4.76
19675.87	19738.73	12721.40	1216.69	64.28	7.53	19.35	10.46

19738.73	19801.60	14938.29	1328.84	62.97	8.84	21.14	11.24
19801.60	19864.47	16131.73	1390.66	62.87	9.55	22.12	11.60
19864.47	19927.33	15467.24	1356.36	62.91	9.15	21.57	11.40
19927.33	19990.20	12853.02	1213.61	62.89	7.61	19.31	10.59
19990.20	20053.07	12165.47	1174.05	62.87	7.20	18.68	10.36
20053.07	20115.93	12165.47	1174.05	62.87	7.20	18.68	10.36
20115.93	20178.80	12165.47	1174.05	62.87	7.20	18.68	10.36
20178.80	20241.67	12195.74	1175.79	62.87	7.22	18.70	10.37
20241.67	20304.53	12476.17	1191.96	62.87	7.38	18.96	10.47
20304.53	20367.40	12099.24	1170.23	62.87	7.16	18.61	10.34
20367.40	20430.27	11357.71	1126.84	62.90	6.72	17.92	10.08
20430.27	20493.13	8854.10	970.63	62.92	5.24	15.44	9.12
20493.13	20556.00 RB	2369.06	404.82	51.07	1.40	8.31	5.85

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19613.00 LB	19675.87	1041.19	218.89	37.65	0.62	6.15	4.76
19675.87	19738.73	12721.13	1217.17	64.28	7.53	19.36	10.45
19738.73	19801.60	14937.14	1329.32	62.97	8.84	21.14	11.24
19801.60	19864.47	16130.07	1391.13	62.87	9.54	22.13	11.59
19864.47	19927.33	15465.87	1356.83	62.91	9.15	21.58	11.40
19927.33	19990.20	12852.77	1214.09	62.89	7.61	19.31	10.59
19990.20	20053.07	12165.49	1174.52	62.87	7.20	18.68	10.36
20053.07	20115.93	12165.49	1174.52	62.87	7.20	18.68	10.36
20115.93	20178.80	12165.49	1174.52	62.87	7.20	18.68	10.36
20178.80	20241.67	12195.76	1176.26	62.87	7.22	18.71	10.37
20241.67	20304.53	12476.07	1192.44	62.87	7.38	18.97	10.46
20304.53	20367.40	12099.29	1170.70	62.87	7.16	18.62	10.34
20367.40	20430.27	11358.06	1127.32	62.90	6.72	17.93	10.08
20430.27	20493.13	8855.37	971.10	62.92	5.24	15.45	9.12
20493.13	20556.00 RB	2370.78	405.19	51.08	1.40	8.32	5.85

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 214.61

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19556.5	1090.7	19575.8	1083.7	19604	1083	19610.6	1082.9	19612.9	1082.9
19644.9	1083.1	19651.7	1083.5	19652	1083.3	19667.4	1082.4	19671.3	1082.1
19705.3	1070.2	19734.4	1059.9	19741.4	1059.3	19748	1058.8	19778	1052.1
19779.3	1051.9	19816.2	1051.8	20190.1	1050.7	20241.7	1050.4	20265.2	1051.1
20282.3	1051.7	20311.7	1051.9	20401.7	1053.1	20478.1	1077.4	20490.2	1081.3
20493	1081.2	20569.1	1081.3	20872.2	1081.7	21019.6	1081.8	21020.5	1080.9
21033.8	1081.6	21035.8	1081.5	21050.2	1081.5	21050.8	1082.2	21072	1081.6
21073.4	1082	21087.1	1081.8	21155	1081.6	21337.9	1081	21391.3	1080.8
21411.1	1080.4	21430.2	1082	21430.6	1082	21445.5	1082.7	21446.6	1082.9
21449.3	1082.9	21454.5	1082.8	21492.8	1083.2	21525.4	1083.8	21540.7	1083.8
21548.1	1083.8	21644.1	1084.5	21661.2	1084.7	21670.8	1084.7	21686.1	1084.9
21694.5	1085.5	21699.7	1086	21770.9	1085.7	21773.6	1085.7	21783.8	1085.6
21878	1085.1	21882	1085.2	21936.8	1086.2	21960.9	1085.7	21970.7	1085.5
21971.9	1085.8	21979.1	1086	21982.1	1086.2	21983.3	1086.4	22095.3	1085.7
22108.3	1085.5	22121.6	1085.5	22244.5	1085.6	22270	1085.6	22368.7	1085.5
22494.6	1085.6	22513.4	1085.6	22576.4	1085.9	22577.8	1085.9	22583	1086.1
22584.3	1086.1	22587.2	1086.2	22590.7	1086.2	22623.8	1086.6	22635.7	1086.6
22658.8	1086.7	22665.4	1086.7	22764.4	1087	22889.6	1087.5	22950.3	1086.7
22951.2	1086.5	22992.3	1087.4	22996.7	1087.5	22998	1087.5	23025.3	1087.8
23027	1089.3								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19556.5	.04	19651.7	.035	20490.2	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19651.7	20490.2	480	493.82	490	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19556.5	19651.7	1083.5	20490.2	23027	1081.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1077.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.32	Wt. n-Val.		0.035	
E.G. Elev (ft)	1078.56	Reach Len. (ft)	480.00	493.82	490.00
Crit W.S. (ft)	1064.26	Flow Area (sq ft)		18346.45	
E.G. Slope (ft/ft)	0.000723	Area (sq ft)		18346.45	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	792.44	Top Width (ft)		792.44	
Vel Total (ft/s)	9.21	Avg. Vel. (ft/s)		9.21	
Max Chl Dpth (ft)	26.85	Hydr. Depth (ft)		23.15	
Conv. Total (cfs)	6287221.5	Conv. (cfs)		6287221.5	
Length Wtd. (ft)	493.82	Wetted Per. (ft)		799.99	
Min Ch El (ft)	1050.40	Shear (lb/sq ft)		1.03	
Alpha	1.00	Stream Power (lb/ft s)		9.53	
Frctn Loss (ft)	0.26	Cum Volume (acre-ft)	2.41	1241.27	10.54
C & E Loss (ft)	0.15	Cum SA (acres)	2.36	49.98	11.19

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1077.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.32	Wt. n-Val.		0.035	
E.G. Elev (ft)	1078.57	Reach Len. (ft)	480.00	493.82	490.00
Crit W.S. (ft)	1064.26	Flow Area (sq ft)		18352.64	
E.G. Slope (ft/ft)	0.000722	Area (sq ft)		18352.64	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	792.44	Top Width (ft)		792.44	
Vel Total (ft/s)	9.21	Avg. Vel. (ft/s)		9.21	
Max Chl Dpth (ft)	26.85	Hydr. Depth (ft)		23.16	
Conv. Total (cfs)	6290683.0	Conv. (cfs)		6290683.0	
Length Wtd. (ft)	493.82	Wetted Per. (ft)		800.00	
Min Ch El (ft)	1050.40	Shear (lb/sq ft)		1.03	
Alpha	1.00	Stream Power (lb/ft s)		9.52	
Frctn Loss (ft)	0.26	Cum Volume (acre-ft)		1241.69	
C & E Loss (ft)	0.15	Cum SA (acres)		49.98	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19651.70 LB	19707.60	230.65	88.04	23.76	0.14	3.93	2.62
19707.60	19763.50	6062.73	894.07	57.96	3.59	15.99	6.78
19763.50	19819.40	12938.34	1392.43	56.27	7.66	24.91	9.29
19819.40	19875.30	13545.80	1427.52	55.90	8.02	25.54	9.49
19875.30	19931.20	13691.54	1436.71	55.90	8.10	25.70	9.53
19931.20	19987.10	13837.89	1445.91	55.90	8.19	25.87	9.57
19987.10	20043.00	13984.87	1455.10	55.90	8.28	26.03	9.61
20043.00	20098.90	14131.97	1464.25	55.90	8.36	26.19	9.65
20098.90	20154.80	14280.63	1473.49	55.90	8.45	26.36	9.69
20154.80	20210.70	14439.28	1483.29	55.90	8.54	26.53	9.73
20210.70	20266.60	14523.97	1488.63	55.91	8.59	26.63	9.76
20266.60	20322.50	13526.93	1426.44	55.91	8.00	25.52	9.48
20322.50	20378.40	12924.29	1387.88	55.90	7.65	24.83	9.31
20378.40	20434.30	9736.54	1184.34	57.51	5.76	21.19	8.22
20434.30	20490.20 RB	1144.57	298.36	45.45	0.68	6.89	3.84

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19651.70 LB	19707.60	231.23	88.22	23.77	0.14	3.93	2.62
19707.60	19763.50	6064.43	894.51	57.96	3.59	16.00	6.78
19763.50	19819.40	12938.20	1392.87	56.27	7.66	24.92	9.29
19819.40	19875.30	13545.48	1427.95	55.90	8.02	25.54	9.49
19875.30	19931.20	13691.16	1437.15	55.90	8.10	25.71	9.53
19931.20	19987.10	13837.47	1446.34	55.90	8.19	25.87	9.57

19987.10	20043.00	13984.40	1455.54	55.90	8.27	26.04	9.61
20043.00	20098.90	14131.45	1464.68	55.90	8.36	26.20	9.65
20098.90	20154.80	14280.06	1473.93	55.90	8.45	26.37	9.69
20154.80	20210.70	14438.65	1483.73	55.90	8.54	26.54	9.73
20210.70	20266.60	14523.32	1489.06	55.91	8.59	26.64	9.75
20266.60	20322.50	13526.61	1426.87	55.91	8.00	25.53	9.48
20322.50	20378.40	12924.16	1388.31	55.90	7.65	24.84	9.31
20378.40	20434.30	9737.33	1184.78	57.51	5.76	21.19	8.22
20434.30	20490.20 RB	1146.04	298.70	45.46	0.68	6.90	3.84

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 214.52

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18720.8	1088.9	18742	1088.8	18817.1	1087.2	18852.5	1085.6	18880.5	1085.2
18899.4	1085	18968.6	1084.4	18992.4	1084.1	19069.7	1083.1	19080.7	1083.1
19124.1	1083.4	19129.6	1083.4	19171.3	1083.5	19252.9	1082.9	19307.3	1082.4
19347.5	1082.2	19395	1080	19410	1078.6	19468.6	1078.3	19471.7	1078.3
19472.1	1078.4	19502.5	1082.1	19512.6	1081.9	19530.4	1075.5	19587.6	1058.3
19588.4	1058.2	19631.6	1049.1	19632.2	1049	19654.8	1048.9	20209.9	1048
20236.1	1049	20250.8	1050	20271.2	1049.9	20335.4	1050.8	20343.6	1050.6
20369.5	1059.1	20388.5	1060.2	20436.1	1072.8	20461.7	1079.5	20551.8	1079.4
20611.2	1079.6	20954.9	1080	20964	1080	20970.6	1080.1	20974.1	1080.7
20989.2	1081.9	20999.7	1081.1	21003	1080.5	21009.8	1081	21042.5	1081.5
21050.5	1081.8	21079.1	1083.3	21085.5	1083.5	21116.9	1082.1	21130.4	1081.5
21219.7	1082.4	21240.1	1082.6	21282.6	1084.4	21286	1083.5	21288.4	1082.3
21332.6	1082.1	21387.4	1082.6	21392.5	1082.4	21406.8	1081.5	21439.6	1083.8
21439.8	1083.8	21481	1083	21531.4	1083.5	21564.3	1083.6	21583	1083.6
21641	1083.6	21706.4	1084	21785.5	1084.9	21787.2	1084.8	21792.9	1084.7
21803.4	1084.8	21839.8	1084.4	21972.1	1084.1	21979.9	1084.1	22043.3	1084.2
22124	1084.1	22153.7	1084.1	22249.3	1084.2	22303.8	1084.1	22323.8	1084.2
22426.9	1084.1	22443.4	1085	22456.6	1085.2	22483.5	1085.4	22648.6	1085.7
22681.1	1085.7	22718.5	1085.6	22853.3	1085.1	22877.5	1085.6	22879.9	1087.3
22883.2	1089.5								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18720.8	.04	19502.5	.035	20461.7	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19502.5	20461.7	470	500.39	530	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18720.8	19502.5	1082.1	20461.7	22883.2	1079.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1077.35	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.80	Wt. n-Val.		0.035	
E.G. Elev (ft)	1078.15	Reach Len. (ft)	470.00	500.39	530.00
Crit W.S. (ft)	1060.59	Flow Area (sq ft)		23492.53	
E.G. Slope (ft/ft)	0.000391	Area (sq ft)		23492.53	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	928.22	Top Width (ft)		928.22	
Vel Total (ft/s)	7.19	Avg. Vel. (ft/s)		7.19	
Max Chl Dpth (ft)	29.35	Hydr. Depth (ft)		25.31	
Conv. Total (cfs)	8551625.0	Conv. (cfs)		8551625.0	
Length Wtd. (ft)	500.39	Wetted Per. (ft)		935.71	
Min Ch El (ft)	1048.00	Shear (lb/sq ft)		0.61	
Alpha	1.00	Stream Power (lb/ft s)		4.40	
Frctn Loss (ft)	0.17	Cum Volume (acre-ft)	2.41	1004.12	10.54
C & E Loss (ft)	0.06	Cum SA (acres)	2.36	40.23	11.19

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1077.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.80	Wt. n-Val.		0.035	
E.G. Elev (ft)	1078.16	Reach Len. (ft)	470.00	500.39	530.00

Crit W.S. (ft)	1060.59	Flow Area (sq ft)	23499.67
E.G. Slope (ft/ft)	0.000390	Area (sq ft)	23499.67
Q Total (cfs)	169000.00	Flow (cfs)	169000.00
Top Width (ft)	928.22	Top Width (ft)	928.22
Vel Total (ft/s)	7.19	Avg. Vel. (ft/s)	7.19
Max Chl Dpth (ft)	29.36	Hydr. Depth (ft)	25.32
Conv. Total (cfs)	8555852.0	Conv. (cfs)	8555852.0
Length Wtd. (ft)	500.39	Wetted Per. (ft)	935.73
Min Ch El (ft)	1048.00	Shear (lb/sq ft)	0.61
Alpha	1.00	Stream Power (lb/ft s)	4.40
Frctn Loss (ft)	0.17	Cum Volume (acre-ft)	1004.45
C & E Loss (ft)	0.06	Cum SA (acres)	40.23

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19502.50 LB	19566.45	720.40	266.74	43.10	0.43	6.48	2.70
19566.45	19630.39	8013.47	1340.75	65.81	4.74	20.97	5.98
19630.39	19694.34	13574.30	1818.85	63.98	8.03	28.44	7.46
19694.34	19758.29	13675.99	1826.61	63.95	8.09	28.56	7.49
19758.29	19822.23	13758.41	1833.19	63.95	8.14	28.67	7.51
19822.23	19886.18	13841.84	1839.87	63.95	8.19	28.77	7.52
19886.18	19950.13	13925.08	1846.50	63.95	8.24	28.88	7.54
19950.13	20014.07	14008.10	1853.08	63.95	8.29	28.98	7.56
20014.07	20078.02	14092.13	1859.76	63.95	8.34	29.08	7.58
20078.02	20141.97	14175.97	1866.39	63.95	8.39	29.19	7.60
20141.97	20205.91	14259.58	1872.96	63.95	8.44	29.29	7.61
20205.91	20269.86	13392.00	1804.36	64.00	7.92	28.22	7.42
20269.86	20333.81	12464.18	1727.77	63.95	7.38	27.02	7.21
20333.81	20397.75	7890.45	1327.14	65.66	4.67	20.75	5.95
20397.75	20461.70 RB	1208.09	408.57	57.63	0.71	7.33	2.96

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19502.50 LB	19566.45	721.39	267.06	43.11	0.43	6.48	2.70
19566.45	19630.39	8014.55	1341.24	65.81	4.74	20.97	5.98
19630.39	19694.34	13573.94	1819.34	63.98	8.03	28.45	7.46
19694.34	19758.29	13675.59	1827.10	63.95	8.09	28.57	7.48
19758.29	19822.23	13757.99	1833.68	63.95	8.14	28.68	7.50
19822.23	19886.18	13841.39	1840.36	63.95	8.19	28.78	7.52
19886.18	19950.13	13924.61	1846.99	63.95	8.24	28.88	7.54
19950.13	20014.07	14007.61	1853.57	63.95	8.29	28.99	7.56
20014.07	20078.02	14091.61	1860.25	63.95	8.34	29.09	7.58
20078.02	20141.97	14175.42	1866.88	63.95	8.39	29.19	7.59
20141.97	20205.91	14259.01	1873.46	63.95	8.44	29.30	7.61
20205.91	20269.86	13391.69	1804.85	64.00	7.92	28.22	7.42
20269.86	20333.81	12464.14	1728.26	63.95	7.38	27.03	7.21
20333.81	20397.75	7891.56	1327.63	65.66	4.67	20.76	5.94
20397.75	20461.70 RB	1209.50	409.00	57.64	0.72	7.34	2.96

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 214.42

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18493.5	1089	18623	1088.7	18649.2	1088.3	18719.9	1086.7	18729.4	1086.4
18866.3	1084.6	18902.2	1083.9	18965.6	1081.6	19017.4	1081.3	19068.3	1081.3
19082.8	1081.1	19105.8	1080.5	19165.7	1079.2	19179.2	1079.1	19277.4	1079.4
19283.5	1079.5	19328.1	1079.3	19378	1077.9	19379.9	1078	19421	1065.1
19464.1	1052.5	19491.1	1052.2	19495.8	1051.2	19508.9	1049.2	20099.7	1048.5
20317.7	1048.3	20325.7	1048.2	20347.5	1054.7	20431.8	1079.7	20447.5	1078.7
20725.9	1079.2	20806.7	1079.3	20820.7	1074	20847.2	1077.8	20868.3	1075.7
20885.3	1074.7	20896.5	1075.4	20920.2	1076.4	20930.8	1076.7	20963.3	1076.8
20975	1077.5	21027	1078.5	21053	1078.5	21067.1	1078.7	21145.4	1078.8
21171.1	1078.5	21208	1078.9	21230.1	1079	21334.3	1080.4	21478.9	1080.2
21530.4	1080.1	21531.4	1080.2	21535.5	1080.2	21625.6	1081.4	21660.4	1081.5
21692.6	1081.9	21702.4	1082.4	21711.2	1083.1	21729.2	1083	21737.7	1083.2
21758.6	1083.2	21952.1	1083.8	22040.6	1083.1	22131.3	1083.1	22152.7	1083.7

22160.1	1082.9	22166.5	1082.7	22236.9	1082.7	22242.2	1082.8	22242.8	1082.7
22252.8	1083.3	22275.5	1084.3	22277.6	1083.8	22282.4	1082.9	22284.3	1082.9
22289.4	1082.5	22385	1082.7	22412	1082.8	22425.6	1083.3	22522.2	1083.2
22566.8	1083.5	22586.5	1083.4	22620.8	1084	22647.4	1084.9	22647.5	1085
22651.3	1085	22655.3	1084.8	22666.5	1085.2	22711.9	1084.8	22728.7	1084.5
22764.2	1084.3	22785.3	1084	22798.5	1084.7	22805.8	1085.4	22828.6	1085.6
22834	1088.8								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18493.5	.04	19379.9	.035	20431.8	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19379.9	20431.8	510	496.64	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18493.5	19379.9	1078	20431.8	22834	1079.7

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1077.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.61	Wt. n-Val.		0.035	
E.G. Elev (ft)	1077.93	Reach Len. (ft)	510.00	496.64	480.00
Crit W.S. (ft)	1059.39	Flow Area (sq ft)		26966.97	
E.G. Slope (ft/ft)	0.000288	Area (sq ft)		26966.97	189.82
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1193.48	Top Width (ft)		1041.69	151.79
Vel Total (ft/s)	6.27	Avg. Vel. (ft/s)		6.27	
Max Chl Dpth (ft)	29.12	Hydr. Depth (ft)		25.89	
Conv. Total (cfs)	9966912.0	Conv. (cfs)		9966912.0	
Length Wtd. (ft)	496.64	Wetted Per. (ft)		1049.86	
Min Ch El (ft)	1048.20	Shear (lb/sq ft)		0.46	
Alpha	1.00	Stream Power (lb/ft s)		2.89	
Frctn Loss (ft)	0.17	Cum Volume (acre-ft)	2.41	714.29	9.38
C & E Loss (ft)	0.02	Cum SA (acres)	2.36	28.91	10.27

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1077.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.61	Wt. n-Val.		0.035	
E.G. Elev (ft)	1077.93	Reach Len. (ft)	510.00	496.64	480.00
Crit W.S. (ft)	1059.39	Flow Area (sq ft)		26975.11	
E.G. Slope (ft/ft)	0.000287	Area (sq ft)		26975.11	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1041.69	Top Width (ft)		1041.69	
Vel Total (ft/s)	6.27	Avg. Vel. (ft/s)		6.27	
Max Chl Dpth (ft)	29.13	Hydr. Depth (ft)		25.90	
Conv. Total (cfs)	9971823.0	Conv. (cfs)		9971823.0	
Length Wtd. (ft)	496.64	Wetted Per. (ft)		1049.87	
Min Ch El (ft)	1048.20	Shear (lb/sq ft)		0.46	
Alpha	1.00	Stream Power (lb/ft s)		2.89	
Frctn Loss (ft)	0.17	Cum Volume (acre-ft)		714.54	
C & E Loss (ft)	0.02	Cum SA (acres)		28.91	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19379.90 LB	19450.03	2318.05	715.57	71.04	1.37	10.53	3.24
19450.03	19520.15	10657.59	1786.57	70.97	6.31	25.48	5.97
19520.15	19590.28	12704.22	1975.63	70.13	7.52	28.17	6.43
19590.28	19660.41	12766.36	1981.40	70.13	7.55	28.26	6.44
19660.41	19730.53	12829.33	1987.28	70.13	7.59	28.34	6.46
19730.53	19800.66	12892.12	1993.11	70.13	7.63	28.42	6.47
19800.66	19870.79	12954.98	1998.93	70.13	7.67	28.50	6.48
19870.79	19940.91	13017.96	2004.76	70.13	7.70	28.59	6.49
19940.91	20011.04	13081.11	2010.59	70.13	7.74	28.67	6.51
20011.04	20081.17	13144.34	2016.42	70.13	7.78	28.75	6.52
20081.17	20151.29	13203.82	2021.89	70.13	7.81	28.83	6.53
20151.29	20221.42	13253.11	2026.39	70.13	7.84	28.90	6.54
20221.42	20291.55	13302.65	2030.95	70.13	7.87	28.96	6.55
20291.55	20361.67	11178.46	1845.80	71.69	6.61	26.32	6.06

20361.67	20431.80 RB	1695.89	571.68	64.76	1.00	9.21	2.97

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19379.90 LB	19450.03	2319.70	716.11	71.04	1.37	10.54	3.24
19450.03	19520.15	10657.92	1787.11	70.97	6.31	25.48	5.96
19520.15	19590.28	12703.99	1976.18	70.13	7.52	28.18	6.43
19590.28	19660.41	12766.11	1981.95	70.13	7.55	28.26	6.44
19660.41	19730.53	12829.06	1987.83	70.13	7.59	28.35	6.45
19730.53	19800.66	12891.83	1993.66	70.13	7.63	28.43	6.47
19800.66	19870.79	12954.67	1999.48	70.13	7.67	28.51	6.48
19870.79	19940.91	13017.64	2005.31	70.13	7.70	28.60	6.49
19940.91	20011.04	13080.77	2011.14	70.13	7.74	28.68	6.50
20011.04	20081.17	13143.98	2016.96	70.13	7.78	28.76	6.52
20081.17	20151.29	13203.45	2022.43	70.13	7.81	28.84	6.53
20151.29	20221.42	13252.72	2026.94	70.13	7.84	28.90	6.54
20221.42	20291.55	13302.24	2031.50	70.13	7.87	28.97	6.55
20291.55	20361.67	11178.62	1846.35	71.69	6.61	26.33	6.05
20361.67	20431.80 RB	1697.28	572.17	64.78	1.00	9.21	2.97

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 214.33

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19133.3	1085.2	19150.1	1084.8	19166.8	1082.9	19183.1	1081.7	19209.9	1081.3
19301.3	1080.3	19344.7	1079.4	19434.1	1078.7	19465.4	1078.4	19483.8	1078.5
19487.4	1078.4	19523.4	1066.7	19566.6	1052.5	19603.1	1051.4	19616.9	1048.8
19618.9	1048.5	20162.4	1048.5	20297.1	1048.6	20328.4	1057.9	20398	1078.8
20412.3	1077.8	20446.7	1077.9	20657.5	1078.6	20676	1070.3	20677.2	1069.9
20699.8	1076	20737.1	1074.4	20751.7	1072.8	20760.5	1073.4	20805.9	1074.8
20836.7	1075.5	20869.8	1076.4	20918.3	1076.8	20949.1	1076.9	20987.3	1076.4
21007.5	1076	21018.5	1076.4	21020.1	1076.7	21036.8	1076.9	21114	1077.6
21129.5	1077.8	21152.8	1078.4	21167.5	1078.9	21188.3	1079	21274.4	1079
21283.2	1078.8	21287.2	1078.8	21339.5	1078.5	21371.1	1077.7	21383.5	1077.2
21417.4	1077.4	21422	1077.5	21453	1077.4	21457.4	1077.6	21484.4	1078.1
21507	1079	21536.8	1078.7	21546.2	1078.5	21548.8	1079	21562.6	1082.6
21570.5	1082.2	21584.1	1078.7	21599.4	1080.2	21608.1	1081.8	21609	1081.8
21686.1	1081.7	21711.3	1081.7	21759	1082.3	21794	1082.3	21961.8	1081.9
22070.5	1082.3	22107.7	1082.5	22117.3	1082.5	22139.1	1084.1	22245.2	1081.7
22259.2	1081.5	22311.2	1081.5	22328.9	1082.2	22367.6	1082.5	22412.4	1083
22434.9	1083.7	22480	1083.4	22488.3	1083.5	22501.1	1083.3	22505.8	1083.9
22523	1083.8	22534.2	1083.9	22540.3	1083.8	22556.6	1083.2	22675.7	1082.9
22714.1	1082.9	22740.7	1084.5	22763.1	1084.9	22765.9	1084.7	22770.5	1087.7
22776.7	1088								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19133.3	.04	19483.8	.035	20398	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19483.8	20398	440	507.15	560	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19133.3	19483.8	1078.5	20398	22776.7	1078.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1076.88	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.85	Wt. n-Val.		0.035	
E.G. Elev (ft)	1077.73	Reach Len. (ft)	440.00	507.15	560.00
Crit W.S. (ft)	1060.42	Flow Area (sq ft)		22823.58	
E.G. Slope (ft/ft)	0.000413	Area (sq ft)		22823.58	546.43
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1266.50	Top Width (ft)		899.54	366.96
Vel Total (ft/s)	7.40	Avg. Vel. (ft/s)		7.40	
Max Chl Dpth (ft)	28.38	Hydr. Depth (ft)		25.37	
Conv. Total (cfs)	8315551.0	Conv. (cfs)		8315551.0	

Length Wtd. (ft)	507.15	Wetted Per. (ft)		907.85	
Min Ch El (ft)	1048.50	Shear (lb/sq ft)		0.65	
Alpha	1.00	Stream Power (lb/ft s)		4.80	
Frctn Loss (ft)	0.28	Cum Volume (acre-ft)	2.41	430.45	5.33
C & E Loss (ft)	0.06	Cum SA (acres)	2.36	17.85	7.41

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1076.89	Element			
Vel Head (ft)	0.85	Wt. n-Val.		0.035	
E.G. Elev (ft)	1077.74	Reach Len. (ft)	440.00	507.15	560.00
Crit W.S. (ft)	1060.42	Flow Area (sq ft)		22830.94	
E.G. Slope (ft/ft)	0.000413	Area (sq ft)		22830.94	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	899.54	Top Width (ft)		899.54	
Vel Total (ft/s)	7.40	Avg. Vel. (ft/s)		7.40	
Max Chl Dpth (ft)	28.39	Hydr. Depth (ft)		25.38	
Conv. Total (cfs)	8319916.5	Conv. (cfs)		8319916.5	
Length Wtd. (ft)	507.15	Wetted Per. (ft)		907.87	
Min Ch El (ft)	1048.50	Shear (lb/sq ft)		0.65	
Alpha	1.00	Stream Power (lb/ft s)		4.80	
Frctn Loss (ft)	0.28	Cum Volume (acre-ft)		430.62	
C & E Loss (ft)	0.06	Cum SA (acres)		17.85	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19483.80 LB	19544.75	1514.92	451.75	55.41	0.90	8.58	3.35
19544.75	19605.69	9587.85	1431.04	62.16	5.67	23.48	6.70
19605.69	19666.64	13094.80	1714.30	61.17	7.75	28.13	7.64
19666.64	19727.59	13324.54	1729.80	60.95	7.88	28.38	7.70
19727.59	19788.53	13324.11	1729.74	60.95	7.88	28.38	7.70
19788.53	19849.48	13324.54	1729.80	60.95	7.88	28.38	7.70
19849.48	19910.43	13324.54	1729.80	60.95	7.88	28.38	7.70
19910.43	19971.37	13324.11	1729.74	60.95	7.88	28.38	7.70
19971.37	20032.32	13324.54	1729.80	60.95	7.88	28.38	7.70
20032.32	20093.27	13324.54	1729.80	60.95	7.88	28.38	7.70
20093.27	20154.21	13324.11	1729.74	60.95	7.88	28.38	7.70
20154.21	20215.16	13311.27	1728.76	60.95	7.88	28.36	7.70
20215.16	20276.11	13276.24	1726.03	60.95	7.86	28.32	7.69
20276.11	20337.05	10158.93	1486.55	62.68	6.01	24.39	6.83
20337.05	20398.00 RB	1460.95	446.94	56.97	0.86	8.19	3.27

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19483.80 LB	19544.75	1516.39	452.18	55.42	0.90	8.58	3.35
19544.75	19605.69	9588.54	1431.54	62.16	5.67	23.49	6.70
19605.69	19666.64	13094.47	1714.80	61.17	7.75	28.14	7.64
19666.64	19727.59	13324.15	1730.29	60.95	7.88	28.39	7.70
19727.59	19788.53	13323.72	1730.24	60.95	7.88	28.39	7.70
19788.53	19849.48	13324.15	1730.29	60.95	7.88	28.39	7.70
19849.48	19910.43	13324.15	1730.29	60.95	7.88	28.39	7.70
19910.43	19971.37	13323.72	1730.24	60.95	7.88	28.39	7.70
19971.37	20032.32	13324.15	1730.29	60.95	7.88	28.39	7.70
20032.32	20093.27	13324.15	1730.29	60.95	7.88	28.39	7.70
20093.27	20154.21	13323.72	1730.24	60.95	7.88	28.39	7.70
20154.21	20215.16	13310.88	1729.26	60.95	7.88	28.37	7.70
20215.16	20276.11	13275.87	1726.53	60.95	7.86	28.33	7.69
20276.11	20337.05	10159.44	1487.05	62.68	6.01	24.40	6.83

20337.05	20398.00 RB	1462.52	447.39	56.97	0.87	8.20	3.27

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 214.23

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18784.1	1083	18804.5	1082.7	18829.1	1082.8	18859.6	1082.2	18872.7	1082.1
18901.7	1080.8	18937.2	1079.1	18949.3	1078.7	18993.6	1076.9	19014.1	1076.2
19019.1	1076	19059.1	1075.3	19071.7	1075.2	19140.8	1074.8	19164.5	1074.3
19204	1074	19250.8	1076.3	19289.1	1078.8	19308.2	1079.3	19327.2	1079.4
19383.2	1079.8	19398.8	1080.2	19482.4	1079.4	19525.9	1078.7	19586	1078.4
19602.4	1078	19608.5	1078	19627.1	1071.4	19679	1054.8	19716.3	1049.1
19735.4	1049.5	19750.3	1050.1	19754.7	1049.9	19765.5	1049.7	19776.3	1048.7
19795	1048.7	20005.3	1048.9	20084.2	1049	20254.8	1049.1	20264.9	1051.9
20361.7	1078.5	20382.3	1076.8	20444.8	1077.5	20517.6	1077.1	20541.3	1077.2
20594	1077	20670.3	1076.8	20683.5	1076.6	20732.6	1075.7	20741.7	1076
20744	1076	20815.4	1076.1	20831.3	1076.5	20866.2	1076.8	20912.2	1077.1
20978	1077.2	20998.8	1076.9	21008.6	1077	21025.7	1076.4	21089	1076.5
21093.4	1076.5	21125.9	1078.5	21149.4	1077.2	21195.1	1075.3	21231.1	1074.6
21239	1074.6	21282.1	1075.3	21304.7	1075.4	21378.1	1077	21396.4	1078.6
21405.7	1079.3	21416.4	1077.7	21418.8	1077.6	21492.6	1079.6	21526.7	1079.8
21540.8	1080.1	21640.2	1080.5	21651.2	1077.8	21654.9	1076.6	21672.5	1076.5
21682.8	1076.7	21695	1077.7	21718.3	1079.8	21746.9	1079.9	21771.5	1079.8
21876.1	1080.4	21901.8	1080.5	21957.9	1080.4	22021.8	1080.6	22062.3	1081.1
22115.9	1081.6	22173.3	1082.2	22270.7	1082.8	22330.2	1082.8	22335	1083.1
22345.5	1083.3								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18784.1	.04	19608.5	.035	20361.7	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19608.5	20361.7	495	494.49	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18784.1	19608.5	1078	20361.7	22345.5	1078.5

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1075.93	Element			
Vel Head (ft)	1.46	Wt. n-Val.		0.035	
E.G. Elev (ft)	1077.39	Reach Len. (ft)	495.00	494.49	495.00
Crit W.S. (ft)	1062.84	Flow Area (sq ft)		17406.42	
E.G. Slope (ft/ft)	0.000784	Area (sq ft)	224.37	17406.42	114.05
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1126.00	Top Width (ft)	219.92	737.99	168.09
Vel Total (ft/s)	9.71	Avg. Vel. (ft/s)		9.71	
Max Chl Dpth (ft)	27.23	Hydr. Depth (ft)		23.59	
Conv. Total (cfs)	6036928.5	Conv. (cfs)		6036928.5	
Length Wtd. (ft)	494.49	Wetted Per. (ft)		745.49	
Min Ch El (ft)	1048.70	Shear (lb/sq ft)		1.14	
Alpha	1.00	Stream Power (lb/ft s)		11.09	
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	1.27	196.26	1.08
C & E Loss (ft)	0.00	Cum SA (acres)	1.25	8.31	3.97

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1075.94	Element			
Vel Head (ft)	1.46	Wt. n-Val.		0.035	
E.G. Elev (ft)	1077.40	Reach Len. (ft)	495.00	494.49	495.00
Crit W.S. (ft)	1062.84	Flow Area (sq ft)		17413.27	
E.G. Slope (ft/ft)	0.000783	Area (sq ft)		17413.27	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	738.00	Top Width (ft)		738.00	
Vel Total (ft/s)	9.71	Avg. Vel. (ft/s)		9.71	
Max Chl Dpth (ft)	27.24	Hydr. Depth (ft)		23.60	

Conv. Total (cfs)	6040764.0	Conv. (cfs)	6040764.0
Length Wtd. (ft)	494.49	Wetted Per. (ft)	745.51
Min Ch El (ft)	1048.70	Shear (lb/sq ft)	1.14
Alpha	1.00	Stream Power (lb/ft s)	11.08
Frctn Loss (ft)	0.39	Cum Volume (acre-ft)	196.34
C & E Loss (ft)	0.00	Cum SA (acres)	8.31

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19608.50 LB	19658.71	1384.79	331.81	46.73	0.82	7.48	4.17
19658.71	19708.93	9033.81	1063.44	51.57	5.35	21.18	8.49
19708.93	19759.14	13187.46	1321.37	50.32	7.80	26.31	9.98
19759.14	19809.35	13761.29	1354.90	50.26	8.14	26.98	10.16
19809.35	19859.57	13945.64	1365.25	50.21	8.25	27.19	10.21
19859.57	19909.78	13904.81	1362.85	50.21	8.23	27.14	10.20
19909.78	19959.99	13864.03	1360.45	50.21	8.20	27.09	10.19
19959.99	20010.21	13823.81	1358.10	50.21	8.18	27.05	10.18
20010.21	20060.42	13774.61	1355.18	50.21	8.15	26.99	10.16
20060.42	20110.63	13724.55	1352.22	50.21	8.12	26.93	10.15
20110.63	20160.85	13696.31	1350.55	50.21	8.10	26.90	10.14
20160.85	20211.06	13671.35	1349.08	50.21	8.09	26.87	10.13
20211.06	20261.27	13505.52	1341.86	50.46	7.99	26.72	10.06
20261.27	20311.49	6923.69	910.09	52.08	4.10	18.12	7.61
20311.49	20361.70 RB	798.35	229.27	42.36	0.47	5.61	3.48

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19608.50 LB	19658.71	1386.58	332.22	46.74	0.82	7.49	4.17
19658.71	19708.93	9034.85	1063.91	51.57	5.35	21.19	8.49
19708.93	19759.14	13187.11	1321.83	50.32	7.80	26.32	9.98
19759.14	19809.35	13760.72	1355.37	50.26	8.14	26.99	10.15
19809.35	19859.57	13945.00	1365.72	50.21	8.25	27.20	10.21
19859.57	19909.78	13904.19	1363.32	50.21	8.23	27.15	10.20
19909.78	19959.99	13863.43	1360.92	50.21	8.20	27.10	10.19
19959.99	20010.21	13823.22	1358.57	50.21	8.18	27.06	10.17
20010.21	20060.42	13774.04	1355.65	50.21	8.15	27.00	10.16
20060.42	20110.63	13724.00	1352.69	50.21	8.12	26.94	10.15
20110.63	20160.85	13695.77	1351.02	50.21	8.10	26.91	10.14
20160.85	20211.06	13670.82	1349.54	50.21	8.09	26.88	10.13
20211.06	20261.27	13505.04	1342.32	50.46	7.99	26.73	10.06
20261.27	20311.49	6925.34	910.55	52.08	4.10	18.13	7.61
20311.49	20361.70 RB	799.91	229.64	42.38	0.47	5.62	3.48

CROSS SECTION RIVER: Salt River
REACH: Reach 4 RS: 214.14

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18555.4	1082.6	18577.7	1082.5	18586.5	1082.5	18650.6	1082	18678.8	1082.1
18707.4	1081.7	18729.5	1082	18771.6	1082.1	18793.7	1081.8	18836	1080.9
18859.7	1080.3	18935.6	1078.9	19050.6	1077.2	19056.7	1077.2	19059.9	1077.1
19062.9	1076.9	19063.3	1077	19067.8	1077.1	19071.9	1077.1	19078.2	1077.1
19188.3	1078.1	19249.7	1079.4	19290.2	1080.1	19298.1	1080.2	19313.1	1080.4
19327.5	1080.7	19358.6	1080.6	19391.6	1080.5	19412.8	1080.3	19520.8	1077.9
19554.8	1077.5	19580.2	1077.3	19610.8	1076.5	19651.9	1076.7	19697.7	1058.7
19715.9	1051.7	19732.8	1050.2	19750.7	1048.7	20032.7	1049	20292.3	1049.2
20350.9	1065.9	20388.3	1077.5	20405.5	1075.6	20406	1075.6	20439.7	1075.6
20637.3	1075.5	20899.6	1075.4	20920.6	1075.5	20941.8	1075.4	20947.4	1075.5
20962	1075.5	20980	1075.4	20989.9	1075.4	21074.1	1075.4	21119.6	1075.7
21168.7	1076.8	21222	1076.6	21326.8	1076.2	21327.4	1076.2	21342.2	1075
21390.6	1075	21428.8	1075	21455.3	1075.3	21502.1	1076.4	21502.4	1076.2
21505.4	1076.4	21551.9	1077.5	21591.8	1077.6	21726.3	1078.4	21759.2	1078.5
21766.3	1078.3	21792.4	1078.4	21884.6	1078.9	22013	1079.1	22034.3	1079.5
22101.6	1079.7	22156.1	1080.1	22201.4	1080	22204.6	1079.9	22217.3	1080.5
22235	1081.3	22238.1	1081.3	22264.5	1081	22267.7	1080.9	22269.4	1080.7

22269.9	1080.6	22272.4	1080.4	22280.3	1079.8	22341.9	1080.2	22431	1080.6
22501.3	1081.2	22591.2	1081.8	22602.9	1082	22619.7	1083	22686.6	1082.9
22710.3	1082.5								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18555.4	.04	19651.9	.035	20388.3	.04

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19651.9	20388.3	475	510.51	570	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18555.4	19651.9	1076.7	20388.3	22710.3	1077.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1075.49	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.50	Wt. n-Val.		0.035	
E.G. Elev (ft)	1076.99	Reach Len. (ft)			
Crit W.S. (ft)	1062.63	Flow Area (sq ft)		17171.67	
E.G. Slope (ft/ft)	0.000805	Area (sq ft)		17171.67	76.05
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	1257.06	Top Width (ft)		726.84	530.22
Vel Total (ft/s)	9.84	Avg. Vel. (ft/s)		9.84	
Max Chl Dpth (ft)	26.79	Hydr. Depth (ft)		23.63	
Conv. Total (cfs)	5956564.5	Conv. (cfs)		5956564.5	
Length Wtd. (ft)		Wetted Per. (ft)		735.24	
Min Ch El (ft)	1048.70	Shear (lb/sq ft)		1.17	
Alpha	1.00	Stream Power (lb/ft s)		11.55	
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1075.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.50	Wt. n-Val.		0.035	
E.G. Elev (ft)	1077.00	Reach Len. (ft)			
Crit W.S. (ft)	1062.66	Flow Area (sq ft)		17178.94	
E.G. Slope (ft/ft)	0.000804	Area (sq ft)		17178.94	
Q Total (cfs)	169000.00	Flow (cfs)		169000.00	
Top Width (ft)	726.84	Top Width (ft)		726.84	
Vel Total (ft/s)	9.84	Avg. Vel. (ft/s)		9.84	
Max Chl Dpth (ft)	26.80	Hydr. Depth (ft)		23.64	
Conv. Total (cfs)	5960669.0	Conv. (cfs)		5960669.0	
Length Wtd. (ft)		Wetted Per. (ft)		735.26	
Min Ch El (ft)	1048.70	Shear (lb/sq ft)		1.17	
Alpha	1.00	Stream Power (lb/ft s)		11.54	
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19651.90 LB	19700.99	1983.57	416.05	49.43	1.17	9.04	4.77
19700.99	19750.09	11086.79	1176.34	50.29	6.56	23.96	9.42
19750.09	19799.18	13545.54	1313.90	49.09	8.02	26.76	10.31
19799.18	19848.27	13502.74	1311.41	49.09	7.99	26.71	10.30
19848.27	19897.37	13458.80	1308.85	49.09	7.96	26.66	10.28
19897.37	19946.46	13414.87	1306.28	49.09	7.94	26.61	10.27
19946.46	19995.55	13371.00	1303.72	49.09	7.91	26.56	10.26
19995.55	20044.65	13327.00	1301.12	49.09	7.89	26.50	10.24
20044.65	20093.74	13292.42	1299.11	49.09	7.87	26.46	10.23
20093.74	20142.83	13260.75	1297.26	49.09	7.85	26.42	10.22
20142.83	20191.93	13229.12	1295.40	49.09	7.83	26.39	10.21
20191.93	20241.02	13197.56	1293.54	49.09	7.81	26.35	10.20
20241.02	20290.11	13165.51	1291.64	49.09	7.79	26.31	10.19
20290.11	20339.21	8066.06	977.16	50.96	4.77	19.90	8.25
20339.21	20388.30 RB	1098.30	279.88	44.53	0.65	6.57	3.92

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19651.90 LB	19700.99	1985.65	416.51	49.44	1.17	9.05	4.77
19700.99	19750.09	11087.11	1176.83	50.29	6.56	23.97	9.42
19750.09	19799.18	13544.94	1314.40	49.09	8.01	26.77	10.31
19799.18	19848.27	13502.15	1311.90	49.09	7.99	26.72	10.29
19848.27	19897.37	13458.23	1309.34	49.09	7.96	26.67	10.28
19897.37	19946.46	13414.32	1306.77	49.09	7.94	26.62	10.27
19946.46	19995.55	13370.47	1304.21	49.09	7.91	26.57	10.25
19995.55	20044.65	13326.49	1301.61	49.09	7.89	26.51	10.24
20044.65	20093.74	13291.92	1299.61	49.09	7.87	26.47	10.23
20093.74	20142.83	13260.27	1297.75	49.09	7.85	26.43	10.22
20142.83	20191.93	13228.65	1295.89	49.09	7.83	26.40	10.21
20191.93	20241.02	13197.10	1294.04	49.09	7.81	26.36	10.20
20241.02	20290.11	13165.07	1292.13	49.09	7.79	26.32	10.19
20290.11	20339.21	8067.43	977.66	50.96	4.77	19.91	8.25
20339.21	20388.30 RB	1100.19	280.31	44.54	0.65	6.58	3.92

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach 4	214.14	169000.00	1048.70	1075.49	1062.63	1076.99	0.000805	9.84	17171.67	1257.06	0.36
Reach 4	214.14	169000.00	1048.70	1075.50	1062.66	1077.00	0.000804	9.84	17178.94	726.84	0.36
Reach 4	214.23	169000.00	1048.70	1075.93	1062.84	1077.39	0.000784	9.71	17406.42	1126.00	0.35
Reach 4	214.23	169000.00	1048.70	1075.94	1062.84	1077.40	0.000783	9.71	17413.27	738.00	0.35
Reach 4	214.33	169000.00	1048.50	1076.88	1060.42	1077.73	0.000413	7.40	22823.58	1266.50	0.26
Reach 4	214.33	169000.00	1048.50	1076.89	1060.42	1077.74	0.000413	7.40	22830.94	899.54	0.26
Reach 4	214.42	169000.00	1048.20	1077.32	1059.39	1077.93	0.000288	6.27	26966.97	1193.48	0.22
Reach 4	214.42	169000.00	1048.20	1077.33	1059.39	1077.93	0.000287	6.27	26975.11	1041.69	0.22
Reach 4	214.52	169000.00	1048.00	1077.35	1060.59	1078.15	0.000391	7.19	23492.53	928.22	0.25
Reach 4	214.52	169000.00	1048.00	1077.36	1060.59	1078.16	0.000390	7.19	23499.67	928.22	0.25
Reach 4	214.61	169000.00	1050.40	1077.25	1064.26	1078.56	0.000723	9.21	18346.45	792.44	0.34
Reach 4	214.61	169000.00	1050.40	1077.25	1064.26	1078.57	0.000722	9.21	18352.64	792.44	0.34
Reach 4	214.71	169000.00	1055.10	1077.48	1069.29	1079.15	0.001272	10.38	16287.19	901.57	0.43
Reach 4	214.71	169000.00	1055.10	1077.48	1069.29	1079.15	0.001270	10.37	16294.01	901.57	0.43
Reach 4	214.78	169000.00	1058.80	1078.06	1070.73	1079.56	0.001306	9.83	17192.07	1054.44	0.43
Reach 4	214.78	169000.00	1058.80	1078.07	1070.73	1079.57	0.001304	9.83	17199.27	1054.44	0.43
Reach 4	214.785	Bridge									
Reach 4	214.79	169000.00	1057.60	1078.39	1070.68	1079.83	0.001221	9.63	17557.55	1056.41	0.42
Reach 4	214.79	169000.00	1057.60	1078.40	1070.68	1079.83	0.001219	9.62	17564.39	1056.41	0.42
Reach 4	214.9	169000.00	1061.20	1078.13	1074.91	1081.52	0.003589	14.78	11434.89	934.49	0.69
Reach 4	214.9	169000.00	1061.20	1078.14	1074.91	1081.53	0.003584	14.77	11439.94	810.50	0.69
Reach 4	214.99	169000.00	1061.30	1079.91	1075.58	1083.17	0.002926	14.48	11672.67	727.58	0.64
Reach 4	214.99	169000.00	1061.30	1079.92	1075.58	1083.17	0.002925	14.48	11674.45	727.58	0.64
Reach 4	215.09	169000.00	1061.70	1081.09	1076.37	1084.77	0.002894	15.38	10986.08	619.02	0.64
Reach 4	215.09	169000.00	1061.70	1081.10	1076.37	1084.77	0.002893	15.38	10987.06	619.02	0.64
Reach 4	215.18	169000.00	1062.20	1081.87	1079.42	1086.91	0.004584	18.01	9382.04	686.90	0.80
Reach 4	215.18	169000.00	1062.20	1081.87	1079.42	1086.91	0.004582	18.01	9382.77	593.90	0.80
Reach 4	215.27	169000.00	1063.50	1086.84	1076.00	1088.10	0.000846	9.02	18736.49	3991.40	0.36
Reach 4	215.27	169000.00	1063.50	1086.85	1076.00	1088.11	0.000852	9.02	18740.87	943.30	0.36
Reach 4	215.36	169000.00	1063.00	1087.34	1075.36	1088.49	0.000701	8.61	19624.04	3559.77	0.33
Reach 4	215.36	169000.00	1063.00	1087.35	1075.36	1088.50	0.000701	8.61	19629.43	919.00	0.33

Reach 4	215.46	169000.00	1064.60	1087.61	1077.65	1088.97	0.000932	9.38	18009.56	916.86	0.37
Reach 4	215.46	169000.00	1064.60	1087.61	1077.65	1088.98	0.000931	9.38	18015.04	916.85	0.37
Reach 4	215.56	169000.00	1066.10	1087.99	1079.15	1089.55	0.001145	10.02	16859.61	907.87	0.41
Reach 4	215.56	169000.00	1066.10	1087.99	1079.15	1089.55	0.001144	10.02	16864.71	907.88	0.41
Reach 4	215.65	169000.00	1068.30	1088.27	1082.38	1090.46	0.001959	11.87	14232.62	890.00	0.52
Reach 4	215.65	169000.00	1068.30	1088.28	1082.38	1090.47	0.001957	11.87	14237.18	890.00	0.52
Reach 4	215.75	169000.00	1073.60	1088.44	1086.81	1092.56	0.005283	16.27	10385.16	854.81	0.82
Reach 4	215.75	169000.00	1073.60	1088.45	1086.81	1092.56	0.005277	16.27	10389.02	854.81	0.82
Reach 4	215.81	169000.00	1076.00	1090.81	1087.03	1093.71	0.003024	13.67	12363.67	860.84	0.64
Reach 4	215.81	169000.00	1076.00	1090.81	1087.03	1093.71	0.003023	13.67	12364.51	860.84	0.64
Reach 4	215.815	Bridge									
Reach 4	215.82	169000.00	1076.00	1091.84	1087.02	1094.37	0.002409	12.76	13249.11	860.86	0.57
Reach 4	215.82	169000.00	1076.00	1091.85	1087.02	1094.37	0.002405	12.75	13254.68	860.86	0.57
Reach 4	215.84	169000.00	1075.80	1091.71	1088.70	1094.94	0.003651	14.42	11719.46	870.81	0.69
Reach 4	215.84	169000.00	1075.80	1091.72	1088.70	1094.94	0.003644	14.41	11725.41	870.81	0.69
Reach 4	215.94	169000.00	1077.80	1093.70	1090.81	1097.08	0.004117	14.74	11461.59	983.97	0.73
Reach 4	215.94	169000.00	1077.80	1093.70	1090.81	1097.08	0.004113	14.74	11464.57	906.67	0.73
Reach 4	216.04	169000.00	1077.50	1096.93	1088.52	1098.22	0.001041	9.13	18515.97	1448.65	0.39
Reach 4	216.04	169000.00	1077.50	1096.93	1088.52	1098.22	0.001041	9.13	18517.14	1069.84	0.39
Reach 4	216.13	169000.00	1078.00	1097.54	1088.70	1098.73	0.000954	8.75	19303.70	2129.80	0.37
Reach 4	216.13	169000.00	1078.00	1097.54	1088.70	1098.73	0.000954	8.75	19304.79	1113.68	0.37
Reach 4	216.23	169000.00	1078.50	1097.99	1089.39	1099.28	0.001058	9.13	18502.08	1738.50	0.39
Reach 4	216.23	169000.00	1078.50	1097.99	1089.39	1099.28	0.001059	9.13	18503.28	1083.71	0.39
Reach 4	216.33	169000.00	1080.80	1098.35	1091.37	1099.99	0.001446	10.25	16489.69	1473.62	0.45
Reach 4	216.33	169000.00	1080.80	1098.36	1091.37	1099.99	0.001445	10.25	16490.95	1026.33	0.45
Reach 4	216.42	169000.00	1082.00	1098.86	1093.10	1100.93	0.001943	11.57	14613.30	1034.14	0.52
Reach 4	216.42	169000.00	1082.00	1098.86	1093.10	1100.93	0.001943	11.56	14614.20	946.84	0.52
Reach 4	216.49	169000.00	1083.20	1099.40	1094.27	1101.71	0.002471	12.20	13853.43	992.00	0.58
Reach 4	216.49	169000.00	1083.20	1099.40	1094.27	1101.71	0.002471	12.20	13854.03	992.01	0.58
Reach 4	216.505	Bridge									
Reach 4	216.52	169000.00	1083.20	1100.75	1094.26	1102.67	0.001838	11.12	15203.46	1001.88	0.50
Reach 4	216.52	169000.00	1083.20	1100.75	1094.26	1102.67	0.001838	11.12	15203.95	1001.88	0.50
Reach 4	216.62	169000.00	1078.33	1101.87	1093.62	1103.50	0.001420	10.25	16495.79	1128.15	0.45

Reach 4	216.62	169000.00	1078.33	1101.87	1093.62	1103.50	0.001420	10.24	16496.15	1011.33	0.45
Reach 4	216.72	169000.00	1080.17	1102.67	1093.15	1104.13	0.001012	9.69	17442.59	899.77	0.39
Reach 4	216.72	169000.00	1080.17	1102.67	1093.15	1104.13	0.001012	9.69	17442.81	899.77	0.39
Reach 4	216.81	169000.00	1079.55	1103.12	1094.35	1104.70	0.001159	10.08	16767.39	1751.00	0.41
Reach 4	216.81	169000.00	1079.55	1103.12	1094.37	1104.70	0.001159	10.08	16767.61	896.85	0.41
Reach 4	216.91	169000.00	1082.32	1103.62	1096.30	1105.42	0.001457	10.77	15691.56	1823.37	0.46
Reach 4	216.91	169000.00	1082.32	1103.62	1096.31	1105.42	0.001457	10.77	15691.79	905.75	0.46
Reach 4	217.00	169000.00	1081.30	1104.50	1096.14	1106.11	0.001205	10.18	16606.84	1669.75	0.42
Reach 4	217.00	169000.00	1081.30	1104.50	1096.12	1106.11	0.001205	10.18	16607.06	906.15	0.42
Reach 4	217.10	169000.00	1083.00	1105.06	1097.07	1106.73	0.001306	10.37	16299.18	1514.16	0.43
Reach 4	217.10	169000.00	1083.00	1105.06	1097.08	1106.73	0.001306	10.37	16299.29	910.80	0.43
Reach 4	217.19	169000.00	1086.43	1105.32	1101.53	1107.97	0.002945	13.06	12941.69	1368.79	0.62
Reach 4	217.19	169000.00	1086.43	1105.32	1101.53	1107.97	0.002945	13.06	12942.16	950.17	0.62
Reach 4	217.29	169000.00	1089.70	1107.17	1102.31	1109.33	0.002236	11.79	14339.93	1217.44	0.55
Reach 4	217.29	169000.00	1089.70	1107.17	1102.31	1109.33	0.002236	11.79	14340.05	999.40	0.55
Reach 4	217.38	169000.00	1090.70	1108.43	1103.09	1110.38	0.001969	11.20	15092.83	1100.28	0.52
Reach 4	217.38	169000.00	1090.70	1108.43	1103.08	1110.38	0.001969	11.20	15091.82	1034.77	0.52
Reach 4	217.48	169000.00	1090.80	1109.47	1103.96	1111.35	0.001880	11.00	15365.66	1524.24	0.51
Reach 4	217.48	169000.00	1090.80	1109.47	1103.96	1111.35	0.001880	11.00	15364.90	1045.98	0.51
Reach 4	217.57	169000.00	1089.90	1110.33	1105.33	1112.36	0.002116	11.42	14800.73	1041.19	0.53
Reach 4	217.57	169000.00	1089.90	1110.33	1105.33	1112.36	0.002116	11.42	14800.10	1041.18	0.53
Reach 4	217.66	169000.00	1088.14	1111.44	1106.01	1113.41	0.001961	11.25	15024.30	1099.68	0.52
Reach 4	217.66	169000.00	1088.14	1111.44	1106.01	1113.41	0.001961	11.25	15023.80	1020.83	0.52
Reach 4	217.76	169000.00	1092.19	1111.73		1115.15	0.003709	14.83	11392.22	823.79	0.70
Reach 4	217.76	169000.00	1092.19	1111.73		1115.15	0.003709	14.84	11391.92	823.78	0.70
Reach 4	217.86	169000.00	1088.60	1114.83	1108.27	1116.49	0.001531	10.34	16338.62	1206.97	0.46
Reach 4	217.86	169000.00	1088.60	1114.83	1108.27	1116.49	0.001531	10.34	16338.49	1043.86	0.46
Reach 4	217.95	169000.00	1092.47	1115.57	1109.16	1117.25	0.001554	10.40	16247.70	1042.17	0.46
Reach 4	217.95	169000.00	1092.47	1115.57	1109.16	1117.25	0.001554	10.40	16247.57	1042.16	0.46
Reach 4	218.04	169000.00	1095.51	1116.28	1110.88	1118.21	0.001944	11.14	15165.97	1038.71	0.51
Reach 4	218.04	169000.00	1095.51	1116.28	1110.88	1118.21	0.001944	11.14	15165.85	1038.71	0.51
Reach 4	218.14	169000.00	1096.58	1117.26	1111.91	1119.21	0.001975	11.22	15057.10	1392.54	0.52
Reach 4	218.14	169000.00	1096.58	1117.26	1111.91	1119.21	0.001975	11.22	15056.97	1032.41	0.52
Reach 4	218.24	169000.00	1097.97	1118.20	1113.34	1120.30	0.002216	11.61	14552.93	1209.42	0.55

Reach 4	218.24	169000.00	1097.97	1118.20	1113.34	1120.30	0.002216	11.61	14552.80	1034.87	0.55
Reach 4	218.33	169000.00	1099.30	1119.49	1113.65	1121.29	0.001772	10.78	15675.27	1051.46	0.49
Reach 4	218.33	169000.00	1099.30	1119.49	1113.65	1121.29	0.001772	10.78	15675.14	1051.46	0.49
Reach 4	218.42	169000.00	1101.56	1120.20	1115.71	1122.48	0.002467	12.11	13956.46	1630.10	0.57
Reach 4	218.42	169000.00	1101.56	1120.20	1115.71	1122.48	0.002467	12.11	13956.33	1007.81	0.57
Reach 4	218.52	169000.00	1101.37	1121.59	1116.20	1123.62	0.002037	11.43	14790.92	2019.39	0.53
Reach 4	218.52	169000.00	1101.37	1121.59	1116.20	1123.62	0.002038	11.43	14789.44	1008.12	0.53
Reach 4	218.61	169000.00	1101.91	1122.61	1117.10	1124.63	0.001986	11.40	14828.60	3020.93	0.52
Reach 4	218.61	169000.00	1101.91	1122.61	1117.08	1124.63	0.001987	11.40	14825.69	994.26	0.52
Reach 4	218.71	169000.00	1105.38	1123.63	1118.10	1125.63	0.001938	11.35	14892.50	3165.49	0.51
Reach 4	218.71	169000.00	1105.38	1123.63	1118.10	1125.63	0.001939	11.35	14890.33	986.76	0.51
Reach 4	218.80	169000.00	1105.70	1124.77	1118.20	1126.50	0.001572	10.55	16025.58	2479.30	0.47
Reach 4	218.80	169000.00	1105.70	1124.77	1118.22	1126.50	0.001573	10.55	16023.85	1011.73	0.47
Reach 4	218.96	169000.00	1106.31	1126.03	1120.64	1128.02	0.002010	11.32	14931.39	1096.74	0.52
Reach 4	218.96	169000.00	1106.31	1126.03	1120.67	1128.02	0.002010	11.32	14930.52	1020.44	0.52
Reach 4	218.965	Bridge									
Reach 4	218.97	169000.00	1106.45	1126.74	1120.31	1128.50	0.001620	10.65	15870.96	1056.96	0.47
Reach 4	218.97	169000.00	1106.45	1126.74	1120.31	1128.50	0.001620	10.65	15869.98	1009.80	0.47
Reach 4	219.01	169000.00	1112.90	1126.36	1123.16	1129.03	0.003271	13.10	12900.13	1022.15	0.65
Reach 4	219.01	169000.00	1112.90	1126.36	1123.16	1129.03	0.003272	13.10	12899.13	1022.15	0.65
Reach 4	219.02	Bridge									
Reach 4	219.03	169000.00	1112.90	1127.80	1123.15	1129.94	0.002299	11.76	14369.34	1026.67	0.55
Reach 4	219.03	169000.00	1112.90	1127.79	1123.15	1129.94	0.002300	11.76	14367.08	1026.66	0.55
Reach 4	219.14	169000.00	1110.40	1129.20	1123.56	1131.11	0.001887	11.10	15229.89	2551.53	0.51
Reach 4	219.14	169000.00	1110.40	1129.20	1123.56	1131.11	0.001888	11.10	15228.51	1023.27	0.51
Reach 4	219.24	169000.00	1112.10	1130.16	1124.65	1132.12	0.001989	11.23	15051.51	2682.75	0.52
Reach 4	219.24	169000.00	1112.10	1130.16	1124.65	1132.12	0.001989	11.23	15050.38	1032.44	0.52
Reach 4	219.33	169000.00	1113.40	1131.10	1125.53	1133.03	0.001929	11.17	15131.52	2726.06	0.51
Reach 4	219.33	169000.00	1113.40	1131.10	1125.53	1133.03	0.001929	11.17	15130.65	1024.85	0.51
Reach 4	219.42	169000.00	1111.83	1132.00	1126.37	1133.94	0.001898	11.18	15121.63	2400.89	0.51
Reach 4	219.42	169000.00	1111.83	1132.00	1126.37	1133.94	0.001898	11.18	15120.89	1010.17	0.51
Reach 4	219.51	169000.00	1111.64	1132.93	1127.37	1134.90	0.001942	11.27	14993.73	1910.40	0.51
Reach 4	219.51	169000.00	1111.64	1132.93	1127.37	1134.90	0.001943	11.27	14993.11	1006.15	0.51

Reach 4	219.61	169000.00	1112.39	1133.86	1128.49	1135.93	0.002051	11.54	14649.74	2912.62	0.53
Reach 4	219.61	169000.00	1112.39	1133.86	1128.49	1135.93	0.002051	11.54	14649.25	988.76	0.53
Reach 4	219.70	169000.00	1115.81	1134.63	1130.64	1137.22	0.002805	12.91	13091.68	2045.78	0.61
Reach 4	219.70	169000.00	1115.81	1134.63	1130.64	1137.22	0.002806	12.91	13091.33	945.15	0.61
Reach 4	219.79	169000.00	1119.30	1135.96	1132.24	1138.69	0.003008	13.26	12747.50	2039.42	0.63
Reach 4	219.79	169000.00	1119.30	1135.96	1132.24	1138.69	0.003008	13.26	12747.28	931.90	0.63
Reach 4	219.88	169000.00	1119.50	1137.44	1133.46	1140.11	0.002850	13.11	12889.63	2003.65	0.62
Reach 4	219.88	169000.00	1119.50	1137.44	1133.46	1140.11	0.002850	13.11	12889.52	918.51	0.62
Reach 4	220.03	169000.00	1122.90	1139.74	1135.39	1142.32	0.002656	12.90	13097.09	906.62	0.60
Reach 4	220.03	169000.00	1122.90	1139.73	1135.39	1142.32	0.002656	12.90	13096.98	906.62	0.60
Reach 4	220.05	Bridge									
Reach 4	220.06	169000.00	1122.90	1140.72	1135.39	1142.99	0.002141	12.08	13992.86	909.54	0.54
Reach 4	220.06	169000.00	1122.90	1140.72	1135.39	1142.99	0.002142	12.08	13992.42	909.53	0.54
Reach 4	220.16	169000.00	1124.58	1141.74	1136.90	1144.14	0.002357	12.43	13591.57	1469.89	0.57
Reach 4	220.16	169000.00	1124.58	1141.74	1136.90	1144.14	0.002358	12.43	13591.23	912.67	0.57
Reach 4	220.25	169000.00	1124.01	1143.14	1137.06	1145.23	0.001890	11.59	14576.74	1743.60	0.51
Reach 4	220.25	169000.00	1124.01	1143.14	1137.06	1145.23	0.001890	11.59	14576.63	919.65	0.51
Reach 4	220.35	169000.00	1123.99	1144.24	1137.09	1146.10	0.001554	10.95	15436.37	1375.54	0.47
Reach 4	220.35	169000.00	1123.99	1144.24	1137.09	1146.10	0.001554	10.95	15436.25	915.58	0.47
Reach 4	220.45	169000.00	1125.43	1144.97	1138.52	1146.99	0.001759	11.39	14836.82	1293.58	0.50
Reach 4	220.45	169000.00	1125.43	1144.97	1138.52	1146.99	0.001759	11.39	14836.82	908.83	0.50
Reach 4	220.54	169000.00	1127.32	1145.84	1139.51	1147.86	0.001789	11.42	14796.15	1107.01	0.50
Reach 4	220.54	169000.00	1127.32	1145.84	1139.51	1147.86	0.001789	11.42	14796.04	915.24	0.50
Reach 4	220.63	169000.00	1127.10	1146.74	1140.24	1148.75	0.001734	11.37	14857.16	981.94	0.49
Reach 4	220.63	169000.00	1127.10	1146.74	1140.24	1148.75	0.001735	11.38	14857.05	903.29	0.49
Reach 4	220.73	169000.00	1127.69	1147.59	1141.05	1149.62	0.001715	11.43	14782.77	1018.38	0.49
Reach 4	220.73	169000.00	1127.69	1147.59	1141.05	1149.62	0.001715	11.43	14782.65	884.55	0.49
Reach 4	220.82	169000.00	1129.56	1148.53	1141.72	1150.47	0.001688	11.19	15100.60	1082.87	0.49
Reach 4	220.82	169000.00	1129.56	1148.53	1141.72	1150.47	0.001688	11.19	15100.49	920.30	0.49
Reach 4	220.92	169000.00	1129.16	1149.39	1142.46	1151.35	0.001666	11.22	15058.51	1072.33	0.49
Reach 4	220.92	169000.00	1129.16	1149.39	1142.46	1151.34	0.001666	11.22	15058.40	906.20	0.49
Reach 4	221.02	169000.00	1130.06	1150.36	1142.60	1152.13	0.001403	10.69	15806.92	1161.10	0.45
Reach 4	221.02	169000.00	1130.06	1150.36	1142.60	1152.13	0.001403	10.69	15806.81	900.19	0.45
Reach 4	221.05	169000.00	1126.00	1150.84	1140.99	1152.36	0.001100	9.90	17070.64	1318.35	0.40

Reach 4	221.05	169000.00	1126.00	1150.84	1140.99	1152.36	0.001100	9.90	17070.54	908.66	0.40
Reach 4	221.055	Bridge									
Reach 4	221.06	169000.00	1126.00	1151.07	1140.98	1152.56	0.001076	9.78	17282.71	1351.93	0.40
Reach 4	221.06	169000.00	1126.00	1151.07	1140.98	1152.56	0.001076	9.78	17282.60	921.95	0.40
Reach 4	221.19	169000.00	1128.00	1151.80	1142.33	1153.28	0.001134	9.75	17340.64	1048.37	0.41
Reach 4	221.19	169000.00	1128.00	1151.80	1142.33	1153.28	0.001134	9.75	17340.40	968.92	0.41
Reach 4	221.195	Bridge									
Reach 4	221.2	169000.00	1128.00	1152.17	1142.32	1153.59	0.001065	9.55	17696.37	1104.28	0.39
Reach 4	221.2	169000.00	1128.00	1152.17	1142.32	1153.59	0.001065	9.55	17696.13	972.60	0.39
Reach 4	221.24	169000.00	1124.29	1152.39	1142.62	1153.78	0.001018	9.46	17860.54	1070.97	0.39
Reach 4	221.24	169000.00	1124.29	1152.39	1142.62	1153.78	0.001018	9.46	17860.31	954.93	0.39
Reach 4	221.25	Bridge									
Reach 4	221.26	169000.00	1124.29	1152.72	1142.61	1154.06	0.000962	9.30	18173.49	1085.78	0.38
Reach 4	221.26	169000.00	1124.29	1152.72	1142.61	1154.06	0.000962	9.30	18176.53	956.14	0.38
Reach 4	221.31	172000.00	1131.43	1152.32	1146.78	1154.78	0.002394	12.59	13661.73	1150.50	0.57
Reach 4	221.31	172000.00	1131.43	1152.32	1146.78	1154.78	0.002392	12.59	13665.17	910.15	0.57
Reach 4	221.40	172000.00	1133.21	1153.68	1147.84	1155.96	0.002238	12.12	14189.97	1061.05	0.55
Reach 4	221.40	172000.00	1133.21	1153.69	1147.84	1155.97	0.002237	12.12	14192.17	949.01	0.55
Reach 4	221.50	172000.00	1134.08	1154.59	1149.15	1157.00	0.001741	12.45	13820.51	1331.98	0.57
Reach 4	221.50	172000.00	1134.08	1154.59	1149.15	1157.00	0.001740	12.44	13822.11	928.67	0.57
Reach 4	221.61	172000.00	1133.98	1155.68	1149.68	1157.96	0.001596	12.13	14181.40	1387.28	0.55
Reach 4	221.61	172000.00	1133.98	1155.68	1149.68	1157.96	0.001596	12.13	14182.42	926.14	0.55
Reach 4	221.70	172000.00	1134.30	1156.71	1149.59	1158.69	0.001284	11.30	15216.32	1465.08	0.50
Reach 4	221.70	172000.00	1134.30	1156.71	1149.59	1158.70	0.001284	11.30	15217.00	939.68	0.49
Reach 4	221.80	172000.00	1136.35	1157.35	1150.58	1159.37	0.001319	11.41	15076.04	1212.13	0.50
Reach 4	221.80	172000.00	1136.35	1157.35	1150.58	1159.37	0.001319	11.41	15076.61	935.46	0.50
Reach 4	221.89	172000.00	1136.20	1158.07	1151.65	1160.03	0.001351	11.24	15299.77	1151.07	0.50
Reach 4	221.89	172000.00	1136.20	1158.07	1151.65	1160.03	0.001351	11.24	15300.25	986.38	0.50
Reach 4	221.99	172000.00	1138.14	1158.99	1151.29	1160.68	0.001084	10.44	16480.58	1183.84	0.46
Reach 4	221.99	172000.00	1138.14	1158.99	1151.29	1160.68	0.001084	10.44	16480.95	1012.33	0.46
Reach 4	222.08	172000.00	1136.00	1159.93	1148.80	1161.08	0.000588	8.59	20013.41	1231.13	0.35
Reach 4	222.08	172000.00	1136.00	1159.93	1148.80	1161.08	0.000588	8.59	20013.79	1039.29	0.35
Reach 4	222.085	Bridge									

Reach 4	222.09	172000.00	1136.00	1160.14	1148.79	1161.26	0.000568	8.50	20234.88	1233.92	0.34
Reach 4	222.09	172000.00	1136.00	1160.14	1148.79	1161.26	0.000568	8.50	20235.26	1041.24	0.34
Reach 4	222.17	172000.00	1137.16	1160.20	1151.21	1161.60	0.000794	9.52	18072.05	1227.36	0.40
Reach 4	222.17	172000.00	1137.16	1160.20	1151.21	1161.60	0.000794	9.52	18072.54	1009.91	0.40
Reach 4	222.27	172000.00	1139.19	1160.64	1152.19	1162.01	0.000822	9.37	18354.18	1214.10	0.40
Reach 4	222.27	172000.00	1139.19	1160.64	1152.19	1162.01	0.000822	9.37	18354.45	1077.23	0.40
Reach 4	222.36	172000.00	1138.87	1161.29	1151.87	1162.39	0.000648	8.41	20461.32	1414.74	0.36
Reach 4	222.36	172000.00	1138.87	1161.29	1151.87	1162.39	0.000648	8.41	20461.61	1182.81	0.36
Reach 4	222.45	172000.00	1139.54	1161.93	1151.04	1162.67	0.000416	6.90	24914.87	1643.65	0.29
Reach 4	222.45	172000.00	1139.54	1161.93	1151.04	1162.67	0.000416	6.90	24916.05	1388.01	0.29
Reach 4	222.55	172000.00	1139.60	1162.10	1151.35	1162.91	0.000433	7.24	23760.71	1818.05	0.29
Reach 4	222.55	172000.00	1139.60	1162.10	1151.35	1162.91	0.000443	7.24	23765.05	1270.54	0.29
Reach 4	222.65	172000.00	1138.75	1162.23	1151.59	1163.26	0.000706	8.15	21092.08	2093.67	0.33
Reach 4	222.65	172000.00	1140.14	1162.24	1151.59	1163.27	0.000722	8.15	21103.01	1079.50	0.32
Reach 4	222.74	172000.00	1134.16	1162.59	1150.45	1163.59	0.000642	8.03	21415.29	2043.47	0.31
Reach 4	222.74	172000.00	1134.16	1162.60	1150.47	1163.60	0.000640	8.03	21429.35	1038.09	0.31
Reach 4	222.83	172000.00	1127.92	1162.90	1149.43	1163.89	0.000578	8.01	21474.69	2187.54	0.30
Reach 4	222.83	172000.00	1127.92	1162.91	1149.43	1163.90	0.000577	8.00	21486.92	963.41	0.30
Reach 4	222.93	172000.00	1137.70	1163.05	1152.09	1164.32	0.000836	9.04	19035.72	2119.92	0.35
Reach 4	222.93	172000.00	1137.70	1163.07	1152.09	1164.33	0.000834	9.03	19047.50	945.76	0.35
Reach 4	223.02	172000.00	1140.00	1163.55	1154.20	1164.76	0.000943	8.86	19418.38	1524.43	0.37
Reach 4	223.02	172000.00	1140.00	1163.56	1154.21	1164.77	0.000941	8.85	19430.92	1092.69	0.37
Reach 4	223.08	172000.00	1146.30	1163.07	1163.07	1167.91	0.008376	17.64	9747.96	1001.37	1.00
Reach 4	223.08	172000.00	1146.30	1163.07	1163.07	1167.91	0.008376	17.64	9747.96	1001.37	1.00
Reach 4	223.085	Bridge									
Reach 4	223.09	172000.00	1146.30	1167.01	1163.00	1169.40	0.002884	12.39	13879.32	1222.95	0.61
Reach 4	223.09	172000.00	1146.30	1167.01	1163.00	1169.40	0.002885	12.39	13879.18	1088.29	0.61
Reach 4	223.19	172000.00	1141.00	1169.29	1155.62	1170.15	0.000631	7.44	23106.09	2091.50	0.27
Reach 4	223.19	172000.00	1141.00	1169.29	1155.62	1170.15	0.000631	7.44	23106.09	1010.39	0.27
Reach 4	223.29	172000.00	1139.90	1169.35	1157.37	1170.74	0.001114	9.48	18141.91	2258.16	0.35
Reach 4	223.29	172000.00	1139.90	1169.35	1157.37	1170.74	0.001114	9.48	18141.91	792.56	0.35
Reach 4	223.38	172000.00	1134.62	1169.83	1157.04	1171.31	0.001141	9.78	17589.90	1665.59	0.35
Reach 4	223.38	172000.00	1134.62	1169.83	1157.04	1171.31	0.001141	9.78	17589.90	724.21	0.35

Reach 4	223.48	172000.00	1135.70	1170.24	1158.21	1172.13	0.001547	11.02	15601.74	933.29	0.39
Reach 4	223.48	172000.00	1135.70	1170.24	1158.21	1172.13	0.001547	11.02	15601.74	642.79	0.39
Reach 4	223.58	172000.00	1144.05	1170.70	1162.04	1173.31	0.002451	12.96	13275.04	990.19	0.49
Reach 4	223.58	172000.00	1144.05	1170.70	1162.04	1173.31	0.002451	12.96	13275.93	609.51	0.49
Reach 4	223.67	172000.00	1138.26	1172.51	1159.87	1174.34	0.001519	10.85	15846.36	946.38	0.38
Reach 4	223.67	172000.00	1138.26	1172.51	1159.87	1174.34	0.001518	10.85	15847.14	638.36	0.38
Reach 4	223.77	172000.00	1139.19	1173.52	1158.27	1174.85	0.000640	9.28	18530.30	1291.23	0.31
Reach 4	223.77	172000.00	1139.19	1173.52	1158.27	1174.86	0.000640	9.28	18530.96	683.03	0.31
Reach 4	223.86	172000.00	1140.96	1174.11	1157.82	1175.13	0.000414	8.13	21156.92	1139.08	0.28
Reach 4	223.86	172000.00	1140.96	1174.11	1157.82	1175.13	0.000414	8.13	21157.62	817.23	0.28
Reach 4	223.96	172000.00	1142.30	1174.54	1157.63	1175.34	0.000268	7.16	24011.87	1815.70	0.24
Reach 4	223.96	172000.00	1142.30	1174.54	1157.63	1175.34	0.000268	7.16	24012.64	894.65	0.24
Reach 4	224.06	172000.00	1145.60	1174.59	1160.26	1175.58	0.000511	7.99	21513.79	1373.10	0.28
Reach 4	224.06	172000.00	1145.60	1174.59	1160.26	1175.59	0.000511	7.99	21514.54	877.99	0.28
Reach 4	224.12	172000.00	1145.41	1175.20		1175.75	0.000272	5.95	28900.78	1152.56	0.21
Reach 4	224.12	172000.00	1145.41	1175.20		1175.75	0.000272	5.95	28901.76	1152.56	0.21
Reach 4	224.13	Bridge									
Reach 4	224.14	172000.00	1145.90	1175.20	1159.62	1175.89	0.000355	6.65	25869.50	1064.06	0.24
Reach 4	224.14	172000.00	1145.90	1175.20	1159.62	1175.89	0.000355	6.65	25870.54	1064.06	0.24
Reach 4	224.16	172000.00	1148.43	1175.21		1175.94	0.000392	6.87	25043.76	1057.54	0.25
Reach 4	224.16	172000.00	1148.43	1175.21		1175.95	0.000392	6.87	25044.78	1057.53	0.25
Reach 4	224.175	Bridge									
Reach 4	224.19	172000.00	1149.14	1175.31	1160.99	1176.06	0.000410	6.96	24729.63	1061.97	0.25
Reach 4	224.19	172000.00	1149.14	1175.31	1160.99	1176.06	0.000410	6.95	24730.66	1061.96	0.25
Reach 4	224.20	172000.00	1148.94	1175.36		1176.10	0.000412	6.90	24936.73	1087.88	0.25
Reach 4	224.20	172000.00	1148.94	1175.36		1176.10	0.000412	6.90	24937.79	1087.87	0.25
Reach 4	224.21	Bridge									
Reach 4	224.22	172000.00	1148.68	1175.65	1160.24	1176.24	0.000321	6.15	27965.27	1204.04	0.22
Reach 4	224.22	172000.00	1148.68	1175.65	1160.24	1176.24	0.000321	6.15	27966.45	1204.04	0.22
Reach 4	224.31	172000.00	1145.60	1175.80	1160.06	1176.39	0.000307	6.13	28046.58	2559.24	0.22
Reach 4	224.31	172000.00	1145.60	1175.80	1160.06	1176.39	0.000307	6.13	28047.59	1169.93	0.22
Reach 4	224.42	172000.00	1146.82	1176.24	1158.33	1176.54	0.000146	4.35	39501.05	2946.39	0.15
Reach 4	224.42	172000.00	1146.82	1176.25	1158.33	1176.54	0.000149	4.35	39504.92	1590.12	0.15

Reach 4	224.52	172000.00	1147.48	1176.39	1158.39	1176.61	0.000118	3.79	45385.96	3145.40	0.14
Reach 4	224.52	172000.00	1147.48	1176.39	1158.39	1176.61	0.000119	3.79	45392.71	1906.48	0.14
Reach 4	224.62	172000.00	1143.01	1176.46	1159.96	1176.68	0.000135	3.77	45608.09	3108.05	0.14
Reach 4	224.62	172000.00	1143.01	1176.46	1159.96	1176.68	0.000137	3.77	45617.74	2139.55	0.14
Reach 4	224.71	172000.00	1141.77	1176.55	1158.72	1176.74	0.000112	3.51	49039.47	3514.23	0.13
Reach 4	224.71	172000.00	1141.77	1176.55	1158.72	1176.74	0.000113	3.51	49050.86	2221.59	0.13
Reach 4	224.82	172000.00	1149.27	1176.55	1162.82	1176.87	0.000235	4.53	37949.14	2819.06	0.18
Reach 4	224.82	172000.00	1149.27	1176.56	1162.82	1176.88	0.000235	4.53	37960.57	2035.83	0.18
Reach 4	224.90	172000.00	1147.76	1176.59	1163.77	1177.00	0.000239	5.13	33546.89	3005.67	0.22
Reach 4	224.90	172000.00	1147.76	1176.60	1163.77	1177.01	0.000242	5.13	33559.02	1910.04	0.22
Reach 4	225	172000.00	1138.36	1176.86	1160.02	1177.10	0.000106	3.91	44041.00	2462.93	0.15
Reach 4	225	172000.00	1138.36	1176.87	1160.02	1177.11	0.000107	3.90	44055.75	2047.32	0.15
Reach 4	225.11	172000.00	1148.16	1176.71	1163.67	1177.30	0.000279	6.15	27955.79	1609.78	0.24
Reach 4	225.11	172000.00	1148.16	1176.72	1163.67	1177.31	0.000284	6.15	27967.60	1344.60	0.24
Reach 4	225.19	172000.00	1150.45	1176.66	1165.67	1177.55	0.000492	7.56	22740.30	1212.94	0.31
Reach 4	225.19	172000.00	1150.45	1176.67	1165.67	1177.56	0.000492	7.56	22753.45	1210.32	0.31
Reach 4	225.30	172000.00	1146.46	1177.35	1162.72	1177.76	0.000188	5.15	33423.64	1883.46	0.20
Reach 4	225.30	172000.00	1146.46	1177.36	1162.72	1177.77	0.000190	5.14	33441.55	1576.81	0.20

Profile Output Table - Standard Table 2

Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
Reach 4	214.14	1076.99	1075.49	1.50				169000.00		1257.06
Reach 4	214.14	1077.00	1075.50	1.50				169000.00		726.84
Reach 4	214.23	1077.39	1075.93	1.46	0.39	0.00		169000.00		1126.00
Reach 4	214.23	1077.40	1075.94	1.46	0.39	0.00		169000.00		738.00
Reach 4	214.33	1077.73	1076.88	0.85	0.28	0.06		169000.00		1266.50
Reach 4	214.33	1077.74	1076.89	0.85	0.28	0.06		169000.00		899.54
Reach 4	214.42	1077.93	1077.32	0.61	0.17	0.02		169000.00		1193.48
Reach 4	214.42	1077.93	1077.33	0.61	0.17	0.02		169000.00		1041.69
Reach 4	214.52	1078.15	1077.35	0.80	0.17	0.06		169000.00		928.22
Reach 4	214.52	1078.16	1077.36	0.80	0.17	0.06		169000.00		928.22
Reach 4	214.61	1078.56	1077.25	1.32	0.26	0.15		169000.00		792.44
Reach 4	214.61	1078.57	1077.25	1.32	0.26	0.15		169000.00		792.44
Reach 4	214.71	1079.15	1077.48	1.67	0.48	0.11		169000.00		901.57
Reach 4	214.71	1079.15	1077.48	1.67	0.48	0.11		169000.00		901.57
Reach 4	214.78	1079.56	1078.06	1.50	0.40	0.02		169000.00		1054.44
Reach 4	214.78	1079.57	1078.07	1.50	0.40	0.02		169000.00		1054.44
Reach 4	214.785	Bridge								
Reach 4	214.79	1079.83	1078.39	1.44	0.04	0.02		169000.00		1056.41
Reach 4	214.79	1079.83	1078.40	1.44	0.04	0.02		169000.00		1056.41
Reach 4	214.9	1081.52	1078.13	3.39	1.11	0.59		169000.00		934.49
Reach 4	214.9	1081.53	1078.14	3.39	1.11	0.58		169000.00		810.50
Reach 4	214.99	1083.17	1079.91	3.25	1.63	0.01		169000.00		727.58
Reach 4	214.99	1083.17	1079.92	3.25	1.63	0.01		169000.00		727.58
Reach 4	215.09	1084.77	1081.09	3.67	1.47	0.13		169000.00		619.02
Reach 4	215.09	1084.77	1081.10	3.67	1.47	0.13		169000.00		619.02
Reach 4	215.18	1086.91	1081.87	5.04	1.73	0.41		169000.00		686.90
Reach 4	215.18	1086.91	1081.87	5.04	1.73	0.41		169000.00		593.90
Reach 4	215.27	1088.10	1086.84	1.26	0.82	0.38		169000.00		3991.40
Reach 4	215.27	1088.11	1086.85	1.26	0.82	0.38		169000.00		943.30
Reach 4	215.36	1088.49	1087.34	1.15	0.38	0.01		169000.00		3559.77
Reach 4	215.36	1088.50	1087.35	1.15	0.38	0.01		169000.00		919.00

Reach 4	215.46	1088.97	1087.61	1.37	0.42	0.06		169000.00	916.86
Reach 4	215.46	1088.98	1087.61	1.37	0.42	0.06		169000.00	916.85
Reach 4	215.56	1089.55	1087.99	1.56	0.51	0.06		169000.00	907.87
Reach 4	215.56	1089.55	1087.99	1.56	0.51	0.06		169000.00	907.88
Reach 4	215.65	1090.46	1088.27	2.19	0.73	0.19		169000.00	890.00
Reach 4	215.65	1090.47	1088.28	2.19	0.73	0.19		169000.00	890.00
Reach 4	215.75	1092.56	1088.44	4.11	1.52	0.58		169000.00	854.81
Reach 4	215.75	1092.56	1088.45	4.11	1.51	0.58		169000.00	854.81
Reach 4	215.81	1093.71	1090.81	2.90	1.04	0.12		169000.00	860.84
Reach 4	215.81	1093.71	1090.81	2.90	1.04	0.12		169000.00	860.84
Reach 4	215.815	Bridge							
Reach 4	215.82	1094.37	1091.84	2.53	0.08	0.04		169000.00	860.86
Reach 4	215.82	1094.37	1091.85	2.52	0.08	0.04		169000.00	860.86
Reach 4	215.84	1094.94	1091.71	3.23	0.36	0.21		169000.00	870.81
Reach 4	215.84	1094.94	1091.72	3.23	0.36	0.21		169000.00	870.81
Reach 4	215.94	1097.08	1093.70	3.38	2.09	0.04		169000.00	983.97
Reach 4	215.94	1097.08	1093.70	3.37	2.09	0.04		169000.00	906.67
Reach 4	216.04	1098.22	1096.93	1.29	0.94	0.21		169000.00	1448.65
Reach 4	216.04	1098.22	1096.93	1.29	0.94	0.21		169000.00	1069.84
Reach 4	216.13	1098.73	1097.54	1.19	0.50	0.01		169000.00	2129.80
Reach 4	216.13	1098.73	1097.54	1.19	0.50	0.01		169000.00	1113.68
Reach 4	216.23	1099.28	1097.99	1.30	0.52	0.03		169000.00	1738.50
Reach 4	216.23	1099.28	1097.99	1.30	0.52	0.03		169000.00	1083.71
Reach 4	216.33	1099.99	1098.35	1.63	0.60	0.10		169000.00	1473.62
Reach 4	216.33	1099.99	1098.36	1.63	0.60	0.10		169000.00	1026.33
Reach 4	216.42	1100.93	1098.86	2.08	0.81	0.13	0.04	168999.95	1034.14
Reach 4	216.42	1100.93	1098.86	2.08	0.81	0.13		169000.00	946.84
Reach 4	216.49	1101.71	1099.40	2.31	0.71	0.07		169000.00	992.00
Reach 4	216.49	1101.71	1099.40	2.31	0.71	0.07		169000.00	992.01
Reach 4	216.505	Bridge							
Reach 4	216.52	1102.67	1100.75	1.92	0.05	0.03		169000.00	1001.88
Reach 4	216.52	1102.67	1100.75	1.92	0.05	0.03		169000.00	1001.88
Reach 4	216.62	1103.50	1101.87	1.63	0.80	0.03		169000.00	1128.15

Reach 4	216.62	1103.50	1101.87	1.63	0.80	0.03	169000.00	1011.33
Reach 4	216.72	1104.13	1102.67	1.46	0.60	0.02	169000.00	899.77
Reach 4	216.72	1104.13	1102.67	1.46	0.60	0.02	169000.00	899.77
Reach 4	216.81	1104.70	1103.12	1.58	0.54	0.04	169000.00	1751.00
Reach 4	216.81	1104.70	1103.12	1.58	0.54	0.04	169000.00	896.85
Reach 4	216.91	1105.42	1103.62	1.80	0.65	0.07	169000.00	1823.37
Reach 4	216.91	1105.42	1103.62	1.80	0.65	0.07	169000.00	905.75
Reach 4	217.00	1106.11	1104.50	1.61	0.67	0.02	169000.00	1669.75
Reach 4	217.00	1106.11	1104.50	1.61	0.67	0.02	169000.00	906.15
Reach 4	217.10	1106.73	1105.06	1.67	0.60	0.02	169000.00	1514.16
Reach 4	217.10	1106.73	1105.06	1.67	0.60	0.02	169000.00	910.80
Reach 4	217.19	1107.97	1105.32	2.65	0.95	0.29	169000.00	1368.79
Reach 4	217.19	1107.97	1105.32	2.65	0.95	0.29	169000.00	950.17
Reach 4	217.29	1109.33	1107.17	2.16	1.31	0.05	169000.00	1217.44
Reach 4	217.29	1109.33	1107.17	2.16	1.31	0.05	169000.00	999.40
Reach 4	217.38	1110.38	1108.43	1.95	1.03	0.02	169000.00	1100.28
Reach 4	217.38	1110.38	1108.43	1.95	1.03	0.02	169000.00	1034.77
Reach 4	217.48	1111.35	1109.47	1.88	0.97	0.01	169000.00	1524.24
Reach 4	217.48	1111.35	1109.47	1.88	0.97	0.01	169000.00	1045.98
Reach 4	217.57	1112.36	1110.33	2.02	0.96	0.04	169000.00	1041.19
Reach 4	217.57	1112.36	1110.33	2.02	0.96	0.04	169000.00	1041.18
Reach 4	217.66	1113.41	1111.44	1.96	1.04	0.01	169000.00	1099.68
Reach 4	217.66	1113.41	1111.44	1.96	1.04	0.01	169000.00	1020.83
Reach 4	217.76	1115.15	1111.73	3.42	1.31	0.44	169000.00	823.79
Reach 4	217.76	1115.15	1111.73	3.42	1.31	0.44	169000.00	823.78
Reach 4	217.86	1116.49	1114.83	1.66	1.16	0.18	169000.00	1206.97
Reach 4	217.86	1116.49	1114.83	1.66	1.16	0.18	169000.00	1043.86
Reach 4	217.95	1117.25	1115.57	1.68	0.76	0.01	169000.00	1042.17
Reach 4	217.95	1117.25	1115.57	1.68	0.76	0.01	169000.00	1042.16
Reach 4	218.04	1118.21	1116.28	1.93	0.88	0.07	169000.00	1038.71
Reach 4	218.04	1118.21	1116.28	1.93	0.88	0.07	169000.00	1038.71
Reach 4	218.14	1119.21	1117.26	1.96	1.00	0.01	169000.00	1392.54
Reach 4	218.14	1119.21	1117.26	1.96	1.00	0.01	169000.00	1032.41
Reach 4	218.24	1120.30	1118.20	2.09	1.04	0.04	169000.00	1209.42

Reach 4	218.24	1120.30	1118.20	2.09	1.04	0.04	169000.00	1034.87
Reach 4	218.33	1121.29	1119.49	1.80	0.97	0.03	169000.00	1051.46
Reach 4	218.33	1121.29	1119.49	1.80	0.97	0.03	169000.00	1051.46
Reach 4	218.42	1122.48	1120.20	2.28	1.04	0.14	169000.00	1630.10
Reach 4	218.42	1122.48	1120.20	2.28	1.04	0.14	169000.00	1007.81
Reach 4	218.52	1123.62	1121.59	2.03	1.11	0.03	169000.00	2019.39
Reach 4	218.52	1123.62	1121.59	2.03	1.11	0.02	169000.00	1008.12
Reach 4	218.61	1124.63	1122.61	2.02	1.01	0.00	169000.00	3020.93
Reach 4	218.61	1124.63	1122.61	2.02	1.01	0.00	169000.00	994.26
Reach 4	218.71	1125.63	1123.63	2.00	1.00	0.00	169000.00	3165.49
Reach 4	218.71	1125.63	1123.63	2.00	1.00	0.00	169000.00	986.76
Reach 4	218.80	1126.50	1124.77	1.73	0.84	0.03	169000.00	2479.30
Reach 4	218.80	1126.50	1124.77	1.73	0.84	0.03	169000.00	1011.73
Reach 4	218.96	1128.02	1126.03	1.99	1.44	0.08	169000.00	1096.74
Reach 4	218.96	1128.02	1126.03	1.99	1.44	0.08	169000.00	1020.44
Reach 4	218.965	Bridge						
Reach 4	218.97	1128.50	1126.74	1.76	0.02	0.03	169000.00	1056.96
Reach 4	218.97	1128.50	1126.74	1.76	0.02	0.03	169000.00	1009.80
Reach 4	219.01	1129.03	1126.36	2.67	0.25	0.27	169000.00	1022.15
Reach 4	219.01	1129.03	1126.36	2.67	0.25	0.27	169000.00	1022.15
Reach 4	219.02	Bridge						
Reach 4	219.03	1129.94	1127.80	2.15	0.09	0.04	169000.00	1026.67
Reach 4	219.03	1129.94	1127.79	2.15	0.09	0.04	169000.00	1026.66
Reach 4	219.14	1131.11	1129.20	1.91	1.14	0.02	169000.00	2551.53
Reach 4	219.14	1131.11	1129.20	1.91	1.14	0.02	169000.00	1023.27
Reach 4	219.24	1132.12	1130.16	1.96	0.99	0.01	169000.00	2682.75
Reach 4	219.24	1132.12	1130.16	1.96	0.99	0.01	169000.00	1032.44
Reach 4	219.33	1133.03	1131.10	1.94	0.92	0.00	169000.00	2726.06
Reach 4	219.33	1133.03	1131.10	1.94	0.92	0.00	169000.00	1024.85
Reach 4	219.42	1133.94	1132.00	1.94	0.90	0.00	169000.00	2400.89
Reach 4	219.42	1133.94	1132.00	1.94	0.90	0.00	169000.00	1010.17
Reach 4	219.51	1134.90	1132.93	1.97	0.95	0.01	169000.00	1910.40
Reach 4	219.51	1134.90	1132.93	1.97	0.95	0.01	169000.00	1006.15

Reach 4	219.61	1135.93	1133.86	2.07	1.00	0.03	169000.00	2912.62
Reach 4	219.61	1135.93	1133.86	2.07	1.00	0.03	169000.00	988.76
Reach 4	219.70	1137.22	1134.63	2.59	1.14	0.16	169000.00	2045.78
Reach 4	219.70	1137.22	1134.63	2.59	1.14	0.16	169000.00	945.15
Reach 4	219.79	1138.69	1135.96	2.73	1.43	0.04	169000.00	2039.42
Reach 4	219.79	1138.69	1135.96	2.73	1.43	0.04	169000.00	931.90
Reach 4	219.88	1140.11	1137.44	2.67	1.42	0.01	169000.00	2003.65
Reach 4	219.88	1140.11	1137.44	2.67	1.42	0.01	169000.00	918.51
Reach 4	220.03	1142.32	1139.74	2.59	2.20	0.01	169000.00	906.62
Reach 4	220.03	1142.32	1139.73	2.59	2.20	0.01	169000.00	906.62
Reach 4	220.05	Bridge						
Reach 4	220.06	1142.99	1140.72	2.27	0.00	0.02	169000.00	909.54
Reach 4	220.06	1142.99	1140.72	2.27	0.00	0.02	169000.00	909.53
Reach 4	220.16	1144.14	1141.74	2.40	1.11	0.04	169000.00	1469.89
Reach 4	220.16	1144.14	1141.74	2.40	1.11	0.04	169000.00	912.67
Reach 4	220.25	1145.23	1143.14	2.09	1.05	0.03	169000.00	1743.60
Reach 4	220.25	1145.23	1143.14	2.09	1.05	0.03	169000.00	919.65
Reach 4	220.35	1146.10	1144.24	1.86	0.86	0.02	169000.00	1375.54
Reach 4	220.35	1146.10	1144.24	1.86	0.86	0.02	169000.00	915.58
Reach 4	220.45	1146.99	1144.97	2.01	0.84	0.05	169000.00	1293.58
Reach 4	220.45	1146.99	1144.97	2.01	0.84	0.05	169000.00	908.83
Reach 4	220.54	1147.86	1145.84	2.03	0.87	0.00	169000.00	1107.01
Reach 4	220.54	1147.86	1145.84	2.03	0.87	0.00	169000.00	915.24
Reach 4	220.63	1148.75	1146.74	2.01	0.88	0.00	169000.00	981.94
Reach 4	220.63	1148.75	1146.74	2.01	0.88	0.00	169000.00	903.29
Reach 4	220.73	1149.62	1147.59	2.03	0.87	0.01	169000.00	1018.38
Reach 4	220.73	1149.62	1147.59	2.03	0.87	0.01	169000.00	884.55
Reach 4	220.82	1150.47	1148.53	1.94	0.84	0.01	169000.00	1082.87
Reach 4	220.82	1150.47	1148.53	1.94	0.84	0.01	169000.00	920.30
Reach 4	220.92	1151.35	1149.39	1.96	0.87	0.00	169000.00	1072.33
Reach 4	220.92	1151.34	1149.39	1.96	0.87	0.00	169000.00	906.20
Reach 4	221.02	1152.13	1150.36	1.77	0.77	0.02	169000.00	1161.10
Reach 4	221.02	1152.13	1150.36	1.78	0.77	0.02	169000.00	900.19
Reach 4	221.05	1152.36	1150.84	1.52	0.21	0.03	169000.00	1318.35

Reach 4	221.05	1152.36	1150.84	1.52	0.21	0.03	169000.00	908.66
Reach 4	221.055	Bridge						
Reach 4	221.06	1152.56	1151.07	1.48	0.04	0.02	169000.00	1351.93
Reach 4	221.06	1152.56	1151.07	1.48	0.04	0.02	169000.00	921.95
Reach 4	221.19	1153.28	1151.80	1.47	0.72	0.00	169000.00	1048.37
Reach 4	221.19	1153.28	1151.80	1.47	0.72	0.00	169000.00	968.92
Reach 4	221.195	Bridge						
Reach 4	221.2	1153.59	1152.17	1.42	0.03	0.04	169000.00	1104.28
Reach 4	221.2	1153.59	1152.17	1.42	0.03	0.04	169000.00	972.60
Reach 4	221.24	1153.78	1152.39	1.39	0.19	0.00	169000.00	1070.97
Reach 4	221.24	1153.78	1152.39	1.39	0.19	0.00	169000.00	954.93
Reach 4	221.25	Bridge						
Reach 4	221.26	1154.06	1152.72	1.34			169000.00	1085.78
Reach 4	221.26	1154.06	1152.72	1.34			169000.00	956.14
Reach 4	221.31	1154.78	1152.32	2.46	0.38	0.33	172000.00	1150.50
Reach 4	221.31	1154.78	1152.32	2.46	0.38	0.33	172000.00	910.15
Reach 4	221.40	1155.96	1153.68	2.28	1.17	0.02	172000.00	1061.05
Reach 4	221.40	1155.97	1153.69	2.28	1.17	0.02	172000.00	949.01
Reach 4	221.50	1157.00	1154.59	2.41	1.00	0.04	172000.00	1331.98
Reach 4	221.50	1157.00	1154.59	2.40	1.00	0.04	172000.00	928.67
Reach 4	221.61	1157.96	1155.68	2.28	0.95	0.01	172000.00	1387.28
Reach 4	221.61	1157.96	1155.68	2.28	0.95	0.01	172000.00	926.14
Reach 4	221.70	1158.69	1156.71	1.98	0.70	0.03	172000.00	1465.08
Reach 4	221.70	1158.70	1156.71	1.98	0.70	0.03	172000.00	939.68
Reach 4	221.80	1159.37	1157.35	2.02	0.67	0.01	172000.00	1212.13
Reach 4	221.80	1159.37	1157.35	2.02	0.67	0.01	172000.00	935.46
Reach 4	221.89	1160.03	1158.07	1.96	0.66	0.01	172000.00	1151.07
Reach 4	221.89	1160.03	1158.07	1.96	0.66	0.01	172000.00	986.38
Reach 4	221.99	1160.68	1158.99	1.69	0.62	0.03	172000.00	1183.84
Reach 4	221.99	1160.68	1158.99	1.69	0.62	0.03	172000.00	1012.33
Reach 4	222.08	1161.08	1159.93	1.15	0.34	0.05	172000.00	1231.13
Reach 4	222.08	1161.08	1159.93	1.15	0.34	0.05	172000.00	1039.29
Reach 4	222.085	Bridge						

Reach 4	222.09	1161.26	1160.14	1.12	0.02	0.01	172000.00	1233.92
Reach 4	222.09	1161.26	1160.14	1.12	0.02	0.01	172000.00	1041.24
Reach 4	222.17	1161.60	1160.20	1.41	0.25	0.09	172000.00	1227.36
Reach 4	222.17	1161.60	1160.20	1.41	0.25	0.09	172000.00	1009.91
Reach 4	222.27	1162.01	1160.64	1.36	0.40	0.00	172000.00	1214.10
Reach 4	222.27	1162.01	1160.64	1.36	0.40	0.00	172000.00	1077.23
Reach 4	222.36	1162.39	1161.29	1.10	0.35	0.03	172000.00	1414.74
Reach 4	222.36	1162.39	1161.29	1.10	0.35	0.03	172000.00	1182.81
Reach 4	222.45	1162.67	1161.93	0.74	0.25	0.04	172000.00	1643.65
Reach 4	222.45	1162.67	1161.93	0.74	0.25	0.04	172000.00	1388.01
Reach 4	222.55	1162.91	1162.10	0.81	0.22	0.02	172000.00	1818.05
Reach 4	222.55	1162.91	1162.10	0.81	0.22	0.02	172000.00	1270.54
Reach 4	222.65	1163.26	1162.23	1.03	0.28	0.07	172000.00	2093.67
Reach 4	222.65	1163.27	1162.24	1.03	0.29	0.07	172000.00	1079.50
Reach 4	222.74	1163.59	1162.59	1.00	0.32	0.00	172000.00	2043.47
Reach 4	222.74	1163.60	1162.60	1.00	0.33	0.00	172000.00	1038.09
Reach 4	222.83	1163.89	1162.90	1.00	0.30	0.00	172000.00	2187.54
Reach 4	222.83	1163.90	1162.91	0.99	0.30	0.00	172000.00	963.41
Reach 4	222.93	1164.32	1163.05	1.27	0.35	0.08	172000.00	2119.92
Reach 4	222.93	1164.33	1163.07	1.27	0.35	0.08	172000.00	945.76
Reach 4	223.02	1164.76	1163.55	1.22	0.44	0.00	172000.00	1524.43
Reach 4	223.02	1164.77	1163.56	1.22	0.44	0.00	172000.00	1092.69
Reach 4	223.08	1167.91	1163.07	4.83	0.57	1.08	172000.00	1001.37
Reach 4	223.08	1167.91	1163.07	4.83	0.57	1.09	172000.00	1001.37
Reach 4	223.085	Bridge						
Reach 4	223.09	1169.40	1167.01	2.38	0.11	0.06	172000.00	1222.95
Reach 4	223.09	1169.40	1167.01	2.38	0.11	0.06	172000.00	1088.29
Reach 4	223.19	1170.15	1169.29	0.86	0.60	0.15	172000.00	2091.50
Reach 4	223.19	1170.15	1169.29	0.86	0.60	0.15	172000.00	1010.39
Reach 4	223.29	1170.74	1169.35	1.40	0.43	0.16	172000.00	2258.16
Reach 4	223.29	1170.74	1169.35	1.40	0.43	0.16	172000.00	792.56
Reach 4	223.38	1171.31	1169.83	1.48	0.54	0.03	172000.00	1665.59
Reach 4	223.38	1171.31	1169.83	1.48	0.54	0.03	172000.00	724.21

Reach 4	223.48	1172.13	1170.24	1.89	0.70	0.12	172000.00	933.29
Reach 4	223.48	1172.13	1170.24	1.89	0.70	0.12	172000.00	642.79
Reach 4	223.58	1173.31	1170.70	2.61	0.96	0.22	172000.00	990.19
Reach 4	223.58	1173.31	1170.70	2.61	0.96	0.22	172000.00	609.51
Reach 4	223.67	1174.34	1172.51	1.83	0.95	0.08	172000.00	946.38
Reach 4	223.67	1174.34	1172.51	1.83	0.95	0.08	172000.00	638.36
Reach 4	223.77	1174.85	1173.52	1.34	0.47	0.05	172000.00	1291.23
Reach 4	223.77	1174.86	1173.52	1.34	0.47	0.05	172000.00	683.03
Reach 4	223.86	1175.13	1174.11	1.03	0.25	0.03	172000.00	1139.08
Reach 4	223.86	1175.13	1174.11	1.03	0.25	0.03	172000.00	817.23
Reach 4	223.96	1175.34	1174.54	0.80	0.18	0.02	172000.00	1815.70
Reach 4	223.96	1175.34	1174.54	0.80	0.18	0.02	172000.00	894.65
Reach 4	224.06	1175.58	1174.59	0.99	0.19	0.06	172000.00	1373.10
Reach 4	224.06	1175.59	1174.59	0.99	0.19	0.06	172000.00	877.99
Reach 4	224.12	1175.75	1175.20	0.55	0.12	0.04	172000.00	1152.56
Reach 4	224.12	1175.75	1175.20	0.55	0.12	0.04	172000.00	1152.56
Reach 4	224.13	Bridge						
Reach 4	224.14	1175.89	1175.20	0.69	0.00	0.01	172000.00	1064.06
Reach 4	224.14	1175.89	1175.20	0.69	0.00	0.01	172000.00	1064.06
Reach 4	224.16	1175.94	1175.21	0.73	0.04	0.01	172000.00	1057.54
Reach 4	224.16	1175.95	1175.21	0.73	0.04	0.01	172000.00	1057.53
Reach 4	224.175	Bridge						
Reach 4	224.19	1176.06	1175.31	0.75	0.04	0.00	172000.00	1061.97
Reach 4	224.19	1176.06	1175.31	0.75	0.04	0.00	172000.00	1061.96
Reach 4	224.20	1176.10	1175.36	0.74	0.03	0.00	172000.00	1087.88
Reach 4	224.20	1176.10	1175.36	0.74	0.03	0.00	172000.00	1087.87
Reach 4	224.21	Bridge						
Reach 4	224.22	1176.24	1175.65	0.59	0.00	0.01	172000.00	1204.04
Reach 4	224.22	1176.24	1175.65	0.59	0.00	0.01	172000.00	1204.04
Reach 4	224.31	1176.39	1175.80	0.58	0.15	0.00	172000.00	2559.24
Reach 4	224.31	1176.39	1175.80	0.58	0.15	0.00	172000.00	1169.93
Reach 4	224.42	1176.54	1176.24	0.29	0.12	0.03	172000.00	2946.39
Reach 4	224.42	1176.54	1176.25	0.29	0.12	0.03	172000.00	1590.12

Reach 4	224.52	1176.61	1176.39	0.22	0.07	0.01	172000.00	3145.40
Reach 4	224.52	1176.61	1176.39	0.22	0.07	0.01	172000.00	1906.48
Reach 4	224.62	1176.68	1176.46	0.22	0.07	0.00	172000.00	3108.05
Reach 4	224.62	1176.68	1176.46	0.22	0.07	0.00	172000.00	2139.55
Reach 4	224.71	1176.74	1176.55	0.19	0.06	0.00	172000.00	3514.23
Reach 4	224.71	1176.74	1176.55	0.19	0.06	0.00	172000.00	2221.59
Reach 4	224.82	1176.87	1176.55	0.32	0.09	0.04	172000.00	2819.06
Reach 4	224.82	1176.88	1176.56	0.32	0.09	0.04	172000.00	2035.83
Reach 4	224.90	1177.00	1176.59	0.41	0.10	0.03	172000.00	3005.67
Reach 4	224.90	1177.01	1176.60	0.41	0.10	0.03	172000.00	1910.04
Reach 4	225	1177.10	1176.86	0.24	0.08	0.02	172000.00	2462.93
Reach 4	225	1177.11	1176.87	0.24	0.08	0.02	172000.00	2047.32
Reach 4	225.11	1177.30	1176.71	0.59	0.09	0.11	172000.00	1609.78
Reach 4	225.11	1177.31	1176.72	0.59	0.09	0.11	172000.00	1344.60
Reach 4	225.19	1177.55	1176.66	0.89	0.16	0.09	172000.00	1212.94
Reach 4	225.19	1177.56	1176.67	0.89	0.16	0.09	172000.00	1210.32
Reach 4	225.30	1177.76	1177.35	0.41	0.16	0.05	172000.00	1883.46
Reach 4	225.30	1177.77	1177.36	0.41	0.16	0.05	172000.00	1576.81

Profile Output Table - Encroachment 3

Reach	River Sta	Top Wdth Act (ft)	Area (sq ft)	Vel Total (ft/s)	W.S. Elev (ft)	Base WS (ft)	Prof Delta WS (ft)
Reach 4	214.14	726.84	17247.72	9.84	1075.49	1075.49	
Reach 4	214.14	726.84	17178.94	9.84	1075.50	1075.49	0.01
Reach 4	214.23	737.99	17744.84	9.71	1075.93	1075.93	
Reach 4	214.23	738.00	17413.27	9.71	1075.94	1075.93	0.01
Reach 4	214.33	899.54	23370.01	7.40	1076.88	1076.88	
Reach 4	214.33	899.54	22830.94	7.40	1076.89	1076.88	0.01
Reach 4	214.42	1041.69	27156.79	6.27	1077.32	1077.32	
Reach 4	214.42	1041.69	26975.11	6.27	1077.33	1077.32	0.01
Reach 4	214.52	928.22	23492.53	7.19	1077.35	1077.35	
Reach 4	214.52	928.22	23499.67	7.19	1077.36	1077.35	0.01
Reach 4	214.61	792.44	18346.45	9.21	1077.25	1077.25	
Reach 4	214.61	792.44	18352.64	9.21	1077.25	1077.25	0.01

Reach 4	214.71	901.57	16287.19	10.38	1077.48	1077.48	
Reach 4	214.71	901.57	16294.01	10.37	1077.48	1077.48	0.01
Reach 4	214.78	1054.44	17192.07	9.83	1078.06	1078.06	
Reach 4	214.78	1054.44	17199.27	9.83	1078.07	1078.06	0.01
Reach 4	214.785 BR D	1015.56	16472.73	10.26	1078.01	1078.01	
Reach 4	214.785 BR D	1015.60	16479.79	10.25	1078.02	1078.01	0.01
Reach 4	214.785 BR U	1016.55	16656.43	10.15	1078.17	1078.17	
Reach 4	214.785 BR U	1015.88	16663.08	10.14	1078.18	1078.17	0.01
Reach 4	214.79	1056.41	17557.55	9.63	1078.39	1078.39	
Reach 4	214.79	1056.41	17564.39	9.62	1078.40	1078.39	0.01
Reach 4	214.9	810.50	11457.03	14.78	1078.13	1078.13	
Reach 4	214.9	810.50	11439.94	14.77	1078.14	1078.13	0.01
Reach 4	214.99	727.58	11672.67	14.48	1079.91	1079.91	
Reach 4	214.99	727.58	11674.45	14.48	1079.92	1079.91	0.00
Reach 4	215.09	619.02	10986.08	15.38	1081.09	1081.09	
Reach 4	215.09	619.02	10987.06	15.38	1081.10	1081.09	0.00
Reach 4	215.18	593.90	9585.73	18.01	1081.87	1081.87	
Reach 4	215.18	593.90	9382.77	18.01	1081.87	1081.87	0.00
Reach 4	215.27	943.30	24307.47	9.02	1086.84	1086.84	
Reach 4	215.27	943.30	18740.87	9.02	1086.85	1086.84	0.00
Reach 4	215.36	919.00	21118.73	8.61	1087.34	1087.34	
Reach 4	215.36	919.00	19629.43	8.61	1087.35	1087.34	0.01
Reach 4	215.46	916.86	18009.56	9.38	1087.61	1087.61	
Reach 4	215.46	916.85	18015.04	9.38	1087.61	1087.61	0.01
Reach 4	215.56	907.87	16859.61	10.02	1087.99	1087.99	
Reach 4	215.56	907.88	16864.71	10.02	1087.99	1087.99	0.01
Reach 4	215.65	890.00	14232.62	11.87	1088.27	1088.27	
Reach 4	215.65	890.00	14237.18	11.87	1088.28	1088.27	0.01
Reach 4	215.75	854.81	10385.16	16.27	1088.44	1088.44	
Reach 4	215.75	854.81	10389.02	16.27	1088.45	1088.44	0.00
Reach 4	215.81	860.84	12363.67	13.67	1090.81	1090.81	
Reach 4	215.81	860.84	12364.51	13.67	1090.81	1090.81	0.00
Reach 4	215.815 BR D	827.84	11791.49	14.33	1090.71	1090.71	
Reach 4	215.815 BR D	827.84	11792.30	14.33	1090.71	1090.71	0.00

Reach 4	215.815 BR U	827.85	12274.94	13.77	1091.30	1091.30	
Reach 4	215.815 BR U	827.85	12281.21	13.76	1091.30	1091.30	0.01
Reach 4	215.82	860.86	13249.11	12.76	1091.84	1091.84	
Reach 4	215.82	860.86	13254.68	12.75	1091.85	1091.84	0.01
Reach 4	215.84	870.81	11719.46	14.42	1091.71	1091.71	
Reach 4	215.84	870.81	11725.41	14.41	1091.72	1091.71	0.01
Reach 4	215.94	906.67	11554.85	14.74	1093.70	1093.70	
Reach 4	215.94	906.67	11464.57	14.74	1093.70	1093.70	0.00
Reach 4	216.04	1069.83	19363.15	9.13	1096.93	1096.93	
Reach 4	216.04	1069.84	18517.14	9.13	1096.93	1096.93	0.00
Reach 4	216.13	1113.68	20958.01	8.75	1097.54	1097.54	
Reach 4	216.13	1113.68	19304.79	8.75	1097.54	1097.54	0.00
Reach 4	216.23	1083.71	19708.01	9.13	1097.99	1097.99	
Reach 4	216.23	1083.71	18503.28	9.13	1097.99	1097.99	0.00
Reach 4	216.33	1026.33	16896.88	10.25	1098.35	1098.35	
Reach 4	216.33	1026.33	16490.95	10.25	1098.36	1098.35	0.00
Reach 4	216.42	956.04	14635.06	11.56	1098.86	1098.86	
Reach 4	216.42	946.84	14614.20	11.56	1098.86	1098.86	0.00
Reach 4	216.49	992.00	13853.43	12.20	1099.40	1099.40	
Reach 4	216.49	992.01	13854.03	12.20	1099.40	1099.40	0.00
Reach 4	216.505 BR D	943.77	13089.35	12.91	1099.27	1099.27	
Reach 4	216.505 BR D	943.80	13089.93	12.91	1099.27	1099.27	0.00
Reach 4	216.505 BR U	958.36	14130.54	11.96	1100.36	1100.36	
Reach 4	216.505 BR U	958.36	14131.01	11.96	1100.36	1100.36	0.00
Reach 4	216.52	1001.88	15203.46	11.12	1100.75	1100.75	
Reach 4	216.52	1001.88	15203.95	11.12	1100.75	1100.75	0.00
Reach 4	216.62	1011.29	16737.30	10.25	1101.87	1101.87	
Reach 4	216.62	1011.33	16496.15	10.24	1101.87	1101.87	0.00
Reach 4	216.72	899.77	17442.59	9.69	1102.67	1102.67	
Reach 4	216.72	899.77	17442.81	9.69	1102.67	1102.67	0.00
Reach 4	216.81	896.85	55269.59	10.08	1103.12	1103.12	
Reach 4	216.81	896.85	16767.61	10.08	1103.12	1103.12	0.00
Reach 4	216.91	905.75	58972.11	10.77	1103.62	1103.62	
Reach 4	216.91	905.75	15691.79	10.77	1103.62	1103.62	0.00

Reach 4	217.00	906.15	51883.59	10.18	1104.50	1104.50	
Reach 4	217.00	906.15	16607.06	10.18	1104.50	1104.50	0.00
Reach 4	217.10	910.80	42523.63	10.37	1105.06	1105.06	
Reach 4	217.10	910.80	16299.29	10.37	1105.06	1105.06	0.00
Reach 4	217.19	950.18	27850.84	13.06	1105.32	1105.32	
Reach 4	217.19	950.17	12942.16	13.06	1105.32	1105.32	0.00
Reach 4	217.29	999.41	17858.32	11.79	1107.17	1107.17	
Reach 4	217.29	999.40	14340.05	11.79	1107.17	1107.17	0.00
Reach 4	217.38	1034.77	15337.89	11.20	1108.43	1108.43	
Reach 4	217.38	1034.77	15091.82	11.20	1108.43	1108.43	0.00
Reach 4	217.48	1045.98	19820.59	11.00	1109.47	1109.47	
Reach 4	217.48	1045.98	15364.90	11.00	1109.47	1109.47	0.00
Reach 4	217.57	1041.19	14800.73	11.42	1110.33	1110.33	
Reach 4	217.57	1041.18	14800.10	11.42	1110.33	1110.33	0.00
Reach 4	217.66	1020.84	15053.44	11.25	1111.44	1111.44	
Reach 4	217.66	1020.83	15023.80	11.25	1111.44	1111.44	0.00
Reach 4	217.76	823.79	11392.22	14.83	1111.73	1111.73	
Reach 4	217.76	823.78	11391.92	14.84	1111.73	1111.73	0.00
Reach 4	217.86	1043.86	17772.71	10.34	1114.83	1114.83	
Reach 4	217.86	1043.86	16338.49	10.34	1114.83	1114.83	0.00
Reach 4	217.95	1042.17	16247.70	10.40	1115.57	1115.57	
Reach 4	217.95	1042.16	16247.57	10.40	1115.57	1115.57	0.00
Reach 4	218.04	1038.71	15165.97	11.14	1116.28	1116.28	
Reach 4	218.04	1038.71	15165.85	11.14	1116.28	1116.28	0.00
Reach 4	218.14	1032.41	15684.06	11.22	1117.26	1117.26	
Reach 4	218.14	1032.41	15056.97	11.22	1117.26	1117.26	0.00
Reach 4	218.24	1034.87	15010.29	11.61	1118.20	1118.20	
Reach 4	218.24	1034.87	14552.80	11.61	1118.20	1118.20	0.00
Reach 4	218.33	1051.46	15675.27	10.78	1119.49	1119.49	
Reach 4	218.33	1051.46	15675.14	10.78	1119.49	1119.49	0.00
Reach 4	218.42	1007.81	17020.30	12.11	1120.20	1120.20	
Reach 4	218.42	1007.81	13956.33	12.11	1120.20	1120.20	0.00
Reach 4	218.52	1008.13	24064.73	11.43	1121.59	1121.59	
Reach 4	218.52	1008.12	14789.44	11.43	1121.59	1121.59	0.00

Reach 4	218.61		994.35	31880.23	11.40	1122.61	1122.61	
Reach 4	218.61		994.26	14825.69	11.40	1122.61	1122.61	0.00
Reach 4	218.71		986.77	31492.46	11.35	1123.63	1123.63	
Reach 4	218.71		986.76	14890.33	11.35	1123.63	1123.63	0.00
Reach 4	218.80		1011.74	26194.41	10.55	1124.77	1124.77	
Reach 4	218.80		1011.73	16023.85	10.55	1124.77	1124.77	0.00
Reach 4	218.96		1020.45	15115.64	11.32	1126.03	1126.03	
Reach 4	218.96		1020.44	14930.52	11.32	1126.03	1126.03	0.00
Reach 4	218.965	BR D	974.29	14274.56	11.98	1125.89	1125.89	
Reach 4	218.965	BR D	974.29	14273.66	11.99	1125.88	1125.89	0.00
Reach 4	218.965	BR U	962.83	14878.24	11.39	1126.44	1126.44	
Reach 4	218.965	BR U	962.82	14877.38	11.39	1126.44	1126.44	0.00
Reach 4	218.97		1009.81	15928.23	10.65	1126.74	1126.74	
Reach 4	218.97		1009.80	15869.98	10.65	1126.74	1126.74	0.00
Reach 4	219.01		1022.15	12900.13	13.10	1126.36	1126.36	
Reach 4	219.01		1022.15	12899.13	13.10	1126.36	1126.36	0.00
Reach 4	219.02	BR D	976.61	12238.60	13.81	1126.28	1126.28	
Reach 4	219.02	BR D	976.61	12237.52	13.81	1126.28	1126.28	0.00
Reach 4	219.02	BR U	979.73	13208.65	12.79	1127.27	1127.27	
Reach 4	219.02	BR U	976.61	13203.88	12.80	1127.27	1127.27	0.00
Reach 4	219.03		1026.67	14369.34	11.76	1127.80	1127.80	
Reach 4	219.03		1026.66	14367.08	11.76	1127.79	1127.80	0.00
Reach 4	219.14		1023.28	25191.27	11.10	1129.20	1129.20	
Reach 4	219.14		1023.27	15228.51	11.10	1129.20	1129.20	0.00
Reach 4	219.24		1032.45	28924.07	11.23	1130.16	1130.16	
Reach 4	219.24		1032.44	15050.38	11.23	1130.16	1130.16	0.00
Reach 4	219.33		1024.85	30438.71	11.17	1131.10	1131.10	
Reach 4	219.33		1024.85	15130.65	11.17	1131.10	1131.10	0.00
Reach 4	219.42		1010.17	24562.27	11.18	1132.00	1132.00	
Reach 4	219.42		1010.17	15120.89	11.18	1132.00	1132.00	0.00
Reach 4	219.51		1006.16	20045.29	11.27	1132.93	1132.93	
Reach 4	219.51		1006.15	14993.11	11.27	1132.93	1132.93	0.00
Reach 4	219.61		988.76	21837.39	11.54	1133.86	1133.86	
Reach 4	219.61		988.76	14649.25	11.54	1133.86	1133.86	0.00

Reach 4	219.70		945.15	18428.70	12.91	1134.63	1134.63	
Reach 4	219.70		945.15	13091.33	12.91	1134.63	1134.63	0.00
Reach 4	219.79		931.90	16026.95	13.26	1135.96	1135.96	
Reach 4	219.79		931.90	12747.28	13.26	1135.96	1135.96	0.00
Reach 4	219.88		918.51	16226.75	13.11	1137.44	1137.44	
Reach 4	219.88		918.51	12889.52	13.11	1137.44	1137.44	0.00
Reach 4	220.03		906.62	13097.09	12.90	1139.74	1139.74	
Reach 4	220.03		906.62	13096.98	12.90	1139.73	1139.74	0.00
Reach 4	220.05	BR D	879.02	12799.20	13.20	1139.87	1139.87	
Reach 4	220.05	BR D	879.02	12799.09	13.20	1139.87	1139.87	0.00
Reach 4	220.05	BR U	880.77	13320.24	12.69	1140.46	1140.46	
Reach 4	220.05	BR U	879.02	13318.76	12.69	1140.46	1140.46	0.00
Reach 4	220.06		909.54	13992.86	12.08	1140.72	1140.72	
Reach 4	220.06		909.53	13992.42	12.08	1140.72	1140.72	0.00
Reach 4	220.16		912.67	14589.52	12.43	1141.74	1141.74	
Reach 4	220.16		912.67	13591.23	12.43	1141.74	1141.74	0.00
Reach 4	220.25		919.66	15597.48	11.59	1143.14	1143.14	
Reach 4	220.25		919.65	14576.63	11.59	1143.14	1143.14	0.00
Reach 4	220.35		915.59	16185.76	10.95	1144.24	1144.24	
Reach 4	220.35		915.58	15436.25	10.95	1144.24	1144.24	0.00
Reach 4	220.45		908.83	15901.78	11.39	1144.97	1144.97	
Reach 4	220.45		908.83	14836.82	11.39	1144.97	1144.97	0.00
Reach 4	220.54		915.24	15746.86	11.42	1145.84	1145.84	
Reach 4	220.54		915.24	14796.04	11.42	1145.84	1145.84	0.00
Reach 4	220.63		903.29	15110.65	11.37	1146.74	1146.74	
Reach 4	220.63		903.29	14857.05	11.38	1146.74	1146.74	0.00
Reach 4	220.73		884.55	15033.77	11.43	1147.59	1147.59	
Reach 4	220.73		884.55	14782.65	11.43	1147.59	1147.59	0.00
Reach 4	220.82		920.30	15228.46	11.19	1148.53	1148.53	
Reach 4	220.82		920.30	15100.49	11.19	1148.53	1148.53	0.00
Reach 4	220.92		906.20	15230.03	11.22	1149.39	1149.39	
Reach 4	220.92		906.20	15058.40	11.22	1149.39	1149.39	0.00
Reach 4	221.02		900.19	16257.47	10.69	1150.36	1150.36	
Reach 4	221.02		900.19	15806.81	10.69	1150.36	1150.36	0.00

Reach 4	221.05	908.67	18354.31	9.90	1150.84	1150.84	
Reach 4	221.05	908.66	17070.54	9.90	1150.84	1150.84	0.00
Reach 4	221.055 BR D	853.77	17307.82	10.46	1150.76	1150.76	
Reach 4	221.055 BR D	853.76	16149.79	10.46	1150.76	1150.76	0.00
Reach 4	221.055 BR U	857.61	17365.43	10.44	1150.80	1150.80	
Reach 4	221.055 BR U	857.60	16189.79	10.44	1150.80	1150.80	0.00
Reach 4	221.06	921.95	18663.55	9.78	1151.07	1151.07	
Reach 4	221.06	921.95	17282.60	9.78	1151.07	1151.07	0.00
Reach 4	221.19	968.92	17433.98	9.75	1151.80	1151.80	
Reach 4	221.19	968.92	17340.40	9.75	1151.80	1151.80	0.00
Reach 4	221.195 BR D	876.71	15685.26	10.83	1151.60	1151.60	
Reach 4	221.195 BR D	876.71	15607.72	10.83	1151.60	1151.60	0.00
Reach 4	221.195 BR U	872.47	15801.92	10.75	1151.72	1151.72	
Reach 4	221.195 BR U	872.47	15715.01	10.75	1151.72	1151.72	0.00
Reach 4	221.2	972.60	17830.24	9.55	1152.17	1152.17	
Reach 4	221.2	972.60	17696.13	9.55	1152.17	1152.17	0.00
Reach 4	221.24	954.93	18225.50	9.46	1152.39	1152.39	
Reach 4	221.24	954.93	17860.31	9.46	1152.39	1152.39	0.00
Reach 4	221.25 BR D	867.78	16400.70	10.49	1152.09	1152.09	
Reach 4	221.25 BR D	868.51	16119.87	10.48	1152.09	1152.09	0.01
Reach 4	221.25 BR U	880.16	16491.54	10.43	1152.18	1152.18	
Reach 4	221.25 BR U	880.16	16206.60	10.43	1152.19	1152.18	0.01
Reach 4	221.26	956.14	18578.69	9.30	1152.72	1152.72	
Reach 4	221.26	956.14	18176.53	9.30	1152.72	1152.72	0.00
Reach 4	221.31	910.15	14070.65	12.59	1152.32	1152.32	
Reach 4	221.31	910.15	13665.17	12.59	1152.32	1152.32	0.00
Reach 4	221.40	949.01	14831.90	12.12	1153.68	1153.68	
Reach 4	221.40	949.01	14192.17	12.12	1153.69	1153.68	0.00
Reach 4	221.50	928.68	16912.21	12.45	1154.59	1154.59	
Reach 4	221.50	928.67	13822.11	12.44	1154.59	1154.59	0.00
Reach 4	221.61	926.14	18204.79	12.13	1155.68	1155.68	
Reach 4	221.61	926.14	14182.42	12.13	1155.68	1155.68	0.00
Reach 4	221.70	939.68	19341.30	11.30	1156.71	1156.71	
Reach 4	221.70	939.68	15217.00	11.30	1156.71	1156.71	0.00

Reach 4	221.80	935.45	16692.38	11.41	1157.35	1157.35	
Reach 4	221.80	935.46	15076.61	11.41	1157.35	1157.35	0.00
Reach 4	221.89	986.38	16039.11	11.24	1158.07	1158.07	
Reach 4	221.89	986.38	15300.25	11.24	1158.07	1158.07	0.00
Reach 4	221.99	1012.33	16619.68	10.44	1158.99	1158.99	
Reach 4	221.99	1012.33	16480.95	10.44	1158.99	1158.99	0.00
Reach 4	222.08	1039.30	20683.16	8.59	1159.93	1159.93	
Reach 4	222.08	1039.29	20013.79	8.59	1159.93	1159.93	0.00
Reach 4	222.085 BR D	990.67	19601.08	9.07	1159.86	1159.86	
Reach 4	222.085 BR D	990.67	19601.51	9.07	1159.86	1159.86	0.00
Reach 4	222.085 BR U	991.63	19724.49	9.02	1159.97	1159.97	
Reach 4	222.085 BR U	991.63	19724.92	9.02	1159.97	1159.97	0.00
Reach 4	222.09	1041.23	20945.56	8.50	1160.14	1160.14	
Reach 4	222.09	1041.24	20235.26	8.50	1160.14	1160.14	0.00
Reach 4	222.17	1009.91	18579.80	9.52	1160.20	1160.20	
Reach 4	222.17	1009.91	18072.54	9.52	1160.20	1160.20	0.00
Reach 4	222.27	1077.23	18535.88	9.37	1160.64	1160.64	
Reach 4	222.27	1077.23	18354.45	9.37	1160.64	1160.64	0.00
Reach 4	222.36	1182.81	21938.74	8.41	1161.29	1161.29	
Reach 4	222.36	1182.81	20461.61	8.41	1161.29	1161.29	0.00
Reach 4	222.45	1388.01	26899.77	6.90	1161.93	1161.93	
Reach 4	222.45	1388.01	24916.05	6.90	1161.93	1161.93	0.00
Reach 4	222.55	1270.54	30962.00	7.24	1162.10	1162.10	
Reach 4	222.55	1270.54	23765.05	7.24	1162.10	1162.10	0.00
Reach 4	222.65	1079.50	33120.11	8.15	1162.23	1162.23	
Reach 4	222.65	1079.50	21103.01	8.15	1162.24	1162.23	0.01
Reach 4	222.74	1038.09	27679.06	8.03	1162.59	1162.59	
Reach 4	222.74	1038.09	21429.35	8.03	1162.60	1162.59	0.01
Reach 4	222.83	963.41	27686.20	8.01	1162.90	1162.90	
Reach 4	222.83	963.41	21486.92	8.00	1162.91	1162.90	0.01
Reach 4	222.93	945.77	29444.77	9.04	1163.05	1163.05	
Reach 4	222.93	945.76	19047.50	9.03	1163.07	1163.05	0.01
Reach 4	223.02	1092.69	19696.14	8.86	1163.55	1163.55	
Reach 4	223.02	1092.69	19430.92	8.85	1163.56	1163.55	0.01

Reach 4	223.08		1001.37	9747.96	17.64	1163.07	1163.07	
Reach 4	223.08		1001.37	9747.96	17.64	1163.07	1163.07	0.00
Reach 4	223.085	BR D	958.02	9599.95	17.92	1163.45	1163.45	
Reach 4	223.085	BR D	958.02	9599.95	17.92	1163.45	1163.45	0.00
Reach 4	223.085	BR U	1022.15	12335.07	13.94	1166.21	1166.21	
Reach 4	223.085	BR U	1022.15	12335.07	13.94	1166.21	1166.21	0.00
Reach 4	223.09		1088.29	13924.10	12.39	1167.01	1167.01	
Reach 4	223.09		1088.29	13879.18	12.39	1167.01	1167.01	0.00
Reach 4	223.19		1010.39	25433.49	7.44	1169.29	1169.29	
Reach 4	223.19		1010.39	23106.09	7.44	1169.29	1169.29	0.00
Reach 4	223.29		792.56	23069.43	9.48	1169.35	1169.35	
Reach 4	223.29		792.56	18141.91	9.48	1169.35	1169.35	0.00
Reach 4	223.38		724.21	20126.30	9.78	1169.83	1169.83	
Reach 4	223.38		724.21	17589.90	9.78	1169.83	1169.83	0.00
Reach 4	223.48		642.79	16453.28	11.02	1170.24	1170.24	
Reach 4	223.48		642.79	15601.74	11.02	1170.24	1170.24	0.00
Reach 4	223.58		609.50	14905.02	12.96	1170.70	1170.70	
Reach 4	223.58		609.51	13275.93	12.96	1170.70	1170.70	0.00
Reach 4	223.67		638.36	16991.77	10.85	1172.51	1172.51	
Reach 4	223.67		638.36	15847.14	10.85	1172.51	1172.51	0.00
Reach 4	223.77		683.03	20742.37	9.28	1173.52	1173.52	
Reach 4	223.77		683.03	18530.96	9.28	1173.52	1173.52	0.00
Reach 4	223.86		817.23	22058.09	8.13	1174.11	1174.11	
Reach 4	223.86		817.23	21157.62	8.13	1174.11	1174.11	0.00
Reach 4	223.96		894.65	28980.09	7.16	1174.54	1174.54	
Reach 4	223.96		894.65	24012.64	7.16	1174.54	1174.54	0.00
Reach 4	224.06		878.00	23863.04	7.99	1174.59	1174.59	
Reach 4	224.06		877.99	21514.54	7.99	1174.59	1174.59	0.00
Reach 4	224.12		1152.56	28900.78	5.95	1175.20	1175.20	
Reach 4	224.12		1152.56	28901.76	5.95	1175.20	1175.20	0.00
Reach 4	224.13	BR D	1071.37	26730.47	6.43	1175.14	1175.14	
Reach 4	224.13	BR D	1071.38	26731.38	6.43	1175.14	1175.14	0.00
Reach 4	224.13	BR U	983.80	23884.84	7.20	1175.07	1175.07	
Reach 4	224.13	BR U	983.80	23885.80	7.20	1175.07	1175.07	0.00

Reach 4	224.14	1064.06	25869.50	6.65	1175.20	1175.20	
Reach 4	224.14	1064.06	25870.54	6.65	1175.20	1175.20	0.00
Reach 4	224.16	1057.54	25043.76	6.87	1175.21	1175.21	
Reach 4	224.16	1057.53	25044.78	6.87	1175.21	1175.21	0.00
Reach 4	224.175 BR D	1029.49	24342.81	7.07	1175.20	1175.20	
Reach 4	224.175 BR D	1029.49	24343.81	7.07	1175.20	1175.20	0.00
Reach 4	224.175 BR U	1033.72	23957.38	7.18	1175.22	1175.22	
Reach 4	224.175 BR U	1033.72	23958.39	7.18	1175.22	1175.22	0.00
Reach 4	224.19	1061.97	24729.63	6.96	1175.31	1175.31	
Reach 4	224.19	1061.96	24730.66	6.95	1175.31	1175.31	0.00
Reach 4	224.20	1087.88	24936.73	6.90	1175.36	1175.36	
Reach 4	224.20	1087.87	24937.79	6.90	1175.36	1175.36	0.00
Reach 4	224.21 BR D	1006.72	22946.36	7.50	1175.28	1175.28	
Reach 4	224.21 BR D	1006.72	22947.34	7.50	1175.28	1175.28	0.00
Reach 4	224.21 BR U	1122.60	25849.12	6.65	1175.54	1175.54	
Reach 4	224.21 BR U	1122.61	25850.22	6.65	1175.54	1175.54	0.00
Reach 4	224.22	1204.04	27965.27	6.15	1175.65	1175.65	
Reach 4	224.22	1204.04	27966.45	6.15	1175.65	1175.65	0.00
Reach 4	224.31	1169.94	42929.63	6.13	1175.80	1175.80	
Reach 4	224.31	1169.93	28047.59	6.13	1175.80	1175.80	0.00
Reach 4	224.42	1590.12	58801.34	4.35	1176.24	1176.24	
Reach 4	224.42	1590.12	39504.92	4.35	1176.25	1176.24	0.00
Reach 4	224.52	1906.48	61491.96	3.79	1176.39	1176.39	
Reach 4	224.52	1906.48	45392.71	3.79	1176.39	1176.39	0.00
Reach 4	224.62	2139.55	54592.35	3.77	1176.46	1176.46	
Reach 4	224.62	2139.55	45617.74	3.77	1176.46	1176.46	0.00
Reach 4	224.71	2221.56	57646.42	3.51	1176.55	1176.55	
Reach 4	224.71	2221.59	49050.86	3.51	1176.55	1176.55	0.01
Reach 4	224.82	2035.83	43159.72	4.53	1176.55	1176.55	
Reach 4	224.82	2035.83	37960.57	4.53	1176.56	1176.55	0.01
Reach 4	224.90	1910.04	47439.54	5.13	1176.59	1176.59	
Reach 4	224.90	1910.04	33559.02	5.13	1176.60	1176.59	0.01
Reach 4	225	2047.30	51419.75	3.91	1176.86	1176.86	
Reach 4	225	2047.32	44055.75	3.90	1176.87	1176.86	0.01

Reach 4	225.11	1344.60	31860.15	6.15	1176.71	1176.71	
Reach 4	225.11	1344.60	27967.60	6.15	1176.72	1176.71	0.01
Reach 4	225.19	1210.18	22742.15	7.56	1176.66	1176.66	
Reach 4	225.19	1210.32	22753.45	7.56	1176.67	1176.66	0.01
Reach 4	225.30	1576.77	37078.16	5.15	1177.35	1177.35	
Reach 4	225.30	1576.81	33441.55	5.14	1177.36	1177.35	0.01

ERRORS WARNINGS AND NOTES
Errors Warnings and Notes for Plan : Method 1 FW

River: Salt River Reach: Reach 4 RS: 225.30 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 225.30 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 225.19 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 225.19 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 225.11 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 225.11 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 225 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 225 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 224.90 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 224.82 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 224.82 Profile: PF#2
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 224.71 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: Salt River Reach: Reach 4 RS: 224.71 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 224.62 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 224.52 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 224.42 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 224.42 Profile: PF#2
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 224.31 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 224.06 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 223.96 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 223.86 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 223.86 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 223.77 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 223.77 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 223.67 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 223.67 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 223.58 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 223.58 Profile: PF#2

Warning - Divided flow computed for this cross-section.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 223.48 Profile: PF#1

Warning - Divided flow computed for this cross-section.

River: Salt River Reach: Reach 4 RS: 223.48 Profile: PF#2

Warning - Divided flow computed for this cross-section.

River: Salt River Reach: Reach 4 RS: 223.38 Profile: PF#1

Warning - Divided flow computed for this cross-section.

River: Salt River Reach: Reach 4 RS: 223.38 Profile: PF#2

Warning - Divided flow computed for this cross-section.

River: Salt River Reach: Reach 4 RS: 223.29 Profile: PF#1

Warning - Divided flow computed for this cross-section.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 223.29 Profile: PF#2

Warning - Divided flow computed for this cross-section.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 223.19 Profile: PF#1

Warning - Divided flow computed for this cross-section.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 223.19 Profile: PF#2

Warning - Divided flow computed for this cross-section.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 223.09 Profile: PF#1

Warning - Divided flow computed for this cross-section.

Warning - The cross-section end points had to be extended vertically for the computed water surface.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 223.09 Profile: PF#2

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 223.085 Profile: PF#1

Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir flow. The momentum answer has been disregarded.

River: Salt River Reach: Reach 4 RS: 223.085 Profile: PF#1 Upstream

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.

This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 223.085 Profile: PF#1 Downstream

Warning - The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.

Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

River: Salt River Reach: Reach 4 RS: 223.085 Profile: PF#2

Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir flow. The momentum answer has been disregarded.

River: Salt River Reach: Reach 4 RS: 223.085 Profile: PF#2 Upstream

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 223.085 Profile: PF#2 Downstream

Warning - The energy equation could not be balanced within the specified number of iterations. The program selected the water surface that had the least amount of error between computed and assumed values.

Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

River: Salt River Reach: Reach 4 RS: 223.08 Profile: PF#1

Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.

Warning - Divided flow computed for this cross-section.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

River: Salt River Reach: Reach 4 RS: 223.08 Profile: PF#2

Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.

Warning - Divided flow computed for this cross-section.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

```
River: Salt River  Reach: Reach 4     RS: 223.02     Profile: PF#1
     Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 222.93     Profile: PF#1
     Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 222.83     Profile: PF#1
     Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 222.74     Profile: PF#1
     Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 222.65     Profile: PF#1
     Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 222.55     Profile: PF#1
     Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 222.45     Profile: PF#1
     Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 222.36     Profile: PF#1
     Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 222.27     Profile: PF#1
     Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 222.17     Profile: PF#1
     Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 222.09     Profile: PF#1
     Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 222.08     Profile: PF#1
     Warning - Divided flow computed for this cross-section.
     Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
               sections.
River: Salt River  Reach: Reach 4     RS: 222.08     Profile: PF#2
     Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
               sections.
River: Salt River  Reach: Reach 4     RS: 221.99     Profile: PF#1
     Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 221.89     Profile: PF#1
     Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 221.80     Profile: PF#1
     Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 221.70     Profile: PF#1
     Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 221.61     Profile: PF#1
     Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 221.50     Profile: PF#1
     Warning - Divided flow computed for this cross-section.
     Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
               the need for additional cross sections.
River: Salt River  Reach: Reach 4     RS: 221.50     Profile: PF#2
     Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
               the need for additional cross sections.
River: Salt River  Reach: Reach 4     RS: 221.40     Profile: PF#1
     Warning - Divided flow computed for this cross-section.
     Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
               the need for additional cross sections.
River: Salt River  Reach: Reach 4     RS: 221.40     Profile: PF#2
```

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 221.31 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 221.31 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 221.26 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 221.24 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 221.2 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 221.19 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 221.06 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 221.05 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 221.02 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 220.92 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 220.82 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 220.73 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 220.63 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 220.63 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 220.54 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 220.45 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 220.45 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 220.35 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 220.35 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 220.25 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate

the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 220.25 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 220.16 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 220.16 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 220.03 Profile: PF#1
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 220.03 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 219.88 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 219.88 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 219.79 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 219.79 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 219.70 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 219.70 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 219.61 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 219.61 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 219.51 Profile: PF#1

```
      Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 219.42     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 219.33     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 219.24     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: Salt River  Reach: Reach 4     RS: 219.24     Profile: PF#2
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: Salt River  Reach: Reach 4     RS: 219.14     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: Salt River  Reach: Reach 4     RS: 219.14     Profile: PF#2
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: Salt River  Reach: Reach 4     RS: 219.01     Profile: PF#1
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
River: Salt River  Reach: Reach 4     RS: 219.01     Profile: PF#2
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
River: Salt River  Reach: Reach 4     RS: 218.97     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: Salt River  Reach: Reach 4     RS: 218.965     Profile: PF#1
      Note -    Momentum answer is not valid if the water surface is above the low chord or if there is weir flow.  The momentum
                answer has been disregarded.
River: Salt River  Reach: Reach 4     RS: 218.965     Profile: PF#2
      Note -    Momentum answer is not valid if the water surface is above the low chord or if there is weir flow.  The momentum
                answer has been disregarded.
River: Salt River  Reach: Reach 4     RS: 218.96     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: Salt River  Reach: Reach 4     RS: 218.96     Profile: PF#2
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: Salt River  Reach: Reach 4     RS: 218.80     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 218.71     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 218.61     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: Salt River  Reach: Reach 4     RS: 218.61     Profile: PF#2
```

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 218.52 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 218.52 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 218.42 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 218.42 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 218.24 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 218.24 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 218.14 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 218.14 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 217.86 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 217.86 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 217.76 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 217.76 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 217.66 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 217.66 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 217.57 Profile: PF#1
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 217.57 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 217.48 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 217.38 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 217.38 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 217.29 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 217.29 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 217.19 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 217.19 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 217.10 Profile: PF#1
Warning - Divided flow computed for this cross-section.

```
River: Salt River  Reach: Reach 4     RS: 217.00     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 216.91     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 216.81     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 216.62     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 216.62     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 216.42     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 216.33     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 216.23     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 216.13     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Reach 4     RS: 216.04     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: Salt River  Reach: Reach 4     RS: 216.04     Profile: PF#2
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: Salt River  Reach: Reach 4     RS: 215.94     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: Salt River  Reach: Reach 4     RS: 215.94     Profile: PF#2
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
River: Salt River  Reach: Reach 4     RS: 215.84     Profile: PF#1
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
River: Salt River  Reach: Reach 4     RS: 215.84     Profile: PF#2
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
River: Salt River  Reach: Reach 4     RS: 215.81     Profile: PF#1
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.  This may indicate
                the need for additional cross sections.
```

River: Salt River Reach: Reach 4 RS: 215.81 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 215.75 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 215.75 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 215.65 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 215.65 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 215.36 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Reach 4 RS: 215.27 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 215.27 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 215.18 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Reach 4 RS: 215.18 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 215.09 Profile: PF#1

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 215.09 Profile: PF#2

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 214.99 Profile: PF#1

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 214.99 Profile: PF#2

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 214.9 Profile: PF#1

Warning - Divided flow computed for this cross-section.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 214.9 Profile: PF#2

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 214.61 Profile: PF#1

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 214.61 Profile: PF#2

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 214.42 Profile: PF#1

Warning - Divided flow computed for this cross-section.

River: Salt River Reach: Reach 4 RS: 214.33 Profile: PF#1

Warning - Divided flow computed for this cross-section.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 214.33 Profile: PF#2

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

River: Salt River Reach: Reach 4 RS: 214.23 Profile: PF#1

Warning - Divided flow computed for this cross-section.

River: Salt River Reach: Reach 4 RS: 214.14 Profile: PF#1

Warning - Divided flow computed for this cross-section.

HEC-RAS Version 2.1 October 1997
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street, Suite D
Davis, California 95616-4687
(916) 756-1104

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X      X   X     X  X    X
X     X  X        X           X   X    X    X   X
XXXXXXX  XXXX     X       XXX XXXX     XXXXXX    XXXX
X     X  X        X           X  X     X    X        X
X     X  X        X    X      X   X    X    X        X
X     X  XXXXXX    XXXX       X    X   X    X   XXXXX
```

PROJECT DATA
Project Title: Salt-Gila River Reach 5 with Floodway
Project File : reach5.prj
Run Date and Time: 1/6/99 10:05:28 AM

Project in English units

Project Description:

PLAN DATA

Plan Title: Method 1 FW
Plan File : c:\saltgila\diskette\revision 1\disk 2\Unzipped\reach5.p03

Geometry Title: SALT RIVER - REACH 5
Geometry File : c:\saltgila\diskette\revision 1\disk 2\Unzipped\reach5.g01

Flow Title : Reach 5 flow data
Flow File : c:\saltgila\diskette\revision 1\disk 2\Unzipped\reach5.f01

Plan Summary Information:
Number of: Cross Sections = 145 Mulitple Openings = 0
Culverts = 0 Inline Weirs = 0
Bridges = 4

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculaton tolerance = 0.01
Maximum number of interations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computational Flow Regime: Subcritical Flow

Encroachment Data
Equal Conveyance = True
Left Offset = 0
Right Offset = 0

River = Salt River Reach = Above Split

RS	Profile	Method	Value1	Value2
237.65	PF#2		119650.81	20684.6
237.56	PF#2	1	19593.62	0670.75
237.46	PF#2	1	19597.72	0632.32
237.35	PF#2		119544.24	20626
237.26	PF#2		119459.94	20732.6
237.16	PF#2		119428.69	20753.24
237.06	PF#2	1	19427.72	0693.84
236.96	PF#2	1	19478	20625.8
236.87	PF#2	1	19554.4	20610
236.77	PF#2	1	19578.92	0565.73
236.68	PF#2	1	1955	020531.04
236.59	PF#2	1	19590.32	0447.61
236.49	PF#2		119518.86	20454.02
236.39	PF#2		119499.35	20379.5
236.30	PF#2		119386.38	20409.84
236.21	PF#2	1	1930	620590.69
236.12	PF#2		119243.98	20620
236.03	PF#2		119359.15	20650
235.93	PF#2		119433.23	20543.04
235.84	PF#2		119452.68	20661.6
235.75	PF#2	1	19409.22	0802.29
235.66	PF#2		119417.88	20732.36
235.56	PF#2		119437.81	20741.88
235.47	PF#2		119338.75	20788.33
235.38	PF#2		119285.47	20868.09
235.28	PF#2		119250.29	21000.31
235.19	PF#2		119197.63	21134.53
235.08	PF#2		119059.95	21124.34
234.99	PF#2		119126.71	21104.87
234.89	PF#2		119256.84	21163.57
234.79	PF#2		119158.18	21193.1
234.70	PF#2		119271.91	21334.29
234.60	PF#2	1	19289.12	1497.05
234.51	PF#2		119124.45	21619.26
234.42	PF#2		119219.89	21729
234.28	PF#2		119050.61	21686.6
234.18	PF#2		118767.21	21531.68
234.09	PF#2		118644.26	21317.12
234.00	PF#2		118555.38	20962.29
233.89	PF#2		118630.95	20570.9
233.80	PF#2		118731.07	20540
233.73	PF#2		118801.37	20480
233.64	PF#2		118845.08	20420
233.55	PF#2		118905.59	20415
233.46	PF#2		118866.83	20480
233.36	PF#2		118744.38	20540
233.27	PF#2		118701.54	20540
233.18	PF#2		118661.48	20455
233.08	PF#2		118597.71	20365
232.98	PF#2		118378.97	20280
232.89	PF#2		118113.97	20245
232.80	PF#2		118058.64	20375
232.70	PF#2		117860.57	20605
232.60	PF#2		117784.45	20845
232.50	PF#2		117751.76	21080
232.41	PF#2		117731.48	21370
232.32	PF#2		117784.57	21460
232.22	PF#2		117827.57	21500
232.13	PF#2		117848.15	21540
232.04	PF#2	1	18227.3	21560
231.95	PF#2		118355.32	21590
231.86	PF#2	1	18600	21575
231.76	PF#2		118600.26	21560
231.67	PF#2		118573.25	21500
231.61	PF#2		118677.58	21442.15
231.605	PF#2		118681.91	21442.15
231.60	PF#2		118683.26	21442.15
231.57	PF#2		118707.37	21404.91
231.48	PF#2	1	18550.12	1242.33
231.39	PF#2	1	1835	021202.92
231.30	PF#2	1	1825	421251.36
231.20	PF#2		118057.13	21344.85
231.11	PF#2		118402.79	21480.18
231.01	PF#2		118581.97	21676.2
230.92	PF#2		118533.95	21907.2

230.83	PF#2	118543.06	22015.2	
230.74	PF#2	118292.12	22033	
230.64	PF#2	118213.92	21940	
230.55	PF#2	118319.25	21780	
230.45	PF#2	118608.55	21570	
230.35	PF#2	1 18997.7	21350	
230.26	PF#2	1	19200	21000
230.17	PF#2	1	19290	20860
230.07	PF#2	1	19540	20670
229.95	PF#2	1	1972020753.82	
229.86	PF#2	1 19790.9	20779.7	
229.77	PF#2	119686.23	20667.4	
229.68	PF#2	119580.612	0685.25	
229.59	PF#2	119501.592	0842.49	
229.49	PF#2	119363.35	20971.3	
229.40	PF#2	119299.292	1105.54	
229.30	PF#2	119090.292	1078.02	
229.21	PF#2	119072.842	1055.25	
229.11	PF#2	118923.122	0995.66	
229.02	PF#2	118819.052	0902.64	
228.92	PF#2	118243.122	0856.77	
228.83	PF#2	1 18389.82	0864.16	
228.73	PF#2	118617.53	20842.8	
228.63	PF#2	1	1925020769.69	
228.54	PF#2	1	1939020694.25	
228.45	PF#2	1	1927020687.35	
228.35	PF#2	1	1911020726.41	
228.26	PF#2	1	18950	20660
228.16	PF#2	1	19100	20630
228.07	PF#2	1	19300	20670
227.97	PF#2	1	19400	20700
227.88	PF#2	119390.382	0681.36	
227.79	PF#2	1	1940020664.04	
227.73	PF#2	119276.132	0476.61	
227.72	PF#2	119277.962	0474.67	
227.71	PF#2	119277.562	0475.09	
227.65	PF#2	1	1945020474.98	
227.56	PF#2	119541.432	0435.26	
227.46	PF#2	119492.822	0407.15	
227.36	PF#2	119587.072	0588.24	
227.27	PF#2	119622.492	0553.75	
227.17	PF#2	119624.422	0550.51	
227.07	PF#2	119498.212	0511.41	

River = Salt River Reach = Below Split

RS	Profile	Method	Value1	Value2
226.03	PF#2	118980.17	20476.5	
225.92	PF#2	119094.972	0528.95	
225.82	PF#2	119292.232	0250.42	
225.73	PF#2	119308.38	20522.5	
225.63	PF#2	119250.56	20752	
225.54	PF#2	119239.77	21145	
225.44	PF#2	119211.65	21225	
225.30	PF#2	119248.15	20840	

River = Salt River Reach = North Split

RS	Profile	Method	Value1	Value2
226.98	PF#2	1	1959020525.15	
226.88	PF#2	119605.782	0563.44	
226.79	PF#2	119610.21	20575	
226.70	PF#2	119602.432	0566.09	
226.61	PF#2	119602.812	0514.93	
226.60	PF#2	119602.852	0514.89	
226.59	PF#2	119602.852	0514.88	
226.44	PF#2	119626.572	0539.17	
226.31	PF#2	119663.34	20584.2	
226.24	PF#2	119726.642	0578.59	
226.13	PF#2	1 19732.62	0480.17	

River = Salt River Reach = South Split

RS	Profile	Method	Value1	Value2
227.00	PF#2	1 19026.7	19590	
226.89	PF#2	1	1974520279.93	
226.78	PF#2	1 19817.52	0139.25	
226.66	PF#2	119725.872	0205.36	
226.54	PF#2	119847.24	20147.8	

```
226.45  PF#2                    119783.7920097.91
226.43  PF#2                    119786.4620053.55
226.38  PF#2                    1 19881.120123.51
226.27  PF#2                    119301.99   20340
226.20  PF#2                    1   1922020434.23
226.11  PF#2                    1   1927020130.98
```

FLOW DATA

Flow Title: Reach 5 flow data
Flow File : c:\saltgila\diskette\revision 1\disk 2\Unzipped\reach5.f01

Flow Data (cfs)

River	Reach	RS	PF#1	PF#2
Salt River	Above Split	237.65	175000	175000
Salt River	Above Split	231.6	172000	172000
Salt River	South Split	227.00	16000	16000
Salt River	North Split	226.98	156000	156000
Salt River	Below Split	226.03	172000	172000

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
Salt River	Below Split	PF#1		Known WS = 1177.35
Salt River	Below Split	PF#2		Known WS = 1177.36

GEOMETRY DATA

Geometry Title: SALT RIVER - REACH 5
Geometry File : c:\saltgila\diskette\revision 1\disk 2\Unzipped\reach5.g01

Reach Connection Table

River	Reach	Upstream Boundary	Downstream Boundary
Salt River	Above Split		upstream
Salt River	South Split	upstream	downstream
Salt River	North Split	upstream	downstream
Salt River	Below Split	downstream	

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 237.65

INPUT
Description: GRANITE REEF DAM (JUST DOWNSTREAM)

Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19609.3	1316.6	19612.8	1316.3	19634.9	1310.2	19644.6	1304.3	19649.5	1302.9
19650.7	1306.3	19658.3	1293.8	19661.4	1290.1	19671.5	1290.4	19677.9	1290.4
19684.4	1290.3	19704.5	1289.5	19737.5	1289.4	19763.1	1289.4	19793	1289.3
19804.1	1289.4	19815.4	1289.6	19836.9	1289.2	19851	1289.2	19895.4	1289.1
20274.1	1288.6	20277.3	1288.6	20282	1288.4	20322.4	1288.6	20365	1288.7
20495.7	1289	20577.9	1289.5	20608.9	1289.6	20645.5	1290.2	20652.4	1291.1
20660.9	1292.7	20671	1298.7	20674.7	1300.7	20677.8	1302.6	20681.6	1304.6
20684.6	1305.7	20706.1	1315.5	20707.2	1315.2	20707.6	1315.2	20710.7	1315
20734.4	1313.9	20769.6	1314.4	20769.7	1314.4	20769.8	1314.4	20777	1306.4
20780.6	1301.7	20822.9	1303.1	20830.6	1303.3	20838.8	1303.5	20843.9	1303.7
20846.2	1305.2	20865.9	1316.3						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19609.3	.028	19650.7	.028	20684.6	.028	20706.1	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19650.7	20684.6	495	494.13	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19609.3	19650.7	1306.3	20684.6	20865.9	1317

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1306.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.60	Wt. n-Val.		0.028	
E.G. Elev (ft)	1307.72	Reach Len. (ft)	495.00	494.13	495.00
Crit W.S. (ft)	1298.90	Flow Area (sq ft)		17256.59	
E.G. Slope (ft/ft)	0.000870	Area (sq ft)	16.92	17256.59	227.46
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1114.38	Top Width (ft)	9.03	1033.79	71.55
Vel Total (ft/s)	10.14	Avg. Vel. (ft/s)		10.14	
Max Chl Dpth (ft)	17.72	Hydr. Depth (ft)		16.69	
Conv. Total (cfs)	5934537.5	Conv. (cfs)		5934537.5	
Length Wtd. (ft)	494.13	Wetted Per. (ft)		1046.08	
Min Ch El (ft)	1288.40	Shear (lb/sq ft)		0.90	
Alpha	1.00	Stream Power (lb/ft s)		9.08	
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)	1264.51	21635.27	4602.00
C & E Loss (ft)	0.04	Cum SA (acres)	146.41	1996.84	826.64

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1306.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.58	Wt. n-Val.		0.028	
E.G. Elev (ft)	1307.78	Reach Len. (ft)	495.00	494.13	495.00
Crit W.S. (ft)	1298.90	Flow Area (sq ft)		17335.58	
E.G. Slope (ft/ft)	0.000857	Area (sq ft)		17335.58	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1033.79	Top Width (ft)		1033.79	
Vel Total (ft/s)	10.09	Avg. Vel. (ft/s)		10.09	
Max Chl Dpth (ft)	17.80	Hydr. Depth (ft)		16.77	
Conv. Total (cfs)	5977694.5	Conv. (cfs)		5977694.5	
Length Wtd. (ft)	494.13	Wetted Per. (ft)		1046.65	
Min Ch El (ft)	1288.40	Shear (lb/sq ft)		0.89	
Alpha	1.00	Stream Power (lb/ft s)		8.95	
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	67.08	21546.36	2789.59
C & E Loss (ft)	0.04	Cum SA (acres)	14.30	1958.81	454.68

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19650.70 LB	19857.48	32462.61	3341.28	215.35	18.55	16.17	9.72
19857.48	20064.26	36676.36	3537.18	206.78	20.96	17.11	10.37
20064.26	20271.04	37668.48	3594.27	206.78	21.52	17.38	10.48
20271.04	20477.82	37765.19	3599.85	206.79	21.58	17.41	10.49
20477.82	20684.60 RB	30427.35	3184.01	210.37	17.39	15.40	9.56

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19650.70 LB	19857.48	32473.81	3357.07	215.43	18.56	16.24	9.67
19857.48	20064.26	36681.81	3552.98	206.78	20.96	17.18	10.32
20064.26	20271.04	37669.64	3610.07	206.78	21.53	17.46	10.43
20271.04	20477.82	37765.92	3615.65	206.79	21.58	17.49	10.45
20477.82	20684.60 RB	30408.82	3199.81	210.87	17.38	15.47	9.50

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 237.56

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19386.5	1316.8	19394.8	1316.7	19404.6	1309.9	19406.9	1308.4	19413.6	1308.5
19465.3	1308	19482.2	1315.3	19485.4	1316.4	19494.1	1316.4	19524.5	1316.2
19544.4	1312.3	19553.2	1310	19625.4	1301.4	19639.8	1300	19674	1297.8
19717.7	1295	19733.6	1293.9	19753.4	1292.5	19776.8	1291.3	19801.6	1290
19809.8	1290.6	19831.2	1291.4	19841.4	1290.6	19852.5	1289.9	19865.8	1289.6
19869	1289.5	19870.1	1289.4	19906.1	1289.1	19910	1288.9	20053.1	1289.9
20112.1	1289.4	20117.8	1289.3	20137.3	1289.2	20140.2	1289.2	20142.4	1289.2
20159.2	1289.1	20162.8	1289.2	20171.2	1289.3	20183.7	1289.1	20190.7	1289.1
20197.3	1289	20208.9	1288.9	20215.5	1288.8	20236.5	1288.8	20241.8	1288.9
20243.3	1288.8	20263.6	1289	20271.9	1289	20298.2	1288.9	20302.7	1288.8
20312	1288.7	20327.5	1288.4	20335.3	1288.5	20337.1	1288.4	20342.7	1288.3
20344.8	1288.3	20347.5	1288.3	20370.7	1289.2	20387.3	1289.2	20411.4	1287.9
20415.9	1287.9	20444	1287.9	20479.1	1287.8	20497.6	1288.8	20514.1	1288.6
20526.7	1288.6	20529.8	1288.6	20548.8	1288.5	20568.1	1288.7	20579.9	1289.5
20581.8	1289.6	20582.4	1289.6	20584.6	1289.6	20594.9	1289.7	20599.2	1289.8
20618.8	1289.1	20620.3	1289.1	20622.8	1289.5	20638.2	1292.5	20647.3	1293
20655.2	1293.9	20663.8	1301	20671.6	1305.7	20681.1	1310.7	20693.6	1316.2
20710.4	1317.1	20730.3	1317.4	20739.4	1313.8	20744	1311	20753.1	1301.9
20753.7	1301.5	20796.1	1301.9	20801	1301.9	20802.8	1303.3	20806.6	1305.3
20820.9	1313.6								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19386.5	.037	19524.5	.028	20693.6	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19524.5	20693.6	.	520	516.35	515	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
20693.6	20820.9	1317

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1305.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.97	Wt. n-Val.		0.028	
E.G. Elev (ft)	1307.16	Reach Len. (ft)	520.00	516.35	515.00
Crit W.S. (ft)	1299.82	Flow Area (sq ft)		15520.70	
E.G. Slope (ft/ft)	0.001295	Area (sq ft)		15520.70	179.57
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1133.73	Top Width (ft)		1077.15	56.58
Vel Total (ft/s)	11.28	Avg. Vel. (ft/s)		11.28	
Max Chl Dpth (ft)	17.39	Hydr. Depth (ft)		14.41	
Conv. Total (cfs)	4862267.0	Conv. (cfs)		4862267.0	
Length Wtd. (ft)	516.37	Wetted Per. (ft)		1082.12	
Min Ch El (ft)	1287.80	Shear (lb/sq ft)		1.16	
Alpha	1.00	Stream Power (lb/ft s)		13.08	
Frctn Loss (ft)	0.66	Cum Volume (acre-ft)	1264.42	21449.37	4599.68
C & E Loss (ft)	0.00	Cum SA (acres)	146.36	1984.86	825.91

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1305.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.95	Wt. n-Val.		0.028	
E.G. Elev (ft)	1307.23	Reach Len. (ft)	520.00	516.35	515.00
Crit W.S. (ft)	1299.82	Flow Area (sq ft)		15627.86	
E.G. Slope (ft/ft)	0.001266	Area (sq ft)		15627.86	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1077.15	Top Width (ft)		1077.15	
Vel Total (ft/s)	11.20	Avg. Vel. (ft/s)		11.20	
Max Chl Dpth (ft)	17.49	Hydr. Depth (ft)		14.51	
Conv. Total (cfs)	4917754.5	Conv. (cfs)		4917754.5	
Length Wtd. (ft)	516.35	Wetted Per. (ft)		1082.32	
Min Ch El (ft)	1287.80	Shear (lb/sq ft)		1.14	
Alpha	1.00	Stream Power (lb/ft s)		12.78	
Frctn Loss (ft)	0.66	Cum Volume (acre-ft)	67.08	21359.40	2789.59
C & E Loss (ft)	0.01	Cum SA (acres)	14.30	1946.84	454.68

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19524.50 LB	19758.32	8312.22	1195.15	165.27	4.75	7.26	6.95
19758.32	19992.14	40819.00	3568.66	233.99	23.33	15.26	11.44
19992.14	20225.96	43216.45	3691.98	233.83	24.70	15.79	11.71
20225.96	20459.78	46954.48	3880.79	233.89	26.83	16.60	12.10
20459.78	20693.60 RB	35697.85	3184.12	215.15	20.40	15.09	11.21

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19524.50 LB	19758.32	8406.63	1211.53	165.37	4.80	7.36	6.94
19758.32	19992.14	40811.32	3591.92	233.99	23.32	15.36	11.36
19992.14	20225.96	43192.75	3715.25	233.83	24.68	15.89	11.63
20225.96	20459.78	46904.89	3904.05	233.89	26.80	16.70	12.01
20459.78	20693.60 RB	35684.41	3205.11	215.25	20.39	15.19	11.13

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 237.46

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19314.1	1317.5	19329.9	1306.6	19376.2	1306.9	19394.6	1306.9	19407.4	1311.9
19418.5	1316.3	19427.5	1316.8	19442.7	1317	19444.8	1312.3	19445.1	1312.3
19479.6	1312.5	19480.1	1311.8	19488.7	1306.9	19499.4	1299.9	19549.3	1299.9
19563.8	1299.9	19590	1300	19597.7	1300	19601.4	1299.5	19622.9	1298.3
19637.3	1296.6	19638.2	1297.1	19669.2	1295.5	19689.1	1295	19698.6	1294.1
19710.5	1293.2	19798.2	1294.9	19800.2	1295	19801.4	1295	19801.7	1295
19801.8	1295	19802.5	1294.9	19803	1295.1	19808.7	1295	19869.2	1295
19874.9	1294.2	19895.7	1292.5	19895.9	1292.5	19898.4	1290.5	19909.3	1290.5
19927.3	1291.9	19960.1	1290	19980.6	1290.5	19984.6	1290.6	19990.3	1290.3
20023.3	1289.1	20064.4	1287.8	20088.5	1287.2	20096.4	1288.1	20107.9	1289.6
20124.3	1287.8	20133	1287.3	20157.1	1285.3	20157.4	1285.3	20157.8	1285.3
20157.9	1285.3	20179.9	1285.3	20201.9	1285.4	20204	1285.4	20218.6	1285.5
20239.6	1285.5	20250.8	1285.2	20253.7	1285.2	20264.4	1285	20264.9	1285
20379.1	1284.7	20379.7	1284.7	20391.2	1284.7	20401.6	1284.8	20411.9	1284.9
20471.5	1285.4	20497.1	1285.6	20533.9	1286	20536.9	1286.5	20543.7	1288.2
20566.9	1289.9	20579.2	1291.4	20597.5	1292.3	20607.2	1292.6	20618.7	1298.4
20638.3	1307.2	20650.2	1312.5	20669.7	1313.6	20675	1313.1	20688.1	1313.4
20701.2	1313.4	20707.3	1313.3	20715.5	1312.5	20725.9	1301.4	20726	1301.1
20726.4	1301.1	20727.3	1301.2	20790.2	1302.7	20791.1	1303.7	20805	1314.5
20807.2	1317.6								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19314.1	.043	19597.7	.028	20618.7	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19597.7	20650.2	470	601.72	800	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
20650.2	20807.2	1317

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1304.52	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.98	Wt. n-Val.	0.043	0.028	
E.G. Elev (ft)	1306.50	Reach Len. (ft)	470.00	601.72	800.00
Crit W.S. (ft)	1299.21	Flow Area (sq ft)	468.02	15296.81	
E.G. Slope (ft/ft)	0.001279	Area (sq ft)	468.02	15296.81	172.33
Q Total (cfs)	175000.00	Flow (cfs)	1549.40	173450.59	
Top Width (ft)	1209.15	Top Width (ft)	105.36	1034.63	69.17
Vel Total (ft/s)	11.10	Avg. Vel. (ft/s)	3.31	11.34	
Max Chl Dpth (ft)	19.82	Hydr. Depth (ft)	4.44	14.78	
Conv. Total (cfs)	4893753.0	Conv. (cfs)	43327.8	4850425.0	
Length Wtd. (ft)	601.68	Wetted Per. (ft)	106.73	1039.59	
Min Ch El (ft)	1284.70	Shear (lb/sq ft)	0.35	1.17	
Alpha	1.03	Stream Power (lb/ft s)	1.16	13.32	

Frctn Loss (ft)	0.86	Cum Volume (acre-ft)	1261.63	21266.71	4597.60
C & E Loss (ft)	0.01	Cum SA (acres)	145.73	1972.35	825.17

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1304.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.03	Wt. n-Val.		0.028	
E.G. Elev (ft)	1306.56	Reach Len. (ft)	470.00	601.72	800.00
Crit W.S. (ft)	1299.22	Flow Area (sq ft)		15317.53	
E.G. Slope (ft/ft)	0.001303	Area (sq ft)		15317.53	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1034.62	Top Width (ft)		1034.62	
Vel Total (ft/s)	11.42	Avg. Vel. (ft/s)		11.42	
Max Chl Dpth (ft)	19.84	Hydr. Depth (ft)		14.80	
Conv. Total (cfs)	4847309.5	Conv. (cfs)		4847309.5	
Length Wtd. (ft)	601.72	Wetted Per. (ft)		1044.14	
Min Ch El (ft)	1284.70	Shear (lb/sq ft)		1.19	
Alpha	1.00	Stream Power (lb/ft s)		13.64	
Frctn Loss (ft)	0.87	Cum Volume (acre-ft)	67.08	21175.99	2789.59
C & E Loss (ft)	0.01	Cum SA (acres)	14.30	1934.32	454.68

Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19484.26	19503.17	81.06	33.68	12.20	0.05	3.11	2.41
19503.17	19522.07	296.00	87.28	18.91	0.17	4.62	3.39
19522.07	19540.98	296.00	87.28	18.91	0.17	4.62	3.39
19540.98	19559.89	296.03	87.29	18.91	0.17	4.62	3.39
19559.89	19578.79	293.58	86.85	18.91	0.17	4.59	3.38
19578.79	19597.70	286.73	85.63	18.91	0.16	4.53	3.35
19597.70 LB	19808.20	15194.30	1923.10	210.99	8.68	9.14	7.90
19808.20	20018.70	24896.00	2588.63	211.47	14.23	12.30	9.62
20018.70	20229.20	44836.47	3680.29	210.88	25.62	17.48	12.18
20229.20	20439.70	54220.77	4121.92	210.51	30.98	19.58	13.15
20439.70	20650.20 RB	34303.06	2982.87	195.75	19.60	15.49	11.50

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19597.70 LB	19808.20	15155.66	1927.32	215.52	8.66	9.16	7.86
19808.20	20018.70	25163.81	2592.85	211.47	14.38	12.32	9.71
20018.70	20229.20	45282.36	3684.51	210.88	25.88	17.50	12.29
20229.20	20439.70	54748.80	4126.14	210.51	31.29	19.60	13.27
20439.70	20650.20 RB	34649.36	2986.73	195.77	19.80	15.51	11.60

Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 237.35

INPUT
Description:

Station Elevation Data num= 57

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19447.2	1315.6	19477.7	1310.2	19498.2	1307.1	19533.4	1304.3	19543	1303.6
19586.9	1300.8	19593.7	1300.4	19596.3	1300.4	19599.5	1300.1	19601.4	1300.2
19616.9	1300.1	19654.1	1291.9	19658.6	1290.1	19660.7	1290.1	19668.8	1290
19675.8	1290.3	19689.9	1291.2	19700.8	1291.9	19723.8	1293.3	19724	1293.4

19731.1	1293.2	19747.5	1292.9	19763.8	1293.1	19780.2	1293	19794.6	1293
19806.8	1293	19814.7	1293.7	19833.8	1295.9	19856.4	1294.2	19857.4	1294.1
19885	1292.8	19908.8	1290.9	19957.5	1289.9	19982.6	1289.5	20061.1	1290.9
20069.7	1291.1	20071.4	1291.1	20073.2	1291	20145.4	1288.7	20220.8	1287
20262.5	1286.3	20314.2	1285.4	20365	1285.7	20376.8	1285.3	20399.8	1283.1
20461.4	1283	20533.6	1283.2	20536.8	1283.2	20546	1283.3	20556.3	1284.4
20574.8	1286.1	20594.6	1288.5	20626	1295.5	20642.3	1297.4	20688.6	1305
20690.3	1305.6	20736	1325.1						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19447.2	.043	19533.4	.043	19616.9	.028	20594.6	.028	20626	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19533.4	20626	500	498.09	500	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1303.52	Element			
Vel Head (ft)	2.11	Wt. n-Val.		0.029	0.037
E.G. Elev (ft)	1305.63	Reach Len. (ft)	500.00	498.09	500.00
Crit W.S. (ft)		Flow Area (sq ft)		14905.54	229.37
E.G. Slope (ft/ft)	0.001591	Area (sq ft)		14905.54	229.37
Q Total (cfs)	175000.00	Flow (cfs)		174038.67	961.34
Top Width (ft)	1135.35	Top Width (ft)		1081.76	53.59
Vel Total (ft/s)	11.56	Avg. Vel. (ft/s)		11.68	4.19
Max Chl Dpth (ft)	20.52	Hydr. Depth (ft)		13.78	4.28
Conv. Total (cfs)	4387340.0	Conv. (cfs)		4363239.0	24101.2
Length Wtd. (ft)	498.10	Wetted Per. (ft)		1084.84	54.20
Min Ch El (ft)	1283.00	Shear (lb/sq ft)		1.36	0.42
Alpha	1.01	Stream Power (lb/ft s)		15.93	1.76
Frctn Loss (ft)	0.83	Cum Volume (acre-ft)	1259.10	21058.11	4593.91
C & E Loss (ft)	0.01	Cum SA (acres)	145.16	1957.73	824.04

Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1303.55	Element			
Vel Head (ft)	2.13	Wt. n-Val.		0.029	
E.G. Elev (ft)	1305.68	Reach Len. (ft)	500.00	498.09	500.00
Crit W.S. (ft)		Flow Area (sq ft)		14938.82	
E.G. Slope (ft/ft)	0.001612	Area (sq ft)		14938.82	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1081.76	Top Width (ft)		1081.76	
Vel Total (ft/s)	11.71	Avg. Vel. (ft/s)		11.71	
Max Chl Dpth (ft)	20.55	Hydr. Depth (ft)		13.81	
Conv. Total (cfs)	4359016.5	Conv. (cfs)		4359016.5	
Length Wtd. (ft)	498.09	Wetted Per. (ft)		1092.93	
Min Ch El (ft)	1283.00	Shear (lb/sq ft)		1.38	
Alpha	1.00	Stream Power (lb/ft s)		16.11	
Frctn Loss (ft)	0.83	Cum Volume (acre-ft)	67.08	20967.01	2789.59
C & E Loss (ft)	0.02	Cum SA (acres)	14.30	1919.70	454.68

Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19533.40 LB	19751.92	13352.23	1577.00	209.16	7.63	7.59	8.47
19751.92	19970.44	22689.41	2396.23	218.87	12.97	10.97	9.47
19970.44	20188.96	33397.69	3020.27	218.59	19.08	13.82	11.06
20188.96	20407.48	50224.43	3858.49	218.65	28.70	17.66	13.02
20407.48	20626.00 RB	54374.91	4053.55	219.57	31.07	18.55	13.41
20626.00	20633.33	291.67	55.69	7.38	0.17	7.59	5.24
20633.33	20640.67	238.97	49.41	7.38	0.14	6.74	4.84
20640.67	20648.00	184.38	42.38	7.42	0.11	5.78	4.35
20648.00	20655.33	125.19	33.61	7.43	0.07	4.58	3.72
20655.33	20662.67	75.32	24.78	7.43	0.04	3.38	3.04
20662.67	20670.00	36.17	15.96	7.43	0.02	2.18	2.27
20670.00	20677.33	9.44	7.13	7.43	0.01	0.97	1.32
20677.33	20684.67	0.18	0.42	2.28	0.00	0.18	0.44

Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19533.40 LB	19751.92	13425.15	1583.39	209.20	7.67	7.62	8.48
19751.92	19970.44	22798.60	2402.96	218.87	13.03	11.00	9.49
19970.44	20188.96	33526.08	3026.99	218.59	19.16	13.85	11.08
20188.96	20407.48	50376.98	3865.21	218.65	28.79	17.69	13.03
20407.48	20626.00 RB	54873.21	4060.27	227.62	31.36	18.58	13.51

Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 237.26

INPUT
Description:

Station Elevation Data num= 69

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19394.3	1314.3	19404.3	1311.9	19452	1303.2	19480	1301.5	19521.9	1299.2
19545.4	1297.1	19587.3	1296.8	19589.1	1296.8	19589.5	1296.8	19680.5	1297.8
19687.8	1297.9	19693.4	1297.7	19768.2	1296.1	19823.2	1295.8	19827.1	1295.9
19845.3	1295.5	19899.9	1294.3	19962.8	1292.8	19982.4	1292	20009.9	1291.6
20059.9	1290.8	20101.8	1290.1	20136	1289.2	20151.9	1289.4	20163.1	1288.9
20193.6	1287.5	20266.7	1284.9	20297.5	1284.4	20311.1	1283.9	20359.8	1284.9
20389.8	1286	20394.2	1286.1	20400.4	1285.8	20434.1	1283.8	20447.9	1284.1
20456.2	1284.2	20467.8	1284.3	20472	1284.4	20475.8	1284.4	20479.5	1284.8
20483.3	1284.8	20489	1284.8	20490.6	1284.4	20497.5	1284.3	20506.9	1284.5
20518.3	1284.5	20520.1	1284.5	20557.6	1283.7	20646.8	1282.5	20673.5	1286
20680.6	1286.9	20687.6	1288.7	20732.6	1300.5	20757	1304.1	20769.1	1307.2
20799.5	1317.1	20809.5	1319.4	20817.2	1319.5	20841.3	1320	20846	1316.1
20851.6	1314.7	20862.5	1307.3	20868.3	1303.4	20876.5	1303.5	20905.2	1304
20912.3	1307.6	20921.2	1311.5	20923.7	1313.7	20931.5	1316.4		

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19394.3	.043	19452	.028	20732.6	.028	20809.5	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19452	20732.6	510	509.55	510	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1302.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.07	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1304.79	Reach Len. (ft)	510.00	509.55	510.00
Crit W.S. (ft)		Flow Area (sq ft)		15156.29	16.67
E.G. Slope (ft/ft)	0.001745	Area (sq ft)		15156.29	16.67
Q Total (cfs)	175000.00	Flow (cfs)		174960.69	39.30
Top Width (ft)	1287.69	Top Width (ft)		1272.66	15.03
Vel Total (ft/s)	11.53	Avg. Vel. (ft/s)		11.54	2.36
Max Chl Dpth (ft)	20.22	Hydr. Depth (ft)		11.91	1.11
Conv. Total (cfs)	4189696.8	Conv. (cfs)		4188755.8	941.0
Length Wtd. (ft)	509.55	Wetted Per. (ft)		1275.29	15.20
Min Ch El (ft)	1282.50	Shear (lb/sq ft)		1.29	0.12
Alpha	1.00	Stream Power (lb/ft s)		14.94	0.28
Frctn Loss (ft)	0.79	Cum Volume (acre-ft)	1259.10	20886.24	4592.50
C & E Loss (ft)	0.10	Cum SA (acres)	145.16	1944.27	823.64

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1302.78	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.05	Wt. n-Val.		0.028	
E.G. Elev (ft)	1304.83	Reach Len. (ft)	510.00	509.55	510.00
Crit W.S. (ft)		Flow Area (sq ft)		15235.21	
E.G. Slope (ft/ft)	0.001720	Area (sq ft)		15235.21	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1272.66	Top Width (ft)		1272.66	

Vel Total (ft/s)	11.49	Avg. Vel. (ft/s)		11.49	
Max Chl Dpth (ft)	20.28	Hydr. Depth (ft)		11.97	
Conv. Total (cfs)	4220005.5	Conv. (cfs)		4220005.5	
Length Wtd. (ft)	509.55	Wetted Per. (ft)		1277.64	
Min Ch El (ft)	1282.50	Shear (lb/sq ft)		1.28	
Alpha	1.00	Stream Power (lb/ft s)		14.71	
Frctn Loss (ft)	0.77	Cum Volume (acre-ft)	67.08	20794.50	2789.59
C & E Loss (ft)	0.10	Cum SA (acres)	14.30	1906.24	454.68

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19452.00 LB	19708.12	5987.38	1105.75	248.39	3.42	4.46	5.41
19708.12	19964.24	14504.25	1903.59	256.17	8.29	7.43	7.62
19964.24	20220.36	35424.36	3253.04	256.22	20.24	12.70	10.89
20220.36	20476.48	62513.14	4574.30	256.27	35.72	17.86	13.67
20476.48	20732.60 RB	56531.56	4319.62	258.24	32.30	16.87	13.09
20732.60	20745.86	39.18	16.44	13.40	0.02	1.24	2.38
20745.86	20759.12	0.12	0.23	1.79	0.00	0.13	0.53

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19452.00 LB	19708.12	6092.23	1121.14	248.45	3.48	4.52	5.43
19708.12	19964.24	14625.69	1919.47	256.17	8.36	7.49	7.62
19964.24	20220.36	35516.85	3268.93	256.22	20.30	12.76	10.86
20220.36	20476.48	62529.85	4590.18	256.27	35.73	17.92	13.62
20476.48	20732.60 RB	56235.38	4335.50	260.52	32.13	16.93	12.97

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 237.16

INPUT
Description:

Station Elevation Data num= 80

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19157.9	1314.9	19172.4	1307.3	19207.3	1308.1	19236.5	1308.7	19240.2	1310.3
19247.9	1313.2	19257.1	1313.4	19275.3	1313.8	19309	1312.8	19320.5	1312
19333.5	1311.3	19343.8	1310.3	19351.4	1310.2	19366.3	1309.2	19402.6	1307.2
19418.7	1306	19447.1	1295.1	19448	1294.9	19450.3	1294.8	19548.1	1294.4
19628.7	1295.3	19645.5	1295.5	19654.9	1295.7	19679	1295.5	19756.1	1295.4
19820.7	1293.8	19821	1293.8	19822	1293.8	19901.4	1293.2	19929	1292.9
20028.9	1291.8	20033.9	1291.8	20035.7	1291.7	20109.5	1291.9	20114.7	1291.8
20138.4	1290.4	20158	1289.4	20208.5	1288.9	20210.3	1288.9	20217.5	1288
20230.7	1287.4	20272.7	1283.5	20319.7	1280.7	20323.9	1280.5	20383.5	1282.9
20389.8	1283.1	20396.4	1283.4	20404.4	1282.7	20412.2	1282.4	20426.6	1283.3
20441.5	1283.4	20441.8	1283.4	20483.1	1282.6	20524.5	1281.7	20529.5	1281.7
20546.4	1281.7	20563.7	1282.5	20581.1	1283	20593.4	1283.4	20612.4	1284.2
20616.2	1284.3	20622.8	1285	20637.5	1286.2	20664.6	1286.5	20677	1285.3
20703.1	1284.8	20720.4	1286.3	20736.2	1291	20759.7	1306.4	20772.6	1315.8
20777	1315.9	20800.8	1316.6	20812.6	1309.3	20826.1	1303.6	20851.9	1303.8
20860.8	1303.8	20863.3	1305.8	20871.7	1312	20878.2	1312.6	20880.4	1313.3

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19157.9	.043	19418.7	.028	20772.6	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19418.7	20772.6	505	504.85	510	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1302.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.73	Wt. n-Val.		0.028	
E.G. Elev (ft)	1303.90	Reach Len. (ft)	505.00	504.85	510.00
Crit W.S. (ft)		Flow Area (sq ft)		16560.47	
E.G. Slope (ft/ft)	0.001375	Area (sq ft)		16560.47	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	

Top Width (ft)	1324.55	Top Width (ft)		1324.55	
Vel Total (ft/s)	10.57	Avg. Vel. (ft/s)		10.57	
Max Chl Dpth (ft)	21.67	Hydr. Depth (ft)		12.50	
Conv. Total (cfs)	4719449.5	Conv. (cfs)		4719449.5	
Length Wtd. (ft)	504.85	Wetted Per. (ft)		1330.76	
Min Ch El (ft)	1280.50	Shear (lb/sq ft)		1.07	
Alpha	1.00	Stream Power (lb/ft s)		11.29	
Frctn Loss (ft)	0.71	Cum Volume (acre-ft)	1259.10	20700.73	4592.40
C & E Loss (ft)	0.01	Cum SA (acres)	145.16	1929.08	823.56

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1302.24	Element			
Vel Head (ft)	1.71	Wt. n-Val.		0.028	
E.G. Elev (ft)	1303.96	Reach Len. (ft)	505.00	504.85	510.00
Crit W.S. (ft)		Flow Area (sq ft)		16661.53	
E.G. Slope (ft/ft)	0.001348	Area (sq ft)		16661.53	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1324.55	Top Width (ft)		1324.55	
Vel Total (ft/s)	10.50	Avg. Vel. (ft/s)		10.50	
Max Chl Dpth (ft)	21.74	Hydr. Depth (ft)		12.58	
Conv. Total (cfs)	4767185.5	Conv. (cfs)		4767185.5	
Length Wtd. (ft)	504.85	Wetted Per. (ft)		1330.91	
Min Ch El (ft)	1280.50	Shear (lb/sq ft)		1.05	
Alpha	1.00	Stream Power (lb/ft s)		11.06	
Frctn Loss (ft)	0.70	Cum Volume (acre-ft)	67.08	20607.94	2789.59
C & E Loss (ft)	0.01	Cum SA (acres)	14.30	1891.05	454.68

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19418.70 LB	19689.48	12056.74	1821.72	262.13	6.89	6.99	6.62
19689.48	19960.26	15943.50	2182.47	270.81	9.11	8.06	7.31
19960.26	20231.04	27897.74	3053.63	270.93	15.94	11.28	9.14
20231.04	20501.82	68312.88	5228.06	271.18	39.04	19.31	13.07
20501.82	20772.60 RB	50789.13	4274.59	255.71	29.02	17.00	11.88

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19418.70 LB	19689.48	12163.01	1841.62	262.21	6.95	7.06	6.60
19689.48	19960.26	16048.52	2203.13	270.81	9.17	8.14	7.28
19960.26	20231.04	27956.41	3074.29	270.93	15.98	11.35	9.09
20231.04	20501.82	68137.93	5248.72	271.18	38.94	19.38	12.98
20501.82	20772.60 RB	50694.13	4293.77	255.78	28.97	17.08	11.81

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 237.06

INPUT
Description:

Station Elevation Data num= 48

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19253.8	1312.1	19295.7	1311.2	19338.2	1310.7	19399.6	1302.9	19427.7	1298.7
19443.9	1298.1	19486.6	1293.8	19494.8	1292.7	19511.7	1292.8	19574.1	1292.9
19622.8	1293.4	19679.1	1294	19767	1293.6	19808.1	1293.5	19867	1293.2
19886.8	1293.2	19912.9	1292.5	19956.5	1291.3	20016.2	1291.2	20058.3	1291
20102.5	1291	20143.7	1291.1	20150.1	1288.3	20164.9	1279.9	20325.3	1280
20410.7	1280.1	20438.8	1281.6	20444.7	1282	20454.7	1282	20508.1	1283.6
20549	1283.3	20568.6	1283.5	20598.2	1284.9	20663.3	1288	20720.1	1312.9
20723.7	1314.3	20737	1314.3	20742.4	1314	20746.8	1311.3	20761.5	1303.7
20763.5	1302.7	20764.3	1302.7	20770.3	1302.8	20801.3	1303	20804.7	1306.3
20809.1	1310.6	20810.4	1311.8	20813	1312.6				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19253.8	.043	19427.7	.043	19494.8	.028	20663.3	.028	20723.7	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19427.7	20723.7	520	506.95	520	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1301.39	Element			
Vel Head (ft)	1.79	Wt. n-Val.	0.043	0.029	
E.G. Elev (ft)	1303.18	Reach Len. (ft)	520.00	506.95	520.00
Crit W.S. (ft)		Flow Area (sq ft)	24.21	16290.12	
E.G. Slope (ft/ft)	0.001455	Area (sq ft)	24.21	16290.12	
Q Total (cfs)	175000.00	Flow (cfs)	38.60	174961.39	
Top Width (ft)	1284.14	Top Width (ft)	18.00	1266.14	
Vel Total (ft/s)	10.73	Avg. Vel. (ft/s)	1.59	10.74	
Max Chl Dpth (ft)	21.49	Hydr. Depth (ft)	1.35	12.87	
Conv. Total (cfs)	4587272.5	Conv. (cfs)	1011.9	4586260.5	
Length Wtd. (ft)	507.00	Wetted Per. (ft)	18.20	1272.28	
Min Ch El (ft)	1279.90	Shear (lb/sq ft)	0.12	1.16	
Alpha	1.00	Stream Power (lb/ft s)	0.19	12.49	
Frctn Loss (ft)	0.75	Cum Volume (acre-ft)	1258.96	20510.37	4592.40
C & E Loss (ft)	0.02	Cum SA (acres)	145.05	1914.07	823.56

Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1301.48	Element			
Vel Head (ft)	1.77	Wt. n-Val.		0.029	
E.G. Elev (ft)	1303.25	Reach Len. (ft)	520.00	506.95	520.00
Crit W.S. (ft)		Flow Area (sq ft)		16409.59	
E.G. Slope (ft/ft)	0.001429	Area (sq ft)		16409.59	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1266.14	Top Width (ft)		1266.14	
Vel Total (ft/s)	10.66	Avg. Vel. (ft/s)		10.66	
Max Chl Dpth (ft)	21.58	Hydr. Depth (ft)		12.96	
Conv. Total (cfs)	4629983.0	Conv. (cfs)		4629983.0	
Length Wtd. (ft)	506.95	Wetted Per. (ft)		1275.15	
Min Ch El (ft)	1279.90	Shear (lb/sq ft)		1.15	
Alpha	1.00	Stream Power (lb/ft s)		12.24	
Frctn Loss (ft)	0.74	Cum Volume (acre-ft)	67.08	20416.30	2789.59
C & E Loss (ft)	0.03	Cum SA (acres)	14.30	1876.04	454.68

Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19404.51	19416.11	2.17	3.07	6.48	0.00	0.48	0.71
19416.11	19427.70	36.44	21.14	11.72	0.02	1.82	1.72
19427.70 LB	19686.90	12665.21	1918.42	259.51	7.24	7.40	6.60
19686.90	19946.10	15220.83	2100.58	259.22	8.70	8.10	7.25
19946.10	20205.30	30889.82	3225.67	262.01	17.65	12.44	9.58
20205.30	20464.50	74992.45	5469.03	259.26	42.85	21.10	13.71
20464.50	20723.70 RB	41193.10	3576.42	232.28	23.54	15.59	11.52

Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19427.70 LB	19686.90	12756.54	1942.88	262.29	7.29	7.50	6.57
19686.90	19946.10	15356.60	2125.04	259.22	8.78	8.20	7.23
19946.10	20205.30	30957.12	3250.13	262.01	17.69	12.54	9.52
20205.30	20464.50	74769.57	5493.48	259.26	42.73	21.19	13.61
20464.50	20723.70 RB	41160.19	3598.06	232.37	23.52	15.69	11.44

Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 236.96

INPUT
Description:

Station Elevation Data num= 75

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19164.7	1312.3	19171.3	1312.2	19190.7	1311.2	19196	1309.1	19200.9	1308.2
19221.5	1305.5	19296.7	1305.2	19316.8	1305.2	19326.7	1303.7	19377.3	1295.4
19398.3	1298.3	19402.2	1298.1	19417.2	1297.8	19427.8	1298.1	19478	1296.5
19529.8	1289.2	19532.9	1288.9	19534.5	1288.9	19559.1	1289.4	19597.6	1291.3
19622.8	1291.5	19636	1291.5	19685.9	1291.1	19780.8	1291.4	19833.2	1291.9
19846	1292	19905.8	1292.4	19919.5	1292.2	19942.6	1292.1	19988.6	1292.5
20015.4	1291.6	20028.3	1290.5	20049.4	1284	20058.7	1280.8	20240.5	1279.8
20283.8	1279.5	20288.3	1280	20289.5	1280	20294.7	1280.3	20304.3	1280.2
20308.8	1280	20314	1279.6	20328	1279.5	20354.4	1279.4	20361.6	1281.7
20363.2	1282.2	20367.2	1282.3	20379.6	1282.9	20393.1	1281	20401.3	1279.4
20401.6	1279.4	20412.7	1279.8	20450.1	1281.1	20475.6	1283.7	20480.9	1284.2
20484.4	1284.2	20514.6	1284.4	20535.9	1286.9	20537.9	1287.3	20551.8	1289.2
20608.2	1297.6	20625.8	1298	20628.3	1298	20629.5	1298.4	20647.4	1301.1
20669.1	1306.1	20696	1315.2	20727.8	1315	20736.4	1315	20739.6	1312.9
20758.5	1302.7	20784.2	1303.4	20799	1303.7	20815	1311.9	20817.2	1313.5

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19164.7	.037	19478	.028	20625.8	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19478	20625.8	485	491.08	500	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1300.40	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.01	Wt. n-Val.	0.037	0.028	0.037
E.G. Elev (ft)	1302.41	Reach Len. (ft)	485.00	491.08	500.00
Crit W.S. (ft)		Flow Area (sq ft)	377.42	15208.61	21.87
E.G. Slope (ft/ft)	0.001486	Area (sq ft)	377.42	15208.61	21.87
Q Total (cfs)	175000.00	Flow (cfs)	1178.03	173782.19	39.78
Top Width (ft)	1295.92	Top Width (ft)	131.17	1147.80	16.95
Vel Total (ft/s)	11.21	Avg. Vel. (ft/s)	3.12	11.43	1.82
Max Chl Dpth (ft)	21.00	Hydr. Depth (ft)	2.88	13.25	1.29
Conv. Total (cfs)	4540229.0	Conv. (cfs)	30563.1	4508634.0	1032.0
Length Wtd. (ft)	491.04	Wetted Per. (ft)	131.81	1151.89	17.16
Min Ch El (ft)	1279.40	Shear (lb/sq ft)	0.27	1.22	0.12
Alpha	1.03	Stream Power (lb/ft s)	0.83	13.99	0.22
Frctn Loss (ft)	0.83	Cum Volume (acre-ft)	1256.56	20327.08	4592.27
C & E Loss (ft)	0.06	Cum SA (acres)	144.16	1900.02	823.46

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1300.43	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.04	Wt. n-Val.		0.028	
E.G. Elev (ft)	1302.48	Reach Len. (ft)	485.00	491.08	500.00
Crit W.S. (ft)		Flow Area (sq ft)		15249.67	
E.G. Slope (ft/ft)	0.001504	Area (sq ft)		15249.67	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1147.80	Top Width (ft)		1147.80	
Vel Total (ft/s)	11.48	Avg. Vel. (ft/s)		11.48	
Max Chl Dpth (ft)	21.03	Hydr. Depth (ft)		13.29	
Conv. Total (cfs)	4512324.0	Conv. (cfs)		4512324.0	
Length Wtd. (ft)	491.09	Wetted Per. (ft)		1158.26	
Min Ch El (ft)	1279.40	Shear (lb/sq ft)		1.24	
Alpha	1.00	Stream Power (lb/ft s)		14.19	
Frctn Loss (ft)	0.86	Cum Volume (acre-ft)	67.08	20232.07	2789.59
C & E Loss (ft)	0.07	Cum SA (acres)	14.30	1861.99	454.68

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19331.79	19352.68	2.53	2.81	5.93	0.00	0.48	0.90
19352.68	19373.57	158.30	55.82	21.17	0.09	2.67	2.84
19373.57	19394.45	306.87	82.94	21.10	0.18	3.97	3.70
19394.45	19415.34	130.92	49.59	20.93	0.07	2.37	2.64
19415.34	19436.23	138.44	51.24	20.90	0.08	2.45	2.70
19436.23	19457.11	182.88	60.56	20.90	0.10	2.90	3.02
19457.11	19478.00	258.09	74.47	20.90	0.15	3.57	3.47
19478.00 LB	19707.56	17876.17	2106.97	230.14	10.21	9.18	8.48
19707.56	19937.12	16148.57	1980.34	229.57	9.23	8.63	8.15
19937.12	20166.68	38708.69	3355.29	231.14	22.12	14.62	11.54
20166.68	20396.24	66613.30	4640.05	230.26	38.06	20.21	14.36
20396.24	20625.80 RB	34435.45	3125.95	230.78	19.68	13.62	11.02
20625.80	20638.56	38.93	20.54	12.93	0.02	1.61	1.90
20638.56	20651.32	0.85	1.32	4.23	0.00	0.32	0.64

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19478.00 LB	19707.56	17885.06	2115.19	234.08	10.22	9.21	8.46
19707.56	19937.12	16346.96	1988.56	229.57	9.34	8.66	8.22
19937.12	20166.68	39073.80	3363.50	231.14	22.33	14.65	11.62
20166.68	20396.24	67165.89	4648.26	230.26	38.38	20.25	14.45
20396.24	20625.80 RB	34528.29	3134.16	233.22	19.73	13.65	11.02

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 236.87

INPUT
Description:

Station Elevation Data num= 58

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19238.9	1311.4	19239.1	1311.3	19281.9	1298.3	19295.4	1298.2	19323.6	1297.9
19342	1297.6	19389.4	1296.2	19461.6	1296.7	19464.9	1296.7	19468.3	1296.7
19554.4	1295.1	19565.1	1291.6	19585.8	1285.3	19632.1	1285	19650.5	1285.6
19677.3	1289.2	19702	1290.2	19723.7	1289.6	19727.9	1289.5	19779.3	1288.4
19796.1	1289.1	19835.2	1291.4	19855.1	1291.4	19896.9	1291.8	19972.8	1291.8
19981.4	1291.7	19987.8	1291.5	20023.7	1289	20034.5	1281.5	20044.1	1278.3
20199	1280.5	20202.8	1280.5	20203.3	1280.6	20222.7	1281.5	20224.9	1281.5
20237	1282	20286	1283.2	20302.6	1283.8	20374.2	1283.5	20383.9	1281.7
20389.3	1280.4	20415	1280.6	20474.8	1281.7	20483	1282.5	20495	1283.6
20510.3	1286.2	20528.6	1289.8	20540.4	1292.6	20545.7	1293.8	20548.9	1295.1
20554.3	1295.3	20589.8	1296.9	20610.2	1297.5	20630.3	1298.9	20650.2	1301.2
20661.4	1303.3	20675.4	1308.5	20692.7	1314.1				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19238.9	.037	19554.4	.028	20548.9	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19554.4	20548.9	610	513.93	375	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1298.88	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.64	Wt. n-Val.	0.037	0.028	0.037
E.G. Elev (ft)	1301.51	Reach Len. (ft)	610.00	513.93	375.00
Crit W.S. (ft)		Flow Area (sq ft)	593.15	13176.25	166.33
E.G. Slope (ft/ft)	0.001964	Area (sq ft)	593.15	13176.25	166.33
Q Total (cfs)	175000.00	Flow (cfs)	1764.45	172757.98	477.57
Top Width (ft)	1349.98	Top Width (ft)	274.40	994.50	81.08
Vel Total (ft/s)	12.56	Avg. Vel. (ft/s)	2.97	13.11	2.87

Max Chl Dpth (ft)	20.58	Hydr. Depth (ft)	2.16	13.25	2.05
Conv. Total (cfs)	3948507.3	Conv. (cfs)	39811.0	3897921.0	10775.3
Length Wtd. (ft)	514.31	Wetted Per. (ft)	274.53	1001.12	81.18
Min Ch El (ft)	1278.30	Shear (lb/sq ft)	0.26	1.61	0.25
Alpha	1.08	Stream Power (lb/ft s)	0.79	21.16	0.72
Frctn Loss (ft)	1.04	Cum Volume (acre-ft)	1251.16	20167.08	4591.19
C & E Loss (ft)	0.02	Cum SA (acres)	141.91	1887.94	822.89

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1298.80	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.75	Wt. n-Val.		0.028	0.037
E.G. Elev (ft)	1301.55	Reach Len. (ft)	610.00	513.93	375.00
Crit W.S. (ft)		Flow Area (sq ft)		13098.68	147.66
E.G. Slope (ft/ft)	0.002055	Area (sq ft)		13098.68	147.66
Q Total (cfs)	175000.00	Flow (cfs)		174522.98	477.02
Top Width (ft)	1055.60	Top Width (ft)		994.50	61.10
Vel Total (ft/s)	13.21	Avg. Vel. (ft/s)		13.32	3.23
Max Chl Dpth (ft)	20.50	Hydr. Depth (ft)		13.17	2.42
Conv. Total (cfs)	3860793.0	Conv. (cfs)		3850269.3	10523.8
Length Wtd. (ft)	513.74	Wetted Per. (ft)		1004.82	62.45
Min Ch El (ft)	1278.30	Shear (lb/sq ft)		1.67	0.30
Alpha	1.01	Stream Power (lb/ft s)		22.28	0.98
Frctn Loss (ft)	1.06	Cum Volume (acre-ft)	67.08	20072.28	2788.74
C & E Loss (ft)	0.01	Cum SA (acres)	14.30	1849.92	454.33

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19259.93	19280.97	0.06	0.14	1.01	0.00	0.15	0.44
19280.97	19302.00	16.58	13.59	21.08	0.01	0.65	1.22
19302.00	19323.03	26.74	18.09	21.03	0.02	0.86	1.48
19323.03	19344.07	42.87	24.01	21.04	0.02	1.14	1.79
19344.07	19365.10	79.17	34.69	21.04	0.05	1.65	2.28
19365.10	19386.13	134.88	47.76	21.04	0.08	2.27	2.82
19386.13	19407.17	171.08	55.08	21.04	0.10	2.62	3.11
19407.17	19428.20	156.48	52.20	21.03	0.09	2.48	3.00
19428.20	19449.23	141.48	49.14	21.03	0.08	2.34	2.88
19449.23	19470.27	128.45	46.37	21.03	0.07	2.20	2.77
19470.27	19491.30	148.95	50.69	21.04	0.09	2.41	2.94
19491.30	19512.33	191.36	58.91	21.04	0.11	2.80	3.25
19512.33	19533.37	237.91	67.13	21.04	0.14	3.19	3.54
19533.37	19554.40	288.43	75.35	21.04	0.16	3.58	3.83
19554.40 LB	19753.30	24230.32	2173.83	200.68	13.85	10.93	11.15
19753.30	19952.20	14882.05	1617.10	198.99	8.50	8.13	9.20
19952.20	20151.10	41592.24	3013.29	201.87	23.77	15.15	13.80
20151.10	20350.00	49834.93	3339.21	198.97	28.48	16.79	14.92
20350.00	20548.90 RB	42218.43	3032.81	200.61	24.12	15.25	13.92
20548.90	20558.49	126.20	34.44	9.59	0.07	3.59	3.66
20558.49	20568.07	102.60	30.42	9.60	0.06	3.17	3.37
20568.07	20577.66	80.37	26.27	9.60	0.05	2.74	3.06
20577.66	20587.25	60.38	22.13	9.60	0.03	2.31	2.73
20587.25	20596.83	44.32	18.38	9.59	0.03	1.92	2.41
20596.83	20606.42	33.81	15.62	9.59	0.02	1.63	2.16
20606.42	20616.01	22.50	12.24	9.60	0.01	1.28	1.84
20616.01	20625.59	7.10	6.13	9.61	0.00	0.64	1.16
20625.59	20635.18	0.30	0.67	4.40	0.00	0.15	0.45

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19554.40 LB	19753.30	24162.52	2158.32	204.38	13.81	10.85	11.20

19753.30	19952.20	14960.34	1601.59	198.99	8.55	8.05	9.34
19952.20	20151.10	42124.30	2997.78	201.87	24.07	15.07	14.05
20151.10	20350.00	50514.94	3323.70	198.97	28.87	16.71	15.20
20350.00	20548.90 RB	42760.88	3017.30	200.61	24.43	15.17	14.17
20548.90	20558.49	133.79	33.69	9.59	0.08	3.51	3.97
20558.49	20568.07	108.24	29.68	9.60	0.06	3.10	3.65
20568.07	20577.66	84.22	25.53	9.60	0.05	2.66	3.30
20577.66	20587.25	62.70	21.39	9.60	0.04	2.23	2.93
20587.25	20596.83	45.47	17.63	9.59	0.03	1.84	2.58
20596.83	20606.42	34.26	14.88	9.59	0.02	1.55	2.30
20606.42	20616.01	8.33	4.86	4.89	0.00	1.36	1.71

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 236.77

INPUT
Description:

Station Elevation Data num= 77

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19299.9	1313	19311.4	1306.1	19332.1	1295.4	19343.6	1295.5	19346.9	1295.7
19348.9	1295.9	19358.2	1296.6	19378.6	1297.9	19378.7	1297.9	19378.8	1297.9
19379	1297.8	19429.1	1294.2	19437.6	1294.9	19468.7	1297.6	19476.2	1297.4
19522.5	1296.4	19525.9	1296.3	19529	1296.2	19578.9	1295.1	19614.8	1290.6
19648.5	1288.6	19680.4	1285.7	19701.1	1285.3	19725.9	1284.6	19736.4	1284.3
19741.3	1284.1	19751.1	1284.9	19780.1	1287.6	19783.8	1288	19784.6	1288
19800.5	1288.1	19833.5	1287.9	19839.9	1287.8	19860.5	1287.4	19903.3	1286.7
19920.3	1285.8	19948.4	1284.1	19977.3	1282	20000.1	1280.2	20003.5	1280
20006.6	1279.4	20203.6	1281.3	20213.4	1281.3	20217	1281.9	20228.7	1283.5
20229.9	1283.6	20230	1283.6	20236.9	1280.3	20240.1	1281.9	20258.1	1283.7
20259.8	1283.9	20274.5	1283.7	20274.8	1283.7	20323	1281.8	20345.7	1281.5
20365.9	1281.2	20372.8	1281.1	20386.1	1282	20386.3	1282	20400.1	1282
20406.8	1281.9	20435.9	1281.7	20463.7	1282.5	20464.5	1282.5	20466.8	1282.8
20521.4	1289.8	20529.7	1291.5	20553.6	1295.7	20564.8	1297.5	20577.8	1299.6
20601.2	1299.2	20604.8	1299.1	20610.5	1301	20616.8	1302.8	20623.5	1304.8
20635.7	1310	20647	1314.5						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19299.9	.037	19578.9	.028	20577.8	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19578.9	20577.8	495	494.18	505	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
19299.9	19460	1305

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1297.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.81	Wt. n-Val.	0.037	0.028	
E.G. Elev (ft)	1300.46	Reach Len. (ft)	495.00	494.18	505.00
Crit W.S. (ft)	1294.23	Flow Area (sq ft)	148.21	12982.31	
E.G. Slope (ft/ft)	0.002080	Area (sq ft)	359.61	12982.31	
Q Total (cfs)	175000.00	Flow (cfs)	314.31	174685.69	
Top Width (ft)	1231.59	Top Width (ft)	244.76	986.83	
Vel Total (ft/s)	13.33	Avg. Vel. (ft/s)	2.12	13.46	
Max Chl Dpth (ft)	18.25	Hydr. Depth (ft)	1.25	13.16	
Conv. Total (cfs)	3836920.3	Conv. (cfs)	6891.4	3830029.0	
Length Wtd. (ft)	494.18	Wetted Per. (ft)	118.96	990.45	
Min Ch El (ft)	1279.40	Shear (lb/sq ft)	0.16	1.70	
Alpha	1.02	Stream Power (lb/ft s)	0.34	22.90	
Frctn Loss (ft)	0.86	Cum Volume (acre-ft)	1244.49	20012.76	4590.48
C & E Loss (ft)	0.16	Cum SA (acres)	138.27	1876.25	822.54

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross

section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1297.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.82	Wt. n-Val.		0.028	
E.G. Elev (ft)	1300.47	Reach Len. (ft)	495.00	494.18	505.00
Crit W.S. (ft)	1294.24	Flow Area (sq ft)		12986.40	
E.G. Slope (ft/ft)	0.002093	Area (sq ft)		12986.40	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	986.83	Top Width (ft)		986.83	
Vel Total (ft/s)	13.48	Avg. Vel. (ft/s)		13.48	
Max Chl Dpth (ft)	18.25	Hydr. Depth (ft)		13.16	
Conv. Total (cfs)	3825460.0	Conv. (cfs)		3825460.0	
Length Wtd. (ft)	494.18	Wetted Per. (ft)		993.01	
Min Ch El (ft)	1279.40	Shear (lb/sq ft)		1.71	
Alpha	1.00	Stream Power (lb/ft s)		23.02	
Frctn Loss (ft)	0.87	Cum Volume (acre-ft)	67.08	19918.40	2788.11
C & E Loss (ft)	0.16	Cum SA (acres)	14.30	1838.23	454.07

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19448.70	19467.30	3.40	3.57	7.33	0.00	0.49	0.95
19467.30	19485.90	2.92	4.73	18.61	0.00	0.25	0.62
19485.90	19504.50	14.36	12.29	18.60	0.01	0.66	1.17
19504.50	19523.10	31.69	19.77	18.60	0.02	1.06	1.60
19523.10	19541.70	57.32	28.21	18.61	0.03	1.52	2.03
19541.70	19560.30	86.07	36.00	18.60	0.05	1.94	2.39
19560.30	19578.90	118.55	43.63	18.60	0.07	2.35	2.72
19578.90 LB	19778.68	21788.95	1994.75	200.43	12.45	9.98	10.92
19778.68	19978.46	26552.98	2244.01	199.98	15.17	11.23	11.83
19978.46	20178.24	54782.88	3464.92	199.92	31.30	17.34	15.81
20178.24	20378.02	45286.38	3099.01	201.23	25.88	15.51	14.61
20378.02	20577.80 RB	26274.49	2179.63	188.90	15.01	11.61	12.05

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19578.90 LB	19778.68	21671.32	1995.58	202.98	12.38	9.99	10.86
19778.68	19978.46	26631.54	2244.84	199.98	15.22	11.24	11.86
19978.46	20178.24	54933.04	3465.75	199.92	31.39	17.35	15.85
20178.24	20378.02	45412.64	3099.83	201.23	25.95	15.52	14.65
20378.02	20577.80 RB	26351.45	2180.41	188.91	15.06	11.62	12.09

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 236.68

INPUT
Description:

Station Elevation Data num= 58

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

19284.2	1312.1	19316.7	1301.9	19318.6	1301.5	19361.8	1297.7	19363.9	1297.4
19383.4	1296.1	19412.2	1295.7	19496.3	1295.1	19550	1292	19591.6	1289.5
19633.3	1288.1	19640	1287.8	19653.7	1287.4	19718.8	1285.3	19728.8	1283.5
19753.5	1280.3	19796.7	1278.9	19797.8	1278.8	19835.3	1280	19840.4	1280.3
19843.6	1280.6	19849.5	1280.8	19894.4	1284	19914.2	1282.6	19945.2	1280.3
19958.9	1279.7	19964.3	1280.1	19980.5	1279.9	20007.4	1280	20023	1280.1
20175.2	1279.5	20245.2	1279.2	20254.5	1280.7	20260	1281.3	20284.2	1281.7
20303.4	1281.9	20320	1281.5	20356.1	1280.3	20359.3	1280.1	20383.8	1280.2
20433.9	1280.3	20463.4	1283.1	20485.9	1285.4	20490.1	1286.1	20492.7	1286.7
20506.9	1290.5	20545.7	1301.2	20551.2	1302.1	20560.9	1302.1	20604.3	1302.6
20624.1	1308.7	20631.5	1310.6	20637.9	1310.2	20655.8	1307.7	20672.5	1307.9
20688.9	1308.4	20701.9	1311.9	20706	1312.9				

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19284.2	.037	19496.3	.037	19591.6	.028	20506.9	.028	20551.2	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19496.3	20551.2	500	499.4	505	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
19284.2	19550	1305

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1297.16	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.28	Wt. n-Val.		0.028	
E.G. Elev (ft)	1299.43	Reach Len. (ft)	500.00	499.40	505.00
Crit W.S. (ft)	1292.25	Flow Area (sq ft)		14455.02	
E.G. Slope (ft/ft)	0.001489	Area (sq ft)	192.54	14648.79	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1163.52	Top Width (ft)	128.78	1034.74	
Vel Total (ft/s)	12.11	Avg. Vel. (ft/s)		12.11	
Max Chl Dpth (ft)	18.36	Hydr. Depth (ft)		14.73	
Conv. Total (cfs)	4535360.5	Conv. (cfs)		4535360.5	
Length Wtd. (ft)	499.40	Wetted Per. (ft)		983.88	
Min Ch El (ft)	1278.80	Shear (lb/sq ft)		1.37	
Alpha	1.00	Stream Power (lb/ft s)		16.53	
Frctn Loss (ft)	0.88	Cum Volume (acre-ft)	1241.35	19856.03	4590.48
C & E Loss (ft)	0.09	Cum SA (acres)	136.15	1864.79	822.54

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1297.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.27	Wt. n-Val.		0.028	
E.G. Elev (ft)	1299.44	Reach Len. (ft)	500.00	499.40	505.00
Crit W.S. (ft)	1292.25	Flow Area (sq ft)		14463.88	
E.G. Slope (ft/ft)	0.001501	Area (sq ft)		14463.88	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	981.04	Top Width (ft)		981.04	
Vel Total (ft/s)	12.10	Avg. Vel. (ft/s)		12.10	
Max Chl Dpth (ft)	18.37	Hydr. Depth (ft)		14.74	
Conv. Total (cfs)	4516507.5	Conv. (cfs)		4516507.5	
Length Wtd. (ft)	499.40	Wetted Per. (ft)		989.05	
Min Ch El (ft)	1278.80	Shear (lb/sq ft)		1.37	
Alpha	1.00	Stream Power (lb/ft s)		16.58	
Frctn Loss (ft)	0.88	Cum Volume (acre-ft)	67.08	19762.69	2788.11
C & E Loss (ft)	0.09	Cum SA (acres)	14.30	1827.07	454.07

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19496.30 LB	19707.28	11189.72	1376.96	157.42	6.39	8.75	8.13
19707.28	19918.26	40738.71	3317.61	211.60	23.28	15.72	12.28
19918.26	20129.24	46709.28	3597.82	211.09	26.69	17.05	12.98

20129.24	20340.22	45813.77	3556.73	211.15	26.18	16.86	12.88
20340.22	20551.20 RB	30548.54	2605.90	192.62	17.46	13.66	11.72

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19496.30 LB	19707.28	11101.56	1378.38	162.59	6.34	8.76	8.05
19707.28	19918.26	40761.66	3319.51	211.60	23.29	15.73	12.28
19918.26	20129.24	46732.11	3599.73	211.09	26.70	17.06	12.98
20129.24	20340.22	45836.63	3558.64	211.15	26.19	16.87	12.88
20340.22	20551.20 RB	30568.03	2607.62	192.62	17.47	13.67	11.72

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 236.59

INPUT
Description:

Station Elevation Data num= 52

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19383.7	1305.6	19396.5	1303.7	19455.6	1300.3	19471.3	1299.3	19474.7	1299.2
19543.3	1296	19559.5	1295.2	19560.5	1295.2	19590.3	1294.3	19601.3	1292.7
19653.1	1285.3	19658.7	1284.9	19728.3	1280.3	19756.2	1280.5	19775.8	1280.5
19799.7	1280	19831.3	1278.7	19849.3	1279.2	19875.8	1279.9	19910.1	1278.4
19914.2	1278.3	19944.9	1278.8	19954.9	1279.1	19992.7	1279.2	20012.6	1279.2
20022.5	1279.1	20062.5	1278.6	20067.8	1278.8	20088	1279.7	20204.9	1279.2
20225.2	1279.1	20239.3	1280.2	20247.1	1280.5	20264.2	1280.6	20276.2	1279.6
20288.9	1278.7	20301.3	1279	20313.3	1279.4	20320.5	1279.7	20328.2	1279.8
20337.2	1280.2	20370.8	1281.6	20379.3	1281.4	20408.2	1280.8	20453.3	1297.4
20459.2	1299.1	20511.3	1300.8	20530.2	1301.3	20638	1302.6	20638.7	1302.6
20639	1302.7	20662.6	1304.8						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19383.7	.037	19590.3	.028	20453.3	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19590.3	20453.3	515	511.77	510	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1295.31	Element			
Vel Head (ft)	3.16	Wt. n-Val.	0.037	0.028	
E.G. Elev (ft)	1298.47	Reach Len. (ft)	515.00	511.77	510.00
Crit W.S. (ft)		Flow Area (sq ft)	16.81	12259.02	
E.G. Slope (ft/ft)	0.002096	Area (sq ft)	16.81	12259.02	
Q Total (cfs)	175000.00	Flow (cfs)	19.72	174980.28	
Top Width (ft)	890.27	Top Width (ft)	32.96	857.31	
Vel Total (ft/s)	14.26	Avg. Vel. (ft/s)	1.17	14.27	
Max Chl Dpth (ft)	17.01	Hydr. Depth (ft)	0.51	14.30	
Conv. Total (cfs)	3822138.0	Conv. (cfs)	430.8	3821707.3	
Length Wtd. (ft)	511.77	Wetted Per. (ft)	32.98	861.01	
Min Ch El (ft)	1278.30	Shear (lb/sq ft)	0.07	1.86	
Alpha	1.00	Stream Power (lb/ft s)	0.08	26.60	
Frctn Loss (ft)	1.08	Cum Volume (acre-ft)	1240.15	19701.79	4590.48
C & E Loss (ft)	0.06	Cum SA (acres)	135.22	1853.94	822.54

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1295.31	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.16	Wt. n-Val.		0.028	
E.G. Elev (ft)	1298.47	Reach Len. (ft)	515.00	511.77	510.00
Crit W.S. (ft)		Flow Area (sq ft)		12259.44	
E.G. Slope (ft/ft)	0.002100	Area (sq ft)		12259.44	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	857.31	Top Width (ft)		857.31	
Vel Total (ft/s)	14.27	Avg. Vel. (ft/s)		14.27	
Max Chl Dpth (ft)	17.01	Hydr. Depth (ft)		14.30	
Conv. Total (cfs)	3818952.0	Conv. (cfs)		3818952.0	
Length Wtd. (ft)	511.77	Wetted Per. (ft)		862.02	
Min Ch El (ft)	1278.30	Shear (lb/sq ft)		1.86	
Alpha	1.00	Stream Power (lb/ft s)		26.61	
Frctn Loss (ft)	1.08	Cum Volume (acre-ft)	67.08	19609.50	2788.11
C & E Loss (ft)	0.06	Cum SA (acres)	14.30	1816.53	454.07

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19548.98	19562.75	0.18	0.54	5.42	0.00	0.10	0.34
19562.75	19576.53	4.43	5.27	13.78	0.00	0.38	0.84
19576.53	19590.30	15.11	11.00	13.78	0.01	0.80	1.37
19590.30 LB	19762.90	20584.35	1803.20	173.41	11.76	10.45	11.42
19762.90	19935.50	41691.33	2749.30	172.68	23.82	15.93	15.16
19935.50	20108.10	42882.84	2795.85	172.64	24.50	16.20	15.34
20108.10	20280.70	40717.60	2710.70	172.70	23.27	15.71	15.02
20280.70	20453.30 RB	29104.18	2199.97	169.58	16.63	13.18	13.23

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19590.30 LB	19762.90	20517.07	1803.28	174.42	11.72	10.45	11.38
19762.90	19935.50	41714.68	2749.38	172.68	23.84	15.93	15.17
19935.50	20108.10	42906.82	2795.94	172.64	24.52	16.20	15.35
20108.10	20280.70	40740.43	2710.78	172.70	23.28	15.71	15.03
20280.70	20453.30 RB	29121.00	2200.05	169.58	16.64	13.18	13.24

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 236.49

INPUT
Description:

Station Elevation Data num= 60

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19385.2	1309.1	19404.4	1302	19440.9	1298.4	19444.2	1298.1	19451.9	1297.8
19512	1295.2	19579.9	1286.9	19595.3	1285.3	19605.8	1283.1	19617.2	1280.7
19619.9	1280.3	19623.7	1280.2	19640.6	1280.6	19729	1282	19753.8	1280.5
19799.2	1277.7	19816	1276.8	19897.1	1277.6	19897.3	1277.6	19897.5	1277.6
19898	1277.6	19984.3	1277.8	20016.3	1279.6	20017.4	1279.6	20019	1279.6
20064.5	1279.5	20114.3	1279.4	20256.9	1279.2	20274.6	1279	20289.1	1280.8
20297.7	1281.9	20298.1	1281.9	20329.9	1282.6	20345.4	1282.9	20382.5	1281
20407.9	1279.8	20423.8	1285	20456.4	1295.1	20477	1297.9	20507.6	1299.3
20528.3	1299.4	20582.4	1299.5	20584.5	1299.9	20590.9	1300.4	20625.9	1299.6
20644.9	1298.9	20692.7	1297.3	20710.4	1296.7	20713.5	1296.9	20738.6	1300.3
20741.5	1300.4	20790.1	1300.4	20829.7	1300.3	20830	1300.3	20830.2	1300.3
20830.8	1300.3	20870.2	1300	20885.1	1299.9	20885.4	1300	20900	1302

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val

19385.2 .043 19512 .028 20477 .037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19512	20477	505	503.15	500	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1294.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.97	Wt. n-Val.		0.028	
E.G. Elev (ft)	1297.33	Reach Len. (ft)	505.00	503.15	500.00
Crit W.S. (ft)		Flow Area (sq ft)		12649.78	
E.G. Slope (ft/ft)	0.002120	Area (sq ft)		12649.78	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	935.16	Top Width (ft)		935.16	
Vel Total (ft/s)	13.83	Avg. Vel. (ft/s)		13.83	
Max Chl Dpth (ft)	17.56	Hydr. Depth (ft)		13.53	
Conv. Total (cfs)	3800850.5	Conv. (cfs)		3800850.5	
Length Wtd. (ft)	503.15	Wetted Per. (ft)		938.95	
Min Ch El (ft)	1276.80	Shear (lb/sq ft)		1.78	
Alpha	1.00	Stream Power (lb/ft s)		24.67	
Frctn Loss (ft)	0.99	Cum Volume (acre-ft)	1240.05	19555.46	4590.48
C & E Loss (ft)	0.04	Cum SA (acres)	135.03	1843.41	822.54

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1294.37	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.97	Wt. n-Val.		0.028	
E.G. Elev (ft)	1297.34	Reach Len. (ft)	505.00	503.15	500.00
Crit W.S. (ft)		Flow Area (sq ft)		12652.97	
E.G. Slope (ft/ft)	0.002118	Area (sq ft)		12652.97	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	935.16	Top Width (ft)		935.16	
Vel Total (ft/s)	13.83	Avg. Vel. (ft/s)		13.83	
Max Chl Dpth (ft)	17.57	Hydr. Depth (ft)		13.53	
Conv. Total (cfs)	3802432.5	Conv. (cfs)		3802432.5	
Length Wtd. (ft)	503.15	Wetted Per. (ft)		938.96	
Min Ch El (ft)	1276.80	Shear (lb/sq ft)		1.78	
Alpha	1.00	Stream Power (lb/ft s)		24.65	
Frctn Loss (ft)	0.99	Cum Volume (acre-ft)	67.08	19463.16	2788.11
C & E Loss (ft)	0.04	Cum SA (acres)	14.30	1806.00	454.07

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19512.00 LB	19705.00	19194.53	1784.17	187.20	10.97	9.58	10.76
19705.00	19898.00	45033.97	3013.69	193.16	25.73	15.61	14.94
19898.00	20091.00	45895.09	3047.43	193.05	26.23	15.79	15.06
20091.00	20284.00	42371.04	2904.93	193.07	24.21	15.05	14.59
20284.00	20477.00 RB	22505.36	1899.56	172.46	12.86	11.17	11.85

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19512.00 LB	19705.00	19198.00	1784.80	187.20	10.97	9.59	10.76
19705.00	19898.00	45032.05	3014.35	193.16	25.73	15.62	14.94
19898.00	20091.00	45892.93	3048.09	193.05	26.22	15.79	15.06
20091.00	20284.00	42369.81	2905.59	193.07	24.21	15.05	14.58
20284.00	20477.00 RB	22507.22	1900.14	172.46	12.86	11.18	11.85

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 236.39

INPUT
Description:

Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19316.9	1301.7	19362.8	1299.3	19378	1298.3	19415.9	1297.8	19440	1297.6
19442.2	1297.2	19463.3	1294.6	19478.3	1297.2	19482.7	1297.8	19496.8	1294
19497.4	1293.9	19500.5	1293.2	19542.5	1285.3	19563.6	1283.3	19565.7	1283.2
19567.2	1282.4	19573.9	1277.1	19611.9	1276.8	19621	1276.8	19669.4	1277.4
19680.3	1277.5	19701.2	1276.6	19703.3	1276.5	19709.4	1276.4	19759	1275.9
19776.5	1276.6	19805.4	1276.7	19848.8	1276.7	19891.9	1276.7	19920.1	1276.7
19953.6	1276.7	20010.3	1276.9	20031.5	1277	20094.1	1277.4	20109.9	1277.5
20111.4	1277.5	20113.4	1277.6	20158.7	1278.3	20162.5	1278.5	20208	1279.9
20216	1280.1	20230.2	1280.7	20244.7	1280.9	20259.9	1279.9	20266.7	1279.5
20278.2	1279.4	20331.9	1279.1	20385.6	1295.3	20395.5	1298.1	20420.6	1297.4
20450.6	1296.4	20462.3	1296.3	20525	1296.4	20556.2	1295.3	20570.9	1294.7
20611.1	1297.1	20611.6	1297.1	20611.7	1297.1	20611.9	1297.1	20675	1298.9
20690.4	1298.7	20723.3	1298.2	20789.3	1296.5	20804.9	1296.2	20827.6	1300

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19316.9	.043	19482.7	.028	20395.5	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19482.7	20395.5	505	501.79	500	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1293.46	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.85	Wt. n-Val.		0.028	
E.G. Elev (ft)	1296.31	Reach Len. (ft)	505.00	501.79	500.00
Crit W.S. (ft)		Flow Area (sq ft)		12921.09	
E.G. Slope (ft/ft)	0.001826	Area (sq ft)		12921.09	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	880.15	Top Width (ft)		880.15	
Vel Total (ft/s)	13.54	Avg. Vel. (ft/s)		13.54	
Max Chl Dpth (ft)	17.56	Hydr. Depth (ft)		14.68	
Conv. Total (cfs)	4095147.0	Conv. (cfs)		4095147.0	
Length Wtd. (ft)	501.79	Wetted Per. (ft)		885.32	
Min Ch El (ft)	1275.90	Shear (lb/sq ft)		1.66	
Alpha	1.00	Stream Power (lb/ft s)		22.54	
Frctn Loss (ft)	0.78	Cum Volume (acre-ft)	1240.05	19407.78	4590.48
C & E Loss (ft)	0.23	Cum SA (acres)	135.03	1832.93	822.54

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1293.46	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.85	Wt. n-Val.		0.028	
E.G. Elev (ft)	1296.31	Reach Len. (ft)	505.00	501.79	500.00
Crit W.S. (ft)		Flow Area (sq ft)		12924.85	
E.G. Slope (ft/ft)	0.001824	Area (sq ft)		12924.85	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	880.15	Top Width (ft)		880.15	
Vel Total (ft/s)	13.54	Avg. Vel. (ft/s)		13.54	
Max Chl Dpth (ft)	17.56	Hydr. Depth (ft)		14.68	
Conv. Total (cfs)	4097105.5	Conv. (cfs)		4097105.5	
Length Wtd. (ft)	501.79	Wetted Per. (ft)		885.33	
Min Ch El (ft)	1275.90	Shear (lb/sq ft)		1.66	
Alpha	1.00	Stream Power (lb/ft s)		22.51	
Frctn Loss (ft)	0.78	Cum Volume (acre-ft)	67.08	19315.44	2788.11
C & E Loss (ft)	0.23	Cum SA (acres)	14.30	1795.51	454.07

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need

for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19482.70 LB	19665.26	23326.48	2003.74	168.82	13.33	12.08	11.64
19665.26	19847.82	45319.23	3079.87	182.60	25.90	16.87	14.71
19847.82	20030.38	44572.56	3049.04	182.56	25.47	16.70	14.62
20030.38	20212.94	39136.11	2820.38	182.60	22.36	15.45	13.88
20212.94	20395.50 RB	22645.61	1968.07	168.74	12.94	11.82	11.51

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19482.70 LB	19665.26	23328.79	2004.44	168.82	13.33	12.08	11.64
19665.26	19847.82	45316.93	3080.65	182.60	25.90	16.87	14.71
19847.82	20030.38	44570.48	3049.82	182.56	25.47	16.71	14.61
20030.38	20212.94	39135.63	2821.16	182.60	22.36	15.45	13.87
20212.94	20395.50 RB	22648.17	1968.78	168.74	12.94	11.82	11.50

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 236.30

INPUT
Description:

Station Elevation Data num= 63

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19260.7	1300.4	19297.2	1299.3	19309.2	1297	19324.6	1293.9	19341.9	1297.6
19353.6	1300.6	19367	1296.6	19370.6	1295.2	19374.3	1294.6	19382.7	1293.7
19394.8	1292.1	19395.2	1291.9	19406.8	1277.5	19434.4	1276.7	19477.2	1275.6
19504.2	1276.4	19534.3	1276.8	19547.1	1276.4	19555	1276.2	19577.6	1276
19615.9	1275.6	19638.3	1275.1	19679	1275.1	19697.5	1276.1	19705	1276.2
19717.8	1276.5	19740.9	1277.8	19801.6	1278.6	19812	1278.7	19837.3	1279
19879.2	1278.9	19894	1278.9	19951.9	1278.5	19986.4	1278.8	20018.2	1278.7
20059.4	1279.1	20075.9	1279.1	20127.1	1278.9	20136.6	1278.8	20156.1	1278.3
20172	1278.5	20224.9	1278.8	20258.9	1279	20271.9	1279.1	20296.8	1279
20355.8	1278.9	20396	1289.4	20432.3	1299.4	20447.7	1298.8	20477.9	1297.3
20507	1297.1	20538.2	1296.5	20567.6	1295.1	20581.5	1294.6	20597.4	1295.3
20603.5	1295.7	20645.5	1294.9	20668.9	1294.2	20686.4	1294.8	20727.8	1296
20801.1	1295.3	20806.3	1295.3	20825.3	1301.9				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19260.7	.043	19353.6	.028	20432.3	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19353.6	20432.3	500	497.92	510	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1293.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.09	Wt. n-Val.		0.028	
E.G. Elev (ft)	1295.30	Reach Len. (ft)	500.00	497.92	510.00
Crit W.S. (ft)		Flow Area (sq ft)		15094.79	
E.G. Slope (ft/ft)	0.001335	Area (sq ft)		15094.79	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1023.47	Top Width (ft)		1023.47	

Vel Total (ft/s)	11.59	Avg. Vel. (ft/s)		11.59	
Max Chl Dpth (ft)	18.11	Hydr. Depth (ft)		14.75	
Conv. Total (cfs)	4789515.0	Conv. (cfs)		4789515.0	
Length Wtd. (ft)	497.92	Wetted Per. (ft)		1032.49	
Min Ch El (ft)	1275.10	Shear (lb/sq ft)		1.22	
Alpha	1.00	Stream Power (lb/ft s)		14.13	
Frctn Loss (ft)	0.64	Cum Volume (acre-ft)	1240.05	19246.42	4590.48
C & E Loss (ft)	0.12	Cum SA (acres)	135.03	1821.96	822.54

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1293.22	Element			
Vel Head (ft)	2.09	Wt. n-Val.		0.028	
E.G. Elev (ft)	1295.30	Reach Len. (ft)	500.00	497.92	510.00
Crit W.S. (ft)		Flow Area (sq ft)		15099.79	
E.G. Slope (ft/ft)	0.001334	Area (sq ft)		15099.79	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1023.46	Top Width (ft)		1023.46	
Vel Total (ft/s)	11.59	Avg. Vel. (ft/s)		11.59	
Max Chl Dpth (ft)	18.12	Hydr. Depth (ft)		14.75	
Conv. Total (cfs)	4792148.0	Conv. (cfs)		4792148.0	
Length Wtd. (ft)	497.92	Wetted Per. (ft)		1032.49	
Min Ch El (ft)	1275.10	Shear (lb/sq ft)		1.22	
Alpha	1.00	Stream Power (lb/ft s)		14.11	
Frctn Loss (ft)	0.64	Cum Volume (acre-ft)	67.08	19154.02	2788.11
C & E Loss (ft)	0.12	Cum SA (acres)	14.30	1784.55	454.07

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19353.60 LB	19569.34	33117.60	2834.98	190.02	18.92	15.49	11.68
19569.34	19785.08	46463.31	3655.06	215.82	26.55	16.94	12.71
19785.08	20000.82	35669.55	3118.52	215.75	20.38	14.45	11.44
20000.82	20216.56	35507.71	3110.05	215.75	20.29	14.42	11.42
20216.56	20432.30 RB	24241.85	2376.17	195.15	13.85	12.29	10.20

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19353.60 LB	19569.34	33116.74	2835.88	190.03	18.92	15.50	11.68
19569.34	19785.08	46460.26	3656.12	215.82	26.55	16.95	12.71
19785.08	20000.82	35670.15	3119.57	215.75	20.38	14.46	11.43
20000.82	20216.56	35508.36	3111.10	215.75	20.29	14.42	11.41
20216.56	20432.30 RB	24244.50	2377.12	195.15	13.85	12.30	10.20

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 236.21

INPUT
Description:

Station Elevation Data num= 68

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19284.6	1297.2	19309.2	1292.2	19319.6	1290.1	19342.4	1283.3	19352.7	1280.1
19356.2	1278.2	19359.8	1276	19435.2	1275.4	19444.8	1275.3	19445.8	1275.3
19509.1	1275.7	19525.2	1275.7	19543	1276.4	19593.2	1277.2	19607.4	1277.2
19618.4	1277.5	19620.5	1277.6	19628.2	1277.6	19690.2	1278.4	19714.7	1278.8
19752.5	1279.4	19773.5	1279.9	19791.3	1280.1	19813.5	1280.3	19869.9	1280.5
19871	1280.5	19874.5	1280.5	19946.1	1280.6	19966.9	1280.5	20004.9	1280.5
20036.5	1280.1	20060.1	1279.9	20083.6	1278.8	20095.3	1278.6	20129.2	1277
20141.4	1277.1	20168.4	1277.5	20173.7	1277.7	20208.8	1278.4	20215.2	1278.9
20238.9	1279.9	20249.8	1280.3	20273.5	1281.1	20282.9	1281.5	20304.6	1282.5
20323.2	1282.4	20336.7	1282.4	20370.7	1281.6	20380.6	1281.3	20434.5	1281.2
20437.5	1281.2	20454.6	1281.3	20490.9	1281.9	20509.1	1282.1	20535.7	1283.1
20549.1	1283.2	20578.1	1289.6	20596.7	1294.4	20611.9	1294.4	20644.7	1296.4
20687.6	1296.6	20721.1	1296.1	20739.8	1295	20780.7	1294.6	20787.4	1294.6
20793.8	1294.8	20842.8	1296.3	20880.7	1306.5				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19284.6	.028	20596.7	.028	20644.7	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19284.6	20596.7	275	459.84	725	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1292.85	Element			
Vel Head (ft)	1.69	Wt. n-Val.		0.028	
E.G. Elev (ft)	1294.54	Reach Len. (ft)	275.00	459.84	725.00
Crit W.S. (ft)		Flow Area (sq ft)		16795.99	
E.G. Slope (ft/ft)	0.001257	Area (sq ft)		16795.99	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1284.69	Top Width (ft)		1284.69	
Vel Total (ft/s)	10.42	Avg. Vel. (ft/s)		10.42	
Max Chl Dpth (ft)	17.55	Hydr. Depth (ft)		13.07	
Conv. Total (cfs)	4935855.0	Conv. (cfs)		4935855.0	
Length Wtd. (ft)	459.84	Wetted Per. (ft)		1288.92	
Min Ch El (ft)	1275.30	Shear (lb/sq ft)		1.02	
Alpha	1.00	Stream Power (lb/ft s)		10.66	
Frctn Loss (ft)	0.53	Cum Volume (acre-ft)	1240.05	19064.15	4590.48
C & E Loss (ft)	0.07	Cum SA (acres)	135.03	1808.77	822.54

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1292.86	Element			
Vel Head (ft)	1.68	Wt. n-Val.		0.028	
E.G. Elev (ft)	1294.54	Reach Len. (ft)	275.00	459.84	725.00
Crit W.S. (ft)		Flow Area (sq ft)		16803.52	
E.G. Slope (ft/ft)	0.001255	Area (sq ft)		16803.52	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1284.69	Top Width (ft)		1284.69	
Vel Total (ft/s)	10.41	Avg. Vel. (ft/s)		10.41	
Max Chl Dpth (ft)	17.56	Hydr. Depth (ft)		13.08	
Conv. Total (cfs)	4939508.0	Conv. (cfs)		4939508.0	
Length Wtd. (ft)	459.84	Wetted Per. (ft)		1288.93	
Min Ch El (ft)	1275.30	Shear (lb/sq ft)		1.02	
Alpha	1.00	Stream Power (lb/ft s)		10.64	
Frctn Loss (ft)	0.53	Cum Volume (acre-ft)	67.08	18971.68	2788.11
C & E Loss (ft)	0.07	Cum SA (acres)	14.30	1771.36	454.07

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19284.60 LB	19547.02	40300.78	3596.35	243.89	23.03	14.92	11.21
19547.02	19809.44	42198.86	3807.13	262.45	24.11	14.51	11.08
19809.44	20071.86	32769.08	3271.04	262.44	18.73	12.46	10.02
20071.86	20334.28	37368.92	3540.04	262.58	21.35	13.49	10.56
20334.28	20596.70 RB	22362.37	2581.43	257.56	12.78	10.07	8.66

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19284.60 LB	19547.02	40296.70	3597.76	243.90	23.03	14.93	11.20
19547.02	19809.44	42196.40	3808.67	262.45	24.11	14.51	11.08
19809.44	20071.86	32770.78	3272.57	262.44	18.73	12.47	10.01
20071.86	20334.28	37368.66	3541.57	262.58	21.35	13.50	10.55
20334.28	20596.70 RB	22367.47	2582.93	257.57	12.78	10.07	8.66

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 236.12

INPUT
Description:

Station Elevation Data num= 79

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19158.7	1298.3	19184.9	1297.5	19201.3	1296.8	19215.9	1292	19216	1292
19216.1	1292	19232.8	1294.2	19234.8	1294.5	19245.8	1292.1	19254.8	1290.1
19260.5	1288.7	19286.2	1282.3	19300.3	1280.5	19310.2	1278.7	19319.6	1277.1
19327.2	1275.6	19421	1275.2	19515.3	1275	19552	1274.8	19565.4	1274.9
19579.2	1275.8	19583.4	1276.3	19598.4	1277.1	19640.3	1277.8	19720.3	1279.5
19729.6	1279.7	19738.8	1279.9	19739.3	1279.6	19781.2	1277.7	19786.2	1278.2
19845.5	1280.9	19909.9	1281.1	19914.5	1281.2	19920.1	1281.1	19969.8	1279.3
19990.9	1278.5	20028.1	1278.1	20041.9	1278.4	20120.5	1279	20149.6	1279.6
20251	1281.4	20285.3	1281.9	20344.4	1282.2	20372.9	1281.5	20395.8	1280.2
20419.6	1279.3	20421.5	1279.3	20536.8	1281	20608.2	1281.5	20624.8	1289.6
20625.6	1290	20625.9	1290	20631.6	1290	20678.5	1290.4	20698.9	1290.6
20746.7	1291	20805.7	1292.1	20845.7	1293.4	20856.5	1291.3	20861.3	1290.2
20863.3	1292.1	20867.6	1293.6	20893.9	1295.4	20934.1	1296.3	20950.5	1294.3
20975.9	1291.3	20983.2	1291.5	21023.8	1292.4	21041.6	1294.9	21059.9	1297.5
21115.8	1298.3	21161.2	1296.3	21222.8	1296.2	21269.4	1295.9	21294.6	1295.8
21314.8	1296.6	21314.9	1296.5	21315.6	1296.6	21341.4	1298.1		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19158.7	.028	19234.8	.028	20625.6	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19234.8	20625.6	500	489.17	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19158.7	19234.8	1294.5	20620	21341.4	1295

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1292.50	Element			
Vel Head (ft)	1.44	Wt. n-Val.		0.028	
E.G. Elev (ft)	1293.93	Reach Len. (ft)	500.00	489.17	495.00
Crit W.S. (ft)	1287.10	Flow Area (sq ft)		18199.05	
E.G. Slope (ft/ft)	0.001053	Area (sq ft)	1.41	18220.73	353.96
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1652.18	Top Width (ft)	5.48	1381.62	265.09
Vel Total (ft/s)	9.62	Avg. Vel. (ft/s)		9.62	
Max Chl Dpth (ft)	17.70	Hydr. Depth (ft)		13.23	
Conv. Total (cfs)	5391986.5	Conv. (cfs)		5391986.5	
Length Wtd. (ft)	489.18	Wetted Per. (ft)		1379.60	
Min Ch El (ft)	1274.80	Shear (lb/sq ft)		0.87	
Alpha	1.00	Stream Power (lb/ft s)		8.34	
Frctn Loss (ft)	0.57	Cum Volume (acre-ft)	1240.05	18879.32	4587.53
C & E Loss (ft)	0.02	Cum SA (acres)	135.01	1794.70	820.34

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1292.50	Element			
Vel Head (ft)	1.43	Wt. n-Val.		0.028	
E.G. Elev (ft)	1293.94	Reach Len. (ft)	500.00	489.17	495.00
Crit W.S. (ft)	1287.10	Flow Area (sq ft)		18205.61	
E.G. Slope (ft/ft)	0.001057	Area (sq ft)		18205.61	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1376.02	Top Width (ft)		1376.02	
Vel Total (ft/s)	9.61	Avg. Vel. (ft/s)		9.61	
Max Chl Dpth (ft)	17.70	Hydr. Depth (ft)		13.23	
Conv. Total (cfs)	5381574.0	Conv. (cfs)		5381574.0	
Length Wtd. (ft)	489.18	Wetted Per. (ft)		1384.86	
Min Ch El (ft)	1274.80	Shear (lb/sq ft)		0.87	
Alpha	1.00	Stream Power (lb/ft s)		8.34	
Frctn Loss (ft)	0.57	Cum Volume (acre-ft)	67.08	18786.90	2788.11
C & E Loss (ft)	0.02	Cum SA (acres)	14.30	1757.31	454.07

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19234.80 LB	19512.96	40509.62	3957.60	270.75	23.15	14.71	10.24
19512.96	19791.12	43377.12	4169.73	278.43	24.79	14.99	10.40
19791.12	20069.28	33338.56	3559.78	278.27	19.05	12.80	9.37
20069.28	20347.44	29724.11	3322.53	278.19	16.99	11.94	8.95

20347.44	20625.60 RB	28050.59	3189.42	273.97	16.03	11.70	8.79

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19234.80 LB	19512.96	40588.45	3958.88	270.76	23.19	14.72	10.25
19512.96	19791.12	43461.94	4171.05	278.43	24.84	15.00	10.42
19791.12	20069.28	33406.78	3561.10	278.27	19.09	12.80	9.38
20069.28	20347.44	29786.24	3323.85	278.19	17.02	11.95	8.96
20347.44	20625.60 RB	27756.59	3190.72	279.21	15.86	11.71	8.70

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 236.03

INPUT
Description:

Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19235.1	1305.6	19249.1	1305.4	19257.4	1305.4	19271.9	1305	19299.1	1301.3
19315.4	1299.4	19316.7	1298.9	19330.9	1292.4	19340.4	1294.1	19347.8	1295.6
19365.1	1289.6	19366.4	1289	19369.6	1288.6	19392.6	1285.9	19407.6	1283.6
19437.9	1279.4	19445.9	1275.7	19450.6	1273.6	19483.6	1273.6	19488	1273.6
19560.9	1273.8	19650.1	1273.9	19662.7	1274	19704.8	1274.1	19710.7	1274.5
19719.8	1275.3	19776.7	1278.7	19813.9	1279.7	19835	1279.7	19898	1279.1
19908.2	1279.1	19938.3	1278.8	20027.8	1277.6	20074.4	1276.8	20079.5	1276.9
20165.5	1277.1	20183.5	1277.5	20203.4	1278.3	20216.8	1278.7	20235.6	1279.4
20261.9	1279	20308.9	1278.8	20367.1	1278	20384.6	1277.9	20439.2	1277
20441.5	1276.9	20442.4	1277.1	20465.8	1278.2	20511.4	1281.9	20518.1	1282
20531.1	1281.6	20533.1	1282.2	20557.8	1286.1	20613.3	1288.3	20624.8	1288.3
20630.1	1288	20646.7	1287.4	20651.4	1287.6	20680.3	1288.4	20686.6	1287.3
20708.4	1284.2	20729	1288	20734.4	1288.6	20755.4	1288.7	20769.1	1288.4
20836.4	1288.2	20839.9	1287.4	20845.7	1285.9	20857.2	1287.4	20863.8	1288.5
20880.4	1287	20899.7	1285.4	20939.1	1301.3	20939.3	1301.4	20939.6	1301.4
21052.6	1301.3	21124.5	1301.7	21139.5	1301.6	21149.3	1301.7	21206.7	1303.3
21208.3	1303.3	21209	1303.4	21210	1303.4	21298.5	1304	21328.1	1304
21343.4	1304.2								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19235.1	.028	19347.8	.028	19365.1	.028	20557.8	.043	20613.3	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19347.8	20613.3	510	512.64	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19235.1	19347.8	1295.6	20650	21343.4	1295

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1291.66	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.68	Wt. n-Val.		0.029	0.043
E.G. Elev (ft)	1293.34	Reach Len. (ft)	510.00	512.64	510.00
Crit W.S. (ft)	1286.47	Flow Area (sq ft)		16780.03	136.93
E.G. Slope (ft/ft)	0.001279	Area (sq ft)		16780.03	1210.35
Q Total (cfs)	175000.00	Flow (cfs)		174593.00	407.01
Top Width (ft)	1556.07	Top Width (ft)		1254.15	301.92
Vel Total (ft/s)	10.34	Avg. Vel. (ft/s)		10.40	2.97
Max Chl Dpth (ft)	18.06	Hydr. Depth (ft)		13.38	3.73
Conv. Total (cfs)	4892406.5	Conv. (cfs)		4881028.0	11378.7
Length Wtd. (ft)	512.64	Wetted Per. (ft)		1257.43	36.72
Min Ch El (ft)	1273.60	Shear (lb/sq ft)		1.07	0.30
Alpha	1.01	Stream Power (lb/ft s)		11.09	0.89
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	1240.04	18682.80	4578.64
C & E Loss (ft)	0.03	Cum SA (acres)	134.98	1779.90	817.12

Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1291.67	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.68	Wt. n-Val.		0.029	0.043
E.G. Elev (ft)	1293.34	Reach Len. (ft)	510.00	512.64	510.00
Crit W.S. (ft)	1286.47	Flow Area (sq ft)		16783.09	137.02
E.G. Slope (ft/ft)	0.001279	Area (sq ft)		16783.09	137.02
Q Total (cfs)	175000.00	Flow (cfs)		174620.52	379.48
Top Width (ft)	1290.85	Top Width (ft)		1254.15	36.70
Vel Total (ft/s)	10.34	Avg. Vel. (ft/s)		10.40	2.77
Max Chl Dpth (ft)	18.07	Hydr. Depth (ft)		13.38	3.73
Conv. Total (cfs)	4893116.0	Conv. (cfs)		4882505.5	10610.6
Length Wtd. (ft)	512.64	Wetted Per. (ft)		1257.43	40.85
Min Ch El (ft)	1273.60	Shear (lb/sq ft)		1.07	0.27
Alpha	1.01	Stream Power (lb/ft s)		11.09	0.74
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	67.08	18590.44	2787.33
C & E Loss (ft)	0.03	Cum SA (acres)	14.30	1742.55	453.86

Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19347.80 LB	19600.90	36346.20	3423.20	244.14	20.77	14.16	10.62
19600.90	19854.00	43598.79	3874.50	253.26	24.91	15.31	11.25
19854.00	20107.10	35349.38	3415.56	253.12	20.20	13.49	10.35
20107.10	20360.20	35184.03	3406.10	253.15	20.11	13.46	10.33
20360.20	20613.30 RB	24114.61	2660.68	253.75	13.78	10.51	9.06
20613.30	20661.97	407.01	136.93	36.72	0.23	3.73	2.97

Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19347.80 LB	19600.90	36351.38	3423.79	244.14	20.77	14.16	10.62
19600.90	19854.00	43604.37	3875.12	253.26	24.92	15.31	11.25
19854.00	20107.10	35355.17	3416.17	253.12	20.20	13.50	10.35
20107.10	20360.20	35189.81	3406.72	253.15	20.11	13.46	10.33
20360.20	20613.30 RB	24119.78	2661.29	253.75	13.78	10.51	9.06
20613.30	20661.97	379.48	137.02	40.85	0.22	3.73	2.77

Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 235.93

INPUT
Description:

Station Elevation Data num= 95

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18727.1	1302.1	18731.8	1302.1	18757.4	1301.5	18786.5	1300.7	18826.4	1299.7
18867.3	1298.8	18881.7	1298.5	18909	1297.9	19001	1297.2	19015.9	1297.4
19024.5	1297	19042.8	1296.6	19069.2	1296.5	19101.8	1296.3	19112.3	1296.3
19161.3	1296	19197.2	1295.5	19217.8	1295.4	19241.1	1295.4	19259	1295.2
19303.9	1294.7	19304.7	1294.7	19305.1	1294.7	19337.7	1300.3	19351.4	1300.8
19372.2	1296.6	19377.2	1294.7	19397.6	1294.7	19411.3	1294.8	19419.1	1295
19429.1	1292	19439.3	1288.6	19466.6	1282	19469.5	1281.4	19471.4	1280.5
19486.6	1273.1	19755.9	1273.6	19770.8	1273.6	19770.9	1273.6	19773.7	1273.8
19794.2	1275.4	19817.5	1277.6	19863.9	1278.3	19878.7	1278.6	19906	1278.9
19932.8	1279.3	19958.9	1279.3	19989.7	1279	20023.3	1278.7	20048.6	1278.1
20057.2	1277.9	20099.1	1278.3	20202.1	1277.7	20214	1277.7	20221	1279
20273	1277.9	20308.5	1276.9	20332.9	1276.7	20365.5	1275.9	20372.1	1274.9
20373.9	1274.8	20376.2	1275.2	20416.1	1274.6	20492.3	1274.3	20504.2	1274.6
20508	1274.8	20544.1	1291.1	20561.6	1294.5	20584.9	1297	20585.8	1297.1
20586.6	1297.2	20618.3	1293	20649.4	1288.6	20659.5	1287.4	20673.4	1285
20708.6	1283.7	20744.8	1282.5	20782.3	1281.4	20798.8	1280.6	20836.8	1278.7
20864.8	1279.3	20869.1	1279.4	20875.9	1279.6	20915.9	1287.7	20956.2	1295.6

20966.9	1296.5	20967.2	1296.5	21016.8	1297.8	21058.9	1297.8	21118.3	1297.5
21160.5	1297.7	21214.2	1298.1	21294.7	1299.6	21319.8	1300.1	21348	1300.4

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18727.1	.028	19419.1	.028	20586.6	.028	20618.3	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19419.1	20586.6	490	493.11	515	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18727.1	19419.1	1295	20586.6	21348	1297.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1290.62	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.00	Wt. n-Val.		0.028	
E.G. Elev (ft)	1292.63	Reach Len. (ft)	490.00	493.11	515.00
Crit W.S. (ft)	1285.75	Flow Area (sq ft)		15405.88	
E.G. Slope (ft/ft)	0.001385	Area (sq ft)		15405.88	2246.53
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1405.50	Top Width (ft)		1109.81	295.70
Vel Total (ft/s)	11.36	Avg. Vel. (ft/s)		11.36	
Max Chl Dpth (ft)	17.52	Hydr. Depth (ft)		13.88	
Conv. Total (cfs)	4702576.0	Conv. (cfs)		4702576.0	
Length Wtd. (ft)	493.11	Wetted Per. (ft)		1116.78	
Min Ch El (ft)	1273.10	Shear (lb/sq ft)		1.19	
Alpha	1.00	Stream Power (lb/ft s)		13.55	
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	1240.04	18493.41	4558.41
C & E Loss (ft)	0.19	Cum SA (acres)	134.98	1765.99	813.62

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1290.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.00	Wt. n-Val.		0.028	
E.G. Elev (ft)	1292.63	Reach Len. (ft)	490.00	493.11	515.00
Crit W.S. (ft)	1285.75	Flow Area (sq ft)		15410.90	
E.G. Slope (ft/ft)	0.001383	Area (sq ft)		15410.90	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1109.81	Top Width (ft)		1109.81	
Vel Total (ft/s)	11.36	Avg. Vel. (ft/s)		11.36	
Max Chl Dpth (ft)	17.53	Hydr. Depth (ft)		13.89	
Conv. Total (cfs)	4705096.5	Conv. (cfs)		4705096.5	
Length Wtd. (ft)	493.11	Wetted Per. (ft)		1116.79	
Min Ch El (ft)	1273.10	Shear (lb/sq ft)		1.19	
Alpha	1.00	Stream Power (lb/ft s)		13.53	
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)	67.08	18401.00	2786.53
C & E Loss (ft)	0.19	Cum SA (acres)	14.30	1728.63	453.65

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19419.10 LB	19652.60	38940.23	3288.82	222.45	22.25	14.99	11.84
19652.60	19886.10	43511.43	3585.26	233.68	24.86	15.35	12.14
19886.10	20119.60	28572.21	2784.86	233.52	16.33	11.93	10.26
20119.60	20353.10	32543.21	3011.72	233.65	18.60	12.90	10.81
20353.10	20586.60 RB	31432.93	2735.22	193.48	17.96	14.40	11.49

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta	Right Sta	Flow	Area	W.P.	% Conv.	Hydr D.	Velocity

(ft)	(ft)	(cfs)	(sq ft)	(ft)		(ft)	(ft/s)
19419.10 LB	19652.60	38938.19	3289.81	222.46	22.25	15.00	11.84
19652.60	19886.10	43509.60	3586.32	233.68	24.86	15.36	12.13
19886.10	20119.60	28575.03	2785.92	233.52	16.33	11.93	10.26
20119.60	20353.10	32544.88	3012.77	233.65	18.60	12.90	10.80
20353.10	20586.60 RB	31432.28	2736.08	193.48	17.96	14.41	11.49

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 235.84

INPUT
Description:

Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19106.4	1308.2	19139.9	1307.8	19244.9	1307.2	19263.1	1307.1	19267.1	1307.1
19277.9	1307.1	19287.8	1307.2	19392.6	1308	19402.4	1308.4	19426	1295.8
19434.4	1291.3	19437.6	1291.7	19446.9	1292.8	19459	1288.1	19472.6	1282.2
19483.2	1277	19487.7	1275.1	19487.8	1274.8	19489.4	1274	19520	1273.8
19724.6	1272.6	19909.1	1271.3	19909.4	1271.9	19910.3	1272.6	19910.8	1272.5
19936	1273.7	19953.9	1275.2	20065.2	1278	20074.3	1278.2	20075.7	1278.2
20086.3	1278.3	20153.8	1278.4	20178.8	1277.6	20181	1277.5	20184.2	1277.4
20242.2	1276.7	20252.3	1276.9	20274.7	1277.1	20291.5	1276.6	20304.1	1275.7
20322.2	1274.7	20327.2	1274.5	20328	1274.4	20331	1274.2	20390.1	1274.6
20569	1274.5	20572.7	1274.5	20573	1274.5	20575.3	1274.3	20594.5	1275.1
20596	1275.1	20602.4	1275.4	20627.1	1276	20638.6	1279.1	20661.6	1284.8
20715.8	1282.8	20735.1	1282.1	20741.4	1282	20806.2	1281.7	20831	1281.5
20845.1	1281	20927.6	1297.4	20931.1	1298	20996.5	1298.5	21029	1298.5

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19106.4	.028	19446.9	.028	20661.6	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19446.9	20661.6	510	499.13	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19106.4	19446.9	1292.8	20661.6	21029	1295

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1290.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.36	Wt. n-Val.		0.028	
E.G. Elev (ft)	1291.92	Reach Len. (ft)	510.00	499.13	500.00
Crit W.S. (ft)	1283.65	Flow Area (sq ft)		18682.72	
E.G. Slope (ft/ft)	0.000814	Area (sq ft)		18682.72	1723.40
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1440.49	Top Width (ft)		1208.92	231.57
Vel Total (ft/s)	9.37	Avg. Vel. (ft/s)		9.37	
Max Chl Dpth (ft)	19.26	Hydr. Depth (ft)		15.45	
Conv. Total (cfs)	6132128.5	Conv. (cfs)		6132128.5	
Length Wtd. (ft)	499.13	Wetted Per. (ft)		1214.62	
Min Ch El (ft)	1271.30	Shear (lb/sq ft)		0.78	
Alpha	1.00	Stream Power (lb/ft s)		7.33	
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	1240.04	18300.46	4534.94
C & E Loss (ft)	0.12	Cum SA (acres)	134.98	1752.86	810.50

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1290.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.36	Wt. n-Val.		0.028	
E.G. Elev (ft)	1291.92	Reach Len. (ft)	510.00	499.13	500.00
Crit W.S. (ft)	1283.65	Flow Area (sq ft)		18685.81	
E.G. Slope (ft/ft)	0.000819	Area (sq ft)		18685.81	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1208.92	Top Width (ft)		1208.92	
Vel Total (ft/s)	9.37	Avg. Vel. (ft/s)		9.37	
Max Chl Dpth (ft)	19.26	Hydr. Depth (ft)		15.46	

Conv. Total (cfs)	6114504.5	Conv. (cfs)		6114504.5		
Length Wtd. (ft)	499.13	Wetted Per. (ft)		1220.38		
Min Ch El (ft)	1271.30	Shear (lb/sq ft)		0.78		
Alpha	1.00	Stream Power (lb/ft s)		7.33		
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	67.08	18208.01	2786.53	
C & E Loss (ft)	0.12	Cum SA (acres)	14.30	1715.51	453.65	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19446.90 LB	19689.84	34884.08	3730.25	240.85	19.93	15.73	9.35
19689.84	19932.78	46805.11	4469.98	243.59	26.75	18.40	10.47
19932.78	20175.72	27631.83	3255.33	243.06	15.79	13.40	8.49
20175.72	20418.66	32350.44	3578.19	243.04	18.49	14.73	9.04
20418.66	20661.60 RB	33328.54	3648.98	244.09	19.04	15.02	9.13

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19446.90 LB	19689.84	34986.66	3730.86	240.85	19.99	15.73	9.38
19689.84	19932.78	46941.07	4470.60	243.59	26.82	18.40	10.50
19932.78	20175.72	27714.50	3255.95	243.06	15.84	13.40	8.51
20175.72	20418.66	32446.29	3578.81	243.04	18.54	14.73	9.07
20418.66	20661.60 RB	32911.47	3649.61	249.84	18.81	15.02	9.02

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 235.75

INPUT
Description:

Station Elevation Data num= 73

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19293.5	1306.6	19318.1	1305.7	19353.2	1306.5	19358	1304.2	19368.3	1301.1
19383.3	1296.1	19392.3	1292.1	19401.3	1287.2	19402.9	1285.2	19409.2	1286.9
19440.7	1283.7	19444.6	1281.5	19447.4	1279.8	19449.5	1278.8	19451.6	1278.8
19492	1277.6	19514.4	1274.7	19516.7	1274.4	19517	1274.5	19541.3	1274.6
19543.7	1274.6	19545	1273.4	19546.4	1273.3	19546.6	1273.4	19551.4	1274
19558.2	1275	19562.5	1275.2	19568	1275.3	19647.3	1276.6	19673.1	1275.7
19705.8	1275.2	19735.3	1274.7	19767.4	1273.6	19776.7	1273.3	19777.1	1273.3
19778.3	1273.1	19824.6	1272.9	19831.3	1273	19843.7	1273	19978	1272.9
20043.9	1273.1	20096.6	1273.1	20195.7	1272.5	20213.9	1272.3	20274.5	1272
20275.5	1272.1	20276.4	1272.2	20295.6	1275.1	20299.4	1275.5	20332.8	1273.4
20344.6	1272.7	20348.6	1272	20352	1271.9	20352.6	1272.1	20355.1	1272.1
20408	1272	20477.1	1272.6	20561.4	1273.6	20577.9	1273.5	20612.7	1273.7
20616.9	1274	20617.2	1274	20626.9	1274.6	20647.4	1275.7	20660	1275.8
20678.7	1275.7	20690.7	1275.8	20715.2	1275.7	20739.6	1276	20765.2	1281.2
20786.3	1285.5	20833.6	1300.3	20846.8	1304.2				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19293.5	.043	19383.3	.043	19409.2	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19409.2	20846.8	505	501.41	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
19293.5	19409.2	1300

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1290.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.96	Wt. n-Val.		0.028	
E.G. Elev (ft)	1291.47	Reach Len. (ft)	505.00	501.41	500.00
Crit W.S. (ft)	1282.15	Flow Area (sq ft)		22222.99	
E.G. Slope (ft/ft)	0.000551	Area (sq ft)	44.97	22222.99	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1407.06	Top Width (ft)	13.97	1393.10	
Vel Total (ft/s)	7.87	Avg. Vel. (ft/s)		7.87	

Max Chl Dpth (ft)	18.60	Hydr. Depth (ft)		15.95	
Conv. Total (cfs)	7457045.0	Conv. (cfs)		7457045.0	
Length Wtd. (ft)	501.41	Wetted Per. (ft)		1397.69	
Min Ch El (ft)	1271.90	Shear (lb/sq ft)		0.55	
Alpha	1.00	Stream Power (lb/ft s)		4.30	
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	1239.77	18066.11	4525.05
C & E Loss (ft)	0.02	Cum SA (acres)	134.89	1737.96	809.17

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1290.51	Element			
Vel Head (ft)	0.96	Wt. n-Val.		0.028	
E.G. Elev (ft)	1291.47	Reach Len. (ft)	505.00	501.41	500.00
Crit W.S. (ft)	1282.15	Flow Area (sq ft)		22224.17	
E.G. Slope (ft/ft)	0.000553	Area (sq ft)		22224.17	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1393.09	Top Width (ft)		1393.09	
Vel Total (ft/s)	7.87	Avg. Vel. (ft/s)		7.87	
Max Chl Dpth (ft)	18.61	Hydr. Depth (ft)		15.95	
Conv. Total (cfs)	7444922.0	Conv. (cfs)		7444922.0	
Length Wtd. (ft)	501.41	Wetted Per. (ft)		1401.29	
Min Ch El (ft)	1271.90	Shear (lb/sq ft)		0.55	
Alpha	1.00	Stream Power (lb/ft s)		4.31	
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	67.08	17973.62	2786.53
C & E Loss (ft)	0.02	Cum SA (acres)	14.30	1700.60	453.65

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19409.20 LB	19696.72	26343.31	3823.48	289.84	15.05	13.30	6.89
19696.72	19984.24	40327.40	4920.95	287.57	23.04	17.12	8.20
19984.24	20271.76	42899.16	5106.59	287.52	24.51	17.76	8.40
20271.76	20559.28	42311.59	5067.58	287.96	24.18	17.63	8.35
20559.28	20846.80 RB	23118.53	3304.39	244.80	13.21	13.60	7.00

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19409.20 LB	19696.72	26159.88	3823.73	293.45	14.95	13.30	6.84
19696.72	19984.24	40377.02	4921.19	287.57	23.07	17.12	8.20
19984.24	20271.76	42951.83	5106.83	287.52	24.54	17.76	8.41
20271.76	20559.28	42363.56	5067.83	287.96	24.21	17.63	8.36
20559.28	20846.80 RB	23147.71	3304.60	244.79	13.23	13.60	7.00

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 235.66

INPUT
Description:

Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19068.1	1304.3	19079.8	1306	19087.3	1305.8	19101.3	1305.6	19132.2	1306.1
19174.4	1305.7	19208	1305.7	19228	1305.7	19235.9	1305.7	19267.1	1305.6
19284.8	1304.2	19308.7	1302.8	19322.4	1301.2	19332.1	1300	19355.7	1299
19357.9	1299.4	19368.8	1297.2	19385.9	1295.2	19399	1293.4	19414.5	1291.8
19417.1	1290.2	19444.7	1283.7	19445.7	1283	19462.7	1277.7	19469.1	1275
19485.8	1275	19516.8	1274.8	19550.2	1276.4	19559.3	1276.7	19561.7	1276.7
19598.9	1277.3	19739.9	1279.1	19803.4	1279.7	19808.2	1279.7	19818.9	1279.2
19879.9	1275.7	19915.4	1273.8	19919.3	1273.5	19932.1	1273.1	19993.5	1271
19999.7	1271.5	20019.8	1272.3	20025.7	1272.7	20039.2	1273.7	20056.9	1275.1
20060.7	1275.2	20084.3	1275.8	20127	1271.6	20128.9	1271.4	20129	1271.4
20129.1	1271.4	20129.2	1271.6	20202.1	1271.3	20329.5	1270.9	20425.5	1271
20459.2	1271	20576.8	1270.8	20602.3	1271	20619.1	1271.3	20657.5	1271
20668.9	1270.8	20675.2	1270.6	20676.2	1271.1	20733.5	1290.4	20771.7	1301.2

Manning's n Values num= 2

Sta	n Val	Sta	n Val

19068.1 .028 19385.9 .028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19385.9	20771.7	500	502.34	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19068.1	19385.9	1295.2	20771.7	20771.7	1301.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1290.02	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.13	Wt. n-Val.		0.028	
E.G. Elev (ft)	1291.15	Reach Len. (ft)	500.00	502.34	500.00
Crit W.S. (ft)	1282.33	Flow Area (sq ft)		20498.82	
E.G. Slope (ft/ft)	0.000668	Area (sq ft)		20498.82	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1314.47	Top Width (ft)		1314.47	
Vel Total (ft/s)	8.54	Avg. Vel. (ft/s)		8.54	
Max Chl Dpth (ft)	19.42	Hydr. Depth (ft)		15.59	
Conv. Total (cfs)	6768589.0	Conv. (cfs)		6768589.0	
Length Wtd. (ft)	502.34	Wetted Per. (ft)		1320.78	
Min Ch El (ft)	1270.60	Shear (lb/sq ft)		0.65	
Alpha	1.00	Stream Power (lb/ft s)		5.53	
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	1239.51	17820.22	4525.05
C & E Loss (ft)	0.03	Cum SA (acres)	134.81	1722.37	809.17

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1290.02	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.13	Wt. n-Val.		0.028	
E.G. Elev (ft)	1291.15	Reach Len. (ft)	500.00	502.34	500.00
Crit W.S. (ft)	1282.33	Flow Area (sq ft)		20499.13	
E.G. Slope (ft/ft)	0.000668	Area (sq ft)		20499.13	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1314.47	Top Width (ft)		1314.47	
Vel Total (ft/s)	8.54	Avg. Vel. (ft/s)		8.54	
Max Chl Dpth (ft)	19.42	Hydr. Depth (ft)		15.59	
Conv. Total (cfs)	6768756.5	Conv. (cfs)		6768756.5	
Length Wtd. (ft)	502.34	Wetted Per. (ft)		1320.78	
Min Ch El (ft)	1270.60	Shear (lb/sq ft)		0.65	
Alpha	1.00	Stream Power (lb/ft s)		5.53	
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	67.08	17727.73	2786.53
C & E Loss (ft)	0.03	Cum SA (acres)	14.30	1685.02	453.65

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19385.90 LB	19663.06	21000.04	2972.08	247.54	12.00	12.12	7.07
19663.06	19940.22	24810.26	3437.68	277.35	14.18	12.40	7.22
19940.22	20217.38	43663.19	4827.92	277.68	24.95	17.42	9.04
20217.38	20494.54	50552.48	5267.57	277.16	28.89	19.01	9.60
20494.54	20771.70 RB	34974.04	3993.56	241.05	19.99	16.79	8.76

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19385.90 LB	19663.06	21000.13	2972.14	247.54	12.00	12.12	7.07
19663.06	19940.22	24810.45	3437.75	277.35	14.18	12.40	7.22
19940.22	20217.38	43663.13	4827.99	277.68	24.95	17.42	9.04
20217.38	20494.54	50552.31	5267.64	277.16	28.89	19.01	9.60
20494.54	20771.70 RB	34974.00	3993.61	241.05	19.99	16.79	8.76

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 235.56

INPUT
Description:

Station Elevation Data num= 78

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19113.2	1294.7	19117.4	1293.6	19125.2	1291.6	19147.6	1301.1	19154.7	1304
19182.7	1296.6	19195.3	1292.3	19199.1	1292.3	19208.9	1293	19209.5	1293.1
19216.2	1292.4	19225.2	1294.1	19240	1298	19265.5	1285.8	19273	1282.3
19283.3	1281.4	19296.5	1280.2	19300	1280.1	19312.3	1280.2	19359.5	1300
19359.8	1300.1	19360.1	1300.1	19361.3	1300.2	19397.3	1301.3	19404.2	1299.8
19444	1287.3	19473.7	1283.8	19503.5	1279.7	19518.3	1279.9	19518.4	1279.9
19518.5	1279.9	19538.3	1274.4	19583.1	1274.1	19615.2	1274	19637.8	1274.5
19662.6	1275.1	19673.7	1275.8	19692.8	1276.4	19869	1279.4	19939.6	1280.6
19950.2	1280.4	19992.1	1279.9	20018.4	1279	20034.3	1277.2	20039.6	1276.3
20065.3	1276	20074.5	1275.5	20129.5	1276.9	20138.9	1277.5	20147	1277.3
20162	1274.6	20168.3	1273.4	20195.6	1270.9	20197.2	1270.7	20201.8	1270.6
20213.7	1270.5	20251.2	1270.8	20277.2	1271	20277.8	1271	20278.7	1271
20286.2	1271.4	20287.2	1271.6	20294.2	1272.1	20303.3	1272.5	20306.3	1272.7
20315.6	1272	20330.6	1271	20331.9	1271.4	20332.2	1271.5	20520.1	1271.3
20583.6	1271.2	20678.5	1271.2	20682.8	1271.3	20682.9	1271.3	20685.8	1272.2
20784.5	1302.2	20823.7	1302.3	20892.4	1302.5				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19113.2	.043	19397.3	.028	20784.5	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19397.3	20784.5	500	499.54	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19113.2	19397.3	1301.3	20784.5	20892.4	1302.2

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1289.24	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.46	Wt. n-Val.		0.028	
E.G. Elev (ft)	1290.71	Reach Len. (ft)	500.00	499.54	500.00
Crit W.S. (ft)	1283.38	Flow Area (sq ft)		18042.45	
E.G. Slope (ft/ft)	0.001011	Area (sq ft)	480.17	18042.45	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1379.63	Top Width (ft)	75.56	1304.07	
Vel Total (ft/s)	9.70	Avg. Vel. (ft/s)		9.70	
Max Chl Dpth (ft)	18.74	Hydr. Depth (ft)		13.84	
Conv. Total (cfs)	5503495.5	Conv. (cfs)		5503495.5	
Length Wtd. (ft)	499.54	Wetted Per. (ft)		1309.29	
Min Ch El (ft)	1270.50	Shear (lb/sq ft)		0.87	
Alpha	1.00	Stream Power (lb/ft s)		8.44	
Frctn Loss (ft)	0.63	Cum Volume (acre-ft)	1236.76	17597.99	4525.05
C & E Loss (ft)	0.03	Cum SA (acres)	134.38	1707.28	809.17

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1289.24	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.46	Wt. n-Val.		0.028	
E.G. Elev (ft)	1290.71	Reach Len. (ft)	500.00	499.54	500.00
Crit W.S. (ft)	1283.38	Flow Area (sq ft)		18042.77	
E.G. Slope (ft/ft)	0.001011	Area (sq ft)		18042.77	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1304.07	Top Width (ft)		1304.07	
Vel Total (ft/s)	9.70	Avg. Vel. (ft/s)		9.70	
Max Chl Dpth (ft)	18.74	Hydr. Depth (ft)		13.84	
Conv. Total (cfs)	5503661.5	Conv. (cfs)		5503661.5	
Length Wtd. (ft)	499.54	Wetted Per. (ft)		1309.29	
Min Ch El (ft)	1270.50	Shear (lb/sq ft)		0.87	
Alpha	1.00	Stream Power (lb/ft s)		8.44	
Frctn Loss (ft)	0.63	Cum Volume (acre-ft)	67.08	17505.50	2786.53
C & E Loss (ft)	0.03	Cum SA (acres)	14.30	1669.92	453.65

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19397.30 LB	19674.74	23125.90	2743.83	238.50	13.21	11.58	8.43
19674.74	19952.18	24243.06	2998.81	277.49	13.85	10.81	8.08
19952.18	20229.62	33564.18	3648.82	278.17	19.18	13.15	9.20

20229.62	20507.06	55951.19	4954.26	277.64	31.97	17.86	11.29
20507.06	20784.50 RB	38115.67	3696.73	237.49	21.78	15.74	10.31

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19397.30 LB	19674.74	23126.12	2743.89	238.50	13.21	11.58	8.43
19674.74	19952.18	24243.26	2998.88	277.49	13.85	10.81	8.08
19952.18	20229.62	33564.24	3648.89	278.17	19.18	13.15	9.20
20229.62	20507.06	55950.84	4954.33	277.64	31.97	17.86	11.29
20507.06	20784.50 RB	38115.54	3696.79	237.49	21.78	15.74	10.31

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 235.47

INPUT
Description:

Station Elevation Data num= 66

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19139.5	1302.2	19165.3	1286.5	19173.4	1282	19215.2	1280.8	19242.7	1280.7
19269.7	1295.7	19274	1297.7	19278.3	1297.9	19285.4	1298.2	19297.5	1298.5
19309.9	1296.6	19325.2	1294.3	19335.1	1289.5	19337	1288.7	19338.2	1288.4
19341.7	1287.4	19413.8	1284.2	19419.1	1283.7	19425.4	1283.9	19469.7	1286
19482.9	1286.7	19492.5	1286.8	19514.1	1287.5	19541	1285	19593	1278.4
19597	1278	19599.3	1277.7	19607.4	1277.3	19657.7	1276.9	19659.6	1276.7
19667.6	1276.6	19722.1	1275.4	19809.4	1275.5	19816.3	1275	19831.9	1274.4
19864.8	1275.1	19934.5	1276.7	19972.3	1277.3	20159.4	1279.4	20174.9	1279.5
20179.5	1279.7	20214.9	1277.9	20294.2	1273.9	20302.4	1273.8	20328.5	1273.3
20355.2	1273.5	20376.2	1273.6	20379.6	1273.5	20400.7	1273.1	20408.2	1272.5
20422.7	1272	20422.9	1272	20425.5	1271.6	20545.1	1271.7	20730.6	1272.3
20731.1	1271.7	20732.6	1271.5	20757.8	1278.9	20812.7	1295.7	20813.6	1295.8
20814.6	1295.8	20955.8	1297.3	21018.5	1298.2	21049.6	1298.7	21101.4	1299.9
21135.7	1300.3								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19139.5	.043	19309.9	.028	20813.6	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19309.9	20813.6	500	492.29	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19139.5	19309.9	1296.6	20813.6	21135.7	1295.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1288.24	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.79	Wt. n-Val.		0.028	
E.G. Elev (ft)	1290.04	Reach Len. (ft)	500.00	492.29	500.00
Crit W.S. (ft)	1284.00	Flow Area (sq ft)		16280.00	
E.G. Slope (ft/ft)	0.001637	Area (sq ft)	578.23	16280.00	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1543.43	Top Width (ft)	93.84	1449.59	
Vel Total (ft/s)	10.75	Avg. Vel. (ft/s)		10.75	
Max Chl Dpth (ft)	16.74	Hydr. Depth (ft)		11.23	
Conv. Total (cfs)	4324888.5	Conv. (cfs)		4324888.5	
Length Wtd. (ft)	492.29	Wetted Per. (ft)		1453.55	
Min Ch El (ft)	1271.50	Shear (lb/sq ft)		1.14	
Alpha	1.00	Stream Power (lb/ft s)		12.31	
Frctn Loss (ft)	0.74	Cum Volume (acre-ft)	1230.68	17401.19	4525.05
C & E Loss (ft)	0.09	Cum SA (acres)	133.41	1691.49	809.17

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1288.24	Element	Left OB	Channel	Right OB

Vel Head (ft)	1.79	Wt. n-Val.		0.028	
E.G. Elev (ft)	1290.04	Reach Len. (ft)	500.00	492.29	500.00
Crit W.S. (ft)	1284.00	Flow Area (sq ft)		16280.53	
E.G. Slope (ft/ft)	0.001637	Area (sq ft)		16280.53	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1449.58	Top Width (ft)		1449.58	
Vel Total (ft/s)	10.75	Avg. Vel. (ft/s)		10.75	
Max Chl Dpth (ft)	16.74	Hydr. Depth (ft)		11.23	
Conv. Total (cfs)	4325132.5	Conv. (cfs)		4325132.5	
Length Wtd. (ft)	492.29	Wetted Per. (ft)		1453.54	
Min Ch El (ft)	1271.50	Shear (lb/sq ft)		1.14	
Alpha	1.00	Stream Power (lb/ft s)		12.30	
Frctn Loss (ft)	0.74	Cum Volume (acre-ft)	67.08	17308.69	2786.53
C & E Loss (ft)	0.09	Cum SA (acres)	14.30	1654.13	453.65

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19309.90 LB	19610.64	4895.31	1017.66	272.77	2.80	3.74	4.81
19610.64	19911.38	40425.39	3756.00	300.82	23.10	12.49	10.76
19911.38	20212.12	28277.18	3031.03	300.81	16.16	10.08	9.33
20212.12	20512.86	53087.84	4423.75	300.92	30.34	14.71	12.00
20512.86	20813.60 RB	48314.28	4051.55	278.23	27.61	14.71	11.92

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19309.90 LB	19610.64	4895.89	1017.76	272.77	2.80	3.74	4.81
19610.64	19911.38	40425.29	3756.11	300.82	23.10	12.49	10.76
19911.38	20212.12	28277.45	3031.14	300.81	16.16	10.08	9.33
20212.12	20512.86	53087.33	4423.86	300.92	30.34	14.71	12.00
20512.86	20813.60 RB	48314.06	4051.65	278.23	27.61	14.71	11.92

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 235.38

INPUT
Description:

Station Elevation Data num= 84

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18906.5	1300.1	18923.6	1300.1	18932.2	1301.1	18937.2	1302.2	18955.3	1305
18958.3	1305.5	18958.9	1305.6	18959	1305.5	18959.8	1305.3	18974.7	1300.1
18985	1296.1	18986.8	1295.1	18989.4	1294.3	19001.7	1290	19025.7	1300.4
19027.3	1301	19045.3	1308.4	19054.2	1312.1	19083.7	1293.8	19096	1286
19105	1280.6	19150.9	1279.3	19151.9	1279.2	19152.7	1279.8	19156.4	1282.6
19189.8	1307.1	19202.7	1306.9	19210.2	1306.7	19214.4	1305.3	19252.7	1294.4
19256.7	1293.9	19271.3	1290.7	19286.9	1287.4	19319.3	1284.1	19324.8	1283.6
19325.6	1283.4	19346.2	1279.2	19442	1279.2	19460.3	1279.2	19462.5	1279.2
19476.4	1279.4	19512.6	1279.9	19553.8	1281	19558.6	1281.1	19567.6	1280.9
19659	1278.6	19677.8	1279	19741.7	1280.3	19869.3	1281	19942	1281.1
19979.1	1281.2	19985.1	1279.4	20003.7	1274.6	20076.7	1274.3	20147.8	1274.1
20188.4	1274.8	20200	1274.9	20229.1	1275	20261	1274.6	20278.2	1274.4
20301.7	1274	20322.5	1272.8	20328.3	1272.8	20331.3	1272.7	20333.1	1273.5
20334.8	1273.5	20340	1272.8	20351.5	1271.3	20371.2	1271.1	20377.7	1271
20398.3	1271.9	20411.6	1272.4	20414	1272.6	20433	1273.8	20435.6	1273.5
20449.4	1271.8	20449.6	1272.4	20450.4	1271.7	20525.3	1271.4	20821.6	1272.7
20825	1272.2	20825.7	1272.1	20839.9	1277.8	20890	1295.4		

Manning's n Values num= 2

Sta	n Val	Sta	n Val
18906.5	.043	19189.8	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19189.8	20890	525	507.14	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev

18906.5 19189.8 1307.1 20890 20890 1295.4

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1287.70	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.51	Wt. n-Val.		0.028	
E.G. Elev (ft)	1289.21	Reach Len. (ft)	525.00	507.14	505.00
Crit W.S. (ft)	1283.56	Flow Area (sq ft)		17742.37	
E.G. Slope (ft/ft)	0.001383	Area (sq ft)	454.60	17742.37	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1652.66	Top Width (ft)	70.04	1582.62	
Vel Total (ft/s)	9.86	Avg. Vel. (ft/s)		9.86	
Max Chl Dpth (ft)	16.70	Hydr. Depth (ft)		11.21	
Conv. Total (cfs)	4705025.0	Conv. (cfs)		4705025.0	
Length Wtd. (ft)	507.14	Wetted Per. (ft)		1588.33	
Min Ch El (ft)	1271.00	Shear (lb/sq ft)		0.96	
Alpha	1.00	Stream Power (lb/ft s)		9.52	
Frctn Loss (ft)	1.29	Cum Volume (acre-ft)	1224.76	17208.94	4525.05
C & E Loss (ft)	0.19	Cum SA (acres)	132.47	1674.35	809.17

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1287.70	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.51	Wt. n-Val.		0.028	
E.G. Elev (ft)	1289.21	Reach Len. (ft)	525.00	507.14	505.00
Crit W.S. (ft)	1283.57	Flow Area (sq ft)		17742.95	
E.G. Slope (ft/ft)	0.001383	Area (sq ft)		17742.95	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1582.62	Top Width (ft)		1582.62	
Vel Total (ft/s)	9.86	Avg. Vel. (ft/s)		9.86	
Max Chl Dpth (ft)	16.70	Hydr. Depth (ft)		11.21	
Conv. Total (cfs)	4705284.0	Conv. (cfs)		4705284.0	
Length Wtd. (ft)	507.14	Wetted Per. (ft)		1588.33	
Min Ch El (ft)	1271.00	Shear (lb/sq ft)		0.96	
Alpha	1.00	Stream Power (lb/ft s)		9.51	
Frctn Loss (ft)	1.29	Cum Volume (acre-ft)	67.08	17116.44	2786.53
C & E Loss (ft)	0.19	Cum SA (acres)	14.30	1637.00	453.65

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19189.80 LB	19529.84	12210.67	1747.73	245.05	6.98	7.15	6.99
19529.84	19869.88	18700.52	2573.25	340.10	10.69	7.57	7.27
19869.88	20209.92	34321.98	3707.93	340.92	19.61	10.90	9.26
20209.92	20549.96	58204.75	5092.76	341.29	33.26	14.98	11.43
20549.96	20890.00 RB	51562.07	4620.70	320.97	29.46	14.52	11.16

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19189.80 LB	19529.84	12211.13	1747.82	245.05	6.98	7.15	6.99
19529.84	19869.88	18701.06	2573.37	340.10	10.69	7.57	7.27
19869.88	20209.92	34322.14	3708.05	340.92	19.61	10.90	9.26
20209.92	20549.96	58204.11	5092.88	341.29	33.26	14.98	11.43
20549.96	20890.00 RB	51561.55	4620.82	320.97	29.46	14.52	11.16

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 235.28

INPUT
Description:

Station Elevation Data num= 81

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18830.9	1296.8	18836.5	1296.5	18851.6	1296	18857.7	1295.1	18859.1	1295.3
18861.7	1293.6	18868.3	1291.3	18868.5	1290.4	18879.7	1292.3	18883.3	1292.7
18896.7	1295	18910.5	1294.5	18926.4	1294.6	18949	1303.8	18960.3	1307.9
18960.5	1308.9	18971.5	1303.1	19005.5	1280.1	19033.9	1280.2	19056.8	1280.3
19091.1	1299.9	19097.8	1303.9	19104.7	1303.6	19111.9	1303.3	19116.1	1302.2
19142	1294.4	19180.5	1292.3	19195.8	1291.4	19198.9	1290.5	19202.3	1290.2
19223	1288.5	19229.6	1287.7	19239.2	1286.2	19256.1	1283.4	19283	1282.9
19291.8	1283	19301.9	1282.8	19326.6	1280.9	19338.2	1280.2	19390.3	1280.7
19429.2	1280.7	19506.5	1280.6	19742	1282	19758.1	1282	19781.9	1281.9
19824	1281.4	19893.2	1279.5	19904.1	1279.3	19960.1	1280.5	19973.4	1280.6
20002.7	1280.8	20046.5	1281.5	20090.8	1281.4	20109.1	1281.3	20150.4	1281.1
20153.2	1280.5	20176.4	1275.7	20192.7	1274.9	20193.9	1274.9	20194.8	1274.9
20214.8	1273.8	20226.4	1274.3	20258.2	1275.8	20315.4	1275.7	20326.5	1275.7
20355.5	1275.3	20434.9	1274.6	20445	1273.9	20455	1272.1	20457.7	1272.2
20461.3	1272.4	20461.6	1272.4	20537	1272.6	20656.5	1272.5	20726	1272.7
20827	1273.1	20975.1	1272.9	20975.6	1272.7	20976.2	1272.9	20996.5	1282.6
21024.4	1295.5								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18830.9	.043	19142	.043	19256.1	.028	20996.5	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19142	21024.4	515	500.22	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18830.9	19142	1294.4	21024.4	21024.4	1295.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1284.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.38	Wt. n-Val.		0.028	
E.G. Elev (ft)	1287.74	Reach Len. (ft)	515.00	500.22	510.00
Crit W.S. (ft)	1284.36	Flow Area (sq ft)		11861.76	
E.G. Slope (ft/ft)	0.006067	Area (sq ft)	241.62	11861.76	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1814.72	Top Width (ft)	64.71	1750.02	
Vel Total (ft/s)	14.75	Avg. Vel. (ft/s)		14.75	
Max Chl Dpth (ft)	12.26	Hydr. Depth (ft)		6.78	
Conv. Total (cfs)	2246791.3	Conv. (cfs)		2246791.3	
Length Wtd. (ft)	500.22	Wetted Per. (ft)		1753.76	
Min Ch El (ft)	1272.10	Shear (lb/sq ft)		2.56	
Alpha	1.00	Stream Power (lb/ft s)		37.79	
Frctn Loss (ft)	1.55	Cum Volume (acre-ft)	1220.56	17036.61	4525.05
C & E Loss (ft)	0.55	Cum SA (acres)	131.66	1654.95	809.17

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Manning's n values were composited to a single value in the main channel.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1284.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.38	Wt. n-Val.		0.028	
E.G. Elev (ft)	1287.74	Reach Len. (ft)	515.00	500.22	510.00
Crit W.S. (ft)	1284.36	Flow Area (sq ft)		11859.20	
E.G. Slope (ft/ft)	0.006071	Area (sq ft)		11859.20	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1750.00	Top Width (ft)		1750.00	
Vel Total (ft/s)	14.76	Avg. Vel. (ft/s)		14.76	
Max Chl Dpth (ft)	12.26	Hydr. Depth (ft)		6.78	
Conv. Total (cfs)	2246002.3	Conv. (cfs)		2246002.3	
Length Wtd. (ft)	500.22	Wetted Per. (ft)		1753.75	
Min Ch El (ft)	1272.10	Shear (lb/sq ft)		2.56	
Alpha	1.00	Stream Power (lb/ft s)		37.82	
Frctn Loss (ft)	1.54	Cum Volume (acre-ft)	67.08	16944.12	2786.53
C & E Loss (ft)	0.55	Cum SA (acres)	14.30	1617.60	453.65

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Manning's n values were composited to a single value in the main channel.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19142.00 LB	19518.48	6589.81	846.59	268.37	3.77	3.16	7.78
19518.48	19894.96	8866.81	1165.21	376.51	5.07	3.10	7.61
19894.96	20271.44	21087.91	1960.92	377.15	12.05	5.21	10.75
20271.44	20647.92	68650.72	3979.31	376.68	39.23	10.57	17.25
20647.92	21024.40 RB	69804.74	3909.73	355.05	39.89	11.09	17.85

Warning - The energy equation could not be balanced within the specified number of iterations. The

program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Manning's n values were composited to a single value in the main channel.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19142.00 LB	19518.48	6586.79	846.20	268.36	3.76	3.16	7.78
19518.48	19894.96	8862.50	1164.66	376.51	5.06	3.09	7.61
19894.96	20271.44	21084.41	1960.36	377.15	12.05	5.21	10.76
20271.44	20647.92	68655.65	3978.76	376.68	39.23	10.57	17.26
20647.92	21024.40 RB	69810.66	3909.21	355.04	39.89	11.09	17.86

Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Manning's n values were composited to a single value in the main channel.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 235.19

INPUT
Description:

Station Elevation Data num= 85

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18793.3	1290.6	18802.3	1291	18829	1294.2	18839.7	1295.4	18854.2	1298.9
18873.7	1303.8	18883.6	1298	18916.3	1280.5	18941.2	1280.1	18973.1	1280
18993.9	1292.8	19004.2	1299.3	19021.5	1299.1	19022.8	1299.1	19023.4	1299
19041.4	1294.4	19043.4	1295.1	19068.5	1294.4	19084.2	1289.9	19119.5	1288.4
19127.7	1288.2	19137.8	1290.4	19144.3	1288.1	19179.2	1283.5	19219.5	1283.1
19248.2	1282.9	19256.5	1279.2	19264.9	1277.3	19345.8	1279.4	19490.6	1282.1
19498.9	1280.8	19523.1	1277.3	19550.6	1277.3	19664.4	1280.7	19678.2	1280.9
19707.2	1271.4	19721	1269.1	19730	1269.2	19731.6	1269.3	19733	1269.3
19796.8	1269.4	19806.6	1269.5	19818.2	1269.6	19888.8	1269.9	19924.6	1269.9
19965.8	1270.1	19981.9	1270.1	19986.4	1270.1	19998.8	1270	20002.3	1269.2
20027.7	1269.4	20045	1269.6	20078.5	1269.5	20115.1	1269.1	20117.3	1269.1
20118.4	1269.1	20118.6	1269.1	20119.7	1269	20120.4	1269.1	20128.3	1270
20139.7	1273.5	20154.6	1277.2	20191.6	1276.5	20200.7	1276.6	20212.7	1276.3
20237.6	1276	20244	1276.1	20320.5	1276.7	20328.7	1276.1	20363.6	1274.2

20371.4	1273.4	20389.7	1272.1	20396.7	1271.3	20399.7	1272.2	20400.1	1272.6
20403.6	1272.5	20960.9	1272.3	21093.9	1272.6	21095.9	1272.5	21099.7	1272.7
21105	1274.5	21125.9	1279.8	21149.7	1289.5	21155	1290.9	21182	1291.6

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18793.3	.043	19068.5	.043	19119.5	.043	19144.3	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19068.5	21182	670	556.54	250	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18793.3	19068.5	1294.4	21182	21182	1291.6

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1283.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.54	Wt. n-Val.		0.028	
E.G. Elev (ft)	1284.86	Reach Len. (ft)	670.00	556.54	250.00
Crit W.S. (ft)	1280.17	Flow Area (sq ft)		17568.78	
E.G. Slope (ft/ft)	0.001871	Area (sq ft)	195.69	17568.78	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	2004.35	Top Width (ft)	67.45	1936.89	
Vel Total (ft/s)	9.96	Avg. Vel. (ft/s)		9.96	
Max Chl Dpth (ft)	14.32	Hydr. Depth (ft)		9.07	
Conv. Total (cfs)	4046085.3	Conv. (cfs)		4046085.3	
Length Wtd. (ft)	556.54	Wetted Per. (ft)		1943.38	
Min Ch El (ft)	1269.00	Shear (lb/sq ft)		1.06	
Alpha	1.00	Stream Power (lb/ft s)		10.52	
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	1217.98	16867.63	4525.05
C & E Loss (ft)	0.01	Cum SA (acres)	130.87	1633.78	809.17

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1283.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.54	Wt. n-Val.		0.028	
E.G. Elev (ft)	1284.87	Reach Len. (ft)	670.00	556.54	250.00
Crit W.S. (ft)	1280.17	Flow Area (sq ft)		17599.52	
E.G. Slope (ft/ft)	0.001860	Area (sq ft)		17599.52	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1936.90	Top Width (ft)		1936.90	
Vel Total (ft/s)	9.94	Avg. Vel. (ft/s)		9.94	
Max Chl Dpth (ft)	14.33	Hydr. Depth (ft)		9.09	
Conv. Total (cfs)	4057841.0	Conv. (cfs)		4057841.0	
Length Wtd. (ft)	556.54	Wetted Per. (ft)		1943.41	
Min Ch El (ft)	1269.00	Shear (lb/sq ft)		1.05	
Alpha	1.00	Stream Power (lb/ft s)		10.46	
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	67.08	16774.97	2786.53
C & E Loss (ft)	0.01	Cum SA (acres)	14.30	1596.43	453.65

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19068.50 LB	19491.20	3735.94	847.14	294.63	2.13	2.89	4.41
19491.20	19913.90	36477.20	3848.58	424.81	20.84	9.10	9.48
19913.90	20336.60	46251.61	4433.88	423.88	26.43	10.49	10.43
20336.60	20759.30	47852.73	4522.31	423.17	27.34	10.70	10.58
20759.30	21182.00 RB	40682.52	3916.85	376.88	23.25	10.44	10.39

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19068.50 LB	19491.20	3759.82	851.80	294.65	2.15	2.90	4.41
19491.20	19913.90	36483.74	3855.29	424.81	20.85	9.12	9.46
19913.90	20336.60	46242.20	4440.59	423.88	26.42	10.51	10.41
20336.60	20759.30	47840.63	4529.02	423.17	27.34	10.71	10.56
20759.30	21182.00 RB	40673.59	3922.81	376.90	23.24	10.45	10.37

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 235.08

INPUT
Description:

Station Elevation Data num= 86

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18657.4	1301.8	18667.2	1303.7	18681.5	1294.7	18703.9	1279.1	18713.6	1279
18763.6	1278.9	18773.2	1284.2	18788.1	1291.7	18808.5	1302.9	18828.3	1303.2
18829.6	1303.2	18832.2	1302.6	18859.6	1294.4	18880.9	1292.7	18909.9	1290.2
18937.7	1288.2	18945.5	1287.4	18975	1289.6	18976.7	1289.7	18978	1289.9
18979.7	1289.3	19008.8	1287.5	19023.7	1285.6	19052	1284.4	19071.2	1279.8
19094.8	1277.6	19107.7	1276.8	19116.7	1275	19150.2	1266.9	19152	1267.7
19154.6	1268.1	19183.4	1268.2	19212.5	1268.2	19217.4	1267.5	19242.3	1267.8
19259	1268.7	19272.1	1269.5	19309.3	1267.9	19312.5	1267.7	19338.6	1266.8
19340.9	1266.7	19357.6	1266.7	19609.9	1267.2	19653	1267.9	19655.9	1268
19678.7	1268.3	19693.5	1268.4	19707	1268.4	19709.1	1268.3	19712.2	1267.9
19721.2	1271	19750.2	1281.1	19762.1	1283.9	19772.4	1282.4	19785.5	1283.5
19797.6	1285.1	19827.6	1285.6	19885.6	1285.7	19958.8	1287	20001	1287.9
20019.4	1287.6	20079	1286.6	20129.2	1286.6	20168.4	1287	20209.1	1288.6
20247.6	1287.6	20285.8	1286.7	20309.7	1288.7	20316.1	1288.3	20321	1284.5
20339.2	1270.8	20346.4	1269.9	20348.1	1269.6	20348.3	1269.8	20352.2	1270.8
20382	1271.6	20693.7	1271.9	21042.4	1271.5	21066.9	1271.5	21099.7	1271.5
21100.3	1271.7	21101.1	1271.6	21119.3	1280.1	21143.9	1291.8	21164.2	1295.5
21191.5	1298.8								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18657.4	.043	18829.6	.043	19052	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18829.6	21191.5	500	495.93	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18657.4	18829.6	1303.2	21191.5	21191.5	1298.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1282.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.50	Wt. n-Val.		0.028	
E.G. Elev (ft)	1283.99	Reach Len. (ft)	500.00	495.93	495.00
Crit W.S. (ft)	1277.90	Flow Area (sq ft)		17817.50	
E.G. Slope (ft/ft)	0.001275	Area (sq ft)	230.69	17817.50	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1569.74	Top Width (ft)	71.09	1498.65	
Vel Total (ft/s)	9.82	Avg. Vel. (ft/s)		9.82	
Max Chl Dpth (ft)	15.80	Hydr. Depth (ft)		11.89	
Conv. Total (cfs)	4901373.5	Conv. (cfs)		4901373.5	
Length Wtd. (ft)	495.93	Wetted Per. (ft)		1509.72	
Min Ch El (ft)	1266.70	Shear (lb/sq ft)		0.94	
Alpha	1.00	Stream Power (lb/ft s)		9.23	
Frctn Loss (ft)	0.61	Cum Volume (acre-ft)	1214.70	16641.57	4525.05
C & E Loss (ft)	0.10	Cum SA (acres)	129.81	1611.84	809.17

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1282.52	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.49	Wt. n-Val.		0.028	
E.G. Elev (ft)	1284.01	Reach Len. (ft)	500.00	495.93	495.00
Crit W.S. (ft)	1277.90	Flow Area (sq ft)		17847.68	
E.G. Slope (ft/ft)	0.001268	Area (sq ft)		17847.68	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1499.14	Top Width (ft)		1499.14	
Vel Total (ft/s)	9.81	Avg. Vel. (ft/s)		9.81	
Max Chl Dpth (ft)	15.82	Hydr. Depth (ft)		11.91	
Conv. Total (cfs)	4914043.5	Conv. (cfs)		4914043.5	
Length Wtd. (ft)	495.93	Wetted Per. (ft)		1510.26	
Min Ch El (ft)	1266.70	Shear (lb/sq ft)		0.94	

Alpha	1.00	Stream Power (lb/ft s)		9.17	
Frctn Loss (ft)	0.60	Cum Volume (acre-ft)	67.08	16548.53	2786.53
C & E Loss (ft)	0.10	Cum SA (acres)	14.30	1574.48	453.65

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18829.60 LB	19301.98	26311.15	2775.98	243.95	15.03	11.47	9.48
19301.98	19774.36	72600.95	6568.73	458.41	41.49	14.41	11.05
19774.36	20246.74						
20246.74	20719.12	37838.13	4205.82	399.67	21.62	10.64	9.00
20719.12	21191.50 RB	38249.77	4266.97	407.69	21.86	10.53	8.96

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18829.60 LB	19301.98	26321.56	2780.85	243.97	15.04	11.49	9.47
19301.98	19774.36	72540.97	6577.92	458.88	41.45	14.41	11.03
19774.36	20246.74						
20246.74	20719.12	37861.80	4213.78	399.70	21.64	10.65	8.99
20719.12	21191.50 RB	38275.67	4275.14	407.71	21.87	10.55	8.95

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 234.99

INPUT
Description:
Station Elevation Data num= 93

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18532.1	1298.9	18542.4	1292.3	18562	1279.2	18574.3	1279.3	18614.6	1279.7
18636.6	1292.1	18639.7	1293.7	18650.7	1299.8	18667.7	1300.5	18672.8	1300.7
18706.5	1294.3	18707.3	1294.1	18750.3	1288.3	18752.3	1288	18755	1287.9
18800.1	1285.5	18829.3	1286	18900.3	1286.5	18939.6	1286.5	18972.2	1286.9
18978.6	1286.9	18980.6	1287.9	18982.3	1288.8	19004.9	1299.3	19023.5	1308.5
19031.7	1290.7	19032.3	1289.8	19033.2	1288.7	19033.6	1289.5	19034.1	1290.8
19044.5	1308.5	19062.6	1309.1	19063.5	1309.1	19063.8	1309.2	19074.8	1312.1
19077.1	1311.7	19077.6	1311.4	19078.2	1311.4	19092.1	1303.6	19121.5	1286.8
19127.4	1281.5	19128.9	1281	19131.2	1280.8	19192.7	1278.7	19195.1	1278.5
19199.1	1278.9	19250.6	1277.6	19290.2	1272.3	19298.9	1272	19301.9	1271.7
19305.3	1271.7	19321.6	1272.1	19328	1273.8	19335	1272	19347.6	1266.9
19391.9	1266.7	19404.1	1266.8	19413.7	1270.8	19431.2	1277.3	19452.6	1279.5
19457.8	1280	19477.3	1272.5	19488.9	1267.7	19491.3	1267.7	19492.2	1267.7
19504.4	1267.7	19614.3	1268.2	19646.5	1268.4	19907.1	1268.4	19926.2	1268.4
19942.7	1268.6	19971.5	1268.7	20090.4	1269.2	20102.3	1269.2	20110.7	1269.3
20137.6	1274	20187.5	1279.1	20188.3	1279	20222.8	1283.2	20224.3	1283.3
20225.4	1283.2	20253.8	1282.4	20271.4	1280.7	20322.1	1277.2	20329.5	1276.8
20339.4	1275.3	20360.8	1270.6	20364.9	1270.7	20384.8	1270.7	20712	1271.3
21072.7	1271.8	21104.4	1282	21163.2	1297.4				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18532.1	.043	18672.8	.043	19023.5	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18672.8	21163.2	500	502.15	505	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
18532.1	18672.8	1310

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1282.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.16	Wt. n-Val.		0.028	
E.G. Elev (ft)	1283.29	Reach Len. (ft)	500.00	502.15	505.00
Crit W.S. (ft)	1277.41	Flow Area (sq ft)		20204.46	

E.G. Slope (ft/ft)	0.001176	Area (sq ft)	152.57	20204.46	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1996.69	Top Width (ft)	61.27	1935.42	
Vel Total (ft/s)	8.66	Avg. Vel. (ft/s)		8.66	
Max Chl Dpth (ft)	15.42	Hydr. Depth (ft)		10.44	
Conv. Total (cfs)	5103974.0	Conv. (cfs)		5103974.0	
Length Wtd. (ft)	502.15	Wetted Per. (ft)		1945.41	
Min Ch El (ft)	1266.70	Shear (lb/sq ft)		0.76	
Alpha	1.00	Stream Power (lb/ft s)		6.60	
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	1212.50	16425.13	4525.05
C & E Loss (ft)	0.09	Cum SA (acres)	129.05	1592.29	809.17

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1282.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.16	Wt. n-Val.		0.028	
E.G. Elev (ft)	1283.31	Reach Len. (ft)	500.00	502.15	505.00
Crit W.S. (ft)	1277.41	Flow Area (sq ft)		20251.25	
E.G. Slope (ft/ft)	0.001167	Area (sq ft)		20251.25	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1935.87	Top Width (ft)		1935.87	
Vel Total (ft/s)	8.64	Avg. Vel. (ft/s)		8.64	
Max Chl Dpth (ft)	15.45	Hydr. Depth (ft)		10.46	
Conv. Total (cfs)	5122806.5	Conv. (cfs)		5122806.5	
Length Wtd. (ft)	502.15	Wetted Per. (ft)		1945.91	
Min Ch El (ft)	1266.70	Shear (lb/sq ft)		0.76	
Alpha	1.00	Stream Power (lb/ft s)		6.55	
Frctn Loss (ft)	0.47	Cum Volume (acre-ft)	67.08	16331.65	2786.53
C & E Loss (ft)	0.09	Cum SA (acres)	14.30	1554.93	453.65

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18672.80 LB	19170.88	226.99	83.67	44.52	0.13	1.89	2.71
19170.88	19668.96	43743.75	5190.27	504.41	25.00	10.42	8.43
19668.96	20167.04	63270.34	6447.06	498.64	36.15	12.94	9.81
20167.04	20665.12	30229.59	3995.31	456.47	17.27	8.77	7.57
20665.12	21163.20 RB	37529.34	4488.15	441.36	21.45	10.21	8.36

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18672.80 LB	19170.88	230.91	84.74	44.55	0.13	1.92	2.73
19170.88	19668.96	43753.81	5202.31	504.41	25.00	10.44	8.41
19668.96	20167.04	63237.29	6459.10	498.64	36.14	12.97	9.79
20167.04	20665.12	30238.54	4006.32	456.92	17.28	8.79	7.55
20665.12	21163.20 RB	37539.45	4498.77	441.39	21.45	10.23	8.34

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 234.89

INPUT
Description:

Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18635.5	1299.8	18651.3	1296.3	18660.9	1294.1	18684.1	1288.2	18688.5	1287.3
18690	1287.4	18698.9	1287.4	18706.2	1287.4	18859.6	1287.4	18880.4	1286.9
18931.5	1286	18942.8	1285.9	18997.9	1285.3	19013.8	1285.4	19028.2	1289.3
19057.1	1289.9	19059.9	1291.4	19067.9	1290.3	19077.7	1290.8	19083	1287.5

19094.6	1285.8	19113	1285.2	19115.6	1285.2	19117.2	1284.9	19121.4	1285.2
19130.1	1284.7	19143	1290.3	19149.2	1293.8	19160.4	1299.1	19164.8	1296.9
19168.1	1296.2	19175.7	1296	19202.8	1295.6	19207.1	1295.6	19208.1	1295.6
19226.7	1300.6	19227.8	1301	19254	1283.7	19266.4	1275.7	19278	1278.1
19284.2	1279.2	19287	1278.1	19290.2	1277.1	19309.3	1272.4	19328.2	1266.8
19374.8	1266.6	19382.2	1266.6	19385.1	1266.6	19492.8	1266.6	19513.1	1266.7
19524.4	1266.7	19546.2	1267	19625.6	1267	19656.4	1267.4	19820.4	1267.8
19903.8	1267.9	20183.8	1268.5	20281.7	1268.7	20309.8	1270.7	20313.6	1271
20315.7	1271	20352.4	1271.5	20361.9	1272.3	20375.4	1273.6	20390.4	1273.2
20401.3	1273.4	20413.7	1272.1	20422	1271.4	20929.8	1270.5	21040.8	1270.3
21048.7	1269.7	21092.7	1266.8	21108.8	1267.4	21109.2	1267.6	21118.8	1270.2
21157.3	1280.9	21163.2	1281.8	21178.8	1284.6	21183.8	1285.7	21193.9	1288.7
21201.5	1288.3	21220.8	1288.7	21272.2	1288.6	21285.6	1288.6	21296.3	1288.6
21300.6	1288.7	21317	1289.6	21327.1	1289.7	21356.7	1289.8	21419.7	1290.1
21426.1	1290.2								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18635.5	.032	19284.2	.03	21193.9	.043

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18635.5	21193.9	500	507.44	495	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1281.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.85	Wt. n-Val.		0.030	
E.G. Elev (ft)	1282.72	Reach Len. (ft)	500.00	507.44	495.00
Crit W.S. (ft)		Flow Area (sq ft)		23632.24	
E.G. Slope (ft/ft)	0.000775	Area (sq ft)		23632.24	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1906.73	Top Width (ft)		1906.73	
Vel Total (ft/s)	7.41	Avg. Vel. (ft/s)		7.41	
Max Chl Dpth (ft)	15.27	Hydr. Depth (ft)		12.39	
Conv. Total (cfs)	6284477.5	Conv. (cfs)		6284477.5	
Length Wtd. (ft)	507.44	Wetted Per. (ft)		1912.98	
Min Ch El (ft)	1266.60	Shear (lb/sq ft)		0.60	
Alpha	1.00	Stream Power (lb/ft s)		4.43	
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	1211.62	16172.46	4525.05
C & E Loss (ft)	0.00	Cum SA (acres)	128.70	1570.14	809.17

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1281.89	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.85	Wt. n-Val.		0.030	
E.G. Elev (ft)	1282.74	Reach Len. (ft)	500.00	507.44	495.00
Crit W.S. (ft)		Flow Area (sq ft)		23682.52	
E.G. Slope (ft/ft)	0.000770	Area (sq ft)		23682.52	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1906.73	Top Width (ft)		1906.73	
Vel Total (ft/s)	7.39	Avg. Vel. (ft/s)		7.39	
Max Chl Dpth (ft)	15.29	Hydr. Depth (ft)		12.42	
Conv. Total (cfs)	6306583.5	Conv. (cfs)		6306583.5	
Length Wtd. (ft)	507.44	Wetted Per. (ft)		1913.04	
Min Ch El (ft)	1266.60	Shear (lb/sq ft)		0.60	
Alpha	1.00	Stream Power (lb/ft s)		4.40	
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	67.08	16078.42	2786.53
C & E Loss (ft)	0.00	Cum SA (acres)	14.30	1532.78	453.65

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19147.18	19658.86	43602.31	5481.17	405.92	24.92	13.63	7.95
19658.86	20170.54	56396.48	7122.54	511.68	32.23	13.92	7.92
20170.54	20682.22	38759.95	5688.66	511.97	22.15	11.12	6.81
20682.22	21193.90 RB	36241.27	5339.87	483.41	20.71	11.09	6.79

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19147.18	19658.86	43586.48	5491.77	405.95	24.91	13.66	7.94

19658.86	20170.54	56378.11	7136.03	511.68	32.22	13.95	7.90
20170.54	20682.22	38778.11	5702.15	511.97	22.16	11.14	6.80
20682.22	21193.90 RB	36257.30	5352.56	483.43	20.72	11.12	6.77

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 234.79

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18726.7	1295.6	18732.2	1290.6	18736.9	1287.9	18760.8	1288.1	18776.9	1287.7
18789.5	1287.7	18823.5	1287.3	18850.8	1287	18865.4	1286.8	18877.3	1286.5
18907.2	1286.4	18908.8	1286.4	18928.3	1286.2	18930.2	1286.3	18930.3	1286.3
18931	1286.2	18947.8	1286.2	18950.1	1286.2	18964.6	1285.6	19022	1285.7
19046.4	1284.3	19051.8	1284.2	19077.8	1283.5	19089.4	1283.6	19099	1284
19131.5	1285	19147.7	1285.5	19175.5	1274.6	19205.8	1265.9	19219.2	1266.2
19242.6	1266.3	19293.1	1266.5	19296	1266.5	19316.9	1266.7	19356	1269.9
19379.6	1271.2	19399.8	1273.8	19415.2	1274.2	19430.5	1273.1	19442.1	1272.1
19447.1	1270.8	19472	1266.8	19474.3	1266.4	19480.9	1266.4	19528.4	1266.8
19568.1	1267.3	19612.5	1267.3	19696.5	1268.8	19741.7	1268.2	19797.7	1267.7
19810.4	1268.8	19833.1	1270.3	19859.3	1271.6	19887.3	1271.7	19897	1271.6
19909.7	1271.6	19931.7	1271.6	19967.2	1271.8	19999.9	1271.9	20027.3	1271.8
20068.4	1273.1	20121.6	1273.2	20137	1273.1	20138.8	1273	20167.9	1273.8
20207.6	1274.5	20221.8	1274.5	20283.3	1274.8	20352.5	1273.7	20383.4	1273.3
20405.7	1273	20432.8	1272.4	20513.5	1271.4	20529.5	1271.3	20562.4	1270.6
20563	1270.6	20570.4	1270	20611.5	1267.4	20648.9	1267.3	20650.8	1267.3
20782.1	1267.2	20809.2	1267.3	20928.7	1267.9	20997.3	1268.6	21106.5	1269.2
21114.5	1269.4	21127.7	1269.7	21135.3	1270.6	21156.4	1271	21166.9	1271.6
21191.1	1280.6	21198.2	1283.4	21199.6	1283.2	21205.4	1282.3	21221.4	1289.3
21222.5	1289.8								

Manning's n Values num= 2

Sta	n Val	Sta	n Val
18726.7	.032	19147.7	.03

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18726.7	21222.5	485	483.86	490	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1281.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.90	Wt. n-Val.		0.030	
E.G. Elev (ft)	1282.28	Reach Len. (ft)	485.00	483.86	490.00
Crit W.S. (ft)		Flow Area (sq ft)		23046.91	
E.G. Slope (ft/ft)	0.000927	Area (sq ft)		23046.91	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	2034.92	Top Width (ft)		2034.92	
Vel Total (ft/s)	7.59	Avg. Vel. (ft/s)		7.59	
Max Chl Dpth (ft)	15.49	Hydr. Depth (ft)		11.33	
Conv. Total (cfs)	5746385.0	Conv. (cfs)		5746385.0	
Length Wtd. (ft)	483.86	Wetted Per. (ft)		2040.57	
Min Ch El (ft)	1265.90	Shear (lb/sq ft)		0.65	
Alpha	1.00	Stream Power (lb/ft s)		4.97	
Frctn Loss (ft)	0.61	Cum Volume (acre-ft)	1211.62	15900.58	4525.05
C & E Loss (ft)	0.04	Cum SA (acres)	128.70	1547.18	809.17

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1281.42	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.89	Wt. n-Val.		0.030	
E.G. Elev (ft)	1282.31	Reach Len. (ft)	485.00	483.86	490.00
Crit W.S. (ft)		Flow Area (sq ft)		23110.50	
E.G. Slope (ft/ft)	0.000919	Area (sq ft)		23110.50	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	2034.92	Top Width (ft)		2034.92	
Vel Total (ft/s)	7.57	Avg. Vel. (ft/s)		7.57	
Max Chl Dpth (ft)	15.52	Hydr. Depth (ft)		11.36	
Conv. Total (cfs)	5772715.0	Conv. (cfs)		5772715.0	
Length Wtd. (ft)	483.86	Wetted Per. (ft)		2040.63	
Min Ch El (ft)	1265.90	Shear (lb/sq ft)		0.65	

Alpha	1.00	Stream Power (lb/ft s)		4.92	
Frctn Loss (ft)	0.60	Cum Volume (acre-ft)	67.08	15805.87	2786.53
C & E Loss (ft)	0.04	Cum SA (acres)	14.30	1509.82	453.65

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18726.70 LB	19225.86	4881.08	702.90	70.19	2.79	10.39	6.94
19225.86	19725.02	54007.98	6522.13	500.12	30.86	13.07	8.28
19725.02	20224.18	33405.50	4885.75	499.34	19.09	9.79	6.84
20224.18	20723.34	34845.51	5010.92	499.30	19.91	10.04	6.95
20723.34	21222.50 RB	47859.93	5925.20	471.62	27.35	12.61	8.08

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18726.70 LB	19225.86	4881.87	705.02	70.22	2.79	10.42	6.92
19225.86	19725.02	53978.81	6537.73	500.12	30.85	13.10	8.26
19725.02	20224.18	33431.95	4901.35	499.34	19.10	9.82	6.82
20224.18	20723.34	34868.46	5026.51	499.30	19.92	10.07	6.94
20723.34	21222.50 RB	47838.92	5939.88	471.65	27.34	12.64	8.05

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 234.70

INPUT
Description:

Station Elevation Data num= 81

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19166.8	1298.1	19178.1	1288.7	19185	1283.9	19205.6	1290.8	19248.8	1286.2
19268.3	1281.1	19283.1	1277.9	19285.7	1277.4	19291.7	1277.5	19301.5	1277.9
19330.4	1279.1	19337.2	1278.4	19341.1	1278.2	19362.8	1276.8	19367.6	1276.5
19414.8	1274.6	19421.2	1273.9	19423.5	1273.5	19445.4	1268.7	19471.1	1267.4
19483	1267.4	19491	1267.5	19493	1267.5	19499.1	1267.5	19558	1267.7
19577.8	1267.8	19735.3	1268.7	19749.6	1268.3	19770.4	1268.2	19805.2	1268.1
19815.4	1268	19838.8	1268.3	19849.1	1268.4	19926.1	1269.6	19932.3	1269.5
19943.5	1270.7	19970.5	1273	19988.7	1273.4	20030.8	1274.6	20042.1	1275.3
20078.3	1275.7	20096.3	1277	20119.2	1277.9	20141.9	1278.2	20175.2	1279.4
20185	1278.2	20189.3	1278.6	20237.8	1273.4	20271.9	1274.3	20277.3	1275
20287.5	1274.2	20300.1	1272.9	20323.6	1275.4	20332.2	1276	20342.6	1275.7
20367.5	1273.5	20399	1273.1	20449.6	1272.5	20473.2	1272.2	20522.9	1273.9
20538.7	1274.1	20550.7	1273.1	20569.4	1271.5	20618.8	1271.4	20643.5	1271.4
20694.7	1270	20697.7	1270	20702.8	1269.6	20737.9	1267.8	20842.2	1267.7
21196.6	1267.1	21212.1	1267.5	21214.2	1267.4	21224.8	1267.6	21226	1267.5
21254.1	1269.9	21279.1	1271.9	21281.6	1272.2	21305	1275	21358.4	1284.7
21366.4	1286.4								

Manning's n Values num= 2

Sta	n Val	Sta	n Val
19166.8	.032	19248.8	.03

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19166.8	21366.4	525	525.99	550	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1280.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.32	Wt. n-Val.		0.030	
E.G. Elev (ft)	1281.64	Reach Len. (ft)	525.00	525.99	550.00
Crit W.S. (ft)		Flow Area (sq ft)		19011.98	
E.G. Slope (ft/ft)	0.001791	Area (sq ft)		19011.98	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	2062.38	Top Width (ft)		2062.38	
Vel Total (ft/s)	9.20	Avg. Vel. (ft/s)		9.20	
Max Chl Dpth (ft)	13.22	Hydr. Depth (ft)		9.22	
Conv. Total (cfs)	4135672.3	Conv. (cfs)		4135672.3	
Length Wtd. (ft)	525.99	Wetted Per. (ft)		2065.67	
Min Ch El (ft)	1267.10	Shear (lb/sq ft)		1.03	

Alpha	1.00	Stream Power (lb/ft s)		9.47	
Frctn Loss (ft)	0.99	Cum Volume (acre-ft)	1211.62	15666.98	4525.05
C & E Loss (ft)	0.00	Cum SA (acres)	128.70	1524.43	809.17

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1280.37	Element			
Vel Head (ft)	1.30	Wt. n-Val.		0.030	
E.G. Elev (ft)	1281.67	Reach Len. (ft)	525.00	525.99	550.00
Crit W.S. (ft)		Flow Area (sq ft)		19112.18	
E.G. Slope (ft/ft)	0.001760	Area (sq ft)		19112.18	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	2062.38	Top Width (ft)		2062.38	
Vel Total (ft/s)	9.16	Avg. Vel. (ft/s)		9.16	
Max Chl Dpth (ft)	13.27	Hydr. Depth (ft)		9.27	
Conv. Total (cfs)	4171932.0	Conv. (cfs)		4171932.0	
Length Wtd. (ft)	525.99	Wetted Per. (ft)		2065.76	
Min Ch El (ft)	1267.10	Shear (lb/sq ft)		1.02	
Alpha	1.00	Stream Power (lb/ft s)		9.31	
Frctn Loss (ft)	0.97	Cum Volume (acre-ft)	67.08	15571.37	2786.53
C & E Loss (ft)	0.00	Cum SA (acres)	14.30	1487.06	453.65

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19166.80 LB	19606.72	22280.18	2728.14	335.91	12.73	8.15	8.17
19606.72	20046.64	45719.82	4678.71	440.15	26.13	10.64	9.77
20046.64	20486.56	13858.75	2287.48	440.81	7.92	5.20	6.06
20486.56	20926.48	44615.80	4610.54	440.13	25.49	10.48	9.68
20926.48	21366.40 RB	48525.45	4707.11	408.67	27.73	11.54	10.31

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19166.80 LB	19606.72	22312.88	2744.41	335.96	12.75	8.20	8.13
19606.72	20046.64	45685.47	4700.08	440.15	26.11	10.68	9.72
20046.64	20486.56	13958.23	2308.86	440.81	7.98	5.25	6.05
20486.56	20926.48	44587.29	4631.91	440.13	25.48	10.53	9.63
20926.48	21366.40 RB	48456.13	4726.92	408.72	27.69	11.59	10.25

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 234.60

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18663.5	1294	18686.2	1285.6	18691.3	1283.3	18706.6	1284.1	18740.6	1293.5
18744.5	1289.5	18758.2	1279.6	18771.8	1279	18780.2	1277.9	18802.3	1279.4
18803.8	1278.6	18815.3	1279.3	18855.4	1292	18893.9	1286.9	18899.4	1286
18913.7	1285.7	18939.6	1282.9	19036.5	1282.8	19037.7	1282.8	19062.7	1292.2
19068.2	1292	19077.7	1296.5	19081.8	1296.5	19117	1295.1	19152.6	1280.8
19155.8	1279.5	19168.8	1279.6	19286.1	1280.7	19300.5	1274.1	19313.9	1266.8
19369.4	1267.9	19444	1269.5	19451.3	1271.2	19483.7	1276	19486.8	1276.7
19499.3	1276.9	19519.9	1278	19534.9	1278.3	19561.5	1278.3	19563.9	1277.6
19575.8	1277.6	19611.9	1276.4	19633.6	1276.4	19645.3	1277	19655.5	1276.7
19692	1274.1	19727.2	1272.7	19770.5	1272	19810.3	1271.2	19818.6	1271.7
19837.1	1270	19843.8	1269	19871.9	1268.6	19875.2	1268.5	19919.1	1267
19926.2	1268.7	19932.4	1270.9	19967	1272.2	19976.4	1272.5	19999.7	1272.2
20040.5	1272	20062.2	1271.9	20094.3	1271.8	20125.8	1272.8	20195	1274.5
20198.5	1274.6	20301.4	1274.8	20305.1	1274.8	20392	1273.7	20438.5	1272.8
20446.7	1272.4	20499.2	1270.8	20520.5	1270.4	20555	1270.9	20598.8	1271.4
20669	1270.9	20703.5	1270.5	20756.5	1270.3	20767.7	1270.2	20784.3	1266.8
20797.1	1266.8	21029	1266.3	21119.1	1266	21164.3	1265.9	21258.3	1265.8
21269.5	1265.8	21309.5	1265.8	21332.6	1266.1	21375.2	1268.1	21381.6	1268
21385.3	1269	21415.6	1270.5	21460.9	1273.2	21483	1274.9	21511.9	1284
21519.7	1286.4								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val

18663.5 .043 18855.4 .043 19081.8 .032 19534.9 .03

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18855.4	21519.7	490	489.46	450	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
18663.5	19081.8	1300

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1279.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.32	Wt. n-Val.		0.030	
E.G. Elev (ft)	1280.64	Reach Len. (ft)	490.00	489.46	450.00
Crit W.S. (ft)	1276.22	Flow Area (sq ft)		18999.32	
E.G. Slope (ft/ft)	0.001990	Area (sq ft)	28.34	18999.32	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	2257.68	Top Width (ft)	49.72	2207.96	
Vel Total (ft/s)	9.21	Avg. Vel. (ft/s)		9.21	
Max Chl Dpth (ft)	13.53	Hydr. Depth (ft)		8.60	
Conv. Total (cfs)	3922452.8	Conv. (cfs)		3922452.8	
Length Wtd. (ft)	489.46	Wetted Per. (ft)		2214.22	
Min Ch El (ft)	1265.80	Shear (lb/sq ft)		1.07	
Alpha	1.00	Stream Power (lb/ft s)		9.82	
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	1211.45	15437.49	4525.05
C & E Loss (ft)	0.09	Cum SA (acres)	128.40	1498.64	809.17

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1279.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.29	Wt. n-Val.		0.030	
E.G. Elev (ft)	1280.70	Reach Len. (ft)	490.00	489.46	450.00
Crit W.S. (ft)	1276.22	Flow Area (sq ft)		19176.93	
E.G. Slope (ft/ft)	0.001930	Area (sq ft)		19176.93	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	2207.95	Top Width (ft)		2207.95	
Vel Total (ft/s)	9.13	Avg. Vel. (ft/s)		9.13	
Max Chl Dpth (ft)	13.61	Hydr. Depth (ft)		8.69	
Conv. Total (cfs)	3983520.0	Conv. (cfs)		3983520.0	
Length Wtd. (ft)	489.46	Wetted Per. (ft)		2214.38	
Min Ch El (ft)	1265.80	Shear (lb/sq ft)		1.04	
Alpha	1.00	Stream Power (lb/ft s)		9.52	
Frctn Loss (ft)	0.82	Cum Volume (acre-ft)	67.08	15340.20	2786.53
C & E Loss (ft)	0.09	Cum SA (acres)	14.30	1461.28	453.65

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18855.40 LB	19388.26	9462.03	1025.03	102.18	5.41	10.34	9.23
19388.26	19921.12	23068.20	3296.89	534.06	13.18	6.19	7.00
19921.12	20453.98	23083.80	3261.53	533.48	13.19	6.12	7.08
20453.98	20986.84	53492.30	5399.24	533.24	30.57	10.13	9.91
20986.84	21519.70 RB	65893.69	6016.61	511.26	37.65	11.79	10.95

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18855.40 LB	19388.26	9440.82	1033.01	102.26	5.39	10.42	9.14
19388.26	19921.12	23227.69	3339.76	534.06	13.27	6.27	6.95
19921.12	20453.98	23248.64	3304.39	533.48	13.28	6.20	7.04
20453.98	20986.84	53413.92	5442.11	533.24	30.52	10.21	9.81
20986.84	21519.70 RB	65668.94	6057.66	511.34	37.53	11.87	10.84

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 234.51

INPUT

Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18820.7	1290.2	18837.8	1278.9	18854.4	1278.8	18869.6	1278.5	18890.4	1277.7
18912.5	1277.6	18941.9	1285.5	18945.9	1286.8	18948.6	1286.2	18968.3	1282.4
18984.4	1281.2	18987.4	1280.6	19004.7	1282.3	19022.5	1279.9	19028.8	1278.1
19039.1	1274.6	19059.2	1273.5	19079.6	1273.3	19087.7	1276.2	19093.8	1280.4
19107.4	1277.5	19122	1279.9	19138.6	1271.6	19156.8	1267.4	19161.3	1267.3
19169.1	1267.6	19420.2	1268.2	19428.6	1268.3	19429.5	1268.8	19436.9	1276.1
19437.1	1276	19540.6	1273.2	19557	1271.6	19595.9	1267.5	19669.6	1266.9
19694.7	1266.5	19768.3	1265.8	19797.9	1269.7	19820.2	1272.9	19823.9	1272
19825.7	1272.1	19854.8	1272.6	19866	1272.9	19909	1273.8	19935.7	1274.2
19958.7	1274	20012.5	1273	20061.2	1271.8	20073.3	1271.4	20130.5	1271.1
20151.9	1271.1	20190.7	1271.4	20198.9	1271.5	20209.7	1271.2	20228.6	1271.2
20254	1272.2	20279.3	1273.1	20289.9	1273.7	20308.8	1275	20329.8	1274.9
20368.9	1275.9	20401.8	1276.9	20427.1	1276.9	20461.5	1276.9	20496.7	1277.7
20527	1278.6	20562.5	1272.9	20566.2	1272.3	20585.7	1272.3	20610.6	1272.8
20615.8	1272.7	20628.4	1271.9	20635.1	1271.7	20667.8	1270.7	20719.8	1269
20740.8	1269.8	20756.1	1269.9	20770.7	1270	20788	1269.1	20818.2	1269.2
20822.3	1269.2	20849.6	1269.1	20886.3	1268.2	20903.7	1267.8	20921.1	1266.5
21024.5	1266.2	21145	1266.1	21453.8	1265.7	21474.8	1265.5	21480	1266
21530.2	1270.7	21571.1	1270.4	21572.4	1270.4	21593.8	1273.4	21602.2	1275.3
21646.7	1284.1								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18820.7	.043	18945.9	.043	19122	.03

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18945.9	21646.7	500	497.72	325	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18820.7	19122	1281	21646.7	21646.7	1284.1

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1278.67	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.03	Wt. n-Val.		0.030	
E.G. Elev (ft)	1279.70	Reach Len. (ft)	500.00	497.72	325.00
Crit W.S. (ft)	1275.01	Flow Area (sq ft)		21484.76	
E.G. Slope (ft/ft)	0.001539	Area (sq ft)	37.45	21753.41	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	2627.63	Top Width (ft)	55.68	2571.95	
Vel Total (ft/s)	8.15	Avg. Vel. (ft/s)		8.15	
Max Chl Dpth (ft)	13.17	Hydr. Depth (ft)		8.61	
Conv. Total (cfs)	4461270.5	Conv. (cfs)		4461270.5	
Length Wtd. (ft)	497.72	Wetted Per. (ft)		2502.93	
Min Ch El (ft)	1265.50	Shear (lb/sq ft)		0.82	
Alpha	1.00	Stream Power (lb/ft s)		6.72	
Frctn Loss (ft)	0.91	Cum Volume (acre-ft)	1211.08	15208.53	4525.05
C & E Loss (ft)	0.02	Cum SA (acres)	127.81	1471.79	809.17

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1278.79	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.00	Wt. n-Val.		0.030	
E.G. Elev (ft)	1279.79	Reach Len. (ft)	500.00	497.72	325.00
Crit W.S. (ft)	1275.01	Flow Area (sq ft)		21767.97	
E.G. Slope (ft/ft)	0.001473	Area (sq ft)		21767.97	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	2494.81	Top Width (ft)		2494.81	
Vel Total (ft/s)	8.04	Avg. Vel. (ft/s)		8.04	
Max Chl Dpth (ft)	13.29	Hydr. Depth (ft)		8.73	
Conv. Total (cfs)	4559435.0	Conv. (cfs)		4559435.0	
Length Wtd. (ft)	497.72	Wetted Per. (ft)		2503.16	
Min Ch El (ft)	1265.50	Shear (lb/sq ft)		0.80	
Alpha	1.00	Stream Power (lb/ft s)		6.43	
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	67.08	15110.16	2786.53
C & E Loss (ft)	0.02	Cum SA (acres)	14.30	1434.86	453.65

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18945.90 LB	19486.06	27511.05	3367.28	366.93	15.72	9.31	8.17
19486.06	20026.22	32842.09	4374.37	541.11	18.77	8.10	7.51
20026.22	20566.38	13024.21	2510.84	540.83	7.44	4.65	5.19
20566.38	21106.54	46580.88	5391.81	540.34	26.62	9.98	8.64
21106.54	21646.70 RB	55041.76	5840.46	513.72	31.45	11.39	9.42

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18945.90 LB	19486.06	27492.07	3408.33	367.05	15.71	9.43	8.07
19486.06	20026.22	32925.15	4435.69	541.11	18.81	8.21	7.42
20026.22	20566.38	13281.21	2572.16	540.83	7.59	4.76	5.16
20566.38	21106.54	46495.82	5453.13	540.34	26.57	10.10	8.53
21106.54	21646.70 RB	54805.74	5898.67	513.83	31.32	11.50	9.29

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 234.42

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18867.2	1288.9	18890.6	1277.4	18931.3	1277.7	18949.1	1277.2	18975.9	1278.7
18984.8	1278.2	19007.2	1279.9	19022	1279.7	19039.4	1280.7	19062.4	1280.5
19082.7	1281.3	19122.5	1279.5	19141.2	1276	19157.3	1278.5	19163.7	1279.2
19178.9	1276.7	19184.3	1276.7	19187	1275.5	19205.7	1279.5	19216.6	1279.4
19233.1	1269.9	19234.2	1267.7	19247.6	1264.1	19334.5	1266.2	19376.2	1267.5
19382.3	1269.2	19386.2	1269.1	19392.2	1267.8	19585.2	1265.4	19623.6	1264.8
19661.1	1271.6	19675.3	1271.2	19764.6	1272.5	19804.2	1273.5	19842.9	1273.3
19864.9	1272.9	19885.7	1273.3	19962.7	1274	20004.9	1273.6	20047.5	1273.1
20094.2	1272.7	20104.1	1272.9	20161.6	1272.8	20180.2	1272.8	20226.5	1272.5
20242.9	1272.6	20320.9	1274.6	20374.7	1275.2	20403.6	1275.9	20449.5	1276.7
20499.9	1276.6	20531.3	1275.3	20568.4	1276.1	20604.1	1276.9	20649.8	1270.7
20670.9	1270.8	20723.6	1271	20777.3	1270.6	20832	1270.2	20857.3	1274
20870.1	1269.6	20882.3	1269.3	20910.9	1264.8	20915.4	1264.9	21209.3	1264.1
21237.2	1264	21280.5	1263.9	21302.5	1264	21348.9	1264.1	21357.5	1264.4
21398.4	1266.1	21409.9	1266.5	21457.1	1270.3	21473.8	1270	21513	1268.3
21553.4	1268.1	21567.3	1268.4	21598.2	1267.2	21626	1267.9	21634.7	1267.8
21655	1268.9	21664.3	1270.9	21682.5	1272.1	21695.4	1270.7	21708.7	1273
21738.9	1279.7	21744.8	1277.8	21756.5	1277.5	21767.4	1275.6	21790.5	1273.5
21817.6	1283.2	21844.2	1283.2	21944.5	1283	21979.8	1283.3	21984.5	1283.3
22021	1283.4								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18867.2	.043	19082.7	.043	19216.6	.03	21817.6	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19082.7	21817.6	1005	729.19	185	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18867.2	19215	1285	21738.9	22021	1285

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1277.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.27	Wt. n-Val.		0.030	
E.G. Elev (ft)	1278.77	Reach Len. (ft)	1005.00	729.19	185.00
Crit W.S. (ft)	1274.74	Flow Area (sq ft)		19358.45	
E.G. Slope (ft/ft)	0.002195	Area (sq ft)	3.20	19492.24	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	2624.96	Top Width (ft)	30.47	2594.49	
Vel Total (ft/s)	9.04	Avg. Vel. (ft/s)		9.04	
Max Chl Dpth (ft)	13.60	Hydr. Depth (ft)		7.72	
Conv. Total (cfs)	3735683.5	Conv. (cfs)		3735683.5	
Length Wtd. (ft)	729.19	Wetted Per. (ft)		2517.28	
Min Ch El (ft)	1263.90	Shear (lb/sq ft)		1.05	
Alpha	1.00	Stream Power (lb/ft s)		9.52	
Frctn Loss (ft)	1.42	Cum Volume (acre-ft)	1210.85	14972.89	4525.05

C & E Loss (ft)	0.06	Cum SA (acres)	127.31	1442.27	809.17

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1277.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.20	Wt. n-Val.		0.030	
E.G. Elev (ft)	1278.92	Reach Len. (ft)	1005.00	729.19	185.00
Crit W.S. (ft)	1274.74	Flow Area (sq ft)		19904.25	
E.G. Slope (ft/ft)	0.002001	Area (sq ft)		19904.25	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	2509.11	Top Width (ft)		2509.11	
Vel Total (ft/s)	8.79	Avg. Vel. (ft/s)		8.79	
Max Chl Dpth (ft)	13.82	Hydr. Depth (ft)		7.93	
Conv. Total (cfs)	3912417.3	Conv. (cfs)		3912417.3	
Length Wtd. (ft)	729.19	Wetted Per. (ft)		2517.72	
Min Ch El (ft)	1263.90	Shear (lb/sq ft)		0.99	
Alpha	1.00	Stream Power (lb/ft s)		8.68	
Frctn Loss (ft)	1.25	Cum Volume (acre-ft)	67.08	14872.08	2786.53
C & E Loss (ft)	0.07	Cum SA (acres)	14.30	1406.27	453.65

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19082.70 LB	19629.68	46779.41	4530.30	414.19	26.73	11.06	10.33
19629.68	20176.66	15610.60	2622.00	547.54	8.92	4.79	5.95
20176.66	20723.64	7831.86	1733.34	547.49	4.48	3.17	4.52
20723.64	21270.62	63037.32	6061.76	548.36	36.02	11.08	10.40
21270.62	21817.60 RB	41740.82	4411.06	459.71	23.85	9.62	9.46

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19082.70 LB	19629.68	46375.03	4619.44	414.41	26.50	11.27	10.04
19629.68	20176.66	16136.97	2740.98	547.54	9.22	5.01	5.89
20176.66	20723.64	8398.46	1852.32	547.49	4.80	3.39	4.53
20723.64	21270.62	62509.66	6180.75	548.36	35.72	11.30	10.11
21270.62	21817.60 RB	41579.89	4510.77	459.92	23.76	9.84	9.22

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 234.28

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18636.9	1291.7	18651.8	1287	18656.9	1287.4	18681.4	1289.5	18694.3	1284.7
18699.2	1279.9	18720.9	1278.2	18743.5	1277.6	18757.7	1281.2	18800	1291
18801	1290.5	18848.2	1275.1	18853.5	1273.5	18877.7	1272.7	18901.1	1278.1
18912.8	1280.4	18924.7	1280.2	18961	1279.8	18984.5	1280.1	18989.3	1280.7
19005.4	1280.3	19022.2	1279.2	19046.2	1278.2	19062.9	1270.7	19071.5	1267.9
19131.3	1267	19147.5	1266.6	19170.3	1265	19194.6	1263.8	19195.6	1263.8
19457.3	1262.9	19504.1	1262.8	19518.9	1262.8	19578.5	1262.8	19600.9	1264.7
19614.9	1265.2	19650.9	1270.4	19669.6	1271	19711.6	1270.7	19724.6	1270.8
19761.8	1271.7	19785.3	1272.1	19823.5	1271.1	19838.2	1271	19879.9	1269.6
19900.2	1269.6	19961.6	1269.9	19990.5	1271.3	20013.8	1272.4	20082.8	1274.4
20094.9	1274.7	20128.2	1274.7	20195.7	1274.2	20200.8	1274.1	20238	1275

20256.6	1275.5	20308.6	1274.7	20350.9	1274.1	20363.4	1273.9	20387.9	1274.3
20409	1276	20450.2	1269	20460.5	1266.9	20504.7	1267.8	20606.5	1269.7
20629.2	1270.2	20697.9	1270.5	20738.7	1270.6	20796.9	1269.6	20817.8	1269.3
20839	1265.3	20896.4	1264.9	21010.4	1263.8	21116.3	1263.1	21146.3	1262.9
21199.6	1262.7	21230.2	1264.8	21239.9	1265	21265.9	1265.5	21280.9	1265.8
21329.2	1267.4	21340.8	1267.7	21370.1	1270.7	21394.7	1270.9	21412.8	1270.3
21467.6	1268.6	21486.8	1267.9	21524.2	1266.1	21565.4	1265.8	21586.7	1265.5
21592.1	1266	21618.3	1269.3	21645.8	1271	21670.2	1271.3	21691.2	1277.6
21717.2	1284.3								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18636.9	.043	18912.8	.043	18989.3	.03

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18912.8	21717.2	530	502.56	460	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
18636.9	18912.8	1290

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1276.22	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.07	Wt. n-Val.		0.030	
E.G. Elev (ft)	1277.29	Reach Len. (ft)	530.00	502.56	460.00
Crit W.S. (ft)	1272.79	Flow Area (sq ft)		21115.96	
E.G. Slope (ft/ft)	0.001751	Area (sq ft)	114.46	21115.96	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	2684.18	Top Width (ft)	48.19	2635.99	
Vel Total (ft/s)	8.29	Avg. Vel. (ft/s)		8.29	
Max Chl Dpth (ft)	13.52	Hydr. Depth (ft)		8.01	
Conv. Total (cfs)	4181918.3	Conv. (cfs)		4181918.3	
Length Wtd. (ft)	502.56	Wetted Per. (ft)		2641.04	
Min Ch El (ft)	1262.70	Shear (lb/sq ft)		0.87	
Alpha	1.00	Stream Power (lb/ft s)		7.24	
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	1209.49	14633.00	4525.05
C & E Loss (ft)	0.09	Cum SA (acres)	126.40	1398.49	809.17

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1276.64	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.96	Wt. n-Val.		0.030	
E.G. Elev (ft)	1277.60	Reach Len. (ft)	530.00	502.56	460.00
Crit W.S. (ft)	1272.79	Flow Area (sq ft)		22224.80	
E.G. Slope (ft/ft)	0.001477	Area (sq ft)		22224.80	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	2635.99	Top Width (ft)		2635.99	
Vel Total (ft/s)	7.87	Avg. Vel. (ft/s)		7.87	
Max Chl Dpth (ft)	13.94	Hydr. Depth (ft)		8.43	
Conv. Total (cfs)	4553323.5	Conv. (cfs)		4553323.5	
Length Wtd. (ft)	502.56	Wetted Per. (ft)		2641.88	
Min Ch El (ft)	1262.70	Shear (lb/sq ft)		0.78	
Alpha	1.00	Stream Power (lb/ft s)		6.11	
Frctn Loss (ft)	0.57	Cum Volume (acre-ft)	67.08	14519.46	2786.53
C & E Loss (ft)	0.09	Cum SA (acres)	14.30	1363.21	453.65

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18912.80 LB	19473.68	48654.98	4894.33	424.80	27.80	11.57	9.94
19473.68	20034.56	31313.25	4200.62	561.48	17.89	7.49	7.45
20034.56	20595.44	8769.78	1957.85	561.83	5.01	3.49	4.48
20595.44	21156.32	47766.34	5411.16	561.28	27.30	9.65	8.83
21156.32	21717.20 RB	38495.64	4652.01	531.65	22.00	8.77	8.28

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta	Right Sta	Flow	Area	W.P.	% Conv.	Hydr D.	Velocity

(ft)	(ft)	(cfs)	(sq ft)	(ft)		(ft)	(ft/s)
18912.80 LB	19473.68	47683.70	5072.30	425.22	27.25	11.99	9.40
19473.68	20034.56	31692.67	4436.55	561.48	18.11	7.91	7.14
20034.56	20595.44	9795.41	2193.79	561.83	5.60	3.91	4.47
20595.44	21156.32	47390.30	5647.09	561.28	27.08	10.07	8.39
21156.32	21717.20 RB	38437.91	4875.07	532.07	21.96	9.19	7.88

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 234.18

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18390.8	1293.8	18428.2	1281.3	18445.8	1284.1	18470.7	1286.7	18486.9	1283.4
18500.4	1282.2	18525	1281.2	18563.6	1280.5	18611.5	1280.8	18638.6	1280
18650.4	1279.8	18685.3	1280.5	18695.9	1280.2	18731.8	1288.1	18760.7	1278.5
18777.1	1271.6	18781	1268.7	18785.3	1266.7	18795	1267	18822.3	1267.5
18834.4	1265.8	18861.3	1264.3	18884.7	1263.8	18898.7	1266.4	18935	1265.7
18960.4	1265.8	18977.8	1266.3	19021.9	1268.1	19037.6	1265.7	19062.5	1265.1
19120.4	1264.8	19154.3	1263.8	19160.1	1263.6	19216.8	1263.3	19317.1	1263
19470.2	1262.6	19471.7	1262.6	19506.3	1263	19524.7	1264.6	19553.6	1264.6
19569.3	1266.4	19592.9	1266.1	19630.2	1267.2	19692.3	1268.5	19726.9	1269.7
19745.8	1270.2	19799	1271	19832.8	1271.5	19855.1	1272	19884.1	1272.3
19919.3	1273.4	19965.2	1272.6	19983.4	1271.9	19994.2	1271.1	20037.3	1268.6
20054.8	1267	20099.3	1266.7	20130.7	1266.6	20157.7	1268.4	20181.6	1268.8
20196.8	1268	20205.4	1268.4	20249.6	1268.3	20267	1268.4	20344.2	1267.4
20357.2	1267.1	20364.7	1267.3	20442.4	1269	20541.4	1271	20558.9	1271.4
20629.2	1270.1	20630.9	1270.1	20654.7	1265.4	20940.1	1263.1	20961.7	1263
20991.1	1262.8	21019.1	1262.7	21029.2	1262.6	21102.3	1266	21127.5	1266.2
21183.5	1266.4	21207.7	1270.2	21216	1270.5	21244.6	1270.6	21257.7	1269.3
21291	1266.4	21304.6	1266.1	21335.2	1265	21355.6	1263.9	21391.4	1262.8
21422.2	1263.4	21457.6	1264.8	21480.2	1266.4	21498	1268.9	21536.3	1276.7
21559.1	1283								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18390.8	.043	18731.8	.03	21244.6	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18731.8	21559.1	540	499.69	450	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1275.76	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.75	Wt. n-Val.		0.031	
E.G. Elev (ft)	1276.51	Reach Len. (ft)	540.00	499.69	450.00
Crit W.S. (ft)		Flow Area (sq ft)		25169.77	
E.G. Slope (ft/ft)	0.001085	Area (sq ft)		25169.77	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	2764.46	Top Width (ft)		2764.46	
Vel Total (ft/s)	6.95	Avg. Vel. (ft/s)		6.95	
Max Chl Dpth (ft)	13.16	Hydr. Depth (ft)		9.10	
Conv. Total (cfs)	5313554.5	Conv. (cfs)		5313554.5	
Length Wtd. (ft)	499.69	Wetted Per. (ft)		2770.07	
Min Ch El (ft)	1262.60	Shear (lb/sq ft)		0.62	
Alpha	1.00	Stream Power (lb/ft s)		4.28	
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	1208.79	14366.00	4525.05
C & E Loss (ft)	0.03	Cum SA (acres)	126.11	1367.34	809.17

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1276.27	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.		0.031	
E.G. Elev (ft)	1276.94	Reach Len. (ft)	540.00	499.69	450.00
Crit W.S. (ft)		Flow Area (sq ft)		26589.80	
E.G. Slope (ft/ft)	0.000904	Area (sq ft)		26589.80	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	2764.47	Top Width (ft)		2764.47	
Vel Total (ft/s)	6.58	Avg. Vel. (ft/s)		6.58	
Max Chl Dpth (ft)	13.67	Hydr. Depth (ft)		9.62	

Conv. Total (cfs)	5821602.5	Conv. (cfs)		5821602.5		
Length Wtd. (ft)	499.69	Wetted Per. (ft)		2771.11		
Min Ch El (ft)	1262.60	Shear (lb/sq ft)		0.54		
Alpha	1.00	Stream Power (lb/ft s)		3.56		
Frctn Loss (ft)	0.35	Cum Volume (acre-ft)	67.08	14237.87	2786.53	
C & E Loss (ft)	0.03	Cum SA (acres)	14.30	1332.05	453.65	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18731.80 LB	19297.26	42845.36	5561.37	532.96	24.48	10.49	7.70
19297.26	19862.72	38577.71	5348.12	565.71	22.04	9.46	7.21
19862.72	20428.18	21757.63	3793.08	565.80	12.43	6.71	5.74
20428.18	20993.64	37637.22	5270.47	565.97	21.51	9.32	7.14
20993.64	21559.10 RB	34182.07	5196.74	539.64	19.53	9.66	6.58

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18731.80 LB	19297.26	42372.14	5833.64	533.48	24.21	11.01	7.26
19297.26	19862.72	38501.56	5638.58	565.71	22.00	9.97	6.83
19862.72	20428.18	22484.36	4083.54	565.80	12.85	7.22	5.51
20428.18	20993.64	37610.44	5560.93	565.97	21.49	9.83	6.76
20993.64	21559.10 RB	34031.50	5473.12	540.15	19.45	10.17	6.22

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 234.09

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18395	1295.2	18411.1	1293	18424.5	1292.2	18433.2	1289.1	18437.9	1288.4
18470.4	1288.1	18475.3	1288.2	18508	1290.5	18511.4	1291.3	18567.6	1289.4
18569	1289.1	18611	1284.5	18617.1	1284.5	18630.3	1281.7	18655.4	1270.4
18665.1	1268	18693.2	1265.4	18709.4	1262.5	18726.7	1264.9	18738	1264.8
18796.3	1263.5	18817.9	1266.7	18852.8	1267.7	18885	1271.3	18918.4	1263.8
18922	1263	18945.8	1263.1	18982.3	1263.4	19020.3	1264.3	19063.1	1264.2
19087.1	1263	19188.7	1262.6	19309.4	1261.8	19311.9	1262	19344	1264.4
19365	1264.5	19408.7	1263.8	19451.7	1263.5	19502.5	1264.3	19526.2	1266
19538.2	1267.5	19586	1268	19592.5	1268.2	19629.2	1268.6	19663.9	1269.1
19689.1	1269.2	19723.8	1269.3	19741.3	1269.1	19786.9	1269.6	19839.5	1269.5
19890.2	1268.8	19909.3	1268.7	19953.3	1269.5	20011.4	1266.7	20082.7	1264
20123.3	1264	20164.9	1263.2	20189.8	1263.8	20223.1	1266.2	20231.9	1266.8
20314.6	1267.6	20348	1267.9	20363.6	1268	20429.8	1268.2	20450	1268.5
20460.9	1266	20475.4	1261.6	20508.4	1261.5	20582.5	1261.6	20621	1261.8
20859.8	1260.8	20874	1261.2	20913.9	1264.3	20946.5	1265.5	20983.3	1265.7
21019	1265.9	21073.4	1266	21094.7	1265.9	21135.3	1262.9	21177.4	1263.1
21210.3	1263.4	21220.1	1263.6	21275.2	1270.8	21322.4	1276	21324.5	1276.2
21395	1275.6	21442	1276.1	21468.4	1276.6	21503.9	1278.3	21538	1278.7
21633	1280.9	21640.4	1281	21705	1279.3	21740.5	1278.4	21783.6	1281
21801	1282								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18395	.043	18617.1	.028	21324.5	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18617.1	21324.5	480	501.29	580	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1275.42	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.64	Wt. n-Val.		0.028	
E.G. Elev (ft)	1276.06	Reach Len. (ft)	480.00	501.29	580.00
Crit W.S. (ft)		Flow Area (sq ft)		27250.28	
E.G. Slope (ft/ft)	0.000664	Area (sq ft)		27250.28	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	

Top Width (ft)	2672.86	Top Width (ft)		2672.86	
Vel Total (ft/s)	6.42	Avg. Vel. (ft/s)		6.42	
Max Chl Dpth (ft)	14.62	Hydr. Depth (ft)		10.20	
Conv. Total (cfs)	6789576.0	Conv. (cfs)		6789576.0	
Length Wtd. (ft)	501.29	Wetted Per. (ft)		2678.67	
Min Ch El (ft)	1260.80	Shear (lb/sq ft)		0.42	
Alpha	1.00	Stream Power (lb/ft s)		2.71	
Frctn Loss (ft)	0.30	Cum Volume (acre-ft)	1208.79	14065.34	4525.05
C & E Loss (ft)	0.01	Cum SA (acres)	126.11	1336.16	809.17

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1275.99	Element			
Vel Head (ft)	0.57	Wt. n-Val.		0.028	
E.G. Elev (ft)	1276.57	Reach Len. (ft)	480.00	501.29	580.00
Crit W.S. (ft)		Flow Area (sq ft)		28789.66	
E.G. Slope (ft/ft)	0.000553	Area (sq ft)		28789.66	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	2672.86	Top Width (ft)		2672.86	
Vel Total (ft/s)	6.08	Avg. Vel. (ft/s)		6.08	
Max Chl Dpth (ft)	15.19	Hydr. Depth (ft)		10.77	
Conv. Total (cfs)	7438646.5	Conv. (cfs)		7438646.5	
Length Wtd. (ft)	501.29	Wetted Per. (ft)		2679.82	
Min Ch El (ft)	1260.80	Shear (lb/sq ft)		0.37	
Alpha	1.00	Stream Power (lb/ft s)		2.26	
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	67.08	13920.23	2786.53
C & E Loss (ft)	0.01	Cum SA (acres)	14.30	1300.87	453.65

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18617.10 LB	19158.58	34432.43	5341.65	517.67	19.68	10.39	6.45
19158.58	19700.06	37137.73	5692.29	541.76	21.22	10.51	6.52
19700.06	20241.54	24788.45	4466.22	541.74	14.16	8.25	5.55
20241.54	20783.02	41971.59	6128.93	542.43	23.98	11.32	6.85
20783.02	21324.50 RB	36669.81	5621.20	535.08	20.95	10.52	6.52

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18617.10 LB	19158.58	34381.62	5637.86	518.24	19.65	10.96	6.10
19158.58	19700.06	37071.18	6004.15	541.76	21.18	11.09	6.17
19700.06	20241.54	25334.84	4778.07	541.74	14.48	8.82	5.30
20241.54	20783.02	41638.32	6440.78	542.43	23.79	11.89	6.46
20783.02	21324.50 RB	36574.04	5928.80	535.66	20.90	11.10	6.17

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 234.00

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18391.6	1296.1	18408.7	1293.6	18412.8	1290.3	18420.4	1288	18441.8	1284.3
18470.2	1281.3	18481.5	1281.5	18517.3	1291	18523.9	1288.2	18564.4	1271.4
18573.4	1267.8	18580.3	1267.2	18592.6	1267.3	18598.3	1263.6	18609.3	1259.7
18667.5	1262.6	18706.8	1265.9	18723.7	1268.7	18744.8	1258.5	18751.9	1258.6
18814.3	1259.6	18857.6	1262.4	18879.2	1263.2	18923	1263.5	18960.7	1263.6
18981.6	1262	19052.2	1261.8	19140.6	1261.7	19204.1	1261.7	19220.8	1263.3
19232	1263.3	19290.3	1263.5	19349.8	1263.9	19371.6	1266.7	19379.7	1266.8
19430.1	1267.5	19480.4	1268.5	19518.4	1268.8	19547.8	1268.4	19593.5	1268
19635.4	1268.3	19695.2	1268.4	19716.7	1268.8	19758.1	1267.1	19840.6	1267.8
19843.7	1267.5	19852.2	1268.2	19895	1261.4	19958.8	1263.1	19989.4	1263.8
20030.7	1264.5	20070.5	1262.8	20090.7	1264.8	20135.5	1266.4	20178.7	1263.2
20186.5	1262.5	20202.4	1259.3	20212.5	1259.9	20279.8	1260.1	20297.9	1260.1
20339.8	1260	20459.3	1260	20506.4	1260	20585.5	1259.8	20620.9	1259.7
20701.2	1259.4	20730.5	1262.6	20781.8	1262.6	20805.4	1263	20850.2	1263.4

20895.2	1263.7	20928.7	1268.8	20966.3	1275.9	21009.8	1275.9	21052.7	1277.1
21110.7	1278	21154.7	1278.5	21201.2	1276.6	21212.3	1276.7	21261.7	1276.7
21330.3	1276.4	21344.2	1275.9	21364.1	1276.4	21407.1	1276.6	21457.1	1276.2
21518.2	1274.6	21536.9	1274.6	21577.6	1275.2	21634.1	1276	21671.2	1277
21714.5	1277.5	21730.8	1277	21763.1	1278.1	21789.6	1277.6	21834.9	1276.5
21886.1	1280.7								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18391.6	.028	18517.3	.028	20966.3	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18517.3	20966.3	550	515	630	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21154.7	21886.1	1278.5

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1275.14	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.61	Wt. n-Val.		0.028	
E.G. Elev (ft)	1275.75	Reach Len. (ft)	550.00	515.00	630.00
Crit W.S. (ft)	1268.87	Flow Area (sq ft)		27966.79	
E.G. Slope (ft/ft)	0.000531	Area (sq ft)		27966.79	25.82
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	2483.24	Top Width (ft)		2406.92	76.32
Vel Total (ft/s)	6.26	Avg. Vel. (ft/s)		6.26	
Max Chl Dpth (ft)	16.64	Hydr. Depth (ft)		11.62	
Conv. Total (cfs)	7595007.5	Conv. (cfs)		7595007.5	
Length Wtd. (ft)	515.92	Wetted Per. (ft)		2415.85	
Min Ch El (ft)	1258.50	Shear (lb/sq ft)		0.38	
Alpha	1.00	Stream Power (lb/ft s)		2.40	
Frctn Loss (ft)	0.29	Cum Volume (acre-ft)	1208.79	13747.62	4524.88
C & E Loss (ft)	0.01	Cum SA (acres)	126.11	1306.93	808.66

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1275.76	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.55	Wt. n-Val.		0.028	
E.G. Elev (ft)	1276.31	Reach Len. (ft)	550.00	515.00	630.00
Crit W.S. (ft)	1268.87	Flow Area (sq ft)		29457.89	
E.G. Slope (ft/ft)	0.000447	Area (sq ft)		29457.89	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	2406.91	Top Width (ft)		2406.91	
Vel Total (ft/s)	5.94	Avg. Vel. (ft/s)		5.94	
Max Chl Dpth (ft)	17.26	Hydr. Depth (ft)		12.24	
Conv. Total (cfs)	8279014.5	Conv. (cfs)		8279014.5	
Length Wtd. (ft)	515.00	Wetted Per. (ft)		2417.08	
Min Ch El (ft)	1258.50	Shear (lb/sq ft)		0.34	
Alpha	1.00	Stream Power (lb/ft s)		2.02	
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	67.08	13585.08	2786.53
C & E Loss (ft)	0.02	Cum SA (acres)	14.30	1271.64	453.65

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18517.30 LB	19007.10	35707.83	5584.60	457.91	20.40	12.36	6.39
19007.10	19496.90	33262.00	5499.14	490.07	19.01	11.23	6.05
19496.90	19986.70	20363.40	4098.01	490.46	11.64	8.37	4.97
19986.70	20476.50	44143.20	6518.99	490.46	25.22	13.31	6.77
20476.50	20966.30 RB	41523.56	6266.05	486.95	23.73	12.90	6.63

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18517.30 LB	19007.10	35555.10	5864.44	458.53	20.32	12.98	6.06
19007.10	19496.90	33416.58	5802.58	490.07	19.10	11.85	5.76

19496.90	19986.70	21071.29	4401.45	490.46	12.04	8.99	4.79
19986.70	20476.50	43745.32	6822.42	490.46	25.00	13.93	6.41
20476.50	20966.30 RB	41211.71	6567.00	487.57	23.55	13.52	6.28

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 233.89

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18600.9	1293.4	18612.2	1291.4	18616.2	1290	18635.2	1270.3	18651.5	1257.9
18700.9	1258.5	18738.7	1259.8	18765.9	1259.5	18817.8	1260.6	18861.5	1260.5
18956.6	1260.9	18982.9	1260.9	19031.5	1260.9	19045	1261.8	19071.3	1261.7
19112.9	1262	19160.7	1263.9	19204.4	1266	19229.1	1267.4	19278.3	1266.5
19333.9	1264.2	19346.7	1263.8	19376.8	1266.2	19417.2	1267.5	19465.9	1268.3
19517.1	1268.8	19556.1	1269	19595.6	1268.5	19612.8	1267.1	19623.7	1265.2
19668.6	1258.5	19699.1	1256.6	19744.1	1258.2	19772.7	1259.8	19797.5	1260.1
19861.9	1261	19918.2	1262.3	19940.5	1262.1	20004.6	1259.9	20045.1	1261.1
20066.3	1262	20089.9	1259.7	20148.7	1259.5	20175.3	1259.6	20259.4	1259.6
20406.7	1259.3	20527.9	1259.5	20541.9	1264.3	20570.9	1271.2	20595.7	1270.3
20625.1	1266	20637.1	1266.3	20661.1	1268.9	20681.1	1265.9	20709.3	1272.4
20744.6	1273.3	20746.1	1273.3	20836.5	1274.8	20837.8	1274.9	20874.1	1275.9
20894.9	1275.4	20949.3	1273.5	20998	1272.7	21031.3	1272.6	21067.1	1274.1
21104.8	1275.8	21121.8	1274.9	21146	1275.5	21200.1	1275.2	21220	1275.3
21260.7	1275.8	21372.4	1276.9	21418.8	1277.9	21455.1	1274.2	21471.3	1272.3
21492.2	1273.5	21532.9	1276	21581.3	1274.5	21597.4	1273.5	21634.9	1271.7
21675	1275	21690.4	1276.2	21735	1276.9	21859.7	1278.1	21878	1278.3
21938	1273.9	21962.6	1275.3	22002.7	1277.8	22040.6	1277.4	22118.6	1276.5
22172.1	1276.7	22250.5	1277.5	22293.6	1278.6	22312.4	1278.4	22347.8	1278.6
22467.7	1278.9								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18600.9	.028	18616.2	.028	20570.9	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18616.2	20570.9	480	487.66	510	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
20730	22467.7	1280

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1274.70	Element			
Vel Head (ft)	0.75	Wt. n-Val.		0.028	0.037
E.G. Elev (ft)	1275.45	Reach Len. (ft)	480.00	487.66	510.00
Crit W.S. (ft)	1268.02	Flow Area (sq ft)		24669.48	908.61
E.G. Slope (ft/ft)	0.000586	Area (sq ft)		24669.48	1442.62
Q Total (cfs)	175000.00	Flow (cfs)		172193.56	2806.44
Top Width (ft)	2548.56	Top Width (ft)		1939.95	608.61
Vel Total (ft/s)	6.84	Avg. Vel. (ft/s)		6.98	3.09
Max Chl Dpth (ft)	18.10	Hydr. Depth (ft)		12.72	5.71
Conv. Total (cfs)	7226166.5	Conv. (cfs)		7110282.0	115884.5
Length Wtd. (ft)	488.31	Wetted Per. (ft)		1949.06	160.54
Min Ch El (ft)	1256.60	Shear (lb/sq ft)		0.46	0.21
Alpha	1.03	Stream Power (lb/ft s)		3.23	0.64
Frctn Loss (ft)	0.27	Cum Volume (acre-ft)	1208.79	13436.46	4514.26
C & E Loss (ft)	0.00	Cum SA (acres)	126.11	1281.23	803.71

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1275.34	Element			
Vel Head (ft)	0.71	Wt. n-Val.		0.028	
E.G. Elev (ft)	1276.05	Reach Len. (ft)	480.00	487.66	510.00
Crit W.S. (ft)	1267.99	Flow Area (sq ft)		25903.73	
E.G. Slope (ft/ft)	0.000516	Area (sq ft)		25903.73	
Q Total (cfs)	175000.00	Flow (cfs)		175000.00	
Top Width (ft)	1939.95	Top Width (ft)		1939.95	

Vel Total (ft/s)	6.76	Avg. Vel. (ft/s)		6.76		
Max Chl Dpth (ft)	18.74	Hydr. Depth (ft)		13.35		
Conv. Total (cfs)	7700438.0	Conv. (cfs)		7700438.0		
Length Wtd. (ft)	487.82	Wetted Per. (ft)		1953.84		
Min Ch El (ft)	1256.60	Shear (lb/sq ft)		0.43		
Alpha	1.00	Stream Power (lb/ft s)		2.89		
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	67.08	13257.81	2786.53	
C & E Loss (ft)	0.00	Cum SA (acres)	14.30	1245.94	453.65	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18616.20 LB	19007.14	40091.37	5402.89	382.28	22.91	14.36	7.42
19007.14	19398.08	24735.78	4081.59	391.27	14.13	10.44	6.06
19398.08	19789.02	24222.69	4032.83	391.81	13.84	10.32	6.01
19789.02	20179.96	40305.47	5470.17	391.15	23.03	13.99	7.37
20179.96	20570.90 RB	42838.26	5682.00	392.55	24.48	14.53	7.54
20570.90	20697.35	2654.13	822.45	127.58	1.52	6.50	3.23
20697.35	20823.81	152.30	86.16	32.97	0.09	2.64	1.77

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18616.20 LB	19007.14	40456.91	5642.23	382.91	23.12	15.00	7.17
19007.14	19398.08	25656.23	4330.32	391.27	14.66	11.08	5.92
19398.08	19789.02	25153.12	4281.55	391.81	14.37	10.95	5.87
19789.02	20179.96	40794.32	5718.90	391.15	23.31	14.63	7.13
20179.96	20570.90 RB	42939.41	5930.73	396.69	24.54	15.17	7.24

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 233.80

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18109.2	1295	18141	1294.6	18182.8	1292.8	18227.7	1292	18287.8	1290.6
18360.9	1287.9	18417.2	1287.8	18475.3	1288.6	18530.3	1292.6	18538.4	1292.5
18580.3	1288.8	18606.4	1276.6	18624.3	1275.6	18658.7	1287.7	18680.6	1291.2
18714.8	1284.1	18760.5	1256.9	18780.3	1257	18835.5	1257.3	18895.9	1258.9
18948	1258.3	18959.7	1260.5	19014.4	1260.7	19099.6	1262.3	19164.4	1264.6
19231	1263.2	19282.8	1266	19336.6	1266	19344.7	1265.8	19389.4	1257.7
19416.5	1257.3	19481.7	1257.5	19537.1	1257.1	19550.5	1258.4	19574.3	1258.6
19629.9	1259.7	19706.7	1260.5	19830.5	1262.5	19850	1262.8	19908.7	1261.8
19961.9	1259.2	20017.5	1259.7	20037.6	1258.8	20085.6	1258.8	20207.5	1258.4
20321.6	1258	20369.4	1258	20402.6	1268	20460.2	1268.4	20519.2	1269.9
20547.4	1268.9	20571.9	1271.1	20592.3	1266.3	20637.6	1262.9	20651.5	1262.6
20667.5	1263.7	20676.5	1261.6	20718.8	1274.6	20753.2	1274.5	20834.4	1274.9
20874.5	1271.7	20907.2	1273.6	20942.6	1270.4	21000.3	1274.2	21054.1	1271
21069.3	1271.1	21132	1274.7	21153.1	1275.1	21169.4	1274.5	21269.8	1274.6
21292.2	1274.2	21313.3	1275.5	21359.5	1275.3	21416.7	1275.1	21432.1	1273.9
21447.7	1273.8	21455.1	1274.5	21489.8	1273	21541.3	1269.3	21551.2	1270.5
21609	1276.7	21663.2	1275.4	21717.7	1274.6	21771.8	1278	21785.1	1277.5
21849.2	1275.1	21902.7	1277.4	21907.4	1277.5	22000.1	1277.9	22016.7	1277.7
22066.5	1272.7	22122.4	1276.6	22188.2	1276.7	22270.4	1276.9	22342.9	1277
22379.7	1277.7								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18109.2	.043	18680.6	.028	20402.6	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18680.6	20402.6	515	385.92	290	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
20834.4	22379.7	1290

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1274.42	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.76	Wt. n-Val.		0.028	0.037
E.G. Elev (ft)	1275.18	Reach Len. (ft)	515.00	385.92	290.00
Crit W.S. (ft)	1267.20	Flow Area (sq ft)		23582.72	2195.65
E.G. Slope (ft/ft)	0.000530	Area (sq ft)		23582.72	3110.18
Q Total (cfs)	175000.00	Flow (cfs)		167651.95	7348.04
Top Width (ft)	2490.69	Top Width (ft)		1671.53	819.16
Vel Total (ft/s)	6.79	Avg. Vel. (ft/s)		7.11	3.35
Max Chl Dpth (ft)	17.52	Hydr. Depth (ft)		14.11	6.96
Conv. Total (cfs)	7604439.0	Conv. (cfs)		7285137.5	319301.4
Length Wtd. (ft)	381.29	Wetted Per. (ft)		1679.13	318.64
Min Ch El (ft)	1256.90	Shear (lb/sq ft)		0.46	0.23
Alpha	1.06	Stream Power (lb/ft s)		3.30	0.76
Frctn Loss (ft)	0.19	Cum Volume (acre-ft)	1208.79	13166.37	4487.61
C & E Loss (ft)	0.00	Cum SA (acres)	126.11	1261.01	795.35

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1275.05	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.75	Wt. n-Val.		0.028	0.037
E.G. Elev (ft)	1275.80	Reach Len. (ft)	515.00	385.92	290.00
Crit W.S. (ft)	1267.22	Flow Area (sq ft)		24634.98	857.04
E.G. Slope (ft/ft)	0.000485	Area (sq ft)		24634.98	857.04
Q Total (cfs)	175000.00	Flow (cfs)		172502.75	2497.24
Top Width (ft)	1808.93	Top Width (ft)		1671.53	137.40
Vel Total (ft/s)	6.86	Avg. Vel. (ft/s)		7.00	2.91
Max Chl Dpth (ft)	18.15	Hydr. Depth (ft)		14.74	6.24
Conv. Total (cfs)	7946365.5	Conv. (cfs)		7832971.0	113394.3
Length Wtd. (ft)	383.96	Wetted Per. (ft)		1679.76	143.32
Min Ch El (ft)	1256.90	Shear (lb/sq ft)		0.44	0.18
Alpha	1.03	Stream Power (lb/ft s)		3.11	0.53
Frctn Loss (ft)	0.18	Cum Volume (acre-ft)	67.08	12974.92	2781.51
C & E Loss (ft)	0.00	Cum SA (acres)	14.30	1225.73	452.84

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18680.60 LB	19025.00	32445.63	4442.34	298.98	18.54	15.11	7.30
19025.00	19369.40	21414.15	3665.91	344.95	12.24	10.64	5.84
19369.40	19713.80	41651.13	5463.44	344.81	23.80	15.86	7.62
19713.80	20058.20	31749.85	4640.73	344.51	18.14	13.47	6.84
20058.20	20402.60 RB	40391.19	5370.30	345.88	23.08	15.59	7.52
20402.60	20534.41	2137.52	741.70	131.84	1.22	5.63	2.88
20534.41	20666.21	3902.27	1066.90	132.64	2.23	8.09	3.66
20666.21	20798.02	1308.25	387.05	54.16	0.75	7.44	3.38

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18680.60 LB	19025.00	33218.61	4627.37	299.61	18.98	15.74	7.18
19025.00	19369.40	22572.82	3882.72	344.95	12.90	11.27	5.81
19369.40	19713.80	42568.69	5680.25	344.81	24.32	16.49	7.49
19713.80	20058.20	32816.07	4857.53	344.51	18.75	14.10	6.76
20058.20	20402.60 RB	41326.55	5587.11	345.88	23.62	16.22	7.40
20402.60	20534.41	2440.94	824.67	131.84	1.39	6.26	2.96
20534.41	20666.21	56.30	32.36	11.48	0.03	5.79	1.74

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 233.73

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17942.8	1291.9	18110.3	1291.6	18147.8	1291.4	18284.5	1290.2	18351	1289
18479.6	1286.7	18525.5	1286.4	18567.3	1290.5	18601.6	1286.8	18611.7	1281.8
18623.9	1274.1	18639.7	1273.6	18667.8	1285.2	18711.1	1284.9	18746.6	1281
18787.9	1279.7	18811.8	1270	18825.2	1256.6	18915.7	1256.7	18956.3	1256.7
19029.2	1256.7	19062.2	1257.6	19080.1	1257	19131.4	1257.4	19191.2	1258
19265.6	1258.6	19307.8	1258.7	19361.3	1258.5	19375.6	1258.3	19402.3	1259.1
19450.3	1260.4	19494.4	1261.1	19512.4	1261.4	19590.4	1262.2	19607.6	1260.8
19642.2	1261.1	19704.4	1260.2	19753	1259.4	19766.1	1259.2	19817.3	1258.3
19858.8	1256.6	19887.4	1256.5	20068.2	1256.7	20124.5	1257.1	20195.5	1257.4
20223.8	1257.5	20262.9	1264.7	20283.7	1267.9	20349.3	1267.5	20377.9	1267.2
20450.1	1266.9	20468.8	1267	20515	1268.7	20539.9	1269.7	20582.1	1263.8
20614.7	1261.5	20639.8	1262.6	20680.1	1274.1	20697.2	1274.7	20767.2	1275.7
20790.6	1274.4	20846.2	1271.5	20900.2	1272.9	20946.9	1274.2	20992.4	1271.7
21032.4	1272	21069.8	1270.8	21079.1	1271.4	21123.6	1274.3	21152.4	1274.4
21247	1274.3	21282.9	1273.9	21298.8	1274.3	21391.5	1273.4	21426.1	1273.1
21478.9	1268.7	21519.2	1275.5	21575.4	1273.1	21584.9	1272.9	21626.1	1275.2
21630.6	1275.6	21682.8	1273.9	21728	1275.1	21781	1276.2	21786.9	1276.1
21840.5	1276.4	21890.2	1276	21932.1	1276.2	21977.5	1276.3	22016.7	1276.2
22065.1	1271.2	22127.1	1276.4	22140.1	1276.4	22199.8	1276.8	22322.7	1277.4
22365.4	1279.1								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17942.8	.043	18711.1	.028	20283.7	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18711.1	20283.7	500	481.5	490	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17942.8	18711.1	1280	20767.2	22365.4	1280

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1274.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.75	Wt. n-Val.		0.028	0.037
E.G. Elev (ft)	1274.99	Reach Len. (ft)	500.00	481.50	490.00
Crit W.S. (ft)	1265.99	Flow Area (sq ft)		23231.26	2936.89
E.G. Slope (ft/ft)	0.000462	Area (sq ft)	6.55	23231.26	3989.82
Q Total (cfs)	175000.00	Flow (cfs)		165457.34	9542.66
Top Width (ft)	2626.04	Top Width (ft)	17.54	1482.33	1126.17
Vel Total (ft/s)	6.69	Avg. Vel. (ft/s)		7.12	3.25
Max Chl Dpth (ft)	17.73	Hydr. Depth (ft)		15.67	7.34
Conv. Total (cfs)	8138770.5	Conv. (cfs)		7694967.5	443803.1
Length Wtd. (ft)	482.27	Wetted Per. (ft)		1489.80	402.37
Min Ch El (ft)	1256.50	Shear (lb/sq ft)		0.45	0.21
Alpha	1.09	Stream Power (lb/ft s)		3.21	0.68
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	1208.75	12959.00	4463.97
C & E Loss (ft)	0.02	Cum SA (acres)	126.01	1247.04	788.88

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1274.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.75	Wt. n-Val.		0.028	0.037
E.G. Elev (ft)	1275.62	Reach Len. (ft)	500.00	481.50	490.00
Crit W.S. (ft)	1265.99	Flow Area (sq ft)		24174.91	1483.85
E.G. Slope (ft/ft)	0.000429	Area (sq ft)		24174.91	1483.85
Q Total (cfs)	175000.00	Flow (cfs)		170360.34	4639.65
Top Width (ft)	1678.63	Top Width (ft)		1482.33	196.30
Vel Total (ft/s)	6.82	Avg. Vel. (ft/s)		7.05	3.13
Max Chl Dpth (ft)	18.37	Hydr. Depth (ft)		16.31	7.56
Conv. Total (cfs)	8444472.0	Conv. (cfs)		8220589.5	223882.0
Length Wtd. (ft)	481.97	Wetted Per. (ft)		1490.44	203.77
Min Ch El (ft)	1256.50	Shear (lb/sq ft)		0.43	0.20
Alpha	1.04	Stream Power (lb/ft s)		3.06	0.61
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	67.08	12758.70	2773.72
C & E Loss (ft)	0.02	Cum SA (acres)	14.30	1211.76	451.73

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18711.10 LB	19025.62	26639.19	3687.01	230.63	15.22	16.44	7.23
19025.62	19340.14	37674.84	5139.31	314.55	21.53	16.34	7.33
19340.14	19654.66	28090.96	4309.79	314.62	16.05	13.70	6.52
19654.66	19969.18	36209.01	5018.56	314.58	20.69	15.96	7.22
19969.18	20283.70 RB	36843.34	5076.59	315.42	21.05	16.14	7.26
20283.70	20422.48	2886.58	943.04	138.78	1.65	6.80	3.06
20422.48	20561.26	2598.56	886.06	139.04	1.48	6.38	2.93
20561.26	20700.04	4057.52	1107.78	124.54	2.32	9.03	3.66

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18711.10 LB	19025.62	27307.78	3829.77	231.26	15.60	17.08	7.13
19025.62	19340.14	38706.48	5339.54	314.55	22.12	16.98	7.25
19340.14	19654.66	29208.18	4510.01	314.62	16.69	14.34	6.48
19654.66	19969.18	37256.47	5218.78	314.58	21.29	16.59	7.14
19969.18	20283.70 RB	37881.44	5276.81	315.42	21.65	16.78	7.18
20283.70	20422.48	3267.31	1031.39	138.78	1.87	7.43	3.17
20422.48	20561.26	1372.34	452.46	64.99	0.78	7.87	3.03

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 233.64

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18008.2	1285.5	18215.2	1284.9	18265.9	1284.6	18394.7	1284.5	18478.8	1282.6
18544.6	1282.1	18571.1	1284.6	18601.1	1283.1	18623.2	1270.3	18637.6	1270.4
18662.1	1280	18693.7	1280	18735.6	1288	18736.5	1287.6	18742.9	1280.5
18757.8	1268.6	18771.9	1258.7	18793.3	1258.8	18833.5	1277.9	18840.9	1276.3
18857	1266.6	18865	1263.8	18872.2	1256.3	19058.4	1256.6	19102.7	1258.4
19123	1258.5	19148.6	1256.6	19213.5	1256.6	19255.6	1256.6	19453.5	1256.4
19554.9	1256.6	19619	1256.5	19731.3	1256.7	19769.8	1256.7	19826.5	1256.8
19858.3	1261.4	19918	1263.7	19982.8	1264.9	20038.1	1265	20099.9	1263.4
20145	1265.1	20204.5	1264.9	20233.5	1269.1	20240.2	1269.5	20308.3	1268.3
20355.4	1267.6	20465.1	1267.6	20486.6	1263.3	20537.6	1262.4	20574.8	1264.8
20597.1	1263.9	20624.7	1270.7	20787.3	1272.1	20856.2	1270.1	20872.8	1269.4
20936.7	1273.1	20972.2	1270.1	21001.5	1272	21026.7	1268.7	21082.9	1275.3
21097.3	1275.1	21247	1273.6	21277.2	1274	21339.1	1269.7	21371.9	1270.9
21430.2	1273.4	21447.4	1273.4	21563.8	1275.5	21634.8	1275	21684.4	1275.2
21749.7	1275.2	21806.1	1275.1	21834.6	1273.4	21895.3	1270.1	21952.5	1274.8
21959.2	1275.1	22054.4	1275.6	22113.7	1276	22172.8	1276.2	22210.4	1276.2
22289.6	1276.6	22343.7	1276.8	22392	1276.6	22459.5	1276	22516.4	1276
22591.1	1275.5	22643.2	1275.5	22723.2	1276	22749	1276	22806.1	1276
22841	1276.1	22891.7	1276.2	22976.8	1276.7	23007.2	1276.7	23062	1276.6
23088	1276.8								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18008.2	.043	18833.5	.028	20038.1	.028	20233.5	.032	20624.7	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18833.5	20038.1	505	500.44	495	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18008.2	18833.5	1285	20787.3	23088	1285

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1273.78	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.93	Wt. n-Val.		0.028	0.030
E.G. Elev (ft)	1274.72	Reach Len. (ft)	505.00	500.44	495.00
Crit W.S. (ft)	1266.91	Flow Area (sq ft)		18793.18	4947.86
E.G. Slope (ft/ft)	0.000598	Area (sq ft)	791.95	18793.18	6264.60
Q Total (cfs)	175000.00	Flow (cfs)		152707.69	22292.31
Top Width (ft)	2659.22	Top Width (ft)	102.56	1193.02	1363.65
Vel Total (ft/s)	7.37	Avg. Vel. (ft/s)		8.13	4.51

Max Chl Dpth (ft)	17.48	Hydr. Depth (ft)		15.75	6.60
Conv. Total (cfs)	7157451.0	Conv. (cfs)		6245701.5	911749.4
Length Wtd. (ft)	499.39	Wetted Per. (ft)		1199.18	750.95
Min Ch El (ft)	1256.30	Shear (lb/sq ft)		0.58	0.25
Alpha	1.11	Stream Power (lb/ft s)		4.75	1.11
Frctn Loss (ft)	0.44	Cum Volume (acre-ft)	1204.17	12726.73	4406.30
C & E Loss (ft)	0.07	Cum SA (acres)	125.32	1232.26	774.87

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1274.37	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.99	Wt. n-Val.		0.028	0.029
E.G. Elev (ft)	1275.36	Reach Len. (ft)	505.00	500.44	495.00
Crit W.S. (ft)	1266.84	Flow Area (sq ft)		19495.42	3002.22
E.G. Slope (ft/ft)	0.000582	Area (sq ft)		19495.42	3002.22
Q Total (cfs)	175000.00	Flow (cfs)		160146.52	14853.49
Top Width (ft)	1574.92	Top Width (ft)		1193.02	381.90
Vel Total (ft/s)	7.78	Avg. Vel. (ft/s)		8.21	4.95
Max Chl Dpth (ft)	18.07	Hydr. Depth (ft)		16.34	7.86
Conv. Total (cfs)	7252925.5	Conv. (cfs)		6637318.5	615607.2
Length Wtd. (ft)	499.58	Wetted Per. (ft)		1199.77	389.05
Min Ch El (ft)	1256.30	Shear (lb/sq ft)		0.59	0.28
Alpha	1.05	Stream Power (lb/ft s)		4.85	1.39
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	67.08	12517.34	2748.49
C & E Loss (ft)	0.07	Cum SA (acres)	14.30	1196.97	448.48

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18833.50 LB	19074.42	29911.52	3707.36	235.02	17.09	16.17	8.07
19074.42	19315.34	34005.58	4044.52	241.01	19.43	16.79	8.41
19315.34	19556.26	35753.72	4167.37	240.92	20.43	17.30	8.58
19556.26	19797.18	35295.00	4135.21	240.92	20.17	17.16	8.54
19797.18	20038.10 RB	17741.86	2738.72	241.31	10.14	11.37	6.48
20038.10	20241.43	9646.71	1776.36	203.69	5.51	8.74	5.43
20241.43	20444.75	4101.22	1154.07	203.34	2.34	5.68	3.55
20444.75	20648.08	8013.11	1699.95	204.68	4.58	8.36	4.71
20648.08	20851.41	531.30	317.48	139.23	0.30	2.28	1.67

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18833.50 LB	19074.42	31303.96	3842.36	235.61	17.89	16.75	8.15
19074.42	19315.34	35570.78	4186.33	241.01	20.33	17.38	8.50
19315.34	19556.26	37337.18	4309.18	240.92	21.34	17.89	8.66
19556.26	19797.18	36873.85	4277.02	240.92	21.07	17.75	8.62
19797.18	20038.10 RB	19060.74	2880.53	241.31	10.89	11.96	6.62
20038.10	20241.43	10776.55	1896.04	203.69	6.16	9.33	5.68
20241.43	20444.75	4076.95	1106.18	185.36	2.33	6.19	3.69

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 233.55

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18079.7	1283	18205.7	1282.1	18262.5	1281.4	18386.4	1280.3	18469.8	1278.9
18480.3	1278.3	18519.8	1279.3	18521.3	1279.3	18571.7	1279.6	18587.6	1274
18594.1	1271.2	18602.8	1271.9	18619.9	1279.3	18637.9	1287.7	18673	1280.4
18674.8	1280.2	18741.7	1278.9	18742.7	1279	18769.7	1280.9	18807.9	1283.5
18818.5	1283.3	18857.7	1282.6	18874.3	1282.3	18894.5	1280	18906.1	1272.2
18921.2	1260.8	18926.8	1256.2	19141.1	1256.3	19349.5	1256.3	19356.7	1256.5
19408	1258.1	19449.7	1260.4	19464.5	1260.8	19567.8	1262.8	19619.1	1263.6
19673.9	1264.9	19693.3	1264.9	19771.7	1265.2	19808.1	1265.1	19865.7	1265
19882.9	1264.9	19903.4	1263.5	19962.6	1263.1	19996.7	1262.7	20031.7	1263.8
20052.8	1264.3	20084.9	1264.8	20111.2	1264.9	20145.3	1265.5	20156.6	1265.8
20188.3	1264.5	20208.2	1264.2	20255.3	1261.9	20277.4	1262.4	20304.4	1264.1
20321.6	1268.4	20346.9	1268.7	20360.7	1268	20405.1	1265.7	20429.6	1262.6
20463.2	1261.8	20482.6	1261.5	20510.4	1261	20540.6	1269.1	20554.1	1269.8
20578	1270	20601.1	1268.8	20649	1271.7	20669.7	1273	20721.1	1269.8
20748.4	1272.1	20783.2	1274.7	20846.9	1270.9	20862.1	1270.2	20889.4	1272.4
20906.1	1273.8	20951.7	1271.5	20975.4	1270.6	21035.9	1273.8	21054.9	1273.4
21084.8	1273.1	21172.5	1271.8	21219.7	1269.9	21256.5	1268.4	21261.5	1268
21261.6	1267.7	21303	1270.1	21331.2	1269.2	21338.4	1269.5	21356.8	1271.3
21370	1271.9	21386.8	1270.8	21432	1272.3	21452.9	1273.5	21471.6	1273.8
21522.3	1274.6								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18079.7	.043	18874.3	.028	19771.7	.028	20156.6	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18874.3	19771.7	495	500.43	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18079.7	18874.3	1285	20782.3	21522.3	1280

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1272.54	Element			
Vel Head (ft)	1.66	Wt. n-Val.		0.028	0.032
E.G. Elev (ft)	1274.20	Reach Len. (ft)	495.00	500.43	505.00
Crit W.S. (ft)	1269.20	Flow Area (sq ft)		11454.22	6716.99
E.G. Slope (ft/ft)	0.001466	Area (sq ft)	11.20	11454.22	7503.64
Q Total (cfs)	175000.00	Flow (cfs)		129588.87	45411.14
Top Width (ft)	2313.94	Top Width (ft)	13.30	866.11	1434.53
Vel Total (ft/s)	9.63	Avg. Vel. (ft/s)		11.31	6.76
Max Chl Dpth (ft)	16.34	Hydr. Depth (ft)		13.22	6.94
Conv. Total (cfs)	4570529.5	Conv. (cfs)		3384512.8	1186016.8
Length Wtd. (ft)	501.51	Wetted Per. (ft)		871.82	970.45
Min Ch El (ft)	1256.20	Shear (lb/sq ft)		1.20	0.63
Alpha	1.15	Stream Power (lb/ft s)		13.60	4.28
Frctn Loss (ft)	0.86	Cum Volume (acre-ft)	1199.52	12552.98	4328.07
C & E Loss (ft)	0.02	Cum SA (acres)	124.65	1220.43	758.97

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1273.17	Element			
Vel Head (ft)	1.69	Wt. n-Val.		0.028	0.031
E.G. Elev (ft)	1274.87	Reach Len. (ft)	495.00	500.43	505.00
Crit W.S. (ft)	1269.44	Flow Area (sq ft)		12000.62	5494.14
E.G. Slope (ft/ft)	0.001352	Area (sq ft)		12000.62	5494.14
Q Total (cfs)	175000.00	Flow (cfs)		134425.41	40574.60
Top Width (ft)	1509.41	Top Width (ft)		866.11	643.30
Vel Total (ft/s)	10.00	Avg. Vel. (ft/s)		11.20	7.39
Max Chl Dpth (ft)	16.97	Hydr. Depth (ft)		13.86	8.54

Conv. Total (cfs)	4759627.5	Conv. (cfs)		3656084.8	1103542.8
Length Wtd. (ft)	501.36	Wetted Per. (ft)		872.45	652.95
Min Ch El (ft)	1256.20	Shear (lb/sq ft)		1.16	0.71
Alpha	1.09	Stream Power (lb/ft s)		13.00	5.24
Frctn Loss (ft)	0.77	Cum Volume (acre-ft)	67.08	12336.42	2700.21
C & E Loss (ft)	0.01	Cum SA (acres)	14.30	1185.14	442.66

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18874.30 LB	19053.78	26299.13	2241.33	153.76	15.03	15.12	11.73
19053.78	19233.26	36799.85	2916.86	179.48	21.03	16.25	12.62
19233.26	19412.74	35481.55	2853.94	179.52	20.28	15.90	12.43
19412.74	19592.22	19713.20	2006.06	179.56	11.26	11.18	9.83
19592.22	19771.70 RB	11295.13	1436.03	179.50	6.45	8.00	7.87
19771.70	19888.41	6642.29	874.31	116.72	3.80	7.49	7.60
19888.41	20005.11	9524.80	1085.51	116.75	5.44	9.30	8.77
20005.11	20121.82	7784.96	961.71	116.73	4.45	8.24	8.09
20121.82	20238.53	5934.12	920.85	116.78	3.39	7.89	6.44
20238.53	20355.23	5210.14	895.19	117.33	2.98	7.67	5.82
20355.23	20471.94	5507.20	924.37	116.98	3.15	7.92	5.96
20471.94	20588.65	4235.63	791.90	117.81	2.42	6.79	5.35
20588.65	20705.35	404.86	182.93	102.24	0.23	1.79	2.21
20705.35	20822.06	167.12	80.23	49.11	0.10	1.64	2.08

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18874.30 LB	19053.78	27041.63	2334.82	154.39	15.45	15.76	11.58
19053.78	19233.26	37767.04	3030.09	179.48	21.58	16.88	12.46
19233.26	19412.74	36464.13	2967.17	179.52	20.84	16.53	12.29
19412.74	19592.22	20806.61	2119.28	179.56	11.89	11.81	9.82
19592.22	19771.70 RB	12345.99	1549.26	179.50	7.05	8.63	7.97
19771.70	19888.41	7417.35	947.94	116.72	4.24	8.12	7.82
19888.41	20005.11	10369.68	1159.13	116.75	5.93	9.93	8.95
20005.11	20121.82	8591.32	1035.34	116.73	4.91	8.87	8.30
20121.82	20238.53	6587.82	994.47	116.78	3.76	8.52	6.62
20238.53	20355.23	5800.54	968.81	117.33	3.31	8.30	5.99
20355.23	20471.94	1807.90	388.44	68.64	1.03	6.50	4.65

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 233.46

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18068.5	1280.6	18124.1	1274.3	18131.7	1272.6	18145.5	1261.9	18153.8	1260.1
18185.5	1259.4	18200.4	1261.2	18209.6	1259.9	18226	1260.3	18240.8	1257.3
18249.8	1257.7	18299.3	1255.2	18317.7	1254	18335.8	1255.6	18350.4	1261.2
18372.8	1271.5	18418.9	1272	18445	1282.6	18447.7	1284.4	18469.2	1283.8
18474.2	1279.8	18483.2	1275.4	18498.5	1277	18512.8	1276.7	18536	1277.7
18596.9	1282.2	18615.5	1284	18679.2	1283.3	18717.4	1283	18739.2	1284.8
18744.6	1284.2	18786.5	1278.2	18810.8	1275.2	18840.7	1274	18852.5	1270.6
18866	1272.3	18881.7	1255.9	18949.3	1255.9	19010.2	1255.9	19199.8	1256
19229.9	1258.7	19285	1259.8	19306.9	1260.5	19355.5	1261.7	19388.7	1261.5
19430.1	1261.7	19494.5	1261.1	19604.2	1260.4	19626.9	1263	19688.2	1262.8
19736.5	1262.5	19793.4	1265	19793.9	1265.1	19837.7	1265.5	19910.1	1267.4
19960.9	1266	19985.6	1266.8	20008.3	1263.8	20051	1264.5	20100.9	1265.6
20113.7	1265.9	20174.4	1265.5	20233.7	1266.2	20283.8	1265.1	20339.2	1264.8
20357.1	1264.6	20391.4	1262.3	20404.6	1262.3	20464	1261.8	20500	1262
20520.2	1260.7	20536.3	1260.6	20540	1261.3	20587	1268.3	20591.3	1268.3
20647.6	1269	20698.7	1269.2	20710	1269.3	20769.3	1270	20799.6	1270.3
20869.4	1271.7	20882.6	1271.8	20949	1272.7	20981.7	1272.1	21045.9	1269.8
21101.6	1272.6	21114.3	1272.5	21173.1	1268.7	21184	1267.9	21230.7	1265.8
21281.4	1270.7	21281.8	1270.7	21344.6	1270	21397	1270.4	21418	1271.3

21461 1273.7

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18068.5	.032	18866	.028	18881.7	.028	19793.4	.032	19910.1	.032
20587	.037								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18866	19910.1	505	505.74	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18068.5	18866	1280	20882.6	21461	1280

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1271.44	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.87	Wt. n-Val.		0.028	0.032
E.G. Elev (ft)	1273.31	Reach Len. (ft)	505.00	505.74	510.00
Crit W.S. (ft)	1269.16	Flow Area (sq ft)		11685.02	5171.62
E.G. Slope (ft/ft)	0.002058	Area (sq ft)	2941.28	11685.02	5849.40
Q Total (cfs)	175000.00	Flow (cfs)		137921.91	37078.09
Top Width (ft)	2606.41	Top Width (ft)	249.01	1043.27	1314.12
Vel Total (ft/s)	10.38	Avg. Vel. (ft/s)		11.80	7.17
Max Chl Dpth (ft)	17.44	Hydr. Depth (ft)		11.20	5.47
Conv. Total (cfs)	3858000.0	Conv. (cfs)		3040587.0	817413.1
Length Wtd. (ft)	506.71	Wetted Per. (ft)		1050.31	947.18
Min Ch El (ft)	1255.90	Shear (lb/sq ft)		1.43	0.70
Alpha	1.12	Stream Power (lb/ft s)		16.87	5.03
Frctn Loss (ft)	1.08	Cum Volume (acre-ft)	1182.74	12420.07	4250.67
C & E Loss (ft)	0.01	Cum SA (acres)	123.16	1209.46	743.04

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1272.24	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.84	Wt. n-Val.		0.028	0.032
E.G. Elev (ft)	1274.08	Reach Len. (ft)	505.00	505.74	510.00
Crit W.S. (ft)	1269.32	Flow Area (sq ft)		12522.24	4219.30
E.G. Slope (ft/ft)	0.001782	Area (sq ft)		12522.24	4219.30
Q Total (cfs)	175000.00	Flow (cfs)		143970.64	31029.36
Top Width (ft)	1613.17	Top Width (ft)		1043.27	569.90
Vel Total (ft/s)	10.45	Avg. Vel. (ft/s)		11.50	7.35
Max Chl Dpth (ft)	16.34	Hydr. Depth (ft)		12.00	7.40
Conv. Total (cfs)	4145656.0	Conv. (cfs)		3410587.3	735068.9
Length Wtd. (ft)	506.53	Wetted Per. (ft)		1051.11	580.60
Min Ch El (ft)	1255.90	Shear (lb/sq ft)		1.33	0.81
Alpha	1.08	Stream Power (lb/ft s)		15.24	5.95
Frctn Loss (ft)	0.93	Cum Volume (acre-ft)	67.08	12195.56	2643.91
C & E Loss (ft)	0.01	Cum SA (acres)	14.30	1174.17	435.62

Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18866.00 LB	19074.82	42254.55	3114.91	214.63	24.15	14.98	13.57
19074.82	19283.64	40698.09	3013.07	208.95	23.26	14.43	13.51
19283.64	19492.46	22740.36	2124.50	208.85	12.99	10.17	10.70
19492.46	19701.28	21439.99	2051.24	208.97	12.25	9.82	10.45
19701.28	19910.10 RB	10788.96	1381.31	208.91	6.17	6.61	7.81
19910.10	20013.49	3364.43	543.77	103.62	1.92	5.26	6.19
20013.49	20116.89	4900.67	680.88	103.42	2.80	6.59	7.20
20116.89	20220.28	3865.58	590.50	103.40	2.21	5.71	6.55
20220.28	20323.67	4172.68	618.24	103.41	2.38	5.98	6.75
20323.67	20427.07	6745.24	824.92	103.47	3.85	7.98	8.18
20427.07	20530.46	9418.50	1007.73	103.44	5.38	9.75	9.35
20530.46	20633.85	3664.27	549.63	103.98	2.09	5.32	6.67
20633.85	20737.25	707.79	232.63	103.40	0.40	2.25	3.04
20737.25	20840.64	237.66	120.87	103.41	0.14	1.17	1.97

20840.64	20944.03	1.26	2.45	15.64	0.00	0.16	0.52

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18866.00 LB	19074.82	43060.39	3281.82	215.43	24.61	15.78	13.12
19074.82	19283.64	41711.12	3180.64	208.95	23.83	15.23	13.11
19283.64	19492.46	24168.61	2292.08	208.85	13.81	10.98	10.54
19492.46	19701.28	22885.86	2218.81	208.97	13.08	10.63	10.31
19701.28	19910.10 RB	12144.66	1548.88	208.91	6.94	7.42	7.84
19910.10	20013.49	4035.22	626.74	103.62	2.31	6.06	6.44
20013.49	20116.89	5618.92	763.86	103.42	3.21	7.39	7.36
20116.89	20220.28	4555.61	673.47	103.40	2.60	6.51	6.76
20220.28	20323.67	4872.32	701.21	103.41	2.78	6.78	6.95
20323.67	20427.07	7490.90	907.89	103.47	4.28	8.78	8.25
20427.07	20530.46	4456.40	546.13	63.29	2.55	10.32	8.16

Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 233.36

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17992.1	1279.6	18018.6	1277.4	18025.9	1277.8	18055.5	1273.4	18066.8	1269
18106.9	1265.5	18137.5	1266.8	18175.3	1269	18184.3	1269.2	18210.4	1266.3
18237.1	1265.8	18264.5	1270.8	18269.5	1273.1	18277.3	1273.3	18297.1	1272.5
18309.8	1274	18333.6	1274.9	18366.2	1272.5	18373.3	1271.5	18382.4	1272.3
18419.7	1271	18482.4	1270.9	18497.3	1270.9	18549.4	1274.4	18559.1	1272.5
18570.5	1267.7	18596.2	1255.4	18612	1245.1	18635.9	1243.7	18646.9	1244.1
18658.1	1250.2	18694.9	1264.2	18721.1	1272.5	18741.2	1272.4	18765.7	1256.8
18766.2	1256.8	18808.1	1256.9	19240.4	1257	19261.6	1258	19325.4	1260.3
19373.4	1259.8	19410.5	1259.8	19459.2	1259.3	19510	1261	19531.6	1261.3
19568.2	1261.2	19628.5	1261	19645.7	1264.2	19659.2	1265.9	19679.8	1265.3
19700.9	1265.6	19773.6	1267.4	19791.6	1267.6	19974.1	1266.1	20003.3	1266.1
20018.4	1266.7	20042.2	1266.6	20105	1266.2	20111	1267.3	20150	1263.9
20180.4	1264.5	20187.2	1264	20229.3	1263.9	20253	1263.6	20317.5	1262.9
20331.1	1262.6	20369.4	1264.6	20390.9	1264.2	20412.5	1262.3	20453.4	1263
20495.4	1264.2	20530.2	1264	20555.7	1261.9	20589.2	1261	20604.5	1260.6
20651.3	1260.8	20671.3	1260.8	20703	1268.1	20734.9	1268.5	20789.4	1269.2
20830.8	1269.3	20882.4	1269.4	20935	1269.8	20992.1	1270.3	21066.4	1263.7
21073.5	1263.1	21083.5	1264.5	21129.9	1271	21141.6	1270.4	21146.5	1270.8
21180.7	1272.6	21185.5	1272.4	21232.2	1271.4	21282.7	1271.3	21316.1	1272.8
21333	1273.5								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17992.1	.032	18741.2	.028	18765.7	.028	19659.2	.037	19773.6	.037
20111	.03	20703	.037						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18741.2	19773.6	485	488.89	490	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17992.1	18741.2	1272.4	20825	21333	1275

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1270.38	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.85	Wt. n-Val.		0.029	0.031
E.G. Elev (ft)	1272.22	Reach Len. (ft)	485.00	488.89	490.00
Crit W.S. (ft)	1268.35	Flow Area (sq ft)		11229.98	5666.02
E.G. Slope (ft/ft)	0.002209	Area (sq ft)	2874.66	11229.98	6274.43

Q Total (cfs)	175000.00	Flow (cfs)		132381.20	42618.80
Top Width (ft)	2730.26	Top Width (ft)	349.18	1029.22	1351.86
Vel Total (ft/s)	10.36	Avg. Vel. (ft/s)		11.79	7.52
Max Chl Dpth (ft)	26.68	Hydr. Depth (ft)		10.91	5.39
Conv. Total (cfs)	3723097.5	Conv. (cfs)		2816389.3	906708.3
Length Wtd. (ft)	489.14	Wetted Per. (ft)		1033.72	1052.81
Min Ch El (ft)	1256.80	Shear (lb/sq ft)		1.50	0.74
Alpha	1.11	Stream Power (lb/ft s)		17.66	5.58
Frctn Loss (ft)	1.05	Cum Volume (acre-ft)	1149.03	12287.04	4179.69
C & E Loss (ft)	0.02	Cum SA (acres)	119.69	1197.43	727.43

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1271.32	Element			
Vel Head (ft)	1.82	Wt. n-Val.		0.029	0.032
E.G. Elev (ft)	1273.14	Reach Len. (ft)	485.00	488.89	490.00
Crit W.S. (ft)	1268.75	Flow Area (sq ft)		12199.76	4797.40
E.G. Slope (ft/ft)	0.001900	Area (sq ft)		12199.76	4797.40
Q Total (cfs)	175000.00	Flow (cfs)		140870.45	34129.54
Top Width (ft)	1795.62	Top Width (ft)		1029.22	766.40
Vel Total (ft/s)	10.30	Avg. Vel. (ft/s)		11.55	7.11
Max Chl Dpth (ft)	14.52	Hydr. Depth (ft)		11.85	6.26
Conv. Total (cfs)	4014361.5	Conv. (cfs)		3231456.8	782904.6
Length Wtd. (ft)	489.06	Wetted Per. (ft)		1034.66	775.03
Min Ch El (ft)	1256.80	Shear (lb/sq ft)		1.40	0.73
Alpha	1.11	Stream Power (lb/ft s)		16.15	5.22
Frctn Loss (ft)	1.08	Cum Volume (acre-ft)	67.08	12052.05	2591.12
C & E Loss (ft)	0.09	Cum SA (acres)	14.30	1162.14	427.80

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18741.20 LB	18947.68	32613.53	2597.26	207.26	18.64	12.78	12.56
18947.68	19154.16	36425.91	2771.20	206.48	20.81	13.42	13.14
19154.16	19360.64	30784.47	2505.39	206.55	17.59	12.13	12.29
19360.64	19567.12	22883.49	2096.83	206.51	13.08	10.16	10.91
19567.12	19773.60 RB	9673.76	1259.29	206.92	5.53	6.10	7.68
19773.60	19877.56	1273.61	320.90	103.96	0.73	3.09	3.97
19877.56	19981.52	1887.80	406.37	103.96	1.08	3.91	4.65
19981.52	20085.48	1926.64	411.38	103.97	1.10	3.96	4.68
20085.48	20189.44	3563.40	532.15	104.23	2.04	5.12	6.70
20189.44	20293.40	5708.83	696.03	103.97	3.26	6.70	8.20
20293.40	20397.36	5906.36	710.60	104.04	3.38	6.84	8.31
20397.36	20501.32	6456.22	749.58	104.04	3.69	7.21	8.61
20501.32	20605.28	7564.53	824.39	104.06	4.32	7.93	9.18
20605.28	20709.24	7894.01	838.69	104.79	4.51	8.07	9.41
20709.24	20813.20	411.32	162.88	103.97	0.24	1.57	2.53
20813.20	20917.16	26.12	13.05	11.80	0.01	1.11	2.00

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18741.20 LB	18947.68	34199.11	2788.82	208.20	19.54	13.72	12.26
18947.68	19154.16	38101.49	2965.76	206.48	21.77	14.36	12.85
19154.16	19360.64	32574.91	2699.95	206.55	18.61	13.08	12.07

19360.64	19567.12	24783.72	2291.39	206.51	14.16	11.10	10.82
19567.12	19773.60 RB	11211.20	1453.85	206.92	6.41	7.04	7.71
19773.60	19877.56	1847.06	418.86	103.96	1.06	4.03	4.41
19877.56	19981.52	2517.04	504.32	103.96	1.44	4.85	4.99
19981.52	20085.48	2558.70	509.34	103.97	1.46	4.90	5.02
20085.48	20189.44	4371.57	630.10	104.23	2.50	6.06	6.94
20189.44	20293.40	6614.12	793.99	103.97	3.78	7.64	8.33
20293.40	20397.36	6814.12	808.56	104.04	3.89	7.78	8.43
20397.36	20501.32	7370.47	847.54	104.04	4.21	8.15	8.70
20501.32	20605.28	2036.50	284.68	46.84	1.16	7.36	7.15

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 233.27

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18188.9	1289	18195.1	1284.9	18228.8	1277.8	18238	1273.3	18244.8	1272.9
18277	1273.3	18299.9	1273.3	18354.5	1272.7	18376.4	1273.5	18404.7	1282.1
18407.2	1284.4	18422	1282.9	18453.7	1285.3	18484.7	1289.3	18529.6	1290.8
18553.1	1292.7	18573.5	1293.5	18594.2	1293.3	18610.4	1293.9	18617.4	1294.6
18648.6	1297.4	18654	1298	18685	1277.5	18718.1	1260.8	18725.2	1257.1
18733	1257.3	18834.6	1257.2	19313.6	1256.4	19363.4	1256.8	19401.2	1257.6
19505.6	1258.6	19541	1259	19615.3	1259.7	19664.1	1260.3	19692	1266.9
19712.9	1266.6	19785.5	1265.9	19843.8	1265.7	19891.4	1265.7	19959.9	1266.4
20020.8	1266.1	20057.1	1266.1	20106.5	1266.2	20123.2	1267.6	20165.9	1267.6
20173.9	1267.5	20236.5	1267.8	20246.7	1267.7	20322.1	1267.7	20352.9	1266.2
20368.1	1265.1	20434.9	1261.8	20446.3	1261.6	20493.1	1262	20525	1261.6
20581.4	1260.6	20621.9	1260.9	20694	1260	20712.9	1259.8	20770.8	1260.2
20773.2	1260.8	20807.3	1268.2	20862.6	1268.4	20894.7	1268.8	20919.8	1268.9
20946.1	1267.2	21000.6	1263.8	21001.7	1263.8	21056.8	1269.4	21057.4	1269.4
21088.2	1270.1	21117.9	1271.8	21161.6	1271.4	21201.2	1271.2	21250.5	1271.3
21275.9	1271.1	21303	1269.8	21328.3	1270.4	21359.3	1270.6	21367.3	1269.7
21384.7	1270.7	21475.4	1268.5	21531.9	1269.9	21576.2	1270.7	21601.4	1270.7
21633.7	1270.7	21701.4	1271.2	21782.2	1271.1	21810.5	1271.2	22059.6	1271.2
22099.4	1271.4	22159.6	1271.3	22198.1	1271.5	22224.9	1272.2	22264.9	1272.5
22284	1273								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18188.9	.032	18654	.028	19692	.037	20322.1	.028	20807.3	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18654	19692	490	487.21	490	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
20919.8	22284	1290

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1269.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.00	Wt. n-Val.		0.028	0.029
E.G. Elev (ft)	1271.16	Reach Len. (ft)	490.00	487.21	490.00
Crit W.S. (ft)	1267.05	Flow Area (sq ft)		11288.81	5148.82
E.G. Slope (ft/ft)	0.002085	Area (sq ft)		11288.81	5541.20
Q Total (cfs)	175000.00	Flow (cfs)		138213.75	36786.25
Top Width (ft)	2406.12	Top Width (ft)		990.46	1415.66
Vel Total (ft/s)	10.65	Avg. Vel. (ft/s)		12.24	7.14
Max Chl Dpth (ft)	12.75	Hydr. Depth (ft)		11.40	4.19
Conv. Total (cfs)	3832099.0	Conv. (cfs)		3026564.3	805534.7
Length Wtd. (ft)	487.58	Wetted Per. (ft)		994.15	1228.92
Min Ch El (ft)	1256.40	Shear (lb/sq ft)		1.48	0.55
Alpha	1.14	Stream Power (lb/ft s)		18.10	3.90
Frctn Loss (ft)	1.41	Cum Volume (acre-ft)	1133.02	12160.68	4113.24
C & E Loss (ft)	0.14	Cum SA (acres)	117.74	1186.10	711.87

Warning - Divided flow computed for this cross-section.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1269.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.68	Wt. n-Val.		0.028	0.031
E.G. Elev (ft)	1271.98	Reach Len. (ft)	490.00	487.21	490.00
Crit W.S. (ft)	1268.00	Flow Area (sq ft)		11427.25	3003.76
E.G. Slope (ft/ft)	0.002581	Area (sq ft)		11427.25	3003.76
Q Total (cfs)	175000.00	Flow (cfs)		156910.78	18089.22
Top Width (ft)	1838.46	Top Width (ft)		990.46	848.00
Vel Total (ft/s)	12.13	Avg. Vel. (ft/s)		13.73	6.02
Max Chl Dpth (ft)	12.89	Hydr. Depth (ft)		11.54	3.54
Conv. Total (cfs)	3444420.5	Conv. (cfs)		3088381.3	356039.4
Length Wtd. (ft)	487.36	Wetted Per. (ft)		994.29	856.20
Min Ch El (ft)	1256.40	Shear (lb/sq ft)		1.85	0.57
Alpha	1.18	Stream Power (lb/ft s)		25.43	3.40
Frctn Loss (ft)	1.69	Cum Volume (acre-ft)	67.08	11919.46	2547.25
C & E Loss (ft)	0.14	Cum SA (acres)	14.30	1150.81	418.72

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18654.00 LB	18861.60	20855.47	1767.54	162.95	11.92	11.04	11.80
18861.60	19069.20	32194.99	2526.83	207.60	18.40	12.17	12.74
19069.20	19276.80	33738.37	2598.83	207.60	19.28	12.52	12.98
19276.80	19484.40	31063.60	2473.23	207.61	17.75	11.91	12.56
19484.40	19692.00 RB	20361.25	1922.37	208.38	11.63	9.26	10.59
19692.00	19864.80	1978.45	529.01	172.81	1.13	3.06	3.74
19864.80	20037.60	2000.41	532.52	172.80	1.14	3.08	3.76
20037.60	20210.40	1148.78	381.83	172.86	0.66	2.21	3.01
20210.40	20383.20	1294.62	348.78	172.89	0.74	2.02	3.71
20383.20	20556.00	10528.40	1220.48	172.87	6.02	7.06	8.63
20556.00	20728.80	14884.91	1502.10	172.81	8.51	8.69	9.91
20728.80	20901.60	4946.68	628.84	173.67	2.83	3.64	7.87
20901.60	21074.40	4.09	5.27	18.20	0.00	0.29	0.78

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18654.00 LB	18861.60	23683.95	1789.91	163.10	13.53	11.18	13.23
18861.60	19069.20	36512.03	2555.84	207.60	20.86	12.31	14.29
19069.20	19276.80	38242.31	2627.85	207.60	21.85	12.66	14.55
19276.80	19484.40	35243.38	2502.25	207.61	20.14	12.05	14.08
19484.40	19692.00 RB	23229.04	1951.38	208.38	13.27	9.40	11.90
19692.00	19864.80	2360.45	553.16	172.81	1.35	3.20	4.27
19864.80	20037.60	2385.49	556.67	172.80	1.36	3.22	4.29
20037.60	20210.40	1409.24	405.98	172.86	0.81	2.35	3.47
20210.40	20383.20	1580.35	372.93	172.89	0.90	2.16	4.24
20383.20	20556.00	10353.75	1115.02	164.83	5.92	7.11	9.29

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 233.18

INPUT
Description:

Station Elevation Data num= 80

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18047.4	1274.7	18074.9	1273.5	18082	1273.8	18088.6	1272.4	18098.2	1272.6
18199.5	1273.1	18249.1	1272.7	18337	1270.8	18345.6	1270.5	18358.2	1271.1
18376.5	1270.3	18452.9	1270.4	18473.3	1271.1	18503.7	1271.1	18577.8	1271.2
18606.1	1270.2	18614.6	1270.1	18624.6	1270.7	18645.4	1272.8	18652	1272.2
18667.4	1262.4	18675.4	1257.3	18676.6	1256.5	18705.1	1256.5	19383.6	1255.4
19455.3	1256.7	19491.2	1257.3	19541.6	1257.9	19584.5	1258.3	19626.7	1258.6
19671.2	1259	19685.9	1259	19753.5	1259.2	19777.4	1259.2	19815	1259.2
19832.9	1264.5	19839.9	1265.8	19919.6	1265.6	19979.6	1265.8	20030.4	1265.8
20071.4	1265.7	20101.5	1265.5	20124.6	1265.4	20154	1265.5	20186.5	1265.6
20237.9	1265.8	20265.9	1265.9	20303.1	1265.8	20310.7	1265.8	20324.9	1265.8
20363.3	1265.7	20392	1265.6	20419.2	1265.2	20436.3	1264.9	20567.7	1264.6
20571.7	1264.5	20575.5	1264.2	20605.8	1260.9	20650.8	1262	20672.1	1262.6
20684.1	1262.5	20728.3	1261.8	20749.1	1262.7	20760.8	1262.8	20790.1	1262.8
20829.6	1263	20841.9	1263.5	20849.9	1263.9	20871.6	1266.4	20880.2	1267.1
20886.7	1267.2	20919	1266.7	20956.9	1266.6	20967	1266.3	20992	1265.9
21015.3	1266.8	21015.7	1266.8	21051.3	1267.9	21084.7	1269	21164	1270.3

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18047.4	.037	18645.4	.028	19839.9	.037	20567.7	.028	20886.7	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18645.4	19839.9	525	516.58	515	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
20886.7	21164	1270

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1266.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.44	Wt. n-Val.		0.028	0.029
E.G. Elev (ft)	1269.61	Reach Len. (ft)	525.00	516.58	515.00
Crit W.S. (ft)	1266.17	Flow Area (sq ft)		10864.75	1553.17
E.G. Slope (ft/ft)	0.004277	Area (sq ft)		10864.75	1556.37
Q Total (cfs)	175000.00	Flow (cfs)		165446.86	9553.14
Top Width (ft)	2231.90	Top Width (ft)		1178.42	1053.47
Vel Total (ft/s)	14.09	Avg. Vel. (ft/s)		15.23	6.15
Max Chl Dpth (ft)	10.77	Hydr. Depth (ft)		9.22	1.51
Conv. Total (cfs)	2675865.3	Conv. (cfs)		2529791.5	146073.8
Length Wtd. (ft)		Wetted Per. (ft)		1182.17	1030.10
Min Ch El (ft)	1255.40	Shear (lb/sq ft)		2.45	0.40
Alpha	1.11	Stream Power (lb/ft s)		37.37	2.48
Frctn Loss (ft)		Cum Volume (acre-ft)	1133.02	12036.79	4073.32
C & E Loss (ft)		Cum SA (acres)	117.74	1173.97	697.98

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1266.11	Element	Left OB	Channel	Right OB
Vel Head (ft)	4.05	Wt. n-Val.		0.028	0.037
E.G. Elev (ft)	1270.16	Reach Len. (ft)	525.00	516.58	515.00

Crit W.S. (ft)	1266.10	Flow Area (sq ft)		10793.26	287.27
E.G. Slope (ft/ft)	0.004864	Area (sq ft)		10793.26	287.27
Q Total (cfs)	175000.00	Flow (cfs)		174516.33	483.68
Top Width (ft)	1793.43	Top Width (ft)		1178.33	615.10
Vel Total (ft/s)	15.79	Avg. Vel. (ft/s)		16.17	1.68
Max Chl Dpth (ft)	10.71	Hydr. Depth (ft)		9.16	0.47
Conv. Total (cfs)	2509203.3	Conv. (cfs)		2502268.3	6935.1
Length Wtd. (ft)	516.58	Wetted Per. (ft)		1182.05	616.36
Min Ch El (ft)	1255.40	Shear (lb/sq ft)		2.77	0.14
Alpha	1.05	Stream Power (lb/ft s)		44.83	0.24
Frctn Loss (ft)	2.05	Cum Volume (acre-ft)	67.08	11795.19	2528.74
C & E Loss (ft)	0.40	Cum SA (acres)	14.30	1138.68	410.49

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18645.40 LB	18884.30	32052.49	2107.14	225.65	18.32	9.46	15.21
18884.30	19123.20	39014.33	2425.62	238.90	22.29	10.15	16.08
19123.20	19362.10	41525.55	2518.12	238.90	23.73	10.54	16.49
19362.10	19601.00	32972.54	2192.78	238.92	18.84	9.18	15.04
19601.00	19839.90 RB	19881.96	1621.10	239.79	11.36	6.79	12.26
19839.90	19928.17	65.56	42.14	88.27	0.04	0.48	1.56
19928.17	20016.45	52.74	36.98	88.27	0.03	0.42	1.43
20016.45	20104.72	64.26	41.64	88.27	0.04	0.47	1.54
20104.72	20192.99	115.87	59.31	88.27	0.07	0.67	1.95
20192.99	20281.27	45.57	33.88	88.27	0.03	0.38	1.35
20281.27	20369.54	47.08	34.55	88.27	0.03	0.39	1.36
20369.54	20457.81	189.97	79.79	88.28	0.11	0.90	2.38
20457.81	20546.09	402.83	125.25	88.27	0.23	1.42	3.22
20546.09	20634.36	2327.13	296.94	88.47	1.33	3.36	7.84
20634.36	20722.63	2962.12	350.82	88.29	1.69	3.97	8.44
20722.63	20810.91	2458.83	313.74	88.29	1.41	3.55	7.84
20810.91	20899.18	821.15	138.13	58.84	0.47	2.35	5.94

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18645.40 LB	18884.30	33822.83	2093.62	225.54	19.33	9.40	16.16
18884.30	19123.20	41185.73	2411.12	238.90	23.53	10.09	17.08
19123.20	19362.10	43852.85	2503.62	238.90	25.06	10.48	17.52
19362.10	19601.00	34770.65	2178.29	238.92	19.87	9.12	15.96
19601.00	19839.90 RB	20884.27	1606.61	239.79	11.93	6.73	13.00
19839.90	19928.17	53.72	36.78	88.27	0.03	0.42	1.46
19928.17	20016.45	41.77	31.63	88.27	0.02	0.36	1.32
20016.45	20104.72	52.50	36.28	88.27	0.03	0.41	1.45
20104.72	20192.99	101.70	53.95	88.27	0.06	0.61	1.89
20192.99	20281.27	35.16	28.53	88.27	0.02	0.32	1.23
20281.27	20369.54	36.54	29.19	88.27	0.02	0.33	1.25
20369.54	20457.81	162.29	70.90	86.72	0.09	0.83	2.29

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River

REACH: Above Split RS: 233.08

INPUT
Description: Right Channel Bank Station Interpolated
Station Elevation Data num= 97

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18239.2	1276.5	18259.3	1271.3	18265.1	1270.4	18300.4	1270.8	18314.6	1271
18319.9	1271.3	18328.4	1271.3	18340	1271.3	18350.5	1268.3	18355.1	1267.7
18366.2	1267.7	18368.2	1267.6	18391.9	1269.9	18402.4	1270.9	18432.3	1269.9
18443.9	1269.5	18450.9	1269.5	18487.5	1269.7	18506.1	1269.3	18522.7	1273.8
18555.8	1274.1	18565	1274.6	18578.3	1274.7	18582.7	1274.7	18608.9	1256.6
18609.6	1256.2	18780.2	1255.9	18805.2	1255.8	18868	1255.6	18895.8	1255.5
18913.7	1255.5	19104	1255.1	19117.7	1255.1	19139.6	1254.9	19193	1254.7
19231.1	1254.7	19288.5	1254.5	19419.5	1254	19454.9	1253.9	19537.5	1253.7
19566.6	1254.3	19586.7	1254.8	19631.3	1256.2	19675.3	1257	19723.8	1258.1
19806.7	1257.9	19847.6	1257.6	19893.2	1257.3	19898.3	1257.3	19914.2	1257.2
19958.5	1257	19994.2	1256.9	20002	1257.5	20012.9	1259.4	20033	1263
20035.3	1263	20053.2	1263.9	20061	1264.346	20070.7	1264.9	20082.1	1264.8
20175.4	1264.7	20209.9	1264.8	20250	1264.5	20264.6	1264.7	20289.9	1264.4
20299.5	1264.4	20328.3	1264.3	20349.5	1264.1	20391.9	1264.1	20447.6	1264.4
20454.9	1264.3	20472.1	1264.4	20491.1	1263.2	20497.1	1262.6	20511.1	1263.9
20528.6	1265.5	20541.6	1265.6	20565.8	1264.2	20572.6	1263.2	20578.2	1262.2
20618.4	1261.5	20638.8	1261.1	20646.5	1261	20700.1	1260.2	20775.2	1260.9
20781.7	1261	20816.5	1262.9	20825.9	1263.2	20852.2	1264.4	20873.1	1264.9
20897.5	1264.9	20917.9	1264.4	21024.2	1263.4	21034.5	1264.5	21042.4	1265.3
21068.9	1266.9	21095	1268.7						

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18239.2	.032	18582.7	.028	20070.7	.037	20472.1	.032	20873.1	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18582.7	20061	515	514.46	515	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
20897.5	21095	1275

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1264.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.92	Wt. n-Val.		0.028	0.032
E.G. Elev (ft)	1267.25	Reach Len. (ft)	515.00	514.46	515.00
Crit W.S. (ft)	1263.63	Flow Area (sq ft)		12259.80	866.91
E.G. Slope (ft/ft)	0.004027	Area (sq ft)		12259.80	916.81
Q Total (cfs)	175000.00	Flow (cfs)		170089.69	4910.31
Top Width (ft)	2021.50	Top Width (ft)		1462.99	558.51
Vel Total (ft/s)	13.33	Avg. Vel. (ft/s)		13.87	5.66
Max Chl Dpth (ft)	10.63	Hydr. Depth (ft)		8.38	1.92
Conv. Total (cfs)	2757773.3	Conv. (cfs)		2680393.0	77380.1
Length Wtd. (ft)	514.48	Wetted Per. (ft)		1466.11	451.49
Min Ch El (ft)	1253.70	Shear (lb/sq ft)		2.10	0.48
Alpha	1.06	Stream Power (lb/ft s)		29.17	2.73
Frctn Loss (ft)	1.50	Cum Volume (acre-ft)	1133.02	11899.67	4058.70
C & E Loss (ft)	0.41	Cum SA (acres)	117.74	1158.31	688.45

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1265.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.70	Wt. n-Val.		0.028	0.037
E.G. Elev (ft)	1267.71	Reach Len. (ft)	515.00	514.46	515.00
Crit W.S. (ft)	1263.54	Flow Area (sq ft)		13249.91	125.63
E.G. Slope (ft/ft)	0.003287	Area (sq ft)		13249.91	125.63
Q Total (cfs)	175000.00	Flow (cfs)		174838.36	161.64
Top Width (ft)	1767.29	Top Width (ft)		1463.29	304.00
Vel Total (ft/s)	13.08	Avg. Vel. (ft/s)		13.20	1.29
Max Chl Dpth (ft)	11.31	Hydr. Depth (ft)		9.05	0.41
Conv. Total (cfs)	3052268.5	Conv. (cfs)		3049449.3	2819.2
Length Wtd. (ft)	514.47	Wetted Per. (ft)		1467.09	304.93
Min Ch El (ft)	1253.70	Shear (lb/sq ft)		1.85	0.08

Alpha	1.02	Stream Power (lb/ft s)		24.46	0.11
Frctn Loss (ft)	1.20	Cum Volume (acre-ft)	67.08	11652.63	2526.30
C & E Loss (ft)	0.38	Cum SA (acres)	14.30	1123.02	405.06

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18582.70 LB	18878.36	30986.20	2305.64	283.16	17.71	8.22	13.44
18878.36	19174.02	38859.66	2687.16	295.66	22.21	9.09	14.46
19174.02	19469.68	45386.95	2949.53	295.66	25.94	9.98	15.39
19469.68	19765.34	35277.55	2535.85	295.71	20.16	8.58	13.91
19765.34	20061.00 RB	19579.30	1781.62	295.91	11.19	6.03	10.99
20061.00	20267.80						
20267.80	20336.73	0.20	0.70	16.73	0.00	0.04	0.29
20336.73	20405.67	12.22	14.50	68.93	0.01	0.21	0.84
20405.67	20474.60	0.92	2.38	37.16	0.00	0.06	0.38
20474.60	20543.53	85.15	34.71	41.33	0.05	0.84	2.45
20543.53	20612.47	419.02	96.72	49.07	0.24	1.98	4.33
20612.47	20681.40	1402.70	228.78	68.94	0.80	3.32	6.13
20681.40	20750.33	1851.62	270.25	68.94	1.06	3.92	6.85
20750.33	20819.27	1090.14	196.72	68.99	0.62	2.85	5.54
20819.27	20888.20	48.38	22.15	31.40	0.03	0.71	2.18

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18582.70 LB	18878.36	31955.50	2495.54	283.84	18.26	8.89	12.81
18878.36	19174.02	39651.29	2887.21	295.66	22.66	9.77	13.73
19174.02	19469.68	45836.80	3149.58	295.66	26.19	10.65	14.55
19469.68	19765.34	36244.58	2735.90	295.71	20.71	9.25	13.25
19765.34	20061.00 RB	21150.20	1981.67	296.21	12.09	6.70	10.67
20061.00	20129.93	14.78	16.54	68.95	0.01	0.24	0.89
20129.93	20198.87	16.73	19.15	68.93	0.01	0.28	0.87
20198.87	20267.80	23.79	23.66	68.94	0.01	0.34	1.01
20267.80	20336.73	60.60	41.46	68.93	0.03	0.60	1.46
20336.73	20405.67	45.74	24.83	29.17	0.03	0.88	1.84

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 232.98

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18046.2	1273	18085.5	1271.6	18089.9	1271.6	18103.5	1270.1	18147.4	1271.3
18189.1	1270.4	18223.4	1271.1	18240.5	1272	18260.5	1283.2	18266.2	1285.1
18272.3	1291.2	18285.1	1295.3	18290.1	1299.2	18295.8	1293.4	18311.8	1285.4
18328	1276.5	18334.8	1277.8	18339.5	1276.5	18348.7	1268.7	18350.7	1270
18359.9	1273.5	18382.1	1262.2	18390.1	1259.5	18396.5	1255.1	18438.1	1255
18456.9	1255	18614.4	1255	18770.4	1254.9	18849	1254.9	18855.2	1254.9
18918.6	1254.8	18945.5	1256.1	18986.9	1257	18992	1257.1	19036.5	1258.4
19076.9	1260.5	19086.4	1259.3	19143.1	1255.4	19148.5	1255.1	19155.8	1255.7

19194.5	1255.1	19203.9	1256	19213.7	1255.6	19220.6	1254	19410.4	1253.8
19595.3	1253.4	19603.7	1253.4	19643.6	1253.3	19672.4	1253.5	19728	1253.2
19770.6	1253.2	19811	1253.2	19927.5	1253.2	19978.6	1253.3	20001.7	1253.3
20054.4	1253.1	20109.8	1253.4	20114.3	1253.6	20134.5	1259.6	20146.8	1259.7
20216.5	1259.2	20241.2	1258.9	20289.4	1261	20298.1	1261.4	20327.9	1261.3
20394.4	1261.2	20412.7	1260.7	20468.2	1259.7	20481.9	1260	20506.7	1259.4
20541.8	1262.2	20564	1261.7	20620.8	1262.4	20657.6	1262.4	20668.9	1263.3
20696.6	1262.7	20723.5	1261.2	20766.6	1261.1	20808.9	1260.5	20827.5	1260.3
20871.4	1260.5	20935.7	1261	20966	1265.1	21019.5	1262.6	21042.7	1261.2
21084.5	1263.6	21124.5	1263.7	21172.4	1264	21216.6	1267.3	21234.7	1267.8
21341.8	1267.1	21384.6	1267.6	21429.8	1267.9	21440.8	1267.7	21486.5	1267.5
21505.6	1268.1								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18046.2	.032	18290.1	.03	20134.5	.032	21234.7	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18290.1	20134.5	500	498.4	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
20966	21505.6	1298

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1263.79	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.54	Wt. n-Val.		0.030	0.032
E.G. Elev (ft)	1265.33	Reach Len. (ft)	500.00	498.40	500.00
Crit W.S. (ft)	1261.66	Flow Area (sq ft)		16112.40	2383.07
E.G. Slope (ft/ft)	0.002215	Area (sq ft)		16112.40	2506.87
Q Total (cfs)	175000.00	Flow (cfs)		164414.33	10585.67
Top Width (ft)	2722.77	Top Width (ft)		1755.53	967.24
Vel Total (ft/s)	9.46	Avg. Vel. (ft/s)		10.20	4.44
Max Chl Dpth (ft)	10.69	Hydr. Depth (ft)		9.18	2.90
Conv. Total (cfs)	3718456.8	Conv. (cfs)		3493529.0	224927.6
Length Wtd. (ft)	498.55	Wetted Per. (ft)		1759.20	822.33
Min Ch El (ft)	1253.10	Shear (lb/sq ft)		1.27	0.40
Alpha	1.11	Stream Power (lb/ft s)		12.92	1.78
Frctn Loss (ft)	1.18	Cum Volume (acre-ft)	1133.02	11732.13	4038.46
C & E Loss (ft)	0.04	Cum SA (acres)	117.74	1139.30	679.43

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1264.70	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.42	Wt. n-Val.		0.030	0.032
E.G. Elev (ft)	1266.12	Reach Len. (ft)	500.00	498.40	500.00
Crit W.S. (ft)	1261.39	Flow Area (sq ft)		17707.64	760.10
E.G. Slope (ft/ft)	0.001743	Area (sq ft)		17707.64	760.10
Q Total (cfs)	175000.00	Flow (cfs)		170645.97	4354.02
Top Width (ft)	1901.03	Top Width (ft)		1755.53	145.50
Vel Total (ft/s)	9.48	Avg. Vel. (ft/s)		9.64	5.73
Max Chl Dpth (ft)	11.60	Hydr. Depth (ft)		10.09	5.22
Conv. Total (cfs)	4191705.5	Conv. (cfs)		4087415.3	104290.2
Length Wtd. (ft)	498.43	Wetted Per. (ft)		1760.11	149.65
Min Ch El (ft)	1253.10	Shear (lb/sq ft)		1.09	0.55
Alpha	1.02	Stream Power (lb/ft s)		10.55	3.17
Frctn Loss (ft)	0.99	Cum Volume (acre-ft)	67.08	11469.82	2521.06
C & E Loss (ft)	0.01	Cum SA (acres)	14.30	1104.01	402.40

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18290.10 LB	18658.98	22741.40	2374.17	282.20	13.00	8.48	9.58
18658.98	19027.86	29476.71	3087.92	368.94	16.84	8.37	9.55
19027.86	19396.74	28329.89	3016.84	369.42	16.19	8.18	9.39
19396.74	19765.62	41724.76	3803.54	368.88	23.84	10.31	10.97

19765.62	20134.50 RB	42141.57	3829.93	369.76	24.08	10.38	11.00
20134.50	20225.91	2201.19	397.42	91.41	1.26	4.35	5.54
20225.91	20317.31	1596.25	327.81	91.46	0.91	3.59	4.87
20317.31	20408.72	918.63	235.26	91.41	0.52	2.57	3.90
20408.72	20500.13	1686.00	338.69	91.43	0.96	3.71	4.98
20500.13	20591.53	866.62	227.29	91.53	0.50	2.49	3.81
20591.53	20682.94	286.82	117.03	91.45	0.16	1.28	2.45
20682.94	20774.35	687.24	197.70	91.45	0.39	2.16	3.48
20774.35	20865.75	1367.77	298.72	91.41	0.78	3.27	4.58
20865.75	20957.16	975.16	243.16	90.78	0.56	2.68	4.01

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18290.10 LB	18658.98	23879.24	2628.61	283.11	13.65	9.39	9.08
18658.98	19027.86	31082.46	3423.11	368.94	17.76	9.28	9.08
19027.86	19396.74	29988.13	3352.04	369.42	17.14	9.09	8.95
19396.74	19765.62	42655.04	4138.74	368.88	24.37	11.22	10.31
19765.62	20134.50 RB	43041.09	4165.13	369.76	24.59	11.29	10.33
20134.50	20225.91	2812.95	480.48	91.41	1.61	5.26	5.85
20225.91	20317.31	1541.08	279.62	58.24	0.88	5.17	5.51

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 232.89

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18078.7	1270	18115.9	1270.1	18147.1	1269.5	18159.6	1269.5	18187.1	1268.2
18196.4	1267.8	18202.8	1268.6	18209.1	1265.7	18228.4	1253.9	18233.1	1253.9
18504.6	1253.8	18790.1	1253.7	18797.7	1254.8	18843.1	1262.1	18883.1	1261.7
18916.9	1261.1	18933.8	1261.5	18966.7	1262	19001.7	1262	19033	1262
19055.1	1261.6	19061.1	1262.9	19074.3	1262	19107.8	1262.6	19130.3	1252.8
19156.4	1253.1	19212.1	1253.8	19240.7	1254.8	19251.2	1254.4	19270.5	1255.1
19297.7	1254	19325.4	1252	19429.8	1251.9	19555.6	1252.5	19579.8	1253.3
19611.4	1255.1	19639.4	1256.6	19650.3	1256.6	19725	1256.9	19741.9	1257
19752.2	1252.5	19772.3	1252.3	19824.7	1252	19838.2	1252	19868.1	1252
19934.2	1252.1	19938	1252.5	19943.5	1252.1	19976	1252.1	19992.9	1252
20104.6	1251.2	20127.9	1257.2	20134.6	1257.2	20204.9	1257.9	20206.8	1257.9
20272.4	1257.3	20355	1254.6	20363.9	1254.6	20434.2	1256.2	20437.2	1256.7
20464.2	1257	20492.3	1259.2	20604.8	1260.3	20635.5	1260.5	20666.9	1263.8
20667.9	1263.9	20695.9	1262.8	20699.8	1262.6	20730.2	1260.3	20742.2	1259.6
20754.6	1260.9	20789.3	1260	20808.3	1259.2	20842.6	1259.8	20870.4	1260.7
20941.6	1261	20948.5	1260.9	20966.8	1259.4	21006.4	1258.4	21047.5	1257.1
21072.9	1256.5	21083.1	1257.6	21124	1263.5	21126.3	1263.8	21187	1267.2
21195.3	1267.6	21226.4	1267	21298.2	1266.1	21316.8	1266.1	21358.5	1265.9
21377.3	1266	21413.6	1266.6	21431.3	1266.7	21467.8	1267.3	21499.7	1268.2
21516	1268.3								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18078.7	.03	18115.9	.03	20127.9	.032	20204.9	.032	21195.3	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18115.9	20204.9	510	500.68	505	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1262.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.39	Wt. n-Val.		0.030	0.032
E.G. Elev (ft)	1264.11	Reach Len. (ft)	510.00	500.68	505.00
Crit W.S. (ft)		Flow Area (sq ft)		15647.43	3494.92

E.G. Slope (ft/ft)	0.002520	Area (sq ft)		15647.43	3494.92
Q Total (cfs)	175000.00	Flow (cfs)		153813.38	21186.63
Top Width (ft)	2860.39	Top Width (ft)		1987.48	872.90
Vel Total (ft/s)	9.14	Avg. Vel. (ft/s)		9.83	6.06
Max Chl Dpth (ft)	11.52	Hydr. Depth (ft)		7.87	4.00
Conv. Total (cfs)	3486056.0	Conv. (cfs)		3064011.5	422044.4
Length Wtd. (ft)	501.35	Wetted Per. (ft)		1994.83	873.98
Min Ch El (ft)	1251.20	Shear (lb/sq ft)		1.23	0.63
Alpha	1.07	Stream Power (lb/ft s)		12.13	3.81
Frctn Loss (ft)	0.91	Cum Volume (acre-ft)	1133.02	11550.43	4004.01
C & E Loss (ft)	0.16	Cum SA (acres)	117.74	1117.89	668.87

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1263.57	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.55	Wt. n-Val.		0.030	0.032
E.G. Elev (ft)	1265.12	Reach Len. (ft)	510.00	500.68	505.00
Crit W.S. (ft)		Flow Area (sq ft)		17335.57	234.00
E.G. Slope (ft/ft)	0.002289	Area (sq ft)		17335.57	234.00
Q Total (cfs)	175000.00	Flow (cfs)		173465.17	1534.82
Top Width (ft)	2032.41	Top Width (ft)		1992.31	40.10
Vel Total (ft/s)	9.96	Avg. Vel. (ft/s)		10.01	6.56
Max Chl Dpth (ft)	12.37	Hydr. Depth (ft)		8.70	5.84
Conv. Total (cfs)	3658143.3	Conv. (cfs)		3626059.8	32083.5
Length Wtd. (ft)	500.77	Wetted Per. (ft)		1999.92	46.12
Min Ch El (ft)	1251.20	Shear (lb/sq ft)		1.24	0.72
Alpha	1.00	Stream Power (lb/ft s)		12.39	4.75
Frctn Loss (ft)	0.90	Cum Volume (acre-ft)	67.08	11269.34	2515.35
C & E Loss (ft)	0.15	Cum SA (acres)	14.30	1082.57	401.34

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18115.90 LB	18533.70	28219.82	2773.42	322.21	16.13	8.67	10.18
18533.70	18951.50	22399.30	2680.62	418.48	12.80	6.42	8.36
18951.50	19369.30	19063.49	2429.25	416.69	10.89	5.86	7.85
19369.30	19787.10	38834.29	3730.59	418.85	22.19	8.93	10.41
19787.10	20204.90 RB	45296.47	4033.55	418.60	25.88	9.65	11.23
20204.90	20292.31	2978.64	459.51	87.42	1.70	5.26	6.48
20292.31	20379.71	5210.43	642.77	87.44	2.98	7.35	8.11
20379.71	20467.12	4425.05	582.83	87.47	2.53	6.67	7.59
20467.12	20554.53	1575.56	313.67	87.49	0.90	3.59	5.02
20554.53	20641.93	855.87	217.46	87.44	0.49	2.49	3.94
20641.93	20729.34	105.05	48.09	46.78	0.06	1.03	2.18
20729.34	20816.75	960.93	233.19	87.53	0.55	2.67	4.12
20816.75	20904.15	845.82	215.91	87.43	0.48	2.47	3.92
20904.15	20991.56	850.45	216.66	87.48	0.49	2.48	3.93
20991.56	21078.97	2894.89	451.83	87.47	1.65	5.17	6.41
21078.97	21166.37	483.95	113.00	40.03	0.28	2.85	4.28

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18115.90 LB	18533.70	31456.39	3045.06	323.84	17.98	9.48	10.33
18533.70	18951.50	26365.71	3034.82	418.48	15.07	7.26	8.69
18951.50	19369.30	22762.25	2783.15	420.16	13.01	6.66	8.18

19369.30	19787.10	43235.89	4084.79	418.85	24.71	9.78	10.58
19787.10	20204.90 RB	49644.94	4387.76	418.60	28.37	10.50	11.31
20204.90	20292.31	1534.82	234.00	46.12	0.88	5.84	6.56

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 232.80

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18010.2	1269.9	18064.9	1261.2	18076.9	1255.8	18095.8	1253.5	18137	1253.7
18140.8	1253.6	18205.5	1253.5	18302.2	1253.3	18375.2	1253.1	18505	1252.7
18521.4	1252.6	18606.2	1252.4	18633.4	1254.8	18667.7	1260.8	18677.1	1260.9
18736	1261.9	18782.8	1261.4	18818.9	1261.6	18859.6	1260.5	18884.1	1259.6
18925.9	1260	18944.4	1259.8	18998.1	1260.6	19049.5	1260.2	19083	1259.8
19087.7	1260	19124.3	1260.4	19140.9	1260.7	19147.3	1262.1	19152.6	1262
19163.6	1256.4	19183.8	1250.1	19207.2	1250.7	19244.6	1250.1	19296.3	1250
19363.1	1249.7	19395.2	1249.6	19408.2	1249.5	19441.6	1250.4	19474.9	1249.1
19480.8	1249.1	19550.4	1249.2	19699.8	1249.2	19751.4	1249.2	19800.8	1249.3
19835.4	1249.6	19994.6	1250.4	19999.9	1249.8	20029.1	1249.8	20081.7	1250.1
20115.4	1250.3	20119.3	1250.3	20151.6	1256.6	20167.9	1256.8	20245.9	1258
20283.1	1257.1	20344.8	1254.9	20429.2	1253.9	20478.4	1252.9	20494.5	1253.1
20538.4	1254.1	20592.6	1255.7	20658.7	1254.7	20692.1	1254.9	20718.7	1255.4
20773.3	1256	20806.5	1255.3	20840.9	1255.2	20875.2	1258.5	20880.7	1259.2
20924.5	1257.5	20934.8	1257.1	20977.6	1256.2	20989.2	1255.1	21031.7	1256
21042.7	1256.1	21065.8	1259.1	21102.2	1262.8	21136.1	1262	21144.6	1261.9
21183.4	1261.8	21197.6	1261.8	21214.6	1263.1	21258	1266.7	21299.3	1265.5
21316.5	1265	21350.5	1263.8	21354.3	1263.9	21402.6	1263.7	21421.1	1264.4
21461.7	1264.6	21471.1	1264.6	21535.9	1265	21545.8	1265	21585.4	1266.5
21631.5	1266.6								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18010.2	.03	20245.9	.032	21102.2	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18010.2	20245.9	525	512.49	515	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21102.2	21631.5	1263

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1262.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.84	Wt. n-Val.		0.030	0.032
E.G. Elev (ft)	1263.03	Reach Len. (ft)	525.00	512.49	515.00
Crit W.S. (ft)	1258.34	Flow Area (sq ft)		18614.03	5511.01
E.G. Slope (ft/ft)	0.001371	Area (sq ft)		18614.03	5533.91
Q Total (cfs)	175000.00	Flow (cfs)		142080.72	32919.28
Top Width (ft)	3112.53	Top Width (ft)		2187.26	925.27
Vel Total (ft/s)	7.25	Avg. Vel. (ft/s)		7.63	5.97
Max Chl Dpth (ft)	13.09	Hydr. Depth (ft)		8.51	6.48
Conv. Total (cfs)	4725908.5	Conv. (cfs)		3836917.0	888991.4
Length Wtd. (ft)	512.99	Wetted Per. (ft)		2192.49	851.14
Min Ch El (ft)	1249.10	Shear (lb/sq ft)		0.73	0.55
Alpha	1.03	Stream Power (lb/ft s)		5.55	3.31
Frctn Loss (ft)	0.61	Cum Volume (acre-ft)	1133.02	11353.53	3951.68
C & E Loss (ft)	0.04	Cum SA (acres)	117.74	1093.89	658.45

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1263.02	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.06	Wt. n-Val.		0.030	0.032
E.G. Elev (ft)	1264.07	Reach Len. (ft)	525.00	512.49	515.00
Crit W.S. (ft)	1258.53	Flow Area (sq ft)		20409.33	886.69

E.G. Slope (ft/ft)	0.001438	Area (sq ft)		20409.33	886.69
Q Total (cfs)	175000.00	Flow (cfs)		169593.83	5406.18
Top Width (ft)	2316.36	Top Width (ft)		2187.26	129.10
Vel Total (ft/s)	8.22	Avg. Vel. (ft/s)		8.31	6.10
Max Chl Dpth (ft)	13.92	Hydr. Depth (ft)		9.33	6.87
Conv. Total (cfs)	4614758.0	Conv. (cfs)		4472197.0	142561.3
Length Wtd. (ft)	512.62	Wetted Per. (ft)		2193.32	137.63
Min Ch El (ft)	1249.10	Shear (lb/sq ft)		0.84	0.58
Alpha	1.01	Stream Power (lb/ft s)		6.94	3.53
Frctn Loss (ft)	0.64	Cum Volume (acre-ft)	67.08	11052.42	2508.86
C & E Loss (ft)	0.07	Cum SA (acres)	14.30	1058.55	400.35

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18010.20 LB	18457.34	24303.45	3400.52	400.08	13.89	8.53	7.15
18457.34	18904.48	9875.41	2072.33	447.81	5.64	4.63	4.77
18904.48	19351.62	15512.65	2721.70	449.63	8.86	6.09	5.70
19351.62	19798.76	54061.61	5743.99	447.18	30.89	12.85	9.41
19798.76	20245.90 RB	38327.64	4675.50	447.80	21.90	10.46	8.20
20245.90	20338.27	2644.96	508.17	92.42	1.51	5.50	5.20
20338.27	20430.65	4693.31	716.76	92.38	2.68	7.76	6.55
20430.65	20523.02	5859.16	818.85	92.39	3.35	8.86	7.16
20523.02	20615.39	4241.26	674.57	92.41	2.42	7.30	6.29
20615.39	20707.77	4187.62	669.37	92.38	2.39	7.25	6.26
20707.77	20800.14	3527.46	603.90	92.38	2.02	6.54	5.84
20800.14	20892.51	2764.01	522.15	92.59	1.58	5.65	5.29
20892.51	20984.89	2274.73	464.26	92.45	1.30	5.03	4.90
20984.89	21077.26	2696.95	514.66	92.66	1.54	5.57	5.24
21077.26	21169.63	29.79	18.32	19.08	0.02	0.97	1.63

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18010.20 LB	18457.34	29284.91	3727.77	400.90	16.73	9.35	7.86
18457.34	18904.48	13416.63	2439.34	447.81	7.67	5.46	5.50
18904.48	19351.62	19829.55	3088.71	449.63	11.33	6.91	6.42
19351.62	19798.76	62056.23	6111.00	447.18	35.46	13.67	10.15
19798.76	20245.90 RB	45006.51	5042.51	447.80	25.72	11.28	8.93
20245.90	20338.27	3513.30	583.99	92.42	2.01	6.32	6.02
20338.27	20430.65	1892.86	302.71	45.21	1.08	8.24	6.25

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 232.70

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17806.6	1267.2	17847.4	1266.7	17850.8	1266.5	17864.8	1259.6	17879	1255.3
17891.3	1251.1	17930.6	1251.3	17974.5	1251.3	17991.6	1251.5	18523	1252.4
18575.3	1252.5	18621.5	1258.1	18640.6	1258.8	18665.2	1259.1	18694.2	1260.7
18705.8	1263.8	18715.6	1263.8	18721.8	1262	18726.3	1262.8	18730.4	1262.4
18753.7	1258.4	18769.7	1258.3	18801.6	1258.3	18826.8	1266.4	18833.8	1264.6
18847.3	1259.9	18855.6	1260.2	18882.7	1259.8	18924.3	1257.6	18937.8	1257.5
18972.5	1259.1	18993	1258.7	19030	1259	19083.1	1258.2	19095.6	1258.1
19136.5	1249.7	19210.8	1248.5	19232.9	1248.2	19240.8	1248.8	19276.4	1251.9
19315.1	1252.6	19331.4	1252.7	19370	1253.5	19373.6	1253.4	19423.6	1252
19461.3	1248.7	19493.6	1248.7	19635.7	1248.7	19636.3	1248.8	19785.5	1250.1
19863.9	1250.4	20034.5	1251.3	20117.3	1251.7	20142.6	1263.7	20150.6	1258.4
20166.4	1260	20192	1262.1	20204.7	1262	20239.7	1262	20294.9	1260.3
20312.5	1259.9	20323.5	1259	20329.6	1258.1	20365.9	1254.3	20378.6	1254.3
20448.3	1255.4	20461	1255.5	20516.6	1254.9	20555.8	1253.9	20600.6	1252.1
20636.2	1251.9	20709.4	1251.4	20744.6	1251.3	20772.4	1251.8	20809.9	1254.1
20848.8	1255.6	20918.7	1255.7	20934.8	1255.8	20949.5	1256.5	20974.6	1253.4
21028.2	1252.1	21076.9	1253.5	21131.4	1258.7	21143.6	1259.9	21208.6	1261.9

21209.8	1261.9	21256.8	1260.3	21303.7	1261.7	21339.9	1261	21385.4	1264.1
21399.3	1263.6	21447.5	1263.5	21457.8	1263.4	21516.5	1263.7	21523.4	1263.7
21584	1265.3								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17806.6	.03	17850.8	.03	20142.6	.03	20192	.03	21143.6	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17850.8	20192	510	507.89	510	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21208.6	21584	1265

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1261.68	Element			
Vel Head (ft)	0.70	Wt. n-Val.		0.030	0.030
E.G. Elev (ft)	1262.38	Reach Len. (ft)	510.00	507.89	510.00
Crit W.S. (ft)	1257.38	Flow Area (sq ft)		19945.36	6367.43
E.G. Slope (ft/ft)	0.001048	Area (sq ft)		19945.36	6443.03
Q Total (cfs)	175000.00	Flow (cfs)		137666.08	37333.93
Top Width (ft)	3336.12	Top Width (ft)		2252.29	1083.83
Vel Total (ft/s)	6.65	Avg. Vel. (ft/s)		6.90	5.86
Max Chl Dpth (ft)	13.48	Hydr. Depth (ft)		8.86	6.69
Conv. Total (cfs)	5406585.0	Conv. (cfs)		4253162.0	1153423.3
Length Wtd. (ft)	508.36	Wetted Per. (ft)		2260.47	952.61
Min Ch El (ft)	1248.20	Shear (lb/sq ft)		0.58	0.44
Alpha	1.01	Stream Power (lb/ft s)		3.98	2.56
Frctn Loss (ft)	0.44	Cum Volume (acre-ft)	1133.02	11126.70	3880.88
C & E Loss (ft)	0.04	Cum SA (acres)	117.74	1067.78	646.57

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1262.53	Element			
Vel Head (ft)	0.83	Wt. n-Val.		0.030	0.030
E.G. Elev (ft)	1263.36	Reach Len. (ft)	510.00	507.89	510.00
Crit W.S. (ft)	1257.82	Flow Area (sq ft)		21875.44	2362.32
E.G. Slope (ft/ft)	0.001095	Area (sq ft)		21875.44	2362.32
Q Total (cfs)	175000.00	Flow (cfs)		162826.17	12173.82
Top Width (ft)	2692.15	Top Width (ft)		2279.15	413.00
Vel Total (ft/s)	7.22	Avg. Vel. (ft/s)		7.44	5.15
Max Chl Dpth (ft)	14.33	Hydr. Depth (ft)		9.60	5.72
Conv. Total (cfs)	5287350.5	Conv. (cfs)		4919537.5	367812.8
Length Wtd. (ft)	508.06	Wetted Per. (ft)		2289.23	423.85
Min Ch El (ft)	1248.20	Shear (lb/sq ft)		0.65	0.38
Alpha	1.02	Stream Power (lb/ft s)		4.86	1.96
Frctn Loss (ft)	0.46	Cum Volume (acre-ft)	67.08	10803.68	2489.65
C & E Loss (ft)	0.05	Cum SA (acres)	14.30	1032.27	397.15

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17850.80 LB	18319.04	31821.28	4455.95	460.29	18.18	9.72	7.14
18319.04	18787.28	17474.35	3032.99	432.35	9.99	7.03	5.76
18787.28	19255.52	13609.87	2629.18	440.07	7.78	6.00	5.18
19255.52	19723.76	42496.79	5338.26	468.51	24.28	11.40	7.96
19723.76	20192.00 RB	32263.80	4488.98	459.25	18.44	9.85	7.19
20192.00	20284.80	18.60	18.65	34.82	0.01	0.54	1.00
20284.80	20377.60	1399.59	369.33	93.11	0.80	3.98	3.79
20377.60	20470.40	3338.24	621.39	92.81	1.91	6.70	5.37
20470.40	20563.20	3561.45	646.02	92.82	2.04	6.96	5.51
20563.20	20656.00	5849.08	870.05	92.83	3.34	9.38	6.72
20656.00	20748.80	6732.32	946.54	92.80	3.85	10.20	7.11
20748.80	20841.60	4943.21	786.72	92.90	2.82	8.48	6.28
20841.60	20934.40	2804.18	559.67	92.81	1.60	6.03	5.01
20934.40	21027.20	4279.41	721.90	93.02	2.45	7.78	5.93
21027.20	21120.00	4125.91	706.24	93.02	2.36	7.61	5.84
21120.00	21212.80	281.93	120.93	81.68	0.16	1.48	2.33

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17850.80 LB	18319.04	37499.17	4846.48	461.14	21.43	10.57	7.74
18319.04	18787.28	21286.19	3405.39	446.24	12.16	7.65	6.25
18787.28	19255.52	17297.37	3004.60	445.45	9.88	6.78	5.76
19255.52	19723.76	49152.19	5737.11	468.51	28.09	12.25	8.57
19723.76	20192.00 RB	37591.28	4881.87	467.88	21.48	10.52	7.70
20192.00	20284.80	104.34	80.30	92.82	0.06	0.87	1.30
20284.80	20377.60	1829.76	448.37	93.11	1.05	4.83	4.08
20377.60	20470.40	3856.61	700.44	92.81	2.20	7.55	5.51
20470.40	20563.20	4084.99	725.07	92.82	2.33	7.81	5.63
20563.20	20656.00	2298.11	408.13	52.29	1.31	9.76	5.63

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 232.60

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17769.6	1267.4	17812.7	1249.8	17917.4	1250	18050.2	1250.3	18176.4	1250.3
18233.7	1252.8	18287.2	1253.1	18320.5	1253.7	18397.7	1254.9	18468.1	1255.7
18477.5	1255.5	18519.9	1256.7	18568.2	1256.1	18622.9	1255.9	18681.9	1256.1
18751.3	1255.8	18826.4	1254.6	18861.2	1253.8	18892.1	1251.5	18896.9	1250.6
18912.7	1250.1	18970.8	1250.3	18995.7	1250.3	19070.5	1250.3	19081	1250.4
19104.3	1252.3	19115.7	1249.6	19175.5	1249	19227.7	1249.1	19239.1	1248.9
19670.4	1248.4	19721.1	1248.4	19855.8	1248.4	19894.3	1255.9	19936.3	1259
19962.7	1259.6	19969.1	1260.2	20000.9	1260.5	20043.4	1260.3	20069.5	1260.3
20116.8	1259.4	20122.3	1259	20139.6	1261.8	20156	1257.5	20215.7	1259.2
20249.6	1259.8	20311.7	1260.8	20316.5	1260.7	20388.7	1258.9	20419.2	1259.2
20518.2	1260.3	20543.5	1257.5	20571.9	1257.5	20584.1	1254	20586.7	1254
20647.1	1255.5	20701.3	1253.2	20709.6	1252.9	20758.2	1253.4	20768.1	1253.5
20820.7	1253.3	20893.7	1253.2	20916.6	1253.3	20978.1	1254.1	21002.7	1254.3
21039.3	1252.4	21054.3	1252.1	21088.8	1252.9	21139.9	1252.7	21175.2	1250.5
21183.7	1248.7	21216.2	1249.9	21224.2	1247.9	21234	1249	21287.4	1250.2
21318.6	1253.7	21354.6	1259.6	21395.9	1259.3	21450.8	1258.6	21490.6	1261
21529.1	1260.6	21591.6	1262.8	21604.4	1263.1	21662.3	1263.1	21705.8	1263.3
21753.7	1263.1	21793.6	1262.9	21834.5	1263.5	21847.5	1263.6	21907.9	1263.9
21922	1264	21991.7	1264.1	21999.7	1264.2	22063.8	1264.2	22114.2	1264.2
22135	1264.5								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17769.6	.028	20139.6	.032	20571.9	.028	21354.6	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17769.6	20139.6	520	520.2	545	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1261.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.56	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1261.90	Reach Len. (ft)	520.00	520.20	545.00
Crit W.S. (ft)		Flow Area (sq ft)		21539.02	7707.65
E.G. Slope (ft/ft)	0.000723	Area (sq ft)		21539.02	7707.65
Q Total (cfs)	175000.00	Flow (cfs)		134325.91	40674.10
Top Width (ft)	3760.95	Top Width (ft)		2352.29	1408.66
Vel Total (ft/s)	5.98	Avg. Vel. (ft/s)		6.24	5.28
Max Chl Dpth (ft)	13.44	Hydr. Depth (ft)		9.16	5.47
Conv. Total (cfs)	6510297.0	Conv. (cfs)		4997151.5	1513145.6
Length Wtd. (ft)	526.38	Wetted Per. (ft)		2356.33	1411.38
Min Ch El (ft)	1248.40	Shear (lb/sq ft)		0.41	0.25
Alpha	1.01	Stream Power (lb/ft s)		2.57	1.30
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	1133.02	10884.86	3798.04

C & E Loss (ft)	0.03	Cum SA (acres)	117.74	1040.93	631.98

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1262.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.67	Wt. n-Val.		0.028	0.029
E.G. Elev (ft)	1262.86	Reach Len. (ft)	520.00	520.20	545.00
Crit W.S. (ft)		Flow Area (sq ft)		23540.46	3465.01
E.G. Slope (ft/ft)	0.000753	Area (sq ft)		23540.46	3465.01
Q Total (cfs)	175000.00	Flow (cfs)		158835.98	16164.02
Top Width (ft)	3060.55	Top Width (ft)		2355.15	705.40
Vel Total (ft/s)	6.48	Avg. Vel. (ft/s)		6.75	4.66
Max Chl Dpth (ft)	13.79	Hydr. Depth (ft)		10.00	4.91
Conv. Total (cfs)	6377735.0	Conv. (cfs)		5788650.5	589084.8
Length Wtd. (ft)	523.19	Wetted Per. (ft)		2360.08	715.67
Min Ch El (ft)	1248.40	Shear (lb/sq ft)		0.47	0.23
Alpha	1.03	Stream Power (lb/ft s)		3.16	1.06
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	67.08	10538.91	2455.54
C & E Loss (ft)	0.04	Cum SA (acres)	14.30	1005.26	390.60

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17769.60 LB	18243.60	32339.61	4883.75	461.47	18.48	10.64	6.62
18243.60	18717.60	13385.47	2907.78	474.04	7.65	6.13	4.60
18717.60	19191.60	27865.15	4516.69	474.59	15.92	9.53	6.17
19191.60	19665.60	44684.50	5993.23	474.00	25.53	12.64	7.46
19665.60	20139.60 RB	16051.18	3237.56	472.22	9.17	6.87	4.96
20139.60	20272.63	633.79	299.74	131.79	0.36	2.28	2.11
20272.63	20405.65	286.61	186.90	133.05	0.16	1.41	1.53
20405.65	20538.68	408.79	231.35	133.16	0.23	1.74	1.77
20538.68	20671.71	3463.12	767.69	133.59	1.98	5.77	4.51
20671.71	20804.73	5875.76	1056.55	133.06	3.36	7.94	5.56
20804.73	20937.76	6006.39	1070.48	133.03	3.43	8.05	5.61
20937.76	21070.79	5868.07	1055.80	133.09	3.35	7.94	5.56
21070.79	21203.81	8102.04	1282.09	133.30	4.63	9.64	6.32
21203.81	21336.84	9379.64	1401.91	133.80	5.36	10.54	6.69
21336.84	21469.87	613.48	306.84	133.30	0.35	2.31	2.00
21469.87	21602.89	36.42	48.30	80.21	0.02	0.60	0.75

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17769.60 LB	18243.60	37698.02	5274.07	462.32	21.54	11.49	7.15
18243.60	18717.60	17062.06	3310.73	474.04	9.75	6.98	5.15
18717.60	19191.60	32989.66	4919.63	474.59	18.85	10.38	6.71
19191.60	19665.60	51134.96	6396.18	474.00	29.22	13.49	7.99
19665.60	20139.60 RB	19951.28	3639.84	475.12	11.40	7.68	5.48
20139.60	20272.63	1103.74	412.41	133.61	0.63	3.10	2.68
20272.63	20405.65	651.17	299.99	133.05	0.37	2.26	2.17
20405.65	20538.68	819.38	344.44	133.16	0.47	2.59	2.38
20538.68	20671.71	4464.38	880.78	133.59	2.55	6.62	5.07
20671.71	20804.73	7187.63	1169.63	133.06	4.11	8.79	6.15
20804.73	20937.76	1937.72	357.76	49.19	1.11	8.88	5.42

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 232.50

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17736.5	1267.4	17780.2	1249.2	18040.6	1249.2	18072	1249.3	18076.5	1249.4

18110.7	1250.9	18131.2	1253.6	18150.1	1255.6	18227.1	1256.3	18263.2	1256.4
18326.3	1255.8	18419	1255.8	18452.5	1255.7	18523.7	1255.4	18566.1	1255.2
18571.9	1255.3	18636.3	1255.9	18685.1	1254.9	18727.6	1253.7	18755.1	1253.9
18795.9	1254.3	18805.8	1254.2	18830.9	1253.4	18878.9	1252.8	18906.9	1252.3
18963.6	1253.9	19000	1254.8	19032.8	1253.4	19068.8	1252	19101.8	1251
19121.9	1249.8	19137.1	1249.8	19192.7	1249.7	19435.4	1249.2	19626.8	1249
19690.3	1249.1	19755	1249.1	19819.5	1249.2	20001	1251.1	20052.8	1251.7
20072.7	1251.7	20100.9	1251.8	20118.9	1254.7	20140.2	1256.2	20148.3	1256.4
20173	1255.7	20193.9	1253	20219.8	1254.8	20223.2	1255.2	20270.3	1255.5
20312.3	1255.8	20342.9	1256	20387.1	1256.1	20457.7	1256.6	20460.8	1256.7
20557.1	1256.7	20557.9	1256.7	20630.9	1256.7	20660.2	1256.9	20722	1257.4
20759.7	1256.4	20770.4	1256	20794.7	1252	20805.5	1253.3	20812.8	1251.9
20831.7	1251.9	20871.4	1253	20883.8	1253.4	20993	1254.4	21007.3	1254.5
21083.8	1256.3	21111.4	1255.8	21136.8	1255.6	21209.2	1254.3	21269.5	1253.6
21289.4	1253.1	21334.9	1251.3	21347.7	1250.7	21398.1	1250.4	21434.4	1249.9
21459	1249.5	21510.2	1247.9	21524.4	1247.8	21553.5	1249.2	21568.2	1250.2
21621.5	1251.2	21623	1251.4	21664.6	1263.3	21697.5	1263.6	21719.3	1263.2
21749.7	1262.7	21770.6	1262.7	21821.3	1263	21846.1	1262.6	21874.7	1263.3
21925.2	1264.1								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17736.5	.028	20140.2	.03	21697.5	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17736.5	20140.2	495	490.31	500	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1261.05	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.47	Wt. n-Val.		0.028	0.030
E.G. Elev (ft)	1261.52	Reach Len. (ft)	495.00	490.31	500.00
Crit W.S. (ft)		Flow Area (sq ft)		21957.92	10389.71
E.G. Slope (ft/ft)	0.000632	Area (sq ft)		21957.92	10389.71
Q Total (cfs)	175000.00	Flow (cfs)		128399.86	46600.14
Top Width (ft)	3904.96	Top Width (ft)		2388.44	1516.52
Vel Total (ft/s)	5.41	Avg. Vel. (ft/s)		5.85	4.49
Max Chl Dpth (ft)	13.25	Hydr. Depth (ft)		9.19	6.85
Conv. Total (cfs)	6963590.0	Conv. (cfs)		5109280.0	1854310.1
Length Wtd. (ft)	493.58	Wetted Per. (ft)		2391.63	1518.96
Min Ch El (ft)	1249.00	Shear (lb/sq ft)		0.36	0.27
Alpha	1.04	Stream Power (lb/ft s)		2.12	1.21
Frctn Loss (ft)	0.33	Cum Volume (acre-ft)	1133.02	10625.13	3684.83
C & E Loss (ft)	0.00	Cum SA (acres)	117.74	1012.63	613.68

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1261.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.55	Wt. n-Val.		0.028	0.030
E.G. Elev (ft)	1262.46	Reach Len. (ft)	495.00	490.31	500.00
Crit W.S. (ft)		Flow Area (sq ft)		24030.31	6076.51
E.G. Slope (ft/ft)	0.000629	Area (sq ft)		24030.31	6076.51
Q Total (cfs)	175000.00	Flow (cfs)		148918.56	26081.45
Top Width (ft)	3328.24	Top Width (ft)		2388.44	939.80
Vel Total (ft/s)	5.81	Avg. Vel. (ft/s)		6.20	4.29
Max Chl Dpth (ft)	12.91	Hydr. Depth (ft)		10.06	6.47
Conv. Total (cfs)	6976289.0	Conv. (cfs)		5936565.0	1039724.1
Length Wtd. (ft)	492.49	Wetted Per. (ft)		2392.50	946.39
Min Ch El (ft)	1249.00	Shear (lb/sq ft)		0.39	0.25
Alpha	1.05	Stream Power (lb/ft s)		2.45	1.08
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	67.08	10254.86	2395.85
C & E Loss (ft)	0.01	Cum SA (acres)	14.30	976.93	380.31

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17736.50 LB	18217.24	28171.99	4695.82	468.17	16.10	10.09	6.00
18217.24	18697.98	10125.63	2568.54	480.76	5.79	5.34	3.94
18697.98	19178.72	20724.93	3948.06	480.92	11.84	8.21	5.25
19178.72	19659.46	37690.69	5651.51	480.74	21.54	11.76	6.67
19659.46	20140.20 RB	31686.65	5093.99	481.04	18.11	10.60	6.22
20140.20	20259.20	2750.65	713.67	119.27	1.57	6.00	3.85
20259.20	20378.20	2194.68	622.68	119.00	1.25	5.23	3.52

20378.20	20497.20	1770.45	547.39	119.00	1.01	4.60	3.23
20497.20	20616.20	1610.21	517.10	119.00	0.92	4.35	3.11
20616.20	20735.20	1419.41	479.42	119.01	0.81	4.03	2.96
20735.20	20854.20	3695.33	852.81	119.56	2.11	7.17	4.33
20854.20	20973.20	3954.99	886.65	119.02	2.26	7.45	4.46
20973.20	21092.20	2667.40	700.05	119.02	1.52	5.88	3.81
21092.20	21211.20	2591.12	687.95	119.02	1.48	5.78	3.77
21211.20	21330.20	4240.23	924.56	119.04	2.42	7.77	4.59
21330.20	21449.20	7152.15	1265.14	119.02	4.09	10.63	5.65
21449.20	21568.20	9115.28	1463.66	119.09	5.21	12.30	6.23
21568.20	21687.20	3438.24	728.64	89.89	1.96	8.23	4.72

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17736.50 LB	18217.24	32405.27	5099.71	469.04	18.52	10.96	6.35
18217.24	18697.98	13060.44	2985.66	480.76	7.46	6.21	4.37
18697.98	19178.72	24592.47	4365.18	480.92	14.05	9.08	5.63
19178.72	19659.46	42598.01	6068.64	480.74	24.34	12.62	7.02
19659.46	20140.20 RB	36262.39	5511.11	481.04	20.72	11.46	6.58
20140.20	20259.20	3593.57	816.93	119.27	2.05	6.86	4.40
20259.20	20378.20	2956.03	725.93	119.00	1.69	6.10	4.07
20378.20	20497.20	2462.90	650.64	119.00	1.41	5.47	3.79
20497.20	20616.20	2274.81	620.35	119.00	1.30	5.21	3.67
20616.20	20735.20	2049.16	582.67	119.01	1.17	4.90	3.52
20735.20	20854.20	4662.97	956.06	119.56	2.66	8.03	4.88
20854.20	20973.20	4956.39	989.90	119.02	2.83	8.32	5.01
20973.20	21092.20	3125.59	734.02	112.52	1.79	6.87	4.26

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 232.41

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17720.3	1266.2	17755.7	1248.7	17867.7	1248.6	18029.2	1248.6	18070.5	1250.6
18114.5	1252.1	18138	1253.6	18151.3	1255.3	18175	1253.1	18196.4	1252.7
18200.6	1253.5	18241.1	1254.1	18251.6	1254.5	18346.5	1254.7	18376.2	1253.4
18402.1	1253.1	18473.6	1252.5	18534.1	1253.2	18562.6	1251	18600.9	1252.1
18624.7	1252.2	18684.8	1252.1	18734.7	1252	18767.1	1251.9	18782.7	1251.2
18825.8	1249.5	18880.2	1248.7	18919.5	1248.7	19109.8	1248.9	19287.3	1248.9
19313.1	1254.9	19354.4	1254.5	19412.5	1254.8	19450	1255.1	19526.3	1254
19540.7	1253.9	19609.8	1255.6	19613.2	1256	19627.8	1259.1	19695.6	1259.2
19727.3	1259.4	19909.1	1260.1	19917.4	1260.2	20055.6	1259.4	20153.6	1258.8
20165.1	1258.7	20251.6	1258.2	20276.2	1257.4	20316	1252.9	20328.3	1252.9
20367.6	1253.8	20386.4	1252.7	20439.7	1251.4	20492.4	1250.7	20516.1	1250.1
20631.3	1248.5	20631.9	1248.5	20682	1253.1	20702.8	1253	20746.7	1252.6
20771.1	1252.4	20809.1	1251.9	20861.1	1254.5	20910.6	1254.4	20941.9	1255.2
21052	1256.5	21080	1256.5	21105.4	1255.8	21146.6	1257.5	21203.7	1257.1
21253.4	1255.9	21301.3	1255.7	21339.1	1255.4	21385.5	1255.2	21398.5	1255.3
21481.2	1251.8	21514.7	1250.4	21579.6	1249.1	21634.4	1247.8	21667.6	1247.5
21720	1247.3	21743.8	1247.2	21811.6	1249.5	21815.3	1249.7	21875.1	1254.2
21892.2	1257.7	21907.7	1260.1	21913.1	1260.2	21964	1260.4	22076	1262.7
22132.3	1263.2	22171	1263.5	22313.7	1263.8	22403.7	1263.9	22592.5	1263.9
22707	1264.1								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17720.3	.028	19450	.028	19627.8	.032	20367.6	.03	21964	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17720.3	19450	510	499.14	500	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1260.67	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.51	Wt. n-Val.		0.028	0.030
E.G. Elev (ft)	1261.19	Reach Len. (ft)	510.00	499.14	500.00
Crit W.S. (ft)		Flow Area (sq ft)		16369.39	14928.07

E.G. Slope (ft/ft)	0.000704	Area (sq ft)		16369.39	14928.07
Q Total (cfs)	175000.00	Flow (cfs)		103420.79	71579.21
Top Width (ft)	4245.80	Top Width (ft)		1718.52	2527.29
Vel Total (ft/s)	5.59	Avg. Vel. (ft/s)		6.32	4.79
Max Chl Dpth (ft)	13.47	Hydr. Depth (ft)		9.53	5.91
Conv. Total (cfs)	6594687.5	Conv. (cfs)		3897301.5	2697386.0
Length Wtd. (ft)	499.50	Wetted Per. (ft)		1722.63	2529.27
Min Ch El (ft)	1248.60	Shear (lb/sq ft)		0.42	0.26
Alpha	1.06	Stream Power (lb/ft s)		2.64	1.24
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)	1133.02	10409.43	3539.52
C & E Loss (ft)	0.01	Cum SA (acres)	117.74	989.51	590.47

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1261.50	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.62	Wt. n-Val.		0.028	0.030
E.G. Elev (ft)	1262.12	Reach Len. (ft)	510.00	499.14	500.00
Crit W.S. (ft)		Flow Area (sq ft)		17794.85	11100.12
E.G. Slope (ft/ft)	0.000745	Area (sq ft)		17794.85	11100.12
Q Total (cfs)	175000.00	Flow (cfs)		122216.69	52783.30
Top Width (ft)	3638.52	Top Width (ft)		1718.52	1920.00
Vel Total (ft/s)	6.06	Avg. Vel. (ft/s)		6.87	4.76
Max Chl Dpth (ft)	13.00	Hydr. Depth (ft)		10.35	5.78
Conv. Total (cfs)	6411630.0	Conv. (cfs)		4477761.0	1933868.8
Length Wtd. (ft)	499.40	Wetted Per. (ft)		1723.46	1927.33
Min Ch El (ft)	1248.60	Shear (lb/sq ft)		0.48	0.27
Alpha	1.08	Stream Power (lb/ft s)		3.30	1.27
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	67.08	10019.47	2297.27
C & E Loss (ft)	0.02	Cum SA (acres)	14.30	953.82	363.90

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17720.30 LB	18066.24	27048.16	3855.29	337.60	15.46	11.52	7.02
18066.24	18412.18	12567.02	2459.00	346.35	7.18	7.11	5.11
18412.18	18758.12	16577.01	2902.49	346.05	9.47	8.39	5.71
18758.12	19104.06	27798.46	3957.79	345.99	15.88	11.44	7.02
19104.06	19450.00 RB	19430.13	3194.81	346.63	11.10	9.24	6.08
19450.00	19667.13	4422.12	1096.14	217.51	2.53	5.05	4.03
19667.13	19884.27	287.26	238.41	217.14	0.16	1.10	1.20
19884.27	20101.40	223.54	205.10	217.14	0.13	0.94	1.09
20101.40	20318.53	1388.86	613.99	217.40	0.79	2.83	2.26
20318.53	20535.67	9877.22	1922.97	217.21	5.64	8.86	5.14
20535.67	20752.80	12021.13	2156.14	217.36	6.87	9.93	5.58
20752.80	20969.93	6591.60	1503.11	217.21	3.77	6.92	4.39
20969.93	21187.07	2876.08	913.80	217.18	1.64	4.21	3.15
21187.07	21404.20	3591.39	1044.01	217.16	2.05	4.81	3.44
21404.20	21621.33	11425.22	2090.97	217.26	6.53	9.63	5.46
21621.33	21838.47	17754.09	2723.96	217.25	10.15	12.55	6.52
21838.47	22055.60	1120.71	419.47	139.47	0.64	3.02	2.67

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17720.30 LB	18066.24	31276.87	4132.96	338.43	17.87	12.35	7.57
18066.24	18412.18	15580.35	2745.94	346.35	8.90	7.94	5.67
18412.18	18758.12	20007.86	3189.44	346.05	11.43	9.22	6.27
18758.12	19104.06	32221.04	4244.74	345.99	18.41	12.27	7.59
19104.06	19450.00 RB	23130.60	3481.76	346.63	13.22	10.06	6.64
19450.00	19667.13	5922.32	1276.24	217.51	3.38	5.88	4.64
19667.13	19884.27	776.85	418.51	217.14	0.44	1.93	1.86
19884.27	20101.40	676.56	385.20	217.14	0.39	1.77	1.76
20101.40	20318.53	2257.28	794.09	217.40	1.29	3.66	2.84
20318.53	20535.67	12126.51	2103.08	217.21	6.93	9.69	5.77
20535.67	20752.80	14546.39	2336.24	217.36	8.31	10.76	6.23
20752.80	20969.93	8426.48	1683.21	217.21	4.82	7.75	5.01
20969.93	21187.07	4109.18	1093.91	217.18	2.35	5.04	3.76
21187.07	21404.20	3941.72	1009.63	189.19	2.25	5.52	3.90

CROSS SECTION RIVER: Salt River

REACH: Above Split RS: 232.32

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17772	1268.2	17804.2	1247.7	17810.6	1247.7	17969.4	1248	18138.1	1248.2
18160.4	1249.9	18193.9	1253.5	18214.6	1248.4	18234.9	1248.1	18253	1248.5
18269.1	1252.6	18326.6	1253.5	18372.5	1254.2	18417.6	1251	18435	1250.3
18457.7	1248.1	18504.7	1247.8	18509.1	1247.8	18694.9	1247.6	18739.9	1247.7
18792.9	1247.8	18937.8	1248.3	18965	1248.5	19013.2	1248.5	19041.3	1256.7
19046.9	1257.2	19081.8	1255.4	19106.5	1252.6	19146	1252.2	19165.4	1250.6
19208.7	1252.3	19223.7	1252.7	19280.7	1256.9	19309.6	1257.4	19322.8	1258.7
19369.6	1259.1	19390.5	1258.9	19475.1	1258	19524.4	1257.3	19622.1	1257
19654.8	1256.7	19703.2	1256.4	19769.5	1257.3	19829	1258.1	19879	1258.8
19931.4	1259.5	19965.6	1260.2	20076.8	1259.7	20212.7	1259	20277.9	1259
20280.4	1259	20347	1258.5	20396.3	1258.1	20498.3	1258.1	20526.8	1257.3
20605.4	1258	20621.8	1258.3	20662.2	1252.4	20731.9	1249.9	20738.1	1249.9
20788.4	1249.4	20842.5	1250.4	20898.1	1251.4	20916	1253	20957.5	1252.1
21002.9	1251.3	21069.7	1252.4	21119.8	1253.5	21165	1255.1	21220.9	1257.1
21221.8	1257.1	21278.3	1256.6	21286.7	1256.5	21343.2	1257.3	21383.3	1257.2
21434.2	1256.5	21445.6	1256.5	21452.8	1255.8	21514.3	1252	21550.5	1247.9
21617.7	1248.6	21664.7	1248.6	21739.5	1249.4	21794	1249.3	21865.2	1249.1
21928.7	1250	21951.6	1250.8	21990.9	1253.8	22031.4	1253.5	22049	1257.5
22064.1	1260	22118	1261	22244.3	1261.6	22277.2	1262	22352.6	1262.1
22438	1262.6								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17772	.028	19046.9	.028	19369.6	.032	20621.8	.03	22118	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17772	19046.9	505	513.36	520	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1260.20	Element			
Vel Head (ft)	0.62	Wt. n-Val.		0.028	0.030
E.G. Elev (ft)	1260.81	Reach Len. (ft)	505.00	513.36	520.00
Crit W.S. (ft)		Flow Area (sq ft)		14056.23	15512.58
E.G. Slope (ft/ft)	0.000748	Area (sq ft)		14056.23	15512.58
Q Total (cfs)	175000.00	Flow (cfs)		101375.36	73624.64
Top Width (ft)	4289.55	Top Width (ft)		1262.33	3027.22
Vel Total (ft/s)	5.92	Avg. Vel. (ft/s)		7.21	4.75
Max Chl Dpth (ft)	12.60	Hydr. Depth (ft)		11.14	5.12
Conv. Total (cfs)	6399198.0	Conv. (cfs)		3706977.0	2692221.0
Length Wtd. (ft)	516.45	Wetted Per. (ft)		1268.81	3029.69
Min Ch El (ft)	1247.60	Shear (lb/sq ft)		0.52	0.24
Alpha	1.13	Stream Power (lb/ft s)		3.73	1.13
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	1133.02	10235.11	3364.82
C & E Loss (ft)	0.00	Cum SA (acres)	117.74	972.43	558.60

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1260.85	Element			
Vel Head (ft)	0.84	Wt. n-Val.		0.028	0.030
E.G. Elev (ft)	1261.69	Reach Len. (ft)	505.00	513.36	520.00
Crit W.S. (ft)		Flow Area (sq ft)		14880.93	11222.70
E.G. Slope (ft/ft)	0.000903	Area (sq ft)		14880.93	11222.70
Q Total (cfs)	175000.00	Flow (cfs)		122465.07	52534.93
Top Width (ft)	3675.43	Top Width (ft)		1262.33	2413.10
Vel Total (ft/s)	6.70	Avg. Vel. (ft/s)		8.23	4.68
Max Chl Dpth (ft)	13.25	Hydr. Depth (ft)		11.79	4.65
Conv. Total (cfs)	5823254.0	Conv. (cfs)		4075115.5	1748138.5
Length Wtd. (ft)	515.71	Wetted Per. (ft)		1269.47	2419.92
Min Ch El (ft)	1247.60	Shear (lb/sq ft)		0.66	0.26
Alpha	1.20	Stream Power (lb/ft s)		5.44	1.22
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	67.08	9832.26	2169.15
C & E Loss (ft)	0.01	Cum SA (acres)	14.30	936.74	339.03

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17772.00 LB	18026.98	21227.35	2863.85	246.05	12.13	11.81	7.41
18026.98	18281.96	19594.37	2774.81	256.38	11.20	10.88	7.06
18281.96	18536.94	14794.77	2340.11	255.22	8.45	9.18	6.32
18536.94	18791.92	24794.34	3188.72	254.98	14.17	12.51	7.78
18791.92	19046.90 RB	20964.53	2888.74	256.18	11.98	11.33	7.26
19046.90	19272.97	7506.18	1542.01	226.52	4.29	6.82	4.87
19272.97	19499.05	856.64	434.41	226.17	0.49	1.92	1.97
19499.05	19725.12	1902.54	732.65	226.08	1.09	3.24	2.60
19725.12	19951.19	821.44	442.64	226.10	0.47	1.96	1.86
19951.19	20177.27	75.56	105.63	225.45	0.04	0.47	0.72
20177.27	20403.34	490.93	325.01	226.08	0.28	1.44	1.51
20403.34	20629.41	1086.80	522.88	226.17	0.62	2.31	2.08
20629.41	20855.49	11584.24	2084.99	226.48	6.62	9.22	5.56
20855.49	21081.56	9810.43	1886.11	226.18	5.61	8.34	5.20
21081.56	21307.63	3782.73	1064.67	226.15	2.16	4.71	3.55
21307.63	21533.71	3633.37	1039.63	226.36	2.08	4.60	3.49
21533.71	21759.78	16701.36	2595.44	226.19	9.54	11.48	6.43
21759.78	21985.85	13977.28	2332.49	226.19	7.99	10.32	5.99
21985.85	22211.93	1395.14	404.03	89.57	0.80	4.54	3.45

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17772.00 LB	18026.98	25487.23	3022.22	246.71	14.56	12.47	8.43
18026.98	18281.96	23744.64	2941.40	256.38	13.57	11.54	8.07
18281.96	18536.94	18243.89	2506.69	255.22	10.43	9.83	7.28
18536.94	18791.92	29678.79	3355.30	254.98	16.96	13.16	8.85
18791.92	19046.90 RB	25310.50	3055.32	256.18	14.46	11.98	8.28
19046.90	19272.97	9647.55	1689.71	226.52	5.51	7.47	5.71
19272.97	19499.05	1532.87	582.10	226.17	0.88	2.57	2.63
19499.05	19725.12	2851.38	880.35	226.08	1.63	3.89	3.24
19725.12	19951.19	1464.81	590.34	226.10	0.84	2.61	2.48
19951.19	20177.27	357.63	253.33	226.08	0.20	1.12	1.41
20177.27	20403.34	1011.50	472.71	226.08	0.58	2.09	2.14
20403.34	20629.41	1815.46	670.58	226.17	1.04	2.97	2.71
20629.41	20855.49	14328.39	2232.69	226.48	8.19	9.88	6.42
20855.49	21081.56	12275.79	2033.81	226.18	7.01	9.00	6.04
21081.56	21307.63	5183.56	1212.37	226.15	2.96	5.36	4.28
21307.63	21533.71	2066.00	604.72	157.92	1.18	3.97	3.42

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 232.22

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17691.4	1264.7	17752.4	1263.7	17824.4	1260.6	17847.9	1254.2	17853	1251.2
17905.1	1251.4	17916.7	1251.7	17991.8	1249.2	17997.4	1249	18068.2	1247
18180.9	1247.3	18240.3	1247.5	18476.1	1247.5	18516.2	1247.2	18769.3	1247.7
18789.5	1257.8	18837.8	1257.8	18844.3	1257.9	18894.3	1257.9	18907.6	1253.7
18958.3	1254.1	18970.3	1254.1	19057.3	1252.6	19071.2	1252.9	19090.5	1252
19118.2	1252	19169.4	1252.3	19180.5	1252.4	19262.5	1253.1	19278.7	1253
19317.9	1255.9	19342.4	1255.7	19354.5	1257	19383.2	1257.7	19471.4	1257.1
19521.3	1256.4	19569.2	1256	19705.1	1256.3	19793	1256.6	19814.7	1256.9
19903	1257.7	19922.1	1257.7	20055.2	1257.1	20065.7	1257.2	20162.5	1256.4
20174.3	1256.3	20227.5	1256.3	20280.9	1256.3	20282.7	1256.3	20355.2	1257.2
20391.7	1257.5	20470.7	1258	20473	1258	20544.4	1259.5	20612.7	1257.3
20630	1256.8	20687.9	1255.8	20713.5	1257.1	20746.1	1254.2	20798.7	1251.9
20829.2	1251	20882.5	1249.9	20884.8	1249.1	20916.5	1250	20972.5	1251.3
20983.9	1251.4	21016.8	1250.4	21058.5	1251.7	21103.8	1249.2	21109.4	1249.2
21150.8	1249	21198.2	1254.8	21212.9	1256.5	21284.8	1255.8	21336	1256.2

21336.2	1254.2	21372.7	1253.2	21401	1254	21445	1253.9	21483.3	1254.5
21519.6	1252.2	21548.2	1249.4	21642.4	1247.6	21649.1	1247.6	21696.4	1248.1
21803.8	1250.8	21808.1	1250.8	21859.2	1249.8	21906.3	1249.6	21940.8	1249.5
21981.6	1249.1	21989.2	1249.1	22021.3	1256.2	22058.4	1256.9	22082.2	1261.6
22144	1261.7								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17691.4	.028	17824.4	.028	18844.3	.028	19383.2	.032	20829.2	.03

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17824.4	18844.3	495	500.41	500	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1259.74	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.65	Wt. n-Val.		0.028	0.030
E.G. Elev (ft)	1260.39	Reach Len. (ft)	495.00	500.41	500.00
Crit W.S. (ft)		Flow Area (sq ft)		11105.29	17703.25
E.G. Slope (ft/ft)	0.000876	Area (sq ft)		11105.29	17703.25
Q Total (cfs)	175000.00	Flow (cfs)		85658.69	89341.31
Top Width (ft)	4245.20	Top Width (ft)		1016.73	3228.47
Vel Total (ft/s)	6.07	Avg. Vel. (ft/s)		7.71	5.05
Max Chl Dpth (ft)	12.74	Hydr. Depth (ft)		10.92	5.48
Conv. Total (cfs)	5911611.5	Conv. (cfs)		2893605.0	3018006.5
Length Wtd. (ft)	500.20	Wetted Per. (ft)		1020.76	3233.58
Min Ch El (ft)	1247.00	Shear (lb/sq ft)		0.60	0.30
Alpha	1.14	Stream Power (lb/ft s)		4.59	1.51
Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	1133.02	10086.84	3166.56
C & E Loss (ft)	0.00	Cum SA (acres)	117.74	959.01	521.26

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1260.27	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.90	Wt. n-Val.		0.028	0.030
E.G. Elev (ft)	1261.17	Reach Len. (ft)	495.00	500.41	500.00
Crit W.S. (ft)		Flow Area (sq ft)		11650.89	13712.53
E.G. Slope (ft/ft)	0.001091	Area (sq ft)		11650.89	13712.53
Q Total (cfs)	175000.00	Flow (cfs)		103498.91	71501.09
Top Width (ft)	3672.43	Top Width (ft)		1016.73	2655.70
Vel Total (ft/s)	6.90	Avg. Vel. (ft/s)		8.88	5.21
Max Chl Dpth (ft)	13.27	Hydr. Depth (ft)		11.46	5.16
Conv. Total (cfs)	5297915.0	Conv. (cfs)		3133305.3	2164609.5
Length Wtd. (ft)	500.24	Wetted Per. (ft)		1021.29	2666.34
Min Ch El (ft)	1247.00	Shear (lb/sq ft)		0.78	0.35
Alpha	1.21	Stream Power (lb/ft s)		6.90	1.83
Frctn Loss (ft)	0.58	Cum Volume (acre-ft)	67.08	9675.92	2020.32
C & E Loss (ft)	0.02	Cum SA (acres)	14.30	923.31	308.78

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17824.40 LB	18028.38	11187.38	1729.97	202.43	6.39	8.61	6.47
18028.38	18232.36	21095.35	2538.94	204.00	12.05	12.45	8.31
18232.36	18436.34	20508.51	2496.23	203.98	11.72	12.24	8.22
18436.34	18640.32	20892.52	2524.18	203.98	11.94	12.37	8.28
18640.32	18844.30 RB	11974.85	1815.96	206.37	6.84	8.90	6.59
18844.30	19064.28	4972.56	1112.80	220.64	2.84	5.06	4.47
19064.28	19284.26	9038.16	1590.84	220.02	5.16	7.23	5.68
19284.26	19504.24	2126.95	677.22	220.16	1.22	3.08	3.14
19504.24	19724.22	2395.41	776.91	219.98	1.37	3.53	3.08
19724.22	19944.20	1509.52	588.91	219.99	0.86	2.68	2.56
19944.20	20164.18	1480.38	582.06	219.98	0.85	2.65	2.54
20164.18	20384.16	1982.47	693.54	219.99	1.13	3.15	2.86
20384.16	20604.14	546.74	320.22	220.03	0.31	1.46	1.71
20604.14	20824.12	3911.21	1043.09	220.22	2.23	4.74	3.75
20824.12	21044.10	12579.48	2024.00	220.18	7.19	9.20	6.22
21044.10	21264.08	8943.18	1649.06	220.51	5.11	7.50	5.42
21264.08	21484.06	4789.83	1136.49	221.83	2.74	5.17	4.21
21484.06	21704.04	15289.79	2273.77	220.21	8.74	10.34	6.72
21704.04	21924.02	14372.50	2190.16	220.02	8.21	9.96	6.56
21924.02	22144.00	5403.19	1044.18	149.81	3.09	7.02	5.17

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17824.40 LB	18028.38	13798.87	1837.73	202.97	7.89	9.15	7.51
18028.38	18232.36	25285.99	2648.40	204.00	14.45	12.98	9.55
18232.36	18436.34	24611.54	2605.69	203.98	14.06	12.77	9.45
18436.34	18640.32	25052.95	2633.65	203.98	14.32	12.91	9.51
18640.32	18844.30 RB	14749.48	1925.42	206.37	8.43	9.44	7.66
18844.30	19064.28	6573.98	1230.85	220.64	3.76	5.60	5.34
19064.28	19284.26	11380.51	1708.88	220.02	6.50	7.77	6.66
19284.26	19504.24	3075.56	795.26	220.16	1.76	3.62	3.87
19504.24	19724.22	3388.72	894.96	219.98	1.94	4.07	3.79
19724.22	19944.20	2287.43	706.96	219.99	1.31	3.21	3.24
19944.20	20164.18	2250.63	700.11	219.98	1.29	3.18	3.21
20164.18	20384.16	2879.05	811.58	219.99	1.65	3.69	3.55
20384.16	20604.14	1030.86	438.26	220.03	0.59	1.99	2.35
20604.14	20824.12	5226.19	1161.13	220.22	2.99	5.28	4.50
20824.12	21044.10	15451.08	2142.05	220.18	8.83	9.74	7.21
21044.10	21264.08	11215.19	1767.11	220.51	6.41	8.03	6.35
21264.08	21484.06	6311.33	1254.54	221.83	3.61	5.70	5.03
21484.06	21704.04	430.62	100.85	22.80	0.25	6.33	4.27

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 232.13

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17667.7	1262.5	17728.7	1260.3	17756.5	1258.9	17795	1258.3	17811.5	1258.6
17816.7	1256.7	17842.4	1260.4	17881.9	1252.2	17926.8	1251.2	18016.1	1250.9
18079.7	1250.2	18081.9	1250.2	18156.9	1249.5	18169	1249.3	18198.4	1246.6
18207.7	1246.6	18539.2	1247.1	18632.1	1247.2	18681.1	1249	18721.9	1249.7
18732.7	1249.8	18800.7	1249.9	18842.9	1252.1	18891.1	1253.7	18940.8	1254.4
18987	1254.9	19030.2	1254.8	19071.4	1254.8	19109.6	1255.6	19158.4	1255
19205.8	1253.7	19242	1252.6	19277.2	1250.7	19296.8	1250.5	19326.5	1252.3
19357.6	1251.7	19411.5	1254.2	19422.4	1254.7	19431.3	1257.5	19514.9	1256.6
19591.3	1255.6	19675.6	1254.7	19730.4	1254.8	19820.7	1256.2	19865.6	1256.3
19963.3	1256.3	19999.5	1256.7	20071.6	1257	20102.2	1257	20199.8	1257
20243.6	1257	20256.4	1257	20306.3	1255.7	20356.9	1255.4	20380	1256
20414.3	1255.4	20482	1256.1	20531.8	1256.7	20558.5	1256.1	20609.1	1256.1
20668.2	1256.1	20718.5	1256.5	20771.1	1255.7	20796.9	1256	20862	1255.1
20906.9	1252.8	20944.7	1248.4	20976.5	1249.3	21032.9	1246	21084.7	1250.6
21106.7	1252.4	21126.6	1251.1	21151.1	1247.4	21178.4	1248.1	21194.3	1250.1
21220.6	1250.3	21259	1255.1	21302	1255.4	21328.9	1255.7	21332.1	1256.6
21360.3	1255.8	21431	1255	21466.9	1250.6	21475.4	1250.4	21600.9	1247.4
21606.9	1247.6	21663.6	1249.8	21670.5	1249.5	21733.7	1246.7	21791.6	1246.9
21825.3	1247	21847	1248.2	21887.8	1250	21923.6	1257.6	21946.2	1261.6
21981.6	1262.3								

Manning's n Values num= 8

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17667.7	.032	17842.4	.032	18156.9	.028	19109.6	.028	19431.3	.032
20862	.028	21259	.032	21431	.037				

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17842.4	19109.6	505	500.3	505	.1	.55

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17667.7	17842.4	1260.4	19109.6	21981.6	1255.6

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1259.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.69	Wt. n-Val.		0.029	0.032
E.G. Elev (ft)	1259.90	Reach Len. (ft)	505.00	500.30	505.00
Crit W.S. (ft)	1255.86	Flow Area (sq ft)		11562.73	15618.62
E.G. Slope (ft/ft)	0.001112	Area (sq ft)	66.63	11562.73	15618.62
Q Total (cfs)	175000.00	Flow (cfs)		87692.75	87307.25
Top Width (ft)	4168.20	Top Width (ft)	83.68	1261.45	2823.07

Vel Total (ft/s)	6.44	Avg. Vel. (ft/s)		7.58	5.59
Max Chl Dpth (ft)	13.21	Hydr. Depth (ft)		9.17	5.53
Conv. Total (cfs)	5248619.0	Conv. (cfs)		2630090.5	2618528.5
Length Wtd. (ft)	502.66	Wetted Per. (ft)		1262.45	2826.85
Min Ch El (ft)	1246.60	Shear (lb/sq ft)		0.64	0.38
Alpha	1.07	Stream Power (lb/ft s)		4.82	2.14
Frctn Loss (ft)	0.67	Cum Volume (acre-ft)	1132.65	9956.64	2975.32
C & E Loss (ft)	0.04	Cum SA (acres)	117.27	945.92	486.53

Warning - Divided flow computed for this cross-section.
Warning - The parabolic search method failed to converge on critical depth. The program will try the
cross section slice/secant method to find critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1259.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.83	Wt. n-Val.		0.029	0.030
E.G. Elev (ft)	1260.58	Reach Len. (ft)	505.00	500.30	505.00
Crit W.S. (ft)	1256.94	Flow Area (sq ft)		12248.89	12835.90
E.G. Slope (ft/ft)	0.001213	Area (sq ft)		12248.89	12835.90
Q Total (cfs)	175000.00	Flow (cfs)		100744.38	74255.62
Top Width (ft)	3691.85	Top Width (ft)		1261.45	2430.40
Vel Total (ft/s)	6.98	Avg. Vel. (ft/s)		8.22	5.78
Max Chl Dpth (ft)	13.75	Hydr. Depth (ft)		9.71	5.28
Conv. Total (cfs)	5024774.5	Conv. (cfs)		2892673.3	2132101.3
Length Wtd. (ft)	502.25	Wetted Per. (ft)		1263.00	2443.92
Min Ch El (ft)	1246.60	Shear (lb/sq ft)		0.73	0.40
Alpha	1.09	Stream Power (lb/ft s)		6.04	2.30
Frctn Loss (ft)	0.83	Cum Volume (acre-ft)	67.08	9538.64	1867.95
C & E Loss (ft)	0.07	Cum SA (acres)	14.30	910.23	279.59

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17842.40 LB	18095.84	10691.15	1880.34	248.42	6.11	7.59	5.69
18095.84	18349.28	24583.63	2911.69	253.57	14.05	11.49	8.44
18349.28	18602.72	27638.11	3093.19	253.44	15.79	12.20	8.94
18602.72	18856.16	19060.42	2475.43	253.54	10.89	9.77	7.70
18856.16	19109.60 RB	5719.50	1202.09	253.47	3.27	4.74	4.76
19109.60	19301.07	6303.73	1111.25	191.57	3.60	5.80	5.67
19301.07	19492.53	5367.42	960.67	192.02	3.07	5.02	5.59
19492.53	19684.00	2389.48	672.59	191.48	1.37	3.51	3.55
19684.00	19875.47	2568.81	702.44	191.48	1.47	3.67	3.66
19875.47	20066.93	1520.04	512.71	191.47	0.87	2.68	2.96
20066.93	20258.40	1100.81	422.46	191.47	0.63	2.21	2.61
20258.40	20449.87	2275.05	653.10	191.50	1.30	3.41	3.48
20449.87	20641.33	1851.13	577.07	191.48	1.06	3.01	3.21
20641.33	20832.80	1994.96	603.57	191.48	1.14	3.15	3.31
20832.80	21024.27	11143.19	1544.52	191.88	6.37	8.07	7.21
21024.27	21215.73	15449.94	1905.44	192.21	8.83	9.95	8.11
21215.73	21407.20	3772.53	828.44	191.91	2.16	4.33	4.55
21407.20	21598.67	9653.17	1667.95	191.77	5.52	8.71	5.79
21598.67	21790.13	14444.59	2160.32	191.58	8.25	11.28	6.69
21790.13	21981.60	7472.33	1296.08	143.55	4.27	9.09	5.77

Warning - Divided flow computed for this cross-section.
Warning - The parabolic search method failed to converge on critical depth. The program will try the
cross section slice/secant method to find critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17842.40 LB	18095.84	12579.44	2015.07	248.97	7.19	8.14	6.24
18095.84	18349.28	27856.48	3049.55	253.57	15.92	12.03	9.13
18349.28	18602.72	31207.00	3231.04	253.44	17.83	12.75	9.66
18602.72	18856.16	21904.95	2613.29	253.54	12.52	10.31	8.38
18856.16	19109.60 RB	7196.56	1339.95	253.47	4.11	5.29	5.37
19109.60	19301.07	7653.55	1215.40	191.57	4.37	6.35	6.30
19301.07	19492.53	6536.78	1064.82	192.02	3.74	5.56	6.14
19492.53	19684.00	3176.36	776.74	191.48	1.82	4.06	4.09
19684.00	19875.47	3382.39	806.58	191.48	1.93	4.21	4.19
19875.47	20066.93	2163.37	616.86	191.47	1.24	3.22	3.51
20066.93	20258.40	1662.01	526.61	191.47	0.95	2.75	3.16
20258.40	20449.87	3044.45	757.25	191.50	1.74	3.96	4.02
20449.87	20641.33	2552.42	681.22	191.48	1.46	3.56	3.75
20641.33	20832.80	2720.04	707.72	191.48	1.55	3.70	3.84
20832.80	21024.27	12938.26	1648.67	191.88	7.39	8.61	7.85
21024.27	21215.73	17654.99	2009.59	192.21	10.09	10.50	8.79
21215.73	21407.20	4742.05	932.59	191.91	2.71	4.87	5.08
21407.20	21598.67	6028.88	1091.85	143.99	3.45	8.22	5.52

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 232.04

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17605.1	1258.9	17634	1258.7	17686.8	1258.2	17708	1257.8	17717.4	1258.2
17766.9	1258.5	17783.8	1258.5	17787.7	1257.9	17847.2	1219.6	17891.1	1218.4
17926.4	1218.4	17946.3	1216	17989.6	1214.8	18035	1216.8	18097	1218
18141	1237.3	18176.2	1255.9	18227.3	1257.1	18234.6	1253	18250.6	1247.6
18258.1	1247.6	18341.1	1247.6	18662.6	1246.9	18689.3	1247.2	18722	1250.5
18732	1249.5	18775.5	1249.1	18857.6	1250.3	18864	1250.4	18943.6	1249.4
18965.5	1248.7	18989.9	1250.6	19019.9	1249.4	19068.7	1250.2	19128.7	1248.6
19167.7	1252.5	19199.5	1252.5	19213.8	1257.6	19281	1257.7	19320.2	1257.5
19326.1	1257.4	19381	1256.2	19387.1	1256.1	19399.9	1254.6	19438.5	1254.7
19491.2	1255	19522.5	1254.9	19572.4	1253.9	19633.9	1253.9	19673.3	1254.2
19692.2	1254.2	19711.9	1256	19746.5	1256	19809.9	1255.5	19858	1255.2
19931.4	1254.6	19994.4	1254.8	20004.4	1254.9	20063.7	1257.5	20074.9	1257.5
20171.5	1257.5	20205	1257.3	20378.1	1254.7	20383.3	1254.6	20483.7	1254.7
20600.8	1254.7	20607.2	1254.8	20759.4	1254.7	20840.4	1255.3	20870	1255.3
20944.3	1255.3	20976.4	1256.2	20982.1	1255.4	21035.4	1247.7	21074.5	1245.5
21202.6	1251.2	21219	1251.8	21251	1250.2	21289.9	1250.5	21307.7	1256.4
21332.3	1255.1	21367.7	1250.7	21425.3	1248	21469.7	1246.6	21536.3	1248.7
21556.4	1247.8	21596.1	1245.6	21647.7	1245.3	21684	1245.1	21726.5	1248.3
21750.7	1248.9	21820.3	1250.9	21851.2	1254.4	21877	1255.8	21907.9	1260.7
21911	1260.7								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17605.1	.032	18227.3	.028	19213.8	.028	19326.1	.037	20976.4	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18227.3	19213.8	515	498.64	490	.1	.55

Ineffective Flow num= 1

Sta L	Sta R	Elev
17605.1	18227.3	1260

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1258.11	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.07	Wt. n-Val.		0.028	0.030
E.G. Elev (ft)	1259.18	Reach Len. (ft)	515.00	498.64	490.00
Crit W.S. (ft)	1255.85	Flow Area (sq ft)		9139.88	12671.01
E.G. Slope (ft/ft)	0.001649	Area (sq ft)	13210.73	9139.88	12671.01
Q Total (cfs)	175000.00	Flow (cfs)		86681.02	88318.98
Top Width (ft)	4129.00	Top Width (ft)	464.73	986.50	2677.77
Vel Total (ft/s)	8.02	Avg. Vel. (ft/s)		9.48	6.97
Max Chl Dpth (ft)	43.31	Hydr. Depth (ft)		9.26	4.73
Conv. Total (cfs)	4309779.5	Conv. (cfs)		2134720.5	2175059.0
Length Wtd. (ft)	494.36	Wetted Per. (ft)		989.91	2680.95

Min Ch El (ft)	1246.90	Shear (lb/sq ft)		0.95	0.49
Alpha	1.07	Stream Power (lb/ft s)		9.01	3.39
Frctn Loss (ft)	0.75	Cum Volume (acre-ft)	1055.68	9837.75	2811.33
C & E Loss (ft)	0.04	Cum SA (acres)	114.09	933.01	454.64

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1258.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.53	Wt. n-Val.		0.028	0.030
E.G. Elev (ft)	1259.68	Reach Len. (ft)	515.00	498.64	490.00
Crit W.S. (ft)	1256.70	Flow Area (sq ft)		9177.09	9672.25
E.G. Slope (ft/ft)	0.002357	Area (sq ft)		9177.09	9672.25
Q Total (cfs)	175000.00	Flow (cfs)		104274.61	70725.39
Top Width (ft)	3332.70	Top Width (ft)		986.50	2346.20
Vel Total (ft/s)	9.28	Avg. Vel. (ft/s)		11.36	7.31
Max Chl Dpth (ft)	12.65	Hydr. Depth (ft)		9.30	4.12
Conv. Total (cfs)	3604417.3	Conv. (cfs)		2147709.8	1456707.5
Length Wtd. (ft)	494.90	Wetted Per. (ft)		990.96	2359.30
Min Ch El (ft)	1246.90	Shear (lb/sq ft)		1.36	0.60
Alpha	1.14	Stream Power (lb/ft s)		15.49	4.41
Frctn Loss (ft)	0.93	Cum Volume (acre-ft)	67.08	9415.60	1737.48
C & E Loss (ft)	0.23	Cum SA (acres)	14.30	897.32	251.90

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18227.30 LB	18424.60	19587.45	1983.77	199.26	11.19	10.05	9.87
18424.60	18621.90	22581.43	2151.97	197.30	12.90	10.91	10.49
18621.90	18819.20	18283.44	1896.79	197.53	10.45	9.61	9.64
18819.20	19016.50	14246.43	1632.72	197.42	8.14	8.28	8.73
19016.50	19213.80 RB	11982.27	1474.63	198.41	6.85	7.47	8.13
19213.80	19393.61	271.11	154.36	179.87	0.15	0.86	1.76
19393.61	19573.43	2169.61	613.58	179.87	1.24	3.41	3.54
19573.43	19753.24	2298.66	635.26	179.90	1.31	3.53	3.62
19753.24	19933.05	1591.93	509.51	179.82	0.91	2.83	3.12
19933.05	20112.87	997.71	384.99	179.87	0.57	2.14	2.59
20112.87	20292.68	303.28	188.41	179.82	0.17	1.05	1.61
20292.68	20472.49	1883.98	563.70	179.83	1.08	3.13	3.34
20472.49	20652.31	2144.14	609.17	179.81	1.23	3.39	3.52
20652.31	20832.12	2032.37	589.92	179.82	1.16	3.28	3.45
20832.12	21011.93	2065.42	549.64	180.19	1.18	3.06	3.76
21011.93	21191.75	17649.51	1827.29	180.23	10.09	10.16	9.66
21191.75	21371.56	7208.53	1069.91	181.14	4.12	5.95	6.74
21371.56	21551.37	17219.12	1799.26	179.94	9.84	10.01	9.57
21551.37	21731.19	23287.87	2156.87	180.00	13.31	11.99	10.80
21731.19	21911.00	7195.74	1019.13	160.84	4.11	6.35	7.06

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18227.30 LB	18424.60	23488.76	1991.21	200.31	13.42	10.09	11.80
18424.60	18621.90	27160.73	2159.41	197.30	15.52	10.94	12.58
18621.90	18819.20	22008.14	1904.23	197.53	12.58	9.65	11.56
18819.20	19016.50	17166.78	1640.16	197.42	9.81	8.31	10.47
19016.50	19213.80 RB	14450.20	1482.07	198.41	8.26	7.51	9.75
19213.80	19393.61	346.58	161.14	179.87	0.20	0.90	2.15
19393.61	19573.43	2649.79	620.36	179.87	1.51	3.45	4.27
19573.43	19753.24	2805.65	642.04	179.90	1.60	3.57	4.37
19753.24	19933.05	1951.50	516.29	179.82	1.12	2.87	3.78
19933.05	20112.87	1231.73	391.77	179.87	0.70	2.18	3.14
20112.87	20292.68	385.76	195.19	179.82	0.22	1.09	1.98
20292.68	20472.49	2304.65	570.48	179.83	1.32	3.17	4.04
20472.49	20652.31	2619.02	615.95	179.81	1.50	3.43	4.25
20652.31	20832.12	2483.98	596.70	179.82	1.42	3.32	4.16

20832.12	21011.93	2524.80	556.42	180.19	1.44	3.09	4.54
21011.93	21191.75	21295.40	1834.07	180.23	12.17	10.20	11.61
21191.75	21371.56	8735.59	1076.69	181.14	4.99	5.99	8.11
21371.56	21551.37	20778.10	1806.04	179.94	11.87	10.04	11.50
21551.37	21731.19	612.87	89.07	19.19	0.35	10.32	6.88

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 231.95

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17431.1	1257.3	17485.3	1256.7	17549	1256.9	17605.1	1256.9	17669.9	1256.3
17726.4	1220.8	17730.1	1218.3	17775.6	1218.7	17811.8	1216.8	17863.2	1217.3
17877.5	1215.4	17927.8	1213.8	17963.6	1213.6	17994.8	1212.3	18038.5	1221.3
18052.9	1223.1	18110.6	1223.5	18149.1	1222.5	18216.3	1217.3	18216.6	1217.4
18275.5	1256.6	18315.8	1258	18354.2	1258	18371	1248.8	18409.3	1248.5
18774.4	1246.1	18813.9	1246.2	18898.3	1246.4	18983.4	1246.2	19033.4	1247.3
19069.8	1246.7	19116.3	1247.4	19135	1249.7	19235.4	1249.3	19293.2	1248.8
19324.7	1248.9	19399.1	1252.3	19454.7	1251.5	19469.5	1251.6	19496.8	1249.5
19524.8	1253.7	19577.1	1253	19686.9	1254.3	19787	1255	19835	1255.3
19851.3	1255.2	19930.9	1254.1	19941.4	1254.3	20017.9	1253.6	20036.4	1254.1
20096.8	1255.6	20114.7	1255.2	20209	1255	20249.9	1255.3	20310.9	1255.3
20332.5	1254.7	20365.1	1255.1	20499.9	1255.3	20547.5	1255.2	20621.3	1255
20699.4	1253.7	20747.3	1253.7	20796.8	1254	20843.8	1254.5	20899.2	1254.9
20958.2	1256.2	20983.3	1256.6	21002.5	1249.4	21079.2	1249.8	21094.3	1249.4
21141	1246	21180.9	1249.5	21225.8	1245.1	21301.6	1246.6	21319.6	1246
21379.9	1244	21399.5	1243.9	21480	1247.4	21487.5	1246	21543	1244.7
21593.5	1247	21639.7	1249.1	21694.1	1250.9	21736	1252.5	21771	1257.4
21783.4	1255.8	21866.6	1256.2	21940.3	1255.7	22010.8	1256.4	22038.1	1256.4
22119.6	1256.5	22242.8	1256.5	22299.3	1256.7	22380.8	1254.8	22427.8	1257.8
22470	1260.3								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17431.1	.032	18354.2	.028	19399.1	.028	19524.8	.037	20983.3	.028
21771	.043								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18354.2	19399.1	505	487.7	485	.1	.55

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17431.1	18354.2	1260	21771	22470	1260

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1257.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.00	Wt. n-Val.		0.028	0.029
E.G. Elev (ft)	1258.39	Reach Len. (ft)	505.00	487.70	485.00
Crit W.S. (ft)	1254.55	Flow Area (sq ft)		10012.52	12305.55
E.G. Slope (ft/ft)	0.001411	Area (sq ft)	21620.86	10012.52	13074.54
Q Total (cfs)	175000.00	Flow (cfs)		89964.62	85035.38
Top Width (ft)	4932.95	Top Width (ft)	867.09	1043.78	3022.07
Vel Total (ft/s)	7.84	Avg. Vel. (ft/s)		8.99	6.91
Max Chl Dpth (ft)	45.09	Hydr. Depth (ft)		9.59	5.19
Conv. Total (cfs)	4658969.0	Conv. (cfs)		2395099.3	2263869.8
Length Wtd. (ft)	486.43	Wetted Per. (ft)		1046.23	2374.90
Min Ch El (ft)	1246.10	Shear (lb/sq ft)		0.84	0.46
Alpha	1.05	Stream Power (lb/ft s)		7.57	3.15
Frctn Loss (ft)	0.99	Cum Volume (acre-ft)	849.78	9728.13	2666.53
C & E Loss (ft)	0.07	Cum SA (acres)	106.22	921.39	422.58

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1257.40	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.11	Wt. n-Val.		0.028	0.029
E.G. Elev (ft)	1258.52	Reach Len. (ft)	505.00	487.70	485.00
Crit W.S. (ft)	1254.89	Flow Area (sq ft)		10028.70	11145.87
E.G. Slope (ft/ft)	0.001538	Area (sq ft)		10028.70	11145.87
Q Total (cfs)	175000.00	Flow (cfs)		94170.23	80829.78
Top Width (ft)	3234.68	Top Width (ft)		1043.78	2190.90
Vel Total (ft/s)	8.26	Avg. Vel. (ft/s)		9.39	7.25
Max Chl Dpth (ft)	13.50	Hydr. Depth (ft)		9.61	5.09
Conv. Total (cfs)	4462858.0	Conv. (cfs)		2401533.5	2061324.8
Length Wtd. (ft)	486.47	Wetted Per. (ft)		1046.25	2204.10
Min Ch El (ft)	1246.10	Shear (lb/sq ft)		0.92	0.49
Alpha	1.05	Stream Power (lb/ft s)		8.64	3.52
Frctn Loss (ft)	1.05	Cum Volume (acre-ft)	67.08	9305.67	1620.39
C & E Loss (ft)	0.07	Cum SA (acres)	14.30	885.70	226.38

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18354.20 LB	18563.18	15552.37	1847.56	210.07	8.89	8.89	8.42
18563.18	18772.16	21073.13	2212.39	208.98	12.04	10.59	9.53
18772.16	18981.14	22863.93	2323.33	208.98	13.07	11.12	9.84
18981.14	19190.12	17967.21	2011.16	209.14	10.27	9.62	8.93
19190.12	19399.10 RB	12508.03	1618.09	209.06	7.15	7.74	7.73
19399.10	19603.83	5876.69	1064.55	205.13	3.36	5.20	5.52
19603.83	19808.55	1907.42	621.51	204.74	1.09	3.04	3.07
19808.55	20013.28	1745.58	589.32	204.74	1.00	2.88	2.96
20013.28	20218.01	1366.18	508.75	204.76	0.78	2.49	2.69
20218.01	20422.73	1154.35	459.82	204.74	0.66	2.25	2.51
20422.73	20627.46	1118.66	451.23	204.73	0.64	2.20	2.48
20627.46	20832.19	2255.64	687.30	204.74	1.29	3.36	3.28
20832.19	21036.91	3152.95	672.51	206.05	1.80	3.28	4.69
21036.91	21241.64	16565.23	1925.26	205.23	9.47	9.40	8.60
21241.64	21446.37	25240.71	2476.81	204.83	14.42	12.10	10.19
21446.37	21651.09	20943.05	2215.19	205.01	11.97	10.82	9.45
21651.09	21855.82	3708.87	633.30	120.22	2.12	5.29	5.86

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18354.20 LB	18563.18	16282.76	1850.78	210.08	9.30	8.90	8.80
18563.18	18772.16	22053.46	2215.63	208.98	12.60	10.60	9.95
18772.16	18981.14	23924.79	2326.57	208.98	13.67	11.13	10.28
18981.14	19190.12	18807.64	2014.40	209.14	10.75	9.64	9.34
19190.12	19399.10 RB	13101.63	1621.33	209.06	7.49	7.76	8.08
19399.10	19603.83	6262.43	1067.73	205.13	3.58	5.22	5.87
19603.83	19808.55	2040.18	624.68	204.74	1.17	3.05	3.27
19808.55	20013.28	1867.94	592.49	204.74	1.07	2.89	3.15

20013.28	20218.01	1464.01	511.92	204.76	0.84	2.50	2.86
20218.01	20422.73	1238.37	462.99	204.74	0.71	2.26	2.67
20422.73	20627.46	1200.35	454.40	204.73	0.69	2.22	2.64
20627.46	20832.19	2410.68	690.47	204.74	1.38	3.37	3.49
20832.19	21036.91	3363.74	675.69	206.05	1.92	3.30	4.98
21036.91	21241.64	17616.73	1928.44	205.23	10.07	9.42	9.14
21241.64	21446.37	26826.52	2479.98	204.83	15.33	12.11	10.82
21446.37	21651.09	16538.78	1657.07	154.42	9.45	11.54	9.98

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 231.86

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17615.8	1256.3	17633.7	1252.3	17673	1234.9	17713.7	1211	17747.1	1209.2
17763.9	1216.5	17778	1220.2	17841.8	1225	17857.9	1226.5	17885.5	1227.1
17888.2	1228.1	17938.6	1228.1	17945.5	1230.5	17950.6	1228	18017.1	1215.4
18031.7	1213.2	18094.2	1213.2	18145.3	1213.2	18223.5	1213.2	18287.2	1213.2
18320.2	1213.2	18361.7	1240	18384.4	1255.6	18413.8	1254.6	18477.5	1256.9
18491.2	1248.9	18551.4	1248.3	18779.8	1249.8	19012.9	1246.6	19068.1	1245.6
19079.8	1243.5	19267.2	1243.8	19314.9	1246.2	19377.6	1246.4	19442.3	1242.6
19481.2	1252.7	19483.7	1252.7	19611.3	1253.3	19666	1254.3	19711	1254.1
19788.1	1254.3	19831.1	1253.7	19884.3	1253.6	19921.2	1253.3	19990.7	1253.3
20045.5	1253.3	20115.9	1253.1	20196.6	1253.4	20253.8	1253.4	20309.4	1253.2
20384.6	1253.6	20414.9	1253.4	20543.1	1253.5	20573.8	1253.7	20634.9	1252.8
20656.4	1253.1	20727.9	1254	20790.6	1254.7	20827	1255.9	20881	1251.1
20953.8	1251.2	21003	1250.9	21057.8	1250.8	21096.2	1250.6	21126.5	1247.8
21149	1244.8	21213.5	1247.7	21243.9	1242.9	21302.5	1242.3	21360.4	1242
21419.2	1245.4	21467.7	1246.2	21529.9	1250.2	21590	1252.6	21646.7	1250.7
21690.6	1256.2	21761.3	1254.8	21910.9	1254.8	21933.8	1254.6	21993.5	1253.8
22018.7	1254.3	22075.7	1254.4	22144	1254.7	22294.6	1255.3	22365.3	1255.8
22464.2	1256.4	22585.4	1256.4	22713.5	1256.2	22782.1	1256.3	22795.5	1255
22852.3	1254.1	22867.7	1253.7	22926.1	1257.9	22975.7	1258.4	23063.3	1255.5
23101	1258.7								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17615.8	.032	18477.5	.028	18491.2	.028	19481.2	.032	19666	.032
20827	.028	21590	.037						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18477.5	19666	525	539.26	555	.1	.55

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17615.8	18600	1260	21690.6	23101	1260

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1255.60	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.73	Wt. n-Val.		0.029	0.029
E.G. Elev (ft)	1257.33	Reach Len. (ft)	525.00	539.26	555.00
Crit W.S. (ft)	1254.69	Flow Area (sq ft)		8324.27	8509.35
E.G. Slope (ft/ft)	0.003170	Area (sq ft)	26247.92	9131.54	9143.56
Q Total (cfs)	175000.00	Flow (cfs)		95365.62	79634.38
Top Width (ft)	4742.45	Top Width (ft)	822.67	1186.28	2733.49
Vel Total (ft/s)	10.40	Avg. Vel. (ft/s)		11.46	9.36
Max Chl Dpth (ft)	46.40	Hydr. Depth (ft)		7.81	4.24
Conv. Total (cfs)	3108302.0	Conv. (cfs)		1693857.9	1414444.1
Length Wtd. (ft)	545.22	Wetted Per. (ft)		1067.69	2009.14
Min Ch El (ft)	1242.60	Shear (lb/sq ft)		1.54	0.84
Alpha	1.03	Stream Power (lb/ft s)		17.68	7.84
Frctn Loss (ft)	1.57	Cum Volume (acre-ft)	572.30	9620.96	2542.84
C & E Loss (ft)	0.02	Cum SA (acres)	96.42	908.91	390.54

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1255.60	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.80	Wt. n-Val.		0.029	0.029
E.G. Elev (ft)	1257.40	Reach Len. (ft)	525.00	539.26	555.00
Crit W.S. (ft)	1254.69	Flow Area (sq ft)		8321.15	8134.14
E.G. Slope (ft/ft)	0.003259	Area (sq ft)		8321.15	8134.14
Q Total (cfs)	175000.00	Flow (cfs)		96234.66	78765.34
Top Width (ft)	2962.54	Top Width (ft)		1066.00	1896.54
Vel Total (ft/s)	10.63	Avg. Vel. (ft/s)		11.57	9.68
Max Chl Dpth (ft)	13.60	Hydr. Depth (ft)		7.81	4.29
Conv. Total (cfs)	3065452.3	Conv. (cfs)		1685730.0	1379722.3
Length Wtd. (ft)	545.17	Wetted Per. (ft)		1074.68	1901.43
Min Ch El (ft)	1242.60	Shear (lb/sq ft)		1.58	0.87
Alpha	1.02	Stream Power (lb/ft s)		18.22	8.43
Frctn Loss (ft)	1.60	Cum Volume (acre-ft)	67.08	9202.95	1513.06
C & E Loss (ft)	0.02	Cum SA (acres)	14.30	873.89	203.62

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18477.50 LB	18715.20	7203.34	760.99	115.20	4.12	6.61	9.47
18715.20	18952.90	15316.88	1598.84	237.72	8.75	6.73	9.58
18952.90	19190.60	32261.82	2500.63	237.90	18.44	10.52	12.90
19190.60	19428.30	33118.76	2540.05	237.85	18.93	10.69	13.04
19428.30	19666.00 RB	7464.91	923.77	239.02	4.27	3.89	8.08
19666.00	19895.00	1215.09	366.12	229.01	0.69	1.60	3.32
19895.00	20124.00	2273.74	533.22	229.00	1.30	2.33	4.26
20124.00	20353.00	2205.78	523.60	229.00	1.26	2.29	4.21
20353.00	20582.00	1930.61	483.37	229.00	1.10	2.11	3.99
20582.00	20811.00	1537.78	421.71	229.03	0.88	1.84	3.65
20811.00	21040.00	5846.75	838.40	216.87	3.34	3.87	6.97
21040.00	21269.00	21845.87	1915.44	229.77	12.48	8.36	11.41
21269.00	21498.00	37583.20	2649.65	229.17	21.48	11.57	14.18
21498.00	21727.00	5195.48	777.83	188.29	2.97	4.14	6.68

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18477.50 LB	18715.20	7008.49	760.66	122.18	4.00	6.60	9.21
18715.20	18952.90	15498.90	1598.14	237.72	8.86	6.72	9.70
18952.90	19190.60	32653.76	2499.93	237.90	18.66	10.52	13.06
19190.60	19428.30	33521.35	2539.35	237.85	19.16	10.68	13.20
19428.30	19666.00 RB	7552.25	923.07	239.02	4.32	3.88	8.18
19666.00	19895.00	1227.74	365.45	229.01	0.70	1.60	3.36
19895.00	20124.00	2299.63	532.55	229.00	1.31	2.33	4.32
20124.00	20353.00	2230.82	522.93	229.00	1.27	2.28	4.27
20353.00	20582.00	1952.18	482.70	229.00	1.12	2.11	4.04
20582.00	20811.00	1554.43	421.04	229.03	0.89	1.84	3.69
20811.00	21040.00	5919.09	837.76	216.75	3.38	3.87	7.07
21040.00	21269.00	22128.12	1914.77	229.77	12.64	8.36	11.56
21269.00	21498.00	38074.95	2648.98	229.17	21.76	11.57	14.37
21498.00	21727.00	3378.30	407.95	80.70	1.93	5.30	8.28

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross

section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 231.76

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17577.3	1262	17589.9	1255.2	17652.1	1254.9	17706.5	1254.8	17728.3	1254.8
17749	1258.5	17757.9	1259.1	17785.8	1256.7	17800.5	1253.3	17808.1	1253.7
17829.8	1265.8	17841.3	1265	17947.4	1253.6	17990.9	1253.5	18001.5	1256.2
18018.8	1257	18048.2	1256.4	18080.8	1254.1	18140.4	1253.1	18191.4	1253.2
18273.8	1252.3	18355.3	1251.6	18415.3	1254.3	18461.3	1254.6	18513.7	1254.6
18590	1256.2	18604.8	1252.7	18616.7	1245.3	18720.8	1245	18911.5	1244.4
19528.9	1243.1	19581.8	1242.9	19621.9	1242.7	19653.2	1250.9	19658.4	1252.4
19704.5	1254.5	19791.1	1254.5	19843.8	1255.3	19934.8	1258.1	19977.3	1263.1
20014.2	1262.8	20066.2	1277.8	20098.1	1284.4	20144.9	1286.3	20165.2	1282.8
20202.9	1278	20263.4	1279.2	20320.4	1279.9	20333.8	1279.6	20361.6	1270.5
20388.8	1270.7	20444.1	1250.5	20519.2	1252.3	20573.1	1253.6	20581	1253.8
20687.8	1254.4	20752.2	1255.1	20763	1256	20812.8	1248.7	20910.8	1250.2
20942.1	1250.3	21012.6	1249.6	21048.6	1243.1	21062.2	1244.6	21102.4	1242.1
21155.7	1242.2	21227.7	1242.3	21266.9	1242.4	21298	1243.6	21370.3	1246.9
21406.4	1247.1	21454.4	1250.8	21479	1250.8	21489.9	1253.7	21553.2	1249.2
21607.1	1251.5	21643.1	1250.7	21680.4	1255.9	21715.4	1254.7	21856.2	1253.9
21865.9	1253.8	21930.6	1254.2	22020.5	1254.5	22035.7	1254.5	22163.8	1253.9
22252.7	1253.9	22488.3	1253.9	22702.9	1253.6	22823	1253.6	22910.2	1253.6
22962.5	1253.6	23018.6	1252.3	23064.3	1252.7	23133.3	1258.4	23205.4	1258.6
23269.4	1258.8								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17577.3	.032	18590	.028	19934.8	.028	21680.4	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18590	19934.8	480	473.18	480	.1	.55

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17577.3	18590	1260	21680.4	23269.4	1260

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1253.77	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.96	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1255.73	Reach Len. (ft)	480.00	473.18	480.00
Crit W.S. (ft)	1252.04	Flow Area (sq ft)		10136.21	5826.79
E.G. Slope (ft/ft)	0.002643	Area (sq ft)	343.49	10136.21	5994.19
Q Total (cfs)	175000.00	Flow (cfs)		122162.13	52837.87
Top Width (ft)	2978.26	Top Width (ft)	359.35	1088.30	1530.61
Vel Total (ft/s)	10.96	Avg. Vel. (ft/s)		12.05	9.07
Max Chl Dpth (ft)	11.67	Hydr. Depth (ft)		9.31	5.65
Conv. Total (cfs)	3403748.8	Conv. (cfs)		2376052.5	1027696.2
Length Wtd. (ft)	475.03	Wetted Per. (ft)		1091.84	1034.59
Min Ch El (ft)	1242.70	Shear (lb/sq ft)		1.53	0.93
Alpha	1.05	Stream Power (lb/ft s)		18.46	8.43
Frctn Loss (ft)	0.81	Cum Volume (acre-ft)	412.06	9501.70	2446.41
C & E Loss (ft)	0.60	Cum SA (acres)	89.30	894.83	363.37

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1253.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.02	Wt. n-Val.		0.028	0.028

E.G. Elev (ft)	1255.77	Reach Len. (ft)	480.00	473.18	480.00
Crit W.S. (ft)	1251.98	Flow Area (sq ft)		10111.90	5521.52
E.G. Slope (ft/ft)	0.002676	Area (sq ft)		10111.90	5521.52
Q Total (cfs)	175000.00	Flow (cfs)		122472.20	52527.79
Top Width (ft)	2013.27	Top Width (ft)		1087.72	925.55
Vel Total (ft/s)	11.19	Avg. Vel. (ft/s)		12.11	9.51
Max Chl Dpth (ft)	11.65	Hydr. Depth (ft)		9.30	5.97
Conv. Total (cfs)	3382785.8	Conv. (cfs)		2367412.8	1015372.9
Length Wtd. (ft)	475.01	Wetted Per. (ft)		1091.26	932.34
Min Ch El (ft)	1242.70	Shear (lb/sq ft)		1.55	0.99
Alpha	1.04	Stream Power (lb/ft s)		18.75	9.41
Frctn Loss (ft)	0.83	Cum Volume (acre-ft)	67.08	9088.85	1426.07
C & E Loss (ft)	0.61	Cum SA (acres)	14.30	860.55	185.65

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18590.00 LB	18858.96	24488.11	2199.24	260.94	13.99	8.50	11.13
18858.96	19127.92	31036.91	2566.16	268.96	17.74	9.54	12.09
19127.92	19396.88	34198.20	2719.95	268.96	19.54	10.11	12.57
19396.88	19665.84	32418.57	2639.10	270.24	18.52	9.81	12.28
19665.84	19934.80 RB	20.36	11.76	22.74	0.01	0.52	1.73
19934.80	20379.41						
20379.41	20601.72	792.49	237.96	145.45	0.45	1.64	3.33
20601.72	20824.03	735.33	143.82	46.21	0.42	3.14	5.11
20824.03	21046.33	6429.72	991.17	222.87	3.67	4.46	6.49
21046.33	21268.64	29973.53	2494.57	222.50	17.13	11.22	12.02
21268.64	21490.95	12789.32	1497.58	222.93	7.31	6.74	8.54
21490.95	21713.25	2117.46	461.69	174.63	1.21	2.65	4.59

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18590.00 LB	18858.96	24543.71	2193.46	260.84	14.02	8.48	11.19
18858.96	19127.92	31114.59	2560.15	268.96	17.78	9.52	12.15
19127.92	19396.88	34291.37	2713.94	268.96	19.60	10.09	12.64
19396.88	19665.84	32503.22	2633.09	270.24	18.57	9.79	12.34
19665.84	19934.80 RB	19.34	11.26	22.25	0.01	0.51	1.72
19934.80	20379.41						
20379.41	20601.72	797.80	234.73	144.50	0.46	1.63	3.40
20601.72	20824.03	746.73	142.79	46.06	0.43	3.13	5.23
20824.03	21046.33	6537.90	986.21	222.87	3.74	4.44	6.63
21046.33	21268.64	30632.14	2489.60	222.50	17.50	11.20	12.30
21268.64	21490.95	13041.43	1492.62	222.93	7.45	6.71	8.74
21490.95	21713.25	771.77	175.57	73.48	0.44	2.54	4.40

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross

section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 231.67

INPUT
Description:
Station Elevation Data num= 171

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17224	1253.7	17238.07	1253.6	17249.16	1253.66	17265	1254.5	17283.38	1255.34
17315.8	1255.9	17368.5	1257.8	17379.47	1257.87	17410.92	1258.1	17448.93	1258.07
17504.33	1258.1	17522.07	1257.7	17530.09	1257.91	17536.05	1257.8	17596.95	1257.25
17611.2	1257.2	17676.76	1256.3	17692.25	1256.12	17755.76	1255.7	17774.13	1255.76
17802.8	1255.9	17806.87	1258.9	17815.66	1255.75	17831.18	1256.16	17852.42	1256.1
17915.05	1255.1	17998.28	1254.7	18059.61	1254.66	18068.71	1254.61	18147.66	1254.56
18159.27	1254.5	18215.08	1254.8	18229.02	1254.84	18297.38	1255.19	18310.11	1255.32
18334.09	1255.9	18404.92	1256.2	18410.88	1256.96	18414.4	1256.18	18426.69	1262
18435.22	1260.6	18453.66		125818457.57	1258.21	18467.4	1255.89	18498.51	1256.13
18519.16	1256.2	18534.95	1256.4	18550.07	1257.02	18558.28	1257.19	18564.62	1257.56
18567.99	1255.9	18586.41	1247.3	18609.83	1246.89	18625.2	1247.08	18659.17	1247.16
18663.16	1246.3	18674.89	1244.9	18678.67	1244.78	18739.75	1244.49	18763.84	1244.41
19566.94	1241.2	19625.73	1241.0	19680.96	1241.07	19683.81	1240.91	19688.05	1242.9
19768.76	1243.3	19833.87	1243.7	19906.54	1244.46	19926.87	1244.58	19936.15	1245.13
19959.5	1246.8	19970.92	1246.7	19991.61	1246.82	20051.86	1246.52	20087.3	1246.87
20145.51	1247.2	20183.56	1247.8	20221.83	1247.85	20259.99	1248.15	20306.81	1248.03
20349.99	1248.7	20424.55	1249.8	20436.01	1250.09	20503.16	1249.99	20571.63	1249.39
20600.96	1249.9	20629.51	1249.4	20682.33	1250.41	20701.16	1249.67	20750.68	1248.83
20780.68	1248.2	20800.11	1247.6	20853.14	1247.26	20884.15	1247.68	20914.28	1247.67
21000.39	1244.2	21010.59	1243.7	21013.08	1243.78	21071.61	1244.35	21143.54	1243.22
21187.56	1242.6	21211	1242.6	21227.76	1243.91	21245.48	1245.51	21272.73	1244.91
21282.02	1244.4	21352.36	1248.2	21369.96	1248.44	21402.7	1250.72	21451.57	1248
21497.91	1248.2	21513.29	1248.61	21611.4	1251.8	21635.18	1250.74	21644.25	1250.55
21663.73	1253.6	21675.13	1252.9	21705.71	1253.14	21773.69	1252.93	21887.93	1253.43
21955.48	1253.4	22015.48	1253.4	22073.68	1253.27	22225.62	1252.82	22388.65	1252.74
22441.91	1252.4	22592.42	1251.8	22629.32	1252.13	22659.72	1251.87	22872.96	1251.63
22894.39	1251.8	22911.46	1251.3	22988.09	1250.31	23025.33	1250.55	23064.3	1254.37
23104.32		125723120.48	1257.9	23139.56	1258.12	23272.89	1258.16	23276.3	1258.19
23346.52	1258.1	23430.63	1257.9	23437.89	1257.98	23663.85	1257.89	23691.42	1257.42
23853.46	1255.3	23875.69	1255.2	24040.99	1254.49	24098.99	1254.41	24219.66	1254.41
24292.46		125524406.53	1254.7	24508.68	1255.46	24569.11	1255.45	24669.43	1255.49
24750.87	1254.7	24801.37	1254.4	24844.95	1254.37	24891.64	1254.33	24929.26	1254.33
24966.65	1253.9	25043.83	1254.2	25053.47	1254.83	25065.44	1258.64	25088.47	1265.4
25092.85	1266.8	25110.37	1270.4	25163.21	1272.41	25175.31	1272.73	25189.09	1272.95
25206.8	1272.9								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17224	.03	218564.62	.02	821663.73	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18564.6	220436.01	275	290.97	315	.1	.55

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17224	18564.62	1270	21663.73	25206.8	1270

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1253.45	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.87	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1254.32	Reach Len. (ft)	275.00	290.97	315.00
Crit W.S. (ft)	1250.21	Flow Area (sq ft)		16765.32	7129.36
E.G. Slope (ft/ft)	0.001192	Area (sq ft)		16765.32	8519.26
Q Total (cfs)	175000.00	Flow (cfs)		132800.34	42199.65
Top Width (ft)	4478.34	Top Width (ft)		1862.76	2615.59
Vel Total (ft/s)	7.32	Avg. Vel. (ft/s)		7.92	5.92
Max Chl Dpth (ft)	12.54	Hydr. Depth (ft)		9.00	5.81
Conv. Total (cfs)	5069121.0	Conv. (cfs)		3846748.8	1222372.3
Length Wtd. (ft)	294.78	Wetted Per. (ft)		1864.85	1227.66
Min Ch El (ft)	1240.91	Shear (lb/sq ft)		0.67	0.43
Alpha	1.05	Stream Power (lb/ft s)		5.30	2.56
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)	410.17	9355.59	2366.44
C & E Loss (ft)	0.08	Cum SA (acres)	87.32	878.80	340.53

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need

for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1253.43	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.90	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1254.33	Reach Len. (ft)	275.00	290.97	315.00
Crit W.S. (ft)	1250.16	Flow Area (sq ft)		16714.62	6610.62
E.G. Slope (ft/ft)	0.001221	Area (sq ft)		16714.62	6610.62
Q Total (cfs)	175000.00	Flow (cfs)		133724.44	41275.57
Top Width (ft)	2926.69	Top Width (ft)		1862.70	1063.99
Vel Total (ft/s)	7.50	Avg. Vel. (ft/s)		8.00	6.24
Max Chl Dpth (ft)	12.52	Hydr. Depth (ft)		8.97	6.21
Conv. Total (cfs)	5008858.0	Conv. (cfs)		3827467.0	1181391.1
Length Wtd. (ft)	294.69	Wetted Per. (ft)		1864.79	1069.72
Min Ch El (ft)	1240.91	Shear (lb/sq ft)		0.68	0.47
Alpha	1.03	Stream Power (lb/ft s)		5.46	2.94
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)	67.08	8943.15	1359.22
C & E Loss (ft)	0.08	Cum SA (acres)	14.30	844.53	174.68

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18564.62 LB	18938.90	22218.65	3054.44	367.18	12.70	8.35	7.27
18938.90	19313.18	33342.14	3926.69	374.28	19.05	10.49	8.49
19313.18	19687.45	41316.49	4467.68	374.67	23.61	11.94	9.25
19687.45	20061.73	24931.37	3298.71	374.43	14.25	8.81	7.56
20061.73	20436.01 RB	10991.75	2017.81	374.30	6.28	5.39	5.45
20436.01	20754.06	4840.15	1182.86	318.10	2.77	3.72	4.09
20754.06	21072.12	14010.51	2238.30	318.15	8.01	7.04	6.26
21072.12	21390.17	19375.23	2719.64	318.37	11.07	8.55	7.12
21390.17	21708.22	3973.72	988.56	273.04	2.27	3.63	4.02

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18564.62 LB	18938.90	22362.17	3044.48	367.11	12.78	8.33	7.35
18938.90	19313.18	33590.82	3916.50	374.28	19.19	10.46	8.58
19313.18	19687.45	41646.51	4457.49	374.67	23.80	11.91	9.34
19687.45	20061.73	25096.60	3288.53	374.43	14.34	8.79	7.63
20061.73	20436.01 RB	11028.35	2007.62	374.30	6.30	5.36	5.49
20436.01	20754.06	4907.75	1174.20	318.10	2.80	3.69	4.18
20754.06	21072.12	14288.58	2229.64	318.15	8.16	7.01	6.41
21072.12	21390.17	19782.42	2710.98	318.37	11.30	8.52	7.30
21390.17	21708.22	2296.81	495.80	115.11	1.31	4.51	4.63

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 231.61

INPUT
Description: Upstream face of Gilbert Road Bridge

Station Elevation Data num= 58

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17150	1255.317	932.48	1254.318	499.78	125618	671.43	1258.781	8671.53	1252.38
18671.63	1254.918	704.01	1239.918	729.04	1239.918	734.03	1239.918	792.23	1239.9
18797.22	1239.918	856.49	1239.918	861.38	1239.918	919.87	1239.918	924.76	1239.9
18983.54	1239.918	988.44	1239.919	047.22	1239.919	052.11	1239.9	19110.8	1239.9
19115.69	1239.919	174.28	1239.919	179.17	1239.919	237.85	1239.919	242.74	1239.9
19301.82	1239.919	306.71	1239.9	19365	1239.919	369.89	1239.919	428.39	1239.9
19433.28	1239.919	492.26	1240	19497.15	1240.08	19555.73	1239.919	560.63	1239.9
19619.02	1239.919	623.91	1239.919	682.79	1239.919	687.68	1239.919	746.46	1239.9
19751.35	1239.919	809.65	1239.919	814.54	1239.919	873.81	1239.919	878.71	1239.9
19893.08	1239.919	936.41	1254.32	19936.51	1252.11	9936.61	1258.520	485.32	1249.7
20989.04	1249.221	346.05	1248	21600.36	1252	21781.3	1255.122	128.53	1253.2
22573.56	1251.822	891.45	1256.522	950.13	1256				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17150	.032	18671.53	.028	19936.51	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18671.53	19936.51	44.87	44.87	44.87	.1	.55

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17150	18671.53	1260	21800	22950.13	1260

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1252.14	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.70	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1253.84	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1248.74	Flow Area (sq ft)		14935.46	3352.72
E.G. Slope (ft/ft)	0.001536	Area (sq ft)		14935.46	3375.35
Q Total (cfs)	175000.00	Flow (cfs)		161722.42	13277.58
Top Width (ft)	2660.07	Top Width (ft)		1252.29	1407.79
Vel Total (ft/s)	9.57	Avg. Vel. (ft/s)		10.83	3.96
Max Chl Dpth (ft)	12.24	Hydr. Depth (ft)		11.93	2.63
Conv. Total (cfs)	4465911.5	Conv. (cfs)		4127074.5	338837.2
Length Wtd. (ft)	0.00	Wetted Per. (ft)		1257.01	1275.74
Min Ch El (ft)	1239.90	Shear (lb/sq ft)		1.14	0.25
Alpha	1.20	Stream Power (lb/ft s)		12.33	1.00
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	410.17	9249.71	2323.43
C & E Loss (ft)	0.04	Cum SA (acres)	87.32	868.39	325.98

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1252.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.72	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1253.84	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1248.74	Flow Area (sq ft)		14912.69	3112.53
E.G. Slope (ft/ft)	0.001550	Area (sq ft)		14912.69	3112.53
Q Total (cfs)	175000.00	Flow (cfs)		162074.23	12925.76
Top Width (ft)	2360.20	Top Width (ft)		1252.19	1108.01
Vel Total (ft/s)	9.71	Avg. Vel. (ft/s)		10.87	4.15
Max Chl Dpth (ft)	12.22	Hydr. Depth (ft)		11.91	2.81
Conv. Total (cfs)	4445178.0	Conv. (cfs)		4116850.3	328327.5
Length Wtd. (ft)	0.00	Wetted Per. (ft)		1256.89	1110.66
Min Ch El (ft)	1239.90	Shear (lb/sq ft)		1.15	0.27
Alpha	1.17	Stream Power (lb/ft s)		12.48	1.13
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	67.08	8837.52	1324.07
C & E Loss (ft)	0.05	Cum SA (acres)	14.30	834.13	166.83

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)

18671.53 LB	18924.53	30228.04	2861.47	249.64	17.27	11.59	10.56
18924.53	19177.52	34188.41	3097.35	253.00	19.54	12.24	11.04
19177.52	19430.52	34188.41	3097.35	253.00	19.54	12.24	11.04
19430.52	19683.51	34024.70	3088.45	253.00	19.44	12.21	11.02
19683.51	19936.51 RB	29092.86	2790.84	248.38	16.62	11.33	10.42
19936.51	20137.42						
20137.42	20338.33	0.05	0.23	5.32	0.00	0.04	0.24
20338.33	20539.23	853.35	318.95	200.93	0.49	1.59	2.68
20539.23	20740.14	1936.94	521.55	200.91	1.11	2.60	3.71
20740.14	20941.05	2191.28	561.62	200.91	1.25	2.80	3.90
20941.05	21141.96	2649.42	629.38	200.91	1.51	3.13	4.21
21141.96	21342.87	3646.32	762.32	200.91	2.08	3.79	4.78
21342.87	21543.77	1957.09	524.82	200.93	1.12	2.61	3.73
21543.77	21744.68	43.11	33.85	64.92	0.02	0.52	1.27

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18671.53 LB	18924.53	30293.23	2856.98	249.60	17.31	11.57	10.60
18924.53	19177.52	34262.97	3092.75	253.00	19.58	12.22	11.08
19177.52	19430.52	34262.98	3092.75	253.00	19.58	12.22	11.08
19430.52	19683.51	34098.66	3083.84	253.00	19.48	12.19	11.06
19683.51	19936.51 RB	29156.40	2786.36	248.30	16.66	11.31	10.46
19936.51	20137.42						
20137.42	20338.33	0.03	0.14	4.19	0.00	0.03	0.21
20338.33	20539.23	856.74	315.29	200.93	0.49	1.57	2.72
20539.23	20740.14	1959.24	517.89	200.91	1.12	2.58	3.78
20740.14	20941.05	2218.37	557.97	200.91	1.27	2.78	3.98
20941.05	21141.96	2685.32	625.73	200.91	1.53	3.11	4.29
21141.96	21342.87	3702.00	758.67	200.91	2.12	3.78	4.88
21342.87	21543.77	1504.06	336.85	101.91	0.86	3.39	4.47

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

BRIDGE RIVER: Salt River
REACH: Above Split RS: 231.605

INPUT
Description: Gilbert Road Bridge

Distance from Upstream XS = 0
Deck/Roadway Width = 44
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 26

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
17150	1255.3	1255.3	17932.48	1254.3	1254.3	18499.78	1256	1256
18671.43	1258.78	1258.78	18671.53	1258.78	1252.38	18729.14	1259.77	1253.47
18792.33	1260.64	1254.34	18856.49	1261.44	1255.11	18919.87	1262.05	1255.7
18983.54	1262.65	1256.35	19047.22	1263.09	1256.79	19110.8	1263.43	1257.13
19174.28	1263.6	1257.31	9237.85	1263.74	1257.41	9301.82	1263.82	1257.52
19365	1263.92	1257.62	19428.39	1263.92	1257.62	19492.26	1263.75	1257.5
19555.73	1263.6	1257.31	19619.02	1263.37	1257.07	19682.79	1263	1256.7
19746.46	1262.4	1256.11	19809.65	1261.48	1255.11	19873.81	1260.16	1253.8
19936.51	1258.53	1252.11	19936.61	1258.53	1258.5			

Upstream Bridge Cross Section Data
Station Elevation Data num= 58

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17150	1255.3	17932.48	1254.3	18499.78	1256	18671.43	1258.78	18671.53	1252.38
18671.63	1254.9	18704.01	1239.9	18729.04	1239.9	18734.03	1239.9	18792.23	1239.9
18797.22	1239.9	18856.49	1239.9	18861.38	1239.9	18919.87	1239.9	18924.76	1239.9

```
18983.54  1239.918988.44  1239.919047.22  1239.919052.11  1239.9 19110.8  1239.9
19115.69  1239.919174.28  1239.919179.17  1239.919237.85  1239.919242.74  1239.9
19301.82  1239.919306.71  1239.9   19365  1239.919369.89  1239.919428.39  1239.9
19433.28  1239.919492.26    124019497.15 1240.0819555.73  1239.919560.63  1239.9
19619.02  1239.919623.91  1239.919682.79  1239.919687.68  1239.919746.46  1239.9
19751.35  1239.919809.65  1239.919814.54  1239.919873.81  1239.919878.71  1239.9
19893.08  1239.919936.41 1254.3219936.51  1252.119936.61  1258.520485.32  1249.7
20989.04  1249.221346.05    124821600.36    1252 21781.3  1255.122128.53  1253.2
22573.56  1251.822891.45  1256.522950.13    1256

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   17150    .03218671.53    .02819936.51    .028

Bank Sta: Left   Right    Coeff Contr.   Expan.
      18671.5319936.51              .1      .55
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1715018671.53    1260   2180022950.13    1260

Downstream  Deck/Roadway Coordinates
    num=      26
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
   17150  1255.3  1255.317932.48  1254.3  1254.318499.78    1256    1256
18671.43 1258.78 1258.7818671.53 1258.78 1252.3818729.14 1259.77 1253.47
18792.33 1260.64 1254.3418856.49 1261.44  1255.118919.87 1262.05  1255.7
18983.54 1262.65 1256.3519047.22 1263.09 1256.79 19110.8 1263.43 1257.13
19174.28  1263.6  1257.319237.85 1263.74  1257.419301.82 1263.82 1257.52
   19365 1263.92 1257.6219428.39 1263.92 1257.6219492.26 1263.75  1257.5
19555.73  1263.6  1257.319619.02 1263.37 1257.0719682.79    1263  1256.7
19746.46  1262.4  1256.119809.65 1261.48  1255.119873.81 1260.16  1253.8
19936.51 1258.53  1252.119936.61 1258.53  1258.5

Downstream Bridge Cross Section Data
Station Elevation Data    num=      58
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   17150  1255.317932.48  1254.318499.78    125618671.43 1258.7818671.53 1252.38
18671.63  1254.918704.01  1239.918729.04  1239.918734.03  1239.918792.23  1239.9
18797.22  1239.918856.49  1239.918861.38  1239.918919.87  1239.918924.76  1239.9
18983.54  1239.918988.44  1239.919047.22  1239.919052.11  1239.9 19110.8  1239.9
19115.69  1239.919174.28  1239.919179.17  1239.919237.85  1239.919242.74  1239.9
19301.82  1239.919306.71  1239.9   19365  1239.919369.89  1239.919428.39  1239.9
19433.28  1239.919492.26    124019497.15 1240.0819555.73  1239.919560.63  1239.9
19619.02  1239.919623.91  1239.919682.79  1239.919687.68  1239.919746.46  1239.9
19751.35  1239.919809.65  1239.919814.54  1239.919873.81  1239.919878.71  1239.9
19893.08  1239.919936.41 1254.3219936.51  1252.119936.61  1258.520485.32  1249.7
20989.04  1249.221346.05    124821600.36    1252 21781.3  1255.122128.53  1253.2
22573.56  1251.822891.45  1256.522950.13    1256

Manning's n Values         num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   17150    .03218671.53    .02819936.51    .028

Bank Sta: Left   Right    Coeff Contr.   Expan.
      18671.5319936.51              .1      .55
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1715018671.53 1252.38   2180022950.13    1259

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  19

Pier Data
Pier Station     Upstream= 18792.3    Downstream= 18792.3
Upstream     num=       2
    Width   Elev    Width   Elev
     4.9    1238     4.9    1260
Downstream     num=       2
    Width   Elev    Width   Elev
```

```
     4.9    1238     4.9    1260

 Pier Data
 Pier Station     Upstream= 18856.5    Downstream= 18856.5
 Upstream     num=       2
    Width   Elev    Width   Elev
     4.9    1238     4.9    1260
 Downstream     num=       2
    Width   Elev    Width   Elev
     4.9    1238     4.9    1260

 Pier Data
 Pier Station     Upstream= 18919.9    Downstream= 18919.9
 Upstream     num=       2
    Width   Elev    Width   Elev
     4.9    1238     4.9    1260
 Downstream     num=       2
    Width   Elev    Width   Elev
     4.9    1238     4.9    1260

 Pier Data
 Pier Station     Upstream= 18983.5    Downstream= 18983.5
 Upstream     num=       2
    Width   Elev    Width   Elev
     4.9    1238     4.9    1260
 Downstream     num=       2
    Width   Elev    Width   Elev
     4.9    1238     4.9    1260

 Pier Data
 Pier Station     Upstream= 19047.2    Downstream= 19047.2
 Upstream     num=       2
    Width   Elev    Width   Elev
     4.9    1238     4.9    1260
 Downstream     num=       2
    Width   Elev    Width   Elev
     4.9    1238     4.9    1260

 Pier Data
 Pier Station     Upstream= 19110.8    Downstream= 19110.8
 Upstream     num=       2
    Width   Elev    Width   Elev
     4.9    1238     4.9    1260
 Downstream     num=       2
    Width   Elev    Width   Elev
     4.9    1238     4.9    1260

 Pier Data
 Pier Station     Upstream= 19174.3    Downstream= 19174.3
 Upstream     num=       2
    Width   Elev    Width   Elev
     4.9    1238     4.9    1260
 Downstream     num=       2
    Width   Elev    Width   Elev
     4.9    1238     4.9    1260

 Pier Data
 Pier Station     Upstream= 19237.9    Downstream= 19237.9
 Upstream     num=       2
    Width   Elev    Width   Elev
     4.9    1238     4.9    1260
 Downstream     num=       2
    Width   Elev    Width   Elev
     4.9    1238     4.9    1260

 Pier Data
 Pier Station     Upstream= 19301.8    Downstream= 19301.8
 Upstream     num=       2
    Width   Elev    Width   Elev
     4.9    1238     4.9    1260
 Downstream     num=       2
    Width   Elev    Width   Elev
     4.9    1238     4.9    1260

 Pier Data
 Pier Station     Upstream=   19365    Downstream=   19365
```

```
Upstream      num=        2
     Width    Elev     Width    Elev
      4.9     1238      4.9     1260
Downstream      num=        2
     Width    Elev     Width    Elev
      4.9     1238      4.9     1260

Pier Data
Pier Station      Upstream= 19428.4     Downstream= 19428.4
Upstream      num=        2
     Width    Elev     Width    Elev
      4.9     1238      4.9     1260
Downstream      num=        2
     Width    Elev     Width    Elev
      4.9     1238      4.9     1260

Pier Data
Pier Station      Upstream= 19492.3     Downstream= 19492.3
Upstream      num=        2
     Width    Elev     Width    Elev
      4.9     1238      4.9     1260
Downstream      num=        2
     Width    Elev     Width    Elev
      4.9     1238      4.9     1260

Pier Data
Pier Station      Upstream= 19555.7     Downstream= 19555.7
Upstream      num=        2
     Width    Elev     Width    Elev
      4.9     1238      4.9     1260
Downstream      num=        2
     Width    Elev     Width    Elev
      4.9     1238      4.9     1260

Pier Data
Pier Station      Upstream=   19619     Downstream=   19619
Upstream      num=        2
     Width    Elev     Width    Elev
      4.9     1238      4.9     1260
Downstream      num=        2
     Width    Elev     Width    Elev
      4.9     1238      4.9     1260

Pier Data
Pier Station      Upstream= 19682.8     Downstream= 19682.8
Upstream      num=        2
     Width    Elev     Width    Elev
      4.9     1238      4.9     1260
Downstream      num=        2
     Width    Elev     Width    Elev
      4.9     1238      4.9     1260

Pier Data
Pier Station      Upstream=   19729     Downstream=   19729
Upstream      num=        2
     Width    Elev     Width    Elev
      4.9     1238      4.9     1260
Downstream      num=        2
     Width    Elev     Width    Elev
      4.9     1238      4.9     1260

Pier Data
Pier Station      Upstream= 19746.5     Downstream= 19746.5
Upstream      num=        2
     Width    Elev     Width    Elev
      4.9     1238      4.9     1260
Downstream      num=        2
     Width    Elev     Width    Elev
      4.9     1238      4.9     1260

Pier Data
Pier Station      Upstream= 19809.7     Downstream= 19809.7
Upstream      num=        2
     Width    Elev     Width    Elev
      4.9     1238      4.9     1260
Downstream      num=        2
```

Width	Elev	Width	Elev
4.9	1238	4.9	1260

Pier Data
Pier Station Upstream= 19873.8 Downstream= 19873.8
Upstream num= 2

Width	Elev	Width	Elev
4.9	1238	4.9	1260

Downstream num= 2

Width	Elev	Width	Elev
4.9	1238	4.9	1260

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data
Energy
Selected Low Flow Methods = Energy

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth inside the bridge at the downstream end
Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT Profile #PF#1
Opening : Bridge #1

E.G. US. (ft)	1253.84	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1252.14	E.G. Elev (ft)	1253.80	1253.50
Q Total (cfs)	175000.00	W.S. Elev (ft)	1251.66	1250.14
Q Bridge (cfs)	160888.44	Crit W.S. (ft)	1250.11	1250.14
Q Weir (cfs)		Max Chl Dpth (ft)	11.76	10.24
Weir Sta Lft (ft)		Vel Total (ft/s)	10.95	13.97
Weir Sta Rgt (ft)		Flow Area (sq ft)	15980.61	12525.40
Weir Submerg		Froude # Chl	0.63	0.83
Weir Max Depth (ft)		Specif Force (cu ft)	143556.44	138407.58
Min Top Rd (ft)	1248.00	Hydr Depth (ft)	6.74	5.77
Min El Prs (ft)	1257.62	W.P. Total (ft)	2822.94	2565.21
Delta EG (ft)	1.01	Conv. Total (cfs)	3114129.0	2379746.8
Delta WS (ft)	2.63	Top Width (ft)	2371.89	2172.55
BR Open Area (sq ft)	18429.03	Frctn Loss (ft)	0.18	0.00
BR Open Vel (ft/s)	14.01	C & E Loss (ft)	0.12	0.01
Coef of Q		Shear Total (lb/sq ft)	1.12	1.65
Br Sel Mthd	Energy only	Power Total (lb/ft s)	12.22	23.03

Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir flow. The momentum answer has been disregarded.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

BRIDGE OUTPUT Profile #PF#2
Opening : Bridge #1

E.G. US. (ft)	1253.84	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1252.12	E.G. Elev (ft)	1253.80	1253.50
Q Total (cfs)	175000.00	W.S. Elev (ft)	1251.62	1250.13
Q Bridge (cfs)	161288.97	Crit W.S. (ft)	1250.11	1250.13
Q Weir (cfs)		Max Chl Dpth (ft)	11.72	10.23

Weir Sta Lft (ft)		Vel Total (ft/s)	11.10	14.01
Weir Sta Rgt (ft)		Flow Area (sq ft)	15760.21	12493.22
Weir Submerg		Froude # Chl	0.64	0.83
Weir Max Depth (ft)		Specif Force (cu ft)	143452.97	138392.00
Min Top Rd (ft)	1248.00	Hydr Depth (ft)	7.07	5.86
Min El Prs (ft)	1257.62	W.P. Total (ft)	2681.72	2525.14
Delta EG (ft)	1.01	Conv. Total (cfs)	3097291.5	2376091.0
Delta WS (ft)	2.61	Top Width (ft)	2230.14	2132.22
BR Open Area (sq ft)	18422.85	Frctn Loss (ft)	0.18	0.00
BR Open Vel (ft/s)	14.06	C & E Loss (ft)	0.12	0.01
Coef of Q		Shear Total (lb/sq ft)	1.17	1.68
Br Sel Mthd	Energy only	Power Total (lb/ft s)	13.01	23.47

Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir
flow. The momentum answer has been disregarded.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
energy was used.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 231.60

INPUT
Description: Downstream Face of Gilbert Road Bridge

Station Elevation Data num= 58

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17150	1255.317	932.48	1254.318	499.78	125	618671.43	1258.78	18671.53	1252.38
18671.63	1254.918	704.01	1239.918	729.04	1239.918	734.03	1239.918	792.23	1239.9
18797.22	1239.918	856.49	1239.918	861.38	1239.918	919.87	1239.918	924.76	1239.9
18983.54	1239.918	988.44	1239.919	047.22	1239.919	052.11	1239.9	19110.8	1239.9
19115.69	1239.919	174.28	1239.919	179.17	1239.919	237.85	1239.919	242.74	1239.9
19301.82	1239.919	306.71	1239.9	19365	1239.919	369.89	1239.919	428.39	1239.9
19433.28	1239.919	492.26	124	019497.15	1240.08	19555.73	1239.919	560.63	1239.9
19619.02	1239.919	623.91	1239.919	682.79	1239.919	687.68	1239.919	746.46	1239.9
19751.35	1239.919	809.65	1239.919	814.54	1239.919	873.81	1239.919	878.71	1239.9
19893.08	1239.919	936.41	1254.32	19936.51	1252.11	9936.61	1258.52	0485.32	1249.7
20989.04	1249.221	346.05	124	821600.36	1252	21781.3	1255.12	2128.53	1253.2
22573.56	1251.822	891.45	1256.52	2950.13	1256				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17150	.032	18671.53	.028	19936.51	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18671.53	19936.51	210	183.46	166	.1	.55

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17150	18671.53	1252.38	21800	22950.13	1259

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1249.51	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.32	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1252.83	Reach Len. (ft)	210.00	183.46	166.00
Crit W.S. (ft)	1248.61	Flow Area (sq ft)		11658.29	446.92
E.G. Slope (ft/ft)	0.003858	Area (sq ft)		11658.29	446.92
Q Total (cfs)	172000.00	Flow (cfs)		170972.19	1027.80
Top Width (ft)	2005.65	Top Width (ft)		1238.70	766.95
Vel Total (ft/s)	14.21	Avg. Vel. (ft/s)		14.67	2.30
Max Chl Dpth (ft)	9.61	Hydr. Depth (ft)		9.41	0.58

Conv. Total (cfs)	2769043.0	Conv. (cfs)		2752496.3	16546.6
Length Wtd. (ft)	181.53	Wetted Per. (ft)		1242.38	766.96
Min Ch El (ft)	1239.90	Shear (lb/sq ft)		2.26	0.14
Alpha	1.06	Stream Power (lb/ft s)		33.15	0.32
Frctn Loss (ft)	0.64	Cum Volume (acre-ft)	410.17	9237.00	2321.50
C & E Loss (ft)	0.80	Cum SA (acres)	87.32	867.21	324.83

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1249.52	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.32	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1252.83	Reach Len. (ft)	210.00	183.46	166.00
Crit W.S. (ft)	1248.61	Flow Area (sq ft)		11664.79	450.96
E.G. Slope (ft/ft)	0.003851	Area (sq ft)		11664.79	450.96
Q Total (cfs)	172000.00	Flow (cfs)		170962.47	1037.53
Top Width (ft)	2010.96	Top Width (ft)		1238.72	772.24
Vel Total (ft/s)	14.20	Avg. Vel. (ft/s)		14.66	2.30
Max Chl Dpth (ft)	9.62	Hydr. Depth (ft)		9.42	0.58
Conv. Total (cfs)	2771738.0	Conv. (cfs)		2755018.5	16719.6
Length Wtd. (ft)	181.53	Wetted Per. (ft)		1242.40	772.26
Min Ch El (ft)	1239.90	Shear (lb/sq ft)		2.26	0.14
Alpha	1.06	Stream Power (lb/ft s)		33.08	0.32
Frctn Loss (ft)	0.63	Cum Volume (acre-ft)	67.08	8824.83	1322.24
C & E Loss (ft)	0.80	Cum SA (acres)	14.30	832.94	165.77

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18671.53 LB	18924.53	31912.38	2219.18	243.38	18.55	9.20	14.38
18924.53	19177.52	36217.98	2431.66	253.00	21.06	9.61	14.89
19177.52	19430.52	36217.98	2431.66	253.00	21.06	9.61	14.89
19430.52	19683.51	35997.15	2422.76	253.00	20.93	9.58	14.86
19683.51	19936.51 RB	30626.69	2153.03	240.00	17.81	9.03	14.22
19936.51	20539.23						
20539.23	20740.14	0.55	2.09	64.94	0.00	0.03	0.26
20740.14	20941.05	25.56	32.99	200.91	0.01	0.16	0.77
20941.05	21141.96	164.33	100.75	200.91	0.10	0.50	1.63
21141.96	21342.87	667.91	233.69	200.91	0.39	1.16	2.86
21342.87	21543.77	169.48	77.42	99.29	0.10	0.78	2.19

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18671.53 LB	18924.53	31910.99	2220.45	243.39	18.55	9.20	14.37
18924.53	19177.52	36215.68	2432.99	253.00	21.06	9.62	14.89
19177.52	19430.52	36215.67	2432.99	253.00	21.06	9.62	14.89
19430.52	19683.51	35994.97	2424.08	253.00	20.93	9.58	14.85
19683.51	19936.51 RB	30625.12	2154.28	240.02	17.81	9.03	14.22
19936.51	20539.23						
20539.23	20740.14	0.67	2.45	70.23	0.00	0.03	0.28
20740.14	20941.05	26.89	34.04	200.91	0.02	0.17	0.79
20941.05	21141.96	166.96	101.80	200.91	0.10	0.51	1.64
21141.96	21342.87	671.92	234.74	200.91	0.39	1.17	2.86

21342.87	21543.77	171.11	77.94	99.30	0.10	0.78	2.20

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 231.57

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17313.1	1256.8	17322.6	1254.8	17429.3	1254	17516.5	1253.8	17580.3	1254.7
17591	1262.8	17598.1	1265.5	17616.4	1267.2	17623.4	1266.3	17628.2	1267.3
17658.7	1259.2	17672.2	1252.8	17674.4	1252.9	17773.8	1256.8	17791.5	1257.2
17825.1	1245	17895	1242.4	17969.8	1240.9	17977.3	1242.6	18064.1	1244.3
18137.7	1246.8	18212.3	1249	18240.3	1249.7	18319.2	1249.9	18393.3	1250.2
18405	1250.3	18482.4	1251.2	18507.8	1251	18594.3	1251.3	18599.9	1251.3
18669.7	1251.4	18697.9	1250.1	18703.6	1250.8	18726.5	1243.1	18857.3	1243.1
18951.2	1242.8	19026.7	1242.5	19063	1242.4	19160.2	1241.8	19188.7	1241.6
19323.9	1240.3	19393.2	1240.2	19450.6	1239.8	19910.6	1241.2	19972.8	1241.4
20036.3	1241.3	20047.3	1241.3	20068.7	1243.9	20135	1244.4	20196.3	1250.2
20213.7	1248.1	20280.6	1248.6	20336.3	1247.8	20404.3	1247.8	20470	1248.1
20557.3	1247.5	20621.7	1246.7	20679.7	1247.8	20761.1	1247	20863.9	1246.5
20916	1245.5	21001.6	1243.3	21074.8	1238.8	21128.1	1236.4	21167.5	1240.5
21236	1241.4	21303.5	1245.5	21378.9	1247.5	21393.8	1247.7	21412	1250.7
21419.9	1253.2	21445.4	1252.7	21475.2	1253.3	21570.7	1252.3	21655.9	1251.4
21662.3	1251.3	21825.2	1251.9	21850.9	1252.3	21991.2	1251	22047.7	1250.1
22151.7	1249.8	22197	1250.5	22278.3	1250.3	22395.1	1250.4	22466.4	1249.7
22504.2	1249.1	22572.7	1250.1	22642.3	1250.4	22695.3	1250.9	22775	1249.5
22861.3	1248.7	22902	1250.3	22969.8	1250.4	23042.5	1249.1	23103.5	1249.5
23168.9	1257.3								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17313.1	.032	18669.7	.028	20196.3	.028	21419.9	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18669.7	20196.3	510	480.57	485	.1	.55

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17313.1	18669.7	1260	21475.2	23168.9	1260

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1249.53	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.87	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1251.40	Reach Len. (ft)	510.00	480.57	485.00
Crit W.S. (ft)	1248.53	Flow Area (sq ft)		11514.99	4865.95
E.G. Slope (ft/ft)	0.003178	Area (sq ft)	2032.27	11514.99	4943.71
Q Total (cfs)	172000.00	Flow (cfs)		135062.83	36937.18
Top Width (ft)	3357.43	Top Width (ft)	420.96	1481.87	1454.60
Vel Total (ft/s)	10.50	Avg. Vel. (ft/s)		11.73	7.59
Max Chl Dpth (ft)	13.13	Hydr. Depth (ft)		7.77	4.04
Conv. Total (cfs)	3051000.5	Conv. (cfs)		2395795.0	655205.6
Length Wtd. (ft)	481.40	Wetted Per. (ft)		1483.34	1203.95
Min Ch El (ft)	1239.80	Shear (lb/sq ft)		1.54	0.80
Alpha	1.09	Stream Power (lb/ft s)		18.07	6.09
Frctn Loss (ft)	1.25	Cum Volume (acre-ft)	405.27	9188.20	2311.23
C & E Loss (ft)	0.23	Cum SA (acres)	86.30	861.48	320.60

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1249.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.87	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1251.40	Reach Len. (ft)	510.00	480.57	485.00
Crit W.S. (ft)	1248.53	Flow Area (sq ft)		11525.12	4874.17

E.G. Slope (ft/ft)	0.003167	Area (sq ft)		11525.12	4874.17
Q Total (cfs)	172000.00	Flow (cfs)		135023.59	36976.41
Top Width (ft)	2685.08	Top Width (ft)		1481.94	1203.13
Vel Total (ft/s)	10.49	Avg. Vel. (ft/s)		11.72	7.59
Max Chl Dpth (ft)	13.14	Hydr. Depth (ft)		7.78	4.05
Conv. Total (cfs)	3056251.0	Conv. (cfs)		2399221.0	657030.1
Length Wtd. (ft)	481.40	Wetted Per. (ft)		1483.42	1204.01
Min Ch El (ft)	1239.80	Shear (lb/sq ft)		1.54	0.80
Alpha	1.09	Stream Power (lb/ft s)		18.00	6.07
Frctn Loss (ft)	1.24	Cum Volume (acre-ft)	67.08	8776.00	1312.09
C & E Loss (ft)	0.23	Cum SA (acres)	14.30	827.21	162.01

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18669.70 LB	18975.02	16856.81	1682.35	268.70	9.80	6.29	10.02
18975.02	19280.34	26601.20	2328.04	305.33	15.47	7.62	11.43
19280.34	19585.66	37705.03	2870.04	305.32	21.92	9.40	13.14
19585.66	19890.98	34140.54	2704.02	305.32	19.85	8.86	12.63
19890.98	20196.30 RB	19759.27	1930.54	298.66	11.49	6.47	10.24
20196.30	20394.47	759.44	262.52	192.73	0.44	1.36	2.89
20394.47	20592.65	1213.95	351.74	198.18	0.71	1.77	3.45
20592.65	20790.82	1900.79	460.33	198.19	1.11	2.32	4.13
20790.82	20988.99	4339.11	755.38	198.21	2.52	3.81	5.74
20988.99	21187.17	20964.00	1945.09	198.58	12.19	9.82	10.78
21187.17	21385.34	7685.50	1064.72	198.33	4.47	5.37	7.22
21385.34	21583.51	74.35	26.16	19.72	0.04	1.34	2.84

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18669.70 LB	18975.02	16858.25	1684.18	268.71	9.80	6.29	10.01
18975.02	19280.34	26595.58	2330.13	305.33	15.46	7.63	11.41
19280.34	19585.66	37686.43	2872.13	305.32	21.91	9.41	13.12
19585.66	19890.98	34126.24	2706.10	305.32	19.84	8.86	12.61
19890.98	20196.30 RB	19757.15	1932.58	298.73	11.49	6.48	10.22
20196.30	20394.47	764.86	263.83	192.79	0.44	1.37	2.90
20394.47	20592.65	1220.49	353.09	198.18	0.71	1.78	3.46
20592.65	20790.82	1908.14	461.69	198.19	1.11	2.33	4.13
20790.82	20988.99	4347.57	756.74	198.21	2.53	3.82	5.75
20988.99	21187.17	20966.58	1946.45	198.58	12.19	9.82	10.77
21187.17	21385.34	7693.82	1066.07	198.33	4.47	5.38	7.22
21385.34	21583.51	74.90	26.30	19.73	0.04	1.34	2.85

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 231.48

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17327.3	1258.3	17355.3	1254.4	17460.6	1254.1	17540.2	1254.2	17630.7	1254.3
17720	1253.8	17794.9	1252.3	17865.2	1253.7	17872.1	1254.3	17918.6	1244.9
17975.2	1243.8	17985.1	1242.3	18055.6	1245	18088	1245	18136.4	1246.7
18179.9	1246.8	18229.4	1244.8	18243.8	1241.7	18279.9	1242.1	18300.2	1247.8
18386.5	1248.2	18468.8	1247.5	18550.1	1247.5	18571.7	1246.6	18588.5	1242.5
18743.7	1241.8	18865.9	1241.1	18899.6	1242.9	18957.8	1243.1	18973	1239.9
19032.5	1240	19113.7	1240.2	19184.9	1239.8	19256.7	1238.9	19302.4	1239
19481.3	1238.5	19750.4	1237.7	19760.8	1240.4	19845.4	1240.9	19914.9	1242

19996.1	1239.7	20216.1	1240.9	20316.7	1240.9	20338.2	1242.8	20374.5	1248.3
20389.2	1247.7	20428.2	1249.8	20510.6	1248.9	20586.5	1248	20678.4	1248.3
20728.7	1250	20818.2	1247.5	20881.7	1245.4	20919.6	1242.8	20982	1239.2
21066.4	1239.1	21100.8	1238.3	21174.6	1238.7	21201.1	1238.7	21249.1	1250
21362.4	1249.8	21467.4	1250.2	21544.6	1250.3	21624.1	1249.3	21717.8	1249.4
21795.3	1247.4	21858	1247.7	21874.2	1246.4	21950.3	1247.5	22037.1	1248.2
22110.1	1248.1	22183.3	1248.3	22289.9	1247.6	22371.2	1247.2	22426.4	1247.8
22516.6	1247.1	22587.5	1246.8	22659.3	1246.4	22731.5	1246.4	22799.1	1246.5
22849.9	1249.7	22940.2	1248.8	23026.3	1248.4	23111.5	1247.6	23184.3	1245.9
23248.4	1245.2	23309.9	1255.4	23401.3	1253.6	23489.6	1253.1	23590.8	1253.4
23671.7	1254.3	23759.7	1254.5	23845.3	1254.6	23955.3	1254.8	24024.6	1255.4
24038.2	1255.5								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17327.3	.032	18550.1	.028	20374.5	.028	21249.1	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18550.1	20374.5	330	470.06	610	.1	.55

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17327.3	18550.1	1255	21544.6	24038.2	1255

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1248.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.46	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1249.93	Reach Len. (ft)	330.00	470.06	610.00
Crit W.S. (ft)	1246.12	Flow Area (sq ft)		14657.95	3147.84
E.G. Slope (ft/ft)	0.002155	Area (sq ft)	1657.92	14657.95	4693.83
Q Total (cfs)	172000.00	Flow (cfs)		144763.34	27236.65
Top Width (ft)	4431.15	Top Width (ft)	649.15	1824.40	1957.60
Vel Total (ft/s)	9.66	Avg. Vel. (ft/s)		9.88	8.65
Max Chl Dpth (ft)	10.77	Hydr. Depth (ft)		8.03	5.04
Conv. Total (cfs)	3705081.0	Conv. (cfs)		3118371.8	586709.4
Length Wtd. (ft)	492.03	Wetted Per. (ft)		1826.20	625.92
Min Ch El (ft)	1237.70	Shear (lb/sq ft)		1.08	0.68
Alpha	1.01	Stream Power (lb/ft s)		10.67	5.85
Frctn Loss (ft)	1.06	Cum Volume (acre-ft)	383.67	9043.82	2257.58
C & E Loss (ft)	0.05	Cum SA (acres)	80.04	843.24	301.61

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1248.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.45	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1249.93	Reach Len. (ft)	330.00	470.06	610.00
Crit W.S. (ft)	1246.12	Flow Area (sq ft)		14679.33	3155.16
E.G. Slope (ft/ft)	0.002146	Area (sq ft)		14679.33	3155.16
Q Total (cfs)	172000.00	Flow (cfs)		144749.31	27250.69
Top Width (ft)	2450.60	Top Width (ft)		1824.40	626.20
Vel Total (ft/s)	9.64	Avg. Vel. (ft/s)		9.86	8.64
Max Chl Dpth (ft)	10.78	Hydr. Depth (ft)		8.05	5.04
Conv. Total (cfs)	3713124.3	Conv. (cfs)		3124838.3	588286.0
Length Wtd. (ft)	492.05	Wetted Per. (ft)		1827.18	627.70
Min Ch El (ft)	1237.70	Shear (lb/sq ft)		1.08	0.67
Alpha	1.01	Stream Power (lb/ft s)		10.61	5.82
Frctn Loss (ft)	1.05	Cum Volume (acre-ft)	67.08	8631.45	1267.39
C & E Loss (ft)	0.05	Cum SA (acres)	14.30	808.97	151.82

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18550.10 LB	18914.98	18207.22	2238.12	365.44	10.59	6.13	8.14
18914.98	19279.86	29749.54	3004.13	365.22	17.30	8.23	9.90
19279.86	19644.74	40651.32	3621.72	364.88	23.63	9.93	11.22

19644.74	20009.62	31433.48	3105.20	365.27	18.28	8.51	10.12
20009.62	20374.50 RB	24721.81	2688.79	365.38	14.37	7.37	9.19
20374.50	20618.75	39.34	35.07	100.80	0.02	0.35	1.12
20618.75	20862.99	207.25	109.69	144.17	0.12	0.76	1.89
20862.99	21107.24	16476.72	1871.20	244.46	9.58	7.66	8.81
21107.24	21351.49	10513.34	1131.88	136.49	6.11	8.36	9.29

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18550.10 LB	18914.98	18191.43	2242.40	366.42	10.58	6.15	8.11
18914.98	19279.86	29752.77	3008.41	365.22	17.30	8.24	9.89
19279.86	19644.74	40639.30	3626.00	364.88	23.63	9.94	11.21
19644.74	20009.62	31434.46	3109.47	365.27	18.28	8.52	10.11
20009.62	20374.50 RB	24731.35	2693.06	365.38	14.38	7.38	9.18
20374.50	20618.75	41.15	36.26	102.01	0.02	0.36	1.13
20618.75	20862.99	211.32	111.38	144.94	0.12	0.77	1.90
20862.99	21107.24	16476.94	1874.06	244.46	9.58	7.67	8.79
21107.24	21351.49	10521.27	1133.46	136.29	6.12	8.39	9.28

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 231.39

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17424.1	1255.7	17516.2	1254.4	17608	1254.4	17726.3	1251.7	17779.6	1249.5
17793.9	1247.2	17859.5	1243.8	17873.7	1246.7	17881.5	1249.5	17911.1	1241.1
17937.8	1241	18035.8	1240.9	18147.5	1240.9	18237.4	1240.9	18255.7	1241
18438.6	1240.9	18513	1242.3	18638	1242.2	18691.8	1240.9	18793.2	1240.3
18909	1239.6	18929	1242.7	19037.6	1242.7	19075.6	1242.7	19100.1	1237.5
19141.2	1239.8	19174.2	1238.6	19196.6	1239.7	19238.3	1236.6	19466.8	1236.2
19624.4	1236	19676.9	1243.5	19737.4	1242.3	19758.5	1240.5	19830.4	1241.2
19881.5	1243	19941.5	1242.4	20024.1	1243.3	20045.5	1240.6	20135.5	1239
20197.1	1238.4	20400.7	1239.7	20411.8	1239.3	20447.7	1250.1	20504.7	1249.1
20562.3	1250.6	20626.5	1248.9	20708	1249.6	20730.1	1249.1	20815.3	1248.9
20847.7	1248.6	20893.3	1236.4	20925.9	1236	20960.5	1239.3	21038.7	1238.3
21150.1	1239.6	21218	1249.6	21315	1248.1	21405	1247.7	21492.7	1247.5
21573.1	1247.3	21656.3	1247.6	21762.1	1247.3	21873.3	1247.4	22007.2	1247.7
22104.5	1247.6	22195.8	1247.5	22276.1	1247.3	22326.8	1245.5	22382.6	1247
22470.9	1246.9	22562.3	1246.7	22686.3	1246.8	22775.7	1246.8	22865.9	1246.7
22964.3	1245.9	23048.6	1245.4	23139	1245.8	23250.1	1246.9	23299.5	1243.9
23393.2	1253.6	23492.1	1251.8	23637.2	1251.8	23733.8	1251.6	23847.7	1252.1
23913.7	1253.2	23995	1253.4	24106	1254.2	24230.2	1251.4	24333.8	1248
24412.1	1246.3	24509.4	1247.2	24552.5	1248.9	24592.7	1249	24607.7	1250
24625	1260.2								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17424.1	.032	17726.3	.032	17881.5	.028	20447.7	.037	20847.7	.028
21218	.037								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17726.3	20447.7	420	464.39	500	.1	.55

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17424.1	18350	1250	21218	24625	1250

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1247.45	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.37	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1248.82	Reach Len. (ft)	420.00	464.39	500.00
Crit W.S. (ft)	1245.28	Flow Area (sq ft)		15548.65	2767.69

E.G. Slope (ft/ft)	0.002136	Area (sq ft)		18639.57	4048.21
Q Total (cfs)	172000.00	Flow (cfs)		145241.13	26758.88
Top Width (ft)	4554.29	Top Width (ft)		2633.66	1920.63
Vel Total (ft/s)	9.39	Avg. Vel. (ft/s)		9.34	9.67
Max Chl Dpth (ft)	11.45	Hydr. Depth (ft)		7.44	7.88
Conv. Total (cfs)	3721526.3	Conv. (cfs)		3142550.3	578975.9
Length Wtd. (ft)	470.06	Wetted Per. (ft)		2092.01	353.64
Min Ch El (ft)	1236.00	Shear (lb/sq ft)		0.99	1.04
Alpha	1.00	Stream Power (lb/ft s)		9.26	10.09
Frctn Loss (ft)	0.92	Cum Volume (acre-ft)	377.39	8864.17	2196.37
C & E Loss (ft)	0.15	Cum SA (acres)	77.58	819.19	274.45

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1247.47	Element			
Vel Head (ft)	1.36	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1248.83	Reach Len. (ft)	420.00	464.39	500.00
Crit W.S. (ft)	1245.28	Flow Area (sq ft)		15583.07	2773.46
E.G. Slope (ft/ft)	0.002128	Area (sq ft)		15583.07	2773.46
Q Total (cfs)	172000.00	Flow (cfs)		145183.63	26816.38
Top Width (ft)	2439.95	Top Width (ft)		2088.96	351.00
Vel Total (ft/s)	9.37	Avg. Vel. (ft/s)		9.32	9.67
Max Chl Dpth (ft)	11.47	Hydr. Depth (ft)		7.46	7.90
Conv. Total (cfs)	3728935.0	Conv. (cfs)		3147559.8	581375.3
Length Wtd. (ft)	470.10	Wetted Per. (ft)		2098.59	353.29
Min Ch El (ft)	1236.00	Shear (lb/sq ft)		0.99	1.04
Alpha	1.00	Stream Power (lb/ft s)		9.19	10.08
Frctn Loss (ft)	0.92	Cum Volume (acre-ft)	67.08	8468.17	1225.88
C & E Loss (ft)	0.15	Cum SA (acres)	14.30	787.86	144.98

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18270.58	18814.86	23006.45	2833.22	464.89	13.38	6.09	8.12
18814.86	19359.14	40628.83	4247.99	545.30	23.62	7.80	9.56
19359.14	19903.42	47200.56	4646.61	544.94	27.44	8.54	10.16
19903.42	20447.70 RB	34405.32	3820.83	536.89	20.00	7.14	9.00
20447.70	20726.19						
20726.19	21004.67	13281.81	1306.99	154.30	7.72	8.56	10.16
21004.67	21283.16	13477.05	1460.70	199.34	7.84	7.35	9.23

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18270.58	18814.86	22837.96	2840.88	471.41	13.28	6.11	8.04
18814.86	19359.14	40667.49	4256.96	545.30	23.64	7.82	9.55
19359.14	19903.42	47231.23	4655.58	544.94	27.46	8.55	10.15
19903.42	20447.70 RB	34446.96	3829.66	536.94	20.03	7.15	8.99
20447.70	20726.19						
20726.19	21004.67	13295.75	1309.51	154.37	7.73	8.57	10.15
21004.67	21283.16	13520.61	1463.95	198.92	7.86	7.38	9.24

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 231.30

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17371.3	1254.4	17508.9	1253.7	17594.4	1252.4	17713.4	1252.5	17725.7	1253.1
17761.1	1249.8	17847.9	1248.7	17904.2	1245.8	17922.8	1239.3	18039.9	1239.5
18056	1241.5	18102.3	1242.1	18128.5	1240.8	18173.6	1242	18254	1240.6
18348.2	1240	18351.6	1240	18437.1	1239.8	18597.6	1239.9	18753.3	1239.3
18870.2	1239.3	18891.5	1242.6	18965.4	1243.8	19039.1	1237	19156.4	1235.2
19260.1	1239.6	19282.6	1239.8	19346.5	1234.4	19464.8	1234.2	19638.6	1234
19666.1	1241.7	19690.6	1241	19746.3	1243	19850.6	1242.3	19873.1	1239.1
19927.2	1242.8	19961	1240.8	19966.2	1238.5	20002.1	1238.5	20014.3	1236.6
20062.5	1236.8	20207.7	1237.4	20301.4	1238	20329.7	1237.8	20398.5	1244.1
20430.7	1249.8	20539.1	1249	20600.2	1247.7	20711	1247.4	20809.2	1248.8
20861.9	1237.5	20925.7	1236.9	21013.1	1238.5	21158.3	1238.6	21233.7	1242.5
21271.6	1247.2	21381	1247.1	21496.4	1247.3	21588.5	1247.7	21612.7	1247.7
21703.8	1247.5	21819	1247.3	21905.3	1246.7	21987.5	1245.9	22074.5	1245.8
22161.7	1245.9	22252.3	1246	22361.2	1246.2	22484.1	1245.9	22530.6	1246.9
22624.2	1245.8	22737.7	1246.8	22846.4	1246	22939.2	1245.4	23078.1	1244.1
23147	1243.6	23214.4	1245.5	23330.2	1244.8	23350.2	1244.5	23414.3	1252.6
23517.8	1251.2	23616.6	1251.2	23713.8	1251.1	23814	1252.2	23934	1252
24026.1	1250.9	24074.1	1248.8	24163.1	1247.3	24194.3	1246.9	24206.1	1244.2
24326.9	1245.6	24366.9	1245.7	24433.7	1248.3	24470.7	1252.3	24518.5	1251.2
24534	1255.5								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17371.3	.03	17847.9	.03	20430.7	.037	20809.2	.028	21271.6	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
17847.9	20430.7	560	520.42	520	.1	.55

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17371.3	18254	1255	21819	24534	1255

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1246.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.10	Wt. n-Val.		0.030	0.028
E.G. Elev (ft)	1247.75	Reach Len. (ft)	560.00	520.42	520.00
Crit W.S. (ft)	1243.87	Flow Area (sq ft)		17144.71	3285.61
E.G. Slope (ft/ft)	0.001819	Area (sq ft)		19203.46	4958.14
Q Total (cfs)	172000.00	Flow (cfs)		143985.39	28014.60
Top Width (ft)	4555.19	Top Width (ft)		2525.19	2030.00
Vel Total (ft/s)	8.42	Avg. Vel. (ft/s)		8.40	8.53
Max Chl Dpth (ft)	12.65	Hydr. Depth (ft)		7.94	7.34
Conv. Total (cfs)	4033343.8	Conv. (cfs)		3376410.5	656933.3
Length Wtd. (ft)	520.34	Wetted Per. (ft)		2162.49	449.28
Min Ch El (ft)	1234.00	Shear (lb/sq ft)		0.90	0.83
Alpha	1.00	Stream Power (lb/ft s)		7.56	7.08
Frctn Loss (ft)	0.99	Cum Volume (acre-ft)	377.39	8662.44	2144.68
C & E Loss (ft)	0.01	Cum SA (acres)	77.58	791.69	251.78

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1246.67	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.10	Wt. n-Val.		0.030	0.028
E.G. Elev (ft)	1247.77	Reach Len. (ft)	560.00	520.42	520.00
Crit W.S. (ft)	1243.87	Flow Area (sq ft)		17193.46	3279.89
E.G. Slope (ft/ft)	0.001799	Area (sq ft)		17193.46	3279.89
Q Total (cfs)	172000.00	Flow (cfs)		143628.98	28371.02
Top Width (ft)	2591.26	Top Width (ft)		2159.03	432.23
Vel Total (ft/s)	8.40	Avg. Vel. (ft/s)		8.35	8.65
Max Chl Dpth (ft)	12.67	Hydr. Depth (ft)		7.96	7.59
Conv. Total (cfs)	4054787.8	Conv. (cfs)		3385959.5	668828.2
Length Wtd. (ft)	520.34	Wetted Per. (ft)		2168.69	435.44
Min Ch El (ft)	1234.00	Shear (lb/sq ft)		0.89	0.85
Alpha	1.00	Stream Power (lb/ft s)		7.44	7.32
Frctn Loss (ft)	0.97	Cum Volume (acre-ft)	67.08	8293.45	1191.14
C & E Loss (ft)	0.01	Cum SA (acres)	14.30	765.21	140.49

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17847.90 LB	18364.46	5118.27	706.43	110.46	2.98	6.40	7.25
18364.46	18881.02	27742.17	3609.84	516.69	16.13	6.99	7.69
18881.02	19397.58	37934.00	4357.53	517.34	22.05	8.44	8.71
19397.58	19914.14	39225.23	4448.14	517.99	22.81	8.61	8.82
19914.14	20430.70 RB	33965.71	4022.77	500.00	19.75	8.07	8.44
20430.70	20704.25						
20704.25	20977.81	11411.41	1281.24	159.56	6.63	8.08	8.91
20977.81	21251.36	16569.47	1988.89	273.79	9.63	7.27	8.33
21251.36	21524.91	33.75	15.48	15.92	0.02	0.98	2.18

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
17847.90 LB	18364.46	4938.79	708.93	116.53	2.87	6.42	6.97
18364.46	18881.02	27727.75	3621.50	516.69	16.12	7.01	7.66
18881.02	19397.58	37879.35	4369.20	517.34	22.02	8.46	8.67
19397.58	19914.14	39165.18	4459.81	517.99	22.77	8.63	8.78
19914.14	20430.70 RB	33917.91	4034.03	500.13	19.72	8.09	8.41
20430.70	20704.25						
20704.25	20977.81	11596.90	1284.82	159.67	6.74	8.10	9.03
20977.81	21251.36	16774.14	1995.07	275.78	9.75	7.29	8.41

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 231.20

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17864.5	1253	17892.1	1248.6	17931.4	1247.7	17953.5	1248.6	18053	1246.4
18094.2	1239.1	18191.7	1239.5	18328.5	1239.7	18437.1	1240.5	18511.5	1240.3
18523.1	1239.4	18620.9	1238.4	18659.1	1238.1	18686.2	1241.3	18762.8	1241.5
18780.6	1244.9	18881.5	1245	18893.4	1245.1	18902.8	1242.4	18936.3	1238.9
18997.2	1239.6	19053	1236.7	19198.8	1236.3	19276.9	1241.3	19403.7	1241.9
19419.4	1241.9	19454.4	1237.2	19465	1234.2	19536.5	1234	19741	1233.3
19780.2	1235.5	19781.6	1237	19785.7	1233.5	19877.1	1233.6	19967.2	1235
20002.4	1236.3	20123.5	1236.7	20200.1	1238.6	20248.9	1238	20279	1240.6
20304.8	1247.3	20422	1248.1	20521	1248.3	20611.5	1247	20715.3	1247.5
20788.6	1247.6	20879.2	1236.5	20978.5	1234.9	20996.6	1235.2	21103.2	1237.8
21200.1	1239.1	21203.3	1239.1	21334.3	1242	21407.7	1248	21498.8	1246.9
21667.7	1247.3	21792.4	1246.6	21888.6	1246.2	22001.2	1246.7	22123.6	1246.6
22238	1246.8	22356.7	1245.6	22482.4	1245.5	22561.5	1245.3	22599.9	1246.8
22616.8	1252.5	22639.5	1253.4	22659.7	1245.4	22743.4	1247.7	22882.6	1245.8
22969.7	1246.4	23004.1	1244	23040.3	1242.6	23117.1	1243.8	23152.8	1248.3
23168.9	1247.2	23172.7	1248.3	23182.2	1245.6	23234.6	1248.2	23263.8	1254
23274.9	1250.3	23324.2	1248.7	23380.2	1250.4	23475.7	1249.2	23600.5	1250.2
23734.5	1250.1	23841.4	1248.1	23881.1	1248.2	23911.1	1244.3	23951.1	1245.9
24052.2	1242.6	24099.2	1244.8	24137.2	1245	24146.6	1247.3	24199.3	1266
24205	1269.6								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17864.5	.03	18053	.03	20304.8	.037	20788.6	.028	21407.7	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18053	20304.8	550	495.76	490	.1	.55

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17864.5	18050	1250	21407.7	24205	1250

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft) 1245.67 Element Left OB Channel Right OB

Vel Head (ft)	1.09	Wt. n-Val.		0.030	0.028
E.G. Elev (ft)	1246.76	Reach Len. (ft)	550.00	495.76	490.00
Crit W.S. (ft)	1242.98	Flow Area (sq ft)		16550.21	3975.38
E.G. Slope (ft/ft)	0.001977	Area (sq ft)		16550.21	4621.07
Q Total (cfs)	172000.00	Flow (cfs)		137981.27	34018.73
Top Width (ft)	3427.26	Top Width (ft)		2241.38	1185.88
Vel Total (ft/s)	8.38	Avg. Vel. (ft/s)		8.34	8.56
Max Chl Dpth (ft)	12.37	Hydr. Depth (ft)		7.38	6.92
Conv. Total (cfs)	3868432.3	Conv. (cfs)		3103320.8	765111.4
Length Wtd. (ft)	494.29	Wetted Per. (ft)		2246.88	575.59
Min Ch El (ft)	1233.30	Shear (lb/sq ft)		0.91	0.85
Alpha	1.00	Stream Power (lb/ft s)		7.58	7.29
Frctn Loss (ft)	0.97	Cum Volume (acre-ft)	377.39	8448.87	2087.50
C & E Loss (ft)	0.01	Cum SA (acres)	77.58	763.21	232.58

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1245.71	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.09	Wt. n-Val.		0.030	0.028
E.G. Elev (ft)	1246.79	Reach Len. (ft)	550.00	495.76	490.00
Crit W.S. (ft)	1242.96	Flow Area (sq ft)		16640.77	3949.09
E.G. Slope (ft/ft)	0.001928	Area (sq ft)		16640.77	3949.09
Q Total (cfs)	172000.00	Flow (cfs)		137511.50	34488.49
Top Width (ft)	2782.35	Top Width (ft)		2241.54	540.81
Vel Total (ft/s)	8.35	Avg. Vel. (ft/s)		8.26	8.73
Max Chl Dpth (ft)	12.41	Hydr. Depth (ft)		7.42	7.30
Conv. Total (cfs)	3916879.0	Conv. (cfs)		3131488.0	785391.0
Length Wtd. (ft)	494.28	Wetted Per. (ft)		2247.08	544.34
Min Ch El (ft)	1233.30	Shear (lb/sq ft)		0.89	0.87
Alpha	1.00	Stream Power (lb/ft s)		7.37	7.63
Frctn Loss (ft)	0.94	Cum Volume (acre-ft)	67.08	8091.34	1147.99
C & E Loss (ft)	0.01	Cum SA (acres)	14.30	738.93	134.68

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18053.00 LB	18503.36	16691.90	2525.62	446.81	9.70	5.66	6.61
18503.36	18953.72	10964.78	1970.92	451.48	6.37	4.38	5.56
18953.72	19404.08	23159.81	3084.42	450.60	13.47	6.85	7.51
19404.08	19854.44	51508.11	4993.65	453.10	29.95	11.09	10.31
19854.44	20304.80 RB	35656.69	3975.61	444.90	20.73	8.95	8.97
20304.80	20564.81						
20564.81	20824.83	65.75	25.64	20.61	0.04	1.25	2.56
20824.83	21084.84	22234.23	2328.06	260.46	12.93	8.95	9.55
21084.84	21344.85	11585.30	1573.56	260.10	6.74	6.05	7.36
21344.85	21604.87	133.42	48.13	34.43	0.08	1.40	2.77

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18053.00 LB	18503.36	16691.04	2543.65	446.85	9.70	5.70	6.56
18503.36	18953.72	11002.93	1989.12	451.48	6.40	4.42	5.53
18953.72	19404.08	23112.60	3102.61	450.60	13.44	6.89	7.45
19404.08	19854.44	51211.14	5011.84	453.10	29.77	11.13	10.22
19854.44	20304.80 RB	35493.86	3993.55	445.06	20.64	8.99	8.89
20304.80	20564.81						
20564.81	20824.83	69.40	26.47	20.94	0.04	1.27	2.62
20824.83	21084.84	22656.81	2338.57	260.46	13.17	8.99	9.69
21084.84	21344.85	11762.24	1584.05	262.94	6.84	6.09	7.43

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 231.11

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18074.5	1253.6	18083.9	1251.4	18165.3	1249.4	18180.2	1249.3	18261.2	1249.1
18384.8	1249.6	18390	1249.5	18416.8	1239.2	18433.8	1239.1	18718.7	1238.4
18789.9	1238.3	18827.3	1238.3	18920.3	1237.9	19042	1237.2	19079.3	1238.7
19183.9	1237.6	19276.4	1236.1	19357.4	1237.3	19430.8	1238.3	19457.1	1240.8
19541.2	1241.4	19562.6	1241.7	19566.5	1239.8	19574.3	1234	19712.1	1233.5
19722.9	1233.7	20045.6	1234.4	20101.9	1236.4	20198.1	1238.5	20199.8	1238.5
20315.2	1241.1	20363.9	1239.5	20411.1	1240	20452.9	1250.1	20510.9	1250
20610.4	1248.9	20640.3	1248.7	20745.3	1249	20823.9	1251.1	20912.5	1239
20937.4	1235.8	21005.8	1236	21032.4	1237	21078.3	1235.7	21202.7	1233.5
21260.3	1233.5	21333.6	1235.6	21409.1	1234.8	21455.6	1234.5	21489	1248.2
21506.7	1246.7	21547.9	1247.1	21619.8	1245.7	21703.4	1244.6	21780.4	1245.3
21832.6	1246.9	21921.5	1246.5	22010.7	1246	22117.2	1245.1	22191.1	1245.6
22274.4	1245.1	22349.8	1244.7	22357.5	1244.6	22435.9	1244.2	22506.2	1244.4
22555.2	1245.4	22576.9	1250	22599.9	1250.8	22607	1247.5	22635.5	1244.8
22734.1	1245.8	22819.7	1245.5	22890.6	1245.4	22911.2	1245.3	22919.6	1243
22990.2	1239.5	23004.2	1241.2	23011	1229.3	23017.5	1221.5	23041.1	1221.6
23070.5	1231.1	23078.2	1235.8	23105.6	1248.3	23136.6	1248.6	23196.8	1247.1
23251.4	1248.7	23328.3	1246.8	23357.6	1245.7	23373.4	1243.6	23415.3	1241.4
23518.5	1245.7	23622.1	1245.5	23732.9	1247.5	23764.9	1245.6	23809	1266.6
23820	1270.9								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18074.5	.043	18390	.03	20452.9	.037	20823.9	.028	21489	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18390	20452.9	550	513.17	515	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22117.2	23820	1250

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1244.58	Element			
Vel Head (ft)	1.19	Wt. n-Val.		0.030	0.028
E.G. Elev (ft)	1245.78	Reach Len. (ft)	550.00	513.17	515.00
Crit W.S. (ft)	1242.25	Flow Area (sq ft)		14523.13	5389.86
E.G. Slope (ft/ft)	0.001955	Area (sq ft)		14523.13	7374.77
Q Total (cfs)	172000.00	Flow (cfs)		118023.74	53976.25
Top Width (ft)	3099.57	Top Width (ft)		2027.28	1072.30
Vel Total (ft/s)	8.64	Avg. Vel. (ft/s)		8.13	10.01
Max Chl Dpth (ft)	23.08	Hydr. Depth (ft)		7.16	8.86
Conv. Total (cfs)	3890363.0	Conv. (cfs)		2669507.0	1220855.9
Length Wtd. (ft)	513.82	Wetted Per. (ft)		2031.49	611.23
Min Ch El (ft)	1233.50	Shear (lb/sq ft)		0.87	1.08
Alpha	1.03	Stream Power (lb/ft s)		7.09	10.78
Frctn Loss (ft)	1.02	Cum Volume (acre-ft)	377.39	8272.04	2020.04
C & E Loss (ft)	0.02	Cum SA (acres)	77.58	738.92	219.88

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1244.69	Element			
Vel Head (ft)	1.16	Wt. n-Val.		0.030	0.028
E.G. Elev (ft)	1245.85	Reach Len. (ft)	550.00	513.17	515.00
Crit W.S. (ft)	1242.25	Flow Area (sq ft)		14738.70	5454.61
E.G. Slope (ft/ft)	0.001868	Area (sq ft)		14738.70	5454.61
Q Total (cfs)	172000.00	Flow (cfs)		118225.12	53774.88
Top Width (ft)	2637.06	Top Width (ft)		2027.72	609.34
Vel Total (ft/s)	8.52	Avg. Vel. (ft/s)		8.02	9.86
Max Chl Dpth (ft)	11.19	Hydr. Depth (ft)		7.27	8.95
Conv. Total (cfs)	3979558.5	Conv. (cfs)		2735370.8	1244187.8
Length Wtd. (ft)	513.81	Wetted Per. (ft)		2032.05	612.12
Min Ch El (ft)	1233.50	Shear (lb/sq ft)		0.85	1.04
Alpha	1.03	Stream Power (lb/ft s)		6.79	10.25
Frctn Loss (ft)	0.97	Cum Volume (acre-ft)	67.08	7912.77	1095.10
C & E Loss (ft)	0.03	Cum SA (acres)	14.30	714.63	128.21

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18390.00 LB	18802.58	15787.90	2315.44	400.79	9.18	5.79	6.82
18802.58	19215.16	20760.03	2760.77	412.62	12.07	6.69	7.52
19215.16	19627.74	20685.55	2761.39	415.09	12.03	6.69	7.49
19627.74	20040.32	44907.17	4385.98	412.58	26.11	10.63	10.24
20040.32	20452.90 RB	15883.13	2299.55	390.41	9.23	5.90	6.91
20452.90	20677.37						
20677.37	20901.85	230.10	62.40	30.51	0.13	2.06	3.69
20901.85	21126.32	17481.43	1864.41	224.82	10.16	8.31	9.38
21126.32	21350.79	25276.15	2324.80	224.52	14.70	10.36	10.87
21350.79	21575.27	10988.54	1138.25	131.38	6.39	8.80	9.65

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18390.00 LB	18802.58	15920.34	2357.94	400.90	9.26	5.90	6.75
18802.58	19215.16	20853.46	2804.64	412.62	12.12	6.80	7.44
19215.16	19627.74	20778.54	2805.26	415.09	12.08	6.80	7.41
19627.74	20040.32	44674.40	4429.85	412.58	25.97	10.74	10.08
20040.32	20452.90 RB	15998.36	2341.01	390.86	9.30	6.00	6.83
20452.90	20677.37						
20677.37	20901.85	240.69	65.66	31.30	0.14	2.12	3.67
20901.85	21126.32	17452.82	1888.28	224.82	10.15	8.41	9.24
21126.32	21350.79	25129.60	2348.67	224.52	14.61	10.46	10.70
21350.79	21575.27	10951.78	1152.00	131.49	6.37	8.90	9.51

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 231.01

INPUT
Description:
Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18364.1	1248.4	18524	1247.9	18573.6	1247.8	18586.2	1241.5	18597.1	1238.6
18805.7	1237.5	18827.3	1237.1	18835.7	1235.7	18907.5	1236.7	18953.8	1238.5
19030.8	1237.3	19131.3	1238	19146.8	1238	19220.3	1238.3	19272.2	1241.1
19290.5	1241.1	19363.2	1242.1	19454.5	1238.7	19525.9	1237.9	19610.5	1236.6
19715.4	1235.4	19733.5	1232	19887.4	1232.7	19985.4	1233.1	20085.2	1233.5
20230.1	1234.9	20304.8	1239.3	20345	1239.6	20385.2	1237.7	20449	1237.4
20528.2	1239.7	20547.7	1240	20592	1248.4	20650.9	1247.9	20701.9	1249.2
20772.7	1249.1	20833.7	1251.7	20855.7	1251	20883	1247.2	20924.4	1238.9
20945.4	1235.8	21029.2	1238.6	21130.3	1237.4	21160.4	1237.4	21209.1	1240.9
21283.2	1238.2	21283.6	1238.2	21360.6	1237.1	21417.1	1234.8	21439	1232.8
21458.2	1233.2	21463.2	1231.2	21498.6	1223.8	21578.9	1224.1	21641	1223.7
21676.2	1232.5	21766	1234.1	21819.2	1235.8	21823.4	1234.2	21840.6	1233
21858	1230.2	21886	1228.9	21895.7	1225	21914.1	1223.9	21949.8	1236
22024.9	1234.2	22056.2	1232.7	22081.3	1234.6	22121.5	1236	22152.4	1240.3
22171.8	1239.5	22189	1240.4	22210.4	1239.5	22313.3	1243.8	22396.8	1245.7
22438.7	1245.4	22497.1	1247.2	22540.9	1244.3	22619.5	1244.4	22702.8	1247.8
22757.7	1248.7	22806.9	1243.2	22858.4	1246.7	22939.9	1245.8	23033.5	1245.3
23132.1	1246	23208.1	1247.1	23214.5	1247.7	23235.7	1246.3	23299.5	1246.8
23332	1241.8	23418.4	1242.9	23449.3	1253.6	23462.3	1256.2	23490.3	1253.3
23534	1266.4								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18364.1	.03	18573.6	.03	20345	.037	20592	.037	20833.7	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18573.6	20592	525	498.37	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21676.2	23534	1250

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1243.61	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.11	Wt. n-Val.		0.030	0.032
E.G. Elev (ft)	1244.73	Reach Len. (ft)	525.00	498.37	500.00
Crit W.S. (ft)	1241.03	Flow Area (sq ft)		13251.70	7287.89
E.G. Slope (ft/ft)	0.002038	Area (sq ft)		13251.70	12737.97
Q Total (cfs)	172000.00	Flow (cfs)		104152.72	67847.29
Top Width (ft)	3502.82	Top Width (ft)		1984.79	1518.03
Vel Total (ft/s)	8.37	Avg. Vel. (ft/s)		7.86	9.31
Max Chl Dpth (ft)	19.91	Hydr. Depth (ft)		6.68	9.40
Conv. Total (cfs)	3810293.5	Conv. (cfs)		2307281.5	1503012.1
Length Wtd. (ft)	499.11	Wetted Per. (ft)		1986.89	778.62
Min Ch El (ft)	1232.00	Shear (lb/sq ft)		0.85	1.19
Alpha	1.02	Stream Power (lb/ft s)		6.67	11.09
Frctn Loss (ft)	1.01	Cum Volume (acre-ft)	377.39	8108.44	1901.14
C & E Loss (ft)	0.02	Cum SA (acres)	77.58	715.29	204.57

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1243.79	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.06	Wt. n-Val.		0.030	0.032
E.G. Elev (ft)	1244.85	Reach Len. (ft)	525.00	498.37	500.00
Crit W.S. (ft)	1241.04	Flow Area (sq ft)		13605.75	7426.24
E.G. Slope (ft/ft)	0.001902	Area (sq ft)		13605.75	7426.24
Q Total (cfs)	172000.00	Flow (cfs)		105066.13	66933.87
Top Width (ft)	2761.93	Top Width (ft)		1985.73	776.20
Vel Total (ft/s)	8.18	Avg. Vel. (ft/s)		7.72	9.01
Max Chl Dpth (ft)	20.09	Hydr. Depth (ft)		6.85	9.57
Conv. Total (cfs)	3944174.3	Conv. (cfs)		2409297.3	1534877.0
Length Wtd. (ft)	499.10	Wetted Per. (ft)		1988.03	790.82
Min Ch El (ft)	1232.00	Shear (lb/sq ft)		0.81	1.11
Alpha	1.02	Stream Power (lb/ft s)		6.27	10.05
Frctn Loss (ft)	0.92	Cum Volume (acre-ft)	67.08	7745.81	1018.96
C & E Loss (ft)	0.02	Cum SA (acres)	14.30	690.99	120.02

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18573.60 LB	18977.28	16269.25	2336.25	396.35	9.46	5.91	6.96
18977.28	19380.96	10716.00	1832.08	403.78	6.23	4.54	5.85
19380.96	19784.64	21010.55	2744.80	404.07	12.22	6.80	7.65
19784.64	20188.32	42999.48	4216.59	403.69	25.00	10.45	10.20
20188.32	20592.00 RB	13157.48	2121.97	378.99	7.65	5.61	6.20
20592.00	20788.13						
20788.13	20984.27	2626.24	465.46	84.10	1.53	5.58	5.64
20984.27	21180.40	6485.27	1123.62	196.22	3.77	5.73	5.77
21180.40	21376.53	5154.16	979.06	196.28	3.00	4.99	5.26
21376.53	21572.67	30073.41	2827.66	197.41	17.48	14.42	10.64
21572.67	21768.80	23508.16	1892.09	104.62	13.67	18.28	12.42

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18573.60 LB	18977.28	16547.95	2406.75	396.53	9.62	6.09	6.88
18977.28	19380.96	11064.17	1904.08	403.78	6.43	4.72	5.81
19380.96	19784.64	21240.52	2816.80	404.07	12.35	6.98	7.54

19784.64	20188.32	42825.71	4288.58	403.69	24.90	10.62	9.99
20188.32	20592.00 RB	13387.86	2189.55	379.95	7.78	5.77	6.11
20592.00	20788.13						
20788.13	20984.27	2703.60	480.41	85.01	1.57	5.70	5.63
20984.27	21180.40	6713.47	1158.60	196.22	3.90	5.91	5.79
21180.40	21376.53	5375.21	1014.04	196.28	3.13	5.17	5.30
21376.53	21572.67	30193.32	2862.64	197.41	17.55	14.60	10.55
21572.67	21768.80	21948.21	1910.55	115.91	12.76	18.45	11.49

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 230.92

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18363.4	1247.6	18480.8	1247.3	18521.5	1246.8	18547	1238.3	18602.9	1241.8
18683.7	1241.5	18742	1239.1	18828.1	1238.1	18846.7	1234	18855.2	1234
18965.2	1233.9	18972	1234.3	18982.3	1239.3	19043.8	1242.2	19129.3	1238.9
19201.3	1235.8	19246.7	1235.8	19369.2	1235.8	19412.4	1241.5	19450.6	1239.3
19477.5	1240.7	19529.8	1246	19612.4	1246	19702.8	1245.8	19746	1245.6
19764.8	1240	19805.1	1233.1	19836.2	1233	19959.7	1233.3	20087.2	1233.4
20121.2	1233.4	20432.3	1233.5	20497.9	1234	20576	1240.5	20666	1240.1
20705.6	1235	20766.6	1234.6	20819.3	1237.8	20923.7	1239.7	20930.2	1239.6
20982.7	1229.9	20994.5	1226.5	21032	1227.6	21057	1231.8	21151.9	1232.4
21216.4	1231.8	21231.3	1230.1	21333.6	1230.2	21358.9	1234.9	21385.3	1243.8
21425.5	1250.8	21489.1	1249.9	21512.6	1259.4	21527.6	1258.3	21560.2	1246.3
21616.7	1241.9	21648.1	1228	21665.3	1230.1	21775	1231.1	21844.9	1232.5
21907.2	1231.9	22001.6	1231.6	22078.6	1226.8	22093.1	1224.2	22109.5	1225.3
22121.4	1224.6	22134.1	1220.3	22173.8	1220.4	22360.6	1221.7	22461	1222.2
22529	1223.1	22554.2	1227.8	22591.6	1223.2	22639.4	1221.1	22739.1	1222.5
22775.9	1222.9	22790.7	1225	22826.8	1237.1	22865.7	1235.4	22876.9	1229.8
22886	1229.6	22926.1	1240.7	22938	1236.1	22957.9	1237.2	22974.6	1224.9
23017	1229	23049.9	1245.6	23079.2	1248.9	23136.3	1250.3	23189.9	1247.9
23234	1238.9	23260.6	1249.5	23290.2	1251.5	23360.1	1252.9	23436.1	1250.6
23490	1263.5								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18363.4	.028	18521.5	.028	18547	.028	19412.4	.037	20121.2	.028
20576	.032								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18521.5	20576	485	485.34	480	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21907.2	23490	1260

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1242.65	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.05	Wt. n-Val.		0.030	0.032
E.G. Elev (ft)	1243.70	Reach Len. (ft)	485.00	485.34	480.00
Crit W.S. (ft)	1239.70	Flow Area (sq ft)		11284.05	9841.60
E.G. Slope (ft/ft)	0.001992	Area (sq ft)		11284.05	28882.12
Q Total (cfs)	172000.00	Flow (cfs)		84098.69	87901.31
Top Width (ft)	4053.50	Top Width (ft)		1782.87	2270.63
Vel Total (ft/s)	8.14	Avg. Vel. (ft/s)		7.45	8.93
Max Chl Dpth (ft)	22.35	Hydr. Depth (ft)		6.33	8.90
Conv. Total (cfs)	3854120.0	Conv. (cfs)		1884456.0	1969664.0
Length Wtd. (ft)	482.63	Wetted Per. (ft)		1787.36	1113.10
Min Ch El (ft)	1233.00	Shear (lb/sq ft)		0.78	1.10
Alpha	1.02	Stream Power (lb/ft s)		5.85	9.82
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	377.39	7968.08	1662.27
C & E Loss (ft)	0.02	Cum SA (acres)	77.58	693.74	182.83

Warning - Divided flow computed for this cross-section.
Warning - The parabolic search method failed to converge on critical depth. The program will try the

cross section slice/secant method to find critical depth.
Note - Manning's n values were composited to a single value in the main channel.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1242.93	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.97	Wt. n-Val.		0.030	0.032
E.G. Elev (ft)	1243.91	Reach Len. (ft)	485.00	485.34	480.00
Crit W.S. (ft)	1239.70	Flow Area (sq ft)		11791.02	10156.40
E.G. Slope (ft/ft)	0.001782	Area (sq ft)		11791.02	10156.40
Q Total (cfs)	172000.00	Flow (cfs)		85432.34	86567.66
Top Width (ft)	2897.12	Top Width (ft)		1786.63	1110.49
Vel Total (ft/s)	7.84	Avg. Vel. (ft/s)		7.25	8.52
Max Chl Dpth (ft)	16.43	Hydr. Depth (ft)		6.60	9.15
Conv. Total (cfs)	4074114.3	Conv. (cfs)		2023611.3	2050503.0
Length Wtd. (ft)	482.67	Wetted Per. (ft)		1791.46	1128.68
Min Ch El (ft)	1233.00	Shear (lb/sq ft)		0.73	1.00
Alpha	1.02	Stream Power (lb/ft s)		5.31	8.53
Frctn Loss (ft)	0.75	Cum Volume (acre-ft)	67.08	7600.53	918.05
C & E Loss (ft)	0.02	Cum SA (acres)	14.30	669.41	109.19

Warning - Divided flow computed for this cross-section.
Warning - The parabolic search method failed to converge on critical depth. The program will try the
cross section slice/secant method to find critical depth.
Note - Manning's n values were composited to a single value in the main channel.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18521.50 LB	18932.40	9024.03	1606.54	399.76	5.25	4.03	5.62
18932.40	19343.30	13326.85	2055.11	412.26	7.75	5.00	6.48
19343.30	19754.20	2769.17	526.02	154.00	1.61	3.43	5.26
19754.20	20165.10	27146.63	3634.94	410.16	15.78	8.88	7.47
20165.10	20576.00 RB	31831.97	3461.44	411.17	18.51	8.42	9.20
20576.00	20770.27	5048.66	921.20	194.60	2.94	4.74	5.48
20770.27	20964.53	5315.97	950.84	194.96	3.09	4.89	5.59
20964.53	21158.80	24017.67	2352.32	195.42	13.96	12.11	10.21
21158.80	21353.07	22681.66	2269.53	194.70	13.19	11.68	9.99
21353.07	21547.33	733.71	137.42	30.19	0.43	4.77	5.34
21547.33	21741.60	12933.25	1410.19	137.61	7.52	10.48	9.17
21741.60	21935.87	17170.42	1800.10	165.62	9.98	10.87	9.54

Warning - Divided flow computed for this cross-section.
Warning - The parabolic search method failed to converge on critical depth. The program will try the
cross section slice/secant method to find critical depth.
Note - Manning's n values were composited to a single value in the main channel.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18521.50 LB	18932.40	9589.56	1719.72	400.05	5.58	4.32	5.58
18932.40	19343.30	13868.83	2171.83	412.26	8.06	5.29	6.39
19343.30	19754.20	2933.00	570.00	156.82	1.71	3.65	5.15
19754.20	20165.10	27111.14	3751.31	411.16	15.76	9.15	7.23
20165.10	20576.00 RB	31929.79	3578.16	411.17	18.56	8.71	8.92
20576.00	20770.27	5278.14	976.38	194.60	3.07	5.03	5.41
20770.27	20964.53	5541.27	1006.03	194.96	3.22	5.18	5.51
20964.53	21158.80	23686.93	2407.50	195.42	13.77	12.39	9.84
21158.80	21353.07	22400.47	2324.71	194.70	13.02	11.97	9.64
21353.07	21547.33	753.02	145.73	31.08	0.44	4.91	5.17
21547.33	21741.60	12615.85	1448.91	141.27	7.33	10.49	8.71

21741.60	21935.87	16291.99	1847.14	176.65	9.47	11.15	8.82

Warning - Divided flow computed for this cross-section.
Warning - The parabolic search method failed to converge on critical depth. The program will try the
cross section slice/secant method to find critical depth.
Note - Manning's n values were composited to a single value in the main channel.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 230.83

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18434.9	1247.2	18499.4	1246.4	18528.2	1240.3	18557.3	1238.1	18570.1	1239.2
18580	1237.8	18627.8	1235.5	18687.4	1236.6	18707.6	1235.1	18778	1237
18811.2	1238.8	18834.8	1236.9	18857	1234.4	18915.3	1235.2	18952.1	1233.6
18958.1	1231.3	19021	1232.1	19041.5	1238.9	19054.2	1236	19088	1234.3
19148.9	1234.4	19264.1	1234.8	19302.4	1235.9	19329.5	1241.4	19419.8	1244.3
19495.8	1242.3	19559.3	1246.4	19627.5	1245.8	19705.5	1245.3	19709	1245.2
19816.6	1243.6	19874.3	1244.3	19896.9	1233.1	20219.8	1233.2	20533	1233.1
20549	1236.4	20641.2	1236.7	20646.7	1236.8	20756	1237.1	20772.1	1237
20846.1	1236	20920.4	1235.3	20954.4	1235.3	20996.6	1240.7	21084.7	1241.6
21109.6	1235.4	21148.9	1236.3	21196	1234.6	21287.6	1233.3	21355.2	1230.8
21424.9	1232.6	21450.1	1232.6	21478.9	1238.5	21496.6	1243.7	21509.7	1248.5
21539.8	1245.8	21575.7	1245.6	21598.4	1248.4	21623.7	1236.2	21643.1	1229.4
21651	1229.8	21689.7	1227	21721.2	1226.6	21765.7	1230.4	21821.8	1228.9
21828.7	1228.1	21861.5	1233.1	21871.7	1235.9	21886.4	1234.5	21910.8	1234.8
21925.5	1232.3	21947.5	1221.3	22015.2	1221.2	22042.1	1224.4	22057.2	1224.4
22087.8	1220.7	22168.9	1225.2	22180.3	1226.8	22220.8	1228.5	22239.4	1228
22319.7	1229.2	22336.2	1228.8	22403.4	1230.4	22432.7	1229.4	22458.6	1220.3
22539.8	1221.5	22639.1	1223.3	22687.2	1223.3	22751.9	1223	22764.8	1223
22832.1	1223.1	22835	1223	22852.6	1231.9	22907.9	1238.5	22944.9	1242.2
23010.3	1272.4								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18434.9	.028	18570.1	.028	19419.8	.037	19874.3	.028	20533	.028
20549	.028	20756	.032						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18570.1	20549	525	499.66	495	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22015.2	23010.3	1250

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1241.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.99	Wt. n-Val.	0.028	0.028	0.032
E.G. Elev (ft)	1242.84	Reach Len. (ft)	525.00	499.66	495.00
Crit W.S. (ft)	1238.92	Flow Area (sq ft)	123.58	10663.54	10812.13
E.G. Slope (ft/ft)	0.001562	Area (sq ft)	123.58	10663.54	25581.66
Q Total (cfs)	172000.00	Flow (cfs)	477.04	84636.81	86886.15
Top Width (ft)	3762.93	Top Width (ft)	49.20	1443.06	2270.67
Vel Total (ft/s)	7.96	Avg. Vel. (ft/s)	3.86	7.94	8.04
Max Chl Dpth (ft)	21.55	Hydr. Depth (ft)	2.51	7.39	8.04
Conv. Total (cfs)	4352138.5	Conv. (cfs)	12070.6	2141576.3	2198491.5
Length Wtd. (ft)	497.51	Wetted Per. (ft)	49.50	1448.47	1353.24
Min Ch El (ft)	1231.30	Shear (lb/sq ft)	0.24	0.72	0.78
Alpha	1.00	Stream Power (lb/ft s)	0.94	5.70	6.26
Frctn Loss (ft)	0.98	Cum Volume (acre-ft)	376.70	7845.81	1362.20
C & E Loss (ft)	0.02	Cum SA (acres)	77.31	675.76	157.80

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1242.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.90	Wt. n-Val.	0.028	0.028	0.032
E.G. Elev (ft)	1243.13	Reach Len. (ft)	525.00	499.66	495.00
Crit W.S. (ft)	1238.90	Flow Area (sq ft)	97.09	11225.85	11334.12
E.G. Slope (ft/ft)	0.001372	Area (sq ft)	97.09	11225.85	11334.12
Q Total (cfs)	172000.00	Flow (cfs)	415.81	85892.95	85691.23
Top Width (ft)	2829.58	Top Width (ft)	27.04	1455.92	1346.63
Vel Total (ft/s)	7.59	Avg. Vel. (ft/s)	4.28	7.65	7.56
Max Chl Dpth (ft)	21.03	Hydr. Depth (ft)	3.59	7.71	8.42
Conv. Total (cfs)	4644317.5	Conv. (cfs)	11227.6	2319268.3	2313821.5
Length Wtd. (ft)	497.52	Wetted Per. (ft)	30.18	1461.43	1376.55
Min Ch El (ft)	1231.30	Shear (lb/sq ft)	0.28	0.66	0.71
Alpha	1.00	Stream Power (lb/ft s)	1.18	5.03	5.33
Frctn Loss (ft)	0.80	Cum Volume (acre-ft)	66.54	7472.31	799.64
C & E Loss (ft)	0.01	Cum SA (acres)	14.15	651.35	95.65

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18516.02	18525.03	2.00	1.81	4.23	0.00	0.44	1.11
18525.03	18534.05	37.02	14.17	9.10	0.02	1.57	2.61
18534.05	18543.06	71.61	21.00	9.04	0.04	2.33	3.41
18543.06	18552.07	109.80	27.13	9.04	0.06	3.01	4.05
18552.07	18561.09	145.42	32.12	9.04	0.08	3.56	4.53
18561.09	18570.10	111.18	27.35	9.05	0.06	3.03	4.07
18570.10 LB	18965.88	15836.04	2342.05	396.76	9.21	5.92	6.76
18965.88	19361.66	19397.74	2598.78	379.58	11.28	6.88	7.46
19361.66	19757.44						
19757.44	20153.22	19697.47	2308.98	276.02	11.45	8.43	8.53
20153.22	20549.00 RB	29705.57	3413.74	396.12	17.27	8.63	8.70
20549.00	20713.09	5174.90	845.37	164.09	3.01	5.15	6.12
20713.09	20877.17	4865.53	865.34	164.10	2.83	5.27	5.62
20877.17	21041.26	3302.54	700.12	164.43	1.92	4.27	4.72
21041.26	21205.35	3366.38	709.00	164.89	1.96	4.32	4.75
21205.35	21369.43	11407.01	1471.85	164.15	6.63	8.97	7.75
21369.43	21533.52	7132.39	986.03	121.96	4.15	8.16	7.23
21533.52	21697.61	8226.67	943.51	88.18	4.78	11.02	8.72
21697.61	21861.69	20531.33	2097.00	164.70	11.94	12.78	9.79
21861.69	22025.78	22879.36	2193.92	156.75	13.30	14.29	10.43

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18543.06	18552.07	109.73	30.63	12.10	0.06	3.40	3.58
18552.07	18561.09	171.33	35.62	9.04	0.10	3.95	4.81
18561.09	18570.10	134.75	30.84	9.05	0.08	3.42	4.37
18570.10 LB	18965.88	16506.63	2495.59	396.76	9.60	6.31	6.61
18965.88	19361.66	19544.67	2747.58	391.66	11.36	7.05	7.11
19361.66	19757.44						
19757.44	20153.22	19868.50	2415.41	276.89	11.55	8.79	8.23
20153.22	20549.00 RB	29973.17	3567.28	396.12	17.43	9.01	8.40
20549.00	20713.09	5490.67	909.02	164.09	3.19	5.54	6.04
20713.09	20877.17	5149.27	928.99	164.10	2.99	5.66	5.54
20877.17	21041.26	3589.31	763.78	164.43	2.09	4.65	4.70
21041.26	21205.35	3652.34	772.66	164.89	2.12	4.71	4.73
21205.35	21369.43	11507.80	1535.50	164.15	6.69	9.36	7.49
21369.43	21533.52	7193.91	1033.17	123.33	4.18	8.46	6.96
21533.52	21697.61	8140.26	976.88	89.07	4.73	11.30	8.33
21697.61	21861.69	20287.87	2160.66	164.70	11.80	13.17	9.39
21861.69	22025.78	20679.79	2253.47	177.79	12.02	14.68	9.18

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 230.74

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17612.2	1246.6	17631.2	1246.5	17656.6	1244	17743.5	1243.5	17828.7	1242.9
17909.6	1241.5	18008.7	1243.1	18117.7	1244.3	18203.5	1245.1	18286.8	1243.9
18301.5	1234.8	18337.9	1233	18356.7	1237.8	18448.5	1237.8	18452.4	1237.3
18459.4	1233.5	18502.8	1234.1	18514.1	1237	18618.4	1239.1	18712.3	1238.7
18775.2	1236.7	18800.3	1233.6	18896.6	1234	18963.9	1233.3	18978.5	1231.4
19072.7	1231.6	19141.7	1234	19166.2	1242.7	19211	1241.8	19273.2	1244.9
19352.1	1242.4	19480.3	1243.1	19560.1	1240.1	19593.9	1241.7	19688.2	1246.1
19759	1245.7	19843.3	1238.5	19863.6	1233.1	19915	1230.9	19985.5	1230.1
20079.2	1229.2	20151.8	1231.3	20296.2	1231.5	20431.2	1232.1	20474.5	1232.1
20514	1238.5	20561.6	1238.7	20603.8	1234.5	20723.5	1232.4	20808.3	1235
20913.6	1236.6	20934.7	1236.9	20943.9	1241.7	20978	1249.7	21022.2	1240.2
21060	1236.9	21066	1238.8	21097.2	1241.4	21146.9	1232.9	21170.2	1234.6
21193.1	1233.8	21275.4	1236.7	21282.9	1235.6	21296	1231.4	21328.6	1228.3
21410.5	1228.9	21427.3	1230	21446	1232.8	21551.6	1230.1	21617.6	1232.8
21713.9	1232.5	21743.1	1231.6	21754.2	1236.5	21770.3	1241.4	21842.2	1240.5
21896.3	1237.5	21922.1	1238.8	21940.2	1238.2	21948.2	1234	21954.9	1232.3
22033	1232.3	22105.9	1233.7	22190.2	1231.3	22220.2	1235.3	22225.6	1237.5
22275.3	1233	22363.1	1232.6	22424	1238.2	22454.8	1238.9	22505.5	1242.2
22593.6	1240	22603.2	1239.7	22636.7	1245.9	22657.2	1253.7	22681.5	1255.4
22695	1260.6								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17612.2	.03	18286.8	.03	18301.5	.03	19166.2	.032	19759	.028
20514	.032								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18286.8	20514	320	504.76	810	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
22033	22695	1250

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1240.61	Element			
Vel Head (ft)	1.22	Wt. n-Val.		0.029	0.032
E.G. Elev (ft)	1241.83	Reach Len. (ft)	320.00	504.76	810.00
Crit W.S. (ft)	1238.42	Flow Area (sq ft)		10633.62	8772.33
E.G. Slope (ft/ft)	0.002572	Area (sq ft)		10633.62	11622.72
Q Total (cfs)	172000.00	Flow (cfs)		97346.68	74653.31
Top Width (ft)	3434.54	Top Width (ft)		1587.63	1846.91
Vel Total (ft/s)	8.86	Avg. Vel. (ft/s)		9.15	8.51
Max Chl Dpth (ft)	12.31	Hydr. Depth (ft)		6.70	6.45
Conv. Total (cfs)	3391762.0	Conv. (cfs)		1919632.4	1472129.5
Length Wtd. (ft)	650.61	Wetted Per. (ft)		1594.27	1366.97
Min Ch El (ft)	1229.20	Shear (lb/sq ft)		1.07	1.03
Alpha	1.00	Stream Power (lb/ft s)		9.80	8.77
Frctn Loss (ft)	1.02	Cum Volume (acre-ft)	375.95	7723.67	1150.81
C & E Loss (ft)	0.18	Cum SA (acres)	77.01	658.38	134.41

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1241.34	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.99	Wt. n-Val.		0.029	0.032
E.G. Elev (ft)	1242.33	Reach Len. (ft)	320.00	504.76	810.00
Crit W.S. (ft)	1238.43	Flow Area (sq ft)		11813.54	9797.77
E.G. Slope (ft/ft)	0.001892	Area (sq ft)		11813.54	9797.77
Q Total (cfs)	172000.00	Flow (cfs)		97424.55	74575.45
Top Width (ft)	3072.26	Top Width (ft)		1633.24	1439.01
Vel Total (ft/s)	7.96	Avg. Vel. (ft/s)		8.25	7.61
Max Chl Dpth (ft)	13.04	Hydr. Depth (ft)		7.23	6.81
Conv. Total (cfs)	3954218.5	Conv. (cfs)		2239755.5	1714462.9
Length Wtd. (ft)	635.05	Wetted Per. (ft)		1640.80	1455.29
Min Ch El (ft)	1229.20	Shear (lb/sq ft)		0.85	0.80
Alpha	1.00	Stream Power (lb/ft s)		7.01	6.05
Frctn Loss (ft)	0.98	Cum Volume (acre-ft)	65.95	7340.17	679.58
C & E Loss (ft)	0.06	Cum SA (acres)	13.99	633.63	79.83

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18286.80 LB	18732.24	7749.94	1498.38	443.82	4.51	3.40	5.17
18732.24	19177.68	24868.93	2976.96	429.58	14.46	6.95	8.35
19177.68	19623.12	5.24	6.09	24.13	0.00	0.25	0.86
19623.12	20068.56	22763.73	2183.89	250.76	13.23	8.74	10.42
20068.56	20514.00 RB	41958.83	3968.31	445.99	24.39	8.91	10.57
20514.00	20659.40	3813.22	631.02	145.62	2.22	4.34	6.04
20659.40	20804.80	8996.80	1055.65	145.45	5.23	7.26	8.52
20804.80	20950.20	3842.16	620.28	137.92	2.23	4.53	6.19
20950.20	21095.60	366.89	114.15	67.90	0.21	1.69	3.21
21095.60	21241.00	5403.87	765.51	139.91	3.14	5.50	7.06
21241.00	21386.40	13191.75	1331.29	146.31	7.67	9.16	9.91
21386.40	21531.80	14517.09	1407.55	145.67	8.44	9.68	10.31
21531.80	21677.20	12370.04	1277.92	145.46	7.19	8.79	9.68
21677.20	21822.60	5374.34	645.62	92.15	3.12	7.13	8.32
21822.60	21968.00	1743.99	383.51	135.57	1.01	2.86	4.55
21968.00	22113.40	5033.18	539.83	65.00	2.93	8.31	9.32

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18286.80 LB	18732.24	9199.97	1820.84	444.55	5.35	4.14	5.05
18732.24	19177.68	25161.43	3291.34	431.77	14.63	7.65	7.64
19177.68	19623.12	49.10	36.56	59.13	0.03	0.62	1.34
19623.12	20068.56	21907.30	2370.14	259.37	12.74	9.17	9.24
20068.56	20514.00 RB	41106.75	4294.67	445.99	23.90	9.64	9.57
20514.00	20659.40	4299.31	737.55	145.62	2.50	5.07	5.83
20659.40	20804.80	9180.59	1162.18	145.45	5.34	7.99	7.90
20804.80	20950.20	4261.30	721.17	139.51	2.48	5.21	5.91
20950.20	21095.60	547.07	167.93	79.35	0.32	2.13	3.26
21095.60	21241.00	5664.49	869.06	145.12	3.29	6.02	6.52
21241.00	21386.40	13038.15	1437.82	146.31	7.58	9.89	9.07
21386.40	21531.80	14252.20	1514.08	145.67	8.29	10.41	9.41
21531.80	21677.20	12289.09	1384.45	145.46	7.14	9.52	8.88
21677.20	21822.60	4266.59	726.82	141.99	2.48	5.18	5.87
21822.60	21968.00	2157.79	489.26	146.78	1.25	3.36	4.41
21968.00	22113.40	4618.89	587.45	74.04	2.69	9.04	7.86

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 230.64

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18144.2	1244.2	18206.9	1243.9	18224.7	1234	18289.4	1232.8	18350.7	1230.7
18370.8	1232.2	18409.7	1233	18416.7	1234.6	18430.4	1235.9	18485.5	1234.6
18561.4	1234.1	18622.9	1233.9	18633	1232.2	18664.3	1232	18670.4	1232.5
18691.2	1231.7	18696.8	1233.2	18706.2	1234.1	18725.8	1231.8	18734.1	1233.6
18788.1	1233.6	18855.1	1232.2	18880.2	1231.3	18966.1	1231.4	18998.1	1231.4
19065	1236.8	19116.7	1237.8	19139.1	1239.2	19176.6	1239.1	19192.5	1237.7
19217	1233.8	19246.9	1245.2	19265.6	1244.5	19315.1	1239.9	19397.9	1242.1
19452.2	1241.7	19522.7	1239.8	19571.3	1243.2	19584.8	1243.1	19639.8	1243.3
19689.4	1243.3	19750.3	1243.4	19785.6	1241.9	19828.8	1238.4	19844.9	1236.1
19857	1228.8	20061.3	1228.5	20300.4	1228.9	20337.3	1228.6	20371	1235.6
20426.9	1234.2	20448.5	1233.2	20502.1	1237.5	20552.9	1238	20594.5	1238.3
20649.8	1238.3	20713.9	1237.7	20758.8	1237.6	20854.9	1237.6	20870.2	1237.7
20932.5	1238.1	21018.8	1236.9	21043.8	1232.5	21086.8	1232.9	21151.9	1232.8
21216.7	1232.9	21258.9	1232.2	21269.6	1231.1	21290.1	1230.8	21338.4	1226.7
21387.3	1227.8	21447.7	1229.5	21476.6	1230.4	21505.7	1230.1	21582.3	1229.4
21700.2	1230.6	21717.3	1230.7	21770	1229.6	21810.6	1229.1	21833.1	1228.1
21897.1	1228.8	21934.9	1228.5	21982.8	1230.2	22015.9	1229.6	22039.2	1228.3
22080.4	1224.4	22125.5	1225.9	22137	1224	22153.6	1222.7	22177.4	1223.7
22226.5	1223.5	22246.9	1233.1	22256.9	1235.6	22273.4	1242.3	22301.5	1259.9
22309	1260.8								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18144.2	.03	19139.1	.037	19750.3	.028	20371	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18144.2	20371	605	490.78	495	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1240.00	Element			
Vel Head (ft)	0.63	Wt. n-Val.		0.029	0.032
E.G. Elev (ft)	1240.63	Reach Len. (ft)	605.00	490.78	495.00
Crit W.S. (ft)		Flow Area (sq ft)		12099.22	14996.10
E.G. Slope (ft/ft)	0.001058	Area (sq ft)		12099.22	14996.10
Q Total (cfs)	172000.00	Flow (cfs)		82280.32	89719.68
Top Width (ft)	3492.81	Top Width (ft)		1596.09	1896.73
Vel Total (ft/s)	6.35	Avg. Vel. (ft/s)		6.80	5.98
Max Chl Dpth (ft)	17.30	Hydr. Depth (ft)		7.58	7.91
Conv. Total (cfs)	5289132.0	Conv. (cfs)		2530183.0	2758949.0
Length Wtd. (ft)	493.20	Wetted Per. (ft)		1603.57	1901.51
Min Ch El (ft)	1228.50	Shear (lb/sq ft)		0.50	0.52
Alpha	1.01	Stream Power (lb/ft s)		3.39	3.12
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	375.95	7591.96	903.32
C & E Loss (ft)	0.02	Cum SA (acres)	77.01	639.94	99.60

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1240.49	Element			
Vel Head (ft)	0.80	Wt. n-Val.		0.029	0.032
E.G. Elev (ft)	1241.28	Reach Len. (ft)	605.00	490.78	495.00
Crit W.S. (ft)		Flow Area (sq ft)		12897.28	11518.51
E.G. Slope (ft/ft)	0.001293	Area (sq ft)		12897.28	11518.51
Q Total (cfs)	172000.00	Flow (cfs)		99742.77	72257.23
Top Width (ft)	3221.47	Top Width (ft)		1652.47	1569.00

Vel Total (ft/s)	7.04	Avg. Vel. (ft/s)		7.73	6.27
Max Chl Dpth (ft)	13.79	Hydr. Depth (ft)		7.80	7.34
Conv. Total (cfs)	4783262.5	Conv. (cfs)		2773813.3	2009449.4
Length Wtd. (ft)	492.83	Wetted Per. (ft)		1660.61	1581.77
Min Ch El (ft)	1228.50	Shear (lb/sq ft)		0.63	0.59
Alpha	1.03	Stream Power (lb/ft s)		4.85	3.69
Frctn Loss (ft)	0.58	Cum Volume (acre-ft)	65.95	7197.00	481.39
C & E Loss (ft)	0.04	Cum SA (acres)	13.99	614.59	51.86

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18144.20 LB	18589.56	12958.95	2390.23	377.57	7.53	6.36	5.42
18589.56	19034.92	20233.16	3338.67	446.26	11.76	7.50	6.06
19034.92	19480.28	1439.17	517.48	204.70	0.84	2.55	2.78
19480.28	19925.64	6149.36	924.33	128.96	3.58	7.30	6.65
19925.64	20371.00 RB	41499.69	4928.50	446.08	24.13	11.07	8.42
20371.00	20500.20	2579.37	665.15	129.41	1.50	5.15	3.88
20500.20	20629.40	522.79	255.12	129.21	0.30	1.97	2.05
20629.40	20758.60	565.95	267.55	129.20	0.33	2.07	2.12
20758.60	20887.80	708.68	306.20	129.20	0.41	2.37	2.31
20887.80	21017.00	689.36	301.17	129.21	0.40	2.33	2.29
21017.00	21146.20	4077.95	876.03	129.59	2.37	6.78	4.66
21146.20	21275.40	4754.42	959.58	129.26	2.76	7.43	4.95
21275.40	21404.60	10081.37	1506.99	129.39	5.86	11.66	6.69
21404.60	21533.80	8237.33	1334.31	129.23	4.79	10.33	6.17
21533.80	21663.00	8145.70	1325.26	129.21	4.74	10.26	6.15
21663.00	21792.20	7579.68	1269.25	129.21	4.41	9.82	5.97
21792.20	21921.40	9662.24	1468.33	129.23	5.62	11.36	6.58
21921.40	22050.60	8873.56	1395.60	129.32	5.16	10.80	6.36
22050.60	22179.80	15882.82	1980.68	129.59	9.23	15.33	8.02
22179.80	22309.00	7358.45	1084.87	91.24	4.28	12.34	6.78

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18144.20 LB	18589.56	16204.97	2574.80	378.06	9.42	6.85	6.29
18589.56	19034.92	24867.42	3557.49	446.26	14.46	7.99	6.99
19034.92	19480.28	2044.31	623.40	229.89	1.19	2.73	3.28
19480.28	19925.64	7296.73	994.27	160.32	4.24	6.29	7.34
19925.64	20371.00 RB	49329.35	5147.32	446.08	28.68	11.56	9.58
20371.00	20500.20	3361.59	728.63	129.41	1.95	5.64	4.61
20500.20	20629.40	847.65	318.60	129.21	0.49	2.47	2.66
20629.40	20758.60	903.51	331.03	129.20	0.53	2.56	2.73
20758.60	20887.80	1086.11	369.68	129.20	0.63	2.86	2.94
20887.80	21017.00	1061.55	364.65	129.21	0.62	2.82	2.91
21017.00	21146.20	5130.17	939.51	129.59	2.98	7.27	5.46
21146.20	21275.40	5922.66	1023.06	129.26	3.44	7.92	5.79
21275.40	21404.60	12090.31	1570.47	129.39	7.03	12.16	7.70
21404.60	21533.80	9965.10	1397.79	129.23	5.79	10.82	7.13
21533.80	21663.00	9859.33	1388.74	129.21	5.73	10.75	7.10
21663.00	21792.20	9205.10	1332.73	129.21	5.35	10.32	6.91
21792.20	21921.40	11608.23	1531.81	129.23	6.75	11.86	7.58
21921.40	22050.60	1215.92	221.80	30.41	0.71	11.92	5.48

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 230.55

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

18274.6	1243.4	18292.3	1242.5	18300.8	1242.8	18312	1241.5	18341.9	1233.5
18360	1233.4	18404.5	1233.8	18476.5	1231.9	18504.5	1231.7	18547.8	1230.2
18603.6	1230	18613.5	1230	18629.3	1234.3	18631.1	1235.4	18671.8	1230.1
18681.2	1230.1	18744	1229.8	18850.6	1229.4	18869.3	1229.4	18882.4	1235.2
18891.9	1236.2	18953.8	1238.2	18966.3	1238.8	18989.7	1238.2	19029.8	1233.5
19074.2	1235	19136.9	1235.4	19163.3	1237.3	19208.2	1237.5	19233.4	1240.4
19285.8	1240.8	19303.4	1240.9	19331	1236.7	19346.3	1236	19381.5	1238.7
19397.1	1239.3	19409.5	1236.2	19426.5	1235.5	19450.3	1239.8	19456.7	1240.2
19523.6	1240.4	19565.5	1242.9	19613.2	1239.5	19624.9	1239.5	19670.1	1239.3
19721.5	1239.5	19772.8	1239.7	19779.4	1231.4	19784.5	1227.6	20050.5	1228.6
20142	1228.4	20153	1227.6	20186	1227.4	20304	1230.8	20319	1231.1
20392.2	1232	20423.2	1231.9	20487.7	1233.4	20534.1	1233.9	20579.1	1233.9
20615.8	1234.1	20630.8	1233.1	20682.8	1233	20746.5	1232.1	20783.7	1231.7
20828.5	1231.1	20875.2	1229.8	20922.8	1229.2	20950	1231.1	20973.8	1230.7
21019.7	1231.5	21072.3	1231.8	21119	1232.2	21169	1232	21228.8	1230.7
21265.8	1232.3	21318.5	1230.7	21395.4	1230.4	21434.1	1230.7	21460.4	1229.1
21523.6	1227	21561.4	1225.6	21598.3	1225.3	21644.7	1224.9	21686.8	1225.9
21723.6	1225.6	21795	1223.6	21803.3	1224.5	21833.6	1230	21838.5	1229.9
21899	1220.2	21903.4	1219.7	21952.1	1219.5	21971.9	1220.5	22014.8	1243.6
22060.8	1264.8								

Manning's n Values num= 7

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18274.6	.03	18312	.03	18341.9	.03	18966.3	.032	19772.8	.028
20186	.032	20319	.032						

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18312	20319	440	515.14	510	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1239.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.57	Wt. n-Val.		0.030	0.032
E.G. Elev (ft)	1240.13	Reach Len. (ft)	440.00	515.14	510.00
Crit W.S. (ft)		Flow Area (sq ft)		11999.59	16736.17
E.G. Slope (ft/ft)	0.000904	Area (sq ft)		11999.59	16736.17
Q Total (cfs)	172000.00	Flow (cfs)		64475.39	107524.60
Top Width (ft)	3402.81	Top Width (ft)		1714.51	1688.30
Vel Total (ft/s)	5.99	Avg. Vel. (ft/s)		5.37	6.42
Max Chl Dpth (ft)	20.06	Hydr. Depth (ft)		7.00	9.91
Conv. Total (cfs)	5721814.0	Conv. (cfs)		2144861.8	3576952.3
Length Wtd. (ft)	512.07	Wetted Per. (ft)		1724.80	1694.88
Min Ch El (ft)	1227.40	Shear (lb/sq ft)		0.39	0.56
Alpha	1.02	Stream Power (lb/ft s)		2.11	3.58
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	375.95	7456.20	723.02
C & E Loss (ft)	0.01	Cum SA (acres)	77.01	621.29	79.23

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1240.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.65	Wt. n-Val.		0.030	0.032
E.G. Elev (ft)	1240.66	Reach Len. (ft)	440.00	515.14	510.00
Crit W.S. (ft)		Flow Area (sq ft)		12781.07	13941.39
E.G. Slope (ft/ft)	0.001085	Area (sq ft)		12781.07	13941.39
Q Total (cfs)	172000.00	Flow (cfs)		76764.56	95235.43
Top Width (ft)	3228.98	Top Width (ft)		1767.98	1461.00
Vel Total (ft/s)	6.44	Avg. Vel. (ft/s)		6.01	6.83
Max Chl Dpth (ft)	15.99	Hydr. Depth (ft)		7.23	9.54
Conv. Total (cfs)	5221031.0	Conv. (cfs)		2330175.3	2890855.5
Length Wtd. (ft)	512.50	Wetted Per. (ft)		1778.89	1477.38
Min Ch El (ft)	1227.40	Shear (lb/sq ft)		0.49	0.64
Alpha	1.01	Stream Power (lb/ft s)		2.92	4.37
Frctn Loss (ft)	0.65	Cum Volume (acre-ft)	65.95	7052.34	336.73
C & E Loss (ft)	0.03	Cum SA (acres)	13.99	595.32	34.64

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta	Right Sta	Flow	Area	W.P.	% Conv.	Hydr D.	Velocity

(ft)	(ft)	(cfs)	(sq ft)	(ft)		(ft)	(ft/s)
18312.00 LB	18713.40	14025.11	2939.26	396.23	8.15	7.46	4.77
18713.40	19114.80	10367.99	2428.85	403.04	6.03	6.05	4.27
19114.80	19516.20	1223.47	587.53	249.38	0.71	2.37	2.08
19516.20	19917.60	10830.75	1653.24	274.67	6.30	6.14	6.55
19917.60	20319.00 RB	28028.10	4390.71	401.48	16.30	10.94	6.38
20319.00	20435.12	4763.69	912.00	116.13	2.77	7.85	5.22
20435.12	20551.24	3267.42	727.39	116.14	1.90	6.26	4.49
20551.24	20667.36	2982.72	688.70	116.15	1.73	5.93	4.33
20667.36	20783.48	4079.08	830.93	116.13	2.37	7.16	4.91
20783.48	20899.60	5878.90	1034.73	116.14	3.42	8.91	5.68
20899.60	21015.72	6072.41	1055.24	116.20	3.53	9.09	5.75
21015.72	21131.84	4627.69	896.27	116.12	2.69	7.72	5.16
21131.84	21247.96	4930.12	931.06	116.15	2.87	8.02	5.30
21247.96	21364.08	5270.61	969.15	116.16	3.06	8.35	5.44
21364.08	21480.20	6522.85	1101.46	116.18	3.79	9.49	5.92
21480.20	21596.32	11006.50	1507.58	116.17	6.40	12.98	7.30
21596.32	21712.44	12774.60	1648.34	116.14	7.43	14.20	7.75
21712.44	21828.56	13082.22	1674.76	116.61	7.61	14.42	7.81
21828.56	21944.68	15898.60	1885.17	117.01	9.24	16.23	8.43
21944.68	22060.80	6367.18	873.39	67.45	3.70	13.95	7.29

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18312.00 LB	18713.40	16885.14	3114.97	396.68	9.82	7.90	5.42
18713.40	19114.80	12691.88	2607.79	403.04	7.38	6.50	4.87
19114.80	19516.20	1740.30	700.42	260.90	1.01	2.70	2.48
19516.20	19917.60	12691.12	1788.23	316.79	7.38	5.74	7.10
19917.60	20319.00 RB	32756.14	4569.66	401.48	19.04	11.38	7.17
20319.00	20435.12	5838.24	963.76	116.13	3.39	8.30	6.06
20435.12	20551.24	4095.86	779.15	116.14	2.38	6.71	5.26
20551.24	20667.36	3762.25	740.47	116.15	2.19	6.38	5.08
20667.36	20783.48	5042.94	882.70	116.13	2.93	7.60	5.71
20783.48	20899.60	7128.66	1086.50	116.14	4.14	9.36	6.56
20899.60	21015.72	7351.97	1107.00	116.20	4.27	9.53	6.64
21015.72	21131.84	5680.47	948.03	116.12	3.30	8.16	5.99
21131.84	21247.96	6031.15	982.83	116.15	3.51	8.46	6.14
21247.96	21364.08	6425.44	1020.92	116.16	3.74	8.79	6.29
21364.08	21480.20	7871.50	1153.23	116.18	4.58	9.93	6.83
21480.20	21596.32	13015.57	1559.34	116.17	7.57	13.43	8.35
21596.32	21712.44	15035.11	1700.11	116.14	8.74	14.64	8.84
21712.44	21828.56	7956.29	1017.34	83.57	4.63	15.06	7.82

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 230.45

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17994	1243.1	18031	1240.7	18054.9	1241.5	18162.3	1242	18193.9	1241.9
18280.1	1241.8	18327.4	1242	18388.1	1242.1	18426.9	1242.3	18509.3	1242.5
18519.8	1242.5	18565.5	1240.7	18598.4	1240.4	18632	1235.4	18636.5	1234.7
18646.1	1234.4	18732.6	1230.9	18746.4	1230.9	18782.4	1227.9	18792.4	1227.9
18929.5	1227.9	18933	1228.1	18986.3	1230.9	18998.8	1233	19022.7	1235.5
19059.1	1235.9	19095.8	1236.2	19109	1235.7	19129.1	1236.3	19138.2	1236
19171.8	1234.1	19188.8	1234.2	19244.9	1234.8	19273.1	1234.2	19311.4	1232.8
19338	1240.1	19342.5	1240.7	19382.6	1240.5	19409.6	1240.5	19454.1	1239.6
19479.3	1239.3	19514.3	1238.7	19540.6	1238.6	19605.4	1238.6	19628.2	1238.2
19668.9	1238	19732.5	1237.7	19734.9	1235.5	19754.6	1228.2	19895.2	1228
20121.1	1227.5	20151.5	1228.6	20196.6	1228.5	20231.9	1228.8	20270.9	1229.9
20300.3	1229.9	20340.1	1230.2	20347.7	1230.1	20395.7	1229.4	20423	1232.1
20450.1	1231.3	20581.7	1231.4	20585.7	1231.4	20641.3	1230.5	20679.9	1232.8

20697.3	1232.3	20731.1	1230.9	20731.6	1230.9	20768.5	1229.4	20783	1228.7
20799.2	1229.9	20823.5	1229.3	20843.3	1229.7	20915.1	1230.1	20929	1229.8
21000.9	1226.7	21015.3	1226.4	21057.1	1226	21108.1	1228.7	21172.1	1231
21208.8	1230.6	21215.3	1230.1	21249.5	1231.7	21288	1231.8	21322.7	1231.5
21368.7	1231.6	21475.4	1230.5	21490.3	1230.1	21552.7	1224	21558.7	1223.8
21637.2	1220.9	21677.3	1219.3	21712.6	1219.5	21746.4	1219.9	21780	1245.7
21810.3	1264.4								

Manning's n Values num= 6

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17994	.037	18598.4	.03	19129.1	.032	19454.1	.028	19895.2	.032
20423	.032								

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18598.4	20423	480	508.75	505	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1238.89	Element			
Vel Head (ft)	0.72	Wt. n-Val.		0.031	0.032
E.G. Elev (ft)	1239.61	Reach Len. (ft)	480.00	508.75	505.00
Crit W.S. (ft)		Flow Area (sq ft)		11825.41	13645.97
E.G. Slope (ft/ft)	0.001095	Area (sq ft)		11825.41	13645.97
Q Total (cfs)	172000.00	Flow (cfs)		74221.20	97778.81
Top Width (ft)	2992.91	Top Width (ft)		1644.78	1348.13
Vel Total (ft/s)	6.75	Avg. Vel. (ft/s)		6.28	7.17
Max Chl Dpth (ft)	19.59	Hydr. Depth (ft)		7.19	10.12
Conv. Total (cfs)	5196919.0	Conv. (cfs)		2242567.0	2954352.3
Length Wtd. (ft)	506.84	Wetted Per. (ft)		1648.96	1355.46
Min Ch El (ft)	1227.50	Shear (lb/sq ft)		0.49	0.69
Alpha	1.01	Stream Power (lb/ft s)		3.08	4.93
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	375.95	7315.32	545.17
C & E Loss (ft)	0.05	Cum SA (acres)	77.01	601.42	61.46

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1239.07	Element			
Vel Head (ft)	0.91	Wt. n-Val.		0.031	0.032
E.G. Elev (ft)	1239.98	Reach Len. (ft)	480.00	508.75	505.00
Crit W.S. (ft)		Flow Area (sq ft)		12128.43	10406.26
E.G. Slope (ft/ft)	0.001521	Area (sq ft)		12128.43	10406.26
Q Total (cfs)	172000.00	Flow (cfs)		90798.13	81201.87
Top Width (ft)	2803.16	Top Width (ft)		1656.16	1147.00
Vel Total (ft/s)	7.63	Avg. Vel. (ft/s)		7.49	7.80
Max Chl Dpth (ft)	15.69	Hydr. Depth (ft)		7.32	9.07
Conv. Total (cfs)	4410199.5	Conv. (cfs)		2328127.0	2082072.4
Length Wtd. (ft)	507.26	Wetted Per. (ft)		1660.55	1163.49
Min Ch El (ft)	1227.50	Shear (lb/sq ft)		0.69	0.85
Alpha	1.00	Stream Power (lb/ft s)		5.19	6.63
Frctn Loss (ft)	0.56	Cum Volume (acre-ft)	65.95	6905.05	194.20
C & E Loss (ft)	0.05	Cum SA (acres)	13.99	575.08	19.38

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18598.40 LB	18963.32	19660.49	3049.02	355.33	11.43	8.59	6.45
18963.32	19328.24	6266.23	1586.80	366.00	3.64	4.35	3.95
19328.24	19693.16	98.60	96.26	195.45	0.06	0.49	1.02
19693.16	20058.08	24474.61	3507.29	367.09	14.23	9.61	6.98
20058.08	20423.00 RB	23721.25	3586.04	365.10	13.79	9.83	6.61
20423.00	20515.49	3817.94	689.44	92.50	2.22	7.45	5.54
20515.49	20607.97	3900.67	698.33	92.49	2.27	7.55	5.59
20607.97	20700.46	3741.88	681.38	92.57	2.18	7.37	5.49
20700.46	20792.95	4809.44	792.17	92.59	2.80	8.57	6.07
20792.95	20885.43	5427.68	851.53	92.52	3.16	9.21	6.37
20885.43	20977.92	5772.84	883.69	92.54	3.36	9.55	6.53
20977.92	21070.41	8872.64	1143.64	92.53	5.16	12.37	7.76
21070.41	21162.89	6239.51	926.05	92.58	3.63	10.01	6.74
21162.89	21255.38	4313.65	742.00	92.55	2.51	8.02	5.81

21255.38	21347.87	3632.45	669.11	92.49	2.11	7.23	5.43
21347.87	21440.35	3926.39	701.10	92.49	2.28	7.58	5.60
21440.35	21532.84	5704.50	878.01	92.70	3.32	9.49	6.50
21532.84	21625.33	13224.93	1453.73	92.63	7.69	15.72	9.10
21625.33	21717.81	18086.38	1753.33	92.53	10.52	18.96	10.32
21717.81	21810.30	6307.93	782.46	59.77	3.67	14.68	8.06

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18598.40 LB	18963.32	24020.51	3114.16	355.51	13.97	8.78	7.71
18963.32	19328.24	7921.13	1653.80	366.00	4.61	4.53	4.79
19328.24	19693.16	192.19	133.15	206.86	0.11	0.64	1.44
19693.16	20058.08	29799.05	3574.28	367.09	17.33	9.79	8.34
20058.08	20423.00 RB	28865.22	3653.04	365.10	16.78	10.01	7.90
20423.00	20515.49	4891.23	706.42	92.50	2.84	7.64	6.92
20515.49	20607.97	4994.66	715.31	92.49	2.90	7.73	6.98
20607.97	20700.46	4796.06	698.36	92.57	2.79	7.55	6.87
20700.46	20792.95	6129.48	809.15	92.59	3.56	8.75	7.58
20792.95	20885.43	6900.55	868.51	92.52	4.01	9.39	7.95
20885.43	20977.92	7330.67	900.67	92.54	4.26	9.74	8.14
20977.92	21070.41	11186.62	1160.62	92.53	6.50	12.55	9.64
21070.41	21162.89	7911.90	943.03	92.58	4.60	10.20	8.39
21162.89	21255.38	5510.62	758.98	92.55	3.20	8.21	7.26
21255.38	21347.87	4659.26	686.09	92.49	2.71	7.42	6.79
21347.87	21440.35	5026.81	718.08	92.49	2.92	7.76	7.00
21440.35	21532.84	7245.36	894.99	92.70	4.21	9.68	8.10
21532.84	21625.33	4618.66	546.05	52.96	2.69	14.69	8.46

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 230.35

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18410.2	1241.6	18465.4	1241.3	18496.3	1240.8	18514	1240.5	18599.3	1240.3
18612.6	1240.2	18644.9	1240.2	18652	1240.1	18681.1	1240.1	18711.1	1239.8
18783.8	1237.6	18799.5	1237.5	18818.6	1235.2	18877.2	1234.7	18879.1	1234.7
18900.6	1239.1	18906.1	1239.2	18943	1236.7	18956.4	1235.4	18968.3	1235.6
18997.7	1236.5	19020.1	1226.9	19086.8	1226.9	19194	1227.1	19217.8	1228
19287.7	1230	19319.7	1231.1	19405.2	1231.7	19420.5	1231.9	19487.2	1232.2
19523.9	1231.5	19530.3	1229.2	19544.7	1226.2	19551.9	1225.3	19577.1	1225.1
19597.4	1225.1	19612.7	1227.2	19630.7	1225.7	19668.7	1225.7	19695.6	1225.8
19724.3	1231.3	19732.9	1233.1	19740.9	1232.7	19766.8	1226.2	19771.7	1226.6
19797	1226.8	19891.1	1226.2	19906.9	1226.3	19991.7	1226.2	20039.1	1226.1
20061.1	1226.4	20111.7	1226.7	20124.4	1226.7	20184.2	1226.3	20203.1	1226.3
20335.9	1226.2	20442.2	1225.8	20452.9	1225.6	20479.1	1230.8	20506.4	1231.5
20519.9	1230.9	20553.2	1230.8	20570.9	1230.5	20611.2	1229.7	20647.2	1227.3
20672.9	1228.6	20695.7	1228.3	20728.6	1230.2	20760.1	1231.7	20773.5	1231.7
20795.7	1230.7	20809.1	1230.9	20838.5	1230.5	20873	1231.2	20908.4	1231.1
20925.2	1230.7	20957.7	1228.7	21011.4	1225.7	21015.2	1225.9	21055.6	1227.6
21068	1228	21116.5	1226.2	21146.1	1226.6	21183	1225.8	21192	1225.7
21250.5	1228	21260.4	1227.3	21325.7	1221.6	21350.5	1219	21421.8	1219.6
21453	1220.1	21514.7	1220.9	21523.2	1226	21527.1	1229	21569.2	1259
21577	1264.3								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18410.2	.037	18997.7	.037	19194	.032	19732.9	.028	20506.4	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18997.7	20506.4	600	484.82	480	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1238.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.56	Wt. n-Val.	0.037	0.030	0.032
E.G. Elev (ft)	1239.15	Reach Len. (ft)	600.00	484.82	480.00
Crit W.S. (ft)		Flow Area (sq ft)	505.40	16462.18	12047.83
E.G. Slope (ft/ft)	0.000618	Area (sq ft)	505.40	16462.18	12047.83
Q Total (cfs)	172000.00	Flow (cfs)	852.16	99998.78	71149.05
Top Width (ft)	2772.61	Top Width (ft)	229.75	1508.70	1034.16
Vel Total (ft/s)	5.93	Avg. Vel. (ft/s)	1.69	6.07	5.91
Max Chl Dpth (ft)	19.59	Hydr. Depth (ft)	2.20	10.91	11.65
Conv. Total (cfs)	6921299.0	Conv. (cfs)	34291.2	4023962.0	2863045.8
Length Wtd. (ft)	484.50	Wetted Per. (ft)	230.44	1513.79	1040.63
Min Ch El (ft)	1225.10	Shear (lb/sq ft)	0.08	0.42	0.45
Alpha	1.02	Stream Power (lb/ft s)	0.14	2.55	2.64
Frctn Loss (ft)	0.27	Cum Volume (acre-ft)	373.17	7150.13	396.23
C & E Loss (ft)	0.02	Cum SA (acres)	75.74	583.01	47.65

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1238.64	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.72	Wt. n-Val.		0.030	0.032
E.G. Elev (ft)	1239.37	Reach Len. (ft)	600.00	484.82	480.00
Crit W.S. (ft)		Flow Area (sq ft)		16536.40	8766.39
E.G. Slope (ft/ft)	0.000833	Area (sq ft)		16536.40	8766.39
Q Total (cfs)	172000.00	Flow (cfs)		116933.15	55066.86
Top Width (ft)	2352.30	Top Width (ft)		1508.70	843.60
Vel Total (ft/s)	6.80	Avg. Vel. (ft/s)		7.07	6.28
Max Chl Dpth (ft)	19.59	Hydr. Depth (ft)		10.96	10.39
Conv. Total (cfs)	5958355.5	Conv. (cfs)		4050751.5	1907604.1
Length Wtd. (ft)	484.64	Wetted Per. (ft)		1515.93	864.15
Min Ch El (ft)	1225.10	Shear (lb/sq ft)		0.57	0.53
Alpha	1.01	Stream Power (lb/ft s)		4.01	3.32
Frctn Loss (ft)	0.34	Cum Volume (acre-ft)	65.95	6737.66	83.06
C & E Loss (ft)	0.02	Cum SA (acres)	13.99	556.60	7.84

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18723.53	18762.70	0.57	2.07	11.70	0.00	0.18	0.28
18762.70	18801.87	26.47	33.50	39.19	0.02	0.86	0.79
18801.87	18841.03	216.05	118.17	39.29	0.13	3.02	1.83
18841.03	18880.20	310.54	146.75	39.19	0.18	3.75	2.12
18880.20	18919.37	38.19	33.49	22.60	0.02	1.51	1.14
18919.37	18958.53	83.20	66.65	39.29	0.05	1.70	1.25
18958.53	18997.70	177.14	104.78	39.18	0.10	2.68	1.69
18997.70 LB	19299.44	16125.68	3208.84	303.76	9.38	10.63	5.03
19299.44	19601.18	11948.96	2525.06	302.57	6.95	8.37	4.73
19601.18	19902.92	21797.01	3464.40	303.45	12.67	11.48	6.29
19902.92	20204.66	25768.14	3691.96	301.74	14.98	12.24	6.98
20204.66	20506.40 RB	24358.98	3571.91	302.26	14.16	11.84	6.82
20506.40	20577.77	2372.99	554.30	71.39	1.38	7.77	4.28
20577.77	20649.15	3263.72	671.38	71.46	1.90	9.41	4.86
20649.15	20720.52	3672.25	720.54	71.45	2.14	10.10	5.10
20720.52	20791.89	2251.23	537.21	71.44	1.31	7.53	4.19
20791.89	20863.27	2416.65	560.38	71.39	1.41	7.85	4.31
20863.27	20934.64	2291.83	542.86	71.40	1.33	7.61	4.22
20934.64	21006.01	3967.08	754.91	71.49	2.31	10.58	5.26
21006.01	21077.39	4654.16	830.57	71.44	2.71	11.64	5.60
21077.39	21148.76	4830.85	849.20	71.40	2.81	11.90	5.69
21148.76	21220.13	5204.67	888.04	71.40	3.03	12.44	5.86
21220.13	21291.51	4753.13	841.62	71.54	2.76	11.79	5.65
21291.51	21362.88	8884.33	1225.60	71.64	5.17	17.17	7.25
21362.88	21434.25	10708.95	1368.92	71.38	6.23	19.18	7.82
21434.25	21505.63	9884.87	1304.73	71.38	5.75	18.28	7.58
21505.63	21577.00	1992.35	397.59	40.44	1.16	11.38	5.01

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18997.70 LB	19299.44	18787.87	3223.69	305.91	10.92	10.68	5.83
19299.44	19601.18	14016.71	2539.91	302.57	8.15	8.42	5.52
19601.18	19902.92	25501.60	3479.24	303.45	14.83	11.53	7.33
19902.92	20204.66	30134.26	3706.81	301.74	17.52	12.28	8.13
20204.66	20506.40 RB	28492.72	3586.76	302.26	16.57	11.89	7.94
20506.40	20577.77	2887.40	557.81	71.39	1.68	7.82	5.18
20577.77	20649.15	3963.96	674.89	71.46	2.30	9.46	5.87
20649.15	20720.52	4457.50	724.05	71.45	2.59	10.14	6.16
20720.52	20791.89	2740.16	540.72	71.44	1.59	7.58	5.07
20791.89	20863.27	2940.19	563.89	71.39	1.71	7.90	5.21
20863.27	20934.64	2789.27	546.38	71.40	1.62	7.66	5.11
20934.64	21006.01	4813.60	758.42	71.49	2.80	10.63	6.35
21006.01	21077.39	5643.34	834.08	71.44	3.28	11.69	6.77
21077.39	21148.76	5856.67	852.71	71.40	3.41	11.95	6.87
21148.76	21220.13	6307.98	891.55	71.40	3.67	12.49	7.08
21220.13	21291.51	5762.80	845.13	71.54	3.35	11.84	6.82
21291.51	21362.88	6903.95	976.77	78.35	4.01	16.70	7.07

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 230.26

INPUT
Description:

Station Elevation Data num= 93

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18636	1240.2	18696.1	1239.6	18697.1	1239.5	18772.7	1238.7	18792.4	1238.6
18879.7	1238.3	18891.9	1238.2	18895.5	1238.2	18942.4	1238.2	18962.2	1238.1
18990.9	1237.9	19019.5	1237.1	19032.1	1237.4	19053.2	1236.7	19063.8	1236.9
19073	1237.1	19083.8	1237.2	19126.9	1235.8	19132.7	1235.5	19157.8	1235.5
19172.4	1235.5	19204.3	1234.8	19205.6	1234.8	19212.8	1234.6	19282.9	1234
19296.3	1234.1	19302	1233.7	19311	1233.9	19369.3	1234	19411	1234.3
19429.4	1234.9	19454.7	1234.9	19477.1	1234.8	19503.4	1235.2	19507.4	1235.4
19510.2	1235.4	19517	1233.7	19555.1	1223.7	19608.9	1223.6	19652.2	1223.2
19706.1	1222.9	19762.3	1222.7	19764.1	1222.6	19766.8	1222.7	19835.2	1225.9
19843.8	1226	19846.9	1226.1	19858	1225.9	19868.2	1225.5	19900.8	1225.2
19902	1225.2	19903.7	1225.1	19907.8	1225	19959.4	1223.9	19959.5	1223.9
19959.6	1223.9	19967.2	1223.8	20083.1	1223.1	20213.7	1222.5	20220.7	1223.2
20232.5	1224.5	20258.6	1224.5	20283.4	1224.7	20319	1223.9	20339	1224.6
20386.8	1222.4	20399.6	1221.8	20484.1	1222.1	20506.1	1221.9	20567.3	1221.9
20596.2	1221.6	20636.3	1222.1	20659.8	1222.1	20720	1223.1	20724.8	1223.5
20732.3	1224	20766.8	1224.9	20774.2	1225.1	20790	1225.5	20798.3	1225.5
20841.3	1225.6	20845.1	1225	20860.6	1220.6	20879.8	1220.3	20893.9	1220.4
20967.2	1220.5	20995.4	1220.8	21080.8	1221.7	21087.1	1221.7	21090.3	1221.7
21101.1	1221.8	21124.4	1239.5	21154.1	1262.7				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18636	.037	19510.2	.028	20841.3	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19510.2	20841.3	500	494.59	500	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1238.09	Element			
Vel Head (ft)	0.77	Wt. n-Val.	0.037	0.028	0.028
E.G. Elev (ft)	1238.86	Reach Len. (ft)	500.00	494.59	500.00
Crit W.S. (ft)		Flow Area (sq ft)	1498.36	19258.31	4603.75
E.G. Slope (ft/ft)	0.000495	Area (sq ft)	1498.36	19258.31	4603.75
Q Total (cfs)	172000.00	Flow (cfs)	2622.04	134846.02	34531.96
Top Width (ft)	2158.68	Top Width (ft)	546.34	1331.10	281.24
Vel Total (ft/s)	6.78	Avg. Vel. (ft/s)	1.75	7.00	7.50
Max Chl Dpth (ft)	17.79	Hydr. Depth (ft)	2.74	14.47	16.37
Conv. Total (cfs)	7732903.5	Conv. (cfs)	117883.5	6062507.0	1552513.3
Length Wtd. (ft)	495.32	Wetted Per. (ft)	546.45	1332.98	287.40
Min Ch El (ft)	1221.60	Shear (lb/sq ft)	0.08	0.45	0.49
Alpha	1.08	Stream Power (lb/ft s)	0.15	3.12	3.71
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	359.37	6951.35	304.49
C & E Loss (ft)	0.19	Cum SA (acres)	70.40	567.20	40.40

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1238.11	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.91	Wt. n-Val.	0.037	0.028	0.028
E.G. Elev (ft)	1239.01	Reach Len. (ft)	500.00	494.59	500.00
Crit W.S. (ft)		Flow Area (sq ft)	1152.81	19280.90	2741.09
E.G. Slope (ft/ft)	0.000589	Area (sq ft)	1152.81	19280.90	2741.09
Q Total (cfs)	172000.00	Flow (cfs)	2676.13	147366.55	21957.33
Top Width (ft)	1800.00	Top Width (ft)	310.20	1331.10	158.70
Vel Total (ft/s)	7.42	Avg. Vel. (ft/s)	2.32	7.64	8.01
Max Chl Dpth (ft)	17.81	Hydr. Depth (ft)	3.72	14.48	17.27
Conv. Total (cfs)	7089740.5	Conv. (cfs)	110308.5	6074363.5	905068.4
Length Wtd. (ft)	495.11	Wetted Per. (ft)	313.45	1332.98	176.62
Min Ch El (ft)	1221.60	Shear (lb/sq ft)	0.14	0.53	0.57
Alpha	1.06	Stream Power (lb/ft s)	0.31	4.06	4.57
Frctn Loss (ft)	0.49	Cum Volume (acre-ft)	58.01	6538.34	19.66
C & E Loss (ft)	0.18	Cum SA (acres)	11.85	540.79	2.32

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18927.40	18985.68	0.24	1.66	21.82	0.00	0.08	0.14
18985.68	19043.96	23.39	38.78	58.30	0.01	0.67	0.60
19043.96	19102.24	58.37	67.12	58.30	0.03	1.15	0.87
19102.24	19160.52	181.79	132.70	58.30	0.11	2.28	1.37
19160.52	19218.80	286.23	174.24	58.29	0.17	2.99	1.64
19218.80	19277.08	424.93	220.84	58.28	0.25	3.79	1.92
19277.08	19335.36	494.01	241.75	58.30	0.29	4.15	2.04
19335.36	19393.64	478.45	237.12	58.28	0.28	4.07	2.02
19393.64	19451.92	368.76	202.84	58.29	0.21	3.48	1.82
19451.92	19510.20	305.86	181.31	58.29	0.18	3.11	1.69
19510.20 LB	19776.42	24885.47	3679.68	267.74	14.47	13.82	6.76
19776.42	20042.64	24253.30	3615.59	266.32	14.10	13.58	6.71
20042.64	20308.86	27633.61	3910.13	266.33	16.07	14.69	7.07
20308.86	20575.08	30593.44	4156.09	266.30	17.79	15.61	7.36
20575.08	20841.30 RB	27480.17	3896.81	266.29	15.98	14.64	7.05
20841.30	20862.15	2147.20	312.76	21.51	1.25	15.00	6.87
20862.15	20883.01	2880.94	368.48	20.86	1.67	17.67	7.82
20883.01	20903.86	2890.73	369.22	20.85	1.68	17.71	7.83
20903.86	20924.71	2878.33	368.25	20.85	1.67	17.66	7.82
20924.71	20945.57	2870.87	367.69	20.85	1.67	17.63	7.81
20945.57	20966.42	2863.16	367.10	20.85	1.66	17.60	7.80
20966.42	20987.27	2831.11	364.64	20.85	1.65	17.49	7.76
20987.27	21008.13	2771.63	360.02	20.85	1.61	17.26	7.70
21008.13	21028.98	2713.04	355.43	20.85	1.58	17.04	7.63
21028.98	21049.83	2654.99	350.85	20.85	1.54	16.82	7.57
21049.83	21070.69	2597.46	346.27	20.85	1.51	16.60	7.50
21070.69	21091.54	2547.68	342.26	20.85	1.48	16.41	7.44
21091.54	21112.39	1789.59	291.65	23.74	1.04	13.99	6.14
21112.39	21133.25	95.24	39.13	12.75	0.06	3.85	2.43

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19160.52	19218.80	126.09	64.01	22.01	0.07	3.40	1.97
19218.80	19277.08	522.92	221.83	58.28	0.30	3.81	2.36
19277.08	19335.36	607.54	242.74	58.30	0.35	4.17	2.50
19335.36	19393.64	588.48	238.11	58.28	0.34	4.09	2.47
19393.64	19451.92	454.10	203.83	58.29	0.26	3.50	2.23
19451.92	19510.20	377.00	182.29	58.29	0.22	3.13	2.07
19510.20 LB	19776.42	27198.66	3684.20	267.74	15.81	13.84	7.38
19776.42	20042.64	26508.70	3620.11	266.32	15.41	13.60	7.32
20042.64	20308.86	30198.63	3914.65	266.33	17.56	14.70	7.71
20308.86	20575.08	33429.38	4160.61	266.30	19.44	15.63	8.03
20575.08	20841.30 RB	30031.13	3901.33	266.29	17.46	14.65	7.70
20841.30	20862.15	2320.61	313.11	21.51	1.35	15.01	7.41
20862.15	20883.01	3112.72	368.83	20.86	1.81	17.69	8.44
20883.01	20903.86	3123.29	369.57	20.85	1.82	17.72	8.45
20903.86	20924.71	3109.90	368.60	20.85	1.81	17.68	8.44
20924.71	20945.57	3101.86	368.05	20.85	1.80	17.65	8.43
20945.57	20966.42	3093.53	367.45	20.85	1.80	17.62	8.42
20966.42	20987.27	3058.94	364.99	20.85	1.78	17.50	8.38
20987.27	21008.13	1036.53	220.48	29.98	0.60	17.32	4.70

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 230.17

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18940.8	1243.2	18967.9	1235.4	18990.2	1235.9	19028.6	1236.5	19043.3	1236.9
19064	1237.3	19078.2	1237.3	19140.9	1237.9	19163.6	1237.4	19166	1237.7
19170.1	1236.9	19205.4	1235.5	19243.6	1233.2	19249.4	1233	19252.1	1232.4
19279.6	1227.7	19302.3	1227.9	19332.6	1228.4	19353.3	1228.2	19373	1228.4
19404.8	1229.3	19415.8	1230.2	19436.7	1233	19456.6	1233.4	19494.1	1233.7
19529	1237.2	19542.8	1236.4	19566.7	1237	19590	1237.8	19613.7	1236.8
19641.3	1237.5	19656.4	1238.1	19664.4	1237.9	19707.8	1237.3	19714.3	1237.3
19725.4	1236.6	19762	1234.4	19772	1234.1	19816.6	1233	19856.4	1233.3
19898.4	1233.5	19918.6	1233.7	19976.4	1233.4	19978.4	1233.3	19988	1223.7
20093.8	1223.2	20192	1222.6	20277	1222.2	20291	1222.4	20332	1222
20437.8	1223.2	20441.5	1223.1	20489	1220.4	20515.9	1222	20535.2	1222.7
20567.2	1220.6	20577.4	1219.9	20602.7	1220.8	20625.2	1221.5	20627.6	1221.7
20661.3	1220.9	20677.7	1220.5	20700.8	1219	20773.4	1219.5	20846	1220.3
20860.3	1220.5	20864.9	1221	20884.9	1225	20920.9	1225.9	20938.9	1224.6
20967.1	1225.7	20997.8	1226.5	21021.5	1226.9	21028.6	1227.3	21055.1	1228.6
21079.7	1228.4	21089.7	1228.4	21111.8	1228.2	21115.2	1232.5	21116.9	1231.7
21142.4	1231.5	21144.4	1231.2	21160.7	1232.4	21166.3	1233.5	21196.8	1234.8
21211.2	1237	21214.5	1237	21236.4	1240.4	21249	1237.7	21250.8	1237.8
21274.8	1245.9	21285.3	1247.7	21319.1	1255.7	21328.9	1257.8	21336.7	1257.7
21371.6	1258.8								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18940.8	.032	19978.4	.028	20920.9	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19978.4	20920.9	490	526.2	565	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18940.8	19140	1240	20860	21371.6	1240

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1235.61	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.64	Wt. n-Val.	0.032	0.028	
E.G. Elev (ft)	1238.24	Reach Len. (ft)	490.00	526.20	565.00

Crit W.S. (ft)	1232.45	Flow Area (sq ft)	1899.65	12166.29	
E.G. Slope (ft/ft)	0.001925	Area (sq ft)	1900.68	12856.94	1913.91
Q Total (cfs)	172000.00	Flow (cfs)	9553.76	162446.23	
Top Width (ft)	1780.49	Top Width (ft)	556.81	942.50	281.18
Vel Total (ft/s)	12.23	Avg. Vel. (ft/s)	5.03	13.35	
Max Chl Dpth (ft)	16.61	Hydr. Depth (ft)	3.47	13.80	
Conv. Total (cfs)	3920313.5	Conv. (cfs)	217754.3	3702559.3	
Length Wtd. (ft)	523.40	Wetted Per. (ft)	547.82	885.93	
Min Ch El (ft)	1219.00	Shear (lb/sq ft)	0.42	1.65	
Alpha	1.14	Stream Power (lb/ft s)	2.10	22.04	
Frctn Loss (ft)	0.99	Cum Volume (acre-ft)	339.86	6769.03	267.08
C & E Loss (ft)	0.00	Cum SA (acres)	64.07	554.30	37.17

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1235.69	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.66	Wt. n-Val.	0.032	0.028	
E.G. Elev (ft)	1238.35	Reach Len. (ft)	490.00	526.20	565.00
Crit W.S. (ft)	1232.44	Flow Area (sq ft)	1634.14	12242.05	
E.G. Slope (ft/ft)	0.001956	Area (sq ft)	1634.14	12242.05	
Q Total (cfs)	172000.00	Flow (cfs)	8422.15	163577.84	
Top Width (ft)	1343.47	Top Width (ft)	461.87	881.60	
Vel Total (ft/s)	12.40	Avg. Vel. (ft/s)	5.15	13.36	
Max Chl Dpth (ft)	16.69	Hydr. Depth (ft)	3.54	13.89	
Conv. Total (cfs)	3889332.0	Conv. (cfs)	190445.1	3698887.0	
Length Wtd. (ft)	523.37	Wetted Per. (ft)	470.18	901.12	
Min Ch El (ft)	1219.00	Shear (lb/sq ft)	0.42	1.66	
Alpha	1.11	Stream Power (lb/ft s)	2.19	22.16	
Frctn Loss (ft)	0.98	Cum Volume (acre-ft)	42.02	6359.38	3.93
C & E Loss (ft)	0.04	Cum SA (acres)	7.42	528.23	1.40

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19148.32	19217.49	5.66	5.84	14.81	0.00	0.39	0.97
19217.49	19286.67	1224.20	273.18	69.69	0.71	3.95	4.48
19286.67	19355.84	3568.25	517.51	69.18	2.07	7.48	6.89
19355.84	19425.01	2808.31	448.58	69.31	1.63	6.48	6.26
19425.01	19494.19	529.32	164.80	69.28	0.31	2.38	3.21
19494.19	19563.36	31.16	17.96	19.02	0.02	0.95	1.73
19563.36	19701.71						
19701.71	19770.88	38.17	24.01	29.00	0.02	0.83	1.59
19770.88	19840.05	465.38	152.46	69.19	0.27	2.20	3.05
19840.05	19909.23	471.34	153.62	69.17	0.27	2.22	3.07
19909.23	19978.40	411.97	141.70	69.18	0.24	2.05	2.91
19978.40 LB	20166.90	27386.51	2277.67	192.48	15.92	12.08	12.02
20166.90	20355.40	32398.22	2498.38	188.51	18.84	13.25	12.97
20355.40	20543.90	32919.89	2523.27	188.66	19.14	13.39	13.05
20543.90	20732.40	40268.55	2847.60	188.67	23.41	15.11	14.14
20732.40	20920.90 RB	29473.05	2019.38	127.61	17.14	15.83	14.60

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19286.67	19355.84	3305.05	497.08	73.75	1.92	7.55	6.65
19355.84	19425.01	2967.37	454.52	69.31	1.73	6.57	6.53
19425.01	19494.19	580.45	170.74	69.28	0.34	2.47	3.40
19494.19	19563.36	36.25	19.62	19.88	0.02	0.99	1.85
19563.36	19701.71						
19701.71	19770.88	45.20	26.56	30.43	0.03	0.87	1.70
19770.88	19840.05	512.73	158.41	69.19	0.30	2.29	3.24
19840.05	19909.23	519.06	159.56	69.17	0.30	2.31	3.25
19909.23	19978.40	456.04	147.64	69.18	0.27	2.13	3.09

19978.40 LB	20166.90	27985.97	2293.87	192.48	16.27	12.17	12.20
20166.90	20355.40	33072.96	2514.57	188.51	19.23	13.34	13.15
20355.40	20543.90	33601.93	2539.47	188.66	19.54	13.47	13.23
20543.90	20732.40	41053.09	2863.79	188.67	23.87	15.19	14.34
20732.40	20920.90 RB	27863.89	2030.35	142.80	16.20	15.91	13.72

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 230.07

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19196.8	1243.1	19207	1243	19214.9	1241.2	19222.3	1239.5	19231.5	1239.2
19235.9	1239.2	19245.4	1239.2	19270.3	1239.1	19295.6	1239	19310.2	1239
19328.9	1234.6	19330.7	1234.1	19331.6	1234.1	19337.6	1234.6	19371.3	1236.9
19395.8	1239.1	19403.5	1239	19413.2	1238.8	19420.2	1238.1	19427	1236.8
19434.9	1237.1	19449	1236.5	19454.1	1236.3	19491.7	1235.2	19510.4	1234.3
19516.8	1234.4	19523.5	1234	19530.1	1233.7	19574.8	1231.5	19607.7	1229.1
19630.1	1228.8	19636.2	1228.8	19642.4	1228.7	19668	1228.7	19683.5	1227.9
19724	1228.2	19730.1	1228.1	19768.6	1227.2	19771.7	1227	19794.7	1226
19804	1225.4	19819.1	1224.3	19823.8	1224.6	19830.4	1225.2	19867.4	1225.5
19878.7	1225.6	19880.7	1225.4	19897.9	1223.7	19907.7	1223.6	19928.9	1223.7
19932.8	1223.5	19941.5	1223.1	19979.8	1221.8	19983.6	1221.7	20033.1	1220.6
20041.4	1220.4	20046.2	1220.9	20053.6	1222.1	20164.7	1221.6	20303.3	1221.3
20308.2	1220.3	20311.6	1218.8	20337.7	1220	20371.3	1221.7	20379	1219.6
20391	1216.5	20434.7	1216.8	20453.4	1216.9	20458.2	1217.1	20476.6	1218.5
20481.1	1218.6	20490.8	1218.2	20499.5	1217.7	20627.5	1217.5	20654.4	1217.7
20663.6	1217.7	20670.9	1218.3	20687.1	1221.5	20688	1221.7	20690.6	1221.8
20725.6	1227.3	20744.3	1224.9	20755.9	1226.2	20776.9	1228	20780.7	1227.6
20783.6	1227.8	20800	1228	20859.1	1233	20863.3	1235.6	20878.2	1235.1
20972.1	1239.2	20981.5	1239.5	20990.8	1240	21069	1243.3	21093.9	1245.4
21104.5	1246								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
19196.8	.037	19403.5	.028	19878.7	.028	20725.6	.037

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19878.7	20725.6	440	645.47	980	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19196.8	19405	1240	20670	21104.5	1240

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1234.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.66	Wt. n-Val.	0.028	0.028	
E.G. Elev (ft)	1237.25	Reach Len. (ft)	440.00	645.47	980.00
Crit W.S. (ft)	1231.51	Flow Area (sq ft)	2250.60	11423.44	
E.G. Slope (ft/ft)	0.001864	Area (sq ft)	2252.88	12072.35	819.61
Q Total (cfs)	172000.00	Flow (cfs)	17040.82	154959.17	
Top Width (ft)	1365.68	Top Width (ft)	382.72	846.90	136.06
Vel Total (ft/s)	12.58	Avg. Vel. (ft/s)	7.57	13.57	
Max Chl Dpth (ft)	18.09	Hydr. Depth (ft)	6.01	14.44	
Conv. Total (cfs)	3984310.8	Conv. (cfs)	394743.7	3589567.0	
Length Wtd. (ft)	630.64	Wetted Per. (ft)	374.57	792.84	
Min Ch El (ft)	1216.50	Shear (lb/sq ft)	0.70	1.68	
Alpha	1.08	Stream Power (lb/ft s)	5.29	22.74	
Frctn Loss (ft)	1.21	Cum Volume (acre-ft)	316.50	6618.46	249.35
C & E Loss (ft)	0.01	Cum SA (acres)	58.78	543.49	34.47

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1234.80	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.54	Wt. n-Val.	0.028	0.028	
E.G. Elev (ft)	1237.34	Reach Len. (ft)	440.00	645.47	980.00
Crit W.S. (ft)	1231.49	Flow Area (sq ft)	2300.86	11589.88	
E.G. Slope (ft/ft)	0.001792	Area (sq ft)	2300.86	11589.88	
Q Total (cfs)	172000.00	Flow (cfs)	18471.91	153528.09	
Top Width (ft)	1130.00	Top Width (ft)	338.70	791.30	
Vel Total (ft/s)	12.38	Avg. Vel. (ft/s)	8.03	13.25	
Max Chl Dpth (ft)	18.30	Hydr. Depth (ft)	6.79	14.65	
Conv. Total (cfs)	4063156.8	Conv. (cfs)	436362.0	3626794.8	
Length Wtd. (ft)	631.32	Wetted Per. (ft)	340.57	809.41	
Min Ch El (ft)	1216.50	Shear (lb/sq ft)	0.76	1.60	
Alpha	1.07	Stream Power (lb/ft s)	6.07	21.22	
Frctn Loss (ft)	1.22	Cum Volume (acre-ft)	19.88	6215.43	3.93
C & E Loss (ft)	0.02	Cum SA (acres)	2.91	518.13	1.40

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19469.56	19515.02	1.35	2.00	10.57	0.00	0.19	0.68
19515.02	19560.48	137.52	57.42	45.52	0.08	1.26	2.39
19560.48	19605.94	843.80	170.60	45.56	0.49	3.75	4.95
19605.94	19651.40	1707.92	260.24	45.47	0.99	5.72	6.56
19651.40	19696.86	1972.92	283.79	45.48	1.15	6.24	6.95
19696.86	19742.32	2120.51	296.31	45.47	1.23	6.52	7.16
19742.32	19787.78	2624.66	336.83	45.49	1.53	7.41	7.79
19787.78	19833.24	3881.20	426.22	45.56	2.26	9.38	9.11
19833.24	19878.70	3750.93	417.20	45.46	2.18	9.18	8.99
19878.70 LB	20048.08	24629.26	2058.74	169.58	14.32	12.15	11.96
20048.08	20217.46	26993.25	2174.47	169.45	15.69	12.84	12.41
20217.46	20386.84	30428.22	2341.77	170.41	17.69	13.83	12.99
20386.84	20556.22	43991.22	2915.88	169.60	25.58	17.22	15.09
20556.22	20725.60 RB	28917.23	1932.59	113.80	16.81	16.99	14.96

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19515.02	19560.48	140.80	42.75	22.09	0.08	2.09	3.29
19560.48	19605.94	955.34	180.16	45.56	0.56	3.96	5.30
19605.94	19651.40	1875.15	269.80	45.47	1.09	5.93	6.95
19651.40	19696.86	2155.47	293.35	45.48	1.25	6.45	7.35
19696.86	19742.32	2311.41	305.87	45.47	1.34	6.73	7.56
19742.32	19787.78	2843.04	346.39	45.49	1.65	7.62	8.21
19787.78	19833.24	4163.64	435.78	45.56	2.42	9.59	9.55
19833.24	19878.70	4027.07	426.76	45.46	2.34	9.39	9.44
19878.70 LB	20048.08	24921.07	2094.36	169.58	14.49	12.36	11.90
20048.08	20217.46	27271.86	2210.10	169.45	15.86	13.05	12.34
20217.46	20386.84	30683.31	2377.39	170.41	17.84	14.04	12.91
20386.84	20556.22	44142.08	2951.51	169.60	25.66	17.43	14.96
20556.22	20725.60 RB	26509.78	1956.52	130.37	15.41	17.20	13.55

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 229.95

INPUT
Description:

Station Elevation Data num= 96

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18869	1242.2	18894.3	1240.2	18916.8	1240.5	18955.1	1240.9	18999.8	1241.3
19032.4	1241.5	19078.2	1240.9	19120.7	1240.2	19164.1	1240.1	19210.7	1240.3
19235.7	1239.9	19266.4	1240.5	19300.7	1239.5	19347.7	1239.5	19387	1238.2
19407.2	1237.5	19419.9	1239.7	19439	1235.4	19465.5	1234.3	19514.1	1235.6
19547.2	1236.3	19595.6	1236.6	19598.1	1235.3	19614.8	1231.2	19638.1	1228.1
19642.3	1229	19667.7	1230.4	19682	1229.4	19692	1230	19707.6	1225.8
19734.4	1224.6	19769.7	1224.7	19776.4	1224.5	19788.2	1227.1	19808.5	1230.1
19824.6	1230.6	19850.7	1230	19874.7	1223.5	19927	1221.7	19960.3	1221.4
19977.2	1221.4	20025	1223.8	20062.5	1223.2	20099.3	1223.3	20108.1	1222.9
20152.4	1220.2	20193.6	1219.7	20215.4	1219.7	20248.4	1219.5	20284.5	1218.8
20307.6	1217.9	20346.5	1216.6	20373.2	1216.3	20412.2	1216.3	20549	1216.5
20622.3	1216.7	20711.8	1216.9	20730.9	1232.4	20752.4	1232.4	20762.7	1239.7
20774.4	1244.3	20796.4	1256.8	20799.8	1256.4	20808.2	1254	20820.6	1253.4
20861.6	1230.9	20878.5	1221.2	20884.6	1215.2	20899.3	1199.2	20942.1	1199.2
20991.2	1199.2	21013.6	1199.1	21046.2	1198.9	21047.6	1199.3	21053.5	1203.4
21056.2	1205.9	21073.3	1205.5	21087.3	1226.5	21101	1241.2	21129.4	1254.2
21147.7	1248.8	21182.9	1249.3	21200	1251.2	21232.4	1252.3	21268.2	1251.3
21276.2	1252.3	21284.9	1251.5	21296.6	1252.1	21329.6	1250	21356.8	1253
21375.6	1254	21432.5	1256.9	21433.2	1256.9	21470.2	1257.7	21515.6	1258.3
21543	1258.9								

Manning's n Values num= 5

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18869	.032	19595.6	.032	20062.5	.028	20796.4	.028	20799.8	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19824.6	20796.4	450	470.51	700	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18869	19595.6	1250	20796.4	21543	1256.8

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1233.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.61	Wt. n-Val.	0.032	0.029	
E.G. Elev (ft)	1236.02	Reach Len. (ft)	450.00	470.51	700.00
Crit W.S. (ft)	1229.86	Flow Area (sq ft)	1210.05	12437.05	
E.G. Slope (ft/ft)	0.001981	Area (sq ft)	1210.05	12437.05	6695.55
Q Total (cfs)	172000.00	Flow (cfs)	7780.49	164219.52	
Top Width (ft)	1384.72	Top Width (ft)	218.79	929.22	236.71
Vel Total (ft/s)	12.60	Avg. Vel. (ft/s)	6.43	13.20	
Max Chl Dpth (ft)	34.51	Hydr. Depth (ft)	5.53	13.38	
Conv. Total (cfs)	3863964.8	Conv. (cfs)	174788.0	3689176.8	
Length Wtd. (ft)	470.15	Wetted Per. (ft)	220.55	936.15	
Min Ch El (ft)	1216.30	Shear (lb/sq ft)	0.68	1.64	
Alpha	1.06	Stream Power (lb/ft s)	4.36	21.70	
Frctn Loss (ft)	0.84	Cum Volume (acre-ft)	299.01	6436.87	164.82
C & E Loss (ft)	0.09	Cum SA (acres)	55.75	530.33	30.27

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1233.33	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.76	Wt. n-Val.	0.032	0.029	
E.G. Elev (ft)	1236.10	Reach Len. (ft)	450.00	470.51	700.00
Crit W.S. (ft)	1229.91	Flow Area (sq ft)	719.22	12367.97	
E.G. Slope (ft/ft)	0.002080	Area (sq ft)	719.22	12367.97	
Q Total (cfs)	172000.00	Flow (cfs)	5225.02	166774.98	
Top Width (ft)	1033.72	Top Width (ft)	104.60	929.12	
Vel Total (ft/s)	13.14	Avg. Vel. (ft/s)	7.26	13.48	
Max Chl Dpth (ft)	17.03	Hydr. Depth (ft)	6.88	13.31	
Conv. Total (cfs)	3770908.3	Conv. (cfs)	114552.6	3656355.5	
Length Wtd. (ft)	470.20	Wetted Per. (ft)	113.22	936.03	
Min Ch El (ft)	1216.30	Shear (lb/sq ft)	0.83	1.72	
Alpha	1.03	Stream Power (lb/ft s)	5.99	23.14	
Frctn Loss (ft)	0.87	Cum Volume (acre-ft)	4.63	6037.93	3.93
C & E Loss (ft)	0.13	Cum SA (acres)	0.68	505.38	1.40

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19569.77	19633.48	275.01	74.39	28.11	0.16	2.69	3.70
19633.48	19697.19	1166.60	246.24	64.12	0.68	3.87	4.74
19697.19	19760.89	4016.36	516.97	64.10	2.34	8.11	7.77
19760.89	19824.60	2322.50	372.44	64.22	1.35	5.85	6.24
19824.60 LB	20018.96	17143.25	1861.69	195.32	9.97	9.58	9.21
20018.96	20213.32	26358.29	2245.18	194.47	15.32	11.55	11.74
20213.32	20407.68	43965.72	3017.97	194.41	25.56	15.53	14.57
20407.68	20602.04	50956.57	3297.04	194.36	29.63	16.96	15.46
20602.04	20796.40 RB	25795.71	2015.17	157.60	15.00	13.28	12.80

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19697.19	19760.89	2749.98	351.51	49.00	1.60	8.60	7.82
19760.89	19824.60	2475.02	367.70	64.22	1.44	5.77	6.73
19824.60 LB	20018.96	17338.43	1847.24	195.32	10.08	9.50	9.39
20018.96	20213.32	26720.04	2230.73	194.47	15.53	11.48	11.98
20213.32	20407.68	44688.61	3003.52	194.41	25.98	15.45	14.88
20407.68	20602.04	51829.55	3282.60	194.36	30.13	16.89	15.79
20602.04	20796.40 RB	26198.35	2003.89	157.47	15.23	13.21	13.07

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 229.86

INPUT
Description:
Station Elevation Data num= 140

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18824.95	1239.718	837.72	1239.75	18904.28	1239.62	18923.3	1239.47	18954.65	1239.56
19015.7	1239.919	037.73	1240.11	19072.92	1240.11	19116.45	1240.55	19139.35	1240.38
19162.07	1241.619	177.99	1240.28	19187.89	1240.11	19209.81	1241.22	19221.93	1241.1
19234.24	1241.6	19243.3	1242.31	19258.75	1243.74	19277.61	1240.31	19289.33	1238.36
19307.55	1238.619	327.62	1241.58	19334.88	1238.96	19355.98	1238.06	19374.18	1237.35
19398.6	1237.519	432.08	1242.06	19446.22	1240.72	19453.36	1239.65	19463.22	1239.35
19480.24	1238.419	489.65	1239.51	9497.24	1237.47	19509.85	1234.58	19515.86	1232.76
19526.76	1231.819	543.87	1232.16	19599.39	1232.03	19625.27	1231.92	19652.62	1235.33
19666.42	1236.619	669.09	1237.08	19673.07	1237.24	19685.93	1235.73	19697.98	1235.72
19703.76	1235.619	749.08	1234.38	19770.62	1233.89	19787.06	1234.06	19787.11	1234.047
19798.73	1230.15	19803.75	1228.61	9806.61	1228.03	19811.1	1227.51	19827.57	1225.93
19838.94	1224.2	19857	1220.11	9872.81	1219.92	19924.1	1220.25	19955.28	1220.08
19976.92	1220.04	19986.86	1220.61	9992.32	1221.13	20035.45	1221.97	20047.21	1222.12
20077.52	1221.92	20112.03	1221.82	0125.63	1220.62	20142.72	1219.47	20177.84	1219.15
20218.12	1218.42	20231.67	1218.52	0255.63	1218.71	20264.24	1218.92	20314.13	1218.34
20353.35	1217.49	20363.92	1216.42	0397.49	1216.96	20398.92	1216.79	20425.47	1214.88
20453.27	1214.88	20456.65	1215.62	0472.89	1214.88	20479.54	1214.88	20520.2	1215.03
20533.73	1215.29	20549.71	1214.9	20630.3	1214.97	20705.74	1215.12	20754.07	1215.35
20765.75	1222.06	20779.71	1231.07	20779.74	1231.12	20812.01	1231.52	20831.23	1232.27
20847.58	1241.64	20859.15	1244.86	20889.53	1245.32	20905.04	1246.21	20945.01	1246.68
20965.87	1251.43	20968.46	1252.07	20999.77	1248.62	21041.65	1249.96	21051.82	1250
21068.56	1250.01	21150.49	1251.89	21164.62	1251.8	21169	1252.13	21195.1	1251.29
21229.06	1250.36	21258.31	1248.95	21275.15	1248.42	21302.94	1247.48	21343.03	1247.12
21374.22	1246.93	21383.19	1246.65	21417.28	1246.72	21436.03	1246.79	21487.94	1248.62
21523.2	1248.78	21548.77	1249.49	21589.45	1251.32	21601.79	1251.76	21636.86	1252.46
21654.39	1252.42	21671.21	1252.46	21688.45	1252.72	21698.68	1253.09	21706.86	1255.2
21717.09	1259.25	21733.54	1255.07	21743.99	1255.32	21747.82	1253.82	21757.47	1254.04
21776.63	1254.95	21829.91	1256.01	21840.8	1256.42	21853.44	1256.77	21866.21	1256.67

Manning's n Values num= 2

Sta	n Val	Sta	n Val
18824.95	.03	20047.21	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19787.1	20779.7	520	498.6	500	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev

18824.95 19787.1 1240

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1232.78	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.31	Wt. n-Val.		0.029	0.028
E.G. Elev (ft)	1235.09	Reach Len. (ft)	520.00	498.60	500.00
Crit W.S. (ft)	1228.20	Flow Area (sq ft)		14079.95	65.00
E.G. Slope (ft/ft)	0.001636	Area (sq ft)	80.39	14079.95	65.00
Q Total (cfs)	172000.00	Flow (cfs)		171839.30	160.69
Top Width (ft)	1157.53	Top Width (ft)	116.32	988.80	52.41
Vel Total (ft/s)	12.16	Avg. Vel. (ft/s)		12.20	2.47
Max Chl Dpth (ft)	17.90	Hydr. Depth (ft)		14.24	1.24
Conv. Total (cfs)	4252917.5	Conv. (cfs)		4248944.0	3973.3
Length Wtd. (ft)	498.60	Wetted Per. (ft)		995.07	52.57
Min Ch El (ft)	1214.88	Shear (lb/sq ft)		1.44	0.13
Alpha	1.01	Stream Power (lb/ft s)		17.63	0.31
Frctn Loss (ft)	1.19	Cum Volume (acre-ft)	292.34	6293.66	110.50
C & E Loss (ft)	0.14	Cum SA (acres)	54.01	519.97	27.95

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1232.78	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.32	Wt. n-Val.		0.029	
E.G. Elev (ft)	1235.09	Reach Len. (ft)	520.00	498.60	500.00
Crit W.S. (ft)	1228.21	Flow Area (sq ft)		14083.81	
E.G. Slope (ft/ft)	0.001642	Area (sq ft)		14083.81	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	988.80	Top Width (ft)		988.80	
Vel Total (ft/s)	12.21	Avg. Vel. (ft/s)		12.21	
Max Chl Dpth (ft)	17.90	Hydr. Depth (ft)		14.24	
Conv. Total (cfs)	4245117.0	Conv. (cfs)		4245117.0	
Length Wtd. (ft)	498.60	Wetted Per. (ft)		996.78	
Min Ch El (ft)	1214.88	Shear (lb/sq ft)		1.45	
Alpha	1.00	Stream Power (lb/ft s)		17.68	
Frctn Loss (ft)	1.19	Cum Volume (acre-ft)	0.92	5895.07	3.93
C & E Loss (ft)	0.13	Cum SA (acres)	0.14	495.02	1.40

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19787.10 LB	19985.62	16066.67	2071.53	196.15	9.34	10.64	7.76
19985.62	20184.14	23778.24	2327.07	198.65	13.82	11.72	10.22
20184.14	20382.66	36705.70	2891.37	198.60	21.34	14.56	12.69
20382.66	20581.18	49896.37	3476.89	198.70	29.01	17.51	14.35
20581.18	20779.70 RB	45392.30	3313.08	202.97	26.39	16.69	13.70
20779.70	20852.13	160.69	65.00	52.57	0.09	1.24	2.47

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross

section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19787.10 LB	19985.62	16108.06	2072.29	196.15	9.37	10.64	7.77
19985.62	20184.14	23838.21	2327.85	198.65	13.86	11.73	10.24
20184.14	20382.66	36794.38	2892.15	198.60	21.39	14.57	12.72
20382.66	20581.18	50013.14	3477.67	198.70	29.08	17.52	14.38
20581.18	20779.70 RB	45246.20	3313.86	204.67	26.31	16.69	13.65

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 229.77

INPUT
Description:
Station Elevation Data num= 110

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18798.25	1238.718	815.17	1238.771	8891.12	1238.46	18899.6	1239.121	8913.67	1239.21
18916.01	1239.618	921.45	1239.591	8991.48	1240.381	9025.73	1239.981	9124.08	1240.06
19206.87	1240.1	19276.1	1239.451	9294.52	1239.361	9387.28	1238.951	9401.18	1238.86
19468.33	1236.31	9524.48	1235.531	9549.93	1235.27	19580.7	1235.261	9580.75	1235.26
19622.99	1233.091	9635.52	1232.21	9677.66	1230.631	9683.78	1230.371	9688.42	1229.82
19711.88	1226.511	9720.21	122	619758.33	1224.371	9794.72	1219.741	9801.14	1218.69
19850.71	1218.66	119868.55	1218.651	9884.73	1218.71	9912.84	1218.721	9943.81	1218.76
20011.5	1218.782	0028.66	1218.812	0058.54	1219.12	0088.23	1219.992	0105.49	1221.28
20134.34	1221.282	0159.36	1221.342	0210.95	1220.72	0223.08	1220.62	0241.68	1219.12
20245.21	1219	20286.4	1216.062	0313.22	1215.72	0323.98	1215.382	0459.73	1215.61
20643.96	1215.652	0655.17	1222.1	20667.4	123	020682.74	1230.122	0708.79	1229.06
20717.04	1229.092	0738.67	1216.532	0745.63	1214.82	0763.87	1215.252	0770.38	1215.29
20776.24	1216.942	0791.28	1217.85	20805	1220.12	0809.23	1220.66	20816.2	1219.83
20820.78	1233.712	0824.29	1243.192	0826.41	125	420836.97	1255.982	0907.49	1270.34
20961.36	1270.92	1020.88	1271.242	1045.99	1271.3	21104.9	1270.852	1158.87	1270.9
21180.17	1270.712	1199.47	1265.752	1207.09	1263.72	1306.65	1243.51	21314.8	1242.2
21325.34	1249.872	1327.82	1251.212	1336.31	1251.12	1347.55	1251.532	1362.44	1251.68
21386.62	1251.612	1394.64	1252.032	1404.46	1252	21432.3	1249.462	1447.95	1251.65
21466.06	1252.372	1481.43	1253.172	1581.33	1254.5	21656.9	1255.262	1697.32	1255.57
21747.84	1255.232	1774.16	1255.252	1812.49	1255.42	1816.02	1255.622	1845.49	1254.95
21860.86	1254.522	1868.84	1256.12	1883.77	1259.22	1891.84	125	721900.08	1254.88
21914.94	125	521986.71	1254.582	2021.22	1254.32	2032.44	1254.952	2064.29	1255.34

Manning's n Values num= 2

Sta	n Val	Sta	n Val
18798.25	.037	20105.49	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19580.7	20667.4	525	494.41	460	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18798.25	19580.7	1235.26	20667.4	22064.29	1235

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1230.08	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.68	Wt. n-Val.		0.030	
E.G. Elev (ft)	1233.76	Reach Len. (ft)	525.00	494.41	460.00
Crit W.S. (ft)	1228.45	Flow Area (sq ft)		11171.98	
E.G. Slope (ft/ft)	0.003809	Area (sq ft)		11171.98	1201.87
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1127.16	Top Width (ft)		981.17	145.99
Vel Total (ft/s)	15.40	Avg. Vel. (ft/s)		15.40	
Max Chl Dpth (ft)	15.28	Hydr. Depth (ft)		11.39	
Conv. Total (cfs)	2787029.8	Conv. (cfs)		2787029.8	
Length Wtd. (ft)	494.41	Wetted Per. (ft)		986.14	
Min Ch El (ft)	1215.38	Shear (lb/sq ft)		2.69	
Alpha	1.00	Stream Power (lb/ft s)		41.47	

Frctn Loss (ft)	2.32	Cum Volume (acre-ft)	291.86	6149.13	103.22
C & E Loss (ft)	0.08	Cum SA (acres)	53.32	508.70	26.81

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1230.11	Element			
Vel Head (ft)	3.66	Wt. n-Val.		0.030	
E.G. Elev (ft)	1233.77	Reach Len. (ft)	525.00	494.41	460.00
Crit W.S. (ft)	1228.46	Flow Area (sq ft)		11205.16	
E.G. Slope (ft/ft)	0.003773	Area (sq ft)		11205.16	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	981.17	Top Width (ft)		981.17	
Vel Total (ft/s)	15.35	Avg. Vel. (ft/s)		15.35	
Max Chl Dpth (ft)	14.73	Hydr. Depth (ft)		11.42	
Conv. Total (cfs)	2800121.5	Conv. (cfs)		2800121.5	
Length Wtd. (ft)	494.41	Wetted Per. (ft)		986.29	
Min Ch El (ft)	1215.38	Shear (lb/sq ft)		2.68	
Alpha	1.00	Stream Power (lb/ft s)		41.08	
Frctn Loss (ft)	2.32	Cum Volume (acre-ft)	0.92	5750.34	3.93
C & E Loss (ft)	0.09	Cum SA (acres)	0.14	483.75	1.40

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19580.70 LB	19798.04	4333.59	590.84	112.44	2.52	5.28	7.33
19798.04	20015.38	30259.05	2468.26	217.38	17.59	11.36	12.26
20015.38	20232.72	27235.98	2108.10	217.44	15.83	9.70	12.92
20232.72	20450.06	56192.91	3027.90	217.48	32.67	13.93	18.56
20450.06	20667.40 RB	53978.46	2976.88	221.39	31.38	13.70	18.13

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19580.70 LB	19798.04	4359.09	594.62	112.48	2.53	5.32	7.33
19798.04	20015.38	30270.92	2475.61	217.38	17.60	11.39	12.23
20015.38	20232.72	27270.78	2115.45	217.44	15.86	9.73	12.89
20232.72	20450.06	56163.58	3035.25	217.48	32.65	13.97	18.50
20450.06	20667.40 RB	53935.63	2984.22	221.51	31.36	13.73	18.07

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 229.68

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18442.36	123818	479.84	1238.33	18549.69	1238.59	18559.11	1237.85	18564.15	1237.84
18572.08	1239.61	8575.83	1239.56	18672.75	1238.61	18714.31	1238.54	18722.95	1238.31

```
 18756.1  1238.418845.18 1238.7518910.03 1238.6518973.58 1238.4519153.01 1237.57
19189.71  1237.5 19296.3 1237.6219299.86 1237.1319320.55 1237.0619367.18 1237.11
19429.62  1236.919473.96 1236.84 19498.8  1235.6619514.53 1234.5219515.88  1234.2
 19538.5  1230.1 19552.6 1229.0119574.89  1227.219590.28 1226.19 19607.7 1224.94
19645.76  1222.919699.96 1217.7319758.99 1217.8919823.48 1217.4719839.92 1217.26
 19872.5  1215.719950.87  1218.519971.97  1219.519976.24 1219.6119996.95 1219.61
20017.83  1219.220087.64 1219.0220182.42 1219.0620198.63 1218.83 20207.9 1218.48
20277.51  1215.620434.34 1215.4720669.59 1215.39 20686.71227.88420686.72  1227.9
20687.92 1229.0320693.02  1229.320710.81 1229.7620718.61 1224.0620732.84 1215.16
20767.39 1215.1920773.93  1226.420794.43 1255.5420845.91 1267.5520855.13 1269.57
20861.31 1270.06 20885.4  1271.320943.93 1274.8420951.16 1275.31 21005.7 1275.21
21043.12 1275.43 21064.3  1275.421074.51 1275.5121145.35  1275.3 21258.4 1276.19
21290.18 1275.9321353.92  1275.321381.77 1272.9821397.29 1271.3621421.79 1271.14
21467.63  1270.821536.96  1268.421539.81 1268.3921541.77 1267.9621618.55 1252.89
21705.23 1253.9321744.36  1254.621771.68 1254.58 21814.5 1254.5921853.46  1254.8
21938.22 1255.1922007.39    125322014.27 1254.2822030.42 1257.7422039.45 1254.16
22194.42 1255.52

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
18442.36    .03719699.96    .03220277.51    .028

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       19498.8 20686.7               500   495.7     505              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
18442.36 19498.8 1235.66 20686.722194.42    1235
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1226.82	Element	Left OB	Channel	Right OB
Vel Head (ft)	4.53	Wt. n-Val.		0.030	
E.G. Elev (ft)	1231.36	Reach Len. (ft)	500.00	495.70	505.00
Crit W.S. (ft)	1226.82	Flow Area (sq ft)		10066.84	
E.G. Slope (ft/ft)	0.005920	Area (sq ft)		10066.84	549.88
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1164.04	Top Width (ft)		1104.64	59.40
Vel Total (ft/s)	17.09	Avg. Vel. (ft/s)		17.09	
Max Chl Dpth (ft)	11.66	Hydr. Depth (ft)		9.11	
Conv. Total (cfs)	2235499.3	Conv. (cfs)		2235499.3	
Length Wtd. (ft)	495.70	Wetted Per. (ft)		1108.92	
Min Ch El (ft)	1215.39	Shear (lb/sq ft)		3.36	
Alpha	1.00	Stream Power (lb/ft s)		57.32	
Frctn Loss (ft)	2.08	Cum Volume (acre-ft)	291.86	6028.60	93.97
C & E Loss (ft)	0.57	Cum SA (acres)	53.32	496.86	25.73

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1226.78	Element	Left OB	Channel	Right OB
Vel Head (ft)	4.58	Wt. n-Val.		0.030	
E.G. Elev (ft)	1231.36	Reach Len. (ft)	500.00	495.70	505.00
Crit W.S. (ft)	1226.78	Flow Area (sq ft)		10015.62	
E.G. Slope (ft/ft)	0.006014	Area (sq ft)		10015.62	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1103.87	Top Width (ft)		1103.87	
Vel Total (ft/s)	17.17	Avg. Vel. (ft/s)		17.17	
Max Chl Dpth (ft)	11.39	Hydr. Depth (ft)		9.07	

Conv. Total (cfs)	2217855.3	Conv. (cfs)		2217855.3		
Length Wtd. (ft)	495.70	Wetted Per. (ft)		1108.14		
Min Ch El (ft)	1215.39	Shear (lb/sq ft)		3.39		
Alpha	1.00	Stream Power (lb/ft s)		58.28		
Frctn Loss (ft)	2.07	Cum Volume (acre-ft)	0.92	5629.91	3.93	
C & E Loss (ft)	0.59	Cum SA (acres)	0.14	471.91	1.40	

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19498.80 LB	19736.38	8939.26	817.80	156.14	5.20	5.25	10.93
19736.38	19973.96	35262.73	2226.69	237.69	20.50	9.37	15.84
19973.96	20211.54	25464.44	1831.29	237.59	14.80	7.71	13.91
20211.54	20449.12	50395.03	2588.83	237.64	29.30	10.90	19.47
20449.12	20686.70 RB	51938.55	2602.22	239.86	30.20	11.02	19.96

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19498.80 LB	19736.38	8908.72	810.59	155.43	5.18	5.23	10.99
19736.38	19973.96	35249.77	2215.67	237.69	20.49	9.33	15.91
19973.96	20211.54	25409.52	1820.27	237.59	14.77	7.66	13.96
20211.54	20449.12	50436.94	2577.81	237.64	29.32	10.85	19.57
20449.12	20686.70 RB	51995.06	2591.27	239.78	30.23	10.98	20.07

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates

that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 229.59

INPUT
Description:
Station Elevation Data num= 123

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18145.82	1236.11	8177.86	1236.21	8238.95	1236.13	68268.36	1236.74	18278.32	1236.13
18395.23	1236.8	18506.2	1236.96	18630.68	1236.63	18685.43	1236.67	18819.3	1236.74
18900.92	1236.91	8968.69	1237.26	19028.99	1237.69	19037.93	1235.43	19083.85	1235.27
19090.34	1235.21	9101.05	1238.19	19130.1	1237.89	19166.41	1237.13	19194.01	1237.08
19376.32	1236.31	9416.79	1236.77	19425.72	1234.38	19438	1230.76	19449.17	1229.75
19452.67	1229.5	19491	1228.31	19491.04	1228.31	19519.47	1221.08	19523.82	1220.02
19528.11	1219.87	19573.55	1217.81	9581.59	1217.45	19600.65	1216.09	19611.16	1215.62
19622.81	1215.21	19633.63	1215.11	9664.52	1214.42	19677.61	1213.48	19697.23	1212.68
19744.15	1212.93	19749.94	1212.91	9764.22	1214.48	19782.81	1217.04	19813.79	1218.21
19832.43	1218.39	19879.76	1217.61	9933.26	1215.96	19940.47	1215.84	19957.82	1216.11
20001.06	1217.23	20011.36	1217.62	0065.51	1218.99	20072.43	1219.03	20102.4	1218.65
20128.13	1216.83	20152.69	1214.12	0155.11	1214.13	20626.45	1214.13	20714.2	1214.4
20719.62	1214.35	20732.02	1214.92	0753.19	1215.39	20773.35	1214.93	20843.47	1225.78
20867.29	1229.69	20867.31	1229.68	9208	96.64	122820	938.45	1225.71	20954.5
20956.94	1242.17	20972.81	1245.36	21014.93	1254.12	1020.53	1254.96	21043.29	1260.13
21085.23	1269.01	21092.65	1269.78	21100.07	1270.72	1115.59	1272.03	21139.89	1272.29
21218.38	1273.95	21219.44	1274.19	21339.62	1272.42	1356.67	1272.15	21391.52	1272.89
21471.06	1274.71	21502.04	1274.88	21536.94	127521	617.26	1275.58	21636.17	1272.46
21647.23	1271.14	21677.71	1270.93	21709.72	1269.72	1741.88	1263.42	1825.67	1245.23
21863.52	1233.82	1869.66	1231.92	21873.74	1230.42	1887.41	1226.33	21895.12	1226.11
21908.88	1228.62	21917.21	1231.02	21929.27	1231.12	1968.82	1244.48	21982.51	1250.38
22000.95	1250.16	22012.51	1248.97	22018.05	1250.22	2054.37	1250.82	2066.16	1250.83
22089.94	1251.42	22135.59	1252.46	22146.2	1252.32	2170.68	1251.42	22200.43	1250.55
22211.64	1250.18	22226.78	1250.16	22234.02	1250.22	2316.38	1252.91	22327.68	1251.85
22342.37	1249.37	22360.58	1250.32	22368.23	1250.6				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18145.82	.032	20065.51	.028	20867.3	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19491	20867.3	520	521.63	525	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1225.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.64	Wt. n-Val.		0.029	
E.G. Elev (ft)	1228.26	Reach Len. (ft)	520.00	521.63	525.00
Crit W.S. (ft)		Flow Area (sq ft)		13199.76	
E.G. Slope (ft/ft)	0.003119	Area (sq ft)		13199.76	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1340.90	Top Width (ft)		1340.90	
Vel Total (ft/s)	13.03	Avg. Vel. (ft/s)		13.03	
Max Chl Dpth (ft)	12.95	Hydr. Depth (ft)		9.84	
Conv. Total (cfs)	3079942.3	Conv. (cfs)		3079942.3	
Length Wtd. (ft)	521.63	Wetted Per. (ft)		1343.20	
Min Ch El (ft)	1212.68	Shear (lb/sq ft)		1.91	
Alpha	1.00	Stream Power (lb/ft s)		24.93	
Frctn Loss (ft)	1.21	Cum Volume (acre-ft)	291.86	5896.22	90.79
C & E Loss (ft)	0.31	Cum SA (acres)	53.32	482.95	25.38

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1225.67	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.61	Wt. n-Val.		0.029	
E.G. Elev (ft)	1228.28	Reach Len. (ft)	520.00	521.63	525.00
Crit W.S. (ft)		Flow Area (sq ft)		13258.69	

E.G. Slope (ft/ft)	0.003073	Area (sq ft)		13258.69	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1340.90	Top Width (ft)		1340.90	
Vel Total (ft/s)	12.97	Avg. Vel. (ft/s)		12.97	
Max Chl Dpth (ft)	12.99	Hydr. Depth (ft)		9.89	
Conv. Total (cfs)	3102556.8	Conv. (cfs)		3102556.8	
Length Wtd. (ft)	521.63	Wetted Per. (ft)		1343.29	
Min Ch El (ft)	1212.68	Shear (lb/sq ft)		1.89	
Alpha	1.00	Stream Power (lb/ft s)		24.57	
Frctn Loss (ft)	1.19	Cum Volume (acre-ft)	0.92	5497.48	3.93
C & E Loss (ft)	0.30	Cum SA (acres)	0.14	458.00	1.40

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19491.00 LB	19766.26	30089.96	2566.87	265.66	17.49	9.70	11.72
19766.26	20041.52	24814.97	2320.08	275.50	14.43	8.43	10.70
20041.52	20316.78	37736.82	2755.10	275.49	21.94	10.01	13.70
20316.78	20592.04	47611.64	3164.85	275.26	27.68	11.50	15.04
20592.04	20867.30 RB	31746.59	2392.86	251.29	18.46	9.55	13.27

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19491.00 LB	19766.26	30094.23	2578.51	265.70	17.50	9.74	11.67
19766.26	20041.52	24849.26	2332.18	275.50	14.45	8.47	10.65
20041.52	20316.78	37734.96	2767.20	275.49	21.94	10.05	13.64
20316.78	20592.04	47567.46	3176.95	275.26	27.66	11.54	14.97
20592.04	20867.30 RB	31754.09	2403.87	251.34	18.46	9.60	13.21

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 229.49

INPUT
Description:
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17850.82	1235.8	17865.23	1236.01	17957.64	1234.96	18030.91	1234.91	18152.88	1234.92
18171.25	1234.9	18309.75	1235.11	18349.22	1235.14	18462.25	1235.44	18586.09	1235.5
18703.2	1235.5	18854.93	1235.55	18946.45	1235.82	18973.09	1235.78	19035.29	1235.51
19088.08	1235.3	19116.26	1235.44	19162.07	1235.75	19287.28	1236.41	19297.93	1236.89
19307.59	1234.9	19316.27	1235.61	19330.44	1235.19	19338.47	1234.59	19342.51	1232.787
19342.54	1232.77	19360.49	1226	19361.67	1225.83	19365.23	1224.35	19383.82	1219.26
19394.88	1218.62	19442.22	1216.2	19451.31	1215.7	19458.93	1214.95	19468.1	1214.83
19538.98	1211.72	19546.43	1211.4	19601	1207.68	19606.12	1208.24	19678.06	1209.73
19681.27	1209.73	19713.74	1211.6	19740.6	1215.28	19744.75	1215.79	19777.05	1213.7
19823.78	1215.1	19829.95	1215.2	19930.63	1217.24	19957.49	1218.05	19973.33	1218.3
19998.93	1218.55	20038.38	1219	20093.4	1219.38	20099.89	1219.57	20116.39	1220.29
20125.86	1220.3	20181.25	1222.9	20184.21	1222.96	20197.81	1216.79	20208.65	1212.63
20272.79	1212.58	20549.31	1212.4	20659.4	1212.41	20667.88	1212.68	20728.84	1214.72
20769.08	1214.7	20808.29	1214.8	20830.63	1212.51	20840.99	1211.63	20872.77	1211.68
20891.09	1211.81	20900.78	1214.9	20915.54	1220.12	20955.85	1222.95	20960.81	1223.21
20961.66	1223.84	20971.31	1226.69	20971.31	1226.7	20972.27	1226.45	20980.36	1223.07
20990.15	1224.13	21049.34	1228.71	21086.49	1228.2	21096.53	1226.43	21101.22	1226.66
21122.65	1227.15	21157.11	1239.94	21166.65	1244.8	21199.42	1250.36	21220.78	1253.92
21282	1262.06	21299.36	1264.4	21326.52	1269.1	21335.74	1270.83	21353.05	1270.82

21459.33 1271.1321582.51 1272.6321610.96 127321839.18 1275.4821890.75 1276.05
21896.63 1275.2121915.93 1272.0921967.89 1270.322016.05 1268.45 22026.1 1267.6
22042.17 1263.5522132.45 1248.322138.56 1247.322169.56 1246.9522177.42 1246.76
22206.38 1247.73 22232.6 1248.82 22262.9 1250.922277.43 1251.1322357.74 1251.82
22439.92 1252.1122507.05 1250.8622528.13 1248.922533.61 1249.9822539.64 1250.68

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17850.82	.03	22018	1.25	22082	0971.31 .032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19342.5	20971.3	470	494.34	470	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1225.13	Element			
Vel Head (ft)	1.61	Wt. n-Val.		0.030	0.032
E.G. Elev (ft)	1226.75	Reach Len. (ft)	470.00	494.34	470.00
Crit W.S. (ft)		Flow Area (sq ft)		16859.43	26.62
E.G. Slope (ft/ft)	0.001789	Area (sq ft)		16859.43	26.62
Q Total (cfs)	172000.00	Flow (cfs)		171949.69	50.30
Top Width (ft)	1630.38	Top Width (ft)		1602.68	27.70
Vel Total (ft/s)	10.19	Avg. Vel. (ft/s)		10.20	1.89
Max Chl Dpth (ft)	17.45	Hydr. Depth (ft)		10.52	0.96
Conv. Total (cfs)	4066120.8	Conv. (cfs)		4064931.5	1189.2
Length Wtd. (ft)	494.34	Wetted Per. (ft)		1608.62	28.21
Min Ch El (ft)	1207.68	Shear (lb/sq ft)		1.17	0.11
Alpha	1.00	Stream Power (lb/ft s)		11.94	0.20
Frctn Loss (ft)	0.93	Cum Volume (acre-ft)	291.86	5716.24	90.63
C & E Loss (ft)	0.01	Cum SA (acres)	53.32	465.32	25.22

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1225.19	Element			
Vel Head (ft)	1.60	Wt. n-Val.		0.030	
E.G. Elev (ft)	1226.79	Reach Len. (ft)	470.00	494.34	470.00
Crit W.S. (ft)		Flow Area (sq ft)		16953.34	
E.G. Slope (ft/ft)	0.001758	Area (sq ft)		16953.34	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1602.87	Top Width (ft)		1602.87	
Vel Total (ft/s)	10.15	Avg. Vel. (ft/s)		10.15	
Max Chl Dpth (ft)	17.51	Hydr. Depth (ft)		10.58	
Conv. Total (cfs)	4101851.5	Conv. (cfs)		4101851.5	
Length Wtd. (ft)	494.34	Wetted Per. (ft)		1608.88	
Min Ch El (ft)	1207.68	Shear (lb/sq ft)		1.16	
Alpha	1.00	Stream Power (lb/ft s)		11.74	
Frctn Loss (ft)	0.91	Cum Volume (acre-ft)	0.92	5316.59	3.93
C & E Loss (ft)	0.02	Cum SA (acres)	0.14	440.38	1.40

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19342.50 LB	19668.26	36510.25	3639.20	306.13	21.23	11.94	10.03
19668.26	19994.02	29309.29	3271.92	326.22	17.04	10.04	8.96
19994.02	20319.78	23177.29	2559.66	327.95	13.48	7.86	9.05
20319.78	20645.54	49439.63	4130.50	325.76	28.74	12.68	11.97
20645.54	20971.30 RB	33513.21	3258.14	322.56	19.48	10.17	10.29
20971.30	21075.86	50.30	26.62	28.21	0.03	0.96	1.89

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19342.50 LB	19668.26	36491.91	3657.07	306.19	21.22	11.99	9.98
19668.26	19994.02	29343.07	3291.01	326.22	17.06	10.10	8.92
19994.02	20319.78	23234.05	2578.75	327.95	13.51	7.92	9.01
20319.78	20645.54	49397.19	4149.59	325.76	28.72	12.74	11.90
20645.54	20971.30 RB	33533.79	3276.93	322.76	19.50	10.22	10.23

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 229.40

INPUT
Description:
Station Elevation Data num= 115

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18063.29	1232.41	8095.75	1232.79	18131.44	123318	149.73	1233.04	18273.5	1233.97
18295.62	123418	420.38	1234.63	18422.97	1234.66	18521.75	1234.6	18681	1234.85
18738.46	1234.6	18875.2	1234.57	18885.96	1234.64	18901.59	1234.64	19092.81	1234.63
19111.08	1234.6	19198.1	1234.98	19223.06	1235.36	19226.32	1234.53	19230.06	1233.28
19239.88	1234	19241.61	1234.00	19259.14	1234.03	19268.64	123419	288.68	1227.67
19320.17	1217.46	19356.71	1216.21	9413.35	1214.21	19456.74	1208.18	19471.38	1206.44
19497	1206.24	19510.95	120619	627.06	1207.84	19675.78	1211.11	19756.78	1214.36
19830.3	1217.35	19913.15	121919	934.74	1219.54	20008.92	1219.54	20023.02	1219.33
20052.67	1226.07	20056.85	1224.82	0069.91	1220.27	20095.49	1220.55	20116.92	1220.89
20212.13	1221.66	20223.06	1221.7	20237.4	1222.43	20272.53	1224.72	0281.53	1220.68
20295.12	1213.79	20497.04	1213.52	0683.03	1213.22	20711.91	1213.62	0782.13	1214.72
20861.3	1212.35	20878.89	1212.12	0887.33	1212.09	20899.76	1212.42	20942.76	1211.32
20959.31	1211.35	20999.19	1211.5	21018.9	1211.25	21043.34	1211.28	21052.62	1214.05
21122.85	1227.56	21139.51	1230.62	1144.39	1231.68	21152.88	1233.39	21157.5	1232.28
21180.93	1232.52	21183.68	1232.8	21184.31	1232.82	21211.33	1233.92	1253.92	1232.62
21284.85	1234.22	1303.83	1234.53	21310.51	1234.32	1337.69	1236.32	1346.26	1236.31
21371.79	1236.93	21376.33	1239.52	1404.83	1244.22	1441.03	1253.03	21497.7	1260.98
21507.06	1262.42	21518.41	1264.42	21539.57	1268.72	1551.03	1270.82	21594.1	1270.86
21693.35	1271.54	21774.24	1272.52	1857.58	1273.12	1912.33	1273.44	21992.41	1275.13
22096.28	1275.95	22123.15	1276.03	22128.82	1275.32	2155.85	1272.15	22245.08	1268.48
22255.88	1267.32	22317.45	1254.15	22328.35	1251.52	2347.62	1247.63	22458.53	1250.77
22529.58	1250.33	22554.35	1250.74	22566.51	1250.72	2597.06	1250.06	22709.73	1248.03
22718.3	1247.38	22721.06	1247.84	22731.26	125022	769.41	1250.13	22773.74	1250.17

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18063.29	.032	20237.4	.028	21184.3	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19241.6	21184.3	890	516.54	160	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1224.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.57	Wt. n-Val.		0.030	
E.G. Elev (ft)	1225.80	Reach Len. (ft)	890.00	516.54	160.00
Crit W.S. (ft)		Flow Area (sq ft)		17090.29	
E.G. Slope (ft/ft)	0.001991	Area (sq ft)		17090.29	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1784.02	Top Width (ft)		1784.02	
Vel Total (ft/s)	10.06	Avg. Vel. (ft/s)		10.06	
Max Chl Dpth (ft)	18.23	Hydr. Depth (ft)		9.58	
Conv. Total (cfs)	3855006.5	Conv. (cfs)		3855006.5	
Length Wtd. (ft)	516.93	Wetted Per. (ft)		1791.10	
Min Ch El (ft)	1206.00	Shear (lb/sq ft)		1.19	
Alpha	1.00	Stream Power (lb/ft s)		11.93	
Frctn Loss (ft)	1.14	Cum Volume (acre-ft)	291.86	5523.60	90.48
C & E Loss (ft)	0.01	Cum SA (acres)	53.32	446.10	25.07

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1224.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.54	Wt. n-Val.		0.030	
E.G. Elev (ft)	1225.86	Reach Len. (ft)	890.00	516.54	160.00
Crit W.S. (ft)		Flow Area (sq ft)		17247.84	
E.G. Slope (ft/ft)	0.001935	Area (sq ft)		17247.84	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1786.22	Top Width (ft)		1786.22	
Vel Total (ft/s)	9.97	Avg. Vel. (ft/s)		9.97	
Max Chl Dpth (ft)	18.32	Hydr. Depth (ft)		9.66	
Conv. Total (cfs)	3910172.8	Conv. (cfs)		3910172.8	
Length Wtd. (ft)	516.54	Wetted Per. (ft)		1793.52	

Min Ch El (ft)	1206.00	Shear (lb/sq ft)		1.16	
Alpha	1.00	Stream Power (lb/ft s)		11.58	
Frctn Loss (ft)	1.09	Cum Volume (acre-ft)	0.92	5122.52	3.93
C & E Loss (ft)	0.01	Cum SA (acres)	0.14	421.15	1.40

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19241.60 LB	19630.14	49245.38	4436.72	332.52	28.63	13.41	11.10
19630.14	20018.68	25991.24	3218.83	388.79	15.11	8.28	8.07
20018.68	20407.22	14341.09	1923.51	370.02	8.34	5.25	7.46
20407.22	20795.76	45054.81	4131.86	388.56	26.19	10.63	10.90
20795.76	21184.30 RB	37367.48	3379.37	311.21	21.73	10.91	11.06

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19241.60 LB	19630.14	49099.59	4465.92	332.61	28.55	13.50	10.99
19630.14	20018.68	26093.86	3253.12	388.79	15.17	8.37	8.02
20018.68	20407.22	14399.61	1955.94	372.27	8.37	5.31	7.36
20407.22	20795.76	45057.25	4166.15	388.56	26.20	10.72	10.82
20795.76	21184.30 RB	37349.67	3406.71	311.29	21.71	11.00	10.96

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 229.30

INPUT
Description:
Station Elevation Data num= 155

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17451.74	1234.817	479.94	1235.181	7546.37	1234.661	7577.01	1236.221	7583.83	1234.67
17601.2	1234.417	710.03	1230.011	7714.79	1229.721	7719.64	1229.791	7805.47	1230.72
17893.4	1231.117	942.93	1231.461	8062.19	1230.711	8123.19	1230.61	8184.92	1231.37
18228.2	1231.818	260.59	1231.591	8286.08	1231.151	8329.37	1231.111	8361.21	1232.41
18380.85	1233.118	395.29	1231.381	8404.78	1232.931	8452.68	1232.681	8461.51	1232.54
18585.48	1232.218	631.09	1232.271	8663.22	1232.291	8722.06	1232.111	8740.66	1231.92
18783.05	1232.218	846.07	1232.251	8892.84	1232.31	8930.03	123218	946.99	1231.75
189471	231.74	718972.64	1225.11	8980.87	1222.541	8989.13	1222.251	9021.26	1221.56
19039.29	1221.131	9090.29	1222.31	9096.39	1222.121	9131.51	1221.011	9156.06	1218.67
19165.51	1217.711	9212.59	1216.41	9239.64	1215.531	9267.03	1214.491	9295.38	1210.06
19303.48	1208.641	9321.28	1208.41	9358.55	1207.511	9370.64	1207.061	9435.01	1206.98
19457.26	1207.15	19480.1	1207.5	19498.1	1207.731	9529.78	1208.291	9582.51	1211.44
19606.4	1212.27	19642.6	1213.11	9728.23	1217.41	9742.76	1218.061	9759.81	1218.07
19824.75	1217.951	9848.05	1224.61	9856.11	1222.121	9868.59	1217.971	9913.55	1218.97
19928.81	1219.041	9954.52	1218.71	9979.46	1218.531	9997.31	1219.182	0020.69	1219.17
20120.46	1219.042	0125.44	1218.82	0141.34	1218.582	0166.14	1219.12	0173.68	1219.19
20233.79	1222.822	0246.96	1223.52	0249.81	1222.382	0269.85	1213.082	0506.81	1213.37
20601.67	1213.352	0679.07	1215.82	0705.51	1216.242	0771.85	1214.812	0772.69	1214.82
20844.32	1212.792	0847.53	1212.32	0873.27	1208.672	0884.64	1208.692	0905.23	1208.9
20917.34	1210.46	20933.3	1212.12	0944.68	1211.772	0959.46	1211.062	0994.66	1211.16
21031.45	1211.222	1038.67	1212.32	1046.55	1215.192	1071.95	1221.58	21118.11	1232.458
21118.11	1232.462	1154.94	1240.652	1186.62	1246.82	1205.28	1247.332	1220.51	1247.89
21230.03	1247.972	1240.94	1247.942	1255.25	1247.82	1299.94	1247.022	1311.02	1246.89
21353.69	1246.842	1383.31	1251.892	1397.22	1253.12	1416.82	1255.22	1471.12	1260.23
21474.75	1260.752	1538.65	1268.58	21558.5	1271.82	1619.49	1272.312	1696.26	1272.9
21787.65	1273.432	1882.49	1274.072	1998.14	1274.92	2049.71	1274.942	2135.56	1275.9
22146.83	1274.332	2172.55	1271.282	2221.39	1269.52	2260.64	1268.182	2280.23	1265.08
22322.44	1255.632	2342.39	1250.232	2363.37	1244.72	2368.49	1245.242	2385.34	1242.53
22395.51	1241.612	2401.15	1241.472	2417.61	1242.92	2445.72	1246.532	2457.44	1248.11

22551.97 1248.1122629.48 1247.0322647.95 1246.622652.17 1246.99 22698.2 1248.21
22716.13 1246.8422725.04 1248.3422731.04 1249.122746.36 1249.3222764.58 1249.41

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17451.74	.025	18947	.03	22033	.79 .028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19090.29	21118.1	560	477.97	470	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1223.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.64	Wt. n-Val.	0.032	0.030	
E.G. Elev (ft)	1224.66	Reach Len. (ft)	560.00	477.97	470.00
Crit W.S. (ft)		Flow Area (sq ft)	137.14	16662.44	
E.G. Slope (ft/ft)	0.002457	Area (sq ft)	137.14	16662.44	
Q Total (cfs)	172000.00	Flow (cfs)	363.32	171636.69	
Top Width (ft)	2077.23	Top Width (ft)	110.93	1966.29	
Vel Total (ft/s)	10.24	Avg. Vel. (ft/s)	2.65	10.30	
Max Chl Dpth (ft)	16.03	Hydr. Depth (ft)	1.24	8.47	
Conv. Total (cfs)	3470238.3	Conv. (cfs)	7330.3	3462908.0	
Length Wtd. (ft)	478.54	Wetted Per. (ft)	111.04	1973.24	
Min Ch El (ft)	1206.98	Shear (lb/sq ft)	0.19	1.30	
Alpha	1.01	Stream Power (lb/ft s)	0.50	13.34	
Frctn Loss (ft)	0.91	Cum Volume (acre-ft)	290.46	5323.48	90.48
C & E Loss (ft)	0.13	Cum SA (acres)	52.19	423.87	25.07

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1223.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.60	Wt. n-Val.		0.030	
E.G. Elev (ft)	1224.76	Reach Len. (ft)	560.00	477.97	470.00
Crit W.S. (ft)		Flow Area (sq ft)		16968.82	
E.G. Slope (ft/ft)	0.002333	Area (sq ft)		16968.82	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1970.75	Top Width (ft)		1970.75	
Vel Total (ft/s)	10.14	Avg. Vel. (ft/s)		10.14	
Max Chl Dpth (ft)	16.19	Hydr. Depth (ft)		8.61	
Conv. Total (cfs)	3560780.8	Conv. (cfs)		3560780.8	
Length Wtd. (ft)	477.97	Wetted Per. (ft)		1978.80	
Min Ch El (ft)	1206.98	Shear (lb/sq ft)		1.25	
Alpha	1.00	Stream Power (lb/ft s)		12.66	
Frctn Loss (ft)	0.88	Cum Volume (acre-ft)	0.92	4919.65	3.93
C & E Loss (ft)	0.11	Cum SA (acres)	0.14	398.87	1.40

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18871.82	18981.05	0.40	0.44	1.77	0.00	0.26	0.91
18981.05	19090.29	362.92	136.69	109.27	0.21	1.25	2.65
19090.29 LB	19495.85	45682.74	4278.68	406.29	26.56	10.55	10.68
19495.85	19901.41	29059.65	3230.29	396.60	16.90	8.18	9.00
19901.41	20306.97	11034.85	1698.35	397.17	6.42	4.30	6.50
20306.97	20712.54	42000.69	3752.55	405.61	24.42	9.25	11.19
20712.54	21118.10 RB	43858.76	3702.57	367.58	25.50	10.13	11.85

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19090.29 LB	19495.85	45595.53	4341.80	407.15	26.51	10.71	10.50

19495.85	19901.41	29196.90	3291.82	397.70	16.97	8.32	8.87
19901.41	20306.97	11215.77	1760.07	400.61	6.52	4.42	6.37
20306.97	20712.54	42122.82	3815.67	405.61	24.49	9.41	11.04
20712.54	21118.10 RB	43868.98	3759.46	367.73	25.51	10.29	11.67

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 229.21

INPUT
Description:
Station Elevation Data num= 160

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17378.7	1233.617	386.36	1233.93	17412.5	1234.661	7418.41	1232.811	7426.63	1234.08
17444.79	12331	7453.61	1232.38	17486.5	1232.271	7528.05	1231.961	7550.76	1231.96
17565.43	1231.91	7594.68	1231.31	7678.08	1229.711	7719.26	1229.081	7795.58	1228.06
17820.33	1228.11	7893.53	1228.091	7932.64	1228.661	7995.56	1231.35	18025.5	1231.44
18100.62	1231.41	8262.52	1231.351	8282.69	1231.41	8287.99	1231.291	8349.58	1231.07
18428.44	1231	8488.58	1231.031	8516.71	1231.011	8570.92	1231.141	8631.08	1230.73
18669.79	1230.51	8678.28	1230.631	8703.77	1229.95	18703.8	1229.951	8709.14	1229.95
18726.58	1229.31	18734.7	1227.21	8752.57	1220.51	8775.85	1220.22	18843.2	1219.6
18876.97	1219.831	8889.91	1220	18895.48	1219.961	8987.27	1220.671	9072.84	1220.86
19148.94	1216.531	9193.81	1206.31	9282.83	1207.441	9312.81	1206.71	19397.9	1206.49
19410.67	1206.111	9420.74	1206.81	9467.85	1209.64	19513.1	1212.921	9527.13	1213.37
19585.09	1215.61	9602.66	1215.81	9642.02	1215.781	9679.45	1215.941	9682.59	1217
19706.17	1222.991	9716.57	1220.91	9739.48	1216.381	9746.77	1216.281	9760.65	1216.5
19788.56	1216.61	9828.07	1215.91	9851.33	1215.611	9891.53	1217.461	9897.46	1217.69
19923.76	1217.971	9978.89	1218.52	0009.79	1219.512	0024.37	1220.252	0033.37	1220.21
20049.53	1214.172	0056.52	1212.12	0078.06	1211.862	0196.62	1212.22	0226.85	1212.32
20232.24	1212.472	0327.46	1212.32	0470.28	1212.042	0653.81	12122	0678.33	1212.97
20681.82	1213.072	0741.48	1212.12	0747.37	1211.992	0808.96	1210.912	0834.73	1208.45
20871.53	1208.712	0937.58	1208.92	0951.91	1210.962	0958.38	1211.212	0978.53	1211.4
20989.46	1210.872	0994.61	1209	21003.5	1208.382	1003.79	1209.72	21019.5	1213.44
21113.38	1236.96	21113.4	1236.96	5211	83.62	1254.72	1208.65	1255.272	1284.46	1257.4
21319.32	1258.2	21397.1	1259.32	2144	3.18	1260.42	1492.18	1261.432	1594.91	1264.01
21604.86	1264.222	1620.98	1264.84	2165	6.63	1264.92	1669.81	1264.532	1682.45	1264.69
21732.44	1264	21766.33	1265.772	1799	5.53	1265.4	21824.8	1265.492	1842.24	1264.95
21857.74	1264.142	1871.62	1263.28	2189	2.86	1261.42	1912.54	1259.63	21928.3	1260.88
21941.01	1263.142	1948.45	1263.32	1983	.34	1263.42	2004.31	1263.572	2019.01	1263.81
22035.47	1260.932	2041.51	1259.792	2055	.42	1259.82	2080.54	1259.512	2124.68	1258.78
22132.28	1258.922	2168.15	1260.882	2193	.37	1261.72	2217.26	1262.732	2230.59	1263.74
22239.35	1263.92	2249.46	1263.62	2263	.65	1263.6	22271	1263.55	22278.3	1262.87
22283.78	1263.052	2337.01	1252.992	2369	.19	1248	22408.41	1240.522	2458.22	1232.16
22487.76	1232.652	2493.85	1233.66	2527	.75	1239.72	2603.37	1243.852	2632.15	1245.24
22673.63	1246.292	2692.68	1244.85	2699	.82	1246.12	2704.13	1246.312	2712.24	1246.42

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17378.7	.025	18703.8	.03	22033.37	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19072.84	21113.4	560	524.94	525	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1222.40	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.22	Wt. n-Val.	0.032	0.030	
E.G. Elev (ft)	1223.62	Reach Len. (ft)	560.00	524.94	525.00
Crit W.S. (ft)		Flow Area (sq ft)	686.30	19066.47	
E.G. Slope (ft/ft)	0.001520	Area (sq ft)	686.30	19066.47	
Q Total (cfs)	172000.00	Flow (cfs)	2042.20	169957.81	
Top Width (ft)	2302.44	Top Width (ft)	325.33	1977.12	
Vel Total (ft/s)	8.71	Avg. Vel. (ft/s)	2.98	8.91	
Max Chl Dpth (ft)	16.29	Hydr. Depth (ft)	2.11	9.64	
Conv. Total (cfs)	4411732.5	Conv. (cfs)	52381.6	4359351.0	
Length Wtd. (ft)	525.53	Wetted Per. (ft)	325.68	1984.92	
Min Ch El (ft)	1206.11	Shear (lb/sq ft)	0.20	0.91	
Alpha	1.04	Stream Power (lb/ft s)	0.60	8.13	
Frctn Loss (ft)	0.94	Cum Volume (acre-ft)	285.17	5127.46	90.48
C & E Loss (ft)	0.02	Cum SA (acres)	49.38	402.23	25.07

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1222.55	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.22	Wt. n-Val.		0.030	
E.G. Elev (ft)	1223.77	Reach Len. (ft)	560.00	524.94	525.00
Crit W.S. (ft)		Flow Area (sq ft)		19370.19	
E.G. Slope (ft/ft)	0.001480	Area (sq ft)		19370.19	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1978.48	Top Width (ft)		1978.48	
Vel Total (ft/s)	8.88	Avg. Vel. (ft/s)		8.88	
Max Chl Dpth (ft)	16.44	Hydr. Depth (ft)		9.79	
Conv. Total (cfs)	4470463.0	Conv. (cfs)		4470463.0	
Length Wtd. (ft)	524.94	Wetted Per. (ft)		1988.17	
Min Ch El (ft)	1206.11	Shear (lb/sq ft)		0.90	
Alpha	1.00	Stream Power (lb/ft s)		8.00	
Frctn Loss (ft)	0.93	Cum Volume (acre-ft)	0.92	4720.28	3.93
C & E Loss (ft)	0.03	Cum SA (acres)	0.14	377.21	1.40

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18734.01	18846.96	718.07	230.08	99.79	0.42	2.31	3.12
18846.96	18959.90	844.77	266.52	112.95	0.49	2.36	3.17
18959.90	19072.84	479.36	189.71	112.94	0.28	1.68	2.53
19072.84 LB	19480.95	48813.04	5154.69	409.55	28.38	12.63	9.47
19480.95	19889.06	16051.94	2631.59	404.45	9.33	6.53	6.10
19889.06	20297.18	26345.09	3162.20	409.55	15.32	7.75	8.33
20297.18	20705.29	39253.23	4168.79	408.14	22.82	10.21	9.42
20705.29	21113.40 RB	39494.53	3949.19	353.23	22.96	11.28	10.00

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19072.84 LB	19480.95	49078.76	5217.37	411.24	28.53	12.78	9.41
19480.95	19889.06	16450.30	2693.56	405.85	9.56	6.66	6.11
19889.06	20297.18	26805.92	3224.87	409.55	15.58	7.90	8.31
20297.18	20705.29	39762.93	4231.47	408.14	23.12	10.37	9.40
20705.29	21113.40 RB	39902.09	4002.93	353.39	23.20	11.44	9.97

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 229.11

INPUT
Description:
Station Elevation Data num= 153

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17796.87	1228.217	811.54	1228.121	7898.37	1227.191	7960.56	1228.871	7975.75	1229.36
18055.73	1229.818	083.04	1230.121	8174.97	1230.081	8233.17	1229.851	8309.93	1230.53
18341.79	1230.71	8350.41	1227.961	8358.41	1229.271	8365.59	1230.921	8383.64	1230.34
18424.75	1229.1	18424.81	1229.09	318452.89	1225.21	8457.68	1224.711	8469.91	1223.14
18497.19	1220.021	8545.96	1217.81	8575.92	1216.751	8628.95	1215.491	8679.29	1217.75
18703.48	1218.371	8800.06	1220.81	8845.48	1220.991	8908.29	1221.11	8923.12	1221.39
18985.99	1219.81	9005.82	1219.71	9036.89	1209.781	9043.97	1207.071	9074.93	1205.3
19168.98	1204.891	9174.06	1204.91	9228.01	1204.861	9280.23	1204.351	9305.65	1209.43
19322.97	1212.441	9393.21	1213.21	9422.02	1213.781	9446.16	1214.751	9509.09	1217.35
19511.6	1217.311	9548.39	1217.41	9570.78	1220.541	9577.11	1221.07	19604.3	1214.39
19623.07	1218.631	9625.46	1218.71	9647.54	1217.541	9651.91	1217.411	9677.12	1216.15
19700.89	1216.391	9712.62	1216.91	9718.14	1217.31	9749.85	1218.911	9758.76	1218.84
19763.53	1219.761	9785.87	1216.41	9791.35	1215.791	9820.51	1214.11	9837.17	1213.39
19895.7	1212.941	9913.85	1212.71	9931.73	1212.821	9991.89	1213.22	0022.75	1213.34
20096.49	1214.652	0123.34	1215.42	0150.97	1216.632	0170.37	1216.492	0189.67	1216.4
20206.89	1221.452	0215.88	1223.92	0247.37	1222.22	0291.46	1219.332	0312.63	1213.51
20319.86	1211.372	0378.47	1211.12	0702.47	1209.652	0713.94	1210.732	0743.61	1211.22
20751.95	1211.42	0793.77	1211.12	0803.37	1211.452	0825.08	1211.442	0835.44	1208.25
20864.4	1208.352	0903.64	1208.62	0953.72	1208.782	1111.53	1255.57	21114.11	1256.215

```
 21114.6 1256.3421163.89 1257.0421166.43    125721171.15 1255.7321202.01  1250.2
21202.98 1250.1521209.93 1247.2221213.89    124721227.85 1245.3921250.65 1244.17
21276.67 1245.4221308.92 1250.91 21323.2  1250.821366.47 1257.3921372.03 1258.45
21416.54 1258.4321480.01 1258.8921556.49  1259.521593.99 1259.8421618.01  1256.5
21623.09  1255.721650.01 1256.4721707.41  1257.621727.64 1257.5821747.42 1257.12
21819.42 1258.0921839.59 1258.2721846.67  1258.221929.13 1257.8821936.99 1257.66
21970.25 1257.04 21987.9 1256.7722008.74  1256.622030.56 1257.1522049.75 1257.59
22087.94 1258.3822106.42 1258.6122147.88  1257.922217.51    125722221.09 1257.05
22258.02 1257.2322296.87 1257.3822343.23  1256.622360.99 1252.1822384.64  1248.1
22422.56 1241.36 22472.4 1232.1722483.89  1231.7 22521.7 1231.6822581.64 1238.54
22591.91 1240.47 22594.6 1240.6722600.59  1242.822611.37 1243.6222656.75 1243.85
22670.05 1243.9722682.35 1243.7722707.27  1241.6

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
17796.87    .03220206.89    .028

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      18923.12 21114.1              490  484.06     490            .1        .3

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1221.22   Element                  Left OB    Channel   Right OB
  Vel Head (ft)                1.44   Wt. n-Val.                0.032      0.030
  E.G. Elev (ft)            1222.65   Reach Len. (ft)          490.00     484.06    490.00
  Crit W.S. (ft)                      Flow Area (sq ft)        998.05   17325.22
  E.G. Slope (ft/ft)       0.002144   Area (sq ft)             998.05   17325.22
  Q Total (cfs)           172000.00   Flow (cfs)              3775.36  168224.64
  Top Width (ft)            2436.80   Top Width (ft)           427.51    2009.29
  Vel Total (ft/s)             9.39   Avg. Vel. (ft/s)           3.78       9.71
  Max Chl Dpth (ft)           16.87   Hydr. Depth (ft)           2.33       8.62
  Conv. Total (cfs)       3714286.3   Conv. (cfs)             81527.8  3632758.5
  Length Wtd. (ft)           484.18   Wetted Per. (ft)         427.75    2018.60
  Min Ch El (ft)            1204.35   Shear (lb/sq ft)           0.31       1.15
  Alpha                        1.05   Stream Power (lb/ft s)     1.18      11.16
  Frctn Loss (ft)              1.46   Cum Volume (acre-ft)     274.34    4908.18      90.48
  C & E Loss (ft)              0.08   Cum SA (acres)            44.54     378.21      25.07

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
                than 0.7 or greater than 1.4.  This may indicate the need for additional cross
sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1221.32   Element                  Left OB    Channel   Right OB
  Vel Head (ft)                1.49   Wt. n-Val.                           0.030
  E.G. Elev (ft)            1222.82   Reach Len. (ft)          490.00     484.06    490.00
  Crit W.S. (ft)                      Flow Area (sq ft)                 17539.43
  E.G. Slope (ft/ft)       0.002162   Area (sq ft)                      17539.43
  Q Total (cfs)           172000.00   Flow (cfs)                       172000.00
  Top Width (ft)            2015.49   Top Width (ft)                    2015.49
  Vel Total (ft/s)             9.81   Avg. Vel. (ft/s)                     9.81
  Max Chl Dpth (ft)           16.97   Hydr. Depth (ft)                     8.70
  Conv. Total (cfs)       3699132.3   Conv. (cfs)                      3699132.3
  Length Wtd. (ft)           484.06   Wetted Per. (ft)                  2024.93
  Min Ch El (ft)            1204.35   Shear (lb/sq ft)                     1.17
  Alpha                        1.00   Stream Power (lb/ft s)              11.46
  Frctn Loss (ft)              1.51   Cum Volume (acre-ft)       0.92   4497.89       3.93
  C & E Loss (ft)              0.09   Cum SA (acres)             0.14    353.14       1.40

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
                than 0.7 or greater than 1.4.  This may indicate the need for additional cross
sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.
```

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18472.62	18547.70	328.79	124.74	61.09	0.19	2.05	2.64
18547.70	18622.79	1579.89	347.48	75.11	0.92	4.63	4.55
18622.79	18697.87	1421.61	326.20	75.14	0.83	4.34	4.36
18697.87	18772.95	404.38	153.40	75.11	0.24	2.04	2.64
18772.95	18848.04	35.60	35.69	75.09	0.02	0.48	1.00
18848.04	18923.12	5.06	10.53	66.20	0.00	0.16	0.48
18923.12 LB	19361.31	53498.23	5044.60	434.21	31.10	11.70	10.61
19361.31	19799.51	11664.79	2034.13	440.32	6.78	4.64	5.73
19799.51	20237.71	21418.04	2839.30	407.38	12.45	6.98	7.54
20237.71	20675.90	42551.54	3984.22	414.58	24.74	9.64	10.68
20675.90	21114.10 RB	39092.05	3422.97	322.11	22.73	10.70	11.42

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18923.12 LB	19361.31	54285.86	5090.74	438.42	31.56	11.69	10.66
19361.31	19799.51	12185.37	2080.77	440.32	7.08	4.75	5.86
19799.51	20237.71	22080.91	2882.60	407.76	12.84	7.08	7.66
20237.71	20675.90	43480.20	4028.31	416.22	25.28	9.71	10.79
20675.90	21114.10 RB	39967.68	3457.01	322.21	23.24	10.81	11.56

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 229.02

INPUT
Description:
Station Elevation Data num= 152

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17871.81	1229.5	17914.4	1229.5	17968.24	1227.09	17996.06	1227.69	18016.79	1226.92
18031.82	1228	18040.79	1228.9	18094.6	1228.75	18182	1228.54	18185.2	1228.72
18251.09	1229.2	18284.41	1229.38	18297.39	1226.84	18324.07	1228.27	18324.11	1228.261
18327.24	1227.26	18366.68	1220.9	18374.02	1217.98	18386.95	1217.31	18398.43	1216.57
18465.4	1215.08	18488.3	1214	18501.61	1214.79	18531.89	1217.15	18538.35	1217.23
18576.12	1218.07	18581.12	1216.2	18621.59	1203.32	18688.67	1203.55	18724.08	1203.51
18769.54	1203.55	18808.53	1214.4	18816.7	1217.01	18819.05	1217.89	18832.93	1217.81
18847.91	1213.11	18869.34	1208.3	18871.9	1207.51	18872.69	1207.71	18880.9	1207.17
18904.19	1206.25	18911.7	1205.8	18915.28	1205.8	18955.61	1206.36	18960.09	1207.5
18965.94	1206.54	18985.22	1204	19002.52	1204.86	19010.73	1203.96	19019.48	1202.59
19038.82	1200.34	19069.65	1204.2	19122.54	1204.91	19132.06	1205.2	19198.18	1208.59
19221.53	1209.57	19265.83	1211.1	19293.68	1211.33	19324.34	1212.53	19366.04	1213.99
19394.96	1215.97	19421.07	1217.8	19446.16	1218.18	19506.07	1218.78	19531.88	1218.1
19583.26	1217.61	19641.76	1217.1	19689.72	1217.02	19722.72	1217.48	19753.24	1217.38
19823.84	1217.47	19871.63	1217.3	19951.61	1217	20012.66	1216.31	20055.95	1215.48
20096.28	1214.39	20136.03	1213.4	20165.85	1212.78	20171.02	1212.92	20177.11	1213.29
20200.65	1214.01	20209.47	1215.2	20218.56	1216.63	20240.77	1214.95	20250.6	1213.78
20286.03	1212.73	20309.76	1212.1	20330.72	1212.18	20374.21	1213.07	20385.3	1212.97
20394.34	1214.99	20399.88	1215.3	20407.25	1213.51	20432.28	1208.6	20674.18	1208.45
20889.35	1208.45	20907.62	1222.8	20914.01	1224.63	20926.31	1227.49	20926.34	1227.5
21094.9	1256.08	21098.76	1256.34	21227.33	1256.4	21280.59	1256.67	21333.15	1257.07
21392.82	1257.12	21447.48	1256.95	21468.96	1257	21498.91	1256.76	21510.98	1256.77
21561.96	1256.58	21572.75	1256.03	21618.7	1253.4	21677.28	1253.15	21681.86	1253.18

```
21698.24 1253.7121720.37 1253.4821745.02  1253.121761.15 1253.9421827.69 1255.14
21850.84 1255.78   21864 1255.9221879.05  1255.821955.22 1256.3321970.03 1256.41
21982.53 1256.1121994.67 1256.0422013.77  1256.122035.83  1255.822089.44 1256.63
22106.57 1256.3322137.12 1256.23 22153.9    125622191.17  1255.322215.68 1253.81
 22240.9  1252.1 22264.1 1252.8922291.12  1254.222362.61 1253.25 22380.5 1253.07
22397.14  1250.122445.54 1243.5222450.45  1242.422453.87 1241.8622491.62 1235.15
22495.62 1235.0322504.39 1237.1322528.96    123522579.98  1240.522587.33 1241.47
22649.03 1241.5122683.42 1242.15

Manning's n Values        num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
17871.81    .03218819.05    .03219951.61    .028 20926.3    .028

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      18819.05 20926.3              520  514.36     510             .1        .3
Blocked Obstructions      num=       1
   Sta L   Sta R    Elev
18576.1218819.05    1219
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1218.89	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.22	Wt. n-Val.	0.032	0.030	
E.G. Elev (ft)	1221.11	Reach Len. (ft)	520.00	514.36	510.00
Crit W.S. (ft)		Flow Area (sq ft)	550.15	13989.33	
E.G. Slope (ft/ft)	0.004556	Area (sq ft)	550.15	13989.33	
Q Total (cfs)	172000.00	Flow (cfs)	3323.55	168676.45	
Top Width (ft)	2287.97	Top Width (ft)	204.38	2083.59	
Vel Total (ft/s)	11.83	Avg. Vel. (ft/s)	6.04	12.06	
Max Chl Dpth (ft)	18.55	Hydr. Depth (ft)	2.69	6.71	
Conv. Total (cfs)	2548260.8	Conv. (cfs)	49240.0	2499020.8	
Length Wtd. (ft)	514.41	Wetted Per. (ft)	205.58	2092.28	
Min Ch El (ft)	1200.34	Shear (lb/sq ft)	0.76	1.90	
Alpha	1.02	Stream Power (lb/ft s)	4.60	22.93	
Frctn Loss (ft)	1.90	Cum Volume (acre-ft)	265.64	4734.19	90.48
C & E Loss (ft)	0.16	Cum SA (acres)	40.99	355.47	25.07

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1218.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.38	Wt. n-Val.		0.030	
E.G. Elev (ft)	1221.22	Reach Len. (ft)	520.00	514.36	510.00
Crit W.S. (ft)		Flow Area (sq ft)		13881.49	
E.G. Slope (ft/ft)	0.004859	Area (sq ft)		13881.49	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	2083.52	Top Width (ft)		2083.52	
Vel Total (ft/s)	12.39	Avg. Vel. (ft/s)		12.39	
Max Chl Dpth (ft)	18.50	Hydr. Depth (ft)		6.66	
Conv. Total (cfs)	2467557.3	Conv. (cfs)		2467557.3	
Length Wtd. (ft)	514.36	Wetted Per. (ft)		2092.15	
Min Ch El (ft)	1200.34	Shear (lb/sq ft)		2.01	
Alpha	1.00	Stream Power (lb/ft s)		24.94	
Frctn Loss (ft)	1.95	Cum Volume (acre-ft)	0.92	4323.30	3.93
C & E Loss (ft)	0.21	Cum SA (acres)	0.14	330.36	1.40

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18313.86	18377.01	9.41	3.98	5.45	0.01	0.76	2.36
18377.01	18440.15	791.10	151.61	63.20	0.46	2.40	5.22
18440.15	18503.30	1885.04	255.28	63.21	1.10	4.04	7.38
18503.30	18566.45	614.58	130.33	63.24	0.36	2.06	4.72

18566.45	18629.60	23.45	8.95	10.49	0.01	0.93	2.62
18629.60	18819.05						
18819.05 LB	19240.50	71960.69	5138.70	424.96	41.84	12.19	14.00
19240.50	19661.95	7070.92	1273.30	421.67	4.11	3.02	5.55
19661.95	20083.40	3922.11	833.71	421.48	2.28	1.98	4.70
20083.40	20504.85	27705.15	2669.58	422.78	16.11	6.33	10.38
20504.85	20926.30 RB	58017.57	4074.05	401.40	33.73	10.24	14.24

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18819.05 LB	19240.50	73615.78	5116.89	424.91	42.80	12.14	14.39
19240.50	19661.95	7077.63	1251.48	421.67	4.11	2.97	5.66
19661.95	20083.40	3877.55	811.89	421.48	2.25	1.93	4.78
20083.40	20504.85	28154.08	2647.77	422.78	16.37	6.28	10.63
20504.85	20926.30 RB	59274.96	4053.46	401.31	34.46	10.19	14.62

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 228.92

INPUT
Description:
Station Elevation Data num= 138

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18157.11	1227.3	18181.31	1226.68	118181.33	1226.68	18213.53	1225.57	18271.6	1209.44
18293.58	1203.63	18317.87	1202.3	18391	1203.29	18397.26	1203.46	18430.24	1204.01
18439.08	1201.88	18464.97	1198.91	8480.67	1198.24	18529.63	1198.75	18549.62	1205.43
18559.99	1208.06	18570.53	1208.81	8585.98	1208.99	18604.57	1208.48	18641.42	1207.23
18679.92	1207	18690	1206.71	8703.26	1208.71	18708.67	1209.14	18715.22	1207.93
18718.3	1206.54	18769.23	1207.11	8791.67	1207.74	18822.73	1209.09	18841.35	1209.61
18881.2	1210.59	18897.06	121	118963.14	1212.21	8965.79	1212.19	19032.82	1211.5
19150.78	1208.26	19161.43	120	819188.53	1209.65	19211.14	1205.15	19237.78	1208.26
19263.08	1209.05	19270.87	1209.11	9308.73	1208.95	19315.64	1209.9	19322.9	1210.67
19356.76	1212.81	19361.62	1213.31	9367.98	1212.91	9380.14	1215.32	19383.79	1215.33
19396.05	1217.39	19420.87	1217.91	9462.07	121	819521.04	1217.23	19577.28	1217.34
19619.73	1217.97	19629.21	1218.21	9741.37	1217.86	19767.89	1217.85	19774.62	1217.06
19781.31	1216.58	19799.29	1216.41	9838.25	1213.96	19841.41	1213.62	19873.08	1214.51
19907.07	1215.27	19920.76	1215.11	9973.94	1215.38	20011.62	1214.44	20048.09	1214.93
20097.9	1215.67	20181.84	1214.42	0207.58	1214.23	20276.46	1214.97	20283.86	1215.02
20346.16	1216.84	20385.24	1216.82	0434.85	1216.98	20441.96	1216.73	20450.6	1216.06
20463.14	1212.22	20475.99	1206.82	0836.12	1207.02	20850.64	1214.02	20858.16	1218.11
20867.82	1221.67	20892.7	1227.82	0928.25	1235.39	21015.82	1255.36	21027.66	1256.47
21037.46	1256.74	21052.45	1256.82	1167.06	1257.25	21191.92	1257.42	21213.28	1257.47
21218.98	1257.42	1242.69	1257.7	21323.8	1256.89	21337.87	1256.85	21393.42	1256.42
21445.33	1255.84	21448.72	1255.8	21494.3	1255.19	21502.04	1255.19	21534.96	1250.29
21549.03	1248.06	21560.32	1248.62	1680.26	1253.55	21686.56	1253.59	21708.59	1253.55
21763.77	1253.12	21802.34	1254.12	1894.39	1255.88	21942.73	1256.97	21945.42	1256.9
21987.12	1255.38	22020.27	1255.12	2065.79	1254.64	22139.71	1256.04	22178.93	1255.56
22236.91	1254.78	22268.45	1254.22	2275.72	1253.97	22342.6	1253.18	22351.54	1253.01
22383.12	1251.83	22437.94	1246.12	2451.41	1244.47	22480.59	1239.59	22505.64	1235.2
22536.42	1234.02	22537.49	1234.12	2602.49	1238.12	22623.23	1237.07	22635.47	1237.84
22640.63	1238.03	22649.07	1238.72	2653.36	1238.71				

Manning's n Values num= 2

Sta	n Val	Sta	n Val
18157.11	.03	219462.07	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18181.3	20892.7	510	479.34	475	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1217.35	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.70	Wt. n-Val.		0.031	
E.G. Elev (ft)	1219.05	Reach Len. (ft)	510.00	479.34	475.00
Crit W.S. (ft)		Flow Area (sq ft)		16440.38	
E.G. Slope (ft/ft)	0.003063	Area (sq ft)		16440.37	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	2303.95	Top Width (ft)		2303.95	
Vel Total (ft/s)	10.46	Avg. Vel. (ft/s)		10.46	
Max Chl Dpth (ft)	19.11	Hydr. Depth (ft)		7.14	
Conv. Total (cfs)	3107647.0	Conv. (cfs)		3107647.0	
Length Wtd. (ft)	479.34	Wetted Per. (ft)		2314.12	
Min Ch El (ft)	1198.24	Shear (lb/sq ft)		1.36	
Alpha	1.00	Stream Power (lb/ft s)		14.21	
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	262.35	4554.53	90.48
C & E Loss (ft)	0.26	Cum SA (acres)	39.77	329.57	25.07

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1217.37	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.69	Wt. n-Val.		0.031	
E.G. Elev (ft)	1219.06	Reach Len. (ft)	510.00	479.34	475.00
Crit W.S. (ft)		Flow Area (sq ft)		16476.68	
E.G. Slope (ft/ft)	0.003045	Area (sq ft)		16476.67	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	2306.43	Top Width (ft)		2306.43	
Vel Total (ft/s)	10.44	Avg. Vel. (ft/s)		10.44	
Max Chl Dpth (ft)	19.13	Hydr. Depth (ft)		7.14	
Conv. Total (cfs)	3117199.0	Conv. (cfs)		3117199.0	
Length Wtd. (ft)	479.34	Wetted Per. (ft)		2316.64	
Min Ch El (ft)	1198.24	Shear (lb/sq ft)		1.35	
Alpha	1.00	Stream Power (lb/ft s)		14.11	
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	0.92	4144.07	3.93
C & E Loss (ft)	0.26	Cum SA (acres)	0.14	304.45	1.40

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18181.30 LB	18723.58	76887.73	6055.54	484.85	44.70	12.60	12.70
18723.58	19265.86	39480.37	4247.92	543.09	22.95	7.83	9.29
19265.86	19808.14	5843.82	794.65	233.24	3.40	3.42	7.35
19808.14	20350.42	6094.87	1277.38	542.44	3.54	2.36	4.77
20350.42	20892.70 RB	43693.20	4064.88	510.50	25.40	8.03	10.75

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18181.30 LB	18723.58	76811.19	6063.11	484.86	44.66	12.62	12.67
18723.58	19265.86	39491.58	4256.46	543.09	22.96	7.85	9.28
19265.86	19808.14	5851.98	798.33	235.74	3.40	3.40	7.33
19808.14	20350.42	6144.08	1285.92	542.44	3.57	2.37	4.78
20350.42	20892.70 RB	43701.18	4072.86	510.51	25.41	8.04	10.73

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 228.83

INPUT
Description:
Station Elevation Data num= 156

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18344.29	1226.41	8348.59	1226.49	18348.61	1226.48	18408.86	1212.76	18441.76	1203.92
18466.97	1202.07	18578.65	1202.11	8583.26	1202.12	18586.6	1200.96	18602.55	1197.33
18643.54	1209.26	18649.6	1210.81	8654.81	1210.98	18667.59	1206.36	18697.56	1200.55
18711.78	1200.73	18719.15	120	11875	1.11	1206.91	18776.76	1214.09	18780.65	1214.08
18808.88	1212.36	18832.54	1208.41	8837.22	1207.27	18865.75	1214.03	18873.5	1215.92
18882.49	1213.99	18903.93	1210.31	8914.71	1210.54	18984.89	1211.45	18989.88	1210.79
19010.39	1205.81	9022.56	1203.11	9034.11	1204.14	19047.36	1204.62	19066.07	1206.02
19088.06	1205.36	19113.94	1205.71	9138.55	1205.36	19160.97	1206.09	19184.33	1206.6
19259.25	1205.19	19277.43	1205.11	9300.35	1204.11	19344.46	1202.75	19356.79	1202.86
19360.99	1203.75	19399.49	1212.91	9410.34	1211.49	19421.36	1211.42	19441.72	1211.45
19463.79	1214.61	9466.77	1214.81	9499.73	1215.37	19534.98	1216.08	19538.95	1216.25
19541.1	1215.38	19561.83	1205.61	9593.31	1205.35	19609.3	1205.06	19616.97	1204.78
19663.5	1203.77	19690.17	1203.41	9712.98	1203.67	19755.68	1203.21	19778.54	1203.19
19793.07	1202.78	19799.56	1203.31	9804.34	1204.47	19812.43	1206.75	19815.12	1207.77
19837.98	1217.04	19863.37	1216.41	9878.17	1215.99	19898.25	1215.51	19919.06	1215.3
19981.07	1214.27	19986.88	1214.11	9989.89	1214.27	20031.52	1215.86	20067.33	1217.05
20072.47	1217.42	0083.27	1212.22	0101.34	1204.58	20186.86	1204.59	20219.31	1207.05
20229.64	1206.67	20239.07	1208.12	0308.51	1208.12	20358.22	1208.05	20370.23	1207.65
20392.74	1207.15	20408.65	1206.8	20433.8	1206.05	20548.75	1206.27	20846.13	1206.74
20859.2	1213.02	20859.22	1213.03	20864.64	1217.52	0942.21	1237.18	21023.93	1257.8
21071.43	1256.93	21088.22	1256.59	21090.75	125	6211	02.97	1254.88	21128.9	1253.72
21135.03	1253.42	1152.99	1251.97	21176.84	1251.42	1179.25	1251.48	21196.94	1248.46
21198.15	1247.72	21214.08	1247.14	21305.55	124	8213	36.27	1248.32	21408.03	1248.81
21447.48	1248.24	21555.71	1248.49	21601.9	1248.72	1613.96	1248.66	21636.88	1248.91
21639.84	1248.87	21663.32	1249.01	21686.11	124	9217	22.41	1249.44	21726.95	1249.57
21788.89	1250.06	21804.83	1249.65	21834.75	1250.42	1862.15	1250.96	21881.4	1251.64
21923.79	1252.81	21951.66	1253.21	21980.21	1253.52	2007.92	1253.27	22024.56	1253.07
22050.94	1252.53	22071.75	1252.2	22089.4	1251.82	2096.89	1251.59	22124.81	1251.38
22161.15	1251.59	22217.64	1252.41	22263.76	1252.82	2305.37	1253.64	22374.88	1250.84
22415.11	1244.26	22437.71	1240.22	22478.01	1233.12	2486.37	1231.87	22525.69	1231.88
22555.01	1233.91	22582.62	1234.14	22605.12	1229.62	2609.36	1229.74	22615.44	1230.42
22631.31	1231.31								

Manning's n Values num= 2

Sta	n Val	Sta	n Val
18344.29	.03219	837.98	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18348.62	0864.64	510	502.19	505	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1217.10	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.85	Wt. n-Val.		0.031	
E.G. Elev (ft)	1217.95	Reach Len. (ft)	510.00	502.19	505.00
Crit W.S. (ft)		Flow Area (sq ft)		23305.30	
E.G. Slope (ft/ft)	0.001156	Area (sq ft)		23305.30	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	2469.35	Top Width (ft)		2469.35	
Vel Total (ft/s)	7.38	Avg. Vel. (ft/s)		7.38	
Max Chl Dpth (ft)	19.77	Hydr. Depth (ft)		9.44	

Conv. Total (cfs)	5059353.5	Conv. (cfs)		5059353.5	
Length Wtd. (ft)	502.19	Wetted Per. (ft)		2491.92	
Min Ch El (ft)	1197.33	Shear (lb/sq ft)		0.67	
Alpha	1.00	Stream Power (lb/ft s)		4.98	
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	262.35	4335.85	90.48
C & E Loss (ft)	0.03	Cum SA (acres)	39.77	303.30	25.07

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1217.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.84	Wt. n-Val.		0.031	
E.G. Elev (ft)	1217.96	Reach Len. (ft)	510.00	502.19	505.00
Crit W.S. (ft)		Flow Area (sq ft)		23349.62	
E.G. Slope (ft/ft)	0.001149	Area (sq ft)		23349.62	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	2469.66	Top Width (ft)		2469.66	
Vel Total (ft/s)	7.37	Avg. Vel. (ft/s)		7.37	
Max Chl Dpth (ft)	19.79	Hydr. Depth (ft)		9.45	
Conv. Total (cfs)	5074979.5	Conv. (cfs)		5074979.5	
Length Wtd. (ft)	502.19	Wetted Per. (ft)		2492.26	
Min Ch El (ft)	1197.33	Shear (lb/sq ft)		0.67	
Alpha	1.00	Stream Power (lb/ft s)		4.95	
Frctn Loss (ft)	0.48	Cum Volume (acre-ft)	0.92	3924.94	3.93
C & E Loss (ft)	0.03	Cum SA (acres)	0.14	278.17	1.40

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18348.60 LB	18851.81	41491.77	5312.85	470.05	24.12	11.50	7.81
18851.81	19355.02	36402.95	5056.59	505.48	21.16	10.05	7.20
19355.02	19858.22	29637.05	4417.94	509.58	17.23	8.78	6.71
19858.22	20361.43	20282.35	3274.59	501.15	11.79	6.57	6.19
20361.43	20864.64 RB	44185.88	5243.33	505.65	25.69	10.43	8.43

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18348.60 LB	18851.81	41472.57	5321.15	470.07	24.11	11.52	7.79
18851.81	19355.02	36400.75	5065.62	505.48	21.16	10.07	7.19
19355.02	19858.22	29644.57	4426.97	509.58	17.24	8.80	6.70
19858.22	20361.43	20304.77	3283.54	501.46	11.81	6.59	6.18
20361.43	20864.64 RB	44177.35	5252.35	505.67	25.68	10.45	8.41

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 228.73

INPUT
Description:
Station Elevation Data num= 159

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18294.05	1224.418	306.02	1224.5	518341.49	1224.7	418346.03	1224.8	18372.59	1223.43
18406.6	1223.5	18431.59	1224.1	518442.92	1224.2	818446.46	1224.6	218454.89	1226.5
18484.07	1229.1	18490.5	1228.78	18497.3	1225.0	718514.94	1225.3	718518.64	1225.34
18540.99	1224.9	18543.29	1224.5	318591.59	1222.6	118596.88	1221.81	18596.91	1221.805
18609.71	1218.44	18646.3	1210.2	18667.51	1203.37	18701.5	1201.3	318738.98	1201.68
18743.66	1202.3	818750.08	1204.7	18769.78	1204.3	418771.38	1204.2	818822.12	1204.85
18829.08	1205.5	318841.53	1205.8	18870.84	1203.3	518877.17	1202.2	118884.28	1201.59
18911.91	1201.61	18940	1204.5	18966.29	1206.4	718988.38	1206.92	19051.5	1208.31
19102.92	1208.3	919143.06	1207.3	19170.61		120619190.61	1204.7	919200.84	1203.83
19204.57	1203.1	619212.85	1202.1	19218.25	1201.6	219287.94	1201.6	219300.86	1201.68
19346.82	1203.6	719366.05	1203.7	19382.91	1205.6	19414.92	1206.3	519421.19	1206.43
19430.68	1206.1	919447.69	1204.5	19467.19	1202.7	219481.42	1204.8	119497.32	1204.45

```
19512.54 1202.7719527.77    1204 19550.5 1206.6219556.02  1205.919596.35  1205.1
19599.87 1205.6619633.95  1210.719689.93 1211.6119701.15 1212.2319707.83 1212.05
19728.42 1212.36 19741.6    121219747.55 1211.4119762.73  1203.719867.84 1203.18
19871.53 1204.0119884.46  1206.619895.57 1204.6919897.93 1204.4919904.27 1204.61
19913.91 1205.0919918.94  1203.519931.27 1205.0919956.59 1205.2920014.52  1206.3
20017.59 1206.2820028.26  1205.920047.57 1206.12 20136.1 1206.6820226.95 1205.92
20240.58 1205.8420261.63  1205.920331.39 1205.7620367.92 1204.9220465.94 1205.14
20812.42 1205.9720832.04  1211.5 20842.81216.14220842.82 1216.15 20902.5 1227.11
20937.87 1235.0120967.76 1243.9220973.23  1245.121015.53 1255.56 21031.8 1255.35
21084.14  1255.721119.56 1255.7721141.23     125621170.12  1256.5 21192.7 1256.38
21194.69 1256.3221216.23 1250.6521272.16  1236.621346.84 1238.6821357.43 1238.77
21375.15 1236.7921490.15 1237.4821492.57  1237.521518.58 1239.0721549.78 1241.41
21589.49 1240.6121647.86 1240.6221662.85  1240.521692.38 1241.1221801.35 1241.02
21815.44  1240.921909.75 1238.33 21969.4  1236.522004.21 1235.6722022.87 1238.45
22047.21 1241.7222052.59 1242.2522058.13  1242.422065.64 1242.2222083.76 1242.07
22101.46 1241.3322142.59 1238.78 22152.1  1238.922166.21 1238.5122178.11 1239.21
 22198.8 1241.1122221.11    124122299.21  1241.922306.53 1243.2122343.57 1248.75
22358.48  1248.722367.05 1248.4622403.36  1241.522425.21 1236.6322454.86 1228.48
22480.87  1228.522492.33 1228.3822542.92  1228.822592.86 1229.24 22620.7 1229.83
22638.49 1232.0522642.34 1231.9822662.03  1232.122667.01 1232.28

Manning's n Values         num=       2
     Sta   n Val     Sta   n Val
18294.05    .03219728.42    .028

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       18596.9 20842.8               515  503.91     500              .1       .3

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1216.68   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                0.76   Wt. n-Val.                              0.030      0.028
  E.G. Elev (ft)            1217.44   Reach Len. (ft)            515.00     503.91     500.00
  Crit W.S. (ft)                      Flow Area (sq ft)                    24569.29       0.77
  E.G. Slope (ft/ft)        0.000811  Area (sq ft)                         24569.29       0.77
  Q Total (cfs)           172000.00   Flow (cfs)                          171999.53       0.48
  Top Width (ft)            2228.17   Top Width (ft)                        2225.27       2.90
  Vel Total (ft/s)             7.00   Avg. Vel. (ft/s)                         7.00       0.62
  Max Chl Dpth (ft)           15.35   Hydr. Depth (ft)                        11.04       0.27
  Conv. Total (cfs)       6041289.5   Conv. (cfs)                         6041273.0       16.7
  Length Wtd. (ft)           503.91   Wetted Per. (ft)                      2234.17       2.95
  Min Ch El (ft)            1201.33   Shear (lb/sq ft)                         0.56       0.01
  Alpha                        1.00   Stream Power (lb/ft s)                   3.90       0.01
  Frctn Loss (ft)              0.59   Cum Volume (acre-ft)       262.35    4059.88      90.48
  C & E Loss (ft)              0.11   Cum SA (acres)              39.77     276.24      25.05


Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
                than 0.7 or greater than 1.4.  This may indicate the need for additional cross
sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1216.70   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                0.76   Wt. n-Val.                              0.030
  E.G. Elev (ft)            1217.46   Reach Len. (ft)            515.00     503.91     500.00
  Crit W.S. (ft)                      Flow Area (sq ft)                    24614.93
  E.G. Slope (ft/ft)        0.000806  Area (sq ft)                         24614.93
  Q Total (cfs)           172000.00   Flow (cfs)                          172000.00
  Top Width (ft)            2225.27   Top Width (ft)                        2225.27
  Vel Total (ft/s)             6.99   Avg. Vel. (ft/s)                         6.99
  Max Chl Dpth (ft)           15.37   Hydr. Depth (ft)                        11.06
  Conv. Total (cfs)       6058893.0   Conv. (cfs)                         6058893.0
  Length Wtd. (ft)           503.91   Wetted Per. (ft)                      2234.75
  Min Ch El (ft)            1201.33   Shear (lb/sq ft)                         0.55
  Alpha                        1.00   Stream Power (lb/ft s)                   3.87
  Frctn Loss (ft)              0.59   Cum Volume (acre-ft)         0.92    3648.46       3.93
  C & E Loss (ft)              0.11   Cum SA (acres)               0.14     251.10       1.40


Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
```

than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18596.90 LB	19046.08	33625.41	4991.11	431.38	19.55	11.65	6.74
19046.08	19495.26	36657.41	5345.79	449.94	21.31	11.90	6.86
19495.26	19944.44	30468.99	4530.94	452.74	17.71	10.09	6.72
19944.44	20393.62	35296.98	4820.38	449.21	20.52	10.73	7.32
20393.62	20842.80 RB	35950.75	4881.08	450.90	20.90	10.87	7.37
20842.80	20964.41	0.48	0.77	2.95	0.00	0.27	0.62

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18596.90 LB	19046.08	33625.40	4999.90	431.40	19.55	11.67	6.73
19046.08	19495.26	36656.36	5355.00	449.94	21.31	11.92	6.85
19495.26	19944.44	30481.32	4540.15	452.74	17.72	10.11	6.71
19944.44	20393.62	35307.00	4829.59	449.21	20.53	10.75	7.31
20393.62	20842.80 RB	35929.93	4890.30	451.46	20.89	10.89	7.35

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 228.63

INPUT
Description:
Station Elevation Data num= 155

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18130.63	1227.218	146.73	1227.9118	155.04	1228.218	163.48	1227.9218	189.82	1226.9
18218.16	1226.318	237.15	1225.7918	270.97	1226.7718	304.55	1225.5618	316.27	1224.28
18323.03	1222.2	18351.7	1209.2418	371.52	1204.2618	398.76	1205.4618	416.16	1208.36
18447.66	1209.518	464.96	1212.0818	477.88	1215.4318	518.84	1226.8618	526.89	1229.42
18593.47	1231.918	598.09	1231.9918	614.98	1233.7618	621.13	1234.8718	711.33	1237.34
18734.41	1239.09	18734.42	1239.118	745.02	1237.6518	767.51	1234.1818	779.98	1232.15
18806.5	1227.57	18817.7	1225.418	826.28	1222.39	18870.1	1201.3818	871.61	1202.11
18872.63	1199.219	012.04	1199.1	19071.9	1199.05	19081.13	1202.15	19098	1207.58
19100.12	1207.161	9122.72	1204.61	9130.92	1204.43	19143.56	1201.23	19183.23	1203.93
19193.64	1204.431	9227.98	1205.41	9250.78	1205.69	19255.66	1205.61	9274.17	1204.03
19287.07	1202.551	9294.82	1202.31	9359.65	1201.84	19375.08	1201.89	19436.23	1206.11
19464.91	1204.671	9488.42	1204.81	9527.15	1206.62	19530.07	1206.48	19602.16	1203.38
19624.43	1203.071	9680.88	1202.11	9738.51	1202.41	19750.31	1203.33	19764.37	1203.6
19789.98	1205.871	9808.35	1205.31	9823.91	1206.22	19828.15	1205.63	19855.87	1204.59
19870.01	1205.981	9891.96	120	719902.37	1206.88	19920.71	1207.42	19936.65	1209.1
19946.07	1209.961	9962.89	1208.71	9987.84	1206.09	20012.65	1203.84	20017.23	1203.01
20035.16	1203.772	0048.22	1204.52	0093.79	120	520179.22	1205.68	20203.74	1205.77
20238.59	1204.342	0262.26	1203.52	0461.67	1203.52	0609.61	1203.49	20695.07	1203.46
20721.79	1207.66	20759.8	1212.82	0794.25	1220.06	20799.57	1221.97	20819.96	1227.48
20843.87	1234.21	20889.21	1246.48	20889.24	1246.52	0897.69	1248.33	20941.93	1249.32
20965.9	1249.63	21017.9	1250.37	21054.34	1250.62	1084.74	1250.53	21124.14	1250.64
21165.35	1250.46	21207.9	1249.52	21255.63	1242.32	1293.71	1236.32	1301.26	1236.76
21322.33	1234.06	21329.42	1234.01	21384.06	1230.12	1395.07	1230.29	21410.56	1230.94
21462.55	123	221471.99	1232.24	21502.7	1232.42	1586.13	1231.83	21607.65	1232.16
21626.58	1231.82	1736.26	1232.8	21769.8	1232.92	1786.63	1233.12	1850.58	1233.99
21873.36	1230.68	21890.2	1227.65	21952.79	1229.82	1961.21	123	022029.63	1228.55
22049.93	1228.46	22058.96	1228.28	22091.26	1228.62	2161.86	1228.16	22195.97	1228.1
22199.93	1229.25	22209.64	1229.89	22218.37	1229.52	2227.12	1228.92	2233.21	1228.1
22250.43	1228.12	2254.81	1228.03	22293.64	1227.82	2348.89	1227.37	22352.68	1226.99
22373.98	1226.71	22403.97	1227.42	22406.46	122	822414.07	1228.52	22429.63	1225.63
22449.85	1225.62	22467.51	1225.26	22520.35	1226.12	2554.98	1226.74	22566.71	1227.04

W.S. Elev (ft)	1213.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.91	Wt. n-Val.		0.028	
E.G. Elev (ft)	1215.89	Reach Len. (ft)	500.00	496.18	495.00
Crit W.S. (ft)	1210.18	Flow Area (sq ft)		15506.17	
E.G. Slope (ft/ft)	0.001625	Area (sq ft)		15506.17	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1304.25	Top Width (ft)		1304.25	
Vel Total (ft/s)	11.09	Avg. Vel. (ft/s)		11.09	
Max Chl Dpth (ft)	15.68	Hydr. Depth (ft)		11.89	
Conv. Total (cfs)	4267213.5	Conv. (cfs)		4267213.5	
Length Wtd. (ft)	496.18	Wetted Per. (ft)		1313.11	
Min Ch El (ft)	1198.30	Shear (lb/sq ft)		1.20	
Alpha	1.00	Stream Power (lb/ft s)		13.29	
Frctn Loss (ft)	0.56	Cum Volume (acre-ft)	0.92	3236.98	3.93
C & E Loss (ft)	0.22	Cum SA (acres)	0.14	213.42	1.40

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19329.84	19685.98	45911.12	3887.38	296.35	26.69	13.13	11.81
19685.98	20042.12	57564.47	4792.52	356.22	33.47	13.46	12.01
20042.12	20398.26	40356.63	3872.40	356.14	23.46	10.87	10.42
20398.26	20754.40 RB	28167.77	2909.12	298.76	16.38	9.83	9.68

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19329.84	19685.98	45474.40	3897.53	301.95	26.44	13.17	11.67
19685.98	20042.12	57726.09	4804.74	356.22	33.56	13.49	12.01
20042.12	20398.26	40510.70	3884.62	356.14	23.55	10.91	10.43
20398.26	20754.40 RB	28288.82	2919.27	298.79	16.45	9.86	9.69

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 228.45

INPUT
Description:
Station Elevation Data num= 182

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17542.24	1196.71	7572.08	1209.33	17612.17	1226.99	17624.76	1223.37	17636.14	1223.66
17656.2	1224.41	7671.19	1224.27	17679.53	1225.77	17688.23	1227.61	17715.01	1212.26
17722.16	1208.11	7736.89	1208.25	17772.06	1211.15	17787.88	1210.53	17789.94	1210.18
17799.73	1210.61	7813.02	1209.34	17845.08	1214.27	17884.07	1221.59	17909.2	1224.31
17925.69	1227.11	7940.76	1227.46	17951.52	1227.51	8000.69	1227.89	18008.96	1227.92
18025.65	1227.31	8038.97	1227.17	18060.95	1227.22	18080.36	1227.05	18085.75	1226.92
18110.07	1230.51	8132.57	1233.87	18187.34	1235.69	18252.36	1235.53	18263.29	1234.81
18296.37	1233.41	8310.37	1232.93	18335.81	1232.29	18356.38	1231.91	8373.23	1232.07
18388.84	1231.81	8405.62	1231.54	18438.66	1229.59	18458.26	1228.16	18489.67	1228.84
18527.47	1228.9	18672.3	1229.08	18693.96	1229.22	18739.29	1231.81	8757.37	1231.47
18796.88	1230.51	8802.21	1230.52	18820.8	1228.26	18836.26	1228.36	18861.31	1228.22
18886.85	1228.71	8903.02	1228.91	18925.7	1229.11	8925.71	1229.11	8964.71	1225.71
18981.49	1224.31	9025.49		122119038.76	1218.34	19043.44	1217.24	19059.08	1215.02
19093.22	1208.77	19102.52	1208.31	9122.43	1209.36	19135.92	1207.88	19179.58	1208.63
19195.65	1209.07	19205.04	1209.61	9206.23	1208.45	19208.3	1208.11	9225.25	1198.3
19236.66	1200.72	19253.11	1198.31	9305.83	1198.21	9488.96	1197.39	19538.22	1197.19
19540.22	1197.32	19549.96	1198.91	9609.21	1198.13	19624	1197.96	19643.62	1197.55
19720.38	1197.89	19906.22	1199.71	9926.08	1199.87	19946.23	1199.92	0218.73	1200.69
20558.32	1202.37	20588.75	1202.62	0641.84	1203.12	0646.11	1203.12	0667.04	1211.17
20671.24	1213.21	20678.27		121320700.55	1215.2	20735	1217.24	20739.39	1218.06
20805.5	1235.77	20805.53	1235.78	20820.22		124020843.39	1244.17	20888.94	1243.73
20891.4	1243.55	20915.03	1236.53	20919.28	1236.32	0937.15	1235.82	0951.86	1235.14

```
20965.24 1235.0921019.01 1235.4521066.94  1236.621077.74 1230.91 21092.6 1224.92
21136.59 1224.59   21148 1224.4621162.21  1226.621167.42 1227.5121172.61 1227.69
21201.65 1227.5821251.26    120921255.35  1207.921267.73  1207.821298.14 1210.03
21309.96 1209.5921326.44 1217.5921341.49  1223.921371.37  1223.621381.63 1223.25
21410.28 1222.6121440.61 1240.7321460.98  1252.921468.61 1252.72 21493.6 1251.38
21520.06  1249.821531.53 1242.3821565.12  1224.2 21567.7 1222.7821589.41 1223.21
21612.64  1225.9 21615.2 1226.0721627.42  1223.121669.69 1223.1821687.51 1222.72
21712.23 1222.5221721.91 1222.5221727.21  1222.721744.03 1227.9221753.65 1231.22
 21769.4    123121804.21 1230.6121816.37  1227.321828.83 1223.2121845.11  1224.3
21871.02 1236.3921881.66    124121898.45  1240.321904.96 1239.4421922.13 1232.32
21938.23 1225.9221946.65 1224.0621950.45  1226.821958.58 1229.5221975.49 1227.12
22004.82 1224.8322010.13 1223.8122029.78  1223.522050.37 1223.6222059.73 1223.54
22098.94 1223.6122112.98 1223.7222208.97  1224.622241.75 1224.9222271.71 1223.95
22335.42 1225.2522338.79 1223.9622346.48  1221.922378.38 1221.6122408.17 1223.37
   22432 1221.6922459.35 1222.15

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
17542.24    .032 18925.7    .028 20805.5    .032

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       18925.7 20805.5               495  511.35     515              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
17542.24   19270  1229.1 20805.522459.351235.772

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)          1213.90   Element                  Left OB    Channel   Right OB
  Vel Head (ft)              1.19   Wt. n-Val.                           0.028
  E.G. Elev (ft)          1215.09   Reach Len. (ft)           495.00    511.35    515.00
  Crit W.S. (ft)          1207.60   Flow Area (sq ft)                 19631.74
  E.G. Slope (ft/ft)     0.000821   Area (sq ft)              818.75  21158.83    348.00
  Q Total (cfs)         172000.00   Flow (cfs)                       172000.00
  Top Width (ft)          1873.47   Top Width (ft)            170.70   1622.13     80.64
  Vel Total (ft/s)           8.76   Avg. Vel. (ft/s)                      8.76
  Max Chl Dpth (ft)         17.20   Hydr. Depth (ft)                     13.85
  Conv. Total (cfs)      6002599.5  Conv. (cfs)                      6002599.5
  Length Wtd. (ft)         511.35   Wetted Per. (ft)                  1419.53
  Min Ch El (ft)          1197.19   Shear (lb/sq ft)                      0.71
  Alpha                      1.00   Stream Power (lb/ft s)                6.21
  Frctn Loss (ft)            0.33   Cum Volume (acre-ft)      177.30  3372.68     68.82
  C & E Loss (ft)            0.11   Cum SA (acres)             30.35   215.07     22.59


Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water
surface.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)          1213.92   Element                  Left OB    Channel   Right OB
  Vel Head (ft)              1.19   Wt. n-Val.                           0.028
  E.G. Elev (ft)          1215.11   Reach Len. (ft)           495.00    511.35    515.00
  Crit W.S. (ft)          1207.59   Flow Area (sq ft)                 19669.29
  E.G. Slope (ft/ft)     0.000828   Area (sq ft)                      19669.29
  Q Total (cfs)         172000.00   Flow (cfs)                       172000.00
  Top Width (ft)          1417.35   Top Width (ft)                    1417.35
  Vel Total (ft/s)           8.74   Avg. Vel. (ft/s)                      8.74
  Max Chl Dpth (ft)         16.73   Hydr. Depth (ft)                     13.88
  Conv. Total (cfs)      5977792.5  Conv. (cfs)                      5977792.5
  Length Wtd. (ft)         511.35   Wetted Per. (ft)                  1435.21
  Min Ch El (ft)          1197.19   Shear (lb/sq ft)                      0.71
  Alpha                      1.00   Stream Power (lb/ft s)                6.19
  Frctn Loss (ft)            0.33   Cum Volume (acre-ft)        0.92  3036.65      3.93
  C & E Loss (ft)            0.11   Cum SA (acres)              0.14   197.92      1.40


FLOW DISTRIBUTION OUTPUT    Profile #PF#1

  Left Sta      Right Sta        Flow       Area       W.P.    % Conv.   Hydr D.   Velocity
  (ft)          (ft)             (cfs)    (sq ft)      (ft)                (ft)     (ft/s)
  18925.70 LB   19301.66       4661.78     495.74     31.66      2.71     15.66       9.40
  19301.66      19677.62      57680.50    6034.74    376.10     33.54     16.05       9.56
  19677.62      20053.58      50076.93    5543.23    375.97     29.11     14.74       9.03
  20053.58      20429.54      40697.30    4894.58    375.96     23.66     13.02       8.31
```

20429.54	20805.50 RB	18883.50	2663.44	259.83	10.98	10.33	7.09

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18925.70 LB	19301.66	3588.12	496.58	47.31	2.09	15.68	7.23
19301.66	19677.62	58027.85	6044.70	376.10	33.74	16.08	9.60
19677.62	20053.58	50390.78	5553.19	375.97	29.30	14.77	9.07
20053.58	20429.54	40968.59	4904.54	375.96	23.82	13.05	8.35
20429.54	20805.50 RB	19024.66	2670.27	259.86	11.06	10.36	7.12

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 228.35

INPUT
Description:
Station Elevation Data num= 121

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17927.25	121	617	938.92	1215.1	417	979.77	1228.71	17981.2	1228.7
517994.43	1225.1	17998.31	1223.9	18037.92	1223.9	718040.65	1224.1	518100.98	1228.6
318123.23	1228.55	18138.38	1228.9	18169.87	1229.1	118193.22	1229.4	518209.33	1229.8
418230.27	1227.94	18265.87	1224.2	18304.83	1223.8	618322.85	1224.2	918359.11	1224.8
18382.93	1224.51	18426.48	1224.3	18426.51	1224.2	9118446.11	1215.4	218452.64	1212.6
818464.29	1207.23	18481.23	1199.5	118501.33	1199.5	18515.75	1199.42	18686.8	1199.2
818738.78	1199.07	18782.03	1199.0	118866.29	1198.9	19065.75	1198.3	319088.44	1198.34
19154.3	1198.29	19754.31	1197.7	919778.45	1197.8	19831.59	1199.38	19888.4	1198.56
19899.4	1198.43	20037.64	1198.5	220088.27	1198.8	20135.84	1198.9	420267.65	1199.1
720274.85	1199.29	20292.54	1200.3	120309.68	1201.8	20323.67	1201.3	620356.53	1200.7
420374.98	1200.65	20387.03	1200.9	520417.15	1201.3	20456.53	1201.0	320474.65	1200.9
220512.89	1199.35	20551.52	1201.2	620557.47	1201.1	20606.59	1200.0	920617.67	1201.17
20632.4	1200.5	20640.82	1202.0	520646.87	1200.3	20662.53	1200.3	720704.95	1200.7
820722.95	1211.94	20738.98	1220.71	207391	1220.7	0420755.46	121	620759.95	1214.5
320800.51	1216.51	20874.62	1217.5	120924.44	1218.1	920925.62	1218.5	20953.54	1226.0
120958.28	1226.18	20967.92	1226.1	20981.54	1225.5	120984.65	1225.3	20999.45	1217.9
221029.72	1218.29	21044.39	1218.5	421117.85	1219.8	721128.32	1225.6	21137.79	1225.5
921174.63	1225.71	21184.2	1224.7	521192.82	1223.6	721232.31	1223.7	21246.12	1226.1
621265.06	1226.17	21287.27	1226.0	621301.62	1221.8	721304.63	1220.9	21346.57	1221.2
921408.59	1220.65	21438.66	1221.27	21460.6	1221.6	321483.07	1237.5	21510	1251.7
521522.33	1252.63	21526.3	1252.6	421544.39	1251.4	821546.55	1249.3	21560.09	1241.3
321588.66	1221.72	21687.14	1222.65	21707.3	1222.6	21728.05	1222.6	21783.82	1222.2
121796.95	1222.21	21809.54	1222.4	421900.22	1224.8	121907.38	1224.6	21976.62	1224.4
922078.36	1223.78	22171.32	1222.9	622200.45	1222.7	622220.24	1222.5	22339.3	1220.8
122352.79	1221.7	22361.88	1222.43						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17927.25	.032	18426.5	.02820953.54		.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18426.5	20739	500	498.36	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17927.25	191101	224.291	2073922361.88	1220.704	

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1213.83	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.81	Wt. n-Val.		0.028	
E.G. Elev (ft)	1214.64	Reach Len. (ft)	500.00	498.36	500.00
Crit W.S. (ft)	1206.08	Flow Area (sq ft)		23808.84	
E.G. Slope (ft/ft)	0.000515	Area (sq ft)		33382.96	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	2276.52	Top Width (ft)		2276.52	
Vel Total (ft/s)	7.22	Avg. Vel. (ft/s)		7.22	
Max Chl Dpth (ft)	16.04	Hydr. Depth (ft)		14.73	
Conv. Total (cfs)	7578545.5	Conv. (cfs)		7578545.5	
Length Wtd. (ft)	498.36	Wetted Per. (ft)		1620.77	
Min Ch El (ft)	1197.79	Shear (lb/sq ft)		0.47	
Alpha	1.00	Stream Power (lb/ft s)		3.41	

Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	172.65	3052.55	66.76
C & E Loss (ft)	0.01	Cum SA (acres)	29.38	192.18	22.12

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1213.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.81	Wt. n-Val.		0.028	
E.G. Elev (ft)	1214.67	Reach Len. (ft)	500.00	498.36	500.00
Crit W.S. (ft)	1206.10	Flow Area (sq ft)		23845.93	
E.G. Slope (ft/ft)	0.000519	Area (sq ft)		23845.93	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1616.41	Top Width (ft)		1616.41	
Vel Total (ft/s)	7.21	Avg. Vel. (ft/s)		7.21	
Max Chl Dpth (ft)	16.07	Hydr. Depth (ft)		14.75	
Conv. Total (cfs)	7550002.5	Conv. (cfs)		7550002.5	
Length Wtd. (ft)	498.36	Wetted Per. (ft)		1636.33	
Min Ch El (ft)	1197.79	Shear (lb/sq ft)		0.47	
Alpha	1.00	Stream Power (lb/ft s)		3.41	
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	0.92	2781.24	3.93
C & E Loss (ft)	0.01	Cum SA (acres)	0.14	180.11	1.40

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18889.00	19351.50	28230.69	3769.44	241.50	16.41	15.61	7.49
19351.50	19814.00	55503.94	7333.67	462.52	32.27	15.86	7.57
19814.00	20276.50	50780.82	6952.62	462.52	29.52	15.03	7.30
20276.50	20739.00 RB	37484.54	5753.09	454.24	21.79	12.79	6.52

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18889.00	19351.50	27260.20	3774.98	257.03	15.85	15.63	7.22
19351.50	19814.00	55868.05	7344.29	462.52	32.48	15.88	7.61
19814.00	20276.50	51120.70	6963.24	462.52	29.72	15.06	7.34
20276.50	20739.00 RB	37751.05	5763.42	454.26	21.95	12.81	6.55

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 228.26

INPUT
Description:
Station Elevation Data num= 126

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17901.49	1219.1	17981.4	1219.17	18044.11	1218.75	18053.73	1218.73	18066.53	1221.63
18078.83	1225.31	18105.36	1221.67	18112.24	1220.27	18114.84	1219.58	18155.08	1219.59
18178.57	1219.71	18193.53	1219.56	18253.02	1219.17	18266.12	1218.86	18323.21	1218.78
18353.42	1218.4	18365.6	1223.86	18384.4	1232.48	18398.19	1227.36	18412.14	1222.65
18430.19	1222.31	18433.97	1220.06	18461.95	1202.69	18471.96	1202.61	18483.85	1201.85
18490.75	1198.41	18523.54	1198.62	18532.66	1203.8	18535	1205.01	18535.03	1205.03
18540	1199.78	18541.47	1198.71	18780.83	1198.92	18852.55	1199	18876.2	1205.28
18877.94	1205.86	18902.26	1200.11	18909.66	1199.01	18950	1198.94	18956.1	1198.94
19142.15	1198.45	19197.41	1198.39	19262.63	1198.21	19320.66	1198.21	19484.77	1198.09
19630.98	1198.04	19799.73	1198.02	19819.52	1198	19823.16	1198	19942.53	1197.69
20129.37	1197.19	20140.82	1197.24	20148.76	1198.62	20154.15	1200.05	20175.91	1200.03
20219.66	1200.08	20269.38	1199.87	20305.3	1200.32	20311.82	1200.36	20394.31	1200.41
20468.58	1201.83	20487	1201.35	20571.47	1200.42	20583.45	1202.57	20604.2	1208.3
20617.31	1211.71	20617.31	1211.72	20699.25	1213.11	20717.2	1212.8	20734.8	1212.14
20749.22	1218.3	20763.2	1212.53	20772.89	1212.62	20861.39	1213.12	20879.66	1212.93
20890.99	1212.93	20920.22	1222.71	20923	1223.72	20942.98	1216.92	20968.88	1218.33
20986.23	1218.83	21007.44	1219.21	21018.92	1221.34	21025.08	1221.52	21051.79	1224.81
21058.48	1225.35	21064.77	1226.33	21074.57	1225.73	21102.65	1227.22	21114.02	1226.22
21129.23	1228.06	21145.07	1226.26	21157.67	1222	21192.2	1221.2	21224	1221.61
21236.61	1221.55	21253.53	1221.83	21284.87	1221.11	21342.69	1221.32	21366.24	1221.34
21407.32	1222.33	21434.94	1221.55	21521.21	1222.63	21613.05	1223.92	21635.76	1223.92
21704.44	1223.83	21753.56	1223.32	21814.21	1223.28	21869.33	1223.72	21885.98	1223.3
21919.88	1222.69	21941.63	1221.74	21945.67	1222.03	21947.17	1221.62	21973.42	1223.29
21989.68	1225.57	22003.2	1221.91	22029.09	1221.53	22040.12	1221.42	22059.17	1221.42
22142.56	1221.08	22147.6	1221.45	22160.62	1222.64	22200.89	1222	22264.37	1221.01
22268.86	1221.03								

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17901.49	.028	18818	77.94	.028	18950	.028	20617.3	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18950	20617.3	505	502.47	505	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17901.49	18950	1215	20700	22268.86	1215

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1213.62	Element			
Vel Head (ft)	0.76	Wt. n-Val.		0.028	0.032
E.G. Elev (ft)	1214.38	Reach Len. (ft)	505.00	502.47	505.00
Crit W.S. (ft)	1205.73	Flow Area (sq ft)		24525.29	99.07
E.G. Slope (ft/ft)	0.000485	Area (sq ft)	6976.76	24525.29	232.67
Q Total (cfs)	172000.00	Flow (cfs)		171885.77	114.22
Top Width (ft)	2426.41	Top Width (ft)	505.65	1667.30	253.45
Vel Total (ft/s)	6.98	Avg. Vel. (ft/s)		7.01	1.15
Max Chl Dpth (ft)	16.43	Hydr. Depth (ft)		14.71	1.20
Conv. Total (cfs)	7813337.0	Conv. (cfs)		7808148.0	5188.8
Length Wtd. (ft)	502.48	Wetted Per. (ft)		1669.05	82.71
Min Ch El (ft)	1197.19	Shear (lb/sq ft)		0.44	0.04
Alpha	1.01	Stream Power (lb/ft s)		3.12	0.04
Frctn Loss (ft)	0.32	Cum Volume (acre-ft)	132.61	2721.29	65.43
C & E Loss (ft)	0.04	Cum SA (acres)	26.47	169.62	20.66

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1213.64	Element			
Vel Head (ft)	0.76	Wt. n-Val.		0.028	0.032
E.G. Elev (ft)	1214.40	Reach Len. (ft)	505.00	502.47	505.00
Crit W.S. (ft)	1205.73	Flow Area (sq ft)		24559.69	66.52
E.G. Slope (ft/ft)	0.000488	Area (sq ft)		24559.69	66.52
Q Total (cfs)	172000.00	Flow (cfs)		171909.98	90.03
Top Width (ft)	1710.00	Top Width (ft)		1667.30	42.70
Vel Total (ft/s)	6.98	Avg. Vel. (ft/s)		7.00	1.35
Max Chl Dpth (ft)	16.45	Hydr. Depth (ft)		14.73	1.56
Conv. Total (cfs)	7784893.0	Conv. (cfs)		7780818.5	4074.6
Length Wtd. (ft)	502.48	Wetted Per. (ft)		1683.74	43.90
Min Ch El (ft)	1197.19	Shear (lb/sq ft)		0.44	0.05
Alpha	1.00	Stream Power (lb/ft s)		3.11	0.06
Frctn Loss (ft)	0.32	Cum Volume (acre-ft)	0.92	2504.34	3.55
C & E Loss (ft)	0.04	Cum SA (acres)	0.14	161.33	1.16

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18950.00 LB	19283.46	35673.69	5026.67	333.46	20.74	15.07	7.10
19283.46	19616.92	37350.83	5167.14	333.46	21.72	15.50	7.23
19616.92	19950.38	38032.55	5223.53	333.46	22.11	15.66	7.28
19950.38	20283.84	35953.74	5052.16	333.77	20.90	15.15	7.12
20283.84	20617.30 RB	24874.94	4055.79	334.90	14.46	12.16	6.13
20617.30	20727.40	114.22	99.07	82.71	0.07	1.20	1.15

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18950.00 LB	19283.46	34871.36	5033.55	348.15	20.27	15.09	6.93
19283.46	19616.92	37573.06	5174.02	333.46	21.84	15.52	7.26
19616.92	19950.38	38257.93	5230.41	333.46	22.24	15.69	7.31
19950.38	20283.84	36169.49	5059.04	333.77	21.03	15.17	7.15
20283.84	20617.30 RB	25038.14	4062.67	334.90	14.56	12.18	6.16
20617.30	20727.40	90.03	66.52	43.90	0.05	1.56	1.35

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 228.16

INPUT
Description: Left Channel Bank Station Interpolated
Station Elevation Data num= 162

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18057.03	1220.718	072.44	1220.46	18079.26	1220.07	18087.94	1219.81	18176.42	1218.16
18185.76	1217.918	197.98	1218.23	18239.71	1219.43	18253.41	1219.18	18284.27	1218.88
18304.71	121918	319.18	1220.31	8342.27	1221.26	18346.1	1220.74	18351.34	1220.66
18376.48	1221.718	387.11	1221.86	18388.69	1221.99	18424.2	1218.27	18437.02	1217.19
18442.75	1217.218	457.59	1217.94	18474.65	1218.61	18479.41	1218.95	18508.55	1221.28
18542.08	122018	582.31	1220.74	18608.6	1220.71	18621.69	1224.41	8631.23	1227.43
18663.1	1221.918	703.84	1215.36	18714.63	1213.26	18749.64	1209.93	18755.87	1210.38
18764.33	1209.818	778.85	1209.62	18795.36	1211.86	18819.07	1214.97	18824.32	1215.89
18828.1	1216.118	855.92	1209.27	18861.68	1207.31	8878.29	120218	886.04	1202.06
18939.22	120318	946.29	1203.92	18963.96	1207.43	18968.53	1207.69	18978.71	1208.5
18992.38	1208.719	008.72	1209.85	19033.99	1210.99	190341	1210.98	19048.74	1203.66
19055.41	1198.85	19068.04	1198.8	191001	1198.76	19329.09	1198.54	19343.99	1198.51
19445.4	1198.47	19491.71	1198.39	19572.64	1198.41	9670.16	1198.16	20065.93	1198.14
20153.46	1198.12	0164.75	1198.63	20193.68	1198.12	0238.07	1198.11	20257.24	1198.87
20263.52	1199.17	20272.38	1198.83	20285.48	1198.12	0332.29	1198.19	20343.25	1198.53
20367.17	1201.65	20372.54	1202.03	20376.09	1203.42	0411.62	1203.59	20438.06	1203.94
20443.48	1204.08	20450.41	1203.52	0470.07	1202.22	0476.01	1204.44	20481.33	1207.62
20491.63	1208.65	20505.25	1209.88	20552.82	1210.52	0567.15	1210.68	20567.21	1210.678
20609.23	1209.05	20651.63	1207.68	20665.32	1207.39	20684.27	1208.2	20720.4	1208.72
20725.63	1208.25	20760.57	1208.23	20783.72	1208.32	0787.23	1209.2	20805.3	1215.05
20810.31	1213.93	20815.75	1214.57	20849.63	1210.49	20856.98	1210.62	0894.66	1211.62
20905.04	1211.84	20937.17	1211.51	20956.26	1219.26	20968.57	1221.52	0977.67	1223.55
20981.12	1224.07	20984.75	1224.29	20987.78	1223.82	0995.52	1223.52	1010.11	1222.37
21013.73	1221.44	21026.47	1210.37	21043.56	1209.87	21054.13	1210.42	1088.41	1210.59
21092.51	1211.24	21095.27	1211.35	21097.8	1211.96	21117.04	121521	121.31	1216.06
21137.74	1221.32	21146.24	1220.39	21233.14	1218.91	21265.93	121921	280.79	1218.88
21297.21	1219.07	21308.87	1219.86	21343.11	1221.97	21347.87	122321	358.25	1224.54
21375.08	1227.24	21383.24	1229.47	21391.34	1231.41	21407.54	1226.62	1414.02	1224.74
21423.79	1221.25	21463.95	1220.61	21491.02	1220.62	1514.03	1221.22	1539.63	1222.15
21552.65	1219.14	21559.22	1220.27	21579.08	1223.33	21588.92	1223.32	1758.65	1223.03
21831.39	1223.42	1849.75	1223.21	21907.54	1222.54	21957.75	1221.72	1975.89	1221.39
22014.68	1221.02	22033.36	1220.84	22061.6	1220.32	22081.07	1221.72	2095.07	1220.73
22109.19	1220.22	22208.34	1219.3						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
18057.03	.032	19033.99	.028	19100	.028	20567.2	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19100	20567.2	215	490.17	720	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18057.03	19100	1215	20630	22208.34	1215

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1212.85	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.17	Wt. n-Val.		0.028	0.032
E.G. Elev (ft)	1214.02	Reach Len. (ft)	215.00	490.17	720.00
Crit W.S. (ft)	1206.63	Flow Area (sq ft)		19675.24	211.43
E.G. Slope (ft/ft)	0.000847	Area (sq ft)	2219.74	19675.24	1302.64
Q Total (cfs)	172000.00	Flow (cfs)		171358.50	641.50
Top Width (ft)	2231.41	Top Width (ft)	342.64	1467.20	421.57
Vel Total (ft/s)	8.65	Avg. Vel. (ft/s)		8.71	3.03
Max Chl Dpth (ft)	14.75	Hydr. Depth (ft)		13.41	3.37
Conv. Total (cfs)	5910219.0	Conv. (cfs)		5888176.0	22043.1
Length Wtd. (ft)	489.88	Wetted Per. (ft)		1469.21	62.84
Min Ch El (ft)	1198.10	Shear (lb/sq ft)		0.71	0.18
Alpha	1.01	Stream Power (lb/ft s)		6.17	0.54
Frctn Loss (ft)	0.63	Cum Volume (acre-ft)	79.30	2466.36	56.53
C & E Loss (ft)	0.10	Cum SA (acres)	21.56	151.55	16.75

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less

than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1212.87	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.17	Wt. n-Val.		0.028	0.032
E.G. Elev (ft)	1214.04	Reach Len. (ft)	215.00	490.17	720.00
Crit W.S. (ft)	1206.63	Flow Area (sq ft)		19703.90	212.65
E.G. Slope (ft/ft)	0.000854	Area (sq ft)		19703.90	212.65
Q Total (cfs)	172000.00	Flow (cfs)		171378.91	621.10
Top Width (ft)	1530.00	Top Width (ft)		1467.20	62.80
Vel Total (ft/s)	8.64	Avg. Vel. (ft/s)		8.70	2.92
Max Chl Dpth (ft)	14.77	Hydr. Depth (ft)		13.43	3.39
Conv. Total (cfs)	5886263.5	Conv. (cfs)		5865008.0	21255.7
Length Wtd. (ft)	490.06	Wetted Per. (ft)		1483.31	67.33
Min Ch El (ft)	1198.10	Shear (lb/sq ft)		0.71	0.17
Alpha	1.01	Stream Power (lb/ft s)		6.16	0.49
Frctn Loss (ft)	0.63	Cum Volume (acre-ft)	0.92	2249.04	1.93
C & E Loss (ft)	0.10	Cum SA (acres)	0.14	143.25	0.55

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19100.00 LB	19393.44	37272.27	4175.33	293.44	21.67	14.23	8.93
19393.44	19686.88	38403.36	4250.90	293.44	22.33	14.49	9.03
19686.88	19980.32	39346.09	4313.22	293.44	22.88	14.70	9.12
19980.32	20273.76	38988.88	4289.95	293.49	22.67	14.62	9.09
20273.76	20567.20 RB	17347.90	2645.86	295.40	10.09	9.02	6.56
20567.20	20676.61	641.50	211.43	62.84	0.37	3.37	3.03

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19100.00 LB	19393.44	36368.59	4181.06	307.54	21.14	14.25	8.70
19393.44	19686.88	38661.82	4256.63	293.44	22.48	14.51	9.08
19686.88	19980.32	39609.60	4318.95	293.44	23.03	14.72	9.17
19980.32	20273.76	39250.47	4295.68	293.49	22.82	14.64	9.14
20273.76	20567.20 RB	17488.44	2651.59	295.40	10.17	9.04	6.60
20567.20	20676.61	621.10	212.65	67.33	0.36	3.39	2.92

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 228.07

INPUT
Description:
Station Elevation Data num= 171

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18126.96	1221.218	145.85	1219.8	184.55	1219.67	18208.02	1219.48	18231.82	1219.67
18310.4	1219.6	18368.75	1219.72	18417.49	1220.29	18445.5	1220.43	18482.28	1220.32
18505.92	1220.1	18571.2	1219.02	18587.16	1218.81	18594.42	1221.66	18608.83	1227.06
18615.66	1226.8	18621.57	1228.28	18643.53	1230.21	18662.31	1229.33	18684.02	1229.49

```
18687.85  1229.818710.33 1230.7418720.72  1227.818742.65  1219.418752.75 1219.01
18759.26  1219.118772.64 1218.9518776.17 1216.5818785.95 1215.4218804.15  1209.8
 18822.5  1205.918828.54  1206.518848.84 1205.7918854.98 1205.0218861.79 1205.51
18897.47  1205.218900.55 1205.1318908.15 1205.3718929.42  1205.718950.42 1206.55
18983.79  1208.118989.35 1207.87 18991.7 1209.0419001.64 1212.5319015.92 1208.06
19070.56  1210.919074.63 1210.9619090.84 1210.6119135.86 1209.71 19146.1 1202.31
19152.06  1198.919211.92 1198.9619296.96 1198.9619315.59 1208.04 19316.11208.034
19372.38 1207.3719381.65    1207 19439.6 1205.9119446.87 1205.9419486.22 1204.14
19498.64 1203.7319520.13  1204.819535.72 1205.3319541.11 1202.9319551.97 1198.48
19559.19 1198.4719663.67  1198.519770.58 1198.6919812.16 1198.7319840.71 1199.15
19923.21 1200.7720009.77  1201.620019.46 1201.5520078.79 1201.2820096.74 1201.03
20133.04 1200.0220139.68    120020242.07 1196.2820294.53 1195.6820295.23  1195.5
20349.68 1194.9320418.98  1194.520427.63 1199.13 20434.1 1197.6520444.71 1197.97
20452.54 1198.0820460.24    119720466.12 1196.0220491.78 1197.0520495.06 1197.93
20525.71 1204.3220543.98  1203.820562.03 1203.3220573.82 1202.8820577.87 1202.88
20620.17 1202.6820636.75  1206.720650.23 1209.2620683.29 1209.4420734.94 1210.08
20737.52 1210.08 20741.51210.10320811.53  1210.520829.59 1210.0820839.75 1210.25
20863.03 1208.8820880.75 1208.4520902.64  1208.120911.19 1208.06 20940.9 1208.41
20985.69 1209.2621017.86 1217.0721067.35  1217.421075.59 1217.4821110.66 1216.92
21118.88 1216.6421142.61  1216.221155.66  1216.321166.92 1216.7621184.64 1217.84
21221.09 1218.7121255.43 1218.6321274.95  1218.821290.72  1219.721353.86 1218.16
21364.52 1217.9721389.62 1217.1721410.65  1216.621435.52 1215.9821471.08 1218.72
21476.52  1219.121532.38  1218.521546.25  1218.321563.13 1218.3121586.97 1217.28
21592.99 1217.0621597.27 1217.5521621.62  1219.9 21628.7 1218.3921636.83 1217.07
21658.51 1220.2221671.06 1219.3521706.14  1218.421715.41  1218.221726.57 1216.52
21738.56 1215.1721756.24 1216.63 21764.6  1217.221786.25 1219.13   21797 1220.22
21816.45 1220.8421825.93  1221.221846.29  1220.921865.15 1219.8221933.51 1218.66
21958.27  1218.222006.33 1218.5822016.62  1218.622028.87  1218.522068.14 1218.32
22094.85 1218.1522109.41  1216.122117.02  1214.822134.07 1216.3522173.66 1218.34
22201.83 1220.4622216.18 1221.2922229.44  1219.822246.12 1217.9322277.06 1217.58
22295.38  1217.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
18126.96    .03219074.63    .02821017.86    .032

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       19316.1 20741.5               520  527.21     540              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
18126.96   19300    1215   2067022295.38    1215

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1211.09   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.20   Wt. n-Val.                  0.028      0.028
  E.G. Elev (ft)            1213.29   Reach Len. (ft)            520.00     527.21     540.00
  Crit W.S. (ft)            1208.34   Flow Area (sq ft)          108.36   14353.11
  E.G. Slope (ft/ft)       0.002177   Area (sq ft)              3079.13   14450.90     437.97
  Q Total (cfs)          172000.00   Flow (cfs)                 892.72  171107.27
  Top Width (ft)            2184.57   Top Width (ft)             507.44    1425.40     251.73
  Vel Total (ft/s)            11.89   Avg. Vel. (ft/s)             8.24      11.92
  Max Chl Dpth (ft)           16.59   Hydr. Depth (ft)             6.73      10.60
  Conv. Total (cfs)        3686560.8  Conv. (cfs)               19134.1  3667426.5
  Length Wtd. (ft)           527.19   Wetted Per. (ft)            17.85    1358.56
  Min Ch El (ft)            1194.50   Shear (lb/sq ft)             0.82       1.44
  Alpha                        1.00   Stream Power (lb/ft s)       6.80      17.12
  Frctn Loss (ft)              0.59   Cum Volume (acre-ft)        66.23    2274.36      42.14
  C & E Loss (ft)              0.32   Cum SA (acres)              19.46     135.27      11.18


Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
                than 0.7 or greater than 1.4.  This may indicate the need for additional cross
sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1211.10   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.20   Wt. n-Val.                  0.028      0.028
  E.G. Elev (ft)            1213.30   Reach Len. (ft)            520.00     527.21     540.00
  Crit W.S. (ft)            1208.34   Flow Area (sq ft)          108.55   14368.81
  E.G. Slope (ft/ft)       0.002179   Area (sq ft)               108.55   14368.81
  Q Total (cfs)          172000.00   Flow (cfs)                 655.49  171344.50
```

Top Width (ft)	1370.00	Top Width (ft)	16.10	1353.90	
Vel Total (ft/s)	11.88	Avg. Vel. (ft/s)	6.04	11.92	
Max Chl Dpth (ft)	16.60	Hydr. Depth (ft)	6.74	10.61	
Conv. Total (cfs)	3685032.3	Conv. (cfs)	14043.7	3670988.5	
Length Wtd. (ft)	527.20	Wetted Per. (ft)	28.51	1360.30	
Min Ch El (ft)	1194.50	Shear (lb/sq ft)	0.52	1.44	
Alpha	1.00	Stream Power (lb/ft s)	3.13	17.13	
Frctn Loss (ft)	0.59	Cum Volume (acre-ft)	0.65	2057.34	0.17
C & E Loss (ft)	0.32	Cum SA (acres)	0.10	127.37	0.03

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19236.82	19316.10	892.72	108.36	17.85	0.52	6.73	8.24
19316.10 LB	19601.18	15515.77	1872.00	286.57	9.02	6.57	8.29
19601.18	19886.26	44361.70	3508.70	285.09	25.79	12.31	12.64
19886.26	20171.34	32725.70	2923.46	285.13	19.03	10.25	11.19
20171.34	20456.42	61095.84	4260.12	286.53	35.52	14.94	14.34
20456.42	20741.50 RB	17408.25	1788.83	215.24	10.12	8.38	9.73

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19236.82	19316.10	655.49	108.55	28.51	0.38	6.74	6.04
19316.10 LB	19601.18	15564.56	1875.30	286.57	9.05	6.58	8.30
19601.18	19886.26	44440.23	3512.01	285.09	25.84	12.32	12.65
19886.26	20171.34	32793.93	2926.77	285.13	19.07	10.27	11.20
20171.34	20456.42	61187.05	4263.43	286.53	35.57	14.96	14.35
20456.42	20741.50 RB	17358.73	1791.30	216.97	10.09	8.39	9.69

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 227.97

INPUT
Description:
Station Elevation Data num= 152

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17679.44	1217.91	7698.28	1218.05	17702.89	1218.61	17734.19	1222.14	17753.68	1222.38
17814.96	12231	7885.77	1222.11	17924.17	1221.61	7955.78	1221.38	18012.54	1221.12
18054.46	1220.81	8063.52	1220.82	18080.74	1220.71	8126.78	1220.53	18197.46	1220.63
18271.34	1219.51	8288.42	1219.85	18293.94	1220.11	8296.49	1219.53	18340.33	1219.94
18350.61	1219.61	8361.97	1219.68	18385.48	1219.45	18412.14	1218.81	18430.06	1218.49
18444.51	1218.41	8526.47	1217.98	18566.01	1218.86	18584.92	1219.47	18627.76	1220.5
18677.71	1220.11	8701.64	1219.72	18730.82	1218.42	18755.39	1211.93	18807.94	1210.59
18813.09	1210.11	8836.71	1209.24	18902.98	1205.59	18954.93	1206.37	19034.93	1207.87
19055.09	1208.41	9060.37	1209.09	19121.48	1217.21	19124.97	1217.89	19135.05	1215.85
19175.89	1218.41	9210.42	1218.35	19228.25	1212.74	19242.53	1210.12	19268.25	1209.61
19281.5	1209	19296.59	1208.06	19326.35	1207.84	19337.6	1207.61	19342.93	1209.32
19346.1	1210.6	19356.4	1214.23	19356.43	1214.24	19361.82	1214.12	19364.83	1213.79
19377.48	1208.98	19398.24	1202.3	19407.61	1202.8	19422.03	1203.4	19440.46	1207.9
19454.24	1209.23	19457.48	1209.1	19474.13	1206.64	19509.65	1206.19	19533.2	1205.84
19596.27	1206.58	19629.54	1200.1	19675.92	1196.64	19720.94	1193.81	19894.58	1190.54

19944.71 1191.2319977.77 1188.219987.48 1188.320010.68 1189.920021.25 1190.57
20032.89 1191.9420081.78 1193.320090.04 1193.65 20134.9 1195.320167.39 1196.52
20175.41 1196.6720187.83 119620218.06 1194.8 20269.8 1193.9720286.29 1194.13
20310.86 1194.4820384.18 1191.420397.25 1191.2620471.34 1191.7220531.98 1191.52
20583.98 1191.2720604.32 1195.420619.92 1197.4720629.41 1197.8920650.62 1200.37
20683.56 1205.43 20697.61205.31820699.92 1205.320746.24 1204.520749.27 1204.82
20764.81 1204.3320814.68 1203.4620836.08 1203.5 20920.8 1204.2320940.01 1205.21
20993.44 1206.7520999.26 1206.8221023.05 1206.621054.65 1206.2621078.91 1206.55
21116.71 1206.9321141.83 1207.321185.68 1208.121238.19 1208.6521277.98 1208.88
21289.92 1209.321292.06 1209.2821342.58 1210.721359.47 1210.8821374.82 1211.31
21383.23 1211.421392.27 1215.2421400.73 121321425.59 1214.3521450.95 1214.77
21475.48 1215.6121511.97 1215.9321523.15 1216.321537.73 1216.3721575.32 1216.13
21625.4 1218.3321658.71 1218.1721723.64 1217.721758.13 1217.8521776.75 1217.39
21806.22 1217.1421821.44 1216.8821849.88 1217.521870.41 1217.7521917.58 1218.8
21927.87 1219.2521928.97 1219.1 21950.8 1219.321981.33 1218.8421996.72 1218.9
22016.53 1218.122022.56 1218.58

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17679.44	.032	19356.4	.02821023.05		.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19356.4	20697.6	520	495.53	500	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17679.44	19400	1215	2070022022.56		1215

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1211.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.13	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1212.39	Reach Len. (ft)	520.00	495.53	500.00
Crit W.S. (ft)	1202.78	Flow Area (sq ft)		20111.65	14.26
E.G. Slope (ft/ft)	0.000674	Area (sq ft)	1266.19	20250.59	3185.66
Q Total (cfs)	172000.00	Flow (cfs)		171935.53	64.46
Top Width (ft)	2407.41	Top Width (ft)	406.20	1326.09	675.12
Vel Total (ft/s)	8.55	Avg. Vel. (ft/s)		8.55	4.52
Max Chl Dpth (ft)	23.05	Hydr. Depth (ft)		15.50	5.94
Conv. Total (cfs)	6626020.5	Conv. (cfs)		6623537.0	2483.4
Length Wtd. (ft)	495.53	Wetted Per. (ft)		1300.89	2.40
Min Ch El (ft)	1188.20	Shear (lb/sq ft)		0.65	0.25
Alpha	1.00	Stream Power (lb/ft s)		5.56	1.13
Frctn Loss (ft)	0.44	Cum Volume (acre-ft)	40.29	2064.36	19.68
C & E Loss (ft)	0.05	Cum SA (acres)	14.01	118.62	5.44

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1211.26	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.13	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1212.39	Reach Len. (ft)	520.00	495.53	500.00
Crit W.S. (ft)	1202.78	Flow Area (sq ft)		20124.64	14.29
E.G. Slope (ft/ft)	0.000679	Area (sq ft)		20124.64	14.29
Q Total (cfs)	172000.00	Flow (cfs)		171971.77	28.23
Top Width (ft)	1300.00	Top Width (ft)		1297.60	2.40
Vel Total (ft/s)	8.54	Avg. Vel. (ft/s)		8.55	1.98
Max Chl Dpth (ft)	23.06	Hydr. Depth (ft)		15.51	5.95
Conv. Total (cfs)	6601791.5	Conv. (cfs)		6600708.0	1083.7
Length Wtd. (ft)	495.53	Wetted Per. (ft)		1309.76	8.36
Min Ch El (ft)	1188.20	Shear (lb/sq ft)		0.65	0.07
Alpha	1.00	Stream Power (lb/ft s)		5.56	0.14
Frctn Loss (ft)	0.44	Cum Volume (acre-ft)		1848.60	0.08
C & E Loss (ft)	0.05	Cum SA (acres)		111.33	0.01

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19356.40 LB	19624.64	4835.85	1210.64	226.00	2.81	5.39	3.99
19624.64	19892.88	40579.71	4648.42	268.58	23.59	17.33	8.73
19892.88	20161.12	48536.04	5175.84	268.61	28.22	19.30	9.38
20161.12	20429.36	41199.76	4689.40	268.36	23.95	17.48	8.79
20429.36	20697.60 RB	36784.18	4387.36	269.33	21.39	16.36	8.38

20697.60	20785.93	64.46	14.26	2.40	0.04	5.94	4.52

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19356.40 LB	19624.64	4727.57	1212.89	234.86	2.75	5.40	3.90
19624.64	19892.88	40615.54	4651.11	268.58	23.61	17.34	8.73
19892.88	20161.12	48574.12	5178.52	268.61	28.24	19.31	9.38
20161.12	20429.36	41235.79	4692.08	268.36	23.97	17.49	8.79
20429.36	20697.60 RB	36818.75	4390.05	269.33	21.41	16.37	8.39
20697.60	20785.93	28.23	14.29	8.36	0.02	5.95	1.98

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 227.88

INPUT
Description:
Station Elevation Data num= 217

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16773.83	1222.8	16780.03	1221.42	16786.29	1221.23	16809.24	1221.03	16858.12	1219.77
16865.15	1219.8	16875.51	1220.47	16904.63	1220.79	16912.45	1221.09	17012.44	1220.91
17036.6	1222.1	17080.56	1221.79	17190.38	1221.1	17331.58	1220.87	17459.91	1219.83
17519.43	1219.5	17574	1219.26	17625.04	1219	17736.03	1218.18	17813.7	1217.65
17843.84	1217.6	17861.83	1205.83	17866.18	1203.58	17891.57	1204.22	17895.64	1205.31
17899.25	1206.6	17916.42	1210.8	17934.6	1215.83	17940.06	1215.88	17990.26	1216.59
18038.93	1205.9	18075.59	1208.26	18113.99	1209.28	18130.77	1209.93	18142.41	1209.53
18148.99	1209.7	18161.51	1210.38	18228.03	1206.46	18231.88	1206.09	18277.94	1212.14
18287.68	1213.1	18291.17	1214.07	18299.32	1215.56	18322.47	1218.02	18323.42	1217.6
18341.69	1211.5	18343.15	1211.82	18346.21	1211.64	18362.65	1212.27	18365.12	1212.26
18374.67	1213.2	18387.08	1212.76	18401.36	1212.4	18406.9	1212.3	18419.13	1215.18
18423.65	1215.6	18432.9	1215.27	18464.78	1216.18	18469.82	1216.12	18480.98	1216.67
18496.22	1213.7	18512.8	1213.27	18533.95	1209.87	18544.4	1208.45	18549.4	1208.07
18555.69	1209.2	18566.82	1208.11	18584.41	1206.61	18610.93	1206.75	18636.95	1207.81
18656.83	1210.4	18667.78	1211.36	18670.63	1211.98	18675.74	1210.39	18683.33	1207.47
18689.56	1207.5	18706.45	1206.11	18735.75	1212.18	18775.79	1212.34	18797.37	1212.68
18825.4	1213	18834.24	1213.22	18843.12	1212.87	18894.6	1212.71	18902.57	1212.85
18920.89	1213.3	18938.74	1213.92	18978.53	1213.9	19000.38	1214.3	19031.11	1214.37
19045.63	1214.2	19080.28	1213.85	19115.82	1213.55	19133.55	1213.69	19156.19	1214.17
19162.62	1214.2	19215.8	1215.14	19230	1215.21	19243.65	1214.55	19247.87	1214.55
19257.34	1214.2	19263.38	1213.43	19269.76	1212.29	19281.9	1214.03	19295.48	1215.88
19295.51	1215.8	19323.1	1212.5	19334.93	1211.16	19382.4	1211.6	19399.1	1208.86
19407.62	1206.9	19413.87	1207.4	19418.56	1207.35	19434.19	1207.41	19437.02	1207.34
19447.71	1207.5	19458.24	1207.4	19479.98	1206.92	19484.47	1207.01	19508.52	1202.75
19524.35	1200.5	19536.1	1201.7	19557.5	1202.53	19565.47	1203.2	19584.55	1204.21
19635.69	1204.9	19642.39	1204	19680.51	1204	19682.93	1204.11	19747.22	1206.58
19770.78	1207.05	19810.28	1206.9	19820.12	1206.2	19824.38	1204.57	19828.01	1203.55
19843.2	1203.01	19859.21	1201.8	19888.64	1203.91	19904.32	1199.9	19904.94	1200.17
19918.72	1198.11	19936.21	1194.5	19940.81	1193.09	19973.1	1193.44	20052.22	1194.12
20106.26	1189.91	20143.59	1186.7	20172.76	1189.5	20187.75	1191.17	20218.34	1192.55
20255.92	1193.69	20270.35	1194.4	20295.47	1191.5	20309.68	1189.24	20323.31	1190.18
20341.57	1191.51	20396.18	1190.3	20409.59	1190.08	20508.78	1188.8	20516.85	1188.71
20583.69	1192.1	20595.97	1192	20630.89	1191.88	20683.82	1211.19	20693.2	1214.69
20696	1214.44	20723.38	1212.05	20758.65	1212.9	20770.23	1212.88	20787.63	1213.23
20808.8	1213.46	20820.75	1213.41	20844.71	1213	20864.2	1212.96	20878	1213.34
20888.81	1213.91	20902.28	1214.35	20920.69	1212.8	20933.6	1212.98	20958.87	1211.24
20977.8	1210.78	20987.09	1211.43	21002.27	1212.8	21016.54	1213.54	21025.35	1214.21
21033.67	1214.26	21042.57	1213.53	21054.17	1213.1	21067.14	1212.63	21080.55	1211.59
21099.46	1209.77	21117.47	1210.1	21131.74	1211.8	21144.39	1212.44	21154.11	1213.55
21170.47	1213.76	21178.65	1213.63	21211.95	1215.6	21232.33	1215.09	21242.68	1215.24
21281.41	1215.39	21303.03	1215.49	21365.88	1214.5	21437.21	1213.97	21454.98	1213.86
21466.35	1215.2	21491.01	1217.74	21496.7	1217.4	21523.51	1215.8	21570.2	1217.85
21596.18	1218.95	21651.51	1216.91	21704.43	1217.4	21714.26	1217.95	21736.95	1219.59
21745.96	1219.42	21765.51	1218.85						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
16773.83	.032	19295.5	.028	20696	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19295.5	20696	520	493.17	370	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
16773.83	19295.51	1215.878	20696	21765.51	1214.445

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1210.29	Element			
Vel Head (ft)	1.61	Wt. n-Val.		0.028	
E.G. Elev (ft)	1211.90	Reach Len. (ft)	520.00	493.17	370.00
Crit W.S. (ft)	1203.93	Flow Area (sq ft)		16889.09	
E.G. Slope (ft/ft)	0.001204	Area (sq ft)	1149.71	16889.09	7.96
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1792.34	Top Width (ft)	476.36	1290.97	25.01
Vel Total (ft/s)	10.18	Avg. Vel. (ft/s)		10.18	
Max Chl Dpth (ft)	23.59	Hydr. Depth (ft)		13.08	
Conv. Total (cfs)	4957297.5	Conv. (cfs)		4957297.5	
Length Wtd. (ft)	493.17	Wetted Per. (ft)		1298.39	
Min Ch El (ft)	1186.70	Shear (lb/sq ft)		0.98	
Alpha	1.00	Stream Power (lb/ft s)		9.96	
Frctn Loss (ft)	0.56	Cum Volume (acre-ft)	25.87	1853.11	1.35
C & E Loss (ft)	0.03	Cum SA (acres)	8.74	103.74	1.42

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1210.30	Element			
Vel Head (ft)	1.61	Wt. n-Val.		0.028	
E.G. Elev (ft)	1211.91	Reach Len. (ft)	520.00	493.17	370.00
Crit W.S. (ft)	1203.93	Flow Area (sq ft)		16902.80	
E.G. Slope (ft/ft)	0.001201	Area (sq ft)		16902.80	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1290.98	Top Width (ft)		1290.98	
Vel Total (ft/s)	10.18	Avg. Vel. (ft/s)		10.18	
Max Chl Dpth (ft)	23.60	Hydr. Depth (ft)		13.09	
Conv. Total (cfs)	4963947.0	Conv. (cfs)		4963947.0	
Length Wtd. (ft)	493.17	Wetted Per. (ft)		1298.41	
Min Ch El (ft)	1186.70	Shear (lb/sq ft)		0.98	
Alpha	1.00	Stream Power (lb/ft s)		9.93	
Frctn Loss (ft)	0.56	Cum Volume (acre-ft)		1637.99	
C & E Loss (ft)	0.03	Cum SA (acres)		96.60	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19295.50 LB	19575.60	4482.65	934.07	186.22	2.61	5.04	4.80
19575.60	19855.70	7158.95	1457.77	280.75	4.16	5.20	4.91
19855.70	20135.80	44059.04	4343.37	281.76	25.62	15.51	10.14
20135.80	20415.90	63103.22	5381.25	280.86	36.69	19.21	11.73
20415.90	20696.00 RB	53196.16	4772.62	268.80	30.93	17.98	11.15

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19295.50 LB	19575.60	4493.02	936.04	186.23	2.61	5.05	4.80
19575.60	19855.70	7175.01	1460.75	280.75	4.17	5.22	4.91
19855.70	20135.80	44058.34	4346.34	281.76	25.62	15.52	10.14
20135.80	20415.90	63088.35	5384.23	280.86	36.68	19.22	11.72
20415.90	20696.00 RB	53185.30	4775.44	268.82	30.92	17.99	11.14

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 227.79

INPUT
Description:
Station Elevation Data num= 140

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
16968.12	1216.31	17000.92	1215.85	17090.68	1218.11	17143.91	1218.37	17188.23	1218.67
17210.64	1218.91	17270.71	1218.56	17325.1	1218.36	17413.53	1218.33	17484.38	1217.98

```
17528.98    121817621.96 1218.2817692.29 1218.3917705.91 1218.2617746.31 1215.84
17753.38  1215.917808.89 1215.0917846.83 1214.2717903.36 1214.3617970.58 1214.37
17995.55  1214.518009.29 1214.4618026.01 1214.5318087.72 1214.9118102.78 1214.86
18114.58  1214.718176.58 1214.2218201.05 1213.6718226.93 1212.0318230.18 1211.65
18246.15    121118279.04 1210.9618302.14    123118308.99 1236.2518323.55 1235.94
18346.09  1235.718359.61  1235.118365.79 1230.5218389.21 1210.9818408.05 1211.01
18456.94  1211.3   18461 1211.2918464.21 1211.56 18478.3 1211.4818514.28 1212.18
18633.38  1213.118650.54  1213.118764.06 1213.5618804.81 1213.2718905.15 1213.32
18971.21  1213.419070.67 1212.9919093.61 1212.7919132.06 1213.0319157.05 1213.28
19198.16  1213.119229.65 1213.1519236.65 1213.1319254.53  1212.819262.66 1213.11
19277.83  1214.319288.94 1214.74 19292.41214.96719300.39 1215.4919322.59 1210.66
19351.44  1202.719363.84  1202.319373.13 1202.1719431.34 1201.6419447.05 1201.18
19552.31 1203.3619588.26  1204.319694.36 1204.7119737.91 1203.4419758.72 1203.49
19896.53 1201.9219910.45  1201.919966.03 1198.6819975.74 1197.95 19985.4 1196.56
 20005.6 1193.3920039.08  1192.9   20080 1192.49 20125.1 1191.8320166.06 1190.72
20173.35 1190.3420262.66  1187.820325.95 1186.7120347.04 1185.3720388.53 1183.17
20415.97 1185.2120455.95  1187.320460.57 1187.3320482.61 1188.0420508.21 1188.65
20522.64  1189.2 20585.1  1192.420614.87 1194.5220631.75 1200.0520679.46 1214.46
 20687.11214.29520707.77 1213.8520711.49  1213.920751.66 1213.5220812.66 1210.94
20824.55 1210.9120840.18 1208.89 20841.2  1208.920854.98 1209.9720863.93 1209.98
20868.08 1210.1420890.07 1211.9520919.65  1212.220934.44 1212.5520938.21 1212.73
20957.62 1212.4720999.79 1210.3721016.39  1211.621043.58 1214.4221080.52 1214.97
21110.89 1215.3721120.08 1215.45 21132.7    121521189.45 1215.89 21203.6 1215.59
21241.42 1215.8121263.78 1215.3421274.78  1215.221295.58 1215.0321351.48 1214.91
21366.48 1214.7921404.31 1215.0821451.09  1216.421474.63 1216.5921517.94 1217.56
21537.11 1217.9421553.74 1218.4321603.25  1216.421613.63 1216.54 21622.9 1216.86

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
16968.12    .032 19292.4    .028 20687.1    .032

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       19292.4 20687.1              650  312.26     113              .1       .3
Ineffective Flow     num=        2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
16968.12   194001214.967 20687.1 21622.91214.295

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1209.80   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                1.52   Wt. n-Val.                              0.028
  E.G. Elev (ft)            1211.32   Reach Len. (ft)             650.00     312.26     113.00
  Crit W.S. (ft)            1203.85   Flow Area (sq ft)                    17401.19
  E.G. Slope (ft/ft)       0.001055   Area (sq ft)                         17861.71       9.36
  Q Total (cfs)           172000.00   Flow (cfs)                          172000.00
  Top Width (ft)            1358.00   Top Width (ft)                        1338.33      19.67
  Vel Total (ft/s)             9.88   Avg. Vel. (ft/s)                         9.88
  Max Chl Dpth (ft)           26.63   Hydr. Depth (ft)                        13.77
  Conv. Total (cfs)       5294934.0   Conv. (cfs)                         5294934.0
  Length Wtd. (ft)           312.26   Wetted Per. (ft)                      1267.40
  Min Ch El (ft)            1183.17   Shear (lb/sq ft)                         0.90
  Alpha                        1.00   Stream Power (lb/ft s)                   8.94
  Frctn Loss (ft)              0.41   Cum Volume (acre-ft)         19.01    1656.39       1.28
  C & E Loss (ft)              0.06   Cum SA (acres)                5.89      88.85       1.23


Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1209.81   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                1.52   Wt. n-Val.                              0.028
  E.G. Elev (ft)            1211.32   Reach Len. (ft)             650.00     312.26     113.00
  Crit W.S. (ft)            1203.85   Flow Area (sq ft)                    17412.61
  E.G. Slope (ft/ft)       0.001062   Area (sq ft)                         17412.61
  Q Total (cfs)           172000.00   Flow (cfs)                          172000.00
  Top Width (ft)            1264.04   Top Width (ft)                        1264.04
  Vel Total (ft/s)             9.88   Avg. Vel. (ft/s)                         9.88
  Max Chl Dpth (ft)           26.64   Hydr. Depth (ft)                        13.78
  Conv. Total (cfs)       5278824.0   Conv. (cfs)                         5278824.0
  Length Wtd. (ft)           312.26   Wetted Per. (ft)                      1275.29
  Min Ch El (ft)            1183.17   Shear (lb/sq ft)                         0.90
  Alpha                        1.00   Stream Power (lb/ft s)                   8.94
  Frctn Loss (ft)              0.41   Cum Volume (acre-ft)                  1443.74
```

C & E Loss (ft) 0.06 Cum SA (acres) 82.14

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19292.40 LB	19571.34	7719.96	1293.63	171.38	4.49	7.55	5.97
19571.34	19850.28	8500.10	1665.47	278.97	4.94	5.97	5.10
19850.28	20129.22	31402.76	3650.44	279.42	18.26	13.09	8.60
20129.22	20408.16	75405.01	6172.24	279.16	43.84	22.13	12.22
20408.16	20687.10 RB	48972.18	4619.41	258.46	28.47	18.05	10.60

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19292.40 LB	19571.34	7509.68	1295.18	179.26	4.37	7.56	5.80
19571.34	19850.28	8524.76	1667.99	278.97	4.96	5.98	5.11
19850.28	20129.22	31450.75	3652.96	279.42	18.29	13.10	8.61
20129.22	20408.16	75484.76	6174.76	279.16	43.89	22.14	12.22
20408.16	20687.10 RB	49030.06	4621.73	258.47	28.51	18.06	10.61

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 227.73

INPUT
Description: Upstream Face of Country Club Drive Bridge

U
Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17300	1217.917	393.36	1216.617	486.72	1216.917	580.08	121717	673.44	1217.7
17766.8	1216.617	860.16	1215.217	953.52	1213.818	046.88	1214.218	140.24	1211.5
18233.6	1211.918	326.96	1211.518	420.32	1212.318	513.68	1213.618	607.04	1214.9
18700.4	1215.518	793.76	1219.118	887.12	122118	980.48	122219	073.84	1224.3
19167.2	1225.219	249.26	1226.819	249.36	1220.119	249.45	1217.819	258.88	1216.1
19286.52	1204.319	319.94	1197.419	366.71	1197.219	372.31	1197.3	19437.2	1197.5
19494.24	1197.519	499.84	1197.519	561.74	1198.3	19619.9	1196.6	19625.5	1196.7
19683.76	119719	714.29	1196.719	731.65	1194.919	745.56	1194.919	751.17	1194.9
19871.04	1194.919	876.64	1194.919	924.91	1194.919	937.33	1195.219	995.86	1194.9
20001.46	1194.920	061.96	1194.920	122.46	1195.120	128.06	1195.120	184.54	1196.6
20247.75	1196.420	253.35	1196.420	314.69	1194.920	415.89	1194.920	458.84	1201.6
20497.95	1217.320	498.05	1219.920	498.14	1226.620	735.65	122421	221.12	1220
21650.58	1220								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17300	.032	19249.36	.028	20498.05	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19249.36	20498.05	87.92	87.92	87.92	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17300	19249.36	1220.120	498.05	21650.58	1219.9

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1208.73	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.11	Wt. n-Val.		0.028	
E.G. Elev (ft)	1210.85	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1204.97	Flow Area (sq ft)		14752.07	
E.G. Slope (ft/ft)	0.001709	Area (sq ft)		14752.07	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1200.48	Top Width (ft)		1200.48	
Vel Total (ft/s)	11.66	Avg. Vel. (ft/s)		11.66	
Max Chl Dpth (ft)	13.83	Hydr. Depth (ft)		12.29	
Conv. Total (cfs)	4160410.3	Conv. (cfs)		4160410.3	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		1204.16	
Min Ch El (ft)	1194.90	Shear (lb/sq ft)		1.31	
Alpha	1.00	Stream Power (lb/ft s)		15.24	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	19.01	1539.50	1.27
C & E Loss (ft)	0.04	Cum SA (acres)	5.89	79.75	1.21

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1208.74	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.11	Wt. n-Val.		0.028	
E.G. Elev (ft)	1210.85	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1204.97	Flow Area (sq ft)		14763.50	
E.G. Slope (ft/ft)	0.001705	Area (sq ft)		14763.50	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1200.48	Top Width (ft)		1200.48	
Vel Total (ft/s)	11.65	Avg. Vel. (ft/s)		11.65	
Max Chl Dpth (ft)	13.84	Hydr. Depth (ft)		12.30	
Conv. Total (cfs)	4165739.0	Conv. (cfs)		4165739.0	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		1204.18	
Min Ch El (ft)	1194.90	Shear (lb/sq ft)		1.30	
Alpha	1.00	Stream Power (lb/ft s)		15.20	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)		1328.41	
C & E Loss (ft)	0.04	Cum SA (acres)		73.31	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19249.36 LB	19499.10	23954.65	2316.52	224.58	13.93	10.39	10.34
19499.10	19748.84	32824.66	2920.50	249.86	19.08	11.69	11.24
19748.84	19998.57	43227.43	3444.36	249.74	25.13	13.79	12.55
19998.57	20248.31	40090.07	3292.20	249.76	23.31	13.18	12.18
20248.31	20498.05 RB	31903.19	2778.49	230.22	18.55	12.17	11.48

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19249.36 LB	19499.10	23959.94	2318.65	224.59	13.93	10.40	10.33
19499.10	19748.84	32827.37	2922.88	249.86	19.09	11.70	11.23
19748.84	19998.57	43222.10	3446.74	249.74	25.13	13.80	12.54
19998.57	20248.31	40087.26	3294.58	249.76	23.31	13.19	12.17
20248.31	20498.05 RB	31903.34	2780.67	230.22	18.55	12.18	11.47

BRIDGE RIVER: Salt River
REACH: Above Split RS: 227.72

INPUT
Description: Country Club bridge

Distance from Upstream XS = 0
Deck/Roadway Width = 72
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 34

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
17300	1217.9	1217.9	17393.36	1216.6	1216.6	17486.72	1216.9	1216.9
17580.08	1217	1217	17673.44	1217.7	1217.7	17766.8	1216.6	1216.6

```
17860.16  1215.2  1215.217953.52  1213.8  1213.818046.88  1214.2  1214.2
18140.24  1211.5  1211.5 18233.6  1211.9  1211.918326.96  1211.5  1211.5
18420.32  1212.3  1212.318513.68  1213.6  1213.618607.04  1214.9  1214.9
 18700.4  1215.5  1215.518793.76  1219.1  1219.118887.12    1221    1221
18980.48    1222    122219073.84  1224.3  1224.3 19167.2  1225.2  1225.2
19249.26 1226.84 1226.8419249.26 1226.84 1220.1419366.71 1227.96  1221.2
19494.24 1228.84  1222.1 19619.9 1229.57  1222.819745.56 1229.93  1223.2
19871.04 1230.03  1223.319995.86 1229.87  1223.120122.46 1229.45  1222.7
20247.75 1228.74    122220372.76 1227.89  1221.120497.95 1226.62  1219.9
20497.95 1226.62  1226.6
```

Upstream Bridge Cross Section Data
Station Elevation Data num= 61

```
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   17300  1217.917393.36  1216.617486.72  1216.917580.08    121717673.44  1217.7
 17766.8  1216.617860.16  1215.217953.52  1213.818046.88  1214.218140.24  1211.5
 18233.6  1211.918326.96  1211.518420.32  1212.318513.68  1213.618607.04  1214.9
 18700.4  1215.518793.76  1219.118887.12    122118980.48    122219073.84  1224.3
 19167.2  1225.219249.26  1226.819249.36  1220.119249.45  1217.819258.88  1216.1
19286.52  1204.319319.94  1197.419366.71  1197.219372.31  1197.3 19437.2  1197.5
19494.24  1197.519499.84  1197.519561.74  1198.3 19619.9  1196.6 19625.5  1196.7
19683.76    119719714.29  1196.719731.65  1194.919745.56  1194.919751.17  1194.9
19871.04  1194.919876.64  1194.919924.91  1194.919937.33  1195.219995.86  1194.9
20001.46  1194.920061.96  1194.920122.46  1195.120128.06  1195.120184.54  1196.6
20247.75  1196.420253.35  1196.420314.69  1194.920415.89  1194.920458.84  1201.6
20497.95  1217.320498.05  1219.920498.14  1226.620735.65    122421221.12    1220
21650.58    1220
```

Manning's n Values num= 3

```
     Sta   n Val     Sta   n Val     Sta   n Val
   17300    .03219249.36    .02820498.05    .028
```

Bank Sta: Left Right Coeff Contr. Expan.

```
      19249.3620498.05              .1       .3
```

Ineffective Flow num= 2

```
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1730019249.36  1220.120498.0521650.58  1219.9
```

Downstream Deck/Roadway Coordinates
num= 34

```
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
   17300  1217.9  1217.917393.36  1216.6  1216.617486.72  1216.9  1216.9
17580.08    1217    121717673.44  1217.7  1217.7 17766.8  1216.6  1216.6
17860.16  1215.2  1215.217953.52  1213.8  1213.818046.88  1214.2  1214.2
18140.24  1211.5  1211.5 18233.6  1211.9  1211.918326.96  1211.5  1211.5
18420.32  1212.3  1212.318513.68  1213.6  1213.618607.04  1214.9  1214.9
 18700.4  1215.5  1215.518793.76  1219.1  1219.118887.12    1221    1221
18980.48    1222    122219073.84  1224.3  1224.3 19167.2  1225.2  1225.2
19249.26 1226.84 1226.8419249.26 1226.84 1220.1419366.71 1227.96  1221.2
19494.24 1228.84  1222.1 19619.9 1229.57  1222.819745.56 1229.93  1223.2
19871.04 1230.03  1223.319995.86 1229.87  1223.120122.46 1229.45  1222.7
20247.75 1228.74    122220372.76 1227.89  1221.120497.95 1226.62  1219.9
20497.95 1226.62  1226.6
```

Downstream Bridge Cross Section Data
Station Elevation Data num= 61

```
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   17300  1217.917393.36  1216.617486.72  1216.917580.08    121717673.44  1217.7
 17766.8  1216.617860.16  1215.217953.52  1213.818046.88  1214.218140.24  1211.5
 18233.6  1211.918326.96  1211.518420.32  1212.318513.68  1213.618607.04  1214.9
 18700.4  1215.518793.76  1219.118887.12    122118980.48    122219073.84  1224.3
 19167.2  1225.219249.26  1226.819249.36  1220.119249.45  1217.819258.88  1216.1
19286.52  1204.319319.94  1197.419366.71  1197.219372.31  1197.3 19437.2  1197.5
19494.24  1197.519499.84  1197.519561.74  1198.3 19619.9  1196.6 19625.5  1196.7
19683.76    119719714.29  1196.719731.65  1194.919745.56  1194.919751.17  1194.9
19871.04  1194.919876.64  1194.919924.91  1194.919937.33  1195.219995.86  1194.9
20001.46  1194.920061.96  1194.920122.46  1195.120128.06  1195.120184.54  1196.6
20247.75  1196.420253.35  1196.420314.69  1194.920415.89  1194.920458.84  1201.6
20497.95  1217.320498.05  1219.920498.14  1226.620735.65    122421221.12    1220
21650.58    1220
```

Manning's n Values num= 3

```
     Sta   n Val     Sta   n Val     Sta   n Val
   17300    .03219249.36    .02820498.05    .028
```

Bank Sta: Left Right Coeff Contr. Expan.

```
     19249.3620498.05              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1730019249.36  1220.120498.0521650.58  1219.9

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  9

Pier Data
Pier Station     Upstream=   19367    Downstream=   19367
Upstream     num=       2
    Width   Elev    Width   Elev
     5.6    1190     5.6    1228
Downstream     num=       2
    Width   Elev    Width   Elev
     5.6    1190     5.6    1228

Pier Data
Pier Station     Upstream=   19494    Downstream=   19494
Upstream     num=       2
    Width   Elev    Width   Elev
     5.6    1190     5.6    1228
Downstream     num=       2
    Width   Elev    Width   Elev
     5.6    1190     5.6    1228

Pier Data
Pier Station     Upstream=   19620    Downstream=   19620
Upstream     num=       2
    Width   Elev    Width   Elev
     5.6    1190     5.6    1228
Downstream     num=       2
    Width   Elev    Width   Elev
     5.6    1190     5.6    1228

Pier Data
Pier Station     Upstream=   19745    Downstream=   19745
Upstream     num=       2
    Width   Elev    Width   Elev
     5.6    1190     5.6    1228
Downstream     num=       2
    Width   Elev    Width   Elev
     5.6    1190     5.6    1228

Pier Data
Pier Station     Upstream=   19871    Downstream=   19871
Upstream     num=       2
    Width   Elev    Width   Elev
     5.6    1190     5.6    1228
Downstream     num=       2
    Width   Elev    Width   Elev
     5.6    1190     5.6    1228

Pier Data
Pier Station     Upstream=   19996    Downstream=   19996
Upstream     num=       2
    Width   Elev    Width   Elev
     5.6    1190     5.6    1228
Downstream     num=       2
    Width   Elev    Width   Elev
     5.6    1190     5.6    1228

Pier Data
Pier Station     Upstream=   20122    Downstream=   20122
Upstream     num=       2
    Width   Elev    Width   Elev
     5.6    1190     5.6    1228
Downstream     num=       2
    Width   Elev    Width   Elev
```

```
     5.6    1190     5.6    1228

Pier Data
Pier Station     Upstream=   20248    Downstream=   20248
Upstream     num=       2
    Width   Elev    Width   Elev
     5.6    1190     5.6    1228
Downstream     num=       2
    Width   Elev    Width   Elev
     5.6    1190     5.6    1228

Pier Data
Pier Station     Upstream=   20372    Downstream=   20372
Upstream     num=       2
    Width   Elev    Width   Elev
     5.6    1190     5.6    1228
Downstream     num=       2
    Width   Elev    Width   Elev
     5.6    1190     5.6    1228

Number of Bridge Coefficient Sets =  1

Low Flow Methods and Data
       Energy
Selected Low Flow Methods = Energy

High Flow Method
       Energy Only

Additional Bridge Parameters
       Add Friction component to Momentum
       Do not add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the downstream end
       Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT    Profile #PF#1
Opening : Bridge #1

  E.G. US. (ft)                1210.85   Element                 Inside BR US  Inside BR DS
  W.S. US. (ft)                1208.73   E.G. Elev (ft)               1210.81       1210.59
  Q Total (cfs)              172000.00   W.S. Elev (ft)               1208.34       1207.95
  Q Bridge (cfs)             172000.00   Crit W.S. (ft)               1205.25       1205.24
  Q Weir (cfs)                           Max Chl Dpth (ft)              13.44         13.05
  Weir Sta Lft (ft)                      Vel Total (ft/s)               12.60         13.02
  Weir Sta Rgt (ft)                      Flow Area (sq ft)           13652.24      13205.50
  Weir Submerg                           Froude # Chl                    0.64          0.68
  Weir Max Depth (ft)                    Specif Force (cu ft)       150886.73     147934.14
  Min Top Rd (ft)              1217.30   Hydr Depth (ft)                11.89         11.52
  Min El Prs (ft)              1226.84   W.P. Total (ft)             1376.88       1367.83
  Delta EG (ft)                   0.38   Conv. Total (cfs)         3343851.8     3177416.8
  Delta WS (ft)                   0.61   Top Width (ft)              1148.18       1146.29
  BR Open Area (sq ft)        29946.48   Frctn Loss (ft)                0.20          0.04
  BR Open Vel (ft/s)             13.02   C & E Loss (ft)                0.02          0.09
  Coef of Q                              Shear Total (lb/sq ft)         1.64          1.77
  Br Sel Mthd               Energy only  Power Total (lb/ft s)         20.63         23.00


BRIDGE OUTPUT    Profile #PF#2
Opening : Bridge #1

  E.G. US. (ft)                1210.85   Element                 Inside BR US  Inside BR DS
  W.S. US. (ft)                1208.74   E.G. Elev (ft)               1210.81       1210.60
  Q Total (cfs)              172000.00   W.S. Elev (ft)               1208.35       1207.97
  Q Bridge (cfs)             172000.00   Crit W.S. (ft)               1205.25       1205.24
  Q Weir (cfs)                           Max Chl Dpth (ft)              13.45         13.07
  Weir Sta Lft (ft)                      Vel Total (ft/s)               12.59         13.01
  Weir Sta Rgt (ft)                      Flow Area (sq ft)           13663.91      13221.17
  Weir Submerg                           Froude # Chl                    0.64          0.68
  Weir Max Depth (ft)                    Specif Force (cu ft)       150972.61     148032.33
  Min Top Rd (ft)              1226.86   Hydr Depth (ft)                11.92         11.53
  Min El Prs (ft)              1226.84   W.P. Total (ft)             1375.03       1368.08
  Delta EG (ft)                   0.38   Conv. Total (cfs)         3351614.0     3183318.5
  Delta WS (ft)                   0.61   Top Width (ft)              1146.29       1146.29
  BR Open Area (sq ft)        29584.24   Frctn Loss (ft)                0.20          0.04
  BR Open Vel (ft/s)             13.01   C & E Loss (ft)                0.02          0.09
```

Coef of Q		Shear Total (lb/sq ft)	1.63	1.76
Br Sel Mthd	Energy only	Power Total (lb/ft s)	20.57	22.91

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 227.71

INPUT
Description: Downstream Face of Country Club Drive Bridge

Station Elevation Data num= 61

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17300	1217.917	393.36	1216.617	486.72	1216.917	580.08	121717	673.44	1217.7
17766.8	1216.617	860.16	1215.217	953.52	1213.818	046.88	1214.218	140.24	1211.5
18233.6	1211.918	326.96	1211.518	420.32	1212.318	513.68	1213.618	607.04	1214.9
18700.4	1215.518	793.76	1219.118	887.12	122118	980.48	122219	073.84	1224.3
19167.2	1225.219	249.26	1226.819	249.36	1220.119	249.45	1217.819	258.88	1216.1
19286.52	1204.319	319.94	1197.419	366.71	1197.219	372.31	1197.3	19437.2	1197.5
19494.24	1197.519	499.84	1197.519	561.74	1198.3	19619.9	1196.6	19625.5	1196.7
19683.76	119	719714.29	1196.719	731.65	1194.919	745.56	1194.919	751.17	1194.9
19871.04	1194.919	876.64	1194.919	924.91	1194.919	937.33	1195.219	995.86	1194.9
20001.46	1194.920	061.96	1194.920	122.46	1195.120	128.06	1195.120	184.54	1196.6
20247.75	1196.420	253.35	1196.420	314.69	1194.920	415.89	1194.920	458.84	1201.6
20497.95	1217.320	498.05	1219.920	498.14	1226.620	735.65	122421	221.12	1220
21650.58	1220								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17300	.03	219249.36	.02	820498.05	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19249.36	20498.05	90	309.94	620	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17300	19249.36	1220.120	498.05	21650.58	1219.9

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1208.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.34	Wt. n-Val.		0.028	
E.G. Elev (ft)	1210.46	Reach Len. (ft)	90.00	309.94	620.00
Crit W.S. (ft)	1204.97	Flow Area (sq ft)		14019.67	
E.G. Slope (ft/ft)	0.002018	Area (sq ft)		14019.67	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1197.53	Top Width (ft)		1197.53	
Vel Total (ft/s)	12.27	Avg. Vel. (ft/s)		12.27	
Max Chl Dpth (ft)	13.22	Hydr. Depth (ft)		11.71	
Conv. Total (cfs)	3828662.8	Conv. (cfs)		3828662.8	
Length Wtd. (ft)	309.94	Wetted Per. (ft)		1200.96	
Min Ch El (ft)	1194.90	Shear (lb/sq ft)		1.47	
Alpha	1.00	Stream Power (lb/ft s)		18.04	
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)	19.01	1512.33	1.27
C & E Loss (ft)	0.22	Cum SA (acres)	5.89	77.43	1.21

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1208.14	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.33	Wt. n-Val.		0.028	
E.G. Elev (ft)	1210.47	Reach Len. (ft)	90.00	309.94	620.00
Crit W.S. (ft)	1204.97	Flow Area (sq ft)		14035.32	
E.G. Slope (ft/ft)	0.002011	Area (sq ft)		14035.32	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1197.53	Top Width (ft)		1197.53	
Vel Total (ft/s)	12.25	Avg. Vel. (ft/s)		12.25	
Max Chl Dpth (ft)	13.24	Hydr. Depth (ft)		11.72	
Conv. Total (cfs)	3835723.3	Conv. (cfs)		3835723.3	
Length Wtd. (ft)	309.94	Wetted Per. (ft)		1200.99	

Min Ch El (ft)	1194.90	Shear (lb/sq ft)	1.47
Alpha	1.00	Stream Power (lb/ft s)	17.98
Frctn Loss (ft)	0.40	Cum Volume (acre-ft)	1301.21
C & E Loss (ft)	0.22	Cum SA (acres)	70.98

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19249.36 LB	19499.10	23640.08	2180.76	223.02	13.74	9.84	10.84
19499.10	19748.84	32608.22	2767.95	249.86	18.96	11.08	11.78
19748.84	19998.57	43544.01	3291.81	249.74	25.32	13.18	13.23
19998.57	20248.31	40239.61	3139.65	249.76	23.40	12.57	12.82
20248.31	20498.05 RB	31968.09	2639.50	228.58	18.59	11.64	12.11

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19249.36 LB	19499.10	23647.87	2183.66	223.04	13.75	9.86	10.83
19499.10	19748.84	32612.48	2771.21	249.86	18.96	11.10	11.77
19748.84	19998.57	43536.10	3295.07	249.74	25.31	13.19	13.21
19998.57	20248.31	40235.52	3142.91	249.76	23.39	12.58	12.80
20248.31	20498.05 RB	31968.04	2642.47	228.59	18.59	11.65	12.10

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 227.65

INPUT
Description:
Station Elevation Data num= 167

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17867.53	1217.5	17883.84	1217.7	17908.67	1217.65	17976.85	1214.91	17985.63	1214.79
17999.76	1214.1	18018.08	1213.84	18050.05	1213.89	18072.52	1213.65	18102.5	1213.52
18118.53	1213.5	18152.71	1213.14	18158.5	1213.21	18176.54	1213.83	18194.69	1214.33
18218.59	1214.5	18231.29	1214.34	18254.35	1213.63	18265.12	1213.74	18318.26	1212.14
18359.03	1210.6	18369.9	1210.51	18411.75	1211.62	18414.49	1212.15	18421.93	1212.8
18448.37	12	12	1218.07	18458.08	1212.07	18465.4	1211.74	18498.37	1211.45
18509.5	1211.46	18527.43	1211.7	18573.61	1211.45	18601.19	1212.46	18622.64	1212.62
18647.14	1213.14	18709.87	1212.8	18718.54	1212.57	18766.32	1212.88	18787.9	1212.57
18838.82	1212.85	18854.55	1212.9	18897.97	1212.31	18905.77	1212.24	18963.86	1213.61
18995.32	1213.72	19017.6	1206.11	19022.38	1204.32	19036.9	1202.57	19058.45	1199.36
19075.68	1201.37	19082.03	1201.6	19084.86	1201.49	19108.02	1203.34	19145.83	1203.51
19148.06	1203.64	19151.89	1203.11	19156.28	1203.11	19180.42	1203.82	19195.69	1203.21
19210.94	1203.16	19230.71	1203.4	19262.98	1202.57	19270.06	1202.51	19305.19	1202.54
19316.35	1202.37	19335.8	1206.6	19348.9	1207.15	19355.5	1207.00	4	19386.8
1206.31	19403.57	1205.68	19424.38	1201.9	19427.83	1201.9	19437.76	1199.46	19457.49
1199.48	19473.28	1199.08	19508.42	1198.29	19555.58	1195.6	19571.84	1193.5	19632.57
1195.64	19662.15	1195.89	19691.28	1196.72	19705.41	1197	19742.56	1196.05	19816.15
1192.74	19866.72	1192.18	19913.71	1191.16	19940.08	1190.2	19980.74	1188.6	20020.96
1188.85	20035.46	1189.09	20104.87	1187.16	20189.72	1185.5	20256.23	1184.24	20266.16
1184.43	20283.28	1186.52	20286.9	1186.65	20313.39	1186.9	20339.08	1187.94	20364.48
1188.16	20386.59	1191.2	20421.78	1195.11	20444.76	1195.7	20454.51	1199.13	20475.53
1208.48	20494.42	1207.27	20500.3	1207.08	20515.23	1206.8	20534.96	1210.73	20547.18
1212.96	20565.97	1213.16	20579.65	1213.43	20589.5	1212.8	20590.72	1212.56	20595.24
1212.58	20597.91	1212.466							

```
20621.93 1211.4420646.72 1211.72 20690.1  1214.220716.61 1214.2620747.88 1214.08
20802.31 1214.0320884.91 1212.6320911.94  1212.720951.79 1212.8320974.29 1213.24
 21018.2 1213.5321028.84 1213.93 21045.3  1214.821071.56 1215.2421136.35  1218.6
21162.22 1217.3421187.87 1216.1621191.18  1215.921214.46 1216.0521309.26 1216.42
21325.62 1216.5621341.62 1216.5321414.73    121621440.98 1215.7821468.62 1216.16
21504.21 1216.1921552.73 1216.5121612.84  1216.521672.69 1215.5821716.78  1215.4
21756.94 1214.8521800.46 1215.1321834.94  1215.821893.25 1217.4721902.87 1217.77
21944.11 1218.2221979.33 1218.4122005.97  1218.322036.28 1217.8622059.29 1217.78
22091.88 1218.1122131.64 1218.2822194.22  1218.122247.96 1218.5522323.65  1218.5
22376.98 1218.4822464.09 1218.8222483.89  1218.522500.21 1218.3722587.43 1218.69
22613.34 1218.5922619.51 1218.51

Manning's n Values        num=       3
      Sta   n Val     Sta   n Val     Sta   n Val
17867.53    .032 19355.5    .02820475.53    .032

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19355.520475.53               430   490.8     500            .1        .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
17867.53   19450    1215 20475.522619.51    1215
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1208.24	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.61	Wt. n-Val.		0.028	
E.G. Elev (ft)	1209.85	Reach Len. (ft)	430.00	490.80	500.00
Crit W.S. (ft)	1201.19	Flow Area (sq ft)		16892.74	
E.G. Slope (ft/ft)	0.000882	Area (sq ft)	1748.91	17276.55	38.07
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1506.74	Top Width (ft)	344.15	1119.48	43.11
Vel Total (ft/s)	10.18	Avg. Vel. (ft/s)		10.18	
Max Chl Dpth (ft)	24.00	Hydr. Depth (ft)		16.48	
Conv. Total (cfs)	5792241.0	Conv. (cfs)		5792241.0	
Length Wtd. (ft)	490.80	Wetted Per. (ft)		1028.58	
Min Ch El (ft)	1184.24	Shear (lb/sq ft)		0.90	
Alpha	1.00	Stream Power (lb/ft s)		9.21	
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)	17.20	1400.99	1.00
C & E Loss (ft)	0.06	Cum SA (acres)	5.54	69.18	0.90

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1208.25	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.61	Wt. n-Val.		0.028	
E.G. Elev (ft)	1209.85	Reach Len. (ft)	430.00	490.80	500.00
Crit W.S. (ft)	1201.19	Flow Area (sq ft)		16901.75	
E.G. Slope (ft/ft)	0.000890	Area (sq ft)		16901.75	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1024.98	Top Width (ft)		1024.98	
Vel Total (ft/s)	10.18	Avg. Vel. (ft/s)		10.18	
Max Chl Dpth (ft)	24.01	Hydr. Depth (ft)		16.49	
Conv. Total (cfs)	5764629.0	Conv. (cfs)		5764629.0	
Length Wtd. (ft)	490.80	Wetted Per. (ft)		1037.36	
Min Ch El (ft)	1184.24	Shear (lb/sq ft)		0.91	
Alpha	1.00	Stream Power (lb/ft s)		9.22	
Frctn Loss (ft)	0.52	Cum Volume (acre-ft)		1191.15	
C & E Loss (ft)	0.06	Cum SA (acres)		63.08	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19355.50 LB	19579.51	10610.55	1409.67	129.74	6.17	10.88	7.53
19579.51	19803.51	23916.10	2856.69	224.13	13.90	12.75	8.37
19803.51	20027.52	40340.38	3908.93	224.08	23.45	17.45	10.32
20027.52	20251.52	57771.30	4848.69	224.06	33.59	21.65	11.91
20251.52	20475.53 RB	39361.68	3868.76	226.57	22.88	17.31	10.17

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19355.50 LB	19579.51	10189.47	1410.81	138.51	5.92	10.89	7.22
19579.51	19803.51	23986.29	2858.66	224.13	13.95	12.76	8.39
19803.51	20027.52	40446.28	3910.90	224.08	23.52	17.46	10.34
20027.52	20251.52	57913.55	4850.65	224.06	33.67	21.65	11.94
20251.52	20475.53 RB	39464.41	3870.73	226.57	22.94	17.32	10.20

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 227.56

INPUT
Description:
Station Elevation Data num= 120

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18982.15	1212.51	9002.04	1212.69	19030.16	1212.39	19078.08	1211.61	9087.99	1211.47
19093.94	1211.31	9133.85	1210.5	19144.4	1210.26	19211.95	1209.27	19219.08	1208.69
19247.25	1208.71	9273.16	120	19280.99	1207.77	19312.4	1207.31	19347.89	1207.11
19397.23	1207.81	9420.93	1206.79	19456.88	1205.04	19466.64	1207.52	19484.82	1212.08
19507.41	1211.51	9523.42	1212.11	19537.71	1208.08	19559.84	1201.85	19596.89	1183.86
19645.55	1186.11	9708.19	1189.51	9747.19	1189.75	19752.53	1189.88	19787.59	1189.03
19895.74	1186.11	9903.04	118	20003.04	1189.15	20047.49	1189.35	20119.84	1189.47
20154.06	1191.08	20175.73	1192.32	0268.16	1193.1	20275.1	1193.24	20278	1193.48
20328.16	1198.68	20387.3	1196.72	0407.31	1195.81	20440.72	1209.23	20475.74	1210.23
20482.96	1210.18	20522.63	1211.82	0535.47	1212.12	20537.31	1212.205	20574.1	1213.92
20627.33	1211.68	20640.45	1211.57	0668.62	1213.42	0699.08	1214.35	20739.43	1215.85
20751.75	1216.19	20772.16	1216.28	20842.44	1217.12	0867.28	1216.99	20942.89	1213.24
20975.99	1211.57	20990.52	1211.74	21038.55	1212.52	1066.79	1212.26	21123.54	1211.71
21136.86	1211.66	21154.1	1211.18	21189.53	1210.72	1257.48	1210.31	21277.97	1210.54
21361.69	1212.54	21370.79	1212.66	21382	1212.72	1413.99	1213.22	1484.43	1213.29
21524.88	1213.85	21558.26	1213.98	21581.03	1214.22	1651.64	1214.57	21710.86	1215.24
21780.01	1215.28	21887.34	1215.98	21929.14	121	1962.97	1216.35	22046.61	1216.65
22104.65	1217.04	22146.6	1217.21	22165.43	1217.22	2195.77	1217.31	22206.55	1216.69
22236.91	1213.95	22257.02	1215.42	22289.92	1216.52	2299.85	1216.55	22352.69	1216.85
22407.06	1216.83	22428.57	1216.8	22457.2	1216.52	2464.02	1216.21	22472.32	1216.54
22558.38	1216.61	22667.23	1216.86	22693.28	1217.12	2772.87	1217.58	22821.12	1216.83
22839.08	1215.89	22862.35	1216.24	22876.22	1215.32	2884.49	1214.62	2889.92	1214.6
22918.48	1216.36	22931.28	1216.01	22944.56	1216.32	2966.53	1216.06	22978.15	1216.57
22984.04	1216.49	23045.27	1218.15	23063.2	1215.82	3068.09	121	523113.92	1215.84

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18982.15	.03	19537.7	.028	20537.3	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19537.7	20537.3	510	506.97	510	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18982.15	19537.7	1212	20537.32	3113.92	1212.205

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1207.04	Element			
Vel Head (ft)	2.23	Wt. n-Val.		0.028	
E.G. Elev (ft)	1209.27	Reach Len. (ft)	510.00	506.97	510.00
Crit W.S. (ft)	1201.19	Flow Area (sq ft)		14351.66	
E.G. Slope (ft/ft)	0.001274	Area (sq ft)	48.92	14351.66	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	943.45	Top Width (ft)	49.61	893.84	
Vel Total (ft/s)	11.98	Avg. Vel. (ft/s)		11.98	
Max Chl Dpth (ft)	23.18	Hydr. Depth (ft)		16.06	
Conv. Total (cfs)	4819757.0	Conv. (cfs)		4819757.0	
Length Wtd. (ft)	506.97	Wetted Per. (ft)		901.52	
Min Ch El (ft)	1183.86	Shear (lb/sq ft)		1.27	

Alpha	1.00	Stream Power (lb/ft s)		15.17	
Frctn Loss (ft)	0.65	Cum Volume (acre-ft)	8.33	1222.81	0.78
C & E Loss (ft)	0.00	Cum SA (acres)	3.60	57.84	0.65

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1207.04	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.23	Wt. n-Val.		0.028	
E.G. Elev (ft)	1209.27	Reach Len. (ft)	510.00	506.97	510.00
Crit W.S. (ft)	1201.19	Flow Area (sq ft)		14357.66	
E.G. Slope (ft/ft)	0.001272	Area (sq ft)		14357.66	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	893.83	Top Width (ft)		893.83	
Vel Total (ft/s)	11.98	Avg. Vel. (ft/s)		11.98	
Max Chl Dpth (ft)	23.18	Hydr. Depth (ft)		16.06	
Conv. Total (cfs)	4823082.0	Conv. (cfs)		4823082.0	
Length Wtd. (ft)	506.97	Wetted Per. (ft)		901.52	
Min Ch El (ft)	1183.86	Shear (lb/sq ft)		1.26	
Alpha	1.00	Stream Power (lb/ft s)		15.15	
Frctn Loss (ft)	0.65	Cum Volume (acre-ft)		1015.04	
C & E Loss (ft)	0.00	Cum SA (acres)		52.27	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19537.70 LB	19737.62	40648.25	3364.33	201.19	23.63	17.15	12.08
19737.62	19937.54	50868.29	3839.74	199.99	29.57	19.21	13.25
19937.54	20137.46	45845.74	3607.45	199.97	26.65	18.04	12.71
20137.46	20337.38	28139.58	2693.15	200.26	16.36	13.47	10.45
20337.38	20537.30 RB	6498.15	846.99	100.10	3.78	8.65	7.67

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19537.70 LB	19737.62	40646.93	3365.65	201.19	23.63	17.16	12.08
19737.62	19937.54	50863.73	3841.08	199.99	29.57	19.21	13.24
19937.54	20137.46	45843.36	3608.79	199.97	26.65	18.05	12.70
20137.46	20337.38	28144.03	2694.49	200.26	16.36	13.48	10.45
20337.38	20537.30 RB	6501.93	847.64	100.10	3.78	8.66	7.67

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 227.46

INPUT
Description:
Station Elevation Data num= 172

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18305.14	1217.21	8343.56	1217.43	18404.41	1217.51	8429.16	1217.84	18449.3	1217.55
18512.78	1217.18	8576.53	1215.69	18588.83	1215.65	18595.85	1215.47	18690.91	1212.7
18746.16	1210.91	8795.22	1210.57	18894.81	1210.05	18988.64	1208.86	19021.88	1208.11
19043.61	1208.19	075.26	1206.96	19099.96	1206.4	19105.2	1206.55	19112.13	1208.89
19118.1	1211.11	9125.68	1209.79	19147.08	1206.53	19158.63	1206.28	19215.12	1204.66
19221.32	1204.61	9228.44	1204.22	19240.48	1203.79	19277.2	1202.65	19297.39	1202.51
19313.04	1202.19	327.19	1201.85	19333.12	1199.34	19337.52	1198.57	19356.55	1205.15
19380.28	1205.91	9393.58	1205.21	19406.5	1204.62	19419.87	1207.15	19446.01	1211.79
19451.84	1211.21	9462.24	1210.06	19475.93	1210.85	19483.68	1211.42	19489.21	1208.355
19489.93	1207.95	19526.28	1188.31	9557.76	1176.23	19577.81	1176.67	19611.31	1178.03
19675.05	1180.76	19759.74	1184.41	9793.14	1185.61	9880.51	1185.75	19891.83	1185.72
19899	1186.29	19922.81	1188.41	9957.84	1191.38	19960.62	1191.65	20035.9	1194.52
20039.65	1194.62	0072.98		119920098.33	1201.67	20114.27	1200.33	20158.71	1200.26
20180.91	1199.69	20286.88	1195.82	0317.46	1194.63	20325.09	1194.45	20364.25	1195.9
20372.05		119820439.85	1214.22	0453.22	1214.38	20464.32	1214.84	20469.5	1215.26
20492.2	1216.09	20508.33	1216.68	20513.56	1216.52	0540.05	1218.39	20576.75	1217.7
20605.39	1217.99	20653.74	1217.75	20669.5	1217.62	0710.69	1217.45	20746.69	1215.34
20763.51	1214.74	20787.47	1214.14	20827.69	1212.62	0849.89	1212.51	20865.86	1213.71
20885.81	1213.25	20935.18	1212.31	20937.64	1211.92	0942.45	1211.82	1031.89	1211.98

```
21110.32 1212.3921158.07 1211.2921183.78  1210.321220.51  1210.321227.55 1210.14
21243.09 1209.9721277.94 1209.7721297.95  1209.421326.25 1208.4521356.66 1208.25
21379.05 1207.6621432.81 1208.6121462.11  1209.421478.32 1209.0421502.69 1208.48
21520.29 1208.3721546.84 1208.1321552.56  1208.421570.81 1208.6421616.89    1210
21631.75 1210.7121644.06 1210.9421678.43  1210.321695.42 1210.0321698.84 1209.87
21708.12 1210.7321754.07 1213.99 21783.3  1214.321853.81 1214.2321889.63 1215.05
21908.91 1215.56 21922.3 1215.43 22033.1  1214.522065.62 1214.5822147.77 1216.66
22153.69 1216.7822161.88 1217.2122225.63  1220.422251.81 1217.3422258.57 1217.04
22294.81 1216.2522318.66 1215.5622329.92  1215.522344.31 1215.1222422.33 1215.61
22452.96 1215.8822477.24 1215.9622492.05  1215.9   22622 1216.0322660.76 1216.08
22706.09    121622719.64 1216.0722773.09  1215.622781.83 1215.7522796.95 1216.66
22838.64 1216.7722865.62 1214.7522886.89  1214.922899.74 1214.9322952.88 1215.43
22988.28 1215.5623016.73 1215.8823045.21  1215.923119.26 1215.8823138.14 1215.78
23173.14 1215.9323178.64 1216.3723180.05  1216.3 23187.6 1216.5423245.18 1218.22
23289.36 1217.06 23329.1 1216.7523346.88  1215.823353.91 1215.9423366.02 1215.89
23438.38 1215.1823456.48 1215.31

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
18305.14     .03 19489.2    .028 20492.2    .032

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       19489.2 20492.2              520  509.52     325             .1        .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
18305.14 19489.2    1210 20492.223456.48 1216.09

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)          1206.39   Element                  Left OB    Channel   Right OB
  Vel Head (ft)              2.22   Wt. n-Val.                           0.028
  E.G. Elev (ft)          1208.61   Reach Len. (ft)          520.00     509.52     325.00
  Crit W.S. (ft)          1200.61   Flow Area (sq ft)                 14372.61
  E.G. Slope (ft/ft)     0.001309   Area (sq ft)             638.43   14372.61
  Q Total (cfs)         172000.00   Flow (cfs)                       172000.00
  Top Width (ft)          1176.43   Top Width (ft)           262.10     914.33
  Vel Total (ft/s)          11.97   Avg. Vel. (ft/s)                    11.97
  Max Chl Dpth (ft)         30.16   Hydr. Depth (ft)                    15.72
  Conv. Total (cfs)     4754434.5   Conv. (cfs)                      4754434.5
  Length Wtd. (ft)         509.52   Wetted Per. (ft)                   923.52
  Min Ch El (ft)          1176.23   Shear (lb/sq ft)                    1.27
  Alpha                      1.00   Stream Power (lb/ft s)              15.22
  Frctn Loss (ft)            0.53   Cum Volume (acre-ft)       4.30    1055.65       0.78
  C & E Loss (ft)            0.19   Cum SA (acres)             1.77      47.32       0.65

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)          1206.40   Element                  Left OB    Channel   Right OB
  Vel Head (ft)              2.22   Wt. n-Val.                           0.028
  E.G. Elev (ft)          1208.62   Reach Len. (ft)          520.00     509.52     325.00
  Crit W.S. (ft)          1200.61   Flow Area (sq ft)                 14381.75
  E.G. Slope (ft/ft)     0.001306   Area (sq ft)                      14381.75
  Q Total (cfs)         172000.00   Flow (cfs)                       172000.00
  Top Width (ft)           914.33   Top Width (ft)                     914.33
  Vel Total (ft/s)          11.96   Avg. Vel. (ft/s)                    11.96
  Max Chl Dpth (ft)         30.17   Hydr. Depth (ft)                    15.73
  Conv. Total (cfs)     4759403.0   Conv. (cfs)                      4759403.0
  Length Wtd. (ft)         509.52   Wetted Per. (ft)                   923.54
  Min Ch El (ft)          1176.23   Shear (lb/sq ft)                    1.27
  Alpha                      1.00   Stream Power (lb/ft s)              15.19
  Frctn Loss (ft)            0.53   Cum Volume (acre-ft)               847.80
  C & E Loss (ft)            0.19   Cum SA (acres)                      41.75

Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.

FLOW DISTRIBUTION OUTPUT    Profile #PF#1

  Left Sta     Right Sta       Flow       Area       W.P.    % Conv.    Hydr D.   Velocity
  (ft)         (ft)            (cfs)    (sq ft)      (ft)                (ft)     (ft/s)
```

19489.20 LB	19689.80	67294.65	4728.53	203.89	39.12	24.01	14.23
19689.80	19890.40	59653.94	4370.87	200.69	34.68	21.79	13.65
19890.40	20091.00	27159.90	2729.44	201.30	15.79	13.61	9.95
20091.00	20291.60	10058.02	1502.35	200.78	5.85	7.49	6.69
20291.60	20492.20 RB	7833.49	1041.41	116.86	4.55	9.01	7.52

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19489.20 LB	19689.80	67276.45	4730.49	203.90	39.11	24.02	14.22
19689.80	19890.40	59644.25	4372.88	200.69	34.68	21.80	13.64
19890.40	20091.00	27167.99	2731.45	201.30	15.80	13.62	9.95
20091.00	20291.60	10071.08	1504.36	200.78	5.86	7.50	6.69
20291.60	20492.20 RB	7840.20	1042.57	116.87	4.56	9.02	7.52

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 227.36

INPUT
Description:
Station Elevation Data num= 166

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18655.95	1212.31	8711.68	1212.37	18786.5	1211.92	18822.61	1212.03	18880.64	1212.77
18917.23	1213.61	8921.23	1214.18	18924.83	1213.81	18927.57	1214.15	18949.17	1215.59
18962.87	1214.61	8969.88	1214.25	18987.03	1214.02	19045.24	1212.77	19059.64	1212.3
19068.84	1212.11	9071.06	1213.08	19082.31	1215.12	19104.91	1215.26	19133.62	1214.92
19239.71	1214.81	9264.53	1214.88	19328.45	1215.33	19397.88	1216.26	19426.81	1216.43
19488.1	1215.81	9504.35	1215.71	19548.86	1215.35	19556.7	1215.14	19572.87	1214.71
19598.01	1199.83	19649.32	1183.71	19663.09	1181.73	19668.38	1180.76	19677.72	1179.36
19688.99	1177.55	19729.36	1171.41	19763.72	1173.41	19803.97	1175.74	19838.4	1178.4
19850.31	1179.43	19871.91	1180.61	19930.97	1183.05	19967.43	1186.41	19978.84	1187.18
20003.39	1188.62	20013.04	1188.62	20025.53	1188.42	20042.92	1187.01	20084.86	1184.93
20090.96	1184.9	20130.3	1184.22	20138.69	1186.06	20176.25	1195.23	20188.21	1195.25
20247.43	1195.71	20344.9	119	20378.08	1198.15	20413.26	1198.81	20422.23	1199.14
20435.87	1199.25	20561.7	1199.62	20565.34	1200.4	20588.3	1206.32	20622.82	1215.31
20636.24	1218.62	20636.5	1218.62	20654.26	1219.22	20678.25	1219.03	20699.14	1219.17
20705.87	1218.82	20760.56	1216.37	20780.15	121	20810.54	1215.44	20826.02	1215.24
20833.73	1214.91	20850.88	1215.02	20853.37	121	20862.64	1214.28	20872.84	1213.72
20974.71	1216.08	20985.69	1216.49	21026.48	1217.72	21038.64	1217.71	21073.39	1218.42
21108.53	1220.56	21116.84	1220.34	21149.53	121	21179.13	1216.26	21202.35	1213.55
21210.3	1213.12	21246.69	1212.09	21282.77	1211.62	21319.69	1210.97	21331.93	1210.9
21376.25	1209.84	21405.29	1209.66	21410.9	1209.52	21422.63	1209.41	21439.67	1209.7
21486.88	1210.96	21495.87	1211.15	21528.79	1208.7	21562.6	1210.96	21620.01	1210.56
21661.56	1209.96	21677.65	1208.29	21705.38	121	21713.99	1212.24	21744.95	1212.94
21800.06	1211.72	21805.37	1211.43	21837.28	1209.92	21845.97	1209.85	21876.74	1211.31
21895.91	1212.91	21917.55	1213.22	21949.43	121	21981.82	1206.82	21999.08	1207.88
22015.69	1208.83	22022.35	1209.08	22046.09	1210.92	22051.31	1211.08	22053.28	1211.4
22107.19	1215.53	22122.84	1215.31	22205.24	1214.32	22262.37	1213.47	22281.62	1213.04
22287.6	1212.67	22294.32	1212.68	22346.29	121	22370.91	1213.51	22381.19	1214.4
22386.26	1214.44	22449.2	1215.52	22462.43	1215.82	22476.61	1215.79	22551.79	1215.78
22565.43	1215.74	22568.1	1214.83	22578.79	1210.52	22621.28	1210.51	22639.47	1215.94
22656.51	1214.35	22710.8	1214.48	22777.63	1214.72	22838.29	1214.55	22939.89	1214.42
23004.04	1214.42	23037.49	1214.73	23069.2	1214.72	23102.95	1215.08	23151.78	1214.64
23223.99	1214.63	23229.63	1214.62	23321.07	1214.82	23341.02	1214.82	23414.93	1214.99
23440.87	1214.72	23462.19	1214.65	23533.38	1214.82	23592.51	1214.77	23659.18	1214.7
23698.31	1214.73								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18655.95	.038	19556.7	.028	20636.5	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19556.7	20636.5	780	498.96	170	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1206.30	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.59	Wt. n-Val.		0.028	
E.G. Elev (ft)	1207.89	Reach Len. (ft)	780.00	498.96	170.00
Crit W.S. (ft)		Flow Area (sq ft)		17016.05	
E.G. Slope (ft/ft)	0.000839	Area (sq ft)		17016.05	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1001.17	Top Width (ft)		1001.17	
Vel Total (ft/s)	10.11	Avg. Vel. (ft/s)		10.11	
Max Chl Dpth (ft)	34.90	Hydr. Depth (ft)		17.00	
Conv. Total (cfs)	5937519.5	Conv. (cfs)		5937519.5	
Length Wtd. (ft)	498.96	Wetted Per. (ft)		1009.24	
Min Ch El (ft)	1171.40	Shear (lb/sq ft)		0.88	
Alpha	1.00	Stream Power (lb/ft s)		8.93	
Frctn Loss (ft)	0.58	Cum Volume (acre-ft)	0.49	872.08	0.78
C & E Loss (ft)	0.10	Cum SA (acres)	0.21	36.12	0.65

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1206.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.58	Wt. n-Val.		0.028	
E.G. Elev (ft)	1207.90	Reach Len. (ft)	780.00	498.96	170.00
Crit W.S. (ft)		Flow Area (sq ft)		17026.68	
E.G. Slope (ft/ft)	0.000837	Area (sq ft)		17026.68	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1001.17	Top Width (ft)		1001.17	
Vel Total (ft/s)	10.10	Avg. Vel. (ft/s)		10.10	
Max Chl Dpth (ft)	34.92	Hydr. Depth (ft)		17.01	
Conv. Total (cfs)	5943628.5	Conv. (cfs)		5943628.5	
Length Wtd. (ft)	498.96	Wetted Per. (ft)		1009.26	
Min Ch El (ft)	1171.40	Shear (lb/sq ft)		0.88	
Alpha	1.00	Stream Power (lb/ft s)		8.91	
Frctn Loss (ft)	0.58	Cum Volume (acre-ft)		664.11	
C & E Loss (ft)	0.10	Cum SA (acres)		30.54	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19556.70 LB	19772.66	51854.34	4539.61	190.85	30.15	24.46	11.42
19772.66	19988.62	66164.16	5525.54	216.44	38.47	25.59	11.97
19988.62	20204.58	36932.63	3901.43	217.41	21.47	18.07	9.47
20204.58	20420.54	12018.63	1984.09	216.00	6.99	9.19	6.06
20420.54	20636.50 RB	5030.26	1065.38	168.54	2.92	6.35	4.72

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19556.70 LB	19772.66	51843.34	4541.58	190.86	30.14	24.47	11.42
19772.66	19988.62	66150.49	5527.83	216.44	38.46	25.60	11.97
19988.62	20204.58	36935.62	3903.73	217.41	21.47	18.08	9.46
20204.58	20420.54	12030.99	1986.38	216.00	6.99	9.20	6.06
20420.54	20636.50 RB	5039.57	1067.16	168.55	2.93	6.36	4.72

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 227.27

INPUT
Description:
Station Elevation Data num= 194

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18653.9	1213.218	682.93	1213.211	8730.18	1213.821	8773.18	1213.271	8845.33	1213.06
18850.78	1213.118	938.45	1214.061	8947.08	1213.771	8966.33	1213.391	9070.51	1212.27
19115.51	1212.419	186.59	1211.751	9221.25	1211.571	9289.91	1211.451	9312.48	1211.68
19323.65	1211.419	372.95	1210.241	9398.35	1208.791	9414.02	1209.851	9418.76	1209.89
19441.01	120	919448.15	1208.711	9461.97	1208.41	9481.52	1207.561	9505.56	1207.53
19517.81	1207.11	9541.72	1207.081	9564.76	1208.221	9570.53	1209.11	9576.55	1211.07
19582.31	1212.602	19588.3	1214.2	19594.5	1212.63	19600	1210.041	9605.76	1211.03
19662.78	1189.231	9669.88	1186.51	9674.88	1184.141	9714.67	1180.841	9719.79	1180.76
19747.68	1180.781	9803.98	1181.1	19841.5	1181.02	19848.9	1181.051	9867.99	1182.04
19885.67	1182.631	9887.87	1184.7	19893.4	1185.921	9925.33	1189.951	9931.95	1190.41
19938.28	1187.581	9947.81	1185.51	9957.11	1191.011	9958.84	1190.181	9967.74	1189.41
19978.61	1188.871	9990.38	1185	19995.21	1183.331	9999.31	1183.44	20011.6	1183.28
20013.59	1182.782	0025.56	1177.32	0043.68	1180.652	0049.82	1180.052	0052.38	1178.79
20054.36	1179.222	0100.82	1184.62	0113.71	1185.52	0151.01	1186.52	0155.57	1186.86
20198.03	1192.052	0199.74	1192.72	0201.76	1191.93	20206	1191.082	0210.28	1191.2
20248.97	1196.892	0282.32	1198.52	0288.85	1198.482	0314.62	1199.11	20393	1200.42
20406.66	1205.532	0408.39	1204.82	0418.44	1202.162	0435.38	1205.49	20448.6	1199.79
20450.12	1199.032	0459.15	1199.22	0539.89	1200.172	0562.22	1207.36	20583.21	1213.663
20588.48	1215.252	0591.98	1214.712	0607.86	1213.62	0613.16	1213.692	0614.13	1213.46
20627.14	1213.692	0634.92	1214.452	0643.36	121	320677.39	1216.712	0709.47	1218.01
20741.45	1218.742	0758.12	1219.072	0808.38	1220.82	0822.41	1218.472	0840.13	1218.71
20845.57	1217.52	0863.66	1217.32	0895.36	1218.82	0919.63	1222.042	0946.18	1221.88
20996.53	1221.272	1013.28	1220.632	1043.31	1219.92	1086.46	1219.962	1097.79	1220.1
21108.84	1221.042	1120.06	1220.372	1133.59	1218.22	1152.14	1214.162	1188.37	1212.43
21214.56	1212.82	1238.32	1212.632	1271.07	1211.42	1307.11	1212.342	1334.74	1211.53
21339.08	1211.12	1351.01	1210.882	1381.05	1210.72	1403.57	1210.82	1415.85	1211.26
21423.43	1211.792	1471.79	1213.672	1506.83	121	221534.07	1209.792	1556.15	1207.67
21557.84	1206.29	21563.9	1206.092	1609.05	120	921634.61	1208.852	1723.29	1207.76
21739.93	1209.46	21756	1211.512	1770.42	121	221835.52	1213.532	1846.48	1213.5
21880.16	1213.532	1883.13	1213.592	1899.39	1213.62	1956.15	1211.782	1969.65	1212.01
22002.79	1212.92	2029.37	1212.832	2053.22	1212.12	2094.31	1214.092	2127.61	1214.2
22142.64	1213.992	2186.37	1213.06	22223.9	1212.52	2252.71	1212.372	2277.98	1212.73
22307.65	1212.972	2373.26	1213.812	2386.62	121	422433.04	1213.72	2475.27	1213.71
22547.59	1213.312	2566.28	1213.172	2605.93	1213.22	2634.03	1215.242	2642.76	1211.75
22645.28	1210.512	2716.46	1210.512	2726.54	1215.92	2735.05	1215.32	2752.26	1214.31
22768.23	1214.522	2831.39	1214.362	2915.75	1214.12	2925.38	1214.1	22961.6	1214.18
23075.95	1213.962	3104.67	1213.862	3123.94	1213.42	3160.35	1213.612	3206.49	1213.61
23228.86	1213.932	3266.86	1214.322	3292.03	1214.32	3329.37	1214.372	3398.14	1214.33
23533.75	1214.192	3562.12	1214.122	3644.51	1214.32	3673.39	1214.46		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18653.9	.03	19582.3	.028	20583.2	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19582.3	20583.2	600	509.22	505	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1204.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.58	Wt. n-Val.		0.028	
E.G. Elev (ft)	1207.21	Reach Len. (ft)	600.00	509.22	505.00
Crit W.S. (ft)		Flow Area (sq ft)		13343.92	
E.G. Slope (ft/ft)	0.001706	Area (sq ft)		13343.92	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	920.16	Top Width (ft)		920.16	
Vel Total (ft/s)	12.89	Avg. Vel. (ft/s)		12.89	
Max Chl Dpth (ft)	27.33	Hydr. Depth (ft)		14.50	
Conv. Total (cfs)	4164805.0	Conv. (cfs)		4164805.0	
Length Wtd. (ft)	509.22	Wetted Per. (ft)		935.56	
Min Ch El (ft)	1177.30	Shear (lb/sq ft)		1.52	
Alpha	1.00	Stream Power (lb/ft s)		19.58	
Frctn Loss (ft)	0.66	Cum Volume (acre-ft)	0.49	698.20	0.78

C & E Loss (ft)	0.21	Cum SA (acres)	0.21	25.11	0.65

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1204.65	Element			
Vel Head (ft)	2.57	Wt. n-Val.		0.028	
E.G. Elev (ft)	1207.22	Reach Len. (ft)	600.00	509.22	505.00
Crit W.S. (ft)		Flow Area (sq ft)		13358.86	
E.G. Slope (ft/ft)	0.001700	Area (sq ft)		13358.86	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	920.38	Top Width (ft)		920.38	
Vel Total (ft/s)	12.88	Avg. Vel. (ft/s)		12.88	
Max Chl Dpth (ft)	27.35	Hydr. Depth (ft)		14.51	
Conv. Total (cfs)	4171800.0	Conv. (cfs)		4171800.0	
Length Wtd. (ft)	509.22	Wetted Per. (ft)		935.82	
Min Ch El (ft)	1177.30	Shear (lb/sq ft)		1.51	
Alpha	1.00	Stream Power (lb/ft s)		19.50	
Frctn Loss (ft)	0.66	Cum Volume (acre-ft)		490.09	
C & E Loss (ft)	0.21	Cum SA (acres)		19.54	

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19582.30 LB	19782.48	40743.71	3021.28	164.01	23.69	18.88	13.49
19782.48	19982.66	56152.64	3998.29	204.23	32.65	19.97	14.04
19982.66	20182.84	60643.60	4180.20	203.37	35.26	20.88	14.51
20182.84	20383.02	11503.07	1534.87	201.11	6.69	7.67	7.49
20383.02	20583.20 RB	2956.99	609.29	162.84	1.72	3.82	4.85

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19582.30 LB	19782.48	40735.63	3023.87	164.02	23.68	18.90	13.47
19782.48	19982.66	56140.82	4001.54	204.23	32.64	19.99	14.03
19982.66	20182.84	60627.26	4183.45	203.37	35.25	20.90	14.49
20182.84	20383.02	11525.64	1538.12	201.11	6.70	7.68	7.49
20383.02	20583.20 RB	2970.66	611.88	163.09	1.73	3.83	4.85

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 227.17

INPUT
Description:
Station Elevation Data num= 195

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18330.41	1214.1	18338.1	1214.09	18398.2	1213.46	18426.83	1213.55	18440.48	1213.65
18469.13	1213.61	18480.51	1213.64	18537.69	1213.73	18566.25	1213.52	18585.98	1213.31
18618.12	1213.41	18685.81	1212.28	18727.77	1212.27	18741.68	1212.35	18758.7	1212.53
18799.4	1212.41	18811.93	1212.54	18915.01	1212.33	18928.88	1212.28	18939.06	1211.79
18967.29	1210.71	19005.98	1209.46	19012.97	1210.55	19029.23	1216.44	19070.66	1214.68
19077.52	1209	19091.37	1209.21	19128.88	1209.24	19140.05	1209.18	19166.34	1208.76
19226.82	1209.81	19241.04	1209.98	19252.71	1218.91	19254.92	1219.26	19260.38	1218.68
19287.32	1210.51	19308.14	1210.72	19364.06	1210.12	19394.24	1210.36	19441.98	1209.8
19459.44	1210.21	19479.41	1209.89	19537.98	1208.81	19571.4	1208.61	19590.67	1208.57

19597.34	1208.6	19598.41	1208.572	19602.7	1208.4619609.31	1212.2919611.33	1211.07
19652.13	1190.4619661.86	1189.619671.16	1189.2119713.75	1188.2	19718.9	1188.38	
19726.51	1188.3219741.04	1187.5	19756.6	1184.3519759.33	1183.2619775.62	1177.22	
19788.04	1173.4819796.88	1172.4	19826	1169.5319856.09	1170.519867.75	1171.35	
19898.26	1172.98	19911.9	1173.319965.45	1180.1119982.06	1182.6220005.65	1184.11	
20018.67	1184.520033.33	1184.820072.91	1187.2620084.28	1189.6620086.87	1190.04		
20133.95	1193.1320165.61	1193.120184.87	119320195.23	1192.6720206.31	1192.48		
20232.29	1191.8820277.55	1190.720301.45	1190.1620308.86	119020343.47	1190.57		
20355.67	1191.4520406.27	1196.220422.76	1197.1420432.05	1198.920481.92	1197.39		
20527.98	1196.2220581.54	1215.820588.19	1214.75	20588.81	1214.63520605.38	1211.52	
20624.38	1211.0620632.07	1210.72	20657.2	1212.620713.53	1216.4920735.35	1217.29	
20738.31	1217.120762.38	1216.4220772.87	1217.4	20795.5	1215.7320806.94	1214.33	
20812.17	1214.4720875.43	1212.8220884.97	1212.920902.23	121220912.17	1212.1		
20953.6	1211.1421013.11	1211.3621047.83	1211.221087.65	1209.6921096.03	1211		
21121.21	1211.5221148.96	1212.221180.54	1213.721190.76	1213.5721210.36	1213.57		
21229.44	1212.4521266.53	1210.7821309.12	121021322.03	1209.7521350.54	1209.55		
21361.44	1209.3321378.07	1208.8121402.61	1209.221431.29	1209.3321432.73	1209.15		
21454.98	1208.0521490.13	1211.9721497.22	1212.521508.92	1212.6721544.09	1212.96		
21558.03	1213.0321583.77	1212.8821637.93	121321688.62	1212.6921703.42	1212.4		
21750.16	1211.7221760.97	1211.45	21772.4	1211.621800.63	1211.6621837.38	1212.13	
21867.06	1212.421934.26	1212.4122007.12	1212.822047.77	1212.9322113.87	1213.53		
22160.15	1213.0922189.04	1213.2722234.06	1213.222325.24	1212.0722343.56	1211.76		
22352.78	1212.2722381.41	1213.0322418.15	1212.922436.24	1212.822459.28	1212.61		
22464.1	1212.2522467.38	1212.2722545.44	1211.922574.61	1212.4422607.49	1212.05		
22645.36	1212.6522714.32	1212.3622735.86	1212.622745.75	121422750.89	1210.84		
22754.16	1213.3222755.81	1214.222764.04	1213.122773.58	1211.9922777.13	1211.37		
22826.58	1210.3922875.03	1210.7622901.27	1211.122945.34	1211.9422971.88	1212.58		
22985.04	1212.9623036.66	1213.3123056.12	1213.423063.67	1213.2923115.38	1213.23		
23192.88	1213.4323273.14	1212.5823285.44	1211.9	23320.7	1211.923336.54	1211.63	
23357.52	1211.3923395.99	1212.1823412.23	1212.623480.03	1213.9323508.39	1214.79		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18330.41	.03	19598.4	.028	20588.8	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19598.4	20588.8	220	509.22	500	.1	.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1204.46	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.89	Wt. n-Val.		0.028	
E.G. Elev (ft)	1206.35	Reach Len. (ft)	220.00	509.22	500.00
Crit W.S. (ft)	1197.29	Flow Area (sq ft)		15589.16	
E.G. Slope (ft/ft)	0.001015	Area (sq ft)		15589.16	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	926.09	Top Width (ft)		926.09	
Vel Total (ft/s)	11.03	Avg. Vel. (ft/s)		11.03	
Max Chl Dpth (ft)	34.93	Hydr. Depth (ft)		16.83	
Conv. Total (cfs)	5398928.5	Conv. (cfs)		5398928.5	
Length Wtd. (ft)	509.22	Wetted Per. (ft)		935.09	
Min Ch El (ft)	1169.53	Shear (lb/sq ft)		1.06	
Alpha	1.00	Stream Power (lb/ft s)		11.65	
Frctn Loss (ft)	0.63	Cum Volume (acre-ft)	0.49	529.08	0.78
C & E Loss (ft)	0.04	Cum SA (acres)	0.21	14.32	0.65

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1204.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.89	Wt. n-Val.		0.028	
E.G. Elev (ft)	1206.36	Reach Len. (ft)	220.00	509.22	500.00
Crit W.S. (ft)	1197.29	Flow Area (sq ft)		15604.65	
E.G. Slope (ft/ft)	0.001012	Area (sq ft)		15604.65	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	926.09	Top Width (ft)		926.09	
Vel Total (ft/s)	11.02	Avg. Vel. (ft/s)		11.02	
Max Chl Dpth (ft)	34.94	Hydr. Depth (ft)		16.85	
Conv. Total (cfs)	5407741.5	Conv. (cfs)		5407741.5	
Length Wtd. (ft)	509.22	Wetted Per. (ft)		935.12	
Min Ch El (ft)	1169.53	Shear (lb/sq ft)		1.05	
Alpha	1.00	Stream Power (lb/ft s)		11.62	
Frctn Loss (ft)	0.63	Cum Volume (acre-ft)		320.79	
C & E Loss (ft)	0.04	Cum SA (acres)		8.75	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19598.40 LB	19796.48	29267.51	2957.98	177.70	17.02	17.19	9.89
19796.48	19994.56	87381.63	5965.54	198.96	50.80	30.12	14.65
19994.56	20192.64	27920.17	3006.12	198.57	16.23	15.18	9.29
20192.64	20390.72	21541.99	2571.54	198.30	12.52	12.98	8.38
20390.72	20588.80 RB	5888.70	1087.98	161.55	3.42	6.81	5.41

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19598.40 LB	19796.48	29270.83	2960.86	177.72	17.02	17.21	9.89
19796.48	19994.56	87336.77	5968.85	198.96	50.78	30.13	14.63
19994.56	20192.64	27931.25	3009.43	198.57	16.24	15.19	9.28
20192.64	20390.72	21557.22	2574.85	198.30	12.53	13.00	8.37
20390.72	20588.80 RB	5903.95	1090.65	161.56	3.43	6.83	5.41

CROSS SECTION RIVER: Salt River
REACH: Above Split RS: 227.07

INPUT
Description:
Station Elevation Data num= 155

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18663	1209.818	676.72	1209.851	8731.33	1209.561	8772.52	1209.421	8784.78	1209.55
18796.35	1209.118	813.27	1209.161	8846.59	1209.381	8872.63	1209.231	8914.23	1209.44
18964.52	1209.918	991.82	1218.471	8994.37	1219.181	9021.21	1210.851	9024.02	1209.92
19046.61	1209.119	053.99	1209.311	9122.53	1211.061	9200.36	1210.6	19293.8	1210.62
19312.58	1210.619	332.83	1210.511	9337.15	1211.631	9350.84	1214.031	9358.17	1213.28
19379.06	1210.219	397.27	1210.651	9423.43	1211.431	9447.48	1211.411	9475.53	1212.38
19482.87	1209.919	496.44	1204.191	9522.96	1192.31	9531.62	1187.71	9551.32	1188.56
19616.27	1187.819	631.33	1187.351	9641.47	1186.751	9660.04	1186.211	9689.86	1185.14
19709.38	1184.619	763.94	1184.561	9780.18	1184.851	9879.28	1187.321	9903.44	1187.32
19911.68	1188.519	923.13	1190.111	9975.87	1190.11	9996.06	1189.592	0028.85	1190.09
20105.46	1190.120	119.92	1190.222	0149.35	1190.32	0226.36	1190.042	0297.14	1190.03
20382.69	1191	20411.18	1191.142	0416.96	1191.12	20458	1191.512	0513.28	1203.81
20537.54	1208.620	567.21	1214.512	0585.25	1209.692	0588.55	1208.922	0596.18	1210.2
20610.14	1212.920	638.26	1212.612	0658.68	1212.632	0674.63	1213.632	0735.01	1217.17
20737.41	1217.720	778.23	1216.882	0785.67	1216.62	0830.28	1214.272	0841.56	1213.92
20856.52	1212.620	894.23	1213.82	0903.29	1213.922	0962.62	1213.442	0989.03	1213.25
21020.06	1213.121	047.88	1208.282	1051.28	1207.852	1104.15	1209.472	1112.64	1209.57
21184.76	1213.921	195.77	1212.292	1212.58	1213.382	1257.52	1211.852	1260.73	1211.76
21303.25	1213.421	325.07	1214.22	1375.44	1214.092	1380.84	1214.212	1392.52	1214.08
21430	1213.321	468.45	1213	21493.3	1213.082	1530.61	1212.322	1538.24	1211.98
21557.11	1210.921	571.79	1210.242	1583.25	1209.312	1594.84	1209.52	1643.44	1209.75
21681.41	1209.821	695.57	1210.3	21699.2	1210.232	1728.47	1210.922	1774.73	1210.83
21833.05	1210.9	21859.4	1212.092	1905.91	1211.762	1932.17	1211.74	22059.8	1212.67
22150.65	1212.7	22171.9	1212.732	2197.06	1212.642	2216.05	1212.252	2290.61	1210.77
22293.09	1211.622	308.51	1215.282	2319.49	1215.22	2320.87	1214.622	2343.61	1209.97
22357.98	1209.922	390.28	1209.852	2422.26	1209.89	22440.9	1209.972	2450.87	1211.64
22457.06	1213.822	474.48	1211.712	2491.29	1208.142	2498.68	1207.542	2508.66	1210.3
22514.81	1211.122	520.79	1210.512	2536.13	1208.742	2538.57	1209.372	2542.43	1207.8
22589.02	1208.222	654.31	1209.282	2674.93	1210	22691.57	1210.642	2694.27	1210.66
22736.42	1211.922	788.78	1211.562	2802.08	1212.012	2827.28	1212.992	2828.49	1212.7
22834	1210.222	841.31	1212.122	2844.49	1212.682	2863.83	1211.612	2889.56	1211.02

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18663	.03	19496.44	.02	20513.28	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19496.44	20513.28	550	487.77	490	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
18663	19356.4	1210

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1203.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.28	Wt. n-Val.		0.028	
E.G. Elev (ft)	1205.68	Reach Len. (ft)	492.08	492.08	492.08

Crit W.S. (ft)	1198.84	Flow Area (sq ft)		14189.01	
E.G. Slope (ft/ft)	0.001556	Area (sq ft)		14189.01	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1013.19	Top Width (ft)		1013.19	
Vel Total (ft/s)	12.12	Avg. Vel. (ft/s)		12.12	
Max Chl Dpth (ft)	18.83	Hydr. Depth (ft)		14.00	
Conv. Total (cfs)	4360062.5	Conv. (cfs)		4360062.5	
Length Wtd. (ft)	492.08	Wetted Per. (ft)		1018.35	
Min Ch El (ft)	1184.56	Shear (lb/sq ft)		1.35	
Alpha	1.00	Stream Power (lb/ft s)		16.41	
Frctn Loss (ft)	0.76	Cum Volume (acre-ft)	0.35	316.93	0.41
C & E Loss (ft)	0.02	Cum SA (acres)			

Warning - A flow split was encountered. The program first calculated the momentum of both channels below the junction. An energy balance was performed across the junction from the stream with the highest momentum downstream to the section upstream.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1203.42	Element			
Vel Head (ft)	2.27	Wt. n-Val.		0.028	
E.G. Elev (ft)	1205.69	Reach Len. (ft)	492.08	492.08	492.08
Crit W.S. (ft)	1198.81	Flow Area (sq ft)		14212.26	
E.G. Slope (ft/ft)	0.001548	Area (sq ft)		14212.26	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1013.20	Top Width (ft)		1013.20	
Vel Total (ft/s)	12.10	Avg. Vel. (ft/s)		12.10	
Max Chl Dpth (ft)	18.86	Hydr. Depth (ft)		14.03	
Conv. Total (cfs)	4371832.0	Conv. (cfs)		4371832.0	
Length Wtd. (ft)	492.08	Wetted Per. (ft)		1018.40	
Min Ch El (ft)	1184.56	Shear (lb/sq ft)		1.35	
Alpha	1.00	Stream Power (lb/ft s)		16.32	
Frctn Loss (ft)	0.76	Cum Volume (acre-ft)		195.94	
C & E Loss (ft)	0.02	Cum SA (acres)			

Warning - A flow split was encountered. The program first calculated the momentum of both channels below the junction. An energy balance was performed across the junction from the stream with the highest momentum downstream to the section upstream.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19496.44 LB	19699.81	36420.71	2971.45	205.19	21.17	14.74	12.26
19699.81	19903.18	50627.37	3608.06	203.41	29.43	17.74	14.03
19903.18	20106.54	32086.24	2745.22	203.57	18.65	13.50	11.69
20106.54	20309.91	31176.46	2697.17	203.37	18.13	13.26	11.56
20309.91	20513.28 RB	21689.23	2167.10	202.81	12.61	10.76	10.01

Warning - A flow split was encountered. The program first calculated the momentum of both channels below the junction. An energy balance was performed across the junction from the stream with the highest momentum downstream to the section upstream.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19496.44 LB	19699.81	36415.47	2976.08	205.21	21.17	14.76	12.24
19699.81	19903.18	50602.10	3612.73	203.41	29.42	17.76	14.01
19903.18	20106.54	32091.93	2749.89	203.57	18.66	13.52	11.67
20106.54	20309.91	31183.57	2701.84	203.37	18.13	13.29	11.54
20309.91	20513.28 RB	21706.94	2171.72	202.83	12.62	10.78	10.00

Warning - A flow split was encountered. The program first calculated the momentum of both channels below the junction. An energy balance was performed across the junction from the stream with the highest momentum downstream to the section upstream.

CROSS SECTION RIVER: Salt River

REACH: South Split RS: 227.00

INPUT
Description:
Station Elevation Data num= 158

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18266.53	1210.218	272.77	1210.141	8327.22	1209.791	8345.88	1209.61	8379.92	1212.09
18385.15	1210.418	386.61	1209.771	8401.76	1212.081	8451.51	1212.041	8481.05	1211.78
18527.56	1211.518	536.52	1211.421	8545.99	1210.57	18643.6	1207.19	18651.3	1206.6
18664.98	1205.8	18686.1	1203.94	18700.9	1203.931	8725.49	1204.581	8731.82	1205.22
18749.75	1207.61	8776.33	1209.131	8788.06	1210.02	18821.7	1211.341	8833.07	1211.64
18854.61	121	118859.74	1210.121	8881.01	1210.161	8926.68	1208.051	8933.77	1207.61
18942.49	1206.91	8987.51	1205.161	9004.77	1204.19	19026.71	1202.84	19042.52	1201.88
19068.24	1200.081	9084.01	119	819091.84	1194.691	9102.16	1194.381	9110.66	1191.55
19115.5	1191.391	9139.26	1192.51	9152.82	1194.271	9165.69	1195.391	9195.95	1195.5
19211.96	1195.791	9255.03	1195.81	9259.72	1195.71	9298.56	1194.471	9316.42	1194.58
19340.13	1193.491	9352.04	1193.41	9385.46	1193.681	9397.69	1193.691	9418.92	1194.76
19429.65	1194.571	9462.51	1193.41	9503.74	1192.071	9531.47	1192.071	9552.39	1191.93
19570.31	1192.69	19580.9	1191	19585.9	1189.751	9589.75	1188.091	9609.31	1187.87
19624.26	1187.341	9635.55	1187.51	9658.88	1188.221	9701.76	1187.341	9742.55	1186.64
19749.92	1186.47	19775.6	1187.61	9790.63	1188.431	9809.46	1189.111	9814.09	1190.16
19887.37	1190.361	9943.86	1190.31	9956.41	1190.381	9973.34	1190.58	20011.8	1190.34
20053.36	1190.112	0133.94	1188.52	0170.72	1187.872	0178.79	1187.662	0216.62	1187.21
20273.52	1186.572	0363.56	118	520434.66	1185.732	0437.24	1186.232	0537.26	1204.95
20538.36	1204.442	0548.06	1206.62	0552.24	1208.512	0590.53	1206.39	20593.81	1206.362
20597.5	1206.332	0621.64	1205.62	0658.41	1204.42	0665.28	1204.492	0691.69	1204.03
20701.65	1204.192	0722.52	1203.632	0741.14	1203.92	0776.12	1205.372	0783.67	1205.75
20826.91	1205.84	20855.5	1206.152	0894.82	1206.72	0926.43	1210.582	0929.03	1210.81
21005.53	1211.422	1025.62	1211.082	1059.14	1209.92	1081.46	1210.162	1113.81	1210.22
21155.02	1210.172	1178.64	1209.742	1235.06	1209.52	1247.92	1209.22	1256.29	1209.24
21261.9	1209.042	1334.35	1209.55	21345	1209.52	1399.45	1209.792	1437.53	1210.27
21455.06	1210.422	1460.76	1210.662	1528.73	1210.52	1613.77	1208.782	1642.76	1209.27
21683.11	1210.172	1714.36	1210.932	1765.07	1211.12	1812.93	1210.82	1872.62	1210.89
21889.19	1210.832	1952.49	1209.92	21964.9	1210.22	1979.01	1210.292	2065.03	1211.69
22146.3	1210.772	2161.13	1210.452	2232.82	1208.8	22238.3	1208.572	2270.89	1207.92
22290.67	1207.212	2307.34	1206.562	2311.14	1206.32	2323.44	1204.652	2331.71	1207.61
22334.39	1208.412	2351.36	1208.212	2403.63	1207.8	22470.1	1208.332	2513.46	1209.32
22566.19	1209.852	2600.86	1209.362	2628.74	1209.3				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18266.53	.032	19026.7	.028	20593.8	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19026.7	20593.8	600	575.74	580	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
18266.53	19026.7	1220	19590	22628.74	1220

CROSS SECTION OUTPUT Profile #PF#1

			Left OB	Channel	Right OB
W.S. Elev (ft)	1204.72	Element			
Vel Head (ft)	0.12	Wt. n-Val.		0.028	
E.G. Elev (ft)	1204.84	Reach Len. (ft)	600.00	575.74	580.00
Crit W.S. (ft)	1196.95	Flow Area (sq ft)		5737.01	
E.G. Slope (ft/ft)	0.000126	Area (sq ft)	55.42	20706.91	64.36
Q Total (cfs)	16000.00	Flow (cfs)		16000.00	
Top Width (ft)	1704.92	Top Width (ft)	80.98	1511.19	112.75
Vel Total (ft/s)	2.79	Avg. Vel. (ft/s)		2.79	
Max Chl Dpth (ft)	19.72	Hydr. Depth (ft)		10.18	
Conv. Total (cfs)	1426575.6	Conv. (cfs)		1426575.6	
Length Wtd. (ft)	575.74	Wetted Per. (ft)		565.62	
Min Ch El (ft)	1185.00	Shear (lb/sq ft)		0.08	
Alpha	1.00	Stream Power (lb/ft s)		0.22	
Frctn Loss (ft)	0.04	Cum Volume (acre-ft)	146.83	776.67	5.81
C & E Loss (ft)	0.02	Cum SA (acres)	14.19	55.44	3.29

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1204.75	Element			

Vel Head (ft)	0.12	Wt. n-Val.		0.028	
E.G. Elev (ft)	1204.87	Reach Len. (ft)	600.00	575.74	580.00
Crit W.S. (ft)	1196.95	Flow Area (sq ft)		5755.44	
E.G. Slope (ft/ft)	0.000130	Area (sq ft)		5755.44	
Q Total (cfs)	16000.00	Flow (cfs)		16000.00	
Top Width (ft)	563.30	Top Width (ft)		563.30	
Vel Total (ft/s)	2.78	Avg. Vel. (ft/s)		2.78	
Max Chl Dpth (ft)	16.67	Hydr. Depth (ft)		10.22	
Conv. Total (cfs)	1403664.6	Conv. (cfs)		1403664.6	
Length Wtd. (ft)	575.74	Wetted Per. (ft)		584.19	
Min Ch El (ft)	1188.09	Shear (lb/sq ft)		0.08	
Alpha	1.00	Stream Power (lb/ft s)		0.22	
Frctn Loss (ft)	0.04	Cum Volume (acre-ft)	39.08	614.07	
C & E Loss (ft)	0.02	Cum SA (acres)	2.85	44.95	

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19026.70 LB	19183.41	3136.57	1307.01	158.27	19.60	8.34	2.40
19183.41	19340.12	3958.56	1497.15	156.76	24.74	9.55	2.64
19340.12	19496.83	5055.54	1733.91	156.78	31.60	11.06	2.92
19496.83	19653.54	3849.33	1198.95	93.82	24.06	12.87	3.21

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19026.70 LB	19183.41	3200.00	1312.14	160.17	20.00	8.37	2.44
19183.41	19340.12	4067.58	1502.27	156.76	25.42	9.59	2.71
19340.12	19496.83	5190.74	1739.04	156.78	32.44	11.10	2.98
19496.83	19653.54	3541.68	1202.00	110.49	22.14	12.90	2.95

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: South Split RS: 226.89

INPUT
Description:
Station Elevation Data num= 56

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19035.91	121	019115.62	1209.98	19163.66	1210.11	19195.98	1210.41	19223.69	1210.55
19254.88	1215.91	19309.16	1224.22	19333.55	1216.81	19356.77	1210.34	19403.3	1212.24
19406.48	1212.81	19460.74	1223.46	19485.47	1222.91	19505.74	1222.97	19552.13	1210.48
19557.15	1208.61	19575.65	120	19580.01	1209.15	19581	1208.09	19600.59	1193.57
19612.13	1193.41	19628.46	1194.55	19631.68	1194.47	19640.45	1199.28	19657.13	1208.25
19685.21	1208.61	19737.74	1208.71	19755.43	119	19771.78	1189.36	19801.68	1186.18
19816.22	118	19844.96	1184.05	19846.34	1184.04	19909.69	1184.71	19918.83	1184.88
19950.12	1189.41	19962.09	1190.87	20009.24	1190.74	20065.35	1191.38	20120.05	1190.31
20135.31	1190.42	20142.03	1190.58	20159.66	1190.13	20221.04	1189.34	20225.43	1189.65
20240.87	1191.22	20271.13	1201.72	20284.54	1206.32	20290.02	1206.47	20338.47	1206.4
20345.23	1206.32	20364.89	1206.12	20406.77	1207.93	20415.45	1207.76	20460.86	1207.47
20488.81	1207.9								

Manning's n Values num= 2

Sta	n Val	Sta	n Val
19035.91	.028	20284.54	.031

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19737.74	20290.02	560	564.3	555	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19035.91	19737.74	1208.71	20290.02	20488.81	1206.47

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1204.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.		0.028	
E.G. Elev (ft)	1204.79	Reach Len. (ft)	560.00	564.30	555.00
Crit W.S. (ft)	1191.90	Flow Area (sq ft)		8013.79	
E.G. Slope (ft/ft)	0.000039	Area (sq ft)	518.43	8013.79	
Q Total (cfs)	16000.00	Flow (cfs)		16000.00	
Top Width (ft)	599.96	Top Width (ft)	65.03	534.92	
Vel Total (ft/s)	2.00	Avg. Vel. (ft/s)		2.00	
Max Chl Dpth (ft)	20.68	Hydr. Depth (ft)		14.98	
Conv. Total (cfs)	2561727.0	Conv. (cfs)		2561727.0	
Length Wtd. (ft)	564.26	Wetted Per. (ft)		542.07	
Min Ch El (ft)	1184.04	Shear (lb/sq ft)		0.04	
Alpha	1.00	Stream Power (lb/ft s)		0.07	
Frctn Loss (ft)	0.07	Cum Volume (acre-ft)	142.87	586.87	5.38
C & E Loss (ft)	0.11	Cum SA (acres)	13.19	41.92	2.54

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1204.76	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.		0.028	
E.G. Elev (ft)	1204.82	Reach Len. (ft)	560.00	564.30	555.00
Crit W.S. (ft)	1191.92	Flow Area (sq ft)		8030.90	
E.G. Slope (ft/ft)	0.000039	Area (sq ft)		8030.90	
Q Total (cfs)	16000.00	Flow (cfs)		16000.00	
Top Width (ft)	534.93	Top Width (ft)		534.93	
Vel Total (ft/s)	1.99	Avg. Vel. (ft/s)		1.99	
Max Chl Dpth (ft)	20.72	Hydr. Depth (ft)		15.01	
Conv. Total (cfs)	2570634.8	Conv. (cfs)		2570634.8	
Length Wtd. (ft)	564.30	Wetted Per. (ft)		542.13	
Min Ch El (ft)	1184.04	Shear (lb/sq ft)		0.04	
Alpha	1.00	Stream Power (lb/ft s)		0.07	
Frctn Loss (ft)	0.07	Cum Volume (acre-ft)	39.08	522.96	
C & E Loss (ft)	0.12	Cum SA (acres)	2.85	37.69	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19737.74 LB	19792.97	851.61	551.66	52.18	5.32	11.50	1.54
19792.97	19848.20	2521.09	1083.12	55.34	15.76	19.61	2.33
19848.20	19903.42	2689.64	1125.13	55.23	16.81	20.37	2.39
19903.42	19958.65	2142.09	984.24	55.62	13.39	17.82	2.18
19958.65	20013.88	1427.17	769.37	55.25	8.92	13.93	1.85
20013.88	20069.11	1374.84	752.21	55.23	8.59	13.62	1.83
20069.11	20124.34	1431.27	770.62	55.24	8.95	13.95	1.86
20124.34	20179.56	1521.96	799.55	55.24	9.51	14.48	1.90
20179.56	20234.79	1620.58	830.55	55.29	10.13	15.04	1.95
20234.79	20290.02 RB	419.74	347.34	47.44	2.62	7.70	1.21

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19737.74 LB	19792.97	852.31	553.19	52.22	5.33	11.53	1.54
19792.97	19848.20	2519.40	1084.89	55.34	15.75	19.64	2.32
19848.20	19903.42	2687.56	1126.89	55.23	16.80	20.40	2.38
19903.42	19958.65	2141.24	986.01	55.62	13.38	17.85	2.17
19958.65	20013.88	1427.79	771.14	55.25	8.92	13.96	1.85
20013.88	20069.11	1375.56	753.98	55.23	8.60	13.65	1.82
20069.11	20124.34	1431.89	772.38	55.24	8.95	13.99	1.85
20124.34	20179.56	1522.40	801.32	55.24	9.52	14.51	1.90
20179.56	20234.79	1620.83	832.31	55.29	10.13	15.07	1.95
20234.79	20290.02 RB	421.02	348.79	47.48	2.63	7.73	1.21

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: South Split RS: 226.78

INPUT
Description:
Station Elevation Data num= 107

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19166.26	1209.219	185.44	1209.24	19203.52	1209.19	19284.83	1209.13	19307.08	1209.69
19338.58	1210.319	338.76	1209.18	19340.61	1208.81	19350.61	1207.98	19360.37	1208.27
19376.62	1212.719	386.96	1213.38	19402.46	1214.09	19412.34	1215.32	19421.2	1216.69
19426.37	1216.919	432.09	1217.73	19460.71	1218.51	9489.67	1219.25	19564.74	1216.83
19576.22	1216.519	588.57	1212.95	19598.91	1210.07	19616.52	1210.39	19631.8	1210.22
19639.48	1210.119	658.48	1195.76	19665.16	1196.01	19674.42	1189.53	19678.97	1185.99
19684.91	118	919699.62	1190.16	19708.71	1190.36	19719.88	1192.14	19734.72	1193.73
19743.39	1194.61	9770.02	1198.02	19776.71	1204.14	19778.22	1205.11	19784.23	1205.43
19809.46	1207.31	9820.62	1201.92	19870.81	1187.92	19884.46	1187.67	19901.19	1187.57
19913.54	1186.81	9930.24	1195.35	19936.89	1199.45	19947.56	1200.11	9957.04	1200.45
19963.15	120	119999.44	1200.86	20018.98	1200.69	20073.4	1201.18	20109.15	1201.77
20120.94	1201.82	0128.06	1204.32	0139.25	1209.75	20144.91	1207.41	20153.8	1203.26
20163.93	1202.92	0186.57	1201.88	20200.52	1202.11	20216.12	1203.12	20242.63	1205.43
20261.98	1207.22	0268.16	1207.67	20278.99	1207.95	20285.62	1208.93	20301.31	1209.48
20306.36	1209.32	0315.09	1208.74	20322.06	1208.71	20327.03	1208.35	20340	1207.9
20349.4	1207.72	0355.36	1207.92	20358.65	1207.77	20364.5	1207.95	20374.07	1207.54
20379.66	1207.62	0387.58	1207.88	20393.98	1207.81	20399.87	1208.09	20417.24	1208.22
20426.83	1209.62	0438.98	1210.44	20445.87	1210.84	20456.24	1212.12	20465.47	1212.89
20471.18	1213.52	0480.32	1213.72	20491.9	1211.49	20495.78	1210.57	20499.5	1209.95
20510.95	120	920539.61	1208.02	20547.12	1207.84	20553.59	1207.98	20565.76	1207.69
20569.59	1207.8	20595.2	1206.92	0631.19	1206.15	20651.46	1206.52	0657.13	1206.5
20704.4	1205.82	0719.73	1206.02						

Manning's n Values num= 2

Sta	n Val	Sta	n Val
19166.26	.028	20393.98	.031

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19809.4	20139.25	640	644.55	640	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19166.26	19809.46	1207.3	20220	20719.73	1209.75

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1203.42	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.18	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1204.60	Reach Len. (ft)	640.00	644.55	640.00
Crit W.S. (ft)	1200.16	Flow Area (sq ft)		1809.06	59.91
E.G. Slope (ft/ft)	0.002637	Area (sq ft)	1254.27	1809.06	59.91
Q Total (cfs)	16000.00	Flow (cfs)		15847.31	152.69
Top Width (ft)	501.79	Top Width (ft)	127.60	308.06	66.14
Vel Total (ft/s)	8.56	Avg. Vel. (ft/s)		8.76	2.55
Max Chl Dpth (ft)	17.43	Hydr. Depth (ft)		5.87	0.91
Conv. Total (cfs)	311573.7	Conv. (cfs)		308600.3	2973.5
Length Wtd. (ft)	644.53	Wetted Per. (ft)		313.90	66.25

Min Ch El (ft)	1186.80	Shear (lb/sq ft)		0.95	0.15
Alpha	1.04	Stream Power (lb/ft s)		8.31	0.38
Frctn Loss (ft)	1.27	Cum Volume (acre-ft)	131.48	523.24	5.00
C & E Loss (ft)	0.17	Cum SA (acres)	11.95	36.46	2.12

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1203.41	Element			
Vel Head (ft)	1.22	Wt. n-Val.		0.028	
E.G. Elev (ft)	1204.63	Reach Len. (ft)	640.00	644.55	640.00
Crit W.S. (ft)	1201.87	Flow Area (sq ft)		1806.39	
E.G. Slope (ft/ft)	0.002701	Area (sq ft)		1806.39	
Q Total (cfs)	16000.00	Flow (cfs)		16000.00	
Top Width (ft)	308.02	Top Width (ft)		308.02	
Vel Total (ft/s)	8.86	Avg. Vel. (ft/s)		8.86	
Max Chl Dpth (ft)	16.61	Hydr. Depth (ft)		5.86	
Conv. Total (cfs)	307871.7	Conv. (cfs)		307871.7	
Length Wtd. (ft)	644.55	Wetted Per. (ft)		313.86	
Min Ch El (ft)	1186.80	Shear (lb/sq ft)		0.97	
Alpha	1.00	Stream Power (lb/ft s)		8.60	
Frctn Loss (ft)	1.28	Cum Volume (acre-ft)	39.08	459.24	
C & E Loss (ft)	0.19	Cum SA (acres)	2.85	32.23	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19809.46 LB	19842.44	499.27	101.53	26.11	3.12	4.07	4.92
19842.44	19875.42	4095.95	399.19	34.06	25.60	12.10	10.26
19875.42	19908.40	6541.19	521.96	33.00	40.88	15.83	12.53
19908.40	19941.38	3129.43	348.11	36.22	19.56	10.56	8.99
19941.38	19974.36	384.98	95.42	33.02	2.41	2.89	4.03
19974.36	20007.33	308.90	83.57	32.98	1.93	2.53	3.70
20007.33	20040.31	333.37	87.48	32.98	2.08	2.65	3.81
20040.31	20073.29	280.61	78.89	32.98	1.75	2.39	3.56
20073.29	20106.27	203.40	65.04	32.98	1.27	1.97	3.13
20106.27	20139.25 RB	70.21	27.88	19.57	0.44	1.45	2.52
20139.25	20255.35	152.69	59.91	66.25	0.95	0.91	2.55

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19809.46 LB	19842.44	503.39	101.32	26.09	3.15	4.07	4.97
19842.44	19875.42	4137.26	398.90	34.06	25.86	12.10	10.37
19875.42	19908.40	6609.01	521.67	33.00	41.31	15.82	12.67
19908.40	19941.38	3160.43	347.82	36.22	19.75	10.55	9.09
19941.38	19974.36	387.39	95.13	33.02	2.42	2.88	4.07
19974.36	20007.33	310.61	83.28	32.98	1.94	2.53	3.73
20007.33	20040.31	335.30	87.19	32.98	2.10	2.64	3.85
20040.31	20073.29	282.06	78.60	32.98	1.76	2.38	3.59
20073.29	20106.27	204.19	64.75	32.98	1.28	1.96	3.15
20106.27	20139.25 RB	70.36	27.71	19.54	0.44	1.44	2.54

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need

for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: South Split RS: 226.66

INPUT
Description:
Station Elevation Data num= 91

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19283.15	1209.319	311.99	1209.491	9355.22	1209.631	9366.52	1207.251	9401.57	1201.55
19444.46	1201.419	470.62	1201.151	9536.42	1209.361	9559.45	1209.681	9582.82	1209.12
19643.91	1208.919	707.54	1208.219	719.76	1208.031	9736.73	1192.831	9744.13	1193.02
19766.38	1179.219	770.63	1176.491	9777.62	1180.819	782.12	1184.031	9790.33	1190.58
19802.12	119	419806.82	119	519824.87	1201.191	9836.44	1198.751	9840.43	1198.51
19923.99	1198.920	001.53	1198.932	0010.42	1198.892	0098.13	1199.252	0157.41	1198.77
20188.24	1199.120	199.72	1199.852	0207.82	1203.742	0212.97	1206.532	0229.33	1212.31
20245.03	121	820269.71	1206.462	0272.79	1205.36	20281.5	1205.362	0308.26	1205.52
20333.4	1217	20342.3	1215.522	0364.54	1220.672	0366.91	1220.67	20368	1221.21
20390.5	1215.520	413.51	1207.242	0427.77	1206.582	0468.99	1207.3	20485.2	1207.76
20511.72	1220.720	521.51	1226.712	0523.28	1226.352	0525.39	1225.212	0555.42	1207.43
20566.18	1206.820	576.23	1206.732	0588.48	1207.05	20594.2	120	720624.52	1207.66
20632.12	1207.720	672.02	1207.032	0679.45	1206.812	0684.14	1207.562	0724.48	1209.29
20730.64	1208.620	745.57	1207.112	0765.33	1210.172	0770.04	1211.062	0805.85	1211.08
20844.61	1210.620	851.79	1210.382	0862.72	1210.842	0872.05	1211.122	0875.64	1213.49
20889.31	1221.220	929.64	1218.262	0931.06	1218.232	0937.56	1219.01	20967.9	1222.03
20972.38	1218.520	982.51	1209.292	1007.31	1208.882	1010.63	1210.932	1026.13	1214.44
21029.81	121	321039.64	1211.712	1050.46	1213.232	1052.27	1213.12	1062.88	1210.26
21072.81	1207.3								

Manning's n Values num= 2

Sta	n Val	Sta	n Val
19283.15	.028	20212.97	.031

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19559.4	520229.33	952	611.56	362	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19283.15	19559.45	1209.68	20229.33	21072.81	1212.31

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1202.56	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.60	Wt. n-Val.		0.028	
E.G. Elev (ft)	1203.16	Reach Len. (ft)	952.00	611.56	362.00
Crit W.S. (ft)	1200.23	Flow Area (sq ft)		2571.05	
E.G. Slope (ft/ft)	0.001529	Area (sq ft)	91.08	2571.05	
Q Total (cfs)	16000.00	Flow (cfs)		16000.00	
Top Width (ft)	566.02	Top Width (ft)	86.53	479.49	
Vel Total (ft/s)	6.22	Avg. Vel. (ft/s)		6.22	
Max Chl Dpth (ft)	26.07	Hydr. Depth (ft)		5.36	
Conv. Total (cfs)	409198.4	Conv. (cfs)		409198.4	
Length Wtd. (ft)	611.56	Wetted Per. (ft)		495.03	
Min Ch El (ft)	1176.49	Shear (lb/sq ft)		0.50	
Alpha	1.00	Stream Power (lb/ft s)		3.08	
Frctn Loss (ft)	1.77	Cum Volume (acre-ft)	121.60	490.84	4.56
C & E Loss (ft)	0.16	Cum SA (acres)	10.37	30.63	1.63

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1202.57	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.60	Wt. n-Val.		0.028	
E.G. Elev (ft)	1203.17	Reach Len. (ft)	952.00	611.56	362.00
Crit W.S. (ft)	1200.23	Flow Area (sq ft)		2576.09	

E.G. Slope (ft/ft)	0.001519	Area (sq ft)		2576.09
Q Total (cfs)	16000.00	Flow (cfs)		16000.00
Top Width (ft)	479.49	Top Width (ft)		479.49
Vel Total (ft/s)	6.21	Avg. Vel. (ft/s)		6.21
Max Chl Dpth (ft)	26.08	Hydr. Depth (ft)		5.37
Conv. Total (cfs)	410522.8	Conv. (cfs)		410522.8
Length Wtd. (ft)	611.56	Wetted Per. (ft)		495.05
Min Ch El (ft)	1176.49	Shear (lb/sq ft)		0.49
Alpha	1.00	Stream Power (lb/ft s)		3.06
Frctn Loss (ft)	1.77	Cum Volume (acre-ft)	39.08	426.82
C & E Loss (ft)	0.16	Cum SA (acres)	2.85	26.41

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19693.43	19760.41	2720.39	361.77	41.15	17.00	10.47	7.52
19760.41	19827.40	7715.03	859.97	75.07	48.22	12.84	8.97
19827.40	19894.39	1081.79	253.11	67.19	6.76	3.78	4.27
19894.39	19961.38	1039.39	246.81	66.99	6.50	3.68	4.21
19961.38	20028.37	1016.79	243.58	66.99	6.35	3.64	4.17
20028.37	20095.35	934.63	231.57	66.99	5.84	3.46	4.04
20095.35	20162.34	978.79	238.08	66.99	6.12	3.55	4.11
20162.34	20229.33 RB	513.20	136.18	43.66	3.21	3.17	3.77

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19693.43	19760.41	2717.38	362.13	41.16	16.98	10.48	7.50
19760.41	19827.40	7705.44	860.67	75.07	48.16	12.85	8.95
19827.40	19894.39	1083.97	253.82	67.19	6.77	3.79	4.27
19894.39	19961.38	1041.61	247.51	66.99	6.51	3.69	4.21
19961.38	20028.37	1019.03	244.28	66.99	6.37	3.65	4.17
20028.37	20095.35	936.92	232.27	66.99	5.86	3.47	4.03
20095.35	20162.34	981.05	238.78	66.99	6.13	3.56	4.11
20162.34	20229.33 RB	514.61	136.63	43.67	3.22	3.18	3.77

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: Salt River
REACH: South Split RS: 226.54

INPUT
Description:
Station Elevation Data num= 116

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

```
19220.47  1220.5 19255.3 1220.2419278.95 1220.5619295.87 1220.59 19345.1 1207.49
 19346.4  1207.219418.17 1206.2719466.93 1204.0419514.97 1203.8119521.87  1203.9
19534.82  1203.919555.91 1204.0519588.04 1203.9919598.82 1203.8219607.05  1203.8
19699.72  1202.419786.19 1201.5919805.12 1201.2719823.66    120219831.06 1202.47
19832.65    120319838.65 1204.3819841.94 1202.2219850.07 1197.3119855.11 1196.83
19859.52  1196.919998.61 1193.0620000.61 1193.0220005.82 1193.5420011.01 1193.29
20019.49    119320128.34  1194.220148.28 1199.1420156.67 1199.7120159.21 1200.23
20161.82  1200.120168.13 1201.0120188.66 1198.5620205.69 1199.3220220.78 1199.53
 20237.5  1199.920245.78 1199.3620258.58  1198.920263.68 1201.9620268.85 1199.78
20279.24  1199.320281.72  1201.320283.98 1202.4320285.88 1202.4920321.59    1202
20375.89  1202.820409.05 1203.2520450.44 1203.8320468.25 1204.7120529.34 1205.97
20534.35  1206.220557.06 1206.57 20567.7  1206.720594.16 1223.4920598.26 1225.94
 20603.7    122720608.85 1226.5820611.01 1225.5420629.49 1214.81 20640.8 1206.64
20652.55    1206 20668.9 1207.3320676.38 1211.8420694.34 1221.9620698.16 1219.17
20703.77  1220.320716.05 1220.0420719.07 1219.5220725.36 1220.9720729.39 1219.94
 20742.7  1213.720761.06 1212.9520791.37 1218.2120796.79 1218.4820830.76 1211.39
20837.63  1211.720852.42 1222.1520859.58 1221.5720879.36 1220.4920888.64 1219.73
20896.96  1219.420908.28 1229.5320911.24 1232.5320923.11 1226.9820932.67 1222.03
20945.69  1223.720948.97    122420952.52 1221.7320973.06 1208.2120987.18 1207.78
20996.15    120821008.78 1216.1921031.57 1230.0921040.41 1230.5721045.77 1230.56
21051.41  1231.221060.68 1231.9621078.67 1233.6621083.51 1234.3821090.84 1234.71
21122.15  1215.821139.42 1205.2521156.66 1204.9121182.32 1204.5721224.52 1204.33
21230.83  1205.921278.95 1217.1921305.17 1221.4621332.92 1221.4121353.97 1221.53
21392.34  1220.3

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
19220.47    .02919220.47    .029 20603.7    .029

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19220.47 20603.7              420  451.27     470              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
19220.4719220.47  1220.5   2015021392.34    1227

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1199.02   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.21   Wt. n-Val.                            0.029
  E.G. Elev (ft)            1201.23   Reach Len. (ft)             420.00    451.27     470.00
  Crit W.S. (ft)            1199.02   Flow Area (sq ft)                    1341.86
  E.G. Slope (ft/ft)       0.007406   Area (sq ft)                         1345.36
  Q Total (cfs)            16000.00   Flow (cfs)                          16000.00
  Top Width (ft)             318.38   Top Width (ft)                       318.38
  Vel Total (ft/s)            11.92   Avg. Vel. (ft/s)                      11.92
  Max Chl Dpth (ft)            6.02   Hydr. Depth (ft)                       4.46
  Conv. Total (cfs)        185926.8   Conv. (cfs)                        185926.8
  Length Wtd. (ft)           451.27   Wetted Per. (ft)                     301.75
  Min Ch El (ft)            1193.00   Shear (lb/sq ft)                       2.06
  Alpha                        1.00   Stream Power (lb/ft s)                24.51
  Frctn Loss (ft)              1.88   Cum Volume (acre-ft)        120.60    463.34       4.56
  C & E Loss (ft)              0.32   Cum SA (acres)                9.43     25.03       1.63


Warning - The energy equation could not be balanced within the specified number of iterations.
The
                program used critical depth for the water surface and continued on with the
calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
                than 0.7 or greater than 1.4.  This may indicate the need for additional cross
sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to
                critical depth, the calculated water surface came back below critical depth.
This indicates
                that there is not a valid subcritical answer.  The program defaulted to critical
depth.
Note - Multiple critical depths were found at this location.  The critical depth with the lowest,
valid,
                water surface was used.

CROSS SECTION OUTPUT    Profile #PF#2
```

W.S. Elev (ft)	1198.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.24	Wt. n-Val.		0.029	
E.G. Elev (ft)	1201.23	Reach Len. (ft)	420.00	451.27	470.00
Crit W.S. (ft)	1198.99	Flow Area (sq ft)		1332.14	
E.G. Slope (ft/ft)	0.007581	Area (sq ft)		1332.14	
Q Total (cfs)	16000.00	Flow (cfs)		16000.00	
Top Width (ft)	300.38	Top Width (ft)		300.38	
Vel Total (ft/s)	12.01	Avg. Vel. (ft/s)		12.01	
Max Chl Dpth (ft)	5.99	Hydr. Depth (ft)		4.43	
Conv. Total (cfs)	183767.5	Conv. (cfs)		183767.5	
Length Wtd. (ft)	451.27	Wetted Per. (ft)		301.56	
Min Ch El (ft)	1193.00	Shear (lb/sq ft)		2.09	
Alpha	1.00	Stream Power (lb/ft s)		25.11	
Frctn Loss (ft)	1.90	Cum Volume (acre-ft)	39.08	399.38	
C & E Loss (ft)	0.33	Cum SA (acres)	2.85	20.93	

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19773.76	19912.09	1398.42	171.46	65.37	8.74	2.64	8.16
19912.09	20050.41	9147.19	714.23	138.39	57.17	5.16	12.81
20050.41	20188.73	5454.39	456.18	97.99	34.09	4.68	11.96

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19773.76	19912.09	1386.53	169.36	65.31	8.67	2.61	8.19
19912.09	20050.41	9155.15	709.76	138.39	57.22	5.13	12.90
20050.41	20188.73	5458.32	453.03	97.85	34.11	4.66	12.05

```
Warning - The energy equation could not be balanced within the specified number of iterations.
The
                program used critical depth for the water surface and continued on with the
calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
                than 0.7 or greater than 1.4.  This may indicate the need for additional cross
sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to
                critical depth, the calculated water surface came back below critical depth.
This indicates
                that there is not a valid subcritical answer.  The program defaulted to critical
depth.
Note - Multiple critical depths were found at this location.  The critical depth with the lowest,
valid,
                water surface was used.

CROSS SECTION          RIVER: Salt River
REACH: South Split        RS: 226.45

INPUT
Description:



     12
            degree skew angle (cosine 12 degrees = 0.9781)


Station Elevation Data     num=      28
     Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev      Sta     Elev
19210.72    120419430.72    120419756.22 1205.7419756.32 1202.0919756.42 1196.84
19803.22  1179.119811.92 1180.9819814.42 1180.9819870.72  1178.619873.22  1178.6
19899.22  1178.619929.42  1178.619931.92  1178.619987.92  1178.619990.42  1178.6
20029.42 1180.7220046.42 1180.4820048.92 1180.4820054.22 1186.1720104.92 1186.51
20107.42 1186.5120138.22 1186.8420152.22 1196.2620163.22  1198.720163.32  1202.1
20163.42  1205.720400.72    120421080.72    1204

Manning's n Values         num=       3
     Sta   n Val      Sta   n Val      Sta   n Val
19210.72    .02919756.32    .02920163.32    .029

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19756.3220163.32            90.19   90.03   90.19              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
19210.7219756.32 1202.0920163.3221080.72  1202.1

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1186.46   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                1.15   Wt. n-Val.                            0.029
  E.G. Elev (ft)            1187.61   Reach Len. (ft)              0.00       0.00       0.00
  Crit W.S. (ft)            1184.30   Flow Area (sq ft)                    1860.98
  E.G. Slope (ft/ft)       0.002673   Area (sq ft)                         1860.98
  Q Total (cfs)            16000.00   Flow (cfs)                          16000.00
  Top Width (ft)             314.12   Top Width (ft)                       314.12
  Vel Total (ft/s)             8.60   Avg. Vel. (ft/s)                       8.60
  Max Chl Dpth (ft)            7.86   Hydr. Depth (ft)                       5.92
  Conv. Total (cfs)        309492.5   Conv. (cfs)                         309492.5
  Length Wtd. (ft)             0.00   Wetted Per. (ft)                     318.25
  Min Ch El (ft)            1178.60   Shear (lb/sq ft)                       0.98
  Alpha                        1.00   Stream Power (lb/ft s)                 8.39
  Frctn Loss (ft)              0.00   Cum Volume (acre-ft)       120.60     446.73       4.56
  C & E Loss (ft)              0.02   Cum SA (acres)               9.43      21.76       1.63


CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1186.46   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                1.15   Wt. n-Val.                            0.029
```

E.G. Elev (ft)	1187.61	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1184.30	Flow Area (sq ft)		1860.55	
E.G. Slope (ft/ft)	0.002672	Area (sq ft)		1860.55	
Q Total (cfs)	16000.00	Flow (cfs)		16000.00	
Top Width (ft)	313.91	Top Width (ft)		313.91	
Vel Total (ft/s)	8.60	Avg. Vel. (ft/s)		8.60	
Max Chl Dpth (ft)	7.86	Hydr. Depth (ft)		5.93	
Conv. Total (cfs)	309508.5	Conv. (cfs)		309508.5	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		318.05	
Min Ch El (ft)	1178.60	Shear (lb/sq ft)		0.98	
Alpha	1.00	Stream Power (lb/ft s)		8.39	
Frctn Loss (ft)	0.00	Cum Volume (acre-ft)	39.08	382.84	
C & E Loss (ft)	0.02	Cum SA (acres)	2.85	17.75	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19756.32 LB	19797.02	138.83	33.14	14.14	0.87	2.51	4.19
19797.02	19837.72	1932.88	247.19	41.35	12.08	6.07	7.82
19837.72	19878.42	2651.53	297.00	40.73	16.57	7.30	8.93
19878.42	19919.12	3004.39	320.03	40.70	18.78	7.86	9.39
19919.12	19959.82	3004.24	320.02	40.70	18.78	7.86	9.39
19959.82	20000.52	2960.27	317.25	40.71	18.50	7.79	9.33
20000.52	20041.22	2088.77	257.43	40.75	13.05	6.32	8.11
20041.22	20081.92	218.80	68.05	43.18	1.37	1.67	3.22
20081.92	20122.62	0.29	0.86	15.99	0.00	0.05	0.34

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19756.32 LB	19797.02	138.77	33.13	14.14	0.87	2.51	4.19
19797.02	19837.72	1932.80	247.13	41.35	12.08	6.07	7.82
19837.72	19878.42	2651.58	296.95	40.73	16.57	7.30	8.93
19878.42	19919.12	3004.51	319.98	40.70	18.78	7.86	9.39
19919.12	19959.82	3004.37	319.96	40.70	18.78	7.86	9.39
19959.82	20000.52	2960.39	317.19	40.71	18.50	7.79	9.33
20000.52	20041.22	2088.71	257.38	40.75	13.05	6.32	8.12
20041.22	20081.92	218.58	68.00	43.18	1.37	1.67	3.21
20081.92	20122.62	0.28	0.84	15.79	0.00	0.05	0.33

BRIDGE RIVER: Salt River
REACH: South Split RS: 226.44

INPUT
Description: Bridge #1

Distance from Upstream XS = 0
Deck/Roadway Width = 84
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 12

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19210.72	1204	120419	430.72	1204	120419	756.22	1205.74	1205.74
19756.32	1205.74	1202.09	19811.92	1205.98	1202.33	19870.72	1206.19	1202.54
19929.42	1206.3	1202.61	9987.92	1206.26	1202.61	20046.42	1206.18	1202.53
20104.92	1205.97	1202.32	0163.22	1205.7	1202.05	20163.32	1205.7	1205.7

Upstream Bridge Cross Section Data
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19210.72		120419	430.72	120419	756.22	1205.74	19756.32	1202.09	19756.42	1196.84
19803.22	1179.11	19811.92	1180.98	19814.42	1180.98	19870.72	1178.61	19873.22	1178.6
19899.22	1178.61	9929.42	1178.61	9931.92	1178.61	9987.92	1178.61	9990.42	1178.6

```
20029.42 1180.7220046.42 1180.4820048.92 1180.4820054.22 1186.1720104.92 1186.51
20107.42 1186.5120138.22 1186.8420152.22 1196.2620163.22  1198.720163.32  1202.1
20163.42  1205.720400.72    120421080.72    1204

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
19210.72    .02919756.32    .02920163.32    .029

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19756.3220163.32             .1        .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
19210.7219756.32 1202.0920163.3221080.72  1202.1

Downstream  Deck/Roadway Coordinates
    num=      12
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
19210.72    1204    120419430.72    1204    120419756.22 1205.74 1205.74
19756.32 1205.74 1202.0919811.92 1205.98 1202.3319870.72 1206.19 1202.54
19929.42  1206.3  1202.619987.92 1206.26 1202.6120046.42 1206.18 1202.53
20104.92 1205.97  1202.320163.22  1205.7 1202.0520163.32  1205.7  1205.7

Downstream Bridge Cross Section Data
Station Elevation Data    num=      28
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
19210.72    120419430.72    120419756.22 1205.7419756.32 1202.0919756.42 1196.84
19803.22  1179.119811.92 1180.9819814.42 1180.9819870.72  1178.619873.22  1178.6
19899.22  1178.619929.42  1178.619931.92  1178.619987.92  1178.619990.42  1178.6
20029.42 1180.7220046.42 1180.4820048.92 1180.4820054.22 1186.1720104.92 1186.51
20107.42 1186.5120138.22 1186.8420152.22 1196.2620163.22  1198.720163.32  1202.1
20163.42  1205.720400.72    120421080.72    1204

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
19210.72    .02919756.32    .02920163.32    .029

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19756.3220163.32             .1        .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
19210.7219756.32 1202.0920163.3221080.72  1202.1

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  6

Pier Data
Pier Station     Upstream=   19811    Downstream=   19811
Upstream     num=       2
    Width   Elev    Width   Elev
     2.5    1175     2.5  1204.5
Downstream     num=       2
    Width   Elev    Width   Elev
     2.5    1175     2.5  1204.5

Pier Data
Pier Station     Upstream=   19871    Downstream=   19871
Upstream     num=       2
    Width   Elev    Width   Elev
     2.5    1175     2.5  1204.5
Downstream     num=       2
    Width   Elev    Width   Elev
     2.5    1175     2.5  1204.5

Pier Data
Pier Station     Upstream=   19929    Downstream=   19929
Upstream     num=       2
    Width   Elev    Width   Elev
     2.5    1175     2.5  1204.5
Downstream     num=       2
```

Width	Elev	Width	Elev
2.5	1175	2.5	1204.5

Pier Data
Pier Station Upstream= 19988 Downstream= 19988
Upstream num= 2

Width	Elev	Width	Elev
2.5	1175	2.5	1204.5

Downstream num= 2

Width	Elev	Width	Elev
2.5	1175	2.5	1204.5

Pier Data
Pier Station Upstream= 20046 Downstream= 20046
Upstream num= 2

Width	Elev	Width	Elev
2.5	1175	2.5	1204.5

Downstream num= 2

Width	Elev	Width	Elev
2.5	1175	2.5	1204.5

Pier Data
Pier Station Upstream= 20105 Downstream= 20105
Upstream num= 2

Width	Elev	Width	Elev
2.5	1175	2.5	1204.5

Downstream num= 2

Width	Elev	Width	Elev
2.5	1175	2.5	1204.5

Number of Bridge Coefficient Sets = 1

Low Flow Methods and Data
Energy
Selected Low Flow Methods = Energy

High Flow Method
Energy Only

Additional Bridge Parameters
Add Friction component to Momentum
Do not add Weight component to Momentum
Class B flow critical depth computations use critical depth inside the bridge at the downstream end
Criteria to check for pressure flow = Upstream water surface

BRIDGE OUTPUT Profile #PF#1
Opening : Bridge #1

E.G. US. (ft)	1187.61	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1186.46	E.G. Elev (ft)	1187.59	1187.14
Q Total (cfs)	16000.00	W.S. Elev (ft)	1186.22	1185.30
Q Bridge (cfs)	16000.00	Crit W.S. (ft)	1184.45	1184.45
Q Weir (cfs)		Max Chl Dpth (ft)	7.62	6.70
Weir Sta Lft (ft)		Vel Total (ft/s)	9.39	10.89
Weir Sta Rgt (ft)		Flow Area (sq ft)	1703.95	1469.23
Weir Submerg		Froude # Chl	0.65	0.80
Weir Max Depth (ft)		Specif Force (cu ft)	10567.69	9858.10
Min Top Rd (ft)	1202.10	Hydr Depth (ft)	6.44	5.78
Min El Prs (ft)	1205.70	W.P. Total (ft)	336.80	316.46
Delta EG (ft)	0.57	Conv. Total (cfs)	257301.9	209510.8
Delta WS (ft)	1.01	Top Width (ft)	264.68	254.05
BR Open Area (sq ft)	7686.40	Frctn Loss (ft)	0.39	0.03
BR Open Vel (ft/s)	10.89	C & E Loss (ft)	0.05	0.08
Coef of Q		Shear Total (lb/sq ft)	1.22	1.69
Br Sel Mthd	Energy only	Power Total (lb/ft s)	11.47	18.41

BRIDGE OUTPUT Profile #PF#2
Opening : Bridge #1

E.G. US. (ft)	1187.61	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1186.46	E.G. Elev (ft)	1187.59	1187.14
Q Total (cfs)	16000.00	W.S. Elev (ft)	1186.22	1185.30
Q Bridge (cfs)	16000.00	Crit W.S. (ft)	1184.45	1184.45
Q Weir (cfs)		Max Chl Dpth (ft)	7.62	6.70

Weir Sta Lft (ft)		Vel Total (ft/s)	9.39	10.89
Weir Sta Rgt (ft)		Flow Area (sq ft)	1703.65	1468.61
Weir Submerg		Froude # Chl	0.65	0.80
Weir Max Depth (ft)		Specif Force (cu ft)	10566.62	9856.80
Min Top Rd (ft)	1202.10	Hydr Depth (ft)	6.44	5.78
Min El Prs (ft)	1205.70	W.P. Total (ft)	336.62	316.42
Delta EG (ft)	0.57	Conv. Total (cfs)	257319.4	209378.8
Delta WS (ft)	1.01	Top Width (ft)	264.51	254.04
BR Open Area (sq ft)	7686.40	Frctn Loss (ft)	0.40	0.03
BR Open Vel (ft/s)	10.89	C & E Loss (ft)	0.05	0.08
Coef of Q		Shear Total (lb/sq ft)	1.22	1.69
Br Sel Mthd	Energy only	Power Total (lb/ft s)	11.47	18.43

CROSS SECTION RIVER: Salt River
REACH: South Split RS: 226.43

INPUT
Description:
Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19210.72	120419430.72		120419756.22	1205.7419756.32		1202.0919756.42		1196.84	
19803.22	1179.119811.92		1180.9819814.42	1180.9819870.72		1178.619873.22		1178.6	
19899.22	1178.619929.42		1178.619931.92	1178.619987.92		1178.619990.42		1178.6	
20029.42	1180.7220046.42		1180.4820048.92	1180.4820054.22		1186.1720104.92		1186.51	
20107.42	1186.5120138.22		1186.8420152.22	1196.2620163.22		1198.720163.32		1202.1	
20163.42	1205.720400.72		120421080.72	1204					

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19210.72	.02919756.32		.02920163.32		.029

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19756.3	220163.32	310	283.72	261.9	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19210.72	19756.32	1202.09	20163.32	21080.72	1202.1

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1185.45	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.59	Wt. n-Val.		0.029	
E.G. Elev (ft)	1187.04	Reach Len. (ft)	310.00	283.72	261.90
Crit W.S. (ft)	1184.30	Flow Area (sq ft)		1582.93	
E.G. Slope (ft/ft)	0.003694	Area (sq ft)		1582.93	
Q Total (cfs)	16000.00	Flow (cfs)		16000.00	
Top Width (ft)	267.09	Top Width (ft)		267.09	
Vel Total (ft/s)	10.11	Avg. Vel. (ft/s)		10.11	
Max Chl Dpth (ft)	6.85	Hydr. Depth (ft)		5.93	
Conv. Total (cfs)	263234.8	Conv. (cfs)		263234.8	
Length Wtd. (ft)	283.72	Wetted Per. (ft)		270.73	
Min Ch El (ft)	1178.60	Shear (lb/sq ft)		1.35	
Alpha	1.00	Stream Power (lb/ft s)		13.63	
Frctn Loss (ft)	1.37	Cum Volume (acre-ft)	120.60	443.46	4.56
C & E Loss (ft)	0.10	Cum SA (acres)	9.43	21.22	1.63

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1185.45	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.59	Wt. n-Val.		0.029	
E.G. Elev (ft)	1187.04	Reach Len. (ft)	310.00	283.72	261.90
Crit W.S. (ft)	1184.30	Flow Area (sq ft)		1582.31	
E.G. Slope (ft/ft)	0.003699	Area (sq ft)		1582.31	
Q Total (cfs)	16000.00	Flow (cfs)		16000.00	
Top Width (ft)	267.08	Top Width (ft)		267.08	
Vel Total (ft/s)	10.11	Avg. Vel. (ft/s)		10.11	
Max Chl Dpth (ft)	6.85	Hydr. Depth (ft)		5.92	
Conv. Total (cfs)	263069.3	Conv. (cfs)		263069.3	
Length Wtd. (ft)	283.72	Wetted Per. (ft)		270.72	
Min Ch El (ft)	1178.60	Shear (lb/sq ft)		1.35	

Alpha	1.00	Stream Power (lb/ft s)		13.65
Frctn Loss (ft)	1.37	Cum Volume (acre-ft)	39.08	379.57
C & E Loss (ft)	0.10	Cum SA (acres)	2.85	17.21

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19756.32 LB	19797.02	97.27	21.13	11.29	0.61	2.00	4.60
19797.02	19837.72	1822.70	206.07	41.35	11.39	5.06	8.85
19837.72	19878.42	2641.45	255.88	40.73	16.51	6.29	10.32
19878.42	19919.12	3050.84	278.91	40.70	19.07	6.85	10.94
19919.12	19959.82	3050.70	278.90	40.70	19.07	6.85	10.94
19959.82	20000.52	2999.60	276.13	40.71	18.75	6.78	10.86
20000.52	20041.22	1995.84	216.31	40.75	12.47	5.31	9.23
20041.22	20081.92	341.61	49.61	14.50	2.14	4.02	6.89

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19756.32 LB	19797.02	97.18	21.10	11.29	0.61	2.00	4.60
19797.02	19837.72	1822.45	205.97	41.35	11.39	5.06	8.85
19837.72	19878.42	2641.48	255.79	40.73	16.51	6.28	10.33
19878.42	19919.12	3051.04	278.82	40.70	19.07	6.85	10.94
19919.12	19959.82	3050.89	278.80	40.70	19.07	6.85	10.94
19959.82	20000.52	2999.77	276.03	40.71	18.75	6.78	10.87
20000.52	20041.22	1995.64	216.22	40.75	12.47	5.31	9.23
20041.22	20081.92	341.54	49.58	14.49	2.13	4.02	6.89

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: South Split RS: 226.38

INPUT
Description:
Station Elevation Data num= 153

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18676.28	120	618694.62	1206.18	18709.11	1206.04	18735.91	1205.96	18796.37	1205.17
18805.96	1205.2	18822.7	1204.95	18840.44	1205.04	18856.64	1211.47	18862.45	1211.25
18872.67	1209.51	8879.09	1208.93	18880.87	1209.03	18887.11	1210.48	18897.92	1210.54
18908.69	1210.91	8912.72	1210.88	18919.79	1212.77	18922.07	1212.61	18933.83	1207.31
18938.5	1206.71	8958.49	1205.35	18973.1	1205.21	18988.78	1204.77	19019.23	1204.98
19060.35	1204.61	9069.85	1205.32	19094.59	1204.37	19109.51	1204.83	19126.08	1204.25
19133.63	1204.71	9156.96	1204.16	19158.96	1204.22	19168.3	1204.03	19174.52	1204.38
19180.13	1204.31	9186.09	1204.66	19194.45	120	419205.12	1203.95	19209.45	1203.81
19221.15	1204.21	9223.95	1204.61	19245.65	1205.21	19257.52	1205.08	19297.06	1204.92
19334.48	1204.91	9349.66	120	519366.16	1205.32	19392.7	1205.51	19407.35	1205.82
19425.19	1204.71	9445.44	1201.95	19454.75	1200.56	19463.02	1199.58	19474.14	1197.54
19486.82	1195.41	9494.78	1194.52	19503.14	1193.81	9508.46	1193.21	9511.92	1192.58
19523.25	1188.91	9543.33	1188.5	19578.5	1187.63	19597.01	1187.54	19609.94	1187.55
19629.08	1187.91	9638.83	1188.07	19659.09	1196.64	19667.14	1201.01	19675.67	1197.96
19684.36	1196.41	9687.76	1195.21	19690.4	1194.56	19702.48	1195.38	19714.13	1196.49
19716.87	1196.51	9734.16	1195.67	19735.94	1195.45	19768.21	1198.18	19799.15	1196.28
19811.26	1195.91	9823.13	1195.12	19835.86	1194.68	19857.46	1190.47	19863.47	1188.31
19884.81	1181.91	9913.29	1179.53	19919.77	1179.06	19934.25	1178.78	19941.92	1178.37
19968.67	1176.4	19981.4	1176.01	20006.37	1175.86	20011.3	1175.99	20046.96	1176.26
20052.18	1176.52	0072.98	1176.81	20081.18	1177.56	20116.63	1180.46	20119.32	1180.8
20133.69	1188.42	0144.67	1187.89	20168.48	1193.77	20171.08	1193.56	20172.16	1194.4

```
20187.23  1193.2 20192.7 1193.6520222.52 1191.5420227.92 1188.9520237.24  1189.7
20243.34  1190.420271.13 1193.4520276.31 1194.4120287.28  1195.620297.41 1196.93
20304.36  1197.520325.51 1198.2420347.26 1199.0920352.91  1199.120373.89 1194.81
 20381.3  1192.820403.15 1186.9220414.48 1184.5520422.43    118320431.86 1181.99
20442.18    118320464.54 1180.3520474.55  1179.520483.67 1179.7220507.42 1177.54
20514.74  1177.520545.14 1179.4820559.78 1179.64 20583.3 1182.5220601.02 1183.26
20616.03  1184.320640.32 1187.0120662.25 1188.5320676.52 1189.4120697.21 1191.52
20709.28  1192.420731.84 1194.8120754.98 1197.3120768.73 1199.4820783.98 1197.99
20797.73  1197.820821.75 1197.8920847.54 1198.2520854.23 1198.6720882.21 1199.75
20886.62    1199 20922.2 1200.7620930.95 1200.79

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
18676.28    .02819768.21    .02820352.91    .028

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
     19768.2120352.91           559.44  559.44  559.44              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
18676.28   19450 1198.18   2021520930.95  1199.1

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)            1183.02   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.55   Wt. n-Val.                            0.028
  E.G. Elev (ft)            1185.57   Reach Len. (ft)             559.44    559.44     559.44
  Crit W.S. (ft)            1183.02   Flow Area (sq ft)                    1247.73
  E.G. Slope (ft/ft)       0.006610   Area (sq ft)                         1247.73     483.32
  Q Total (cfs)            16000.00   Flow (cfs)                          16000.00
  Top Width (ft)             415.24   Top Width (ft)                       242.41     172.83
  Vel Total (ft/s)            12.82   Avg. Vel. (ft/s)                      12.82
  Max Chl Dpth (ft)            7.16   Hydr. Depth (ft)                       5.15
  Conv. Total (cfs)        196795.4   Conv. (cfs)                         196795.4
  Length Wtd. (ft)           559.44   Wetted Per. (ft)                     243.52
  Min Ch El (ft)            1175.86   Shear (lb/sq ft)                       2.11
  Alpha                        1.00   Stream Power (lb/ft s)                27.11
  Frctn Loss (ft)              0.41   Cum Volume (acre-ft)        120.60    434.25       3.10
  C & E Loss (ft)              0.71   Cum SA (acres)                9.43     19.56       1.11


Warning - The energy equation could not be balanced within the specified number of iterations.
The
                program used critical depth for the water surface and continued on with the
calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
                than 0.7 or greater than 1.4.  This may indicate the need for additional cross
sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
                section.  This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to
                critical depth, the calculated water surface came back below critical depth.
This indicates
                that there is not a valid subcritical answer.  The program defaulted to critical
depth.
Note - Multiple critical depths were found at this location.  The critical depth with the lowest,
valid,
                water surface was used.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)            1183.02   Element                    Left OB    Channel   Right OB
  Vel Head (ft)                2.55   Wt. n-Val.                            0.028
  E.G. Elev (ft)            1185.57   Reach Len. (ft)             559.44    559.44     559.44
  Crit W.S. (ft)            1183.02   Flow Area (sq ft)                    1248.74
  E.G. Slope (ft/ft)       0.006593   Area (sq ft)                         1248.74
  Q Total (cfs)            16000.00   Flow (cfs)                          16000.00
  Top Width (ft)             242.41   Top Width (ft)                       242.41
  Vel Total (ft/s)            12.81   Avg. Vel. (ft/s)                      12.81
  Max Chl Dpth (ft)            7.16   Hydr. Depth (ft)                       5.15
  Conv. Total (cfs)        197057.0   Conv. (cfs)                         197057.0
  Length Wtd. (ft)           559.44   Wetted Per. (ft)                     243.53
  Min Ch El (ft)            1175.86   Shear (lb/sq ft)                       2.11
  Alpha                        1.00   Stream Power (lb/ft s)                27.04
```

Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	39.08	370.36
C & E Loss (ft)	0.71	Cum SA (acres)	2.85	15.55

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19826.68	19885.15	6.98	2.46	4.22	0.04	0.61	2.84
19885.15	19943.62	1704.59	190.63	58.60	10.65	3.26	8.94
19943.62	20002.09	5280.84	375.55	58.54	33.01	6.42	14.06
20002.09	20060.56	5869.89	399.98	58.48	36.69	6.84	14.68
20060.56	20119.03	3115.44	273.82	58.64	19.47	4.68	11.38
20119.03	20177.50	22.26	5.29	5.03	0.14	1.18	4.21

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19826.68	19885.15	7.04	2.47	4.22	0.04	0.61	2.85
19885.15	19943.62	1706.07	190.88	58.60	10.66	3.26	8.94
19943.62	20002.09	5279.92	375.80	58.54	33.00	6.43	14.05
20002.09	20060.56	5868.48	400.23	58.48	36.68	6.84	14.66
20060.56	20119.03	3116.14	274.06	58.64	19.48	4.69	11.37
20119.03	20177.50	22.35	5.31	5.03	0.14	1.18	4.21

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less

than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION RIVER: Salt River
REACH: South Split RS: 226.27

INPUT
Description:
Station Elevation Data num= 154

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18296.16	1208.8	18303.6	1208.95	18310.58	1209.37	18314.56	1211.01	18321.03	1214.42
18335.38	1213.6	18340.1	1213.05	18345.21	1212.85	18379.28	1213.81	18389.12	1214.4
18390.79	1214.31	8429.48	1214.15	18474.59	1213.08	18478.92	1212.82	18498.76	1204.84
18500.6	1204.51	8513.43	1204.04	18518.23	1204.89	18529.62	1205.64	18557.82	1206.93
18594.21	1195.91	8607.13	1194.91	18613.58	1194.89	18614.7	1194.57	18623.96	1194.59
18628.92	1194.91	8639.66	1194.94	18653.19	1183.36	18656.61	1179.89	18659.75	1179.88
18665.42	1180.31	8675.23	1173.67	18679.07	1171.31	8682.14	1172.37	18686	1170.79
18693.2	1166.51	8705.47	1165.22	18708.95	1165.65	18735.28	1179.98	18763.17	1200.41
18767.37	1203.41	8768.86	1203.26	18792.05	1203.03	18801.36	1202.88	18809.71	1202.88
18824.32	1203	18834.12	1203.51	18849.67	1203.11	18864.4	1200.37	18886.63	1198.01
18897.59	1195.21	8897.86	1194.48	18902.59	1194.45	18921.85	1192.75	18937.49	1191.47
18951.39	1190	18955.79	1189.96	18982.79	1190.61	18998.16	1191.89	19012.65	1190.57
19018.19	1186.51	9067.98	1146.34	19071.99	1146.42	19092.84	1145.65	19103.41	1145.73
19118.84	1146.91	9137.38	1165.53	19140.92	1168.56	19143.41	1169.02	19154.39	1168.61
19157.82	1170.51	9168.15	1167.03	19181.4	1166.46	19195.23	1166.31	19216.97	1171.75
19222.18	1172.61	9244.94	1180.11	19250.93	1182.26	19262.44	1183.03	19279.31	1183.9
19287.74	1183.81	9298.24	1180.45	19299.09	1180.44	19315.52	1177.51	19322.72	1176.59
19337.96	1178.21	9341.15	1177.64	19343.85	1177.66	19358.63	1180.05	19363.75	1181.93
19382.75	1181.81	9403.95	1181.12	19452.2	1179.74	19473.15	1179.61	19512.62	1180.61
19559.95	1182.11	9571.32	1181.88	19585.06	1182.26	19599.88	1182.41	19617.31	1185.74
19622.7	1185.21	9635.01	1184.53	19654.78	1184	19674.29	1183.23	19697.38	1181.9
19784.25	1177.81	9791.45	1177.22	19826.07	1172.46	19830.89	1172.05	19898.72	1173.34
19910.13	1173.51	9919.52	1173.86	20000	1177.31	20019.03	1178.1	20029.1	1177.27
20033.94	1176.72	0061.65	1174.12	0107.86	1172.06	20120.12	1171.58	20141.7	1170.26
20170.76	1167.82	0178.02	1168.04	20201.45	1169.47	20221.28	1169.29	20230.82	1169.89
20240.36	1170.32	0259.86	1171.78	20262.06	1170.85	20280.62	1162.57	20308.31	1160.68
20312.83	1160.32	0329.86	1160.34	20344.27	1160.62	20381.68	1161.52	20409.44	1162.35
20418.26	1162.22	0425.14	1162.14	20480.36	1161.72	20528.5	1163.36	20572.9	1165.3
20587.27	1166.22	0596.98	1165.38	20615.1	1165.01	20635.45	1164.01	20653.02	1163.11
20664.19	1162.72	0684.65	1170.68	20707.49	1180.12	20716.02	1188.22	20732.06	1204.71
20750.63	1204.72	0763.74	1204.81	20769.15	1202.66	20794.96	1193.55		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18296.16	.028	19617.31	.028	20763.74	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19617.31	20763.74	394.55	394.55	394.55	.1	.3

Ineffective Flow num= 3

Sta L	Sta R	Elev	Sta L	Sta R	Elev	Sta L	Sta R	Elev
18500	18998.16	1200	19000	19285	1200	20340	20763.74	1200

Blocked Obstructions num= 1

Sta L	Sta R	Elev
18296.16	19300	1170

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1179.92	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.18	Wt. n-Val.	0.028	0.028	
E.G. Elev (ft)	1180.10	Reach Len. (ft)	394.55	394.55	394.55
Crit W.S. (ft)	1173.00	Flow Area (sq ft)	111.46	4692.78	
E.G. Slope (ft/ft)	0.000264	Area (sq ft)	2567.72	10553.26	
Q Total (cfs)	16000.00	Flow (cfs)	136.57	15863.43	
Top Width (ft)	1353.92	Top Width (ft)	386.24	967.68	
Vel Total (ft/s)	3.33	Avg. Vel. (ft/s)	1.23	3.38	
Max Chl Dpth (ft)	19.62	Hydr. Depth (ft)	1.17	7.81	

Conv. Total (cfs)	985610.9	Conv. (cfs)	8413.0	977197.9
Length Wtd. (ft)	394.55	Wetted Per. (ft)	95.92	603.75
Min Ch El (ft)	1160.30	Shear (lb/sq ft)	0.02	0.13
Alpha	1.02	Stream Power (lb/ft s)	0.02	0.43
Frctn Loss (ft)	0.03	Cum Volume (acre-ft)	104.11	358.47
C & E Loss (ft)	0.04	Cum SA (acres)	6.95	11.79

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1179.94	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.18	Wt. n-Val.	0.028	0.028	
E.G. Elev (ft)	1180.11	Reach Len. (ft)	394.55	394.55	394.55
Crit W.S. (ft)	1173.00	Flow Area (sq ft)	112.91	4701.88	
E.G. Slope (ft/ft)	0.000273	Area (sq ft)	112.91	4701.88	
Q Total (cfs)	16000.00	Flow (cfs)	140.98	15859.02	
Top Width (ft)	697.54	Top Width (ft)	96.55	600.99	
Vel Total (ft/s)	3.32	Avg. Vel. (ft/s)	1.25	3.37	
Max Chl Dpth (ft)	19.64	Hydr. Depth (ft)	1.17	7.82	
Conv. Total (cfs)	968104.8	Conv. (cfs)	8529.9	959574.8	
Length Wtd. (ft)	394.55	Wetted Per. (ft)	97.16	623.47	
Min Ch El (ft)	1160.30	Shear (lb/sq ft)	0.02	0.13	
Alpha	1.02	Stream Power (lb/ft s)	0.02	0.43	
Frctn Loss (ft)	0.03	Cum Volume (acre-ft)	38.35	332.14	
C & E Loss (ft)	0.04	Cum SA (acres)	2.23	10.14	

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19088.85	19353.08	133.78	102.04	51.61	0.84	2.00	1.31
19353.08	19617.31	2.80	9.42	44.31	0.02	0.21	0.30
19617.31	19731.95						
19731.95	19846.60	707.77	399.05	107.68	4.42	3.72	1.77
19846.60	19961.24	1802.50	717.11	114.70	11.27	6.26	2.51
19961.24	20075.88	752.28	424.80	114.90	4.70	3.71	1.77
20075.88	20190.53	3507.04	1069.69	114.85	21.92	9.33	3.28
20190.53	20305.17	5450.57	1402.85	116.76	34.07	12.24	3.89
20305.17	20419.81	3643.26	679.27	34.86	22.77	19.50	5.36

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19088.85	19353.08	137.84	102.81	51.63	0.86	2.01	1.34
19353.08	19617.31	3.14	10.10	45.53	0.02	0.22	0.31
19617.31	19731.95						
19731.95	19846.60	753.27	400.68	108.01	4.71	3.72	1.88
19846.60	19961.24	1916.89	718.84	114.70	11.98	6.27	2.67
19961.24	20075.88	802.24	426.54	114.90	5.01	3.72	1.88
20075.88	20190.53	3724.66	1071.43	114.85	23.28	9.35	3.48
20190.53	20305.17	5785.08	1404.59	116.76	36.16	12.25	4.12
20305.17	20419.81	2876.89	679.80	54.26	17.98	19.52	4.23

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: South Split RS: 226.20

INPUT
Description:
Station Elevation Data num= 131

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18507.02	1209.718	516.55	1209.8	118530.04	1205.1	18561.97	1194.8	618580.47	1194.64
18592.45	1194.6	18599.85	1194.7	118614.87	1180.3	918623.44	1180.3	218638.48	1171.14
18648.62	1162.4	18651.19	1161.9	918662.45	1161.2	418672.61	1167.4	118686.55	1176.94
18707.62	1190.9	18712.58	1194.4	318725.18	1202.4	518734.61	1201.5	918758.52	1201.47
18772.03	1200.6	18791.34	1198.4	318812.09	1195.1	918819.26	1193.9	218825.91	1193.65
18839.57	1192.7	18854.32	1190.9	718857.47	1190.6	618875.62	1189.9	318882.46	1190.26
18923.35	1192.6	18934.03	1191.7	518937.77	1191.6	818962.98	1169.3	418992.07	1146.44
18998.35	1146.3	19014.56	1146.9	319029.49	1146.6	219065.91	1146.4	619068.25	1146.54
19080.43	1148.3	19093.67	1150.4	119098.25	1151.4	219126.11	1159.5	919129.68	1159.45
19163.79	1157.7	19172.01	1157.5	19181.52	1159.6	319190.18	1162.3	719199.29	1165.02
19213.92	116	519220.17	1160.7	219227.24	1156.7	719245.25	1148.92	19250.1	1147.6
19258.31	1145.8	19269.54	1145.6	19275.75	1145.3	519301.74	1144.0	419306.48	1144.02
19325.1	1149.6	19331.59	1150.8	519338.91	1153.34	19351.9	1159.4	519359.33	1162.59
19363.57	116	519368.37	1171.4	119374.42	1180.2	219381.67	1179.8	819398.27	1179.97
19404.04	1180.3	19409.47	1180.1	719477.11	1182.13	19496.6	1181.8	819526.11	1181.46
19532.09	1181.6	19543.59	1181.6	419565.58	1182.06	19574	1183.7	719592.22	1181.75
19625.37	1181.9	19640.14	1181.5	619657.52	1181.3	119679.83	1181.6	619698.45	1181.91
19701.3	1181.6	19713.18	1178.74	19733.3	1173.7	719740.65	1173.0	619756.56	1171.66
19766.27	1171.5	19781	1170.5	719797.67	1169.6	919810.03	1169.3	319818.52	1168.61
19826.47	1169.2	19836.47	1169.5	319864.15	1169.8	519870.53	1169.6	919881.23	1169.66
19890.47	1169.8	19901.1	1168.21	19906.7	1167.6	119937.98	1165.4	419942.87	1165.13
19957.27	1167.5	19969.87	1166.7	119981.28	1164.4	619990.77	1163.8	919997.19	1163.75
20015.54	1162.6	20030.46	1162.71	20046.5	1162.6	120058.02	116	520066.57	1166.94
20077.37	1166.5	20088.3	1166.2	220170.21	1164.9	220185.64	1165.2	320200.91	1165.32
20250.92	1165.9	20257.51	1165.7	920273.35	1168.1	820288.99	1171.8	20308.8	1171.26
20324.22	1170.5	20402.01	1170.2	220405.27	1170.5	920435.54	1180.4	120454.94	1192.92
20457.32	1194.5								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18507.02	.028	19698.45	.028	20457.32	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19698.4	520457.32	494.27	494.27	494.27	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
18508	19220	1200

Blocked Obstructions num= 1

Sta L	Sta R	Elev
18507.02	19500	1170

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1179.99	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.04	Wt. n-Val.	0.028	0.028	
E.G. Elev (ft)	1180.03	Reach Len. (ft)	494.27	494.27	494.27
Crit W.S. (ft)	1169.28	Flow Area (sq ft)	1507.19	8529.97	
E.G. Slope (ft/ft)	0.000035	Area (sq ft)	4652.51	8529.97	
Q Total (cfs)	16000.00	Flow (cfs)	2126.44	13873.56	
Top Width (ft)	1235.80	Top Width (ft)	509.58	726.22	
Vel Total (ft/s)	1.59	Avg. Vel. (ft/s)	1.41	1.63	
Max Chl Dpth (ft)	17.39	Hydr. Depth (ft)	8.69	11.75	
Conv. Total (cfs)	2686896.8	Conv. (cfs)	357094.8	2329802.0	
Length Wtd. (ft)	494.27	Wetted Per. (ft)	178.61	730.54	
Min Ch El (ft)	1162.60	Shear (lb/sq ft)	0.02	0.03	
Alpha	1.01	Stream Power (lb/ft s)	0.03	0.04	
Frctn Loss (ft)	0.03	Cum Volume (acre-ft)	71.41	272.04	
C & E Loss (ft)	0.00	Cum SA (acres)	2.89	4.12	

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1180.00	Element	Left OB	Channel	Right OB

Vel Head (ft)	0.04	Wt. n-Val.	0.028	0.028	
E.G. Elev (ft)	1180.04	Reach Len. (ft)	494.27	494.27	494.27
Crit W.S. (ft)	1169.28	Flow Area (sq ft)	1509.65	8540.25	
E.G. Slope (ft/ft)	0.000036	Area (sq ft)	1509.65	8540.25	
Q Total (cfs)	16000.00	Flow (cfs)	2053.54	13946.46	
Top Width (ft)	900.23	Top Width (ft)	173.95	726.28	
Vel Total (ft/s)	1.59	Avg. Vel. (ft/s)	1.36	1.63	
Max Chl Dpth (ft)	17.40	Hydr. Depth (ft)	8.68	11.76	
Conv. Total (cfs)	2678043.3	Conv. (cfs)	343716.7	2334326.5	
Length Wtd. (ft)	494.27	Wetted Per. (ft)	189.18	730.62	
Min Ch El (ft)	1162.60	Shear (lb/sq ft)	0.02	0.03	
Alpha	1.01	Stream Power (lb/ft s)	0.02	0.04	
Frctn Loss (ft)	0.03	Cum Volume (acre-ft)	31.00	272.17	
C & E Loss (ft)	0.00	Cum SA (acres)	1.00	4.13	

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18983.59	19221.88	29.58	18.74	1.88	0.18	9.99	1.58
19221.88	19460.16	2096.86	1488.45	176.73	13.11	8.68	1.41
19460.16	19698.45						
19698.45 LB	19774.34	398.89	400.01	67.20	2.49	6.03	1.00
19774.34	19850.22	1131.98	785.64	75.99	7.07	10.35	1.44
19850.22	19926.11	1290.04	850.19	76.09	8.06	11.20	1.52
19926.11	20002.00	1963.79	1095.71	76.39	12.27	14.44	1.79
20002.00	20077.88	2357.41	1222.61	76.39	14.73	16.11	1.93
20077.88	20153.77	1917.21	1077.25	75.90	11.98	14.20	1.78
20153.77	20229.66	2036.72	1117.03	75.89	12.73	14.72	1.82
20229.66	20305.55	1405.17	896.81	76.49	8.78	11.82	1.57
20305.55	20381.43	973.24	717.24	75.91	6.08	9.45	1.36
20381.43	20457.32 RB	399.11	367.46	54.30	2.49	6.96	1.09

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18983.59	19221.88	8.45	18.77	11.88	0.05	10.00	0.45
19221.88	19460.16	2045.09	1490.88	177.30	12.78	8.66	1.37
19460.16	19698.45						
19698.45 LB	19774.34	401.56	400.95	67.26	2.51	6.04	1.00
19774.34	19850.22	1138.37	786.71	75.99	7.11	10.37	1.45
19850.22	19926.11	1297.10	851.26	76.09	8.11	11.22	1.52
19926.11	20002.00	1973.60	1096.79	76.39	12.33	14.45	1.80
20002.00	20077.88	2368.79	1223.69	76.39	14.80	16.13	1.94
20077.88	20153.77	1926.84	1078.33	75.90	12.04	14.21	1.79
20153.77	20229.66	2046.83	1118.10	75.89	12.79	14.73	1.83
20229.66	20305.55	1412.70	897.89	76.49	8.83	11.83	1.57
20305.55	20381.43	978.94	718.32	75.91	6.12	9.47	1.36
20381.43	20457.32 RB	401.74	368.21	54.32	2.51	6.97	1.09

Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: South Split RS: 226.11

INPUT
Description:
Station Elevation Data num= 99

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

```
18577.24  1215.6 18582.7  1215.618615.65 1214.22 18652.9  1213.118673.28 1212.42
18715.17  1211.218732.87 1210.7918754.41 1203.6418775.98 1195.4318795.36 1194.87
 18813.6  1179.9 18822.2 1180.2118844.67 1165.1618851.68  1160.118859.16 1159.88
18862.84  1160.318897.01 1177.59 18901.4 1179.9818920.62 1195.2918934.74 1194.63
18961.23  1193.318995.15  1192.719003.83 1192.7119042.27 1193.6819064.94 1193.36
19069.87  1193.319098.85 1193.48 19128.2 1193.1819144.61 1188.4819156.69 1185.23
19166.37  1182.4 19168.5  1181.419184.46 1168.2519194.79 1168.8319209.21 1170.28
 19223.3  1168.119260.55 1167.2319284.04 1168.3719300.93 1169.39 19307.4 1169.31
19336.31  1169.619356.25 1168.0819371.09 1161.8519423.15  1140.119434.85 1138.88
19448.85  1137.619456.49    113719484.47 1138.4919499.06 1137.9419505.75 1137.06
19520.56  1136.719545.91 1135.9219593.87 1136.5319602.92 1137.1719626.83 1138.68
19631.59  1141.119636.95 1142.8619677.87 1160.3519686.82 1162.4519776.33 1183.98
 19801.9  1192.319831.66 1201.55 19835.9 1202.4719850.89 1203.2419873.05 1198.63
19879.73  1194.819887.89 1188.7919894.25 1183.7219901.15 1177.8119913.49 1177.43
19918.56  1177.619920.46  1178.119922.77 1179.35   19934 1175.3519967.05 1167.97
19970.92  1167.719991.26 1167.4420008.93 1166.6420017.22 1166.3320026.68 1165.54
20061.12  1166.120066.83 1166.2520072.67 1167.2520090.66 1169.4220098.38 1171.42
20116.02  1176.120131.19 1179.9620158.19 1180.0720183.71 1180.7320187.98 1180.62
20203.42  1181.520213.89 1183.1620227.23  1184.420240.32 1187.5620250.45 1192.49
20259.61  1194.720280.41 1194.0720285.56 1194.6620298.43 1194.55

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
18577.24    .02819850.89    .02820298.43    .028

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
     19850.8920298.43           420.26  420.26  420.26             .1        .3
Ineffective Flow     num=       1
   Sta L   Sta R    Elev
   18600   19270    1200
Blocked Obstructions     num=       1
   Sta L   Sta R    Elev
18577.24   19800    1170

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)          1179.91   Element                    Left OB    Channel   Right OB
  Vel Head (ft)              0.09   Wt. n-Val.                  0.028      0.028
  E.G. Elev (ft)          1179.99   Reach Len. (ft)            420.26     420.26     420.26
  Crit W.S. (ft)          1172.44   Flow Area (sq ft)         4644.90    2178.25
  E.G. Slope (ft/ft)     0.000099   Area (sq ft)              6183.88    2178.25
  Q Total (cfs)          16000.00   Flow (cfs)               10956.74    5043.26
  Top Width (ft)           900.22   Top Width (ft)             667.94     232.28
  Vel Total (ft/s)           2.34   Avg. Vel. (ft/s)             2.36       2.32
  Max Chl Dpth (ft)         14.37   Hydr. Depth (ft)             9.49       9.38
  Conv. Total (cfs)      1611013.3  Conv. (cfs)            1103216.1   507797.1
  Length Wtd. (ft)         420.26   Wetted Per. (ft)           490.58     236.59
  Min Ch El (ft)          1165.54   Shear (lb/sq ft)             0.06       0.06
  Alpha                      1.00   Stream Power (lb/ft s)       0.14       0.13
  Frctn Loss (ft)            0.12   Cum Volume (acre-ft)        34.36      74.09
  C & E Loss (ft)            0.06   Cum SA (acres)


Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
                than 0.7 or greater than 1.4.  This may indicate the need for additional cross
sections.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)          1179.92   Element                    Left OB    Channel   Right OB
  Vel Head (ft)              0.09   Wt. n-Val.                  0.028      0.028
  E.G. Elev (ft)          1180.01   Reach Len. (ft)            420.26     420.26     420.26
  Crit W.S. (ft)          1172.44   Flow Area (sq ft)         4651.83    2181.54
  E.G. Slope (ft/ft)     0.000100   Area (sq ft)              4651.83    2181.54
  Q Total (cfs)          16000.00   Flow (cfs)               10910.47    5089.53
  Top Width (ft)           721.76   Top Width (ft)             489.46     232.30
  Vel Total (ft/s)           2.34   Avg. Vel. (ft/s)             2.35       2.33
  Max Chl Dpth (ft)         14.38   Hydr. Depth (ft)             9.50       9.39
  Conv. Total (cfs)      1600234.8  Conv. (cfs)            1091207.4   509027.4
  Length Wtd. (ft)         420.26   Wetted Per. (ft)           500.56     236.62
  Min Ch El (ft)          1165.54   Shear (lb/sq ft)             0.06       0.06
  Alpha                      1.00   Stream Power (lb/ft s)       0.14       0.13
  Frctn Loss (ft)            0.12   Cum Volume (acre-ft)        22.44      74.12
```

C & E Loss (ft) 0.06 Cum SA (acres)

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19086.70	19341.43	1716.62	707.72	71.43	10.73	9.91	2.43
19341.43	19596.16	6121.76	2523.86	254.73	38.26	9.91	2.43
19596.16	19850.89	3118.37	1413.32	164.42	19.49	8.66	2.21
19850.89	19895.64						
19895.64	19940.40	97.97	112.04	43.71	0.61	2.69	0.87
19940.40	19985.15	1007.62	460.62	45.42	6.30	10.29	2.19
19985.15	20029.91	1549.09	593.02	44.81	9.68	13.25	2.61
20029.91	20074.66	1663.24	619.13	44.86	10.40	13.83	2.69
20074.66	20119.41	715.25	376.40	45.84	4.47	8.41	1.90
20119.41	20164.17	10.08	17.03	11.94	0.06	1.47	0.59

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19086.70	19341.43	1588.01	708.73	81.35	9.93	9.92	2.24
19341.43	19596.16	6176.11	2527.47	254.73	38.60	9.92	2.44
19596.16	19850.89	3146.36	1415.63	164.48	19.66	8.67	2.22
19850.89	19895.64						
19895.64	19940.40	99.49	112.63	43.73	0.62	2.70	0.88
19940.40	19985.15	1017.00	461.26	45.42	6.36	10.31	2.20
19985.15	20029.91	1562.71	593.65	44.81	9.77	13.26	2.63
20029.91	20074.66	1677.74	619.76	44.86	10.49	13.85	2.71
20074.66	20119.41	722.28	377.04	45.84	4.51	8.42	1.92
20119.41	20164.17	10.31	17.20	11.95	0.06	1.49	0.60

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: North Split RS: 226.98

INPUT
Description:
Station Elevation Data num= 158

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18266.53	1210.218	272.77	1210.141	8327.22	1209.791	8345.88	1209.61	8379.92	1212.09
18385.15	1210.41	8386.61	1209.771	8401.76	1212.081	8451.51	1212.041	8481.05	1211.78
18527.56	1211.51	8536.52	1211.421	8545.99	1210.57	18643.6	1207.19	18651.3	1206.6
18664.98	1205.8	18686.1	1203.94	18700.9	1203.931	8725.49	1204.581	8731.82	1205.22
18749.75	1207.61	8776.33	1209.131	8788.06	1210.02	18821.7	1211.341	8833.07	1211.64
18854.61	121	11885	9.74	1210.121	8881.01	1210.161	8926.68	1208.051	8933.77	1207.61
18942.49	1206.91	8987.51	1205.161	9004.77	1204.19	19026.71	202.84	81904	2.52	1201.88
19068.24	1200.08	19084.01	1198	19091.84	1194.691	9102.16	1194.381	9110.66	1191.55
19115.5	1191.391	9139.26	1192.51	9152.82	1194.271	9165.69	1195.391	9195.95	1195.5
19211.96	1195.791	9255.03	1195.81	9259.72	1195.71	9298.56	1194.471	9316.42	1194.58
19340.13	1193.491	9352.04	1193.41	9385.46	1193.681	9397.69	1193.691	9418.92	1194.76
19429.65	1194.571	9462.51	1193.41	9503.74	1192.071	9531.47	1192.071	9552.39	1191.93
19570.31	1192.69	19580.9	1191	19585.9	1189.751	9589.75	1188.091	9609.31	1187.87

```
19624.26 1187.3419635.55  1187.519658.88 1188.2219701.76 1187.3419742.55 1186.64
19749.92 1186.47 19775.6  1187.619790.63 1188.4319809.46 1189.1119814.09 1190.16
19887.37 1190.3619943.86  1190.319956.41 1190.3819973.34 1190.58 20011.8 1190.34
20053.36 1190.1120133.94  1188.520170.72 1187.8720178.79 1187.6620216.62 1187.21
20273.52 1186.5720363.56    118520434.66 1185.7320437.24 1186.2320537.26 1204.95
20538.36 1204.4420548.06  1206.620552.24 1208.5120590.53 1206.39 20593.81206.362
 20597.5 1206.3320621.64  1205.620658.41  1204.420665.28 1204.4920691.69 1204.03
20701.65 1204.1920722.52 1203.6320741.14  1203.920776.12 1205.3720783.67 1205.75
20826.91 1205.84 20855.5 1206.1520894.82  1206.720926.43 1210.5820929.03 1210.81
21005.53 1211.4221025.62 1211.0821059.14  1209.921081.46 1210.1621113.81 1210.22
21155.02 1210.1721178.64 1209.7421235.06  1209.521247.92  1209.221256.29 1209.24
 21261.9 1209.0421334.35 1209.55   21345  1209.521399.45 1209.7921437.53 1210.27
21455.06 1210.4221460.76 1210.6621528.73  1210.521613.77 1208.7821642.76 1209.27
21683.11 1210.1721714.36 1210.9321765.07  1211.121812.93  1210.821872.62 1210.89
21889.19 1210.8321952.49 1209.92 21964.9  1210.221979.01 1210.2922065.03 1211.69
 22146.3 1210.7722161.13 1210.4522232.82  1208.8 22238.3 1208.5722270.89 1207.92
22290.67 1207.2122307.34 1206.5622311.14  1206.322323.44 1204.6522331.71 1207.61
22334.39 1208.4122351.36 1208.2122403.63  1207.8 22470.1 1208.3322513.46 1209.32
22566.19 1209.8522600.86 1209.3622628.74  1209.3

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
18266.53    .032 19026.7    .028 20593.8    .028

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
       19026.7 20593.8               500  510.72     525              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
18266.53   19590    1210 20593.822628.741206.362
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1202.68	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.22	Wt. n-Val.		0.028	
E.G. Elev (ft)	1204.90	Reach Len. (ft)	500.00	510.72	525.00
Crit W.S. (ft)	1198.09	Flow Area (sq ft)		13054.35	
E.G. Slope (ft/ft)	0.001513	Area (sq ft)		17644.56	
Q Total (cfs)	156000.00	Flow (cfs)		156000.00	
Top Width (ft)	1495.76	Top Width (ft)		1495.76	
Vel Total (ft/s)	11.95	Avg. Vel. (ft/s)		11.95	
Max Chl Dpth (ft)	17.68	Hydr. Depth (ft)		13.96	
Conv. Total (cfs)	4011176.3	Conv. (cfs)		4011176.3	
Length Wtd. (ft)	510.72	Wetted Per. (ft)		936.99	
Min Ch El (ft)	1185.00	Shear (lb/sq ft)		1.32	
Alpha	1.00	Stream Power (lb/ft s)		15.72	
Frctn Loss (ft)	0.78	Cum Volume (acre-ft)	546.29	1504.74	50.80
C & E Loss (ft)	0.00	Cum SA (acres)	38.84	93.90	11.58

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1202.70	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.21	Wt. n-Val.		0.028	
E.G. Elev (ft)	1204.91	Reach Len. (ft)	500.00	510.72	525.00
Crit W.S. (ft)	1198.09	Flow Area (sq ft)		13071.13	
E.G. Slope (ft/ft)	0.001538	Area (sq ft)		13071.13	
Q Total (cfs)	156000.00	Flow (cfs)		156000.00	
Top Width (ft)	935.15	Top Width (ft)		935.15	
Vel Total (ft/s)	11.93	Avg. Vel. (ft/s)		11.93	
Max Chl Dpth (ft)	17.70	Hydr. Depth (ft)		13.98	
Conv. Total (cfs)	3978461.8	Conv. (cfs)		3978461.8	
Length Wtd. (ft)	510.72	Wetted Per. (ft)		951.63	
Min Ch El (ft)	1185.00	Shear (lb/sq ft)		1.32	
Alpha	1.00	Stream Power (lb/ft s)		15.74	
Frctn Loss (ft)	0.79	Cum Volume (acre-ft)		1461.93	
C & E Loss (ft)	0.00	Cum SA (acres)		88.94	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19340.12	19653.54	11891.04	949.84	63.56	7.62	14.95	12.52
19653.54	19966.96	51079.50	4312.78	313.62	32.74	13.76	11.84
19966.96	20280.38	52501.46	4383.49	313.45	33.65	13.99	11.98
20280.38	20593.80 RB	40528.00	3408.24	246.36	25.98	13.92	11.89

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19340.12	19653.54	10459.97	950.98	78.17	6.71	14.97	11.00
19653.54	19966.96	51588.48	4318.41	313.62	33.07	13.78	11.95
19966.96	20280.38	53022.75	4389.11	313.45	33.99	14.00	12.08
20280.38	20593.80 RB	40928.80	3412.63	246.38	26.24	13.94	11.99

CROSS SECTION RIVER: Salt River
REACH: North Split RS: 226.88

INPUT
Description:
Station Elevation Data num= 182

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17980.05	121	018059.76	1209.98	18107.8	1210.11	8140.12	1210.41	8167.83	1210.55
18199.02	1215.9	18253.3	1224.22	18277.69	1216.81	8300.91	1210.34	18347.44	1212.24
18350.62	1212.81	8404.88	1223.46	18429.61	1222.91	8449.88	1222.97	18496.27	1210.48
18501.29	1208.61	8519.79	120	918524.15	1209.15	18525.14	1208.09	18544.73	1193.57
18556.27	1193.4	18572.6	1194.55	18575.82	1194.47	18584.59	1199.28	18601.27	1208.25
18629.35	1208.61	8681.88	1208.71	18699.57	119	918715.92	1189.36	18745.82	1186.18
18760.36	1185	18789.1	1184.05	18790.48	1184.04	18853.83	1184.71	18862.97	1184.88
18894.26	1189.41	8906.23	1190.87	18953.38	1190.74	19009.49	1191.38	19064.19	1190.31
19079.45	1190.41	9086.17	1190.58	19103.8	1190.13	19165.18	1189.34	19169.57	1189.65
19185.01	1191.21	9215.27	1201.72	19228.68	1206.31	9234.16	1206.47	19282.61	1206.4
19289.37	1206.31	9309.03	1206.12	19350.91	1207.93	19359.59	1207.76	19405	1207.47
19432.95	1207.91	9440.55	1207.61	19441.4	1207.61	9448.54	1207.52	19454.85	1207.06
19480.01	1206.64	19495.18	120	619511.71	1205.88	19543.66	1205.41	19578.32	1205.67
19599.29	1205.86	19611.06	1198.71	19616.18	1195.24	19620.18	1193.04	19649.71	1192.14
19661.24	1191.68	19689.83	119	119724.51	1189.81	19759.05	1188.59	19823.16	1186.79
19835.38	1186.68	19864.04	1186.61	19902.22	1186.23	19933.92	1186.81	19959.36	1184.38
19991.15	1181.37	19998.29	1182.22	20004.59	1183.95	20022.29	1183.94	20038.11	1183.85
20048.98	1184.01	20090.87	1185.82	20120.18	1186.46	20132.41	1186.87	20142.36	1187.46
20162.73	1187.92	0180.65	1188.92	20195.28	1189.45	20234.8	1189.64	20260.48	1190.12
20303.25	1188.92	20323.86	1187.62	20363.11	1187.75	20385.56	1188.07	20428.72	1188.61
20452.74	1188.57	20473.62	1188.4	20522	1189.13	20537.99	1194.01	20585.47	1208.75
205981	207.52	120627.48	1204.63	20652.23	120	320659.49	1202.82	0711.94	1202.6
20772.26	1202.18	20775.15	1201.94	20806.09	1200.32	0869.64	1195.04	20882.94	1195.14
20935.87	1195.64	20972.82	1195.57	20992.46	1192.12	1007.07	119	221020.06	1192.29
21028.7	1192.77	21071.5	1201.54	21090.07	1204.12	1161.01	1206.1	21170.5	1206.41
21184.86	1206.4	21271.6	1206.17	21312.41	1206.6	21356.8	1206.65	21372.58	1202.58
21381.05	1200.08	21387.65	1199.85	21407.54	1199.52	1409.98	1199.28	21434.95	1200.46
21436.32	1200.69	21465.84	1206.74	21517.23	1207.62	1532.86	1207.85	21564.43	1208.46
21638.88	1209.97	21684.08	1210.54	21696.63	1210.62	1700.79	1210.32	21714.6	1209.78
21730.54	1208.22	1748.67	1207.82	21764.35	1208.72	1772.48	1208.86	21791.44	1210.81
21805.87	1210.79	21843.58	1210.44	21869.17	1210.62	1897.19	1210.77	21911.8	1210.17
21931.63	1210.02	21975.28	1209.49	21996.76	1209.12	2018.99	1208.12	22041.53	1206.64
22049.52	1206.03	22072.46	1206.25	22084.21	1206.42	2094.25	1202.65	22099.77	1205.59
22101.31	1206.16	22126.79	1207.13	22144.77	1207.72	2166.85	1208.01	22209.54	1208.23
22214.47	1208.32	2223.84	1207.75	22258.49	1207.92	2333.97	1207.28	22346.9	1207.2
22353.42	1203.76	22357.12	1205.56	22363.62	1209.12	2382.26	1209.04	22401.76	1208.83
22456.22	1209.42	22482.63	1209.71						

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17980.05	.028	19228.68	.031	19611.06	.028	20598	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19441.4	20598	495	487.43	480	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17980.05	19441.4	1207.6	20598	22482.63	1207.521

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1201.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.21	Wt. n-Val.		0.028	
E.G. Elev (ft)	1204.12	Reach Len. (ft)	495.00	487.43	480.00
Crit W.S. (ft)	1197.48	Flow Area (sq ft)		13087.44	
E.G. Slope (ft/ft)	0.001545	Area (sq ft)	6876.03	13087.44	1803.06
Q Total (cfs)	156000.00	Flow (cfs)		156000.00	
Top Width (ft)	1901.15	Top Width (ft)	577.57	957.66	365.92

Vel Total (ft/s)	11.92	Avg. Vel. (ft/s)		11.92	
Max Chl Dpth (ft)	20.54	Hydr. Depth (ft)		13.67	
Conv. Total (cfs)	3968641.5	Conv. (cfs)		3968641.5	
Length Wtd. (ft)	487.43	Wetted Per. (ft)		962.95	
Min Ch El (ft)	1181.37	Shear (lb/sq ft)		1.31	
Alpha	1.00	Stream Power (lb/ft s)		15.63	
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)	506.82	1324.58	39.94
C & E Loss (ft)	0.08	Cum SA (acres)	35.52	79.52	9.37

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

			Left OB	Channel	Right OB
W.S. Elev (ft)	1201.92	Element			
Vel Head (ft)	2.20	Wt. n-Val.		0.028	
E.G. Elev (ft)	1204.12	Reach Len. (ft)	495.00	487.43	480.00
Crit W.S. (ft)	1197.48	Flow Area (sq ft)		13097.73	
E.G. Slope (ft/ft)	0.001541	Area (sq ft)		13097.73	
Q Total (cfs)	156000.00	Flow (cfs)		156000.00	
Top Width (ft)	957.66	Top Width (ft)		957.66	
Vel Total (ft/s)	11.91	Avg. Vel. (ft/s)		11.91	
Max Chl Dpth (ft)	20.55	Hydr. Depth (ft)		13.68	
Conv. Total (cfs)	3973795.8	Conv. (cfs)		3973795.8	
Length Wtd. (ft)	487.43	Wetted Per. (ft)		962.97	
Min Ch El (ft)	1181.37	Shear (lb/sq ft)		1.31	
Alpha	1.00	Stream Power (lb/ft s)		15.59	
Frctn Loss (ft)	0.68	Cum Volume (acre-ft)		1308.53	
C & E Loss (ft)	0.08	Cum SA (acres)		77.85	

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19441.40 LB	19672.72	5030.63	574.43	69.49	3.22	8.58	8.76
19672.72	19904.04	37431.34	3176.22	231.40	23.99	13.73	11.78
19904.04	20135.36	53657.11	3945.89	231.93	34.40	17.06	13.60
20135.36	20366.68	34772.79	3039.12	231.44	22.29	13.14	11.44
20366.68	20598.00 RB	25108.14	2351.77	198.70	16.09	11.95	10.68

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19441.40 LB	19672.72	5034.16	575.15	69.50	3.23	8.59	8.75
19672.72	19904.04	37432.32	3178.71	231.40	24.00	13.74	11.78
19904.04	20135.36	53644.88	3948.38	231.93	34.39	17.07	13.59
20135.36	20366.68	34775.73	3041.60	231.44	22.29	13.15	11.43
20366.68	20598.00 RB	25112.90	2353.89	198.71	16.10	11.96	10.67

CROSS SECTION RIVER: Salt River
REACH: North Split RS: 226.79

INPUT
Description:
Station Elevation Data num= 214

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17671.46	1209.2	17690.64	1209.2	17708.72	1209.19	17790.03	1209.13	17812.28	1209.69
17843.78	1210.3	17843.96	1209.18	17845.81	1208.8	17855.81	1207.98	17865.57	1208.27
17881.82	1212.7	17892.16	1213.38	17907.66	1214.09	17917.54	1215.32	17926.4	1216.69
17931.57	1216.9	17937.29	1217.73	17965.91	1218.5	17994.87	1219.25	18069.94	1216.83
18081.42	1216.5	18093.77	1212.95	18104.11	1210.07	18121.72	1210.39	18137	1210.22
18144.68	1210.1	18163.68	1195.76	18170.36	1196.01	18179.62	1189.53	18184.17	1185.99
18190.11	1	18918204.82	1190.16	18213.91	1190.36	18225.08	1192.14	18239.92	1193.73
18248.59	1194.6	18275.22	1198.02	18281.91	1204.14	18283.42	1205.11	18289.43	1205.43
18314.66	1207.3	18325.82	1201.92	18376.01	1187.92	18389.66	1187.67	18406.39	1187.57
18418.74	1186.8	18435.44	1195.35	18442.09	1199.45	18452.76	1200.1	18462.24	1200.45
18468.35	1	20118504.64	1200.86	18524.18	1200.69	18578.6	1201.18	18614.35	1201.77
18626.14	1201.8	18633.26	1204.3	18644.45	1209.75	18650.11	1207.41	18659	1203.26
18669.13	1202.9	18691.77	1201.88	18705.72	1202.11	18721.32	1203.12	18747.83	1205.43
18767.18	1207.2	18773.36	1207.67	18784.19	1207.95	18790.82	1208.93	18806.51	1209.48

```
18811.56  1209.318820.29 1208.7418827.26 1208.7118832.23 1208.35 18845.2  1207.9
 18854.6  1207.718860.56 1207.9218863.85 1207.77 18869.7 1207.9518879.27 1207.54
18884.86  1207.618892.78 1207.8818899.18 1207.8118905.07 1208.0918922.44 1208.22
18932.03  1209.618944.18 1210.4418951.07 1210.8418961.44 1212.1218970.67 1212.89
18976.38  1213.518985.52 1213.72 18997.1 1211.4919000.98 1210.57 19004.7 1209.95
19016.15    120919044.81 1208.0219052.32 1207.8419058.79 1207.9819070.96 1207.69
19074.79  1207.8 19100.4  1206.919136.39 1206.1519156.66  1206.519162.33  1206.5
 19209.6  1205.819224.93 1206.0219282.55 1206.1119317.94 1206.0319405.49 1206.83
19445.36  1206.8   194911206.462 19496.7 1206.4219543.02 1206.8119571.17 1207.58
19590.89 1207.9919594.51    120719603.08 1204.11 19631.6 1193.3919636.52  1191.2
19640.37 1190.9819681.65    1189 19714.2 1189.0919748.32 1188.6519775.66 1188.66
19788.48 1188.7919825.93  1188.819848.43 1185.9319856.37 1185.3119874.18 1183.19
19878.24 1182.7719939.71  1178.519964.56 1180.2719972.63 1180.9120008.79 1185.59
20027.24 1187.4520046.32  1187.820049.21 1187.9620073.91 1185.9620090.62 1186.35
20094.73 1186.0520113.54  1183.820120.29 1183.6820136.07 1183.2120152.88 1184.57
20163.42 1185.6120173.03  1185.820243.36  1187.620314.85  1188.220336.71 1188.16
20426.42 1187.3520498.78  1188.220530.61 1188.5320553.38 1189.2920574.87 1188.87
20584.28 1189.0420595.15  1189.720624.21 1191.3520658.73  1193.4 20669.4 1193.06
20672.47 1193.1420681.28  1192.920699.79 1192.8520716.38 1193.6220723.96 1193.68
 20724.51193.75620742.19 1196.2620764.44  1196.320783.13  1196.520799.34 1196.98
20840.15 1201.9920878.89 1198.2520903.05  1195.120915.82 1195.3320931.01 1192.37
20948.04  1189.420971.44 1188.9221008.58  1191.321016.31 1191.6821030.41 1194.27
21046.52 1195.1121098.91 1204.81 21109.5  1206.721169.11 1207.6521246.29 1206.82
21248.44 1206.02 21270.6 1199.2321283.36  1198.321295.57 1197.8121365.08 1198.86
21391.91 1199.3321411.26 1199.5621421.32  1202.421447.28 1208.8221464.61 1206.63
21474.66 1205.46 21506.6 1208.5521515.64  1208.621579.57 1208.5221674.87 1209.91
 21700.7 1209.4821776.98  1207.421798.28  1206.121806.37 1203.9921813.19 1201.85
21825.88 1206.3821862.54 1205.3921901.45  1205.721985.67 1206.85 22114.5 1207.29
22218.74 1207.9722250.16 1208.4122317.59  1208.522390.35 1209.19

Manning's n Values          num=       4
     Sta   n Val     Sta   n Val     Sta   n Val     Sta   n Val
17671.46    .02818899.18    .031   19491    .028 20724.5    .032

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         19491 20724.5              510  503.99    495            .1        .3
Ineffective Flow      num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
17671.46   194911206.462   2057522390.35    1205

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)          1201.43   Element                  Left OB    Channel   Right OB
  Vel Head (ft)              1.93   Wt. n-Val.                            0.028
  E.G. Elev (ft)          1203.36   Reach Len. (ft)          510.00     503.99    495.00
  Crit W.S. (ft)          1196.14   Flow Area (sq ft)                 13993.03
  E.G. Slope (ft/ft)     0.001254   Area (sq ft)            2216.71   15413.67   2544.74
  Q Total (cfs)         156000.00   Flow (cfs)                       156000.00
  Top Width (ft)          2003.29   Top Width (ft)           388.81    1114.29    500.19
  Vel Total (ft/s)          11.15   Avg. Vel. (ft/s)                     11.15
  Max Chl Dpth (ft)         22.93   Hydr. Depth (ft)                     14.50
  Conv. Total (cfs)      4406142.5  Conv. (cfs)                     4406142.5
  Length Wtd. (ft)         503.99   Wetted Per. (ft)                    968.16
  Min Ch El (ft)          1178.50   Shear (lb/sq ft)                     1.13
  Alpha                      1.00   Stream Power (lb/ft s)               12.61
  Frctn Loss (ft)            0.53   Cum Volume (acre-ft)     455.16    1165.12     15.98
  C & E Loss (ft)            0.10   Cum SA (acres)            30.03      67.93      4.60

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT    Profile #PF#2

  W.S. Elev (ft)          1201.43   Element                  Left OB    Channel   Right OB
  Vel Head (ft)              1.93   Wt. n-Val.                            0.028
  E.G. Elev (ft)          1203.36   Reach Len. (ft)          510.00     503.99    495.00
  Crit W.S. (ft)          1196.14   Flow Area (sq ft)                 13996.92
  E.G. Slope (ft/ft)     0.001274   Area (sq ft)                      13996.92
  Q Total (cfs)         156000.00   Flow (cfs)                       156000.00
  Top Width (ft)           964.79   Top Width (ft)                       964.79
  Vel Total (ft/s)          11.15   Avg. Vel. (ft/s)                     11.15
  Max Chl Dpth (ft)         22.93   Hydr. Depth (ft)                     14.51
  Conv. Total (cfs)      4370444.5  Conv. (cfs)                     4370444.5
  Length Wtd. (ft)         503.99   Wetted Per. (ft)                    980.73
  Min Ch El (ft)          1178.50   Shear (lb/sq ft)                     1.14
  Alpha                      1.00   Stream Power (lb/ft s)               12.65
```

Frctn Loss (ft)	0.54	Cum Volume (acre-ft)	1156.93
C & E Loss (ft)	0.10	Cum SA (acres)	67.09

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19491.00 LB	19737.70	11804.54	1339.41	129.47	7.57	10.51	8.81
19737.70	19984.40	50877.24	4169.54	247.39	32.61	16.90	12.20
19984.40	20231.10	45004.17	3873.56	247.37	28.85	15.70	11.62
20231.10	20477.80	35614.88	3362.61	246.71	22.83	13.63	10.59
20477.80	20724.50 RB	12699.16	1247.92	97.22	8.14	12.84	10.18

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19491.00 LB	19737.70	11881.56	1339.92	129.47	7.62	10.51	8.87
19737.70	19984.40	51198.68	4170.53	247.39	32.82	16.91	12.28
19984.40	20231.10	45289.88	3874.55	247.37	29.03	15.71	11.69
20231.10	20477.80	35843.31	3363.61	246.71	22.98	13.63	10.66
20477.80	20724.50 RB	11786.56	1248.31	109.78	7.56	12.84	9.44

CROSS SECTION RIVER: Salt River
REACH: North Split RS: 226.70

INPUT
Description:
Station Elevation Data num= 213

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17301.56	1209.3	17330.4	1209.49	17373.63	1209.63	17384.93	1207.25	17419.98	1201.55
17462.87	1201.41	17489.03	1201.15	17554.83	1209.36	17577.86	1209.68	17601.23	1209.12
17662.32	1208.91	17725.95	1208.21	17738.17	1208.03	17755.14	1192.83	17762.54	1193.02
17784.79	1179.21	17789.04	1176.49	17796.03	1180.81	17800.53	1184.03	17808.74	1190.58
17820.53	119	17825.23	119	17843.28	1201.19	17854.85	1198.75	17858.84	1198.51
17942.4	1198.91	18019.94	1198.93	18028.83	1198.89	18116.54	1199.25	18175.82	1198.77
18206.65	1199.11	18218.13	1199.85	18226.23	1203.74	18231.38	1206.53	18247.74	1212.31
18263.44	121	18288.12	1206.46	18291.2	1205.36	18299.91	1205.36	18326.67	1205.52
18351.81	121	18360.71	1215.52	18382.95	1220.67	18385.32	1220.67	18386.41	1221.21
18408.91	1215.51	18431.92	1207.24	18446.18	1206.58	18487.4	1207.31	18503.61	1207.76
18530.13	1220.71	18539.92	1226.71	18541.69	1226.35	18543.8	1225.21	18573.83	1207.43
18586.59	1206.81	18594.64	1206.73	18606.89	1207.05	18612.61	120	18642.93	1207.66
18650.53	1207.71	18690.43	1207.03	18697.86	1206.81	18702.55	1207.56	18742.89	1209.29
18749.05	1208.61	18763.98	1207.11	18783.74	1210.17	18788.45	1211.06	18824.26	1211.08
18863.02	1210.6	18870.2	1210.38	18881.13	1210.84	18890.46	1211.12	18894.05	1213.49
18907.72	1221.21	18948.05	1218.26	18949.47	1218.23	18955.97	1219.01	18986.31	1222.03
18990.79	1218.51	19000.92	1209.29	19025.72	1208.88	19029.04	1210.93	19044.54	1214.44
19048.22	121	19058.05	1211.71	19068.87	1213.23	19070.68	1213.11	19081.29	1210.26
19091.22	1207.31	19099.72	1206.72	19102.54	1207.12	19119.2	1208.76	19127.69	1211.78
19138.33	121	19141.19	1215.22	19142.99	1214.96	19146.89	1213.21	19153.06	1210.77
19162.61	1205.71	19165.73	1205.47	19171.59	1205.63	19237.56	1204.66	19243.46	1205.35
19245.97	1205.4	19268.3	1211.13	19271.8	1210.99	19280.2	1211.95	19297.6	1212.37
19305.77	1212.71	19313.96	1213.37	19327.87	1213.83	19338.95	1214.38	19359.97	1216.01
19364.35	1216.21	19386.18	1216.15	19390.58	1216.29	19406.64	1216.11	19428.31	1216.5
19441.22	1216.51	19446.11	1217.32	19475.13	1216.38	19479.16	1216.18	19511.81	1215.44
19533.32	1216.1	19549.91	1216.24	19550.79	1216.25	19553.86	1216.11	19565.49	1216.6
19575.22	1214.72	19592.72	1208.41	19613.41	1192.92	19633.36	1189.06	19645.42	1187.82
19662.05	1188.08	19702.41	1187.81	19726.63	1187.55	19772.45	118	19776.68	1185.89
19803.65	1175.24	19824.95	1175.31	19832.21	1175.18	19868.12	1175.38	19888.1	1176.21
19912.7	1176.81	19923.37	1178.71	19945.74	1182.61	19983.32	1183.51	19991.8	1183.86
19996.49	1183.94	20056.91	118	20131.52	1186.18	20141.87	1186.25	20233.03	1187.18
20277.23	1186.42	20307.79	1185.82	20328.47	1185.72	20408.84	1185.39	20432.19	1185.39
20442.66	1185.49	20505.97	1186.72	20533.36	1188.22	20575.17	1204.73	20581.51	1204.874
20589.7	1205.06	20618.69	1205.37	20645.91	1205.42	20692.99	1205.36	20764.98	1205.77
20771.29	1206.81	20777.02	1207.42	20783.85	1204.5	20797.8	1200.48	20854.02	1202.29
20870.3	1199.86	20909.18	1203.29	20926.97	1203.72	20950.34	1205.29	20986.11	1205.74
20988.1	1205.69	21025.86	1206.45	21073.79	1200.82	21086.65	1199.28	21100.98	1199.46
21161.12	1200.41	21189.04	1200.67	21224.66	1201.82	21255.64	1206.93	21291.98	1207.59
21318.08	1208.42	21341.66	1206.13	21386.79	1205.72	21416.48	1204.79	21433.3	1205.17
21436.88	1203.99	21446.61	1201.32	21458.29	1204.62	21462.37	1206.13	21509.44	1206.23
21546.85	1206.71	21649.71	1207.62	21673.39	1207.82	21706.72	1208.25	21726.3	1208.47

21731.9 1208.4721892.73 1208.721904.73 1208.821951.41 1208.9722065.34 1209.6
22095.61 1209.81 22142.2 1210.0922168.27 1210.3

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
17301.56	.02818231.38		.031	19549.9	.028	20581.5	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19549.9	20581.5	550	478.1	362	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17301.56	19549.91	216.242	20581.52	2168.27	1204.874

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1201.14	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.58	Wt. n-Val.		0.028	
E.G. Elev (ft)	1202.72	Reach Len. (ft)	550.00	478.10	362.00
Crit W.S. (ft)	1194.23	Flow Area (sq ft)		15455.73	
E.G. Slope (ft/ft)	0.000905	Area (sq ft)	1893.71	15455.73	154.74
Q Total (cfs)	156000.00	Flow (cfs)		156000.00	
Top Width (ft)	1616.91	Top Width (ft)	474.56	963.66	178.69
Vel Total (ft/s)	10.09	Avg. Vel. (ft/s)		10.09	
Max Chl Dpth (ft)	25.96	Hydr. Depth (ft)		16.04	
Conv. Total (cfs)	5186477.0	Conv. (cfs)		5186477.0	
Length Wtd. (ft)	478.10	Wetted Per. (ft)		972.01	
Min Ch El (ft)	1175.18	Shear (lb/sq ft)		0.90	
Alpha	1.00	Stream Power (lb/ft s)		9.06	
Frctn Loss (ft)	0.63	Cum Volume (acre-ft)	431.10	986.54	0.64
C & E Loss (ft)	0.11	Cum SA (acres)	24.98	55.91	0.74

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1201.14	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.58	Wt. n-Val.		0.028	
E.G. Elev (ft)	1202.72	Reach Len. (ft)	550.00	478.10	362.00
Crit W.S. (ft)	1194.23	Flow Area (sq ft)		15454.90	
E.G. Slope (ft/ft)	0.000905	Area (sq ft)		15454.90	
Q Total (cfs)	156000.00	Flow (cfs)		156000.00	
Top Width (ft)	963.65	Top Width (ft)		963.65	
Vel Total (ft/s)	10.09	Avg. Vel. (ft/s)		10.09	
Max Chl Dpth (ft)	25.96	Hydr. Depth (ft)		16.04	
Conv. Total (cfs)	5186033.5	Conv. (cfs)		5186033.5	
Length Wtd. (ft)	478.10	Wetted Per. (ft)		972.01	
Min Ch El (ft)	1175.18	Shear (lb/sq ft)		0.90	
Alpha	1.00	Stream Power (lb/ft s)		9.07	
Frctn Loss (ft)	0.63	Cum Volume (acre-ft)		986.55	
C & E Loss (ft)	0.11	Cum SA (acres)		55.94	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19549.90 LB	19756.22	15506.94	1895.75	156.98	9.94	12.33	8.18
19756.22	19962.54	57305.68	4656.01	208.90	36.73	22.57	12.31
19962.54	20168.86	31774.38	3252.58	206.37	20.37	15.76	9.77
20168.86	20375.18	28586.47	3052.47	206.34	18.32	14.79	9.37
20375.18	20581.50 RB	22826.54	2598.92	193.42	14.63	13.61	8.78

Warning - Divided flow computed for this cross-section.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19549.90 LB	19756.22	15506.63	1895.62	156.98	9.94	12.33	8.18
19756.22	19962.54	57306.87	4655.83	208.90	36.74	22.57	12.31
19962.54	20168.86	31774.17	3252.40	206.37	20.37	15.76	9.77
20168.86	20375.18	28586.11	3052.29	206.34	18.32	14.79	9.37
20375.18	20581.50 RB	22826.21	2598.75	193.42	14.63	13.61	8.78

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: North Split RS: 226.61

INPUT
Description: Upstream Face of Alma School Road bridge
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19030	120419602.68	1206.1319602.78	1202.4819602.87	1194.5119616.37	1190.16				
19656.77	1187.919659.21	1187.8919714.28	1186.9319716.72	1186.9319741.18	1186.07				
19771.79	1182.9419774.24	1182.9419811.89	1181.7119829.69	1180.5119832.14	1180.51				
19845.64	1183.0419886.33	1183.219888.77	1183.219902.66	1182.119931.61	1182.1				
19942.86	1185.219945.31	1185.1920000.67	1186.2920003.11	1186.2920029.13	1187.03				
20058.28	1187.0820060.72	1187.0820114.81	1186.6320117.26	1186.6320172.23	1187.14				
20174.67	1187.120230.71	1187.720233.16	1187.6820286.86	1186.8 20289.3	1186.83				
20343.29	1187.5620345.74	1187.5620403.25	1187 20405.7	118720428.29	1187.64				
20457.63	1186.220460.08	1186.220487.56	1187.6820514.85	1193.3920514.95	1201.16				
20515.05	1204.820722.11	1204							

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19030	.02819602.78	.02820514.95	.032		

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19602.7820514.95		87.72	87.72	87.72	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
1903019602.78	1202.4820514.9520722.11	1201.16			

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1199.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.70	Wt. n-Val.		0.028	
E.G. Elev (ft)	1201.98	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1195.96	Flow Area (sq ft)		11832.29	
E.G. Slope (ft/ft)	0.002063	Area (sq ft)		11832.29	
Q Total (cfs)	156000.00	Flow (cfs)		156000.00	
Top Width (ft)	912.11	Top Width (ft)		912.11	
Vel Total (ft/s)	13.18	Avg. Vel. (ft/s)		13.18	
Max Chl Dpth (ft)	18.77	Hydr. Depth (ft)		12.97	
Conv. Total (cfs)	3434190.0	Conv. (cfs)		3434190.0	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		925.10	
Min Ch El (ft)	1180.51	Shear (lb/sq ft)		1.65	
Alpha	1.00	Stream Power (lb/ft s)		21.72	
Frctn Loss (ft)		Cum Volume (acre-ft)	419.14	836.79	
C & E Loss (ft)		Cum SA (acres)	21.98	45.61	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1199.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.70	Wt. n-Val.		0.028	
E.G. Elev (ft)	1201.98	Reach Len. (ft)	0.00	0.00	0.00
Crit W.S. (ft)	1195.93	Flow Area (sq ft)		11831.06	
E.G. Slope (ft/ft)	0.002064	Area (sq ft)		11831.06	
Q Total (cfs)	156000.00	Flow (cfs)		156000.00	
Top Width (ft)	912.11	Top Width (ft)		912.11	
Vel Total (ft/s)	13.19	Avg. Vel. (ft/s)		13.19	
Max Chl Dpth (ft)	18.77	Hydr. Depth (ft)		12.97	
Conv. Total (cfs)	3433601.0	Conv. (cfs)		3433601.0	
Length Wtd. (ft)	0.00	Wetted Per. (ft)		925.10	
Min Ch El (ft)	1180.51	Shear (lb/sq ft)		1.65	
Alpha	1.00	Stream Power (lb/ft s)		21.73	
Frctn Loss (ft)		Cum Volume (acre-ft)		836.81	
C & E Loss (ft)		Cum SA (acres)		45.64	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19602.78 LB	19785.21	27149.43	2206.36	188.05	17.40	12.10	12.31
19785.21	19967.65	46328.23	3008.68	183.19	29.70	16.49	15.40
19967.65	20150.08	29686.27	2299.87	182.46	19.03	12.61	12.91
20150.08	20332.52	27526.84	2197.95	182.45	17.65	12.05	12.52
20332.52	20514.95 RB	25309.21	2119.42	188.96	16.22	11.62	11.94

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19602.78 LB	19785.21	27149.14	2206.11	188.05	17.40	12.10	12.31
19785.21	19967.65	46329.80	3008.44	183.19	29.70	16.49	15.40
19967.65	20150.08	29686.04	2299.63	182.46	19.03	12.61	12.91
20150.08	20332.52	27526.39	2197.71	182.45	17.65	12.05	12.53
20332.52	20514.95 RB	25308.62	2119.18	188.96	16.22	11.62	11.94

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

BRIDGE RIVER: Salt River
REACH: North Split RS: 226.60

INPUT
Description: Alma School Road Bridge

Distance from Upstream XS = 0
Deck/Roadway Width = 84
Weir Coefficient = 2.6
Bridge Deck/Roadway Skew =
Upstream Deck/Roadway Coordinates
num= 20

Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord	Sta	Hi Cord	Lo Cord
19030	1204	1204	19602.68	1206.13	1206.13	19602.78	1206.13	1202.48
19656.77	1206.22	1202.57	19714.28	1206.26	1202.61	19771.79	1206.26	1202.61
19829.69	1206.3	1202.65	19886.33	1206.31	1202.66	19942.86	1206.27	1202.62

```
20000.67  1206.2 1202.5520058.28 1206.15  1202.520114.81 1206.05  1202.4
20172.23 1205.92 1202.2720230.71  1205.8 1202.1520286.86 1205.63 1201.98
20343.29  1205.5 1201.8520403.25 1205.38 1201.7320457.63 1205.09 1201.44
20514.95 1204.81  1201.120515.05  1204.8  1204.8

Upstream Bridge Cross Section Data
Station Elevation Data    num=      47
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   19030    120419602.68 1206.1319602.78 1202.4819602.87 1194.5119616.37 1190.16
19656.77  1187.919659.21 1187.8919714.28 1186.9319716.72 1186.9319741.18 1186.07
19771.79 1182.9419774.24 1182.9419811.89 1181.7119829.69 1180.5119832.14 1180.51
19845.64 1183.0419886.33  1183.219888.77  1183.219902.66  1182.119931.61  1182.1
19942.86  1185.219945.31 1185.1920000.67 1186.2920003.11 1186.2920029.13 1187.03
20058.28 1187.0820060.72 1187.0820114.81 1186.6320117.26 1186.6320172.23 1187.14
20174.67  1187.120230.71  1187.720233.16 1187.6820286.86  1186.8 20289.3 1186.83
20343.29 1187.5620345.74 1187.5620403.25    1187 20405.7    118720428.29 1187.64
20457.63  1186.220460.08  1186.220487.56 1187.6820514.85 1193.3920514.95 1201.16
20515.05  1204.820722.11    1204

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   19030    .02819602.78    .02820514.95    .032

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19602.7820514.95             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1903019602.78 1202.4820514.9520722.11 1201.16

Downstream  Deck/Roadway Coordinates
    num=      20
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
   19030    1204    120419602.68 1206.13 1206.1319602.78 1206.13 1202.48
19656.77 1206.22 1202.5719714.28 1206.26 1202.6119771.79 1206.26 1202.61
19829.69  1206.3 1202.6519886.33 1206.31 1202.6619942.86 1206.27 1202.62
20000.67  1206.2 1202.5520058.28 1206.15  1202.520114.81 1206.05  1202.4
20172.23 1205.92 1202.2720230.71  1205.8 1202.1520286.86 1205.63 1201.98
20343.29  1205.5 1201.8520403.25 1205.38 1201.7320457.63 1205.09 1201.44
20514.95 1204.81  1201.120515.05  1204.8  1204.8

Downstream Bridge Cross Section Data
Station Elevation Data    num=      47
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
   19030    120419602.68 1206.1319602.78 1202.4819602.87 1194.5119616.37 1190.16
19656.77  1187.919659.21 1187.8919714.28 1186.9319716.72 1186.9319741.18 1186.07
19771.79 1182.9419774.24 1182.9419811.89 1181.7119829.69 1180.5119832.14 1180.51
19845.64 1183.0419886.33  1183.219888.77  1183.219902.66  1182.119931.61  1182.1
19942.86  1185.219945.31 1185.1920000.67 1186.2920003.11 1186.2920029.13 1187.03
20058.28 1187.0820060.72 1187.0820114.81 1186.6320117.26 1186.6320172.23 1187.14
20174.67  1187.120230.71  1187.720233.16 1187.6820286.86  1186.8 20289.3 1186.83
20343.29 1187.5620345.74 1187.5620403.25    1187 20405.7    118720428.29 1187.64
20457.63  1186.220460.08  1186.220487.56 1187.6820514.85 1193.3920514.95 1201.16
20515.05  1204.820722.11    1204

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
   19030    .02819602.68    .02820514.95    .032

Bank Sta: Left   Right    Coeff Contr.   Expan.
      19602.6820514.95             .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
   1903019602.78 1202.4820514.9520722.11 1201.16

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Piers =  15

Pier Data
Pier Station     Upstream=   19659    Downstream=   19659
```

```
Upstream      num=        2
    Width    Elev     Width    Elev
    2.45     1179     2.45     1204
Downstream      num=        2
    Width    Elev     Width    Elev
    2.45     1179     2.45     1204

Pier Data
Pier Station      Upstream=   19716    Downstream=   19716
Upstream      num=        2
    Width    Elev     Width    Elev
    2.45     1179     2.45     1204
Downstream      num=        2
    Width    Elev     Width    Elev
    2.45     1179     2.45     1204

Pier Data
Pier Station      Upstream=   19774    Downstream=   19774
Upstream      num=        2
    Width    Elev     Width    Elev
    2.45     1179     2.45     1204
Downstream      num=        2
    Width    Elev     Width    Elev
    2.45     1179     2.45     1204

Pier Data
Pier Station      Upstream=   19832    Downstream=   19832
Upstream      num=        2
    Width    Elev     Width    Elev
    2.45     1179     2.45     1204
Downstream      num=        2
    Width    Elev     Width    Elev
    2.45     1179     2.45     1204

Pier Data
Pier Station      Upstream=   19888    Downstream=   19888
Upstream      num=        2
    Width    Elev     Width    Elev
    2.45     1179     2.45     1204
Downstream      num=        2
    Width    Elev     Width    Elev
    2.45     1179     2.45     1204

Pier Data
Pier Station      Upstream=   19945    Downstream=   19945
Upstream      num=        2
    Width    Elev     Width    Elev
    2.45     1179     2.45     1204
Downstream      num=        2
    Width    Elev     Width    Elev
    2.45     1179     2.45     1204

Pier Data
Pier Station      Upstream=   20002    Downstream=   20002
Upstream      num=        2
    Width    Elev     Width    Elev
    2.45     1179     2.45     1204
Downstream      num=        2
    Width    Elev     Width    Elev
    2.45     1179     2.45     1204

Pier Data
Pier Station      Upstream=   20060    Downstream=   20060
Upstream      num=        2
    Width    Elev     Width    Elev
    2.45     1179     2.45     1204
Downstream      num=        2
    Width    Elev     Width    Elev
    2.45     1179     2.45     1204

Pier Data
Pier Station      Upstream=   20117    Downstream=   20117
Upstream      num=        2
    Width    Elev     Width    Elev
    2.45     1179     2.45     1204
Downstream      num=        2
```

```
     Width    Elev     Width    Elev
     2.45     1179     2.45     1204

 Pier Data
 Pier Station      Upstream=   20174     Downstream=   20174
 Upstream      num=        2
     Width    Elev     Width    Elev
     2.45     1179     2.45     1204
 Downstream      num=        2
     Width    Elev     Width    Elev
     2.45     1179     2.45     1204

 Pier Data
 Pier Station      Upstream=   20232     Downstream=   20232
 Upstream      num=        2
     Width    Elev     Width    Elev
     2.45     1179     2.45     1204
 Downstream      num=        2
     Width    Elev     Width    Elev
     2.45     1179     2.45     1204

 Pier Data
 Pier Station      Upstream=   20289     Downstream=   20289
 Upstream      num=        2
     Width    Elev     Width    Elev
     2.45     1179     2.45     1204
 Downstream      num=        2
     Width    Elev     Width    Elev
     2.45     1179     2.45     1204

 Pier Data
 Pier Station      Upstream=   20345     Downstream=   20345
 Upstream      num=        2
     Width    Elev     Width    Elev
     2.45     1179     2.45     1204
 Downstream      num=        2
     Width    Elev     Width    Elev
     2.45     1179     2.45     1204

 Pier Data
 Pier Station      Upstream=   20402     Downstream=   20402
 Upstream      num=        2
     Width    Elev     Width    Elev
     2.45     1179     2.45     1204
 Downstream      num=        2
     Width    Elev     Width    Elev
     2.45     1179     2.45     1204

 Pier Data
 Pier Station      Upstream=   20459     Downstream=   20459
 Upstream      num=        2
     Width    Elev     Width    Elev
     2.45     1179     2.45     1204
 Downstream      num=        2
     Width    Elev     Width    Elev
     2.45     1179     2.45     1204

 Number of Bridge Coefficient Sets =  1

 Low Flow Methods and Data
       Energy
 Selected Low Flow Methods = Energy

 High Flow Method
       Energy Only

 Additional Bridge Parameters
       Add Friction component to Momentum
       Do not add Weight component to Momentum
       Class B flow critical depth computations use critical depth
           inside the bridge at the downstream end
       Criteria to check for pressure flow = Upstream water surface

 BRIDGE OUTPUT     Profile #PF#1
 Opening : Bridge #1
```

E.G. US. (ft)	1201.98	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1199.28	E.G. Elev (ft)	1201.74	1201.26
Q Total (cfs)	156000.00	W.S. Elev (ft)	1198.30	1196.29
Q Bridge (cfs)	156000.00	Crit W.S. (ft)	1196.27	1196.29
Q Weir (cfs)		Max Chl Dpth (ft)	17.79	15.78
Weir Sta Lft (ft)		Vel Total (ft/s)	14.88	17.88
Weir Sta Rgt (ft)		Flow Area (sq ft)	10482.39	8724.78
Weir Submerg		Froude # Chl	0.76	1.00
Weir Max Depth (ft)		Specif Force (cu ft)	137118.70	132362.25
Min Top Rd (ft)	1204.00	Hydr Depth (ft)	11.97	9.97
Min El Prs (ft)	1202.66	W.P. Total (ft)	1257.13	1192.86
Delta EG (ft)	1.14	Conv. Total (cfs)	2287452.0	1744624.9
Delta WS (ft)	3.27	Top Width (ft)	875.46	875.42
BR Open Area (sq ft)	13961.01	Frctn Loss (ft)		
BR Open Vel (ft/s)	17.88	C & E Loss (ft)		
Coef of Q		Shear Total (lb/sq ft)	2.42	3.65
Br Sel Mthd	Momentum	Power Total (lb/ft s)	36.03	65.28

Warning - The flow regime calculated by the momentum equation shows class B flow. For the best solution, this profile should be run as a mixed flow problem.
Warning - Pier drag coefficient of 2.0 assumed for Class B flow.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

BRIDGE OUTPUT Profile #PF#2
Opening : Bridge #1

E.G. US. (ft)	1201.98	Element	Inside BR US	Inside BR DS
W.S. US. (ft)	1199.28	E.G. Elev (ft)	1201.74	1201.26
Q Total (cfs)	156000.00	W.S. Elev (ft)	1198.30	1196.29
Q Bridge (cfs)	156000.00	Crit W.S. (ft)	1196.28	1196.29
Q Weir (cfs)		Max Chl Dpth (ft)	17.79	15.78
Weir Sta Lft (ft)		Vel Total (ft/s)	14.88	17.88
Weir Sta Rgt (ft)		Flow Area (sq ft)	10480.42	8724.78
Weir Submerg		Froude # Chl	0.76	1.00
Weir Max Depth (ft)		Specif Force (cu ft)	137109.19	132362.25
Min Top Rd (ft)	1204.81	Hydr Depth (ft)	11.97	9.97
Min El Prs (ft)	1202.66	W.P. Total (ft)	1253.33	1192.86
Delta EG (ft)	1.14	Conv. Total (cfs)	2291355.0	1744624.9
Delta WS (ft)	3.27	Top Width (ft)	875.42	875.42
BR Open Area (sq ft)	13960.66	Frctn Loss (ft)		
BR Open Vel (ft/s)	17.88	C & E Loss (ft)		
Coef of Q		Shear Total (lb/sq ft)	2.42	3.65
Br Sel Mthd	Momentum	Power Total (lb/ft s)	36.02	65.28

Warning - The flow regime calculated by the momentum equation shows class B flow. For the best solution, this profile should be run as a mixed flow problem.
Warning - Pier drag coefficient of 2.0 assumed for Class B flow.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

CROSS SECTION RIVER: Salt River
REACH: North Split RS: 226.59

INPUT
Description: Downstream Face of Alma School Road Bridge
Station Elevation Data num= 47

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19030	120	19602.68	1206.13	19602.78	1202.48	19602.87	1194.51	19616.37	1190.16
19656.77	1187.91	9659.21	1187.89	19714.28	1186.93	19716.72	1186.93	19741.18	1186.07
19771.79	1182.94	19774.24	1182.94	19811.89	1181.71	19829.69	1180.51	19832.14	1180.51
19845.64	1183.04	19886.33	1183.2	19888.77	1183.2	19902.66	1182.1	19931.61	1182.1
19942.86	1185.2	19945.31	1185.19	20000.67	1186.29	20003.11	1186.29	20029.13	1187.03
20058.28	1187.08	20060.72	1187.08	20114.81	1186.63	20117.26	1186.63	20172.23	1187.14
20174.67	1187.12	20230.71	1187.72	20233.16	1187.68	20286.86	1186.8	20289.3	1186.83
20343.29	1187.56	20345.74	1187.56	20403.25	1187	20405.7	1187	20428.29	1187.64
20457.63	1186.22	20460.08	1186.22	20487.56	1187.68	20514.85	1193.39	20514.95	1201.16
20515.05	1204.82	20722.11	1204						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19030	.028	19602.68	.028	20514.95	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19602.68	20514.95	650	775.51	1007	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19030	19602.78	1202.48	20514.95	20722.11	1201.16

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1196.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	4.83	Wt. n-Val.		0.028	
E.G. Elev (ft)	1200.84	Reach Len. (ft)	650.00	775.51	1007.00
Crit W.S. (ft)	1196.01	Flow Area (sq ft)		8847.01	
E.G. Slope (ft/ft)	0.005387	Area (sq ft)		8847.01	
Q Total (cfs)	156000.00	Flow (cfs)		156000.00	
Top Width (ft)	912.03	Top Width (ft)		912.03	
Vel Total (ft/s)	17.63	Avg. Vel. (ft/s)		17.63	
Max Chl Dpth (ft)	15.50	Hydr. Depth (ft)		9.70	
Conv. Total (cfs)	2125454.3	Conv. (cfs)		2125454.3	
Length Wtd. (ft)	775.51	Wetted Per. (ft)		918.48	
Min Ch El (ft)	1180.51	Shear (lb/sq ft)		3.24	
Alpha	1.00	Stream Power (lb/ft s)		57.12	
Frctn Loss (ft)	2.51	Cum Volume (acre-ft)	419.14	817.52	
C & E Loss (ft)	0.61	Cum SA (acres)	21.98	43.85	

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need
for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to
critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
energy was used.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1196.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	4.83	Wt. n-Val.		0.028	
E.G. Elev (ft)	1200.84	Reach Len. (ft)	650.00	775.51	1007.00
Crit W.S. (ft)	1196.01	Flow Area (sq ft)		8846.57	
E.G. Slope (ft/ft)	0.005388	Area (sq ft)		8846.57	
Q Total (cfs)	156000.00	Flow (cfs)		156000.00	

Top Width (ft)	912.03	Top Width (ft)	912.03
Vel Total (ft/s)	17.63	Avg. Vel. (ft/s)	17.63
Max Chl Dpth (ft)	15.50	Hydr. Depth (ft)	9.70
Conv. Total (cfs)	2125231.3	Conv. (cfs)	2125231.3
Length Wtd. (ft)	775.51	Wetted Per. (ft)	918.51
Min Ch El (ft)	1180.51	Shear (lb/sq ft)	3.24
Alpha	1.00	Stream Power (lb/ft s)	57.13
Frctn Loss (ft)	2.52	Cum Volume (acre-ft)	817.55
C & E Loss (ft)	0.61	Cum SA (acres)	43.88

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
energy was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19602.68 LB	19785.13	26023.10	1608.34	184.70	16.68	8.82	16.18
19785.13	19967.59	51409.18	2412.03	183.21	32.95	13.22	21.31
19967.59	20150.04	28857.38	1702.98	182.47	18.50	9.33	16.95
20150.04	20332.50	26036.31	1601.04	182.47	16.69	8.77	16.26
20332.50	20514.95 RB	23674.03	1522.62	185.62	15.18	8.35	15.55

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
energy was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19602.68 LB	19785.13	26023.29	1608.25	184.70	16.68	8.82	16.18
19785.13	19967.59	51411.06	2411.94	183.21	32.96	13.22	21.32
19967.59	20150.04	28857.70	1702.89	182.47	18.50	9.33	16.95
20150.04	20332.50	26036.45	1600.95	182.47	16.69	8.77	16.26
20332.50	20514.95 RB	23671.51	1522.53	185.65	15.17	8.35	15.55

Warning - The energy equation could not be balanced within the specified number of iterations. The

program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

CROSS SECTION RIVER: Salt River
REACH: North Split RS: 226.44

INPUT
Description:
Station Elevation Data num= 183

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17709.34	119617719.33	1195.2617752.81	1193.2117755.11	1193.1	17771.4	1191.1			
17789.76	1192.9	17797.8	1192.7417809.31	1192.01	17834.8	1190.94	17851	1190.66	
17867.22	119017916.67	118917919.32	1189.0517946.14	1188.4417978.25	1188.11				
17985.36	1187.717990.92	1187.5918040.29	1187.2918045.93	1187.1918062.78	1186.66				
18085.38	1185.918091.44	1186.2418093.67	1185.8218123.73	1186.3818127.35	1186.24				
18133.05	1189.618151.54	1198.4918152.75	1198.2118173.96	1194.3518188.45	1193.9				
18197.38	1193.418203.24	1187.3918205.63	1184.6418234.48	1184.3318244.13	1184.02				
18252.09	1185.518255.37	1185.8618260.99	1184.0318266.66	1180.4318287.57	1176.73				
18316.3	1176.118337.27	1175.9918370.53	1175.3218377.53	1175.418391.22	1175.91				
18411.55	1176.218420.48	1176.2118427.68	1176.0618448.51	1175.9918470.71	1178.01				
18482.11	1178.818507.21	1179.0918520.94	1180.0218534.52	1180.1318543.46	1180.52				
18554.11	117618565.44	1174.9318567.42	1174.6418578.13	1174.8518594.36	1175.29				
18607.04	1175.718635.33	1174.0818654.35	1172.6718673.31	1171.4618681.32	1171.16				
18687.29	1171.918702.96	1173.4618716.33	1174.5118721.63	1174.7218732.25	1176.05				
18746.63	1176.318755.01	1174.64	18760.1	1174.8918783.75	1172.4718786.81	1172.52			
18804.43	1172.218826.63	1171.5118832.15	1171.24	18832.9	1170.5918838.86	1168			
18845.53	116818855.96	1166.7218868.34	1167.0618908.59	1169.1918914.63	1169.64				
18923.56	1169.318957.81	1167.3718965.26	1167.36	18979.6	1168.46	18991.2	1165.8		
19001.06	1163.419004.16	1162.4519015.34	1162.1319075.05	1159.8219086.61	1160.34				
19107.65	1159.819157.23	1160.3619194.66	1160.0619244.25	1159.8419288.71	1160.84				
19298.05	1160.919322.73	1161.23	19341.7	1161.9419367.54	1163.919402.25	1162.82			
19445.62	1162.4	19458.6	1164.0319463.94	1165.9319495.46	1179.0919509.09	1190.86			
19518.1	1196.419518.94	1197.1419525.23	1198.1719539.45	1203.8319541.12	1204.05				
19549.77	1203.219559.44	1202.9619580.78	1203.0519592.53	1203.06	19598.41	1205.517			
19600.63	1206.4519602.61	1207.119630.46	1189.7919631.65	1188.9719681.57	1182.82				
19693.14	1179.719707.23	1176	19729.1	1176.0219745.97	1176.119768.51	1176.3			
19802.24	1177.4119854.93	117519883.27	1173.6419914.29	1173.9619948.97	1174.23				
19980.7	1181.3720005.51	1182.320010.67	1182.2620104.52	1183.22	20140.6	1181.96			
20177.13	1180.6220219.01	1178.920275.17	1174.3420332.43	1175.0820351.91	1177.06				
20372.13	1179.220420.43	1182.320448.33	1182.8320468.94	1183.3	20483.3	1183.42			
20519.4	1183.9920561.05	1201.3	20580.51	1209.476	20581.2	1209.7720614.36	1209.81		
20625.46	1207.2720641.64	1203.1620642.88	120320714.49	1202.9820738.21	1203.04				
20817.43	1203.5120850.15	1203.7120885.09	1203.920889.21	1203.9620919.78	1203.91				
20954.14	1203.6620971.24	1203.820977.44	1203.721005.68	1203.3521022.09	1203.45				
21081.03	1203.0921138.82	1202.9321151.77	120321197.58	1203.7721239.38	1203.33				
21254.4	1203.4121305.87	1205.0621314.04	1201.621324.63	1203.7621356.54	1204.18				
21392.25	1204.12	21444.3	1205.121537.97	1205.6					

Manning's n Values num= 2

Sta	n Val	Sta	n Val
17709.34	.028	20580.5	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19598.4	20580.5	500	664.72	770	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17709.34	19598.41	205.517	20580.521	537.97	1209.476

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1192.21	Element	Left OB	Channel	Right OB

Vel Head (ft)	2.79	Wt. n-Val.		0.028	
E.G. Elev (ft)	1195.00	Reach Len. (ft)	500.00	664.72	770.00
Crit W.S. (ft)	1189.01	Flow Area (sq ft)		11629.23	
E.G. Slope (ft/ft)	0.002164	Area (sq ft)	30395.25	11629.23	
Q Total (cfs)	156000.00	Flow (cfs)		156000.00	
Top Width (ft)	2577.88	Top Width (ft)	1665.28	912.60	
Vel Total (ft/s)	13.41	Avg. Vel. (ft/s)		13.41	
Max Chl Dpth (ft)	32.41	Hydr. Depth (ft)		12.74	
Conv. Total (cfs)	3353783.8	Conv. (cfs)		3353783.8	
Length Wtd. (ft)	664.72	Wetted Per. (ft)		917.97	
Min Ch El (ft)	1173.64	Shear (lb/sq ft)		1.71	
Alpha	1.00	Stream Power (lb/ft s)		22.95	
Frctn Loss (ft)	1.54	Cum Volume (acre-ft)	192.36	635.24	
C & E Loss (ft)	0.02	Cum SA (acres)	9.56	27.61	

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1192.20	Element	Left OB	Channel	Right OB
Vel Head (ft)	2.80	Wt. n-Val.		0.028	
E.G. Elev (ft)	1195.00	Reach Len. (ft)	500.00	664.72	770.00
Crit W.S. (ft)	1189.02	Flow Area (sq ft)		11627.33	
E.G. Slope (ft/ft)	0.002165	Area (sq ft)		11627.33	
Q Total (cfs)	156000.00	Flow (cfs)		156000.00	
Top Width (ft)	912.59	Top Width (ft)		912.59	
Vel Total (ft/s)	13.42	Avg. Vel. (ft/s)		13.42	
Max Chl Dpth (ft)	18.56	Hydr. Depth (ft)		12.74	
Conv. Total (cfs)	3352895.5	Conv. (cfs)		3352895.5	
Length Wtd. (ft)	664.72	Wetted Per. (ft)		917.96	
Min Ch El (ft)	1173.64	Shear (lb/sq ft)		1.71	
Alpha	1.00	Stream Power (lb/ft s)		22.97	
Frctn Loss (ft)	1.55	Cum Volume (acre-ft)		635.29	
C & E Loss (ft)	0.02	Cum SA (acres)		27.63	

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19598.40 LB	19794.82	25705.02	2046.51	170.47	16.48	12.16	12.56
19794.82	19991.24	49861.91	3228.98	197.32	31.96	16.44	15.44
19991.24	20187.66	21662.51	1954.80	196.49	13.89	9.95	11.08
20187.66	20384.08	44763.49	3023.92	196.87	28.69	15.40	14.80
20384.08	20580.50 RB	14007.09	1375.02	156.82	8.98	8.87	10.19

Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19598.40 LB	19794.82	25704.60	2046.17	170.47	16.48	12.16	12.56
19794.82	19991.24	49864.27	3228.57	197.32	31.96	16.44	15.44
19991.24	20187.66	21660.56	1954.39	196.49	13.88	9.95	11.08
20187.66	20384.08	44764.98	3023.51	196.87	28.70	15.39	14.81
20384.08	20580.50 RB	14005.60	1374.70	156.81	8.98	8.86	10.19

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: North Split RS: 226.31

INPUT
Description:

Station Elevation Data num= 65

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19656.29	119	219659.79	1191.63	19705.07	1176.02	19708.51	1175.96	19780.33	1174.28
19813.32	1174.11	9860.23	1173.73	19914.26	1173.92	19951.57	1173.82	19983.65	1172.77
19999.7	1172.82	0014.61	1172.72	20020.32	1173.55	20040.88	1176.96	20053.29	1176.8
20098.86	117	620119.79	1175.85	20150.74	1174.78	20172.65	1173.97	20203.49	1173.4
20240.67	1172.42	0258.93	1176.32	20276.13	1179.31	20318.59	1184.11	20384.63	1185.42
20400.41	1185.12	0441.58	1184.77	20497.04	1185.11	20514.92	1184.69	20539.22	1184.87
20566.47	1184.62	0581.72	1189.28	20594.43	1195.06	20614.14	1204.72	20626.56	1210.43
20639.56	1209.62	0649.91	1210.52	20657.64	1210.18	20679.66	1208.94	20713.75	1207.93
20732.6	120	620750.71	1205.03	20796.74	1204.63	20857.39	1204.42	20864.28	1204.18
20917.6	1202.1	20943.3	1201.17	21017.77	1201.15	21031.8	1201.14	21085.37	1201.52
21100.53	1201.52	1118.26	1201.47	21154.45	1201.34	21231.97	1202.12	21262.04	1202.3
21307.64	1202.42	1320.15	1201.61	21421.63	1201.95	21465.58	1201.97	21532.86	1202.32
21579.34	1202.72	1661.55	1202.26	21666.63	1202.22	21675.59	1202.57	21734.29	1204.06

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19656.29	.028	19656.29	.028	20594.43	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19656.29	20594.43	393.43	393.43	600	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19656.29	19656.29	1192	20594.43	21734.29	1195.06

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1190.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.03	Wt. n-Val.		0.028	
E.G. Elev (ft)	1193.43	Reach Len. (ft)	393.43	393.43	600.00
Crit W.S. (ft)	1187.79	Flow Area (sq ft)		11174.22	
E.G. Slope (ft/ft)	0.002499	Area (sq ft)		11174.22	
Q Total (cfs)	156000.00	Flow (cfs)		156000.00	
Top Width (ft)	920.86	Top Width (ft)		920.86	
Vel Total (ft/s)	13.96	Avg. Vel. (ft/s)		13.96	
Max Chl Dpth (ft)	18.01	Hydr. Depth (ft)		12.13	
Conv. Total (cfs)	3120614.5	Conv. (cfs)		3120614.5	
Length Wtd. (ft)	393.43	Wetted Per. (ft)		925.63	
Min Ch El (ft)	1172.40	Shear (lb/sq ft)		1.88	
Alpha	1.00	Stream Power (lb/ft s)		26.29	
Frctn Loss (ft)	1.13	Cum Volume (acre-ft)	17.92	461.26	
C & E Loss (ft)	0.08	Cum SA (acres)		13.62	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1190.41	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.03	Wt. n-Val.		0.028	
E.G. Elev (ft)	1193.43	Reach Len. (ft)	393.43	393.43	600.00
Crit W.S. (ft)	1187.78	Flow Area (sq ft)		11174.22	
E.G. Slope (ft/ft)	0.002499	Area (sq ft)		11174.22	
Q Total (cfs)	156000.00	Flow (cfs)		156000.00	
Top Width (ft)	920.86	Top Width (ft)		920.86	
Vel Total (ft/s)	13.96	Avg. Vel. (ft/s)		13.96	
Max Chl Dpth (ft)	18.01	Hydr. Depth (ft)		12.13	
Conv. Total (cfs)	3120617.5	Conv. (cfs)		3120617.5	
Length Wtd. (ft)	393.43	Wetted Per. (ft)		925.63	
Min Ch El (ft)	1172.40	Shear (lb/sq ft)		1.88	
Alpha	1.00	Stream Power (lb/ft s)		26.29	
Frctn Loss (ft)	1.13	Cum Volume (acre-ft)		461.32	
C & E Loss (ft)	0.08	Cum SA (acres)		13.65	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19656.29 LB	19843.92	35123.14	2485.34	183.01	22.51	13.76	14.13
19843.92	20031.54	51407.55	3156.38	187.86	32.95	16.82	16.29
20031.54	20219.17	43272.53	2846.12	187.81	27.74	15.17	15.20
20219.17	20406.80	19148.66	1747.97	188.59	12.27	9.32	10.95
20406.80	20594.43 RB	7048.12	938.42	178.35	4.52	5.29	7.51

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19656.29 LB	19843.92	35123.26	2485.34	183.01	22.51	13.76	14.13
19843.92	20031.54	51407.50	3156.38	187.86	32.95	16.82	16.29
20031.54	20219.17	43272.48	2846.12	187.81	27.74	15.17	15.20
20219.17	20406.80	19148.64	1747.97	188.59	12.27	9.32	10.95
20406.80	20594.43 RB	7048.12	938.42	178.35	4.52	5.29	7.51

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: North Split RS: 226.24

INPUT
Description:
Station Elevation Data num= 89

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19700.86	119	19707.64	1194.77	19713.85	1194.95	19725.9	1188.79	19750.06	1175.89
19771.25	1176.41	19794.31	1176.68	19814.97	1177.11	19867.75	1175.01	19894.39	1173.83
19979.45	1172.21	19993.59	1172.08	20035.35	1172.13	20060.2	1171.32	20136.68	1169.81
20140.95	1169.82	20180.81	1170.76	20202.45	1170.48	20249.7	1170.19	20278.14	1179.4
20285.24	1180.82	20288.23	1181.03	20296.35	1182.19	20316.46	1181.56	20351.99	1181.91
20368.71	118	20371.01	1182.09	20391.08	1182.29	20441.84	1184.29	20443.07	1184.14
20468.47	118	20481.69	1182.33	20488.35	1183.93	20495.47	1184.15	20536.37	1184.98
20562.83	1186.82	20570.64	1187.28	20587.07	1189.58	20627.52	1195.04	20636.1	1198.3
20670.81	121	20673.33	1210.69	20686.81	1208.43	20695.68	1207.97	20727.47	1208.33
20738.68	1208.2	20741.4	1206.59	20750.78	1201.95	20752.23	1201.25	20773.6	1194.18
20797.16	1193.7	20821	1197.47	20853.64	1202.28	20862.58	1202.15	20896.85	1201.23
20921.77	1200.42	20966.79	1200.43	20981.05	1200.46	21030.25	1200.32	21049.36	1200.32
21077.54	120	21148.63	1200.54	21195.49	1200.21	21205.89	1200.47	21251.67	1200.72
21256.24	1200.82	21318.05	1199.56	21337.75	1198.84	21358.09	1200.43	21376.9	1201.61
21419.73	1201.72	21426.27	1201.61	21463.38	1200.34	21495.2	1201.14	21521.07	1201.55
21576.24	120	21649.67	1202.18	21656.81	1201.77	21692.54	1200.99	21767.83	1202.05
21868.32	1200.6	21925	1201.47	21948.98	1202.29	21975.86	1201.48	21981.65	1200.75
21992.85	119	22006.96	1200.39	22016.63	1200.78	22025.94	1200.82		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19700.86	.028	19700.86	.028	20636.1	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19700.86	20636.1	573.74	573.74	573.74	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19700.86	19700.86	1195	20636.12	20259.4	1198.3

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1188.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.83	Wt. n-Val.		0.028	
E.G. Elev (ft)	1192.22	Reach Len. (ft)	573.74	573.74	573.74
Crit W.S. (ft)	1186.74	Flow Area (sq ft)		9937.04	
E.G. Slope (ft/ft)	0.003339	Area (sq ft)		9937.04	
Q Total (cfs)	156000.00	Flow (cfs)		156000.00	
Top Width (ft)	851.94	Top Width (ft)		851.94	
Vel Total (ft/s)	15.70	Avg. Vel. (ft/s)		15.70	

Max Chl Dpth (ft)	18.59	Hydr. Depth (ft)		11.66
Conv. Total (cfs)	2699753.5	Conv. (cfs)		2699753.5
Length Wtd. (ft)	573.74	Wetted Per. (ft)		857.85
Min Ch El (ft)	1169.80	Shear (lb/sq ft)		2.41
Alpha	1.00	Stream Power (lb/ft s)		37.91
Frctn Loss (ft)	2.36	Cum Volume (acre-ft)	17.92	365.92
C & E Loss (ft)	0.17	Cum SA (acres)		5.61

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1188.39	Element	Left OB	Channel	Right OB
Vel Head (ft)	3.83	Wt. n-Val.		0.028	
E.G. Elev (ft)	1192.22	Reach Len. (ft)	573.74	573.74	573.74
Crit W.S. (ft)	1186.77	Flow Area (sq ft)		9936.94	
E.G. Slope (ft/ft)	0.003339	Area (sq ft)		9936.94	
Q Total (cfs)	156000.00	Flow (cfs)		156000.00	
Top Width (ft)	851.94	Top Width (ft)		851.94	
Vel Total (ft/s)	15.70	Avg. Vel. (ft/s)		15.70	
Max Chl Dpth (ft)	18.59	Hydr. Depth (ft)		11.66	
Conv. Total (cfs)	2699710.8	Conv. (cfs)		2699710.8	
Length Wtd. (ft)	573.74	Wetted Per. (ft)		857.85	
Min Ch El (ft)	1169.80	Shear (lb/sq ft)		2.41	
Alpha	1.00	Stream Power (lb/ft s)		37.91	
Frctn Loss (ft)	2.36	Cum Volume (acre-ft)		365.98	
C & E Loss (ft)	0.17	Cum SA (acres)		5.64	

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19700.86 LB	19887.91	25495.87	1846.42	164.47	16.34	11.45	13.81
19887.91	20074.96	51961.85	2980.20	187.09	33.31	15.93	17.44
20074.96	20262.00	62960.10	3348.47	187.70	40.36	17.90	18.80
20262.00	20449.05	11845.55	1230.38	188.24	7.59	6.58	9.63
20449.05	20636.10 RB	3736.63	531.56	130.35	2.40	4.10	7.03

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19700.86 LB	19887.91	25495.83	1846.40	164.47	16.34	11.45	13.81
19887.91	20074.96	51961.94	2980.18	187.09	33.31	15.93	17.44
20074.96	20262.00	62960.32	3348.45	187.70	40.36	17.90	18.80
20262.00	20449.05	11845.36	1230.35	188.24	7.59	6.58	9.63
20449.05	20636.10 RB	3736.54	531.55	130.35	2.40	4.10	7.03

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: North Split RS: 226.13

INPUT
Description:
Station Elevation Data num= 112

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19690.67	1193	19698.5	1193.4319	705.37	1196.0919	710.67	1197.9919	721.75	1190.95
19754.72	1170.419	782.42	1171.4219	818.69	1172.3419	846.08	1173.2819	871.62	1174.47
19885.97	1175.419	912.92	1176.7119	925.82	1177.0519	982.56	1176.7920	015.43	1176.39
20022.69	1176.520	049.25	1175.2520	079.44	1174.9320	138.87	1174.420	160.08	1174.3
20172.23	1173.3	20225	1168.75	20246	1168.9220	312.09	1168.9720	355.48	1169.46
20387.52	1170.320	427.17	1167.3120	430.99	1167.0920	434.86	1168.820	452.66	1175.67
20468.74	1182.1	20477.6	1183.820	478.65	1183.7520	486.26	1185.9520	489.53	1187.2
20531.24	1185.520	543.18	1184.9720	599.85	1194.5520	605.78	1195.0420	611.54	1197.57
20621.03	1202	20629.85	1205.920	639.69	1210.66	20642.7	1210.4720	653.26	1209.23
20670.99	1208.420	679.62	1208.0520	715.31	1207.720	722.79	1208.8420	726.92	1209.86
20733.94	1210.6	20751.1	1205.8520	774.78	1204.9520	803.42	1202.8920	807.58	1202.24
20817.5	1202.420	837.04	1202.4920	899.25	1201.7920	924.19	1201.7520	976.72	1202.09
21026.06	1202.221	041.69	1202.0921	057.96	1202.2121	117.57	1202.4121	140.76	1202.67
21146.1	1202.821	168.79	1203.0121	184.26	1202.8821	205.66	1201.8521	222.27	1200.78
21236.08	1199.721	259.36	1199.1421	271.95	1198.1421	288.71	1197.421	303.77	1197.47
21322.25	1197.3	21341.4	1197.421	346.29	1197.221	392.43	1199.0321	431.14	1199.74
21487.32	1201.821	514.78	1201.8821	542.46	1202.1521	636.57	1200.4621	644.19	1200.44
21657.21	1200.621	704.94	1201.3221	751.39	1202.0921	764.06	1202	21835.22	1200.29
21847.03	1200.121	857.41	1200.2721	893.83	1201.121	917.64	1201.04	22032.4	1201
22063.76	1200.422	072.77	1200.2122	103.55	1200.322	150.02	1200.35	22169.7	1200.09
22200.87	1199.822	220.86	1199.9622	305.36	1202.3822	311.89	1202.5622	316.25	1201.88
22349.15	1194.622	358.14	1196.7822	364.84	1198.9222	386.16	1199.1922	393.33	1199.33
22414.86	1200.422	418.89	1200.63						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19690.67	.028	19710.67	.028	20621.03	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19710.67	20621.03	570	514.97	600	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
19690.67	19710.67	1197.99	20621.03	22418.89	1202

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1184.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	5.51	Wt. n-Val.		0.028	
E.G. Elev (ft)	1189.70	Reach Len. (ft)	514.97	514.97	514.97
Crit W.S. (ft)	1184.19	Flow Area (sq ft)		8283.24	
E.G. Slope (ft/ft)	0.005168	Area (sq ft)		8283.24	
Q Total (cfs)	156000.00	Flow (cfs)		156000.00	
Top Width (ft)	747.57	Top Width (ft)		747.57	
Vel Total (ft/s)	18.83	Avg. Vel. (ft/s)		18.83	
Max Chl Dpth (ft)	17.10	Hydr. Depth (ft)		11.08	
Conv. Total (cfs)	2170078.0	Conv. (cfs)		2170078.0	
Length Wtd. (ft)	514.97	Wetted Per. (ft)		755.17	
Min Ch El (ft)	1167.09	Shear (lb/sq ft)		3.54	
Alpha	1.00	Stream Power (lb/ft s)		66.65	
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)	5.55	126.87	
C & E Loss (ft)	1.45	Cum SA (acres)			

Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1184.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	5.51	Wt. n-Val.		0.028	
E.G. Elev (ft)	1189.70	Reach Len. (ft)	514.97	514.97	514.97
Crit W.S. (ft)	1184.19	Flow Area (sq ft)		8282.97	
E.G. Slope (ft/ft)	0.005168	Area (sq ft)		8282.97	
Q Total (cfs)	156000.00	Flow (cfs)		156000.00	
Top Width (ft)	747.57	Top Width (ft)		747.57	
Vel Total (ft/s)	18.83	Avg. Vel. (ft/s)		18.83	
Max Chl Dpth (ft)	17.10	Hydr. Depth (ft)		11.08	
Conv. Total (cfs)	2169960.8	Conv. (cfs)		2169960.8	
Length Wtd. (ft)	514.97	Wetted Per. (ft)		755.17	
Min Ch El (ft)	1167.09	Shear (lb/sq ft)		3.54	
Alpha	1.00	Stream Power (lb/ft s)		66.65	
Frctn Loss (ft)	0.41	Cum Volume (acre-ft)		126.89	
C & E Loss (ft)	1.45	Cum SA (acres)			

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19710.67 LB	19892.74	30659.98	1733.06	164.20	19.65	10.82	17.69
19892.74	20074.81	20680.50	1426.31	182.14	13.26	7.83	14.50
20074.81	20256.88	40224.48	2126.85	182.31	25.78	11.68	18.91
20256.88	20438.96	61493.00	2747.02	182.86	39.42	15.09	22.39
20438.96	20621.03 RB	2942.04	250.00	43.66	1.89	6.07	11.77

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19710.67 LB	19892.74	30660.01	1733.00	164.20	19.65	10.82	17.69
19892.74	20074.81	20679.96	1426.24	182.14	13.26	7.83	14.50
20074.81	20256.88	40224.45	2126.79	182.31	25.78	11.68	18.91
20256.88	20438.96	61493.69	2746.96	182.86	39.42	15.09	22.39

20438.96	20621.03 RB	2941.90	249.98	43.66	1.89	6.07	11.77

Warning - The energy equation could not be balanced within the specified number of iterations. The
program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates
that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid,
water surface was used.

CROSS SECTION RIVER: Salt River
REACH: Below Split RS: 226.03

INPUT
Description:
Station Elevation Data num= 232

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
17813.69	1209.217	817.73	1209.06	17847.09	1208.79	17870.62	1208.83	17888.8	1208.65
17902.95	1199.817	936.51	1178.32	17945.76	1172.54	17948.97	1171.01	17970.07	1160.54
17976.98	1156.517	985.77	1166.08	18037.21	1170.14	18043.47	1206.74	18045.23	1163.53
18064.03	1206.218	068.78	1206.17	18088.96	1206.24	18112.17	1214.34	18136.71	1214.57
18153.39	1214.418	168.56	1212.29	18221.48	1210.19	18240.27	1211.24	18253.6	1211.91
18277.99	1212.318	296.08	1211.81	8323.87	1210.95	18362.92	1209.79	18379.23	1209.36
18398.08	120	918463.54	1209.01	18479.42	1203.93	18505.88	1194.79	18528.11	1194.35
18536.68	1187.918	544.98	1181.37	18548.25	1181.87	18553.19	1181.84	18575.96	1167.19
18606.31	1168.718	616.83	1169.73	18633.79	1185.34	18638.53	1188.84	18644.44	1195.47
18647.01	1197.818	654.04	1197.91	18683.56	1196.61	18720.61	1194.47	18726.5	1194.75
18733.11	119	618758.16	1195.05	18782.51	1194.71	18817.11	1191.42	18832.32	1180.17
18835.84	1177.4	18841.9	1178.05	18856.88	1179.86	18863.5	1180.12	18885.07	1180.38
18894.57	1180.418	906.06	1179.46	18916.62	1180.31	8930.28	1180.36	18954.01	1179.98
18967.34	1179.218	977.36	1179.22	18996.24	1178.76	19007.88	1177.94	19020.25	1177.23
19043.73	1177.3	19056.9	1177.73	19082.7	1177.02	19092.97	1176.97	19122.69	1177.45
19127.61	117	719134.15	1176.81	19159.11	1170.4	19175.3	1165.79	19185.37	1160.8
19196.45	1155.419	235.98	1155.35	19256.29	1155.77	19306.94	1157.04	19312.36	1159.33
19317.07	1161.619	322.66	1164.73	19330.67	1164.02	19341.07	1160.46	19344.53	1160.58
19367.72	1159.819	445.92	1157.01	19453.97	1156.91	19468.24	1157.21	19538.62	1158.91
19590.72	1159.919	621.62	1160.28	19679.3	1160.71	9707.72	1160.72	19767.63	1160.08
19794.13	1159.7	19862.3	1160.08	19863.32	1160.28	19894.93	1161.32	19919.29	1160.82
19928.12	1160.219	954.78	1159.38	19965.71	1158.83	19979.59	1159.69	20025.95	1159.11
20035.13	1159.320	068.37	1159.55	20113.45	1160.36	20134.22	1159.03	20140.74	1159.13
20144.4	1159.420	155.55	1159.72	20182	1160.72	20188.17	1160.91	20196.06	1157.56
20201.8	1155.720	208.29	1153.89	20215.03	1154.12	20266.92	1154.95	20274.35	1154.8
20279.32	1154.920	326.05	1154.75	20333.23	1154.96	20341.14	1154.99	20369.76	1154.94
20380.09	1155.320	388.49	1160.06	20398.83	1166.75	20401.37	1166.49	20409.85	1166.62
20447.08	1169.520	452.15	1169.93	20456.9	1172.07	20470.58	1177.19	20484.32	1181.74
20486.67	1182.420	494.33	1183.55	20496.02	1183.99	20502.66	1184.34	20507.86	1186.05
20519.28	1185.720	522.44	1185.52	20541.08	1186.7	20554	1187.55	20563.19	1189.04
20572.85	1190.720	579.55	1192.07	20602.91	1196.99	20620.01	1205.16	20627.28	1208.23
20638.02	1212.5	20641.4	1213.15	20643.43	1213.13	20654.08	1209.94	20659.44	1207.12
20692.12	1203.920	696.98	1204.01	20709.79	1204.52	20718.53	1204.66	20730.08	1210.83
20743.54	1214.720	749.23	1216.57	20754.11	1214.91	20765.12	1207.03	20770.4	1204.84
20802.07	119	520874.92	1195.61	20897.02	1195.82	20960.38	1196.47	21012.91	1197.25
21061.63	1197.421	131.27	119	921158.48	1199.82	1167.08	1200.51	21223.27	1201.27
21254.48	1201.421	312.19	1201.08	21349.37	1201.24	21382.93	1201.72	21428.78	1201.68
21481.8	1201.921	514.02	1201.78	21555.74	1201.32	21583.95	1201.31	21702.52	1199.51
21725.21	1200.121	728.32	1199.94	21787.09	1196.19	21798.85	1196.56	21835.03	1198.02
21850.32	1198.321	903.95	1199.52	21912.4	1199.64	21926.42	1200.19	21936.15	1199.87
21993.29	1198.722	008.72	1198.81	22046.97	1199.51	22078.3	1200.52	22101.75	1201.84
22144.11	1201.522	168.41	1201.47	22177.43	1201.59	22216.39	1201.53	22242.05	1201.34
22274.24	1201.522	300.68	1201.54	22332.4	1202.34	22355.54	1202.77	22384.76	1202.11
22507.48	1198.822	511.03	1198.72	22557.04	1199.06	22595	1198.14	22610.12	1198.13
22616.34	1197.722	619.46	1198.01	22646.93	1199.61	22679.54	1196.36	22729.47	1197.33
22779.93	1194.122	781.85	1195.02	22792.4	1198.51	22796.99	1198.66	22811.84	1198.83

22824.21 1198.922829.73 1199.03

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
17813.69	.028	18683.56	.028	20602.91	.028

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18683.56	20602.91	690	596.81	380	.1	.3

Ineffective Flow num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
17813.69	18930	1196.61	21430	22829.73	1196.99

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1179.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.66	Wt. n-Val.		0.028	
E.G. Elev (ft)	1179.81	Reach Len. (ft)	690.00	596.81	380.00
Crit W.S. (ft)	1167.18	Flow Area (sq ft)		26345.38	
E.G. Slope (ft/ft)	0.000334	Area (sq ft)	1878.19	26360.99	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1694.50	Top Width (ft)	180.76	1513.74	
Vel Total (ft/s)	6.53	Avg. Vel. (ft/s)		6.53	
Max Chl Dpth (ft)	25.26	Hydr. Depth (ft)		17.61	
Conv. Total (cfs)	9407559.0	Conv. (cfs)		9407559.0	
Length Wtd. (ft)	596.81	Wetted Per. (ft)		1509.39	
Min Ch El (ft)	1153.89	Shear (lb/sq ft)		0.36	
Alpha	1.00	Stream Power (lb/ft s)		2.38	
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	68.99	2033.10	896.55
C & E Loss (ft)	0.03	Cum SA (acres)	3.24	112.47	53.32

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1179.17	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.66	Wt. n-Val.		0.028	
E.G. Elev (ft)	1179.83	Reach Len. (ft)	690.00	596.81	380.00
Crit W.S. (ft)	1167.18	Flow Area (sq ft)		26368.03	
E.G. Slope (ft/ft)	0.000333	Area (sq ft)		26368.03	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1496.33	Top Width (ft)		1496.33	
Vel Total (ft/s)	6.52	Avg. Vel. (ft/s)		6.52	
Max Chl Dpth (ft)	25.28	Hydr. Depth (ft)		17.62	
Conv. Total (cfs)	9420945.0	Conv. (cfs)		9420945.0	
Length Wtd. (ft)	596.81	Wetted Per. (ft)		1509.41	
Min Ch El (ft)	1153.89	Shear (lb/sq ft)		0.36	
Alpha	1.00	Stream Power (lb/ft s)		2.37	
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)		2033.86	338.97
C & E Loss (ft)	0.03	Cum SA (acres)		112.29	18.14

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18683.56 LB	19067.43	127.69	114.20	87.33	0.07	1.31	1.12
19067.43	19451.30	37088.00	6246.04	390.28	21.56	16.27	5.94
19451.30	19835.17	50919.29	7504.76	383.91	29.60	19.55	6.78
19835.17	20219.04	50852.63	7509.75	385.31	29.57	19.56	6.77
20219.04	20602.91 RB	33012.40	4970.62	262.56	19.19	19.31	6.64

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18683.56 LB	19067.43	129.98	115.52	87.34	0.08	1.32	1.13
19067.43	19451.30	37095.18	6251.85	390.28	21.57	16.29	5.93
19451.30	19835.17	50915.90	7510.57	383.91	29.60	19.57	6.78
19835.17	20219.04	50849.23	7515.56	385.31	29.56	19.58	6.77
20219.04	20602.91 RB	33009.72	4974.52	262.57	19.19	19.32	6.64

CROSS SECTION RIVER: Salt River
REACH: Below Split RS: 225.92

INPUT
Description:
Station Elevation Data num= 256

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18468.45	1200.81	8531.46	1200.77	18546.63	1200.65	18558.34	1200.68	18608.08	1199.89
18682.78	1199.11	8684.58	1198.69	18705.66	1198.41	18720.29	1198.89	18732.62	1198.64
18742.39	1199.61	8749.62	1201.26	18756.54	1202.22	18772.29	1208.55	18782.15	1211.04
18794.69	1214.51	8864.65	1216.47	18869.13	1216.54	18874.44	1214.87	18877.11	1214.04
18925.62	1215.58	18930.79	1215.81	8960.95	1217.41	18974.82	1217.86	19001.17	1207.24
19039.4	1193.48	19043.38	1193.4	19051.7	1193.46	19054	1191.51	19066.74	1181.22
19079.86	1179.98	19082.43	1179.81	9092.71	1180.19	19113.8	1165.51	19127.82	1165.13
19162.3	1164.74	19180.92	1164.81	9191.04	1164.52	19205.75	1164.57	19221.47	1164.02
19229.31	1163.41	19242.24	1163.51	9250.06	1163.22	19264.79	1163.14	19292.97	1161.88
19297.51	1162.61	19303.82	1162.91	9309.63	1161.34	19314.61	1160.89	19317.86	1160.91
19327.05	1160.11	9347.93	1159.81	9351.79	1159.69	19374.46	1159.66	19392.8	1159.44
19429.07	1158.77	19454.53		115	1946	1.59	1157.97	19488.09	1158.06
19539.15	1158.35	19553.39	1158.31	9570.94	1157.71	9604.37	1157.09	19625.01	1157.79
19628.81	1157.99	19634.6	1157.79	19649.7	1157.91	9655.77	1157.56	19666.7	1157.29
19677.4	1157.33	19695.62	1156.35	19709.35	1155.81	9744.93	1156.02	19755.78	1155.78
19777.86	1155.75	19828	1156.66	19854.58	1156.8	19863.6	1157.07	19868.77	1157.37
19894.45	1159.14	19907.33	1159.62	19923.37		116	1994	1.21	1163.65
19947.62	1164.38	19965.15	1167.59	19978.17	1167.21	19986.23	1167.32	0002.12	1167.95
20011.32	1167.87	20019.69	1169.15	20024.3	1169.56	20036.89	1171.22	0045.23	1171.56
20051.24	1172.43	20055.54	1171.97	20061.07	1171.03	20067.92	1169.32	0071.82	1167.72
20081.97	1167.92	20094.53	1167.91	20105.7	1167.74	20117.58	1169.32	0132.22	1170.59
20145.94	1171.94	20167.32	1170.87	20176.46	1170.57	20190.62	1169.52	0194.22	1169.59
20204.48	1169.42	20220.02	1168.99	20249.52	1168.57	20264.17	1160.52	0270.11	1158.42
20277.04	1156.58	20279.98	1156.44	20291.85	1156.26	20301.51	1155.82	0306.69	1156.38
20318.82	1160.42	20324.23	1161.2	20335.08	1164.14	20340.04	1165.72	0365.58	1166.82
20380.59	1171.15	20381.99	1167.22	20388.81	1167.17	20394.74	1167.4	20435.4	1170.33
20447.55	1171.84	20463.73	1174.4	20469.44	1174.04	20487.49	1169.52	0488.88	1169.05
20498.67	1168.33	20510.89	1168.85	20542.96	1186.22	0557.48		1193	2056
5.51	1195.19	20572.22	1195.48	20582.24	1196.25	20584.41	1194.87	20591.51	1197.72
0606.77	1201.68	20622.14	1204.10	20624.55	1204.49	20630.82	1201.28	20642.04	1194.52
0650.14	1194.12	0664.02	1193.53	20669.5	1194.28	20673.95	1194.42	20692.61	1194.45
0706.96	1194.62	0713.44	1194.58	20719.36	1192.16	20726.53	1190.77	20733.04	1189.93
0751.41	1189.82	0782.88	1189.21	20806.03	1196.27	20807.17	1196.46	20838.1	1196.72
0845.65	1196.6	20858	1196.81	20867.57	1192.87	20880.95	1190.84	20902.54	1190.84
20917.02	1192.32	0929.48	1195.44	20944.65	1195.03	20950.57	1195.03	20958.26	1192.33
0962.77	1190.92	1020.75	1190.89	21043.35	1190.87	21050.68	1192.61	21065.76	1195.65
1068.33	1196.42	1090.82	1197.32	1133.79	1198.12	21153.4	1198.61	21190.94	1198.82
1212.06	1198.7	21237	1198.63	21249.17	1198.45	21272.86	1198.52	21289.46	1198.98
21306.21	1199.1	21332.9	1199.11	21347.7	1201.19	21351.59	1201.14	21390	1201.31
21401.48	1200.5	21426.2	1201.17	21442.52	1200.14	21463.88	1199.53	21502.37	1200.08
21564.45	1198.82	1568.79	1198.75	21625.73	1199.45	21674.68	1200.45	21684.16	1200.57
21711.38	1200.52	1714.04	1203.65	21721.37	1205.12	21731.67	1206.22	1735.33	1205.41
21742.93	1200.52	1790.03	1200.6	21811.1	1200.62	22042.08	1201.38	22051.39	1201.44
22107.38	1201.12	2122.86	1200.97	22145.82	1200.92	22181.1	1201.02	22223.04	1199.72
22272.5	1197.72	2288.32	1197.77	22334.4	1196.81	22342.98	1196.71	22369.99	1196.68
22417.62	1197.62	2433.65	1197.62	22463.02	1199.47	22471.25	1200.07	22542.66	1198.95
22572.73		120	2259	6.09	1200.84	22617.78	1200.65	22670.68	1199.79
22709.41	1198.96	22742.88	1199.52	2762.29	1199.92	22846.28	1199.1	22890.19	1198.71
22949.1	1199.16	22961.71		119	2298	2.13	1197.78	22995.54	1197.19
23036.1	1196.92	3058.35	1199.4	23075.1	1199.57	23168.68	1200.51	23179.81	1200.65
23197.32	1198.31	23212.9	1196.32	3235.13	1196.29	23261.02	1196.2	23276.24	1198.82
3279.45	1199.53	23312.13	1192.8	23324.7	1198.11	23351.8	1198.7	23356.36	1198.86

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
18468.45	.032	18794.69	.028	20858	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
18874.44	20622.14	600	546.64	505	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
18468.45	19090	1190

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1178.62	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.92	Wt. n-Val.		0.028	
E.G. Elev (ft)	1179.54	Reach Len. (ft)	600.00	546.64	505.00
Crit W.S. (ft)	1170.07	Flow Area (sq ft)		22376.63	

E.G. Slope (ft/ft)	0.000547	Area (sq ft)		22376.63	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1433.98	Top Width (ft)		1433.98	
Vel Total (ft/s)	7.69	Avg. Vel. (ft/s)		7.69	
Max Chl Dpth (ft)	22.87	Hydr. Depth (ft)		15.60	
Conv. Total (cfs)	7354933.5	Conv. (cfs)		7354933.5	
Length Wtd. (ft)	546.64	Wetted Per. (ft)		1451.69	
Min Ch El (ft)	1155.75	Shear (lb/sq ft)		0.53	
Alpha	1.00	Stream Power (lb/ft s)		4.05	
Frctn Loss (ft)	0.35	Cum Volume (acre-ft)	54.11	1699.22	896.55
C & E Loss (ft)	0.07	Cum SA (acres)	1.81	92.28	53.32

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1178.64	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.92	Wt. n-Val.		0.028	
E.G. Elev (ft)	1179.55	Reach Len. (ft)	600.00	546.64	505.00
Crit W.S. (ft)	1170.07	Flow Area (sq ft)		22400.77	
E.G. Slope (ft/ft)	0.000545	Area (sq ft)		22400.77	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1433.98	Top Width (ft)		1433.98	
Vel Total (ft/s)	7.68	Avg. Vel. (ft/s)		7.68	
Max Chl Dpth (ft)	22.89	Hydr. Depth (ft)		15.62	
Conv. Total (cfs)	7368059.0	Conv. (cfs)		7368059.0	
Length Wtd. (ft)	546.64	Wetted Per. (ft)		1451.72	
Min Ch El (ft)	1155.75	Shear (lb/sq ft)		0.52	
Alpha	1.00	Stream Power (lb/ft s)		4.03	
Frctn Loss (ft)	0.35	Cum Volume (acre-ft)		1699.78	338.97
C & E Loss (ft)	0.07	Cum SA (acres)		92.22	18.14

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18874.44 LB	19223.98	10425.58	1649.96	133.16	6.06	12.79	6.32
19223.98	19573.52	54651.43	6561.96	349.95	31.77	18.77	8.33
19573.52	19923.06	68855.11	7535.60	349.72	40.03	21.56	9.14
19923.06	20272.60	20139.07	3621.58	354.01	11.71	10.36	5.56
20272.60	20622.14 RB	17928.80	3007.52	264.86	10.42	11.73	5.96

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
18874.44 LB	19223.98	10430.06	1652.13	133.17	6.06	12.81	6.31
19223.98	19573.52	54640.95	6567.84	349.95	31.77	18.79	8.32
19573.52	19923.06	68828.64	7541.49	349.72	40.02	21.58	9.13
19923.06	20272.60	20159.65	3627.47	354.01	11.72	10.38	5.56
20272.60	20622.14 RB	17940.71	3011.84	264.88	10.43	11.75	5.96

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Below Split RS: 225.82

INPUT
Description:
Station Elevation Data num= 225

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18838.28	1121.818	867.65	1122.641	8869.94	1125.181	8876.84	1129.931	8887.27	1137.88
18890.33	1138.3	18906	1145.781	8907.34	1151.481	8908.79	1144.811	8910.08	1145.59
18918.85	1144.718	924.39	1148.081	8941.74	1159.411	8964.93	1173.891	8980.24	1180.05

```
19039.24  1203.719075.91 1204.51 19088.8 1205.0119122.52 1206.8419131.68  1204.6
19166.79  1206.719213.49 1208.3219241.27 1196.8119253.85 1191.7519263.47 1192.64
19271.13  1187.619274.65 1185.7419281.63 1184.8419288.41 1180.2119306.86 1166.94
19351.59  1166.719356.98 1163.4619368.14  1163.519377.02 1166.9819383.82 1170.08
19398.86  1176.119407.94 1180.0619414.98  1188.519419.91 1193.0319423.261195.456
19423.72 1195.7919433.68  1191.519442.97  1192.119452.38 1188.9819472.84 1181.18
19475.57 1180.0619512.08  1170.219520.86  1168.319532.09 1165.5619555.57 1163.54
19562.38 1163.0919572.59  1156.819577.85 1153.7419588.08 1157.0919588.79 1157.11
19599.48 1153.5819603.41  1151.619606.96 1151.9719646.94 1154.4419670.98 1155.25
19674.28 1157.4419677.59    115819687.24 1158.4419718.55  1159.719728.29  1159.3
19759.56 1156.6119771.74  1155.1   19786 1153.2219795.78 1152.8819803.35 1153.65
19812.33 1154.8119839.95  1154.619847.61 1154.5419872.25 1154.9419877.75 1155.14
19888.45 1154.8819929.54  1154.219940.12 1153.6319951.73  1153.219981.43  1151.1
19985.84 1150.9219999.03  1151.220031.56 1154.0620070.91 1153.1420074.68 1153.14
20113.37 1156.6920129.89  1157.220169.11 1155.1320198.27 1154.0320203.46 1153.67
20207.16 1155.0420218.98  1162.520229.47 1169.2920232.62 1170.97 20243.8 1173.69
20257.03 1181.0820267.97  1181.320273.74    118320277.79 1184.7220289.84 1182.63
20293.88 1181.7620341.65  1182.120369.54 1182.01 20433.6 1181.82 20437.7 1181.79
20482.12  1181.1 20530.4  1181.3 20532.5  1182.120572.46 1196.2520582.94 1191.91
20584.56 1191.3520589.62  1191.320615.64  1191.120640.05 1190.87 20691.9 1190.71
20704.04  1190.820764.41  1191.720781.04 1190.7920817.75 1191.3820822.96 1191.81
20837.08 1191.9320992.46  1195.721001.04 1195.9421008.58 1195.4221037.17 1194.27
21072.59 1195.6221134.78  1198.221141.24 1198.5421145.62 1198.4821151.11 1198.68
21188.65 1198.9221204.75  1197.921234.26 1199.3221242.15 1199.31 21259.2 1198.77
21267.64 1197.2221273.65  1198.621302.36 1209.6121314.77 1214.6921338.86 1224.31
21362.81 1225.9821391.49  1227.421422.27 1229.0421447.78 1229.4821480.58 1210.33
 21506.5 1195.0721521.64    119521542.04 1194.3221563.41  1193.221570.34 1194.44
21594.05 1193.2621608.33  1193.821650.87 1194.7321672.83 1194.9521705.72 1195.62
21730.08 1195.6321762.41  1196.821778.58 1197.74 21814.5 1214.6521819.08 1216.53
21822.78 1216.78 21859.2  1217.121860.06 1216.8121894.19 1197.5121918.25 1198.29
21934.68 1198.5821941.31  1198.5 21961.7 1198.44 21973.3 1198.6922005.22 1198.73
22019.77 1198.5722043.81  1198.622068.45  1198.522085.98 1198.6822107.48 1198.63
 22136.2 1198.6922195.15  1199.522223.11 1199.3822301.15  1199.222336.02 1199.15
22372.76  1200.122423.98  1201.822448.36 1200.6922524.69 1199.5722552.92  1199.9
22600.45  1198.522610.45  1198.422651.37 1198.6922683.24 1197.9622713.47  1197.5
22732.14 1196.9822760.59  1196.522832.69 1196.8222891.07 1197.5522897.92  1197.7
22930.19 1197.2622952.71  1197.122963.07 1196.1422980.09 1194.8423015.59 1196.33
23032.29 1197.1723045.05  1198.323067.27 1199.3723113.29 1199.0423201.44 1198.21
23240.13  1198.223296.21    119823365.24 1197.5723378.62 1197.5223400.56 1195.27
23416.93 1196.5923424.94  1197.123455.39    119723513.57 1197.1423540.96 1197.02
 23571.2  1197.8 23641.8  1198.623645.23 1198.3323669.14 1194.5723722.28 1194.03
23738.08 1197.9423772.15  1191.923782.28 1194.6123788.53 1196.6723810.11  1197.5

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
18838.28    .02821037.17    .032

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19271.1320277.79              440  457.43     485              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
18838.2819271.13  1187.620277.7923810.11 1184.72

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)          1177.46   Element                  Left OB    Channel   Right OB
  Vel Head (ft)              1.65   Wt. n-Val.                           0.028
  E.G. Elev (ft)          1179.11   Reach Len. (ft)           440.00    457.43     485.00
  Crit W.S. (ft)          1168.11   Flow Area (sq ft)                  16694.16
  E.G. Slope (ft/ft)     0.000763   Area (sq ft)             4476.01   16694.16
  Q Total (cfs)         172000.00   Flow (cfs)                        172000.00
  Top Width (ft)          1010.67   Top Width (ft)            135.53    875.13
  Vel Total (ft/s)          10.30   Avg. Vel. (ft/s)                     10.30
  Max Chl Dpth (ft)         55.66   Hydr. Depth (ft)                     19.08
  Conv. Total (cfs)      6226703.0  Conv. (cfs)                       6226703.0
  Length Wtd. (ft)         457.43   Wetted Per. (ft)                    895.94
  Min Ch El (ft)          1150.92   Shear (lb/sq ft)                      0.89
  Alpha                      1.00   Stream Power (lb/ft s)                9.14
  Frctn Loss (ft)            0.36   Cum Volume (acre-ft)        23.28   1454.07     896.55
  C & E Loss (ft)            0.07   Cum SA (acres)               0.87     77.79      53.32

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water
surface.
```

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1177.48	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.64	Wt. n-Val.		0.028	
E.G. Elev (ft)	1179.13	Reach Len. (ft)	440.00	457.43	485.00
Crit W.S. (ft)	1168.10	Flow Area (sq ft)		16711.78	
E.G. Slope (ft/ft)	0.000760	Area (sq ft)		16711.78	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	875.12	Top Width (ft)		875.12	
Vel Total (ft/s)	10.29	Avg. Vel. (ft/s)		10.29	
Max Chl Dpth (ft)	26.56	Hydr. Depth (ft)		19.10	
Conv. Total (cfs)	6237253.0	Conv. (cfs)		6237253.0	
Length Wtd. (ft)	457.43	Wetted Per. (ft)		896.03	
Min Ch El (ft)	1150.92	Shear (lb/sq ft)		0.89	
Alpha	1.00	Stream Power (lb/ft s)		9.11	
Frctn Loss (ft)	0.36	Cum Volume (acre-ft)		1454.36	338.97
C & E Loss (ft)	0.07	Cum SA (acres)		77.73	18.14

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19271.13 LB	19472.46	6046.96	1013.15	116.82	3.52	9.23	5.97
19472.46	19673.79	29551.67	3222.24	195.06	17.18	17.08	9.17
19673.79	19875.13	46277.59	4276.41	201.98	26.91	21.24	10.82
19875.13	20076.46	57500.45	4867.75	201.59	33.43	24.18	11.81
20076.46	20277.79 RB	32623.35	3314.62	180.49	18.97	19.04	9.84

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19271.13 LB	19472.46	6056.39	1015.36	116.90	3.52	9.25	5.96
19472.46	19673.79	29552.57	3226.04	195.14	17.18	17.10	9.16
19673.79	19875.13	46273.38	4280.47	201.98	26.90	21.26	10.81
19875.13	20076.46	57484.22	4871.80	201.59	33.42	24.20	11.80
20076.46	20277.79 RB	32633.45	3318.12	180.43	18.97	19.07	9.83

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Below Split RS: 225.73

INPUT
Description:
Station Elevation Data num= 271

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19013.5	1168.8	19018.69	1172.6	19077.34	1195.7	19152.63	1199.4	19158.9	1199.72
19169.42	1197.3	19224.42	1199.5	19249.36	1200.5	19264.16	1194.2	19271.11	1191.13
19284.85	1191.3	19296.91	1184.7	19303.71	1180.4	19326.67	1164.8	19367.56	1165.72
19371.04	1164.2	19378.12	1160.7	19415.63	1160.8	19445.31	1174.07	19458.1	1180.55
19470.67	1187.2	19471.21	1187.4	19219496.19	1200.9	19508.96	1195.3	19520.91	1191.16
19553.54	1179.8	19576.62	1175.1	19597.35	1170.16	19609.1	1167.6	19613.19	1166.82
19637.35	1162.7	19663.78	1159.6	19671.15	1158.1	19692.14	1154.7	19706.78	1154.38
19728.79	1157.0	19734.84	115	19751.89	1159.43	19780.6	1158.9	19789.86	1157.57
19799.76	1158.6	19809.93	1158.9	19847.45	1159.6	19856.91	1159.0	19886.76	1154.77
19901.53	1152.2	19914.24	1151.2	19930.59	115	19942.89	1153.3	19954.15	1155.21
19970.9	1157.7	19993.32	116	20010.03	1159.8	20015.59	1159.9	20034.96	1160.34
20050.18	1151.1	20052.24	1149.9	20068.39	1153.5	20090.29	1154.7	20095.86	1155.14
20125.48	1156.4	20142.66	115	20163.46	1166.8	20168.24	1168.87	20171.3	1168.29
20180.71	1164.6	20197.16	1158.6	20202.46	1157.2	20215.16	1157.3	20247.13	1157.95
20260.06	1158.5	20281.84	1159.5	20303.56	1168.9	20315.18	1169.0	20334.58	1168.59
20335.73	1164.5	20338.27	1162.2	20345.98	1162.29	20365.8	1165.5	20373.06	1163.93
20381.14	1163.3	20382.43	1162.5	20391.97	1163.2	20406.88	1164.7	20414.94	1165.62
20438.33	1161.8	20444.17	1161.6	20485.41	1161.5	20495.98	1162.9	20506.58	1165.85
20528.23	1181.2	20534.11	1185.0	20534.15	1185.1	20539.52	1184.2	20548.41	1183.74
20571.38	1182.5	20598.05	1181.5	20612.58	117	20629.99	1178.5	20633.36	1177.79

```
20638.32 1177.7320651.06 1177.1720691.65  1174.820705.24 1174.8120715.05 1178.17
 20732.3 1183.7620735.86 1185.9920757.61  1197.620771.06 1193.2520787.97 1187.15
20794.29 1188.0820798.46 1188.4320812.21  1189.1 20816.7 1189.0520831.81  1195.9
20844.79 1200.9820859.69  1207.620872.85  1205.920879.58 1204.9720903.95 1205.75
20915.01    119820918.65 1194.7820929.09  1194.220939.91 1193.8920941.41 1190.69
20948.38 1186.0920969.61 1186.1720975.89    118720984.67 1188.4920989.81 1189.46
21001.98 1193.54 21007.9 1193.8321019.61  1193.621031.31 1194.4121047.07 1193.81
21051.85 1193.7221058.58 1192.8121070.91    119321072.74 1193.3521084.15 1193.75
 21100.4 1194.1821117.31 1194.2721122.59    119421134.37 1194.2321150.11 1198.03
 21157.2 1199.4621164.83  1202.321181.48  1208.621202.55 1219.2121221.59 1217.26
21236.99 1215.5521247.24 1216.4121254.28  1217.721261.18 1217.8321273.08 1218.47
21290.05 1221.6621302.39 1222.7521316.23    122621327.13 1219.1421348.57  1207.7
21359.64 1201.5821369.72 1196.5921401.94  1195.421417.19 1200.29   21441 1209.34
21441.95 1208.9721450.09 1207.0921465.93  1206.121475.13 1204.9321478.92 1205.26
21493.54 1207.6121506.12 1207.8321514.96  1209.821518.21 1209.2921525.41 1209.92
21530.43 1209.1421537.29 1210.0821549.25  1212.321562.57 1214.9621588.69 1217.31
21596.42 1218.5721602.57 1219.1521604.64  1219.121613.44 1220.6221633.68 1222.19
21640.12 1223.4221647.46 1224.1421648.99  1223.921659.06 1218.8321673.02 1210.72
21684.43 1203.0921692.96 1199.6321695.35  1199.621699.05 1200.1121712.27 1199.02
21728.01 1198.2221736.04 1199.5721747.76  1195.6 21759.2 1196.3121773.72 1196.78
21780.08 1196.6921790.08 1196.2121801.25  1196.1 21808.7  1196.721835.45 1197.02
21849.86 1197.2821860.24  1198.121896.69    119921907.47 1199.0821929.98 1199.08
21938.54 1197.6621962.28 1192.7321976.91  1192.922079.36 1194.7422099.96 1194.79
22135.39  1194.822159.08 1194.9822206.96  1195.722212.03 1195.7422245.07 1193.66
22283.02 1198.1422287.89 1198.8222326.89  1198.922358.63 1198.6522377.64  1197.8
22449.44 1199.29 22455.1 1199.3122513.22  1198.822545.72 1197.99 22553.3 1197.77
22633.27 1199.8322667.37 1199.8822705.61  1199.822741.65 1199.5522775.07 1199.55
22829.78 1198.8222878.95 1198.03 22933.6  1200.722977.16 1200.4622995.19 1200.32
23009.62 1199.2123037.19 1196.8823076.68  1193.523090.72 1194.9123115.28    1197
 23137.9 1197.3723167.91  1197.423200.87  1196.523277.75 1199.6223339.23 1198.59
23419.96 1197.0923444.94 1197.1323497.19  1197.123532.01 1197.3923565.73 1197.45
23592.14 1197.7223676.35 1197.0123715.78  1196.723721.78 1196.22 23742.9 1193.36
23753.01 1194.5823776.49 1195.5123831.73  1196.923882.42 1196.8523927.38 1192.64
23966.39    119324017.79 1193.3424031.33    119724040.81 1195.1224064.31 1190.72
24069.05 1192.65

Manning's n Values        num=       2
     Sta   n Val     Sta   n Val
 19013.5    .02820859.69    .031

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19264.1620534.11              525  523.08     520              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
 19013.519264.16 1194.2120534.1124069.051185.075

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)          1177.26   Element                  Left OB    Channel   Right OB
  Vel Head (ft)              1.42   Wt. n-Val.                          0.028
  E.G. Elev (ft)          1178.68   Reach Len. (ft)          525.00    523.08    520.00
  Crit W.S. (ft)          1169.53   Flow Area (sq ft)                 17984.65
  E.G. Slope (ft/ft)     0.000813   Area (sq ft)              61.17   17984.65     94.70
  Q Total (cfs)         172000.00   Flow (cfs)                       172000.00
  Top Width (ft)          1183.92   Top Width (ft)            16.92    1099.70     67.29
  Vel Total (ft/s)           9.56   Avg. Vel. (ft/s)                      9.56
  Max Chl Dpth (ft)         27.36   Hydr. Depth (ft)                     16.35
  Conv. Total (cfs)      6033956.0  Conv. (cfs)                      6033956.0
  Length Wtd. (ft)         522.90   Wetted Per. (ft)                  1131.38
  Min Ch El (ft)          1149.90   Shear (lb/sq ft)                      0.81
  Alpha                      1.00   Stream Power (lb/ft s)                7.71
  Frctn Loss (ft)            0.24   Cum Volume (acre-ft)       0.37   1271.99    896.02
  C & E Loss (ft)            0.24   Cum SA (acres)             0.10     67.42     52.94

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water
surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need
                for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less
                than 0.7 or greater than 1.4.  This may indicate the need for additional cross
sections.

CROSS SECTION OUTPUT    Profile #PF#2
```

W.S. Elev (ft)	1177.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.42	Wt. n-Val.		0.028	
E.G. Elev (ft)	1178.70	Reach Len. (ft)	525.00	523.08	520.00
Crit W.S. (ft)	1169.52	Flow Area (sq ft)		18008.41	
E.G. Slope (ft/ft)	0.000809	Area (sq ft)		18008.41	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1099.73	Top Width (ft)		1099.73	
Vel Total (ft/s)	9.55	Avg. Vel. (ft/s)		9.55	
Max Chl Dpth (ft)	27.39	Hydr. Depth (ft)		16.38	
Conv. Total (cfs)	6046763.5	Conv. (cfs)		6046763.5	
Length Wtd. (ft)	522.91	Wetted Per. (ft)		1131.51	
Min Ch El (ft)	1149.90	Shear (lb/sq ft)		0.80	
Alpha	1.00	Stream Power (lb/ft s)		7.68	
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)		1272.06	338.97
C & E Loss (ft)	0.24	Cum SA (acres)		67.36	18.14

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19264.16 LB	19518.15	12165.88	1670.14	151.76	7.07	11.66	7.28
19518.15	19772.14	28393.18	3152.68	208.38	16.51	15.31	9.01
19772.14	20026.13	56345.28	5159.69	255.42	32.76	20.31	10.92
20026.13	20280.12	50970.48	4908.49	262.04	29.63	19.33	10.38
20280.12	20534.11 RB	24125.18	3093.65	253.78	14.03	12.76	7.80

Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19264.16 LB	19518.15	12174.61	1673.23	151.82	7.08	11.68	7.28
19518.15	19772.14	28391.56	3157.14	208.49	16.51	15.32	8.99
19772.14	20026.13	56328.42	5165.18	255.42	32.75	20.34	10.91
20026.13	20280.12	50959.85	4913.98	262.04	29.63	19.35	10.37
20280.12	20534.11 RB	24145.55	3098.88	253.74	14.04	12.79	7.79

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION RIVER: Salt River
REACH: Below Split RS: 225.63

INPUT
Description:
Station Elevation Data num= 254

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
19141.48	1193.319	168.18	1193.02	19202.81	1192.62	19215.4	1192.51	19222.01	1191.33
19225.1	1190.919	232.45	1191.03	19250.42	1177.68	19253.98	1175.21	19260.15	1174.69
19266.57	1170.519	279.89	1162.51	19291.27	1162.54	19316.7	1161.93	19332.37	1160.15
19334.93	1159.9	19339.1	1158.52	19350.04	1159.18	19364.07	1160.36	19409.8	1161.82
19429.02	1170.71	9435.84	1175.81	19436.19	1176.04	19444.19	1181.48	19447.05	1183.14
19450.78	1183.75	19454.84	1182.21	19460.75	1178.04	19478.85	1169.58	19487.32	1167.05
19493.67	1165.42	19501.58	1165.11	19523.75	1165.34	19540.66	1165.21	19545.2	1165.68

19572.45	1159.0319579.17	1157.5 19602.7	1156.4119605.96	1156.3919610.19	1156.77	
19646.6	1159.4319671.79	1160.219687.86	1160.8419712.89	1161.9119723.05	1162.12	
19739.14	1161.7119745.11	1161.819754.59	1160.6419766.56	1161.0419799.87	1160.59	
19814.99	1160.65 19834	1160.119868.28	1158.4319893.11	1157.5 19930.4	1153.52	
19984.01	1151.9419992.44	1152.219997.25	1152.1520029.88	1152.5920078.44	1153.11	
20091.72	1153.16 20134.5	1152.920174.67	1152.6720200.07	1152.8620206.43	1152.58	
20230.79	1153.0520244.27	1153.820278.23	1153 20329.6	1153.1320337.23	1153.85	
20350.88	1159.4320359.29	1156.9 20374.4	1150.1920384.64	1149.4320395.29	1147.79	
20409.47	1147.6520431.68	1159.520454.66	116220457.17	1162.1820482.52	1162.87	
20487.04	1163.6620516.51	1179.420525.09	1183.6920525.11	1183.720543.76	1180.63	
20547.59	1180.6320552.04	1180.9620565.03	1185.220614.62	1161.2120631.07	1155.55	
20636.88	1155.4320670.66	1155.8620675.06	1155.620693.13	115620698.06	1155.84	
20711.47	1155.8720719.91	1155.5220735.21	1155.120739.18	1155.1120749.72	1154.71	
20757.15	1154.2820782.52	1155.1720788.83	1155.120826.06	1162.1120836.28	1163.99	
20858.56	1169.3520881.29	1172.5920915.61	1171.820960.16	1172.6220965.88	1172.61	
20967.73	1172.6320976.94	1172.1221006.84	117021016.69	1169.7521036.48	1169.31	
21044.22	1170.1421059.73	1172.1721092.24	1172.221100.29	1172.9321129.66	1174.38	
21132.17	1174.5521159.62	1176.9621180.45	1178.521194.49	1175.1221199.77	1174.04	
21225.21	1165.2121227.06	1166.1521230.86	1167.421260.96	1178.621274.83	1181.46	
21280.71	1183.4621285.92	1184.7821300.65	1188.921329.21	1189.3621356.09	1189.56	
21369.08	1189.9121418.34	1190.2421463.65	119021512.63	1190.6921555.86	1190.54	
21587.91	1190.221611.98	1189.6821694.03	1188.921704.09	1188.9121713.45	1189.97	
21723.34	1189.8921746.72	1189.1521762.13	1198.221768.61	1201.5121778.53	1207.48	
21795.48	1218.9621814.35	1200.921829.93	1186.221860.74	118621876.75	1190.65	
21886.05	1194.7721899.61	1193.7221902.81	1193.7 21930.5	1194.9521935.67	1195.23	
21940.1	1195.1721944.55	119321959.51	118621973.25	1189.8 22011.4	1172.67	
22020.97	1168.2722031.87	1173.3922058.59	1182.222066.54	1185.4322071.86	1184.65	
22097.68	1195.9622104.33	1198.8222110.15	1196.122116.26	1193.822144.76	1193.56	
22158.11	1193.3722168.17	1195.2122191.15	1189.322195.56	1187.8922204.05	1190.78	
22207.14	1191.9822212.76	1191.7722277.21	1190.322295.66	1191.3422321.95	1193.72	
22352.73	1193.7522366.56	1193.7322385.52	1193.922422.61	1194.3822451.18	1193.47	
22477.34	1193.1722511.15	1195.1322547.18	1197.922584.96	1198.2622590.02	1198.2	
22669.01	1195.8322676.92	1196.0722709.46	1196.922768.24	1198.4422777.49	1198.49	
22781.7	1197.1622791.02	1194.9922804.16	1195.122815.09	1195.8822841.25	1196.56	
22856.24	1196.5722908.64	1195.7422970.57	1195.422990.27	1195.42 23029.4	1195.7	
23041.38	1195.4723087.13	1195.2323151.15	1195.223174.86	1195.3823211.56	1195.74	
23250.99	1195.7623271.77	1196.523295.45	1197.623306.71	1198.1723321.77	1198.06	
23341.38	1197.53 23369.8	1196.123389.01	1196.423437.61	1195.7223476.85	1196.38	
23522.92	1196.3823549.69	1196.4123644.21	1195.923712.08	1195.1623744.11	1195.28	
23778.28	1195.76 23852	1195.5423893.13	1195.923908.76	1197.2523914.57	1197.42	
23930.66	1197.2423973.05	1196.6323993.61	1193.224001.97	1192.124036.44	1195.7	
24058.65	1195.624077.18	1195.2824112.53	1194.824117.55	1193.7724125.49	1191.96	
24159.54	1191.8624176.94	1195.2324189.91	119324211.12	1189.224215.11	1190.95	
24221.92	1194.6924246.25	1195.61 24256.3	1196.124269.66	1196.38		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
19141.48	.03	219279.89	.02	822168.17	.032

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19232.4	520525.09	495	483.91	470	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
2075	224269.66	1195

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1177.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.62	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1178.21	Reach Len. (ft)	495.00	483.91	470.00
Crit W.S. (ft)	1165.18	Flow Area (sq ft)		23886.00	3256.83
E.G. Slope (ft/ft)	0.000286	Area (sq ft)		23886.00	7468.72
Q Total (cfs)	172000.00	Flow (cfs)		151562.36	20437.65
Top Width (ft)	1944.73	Top Width (ft)		1239.29	705.44
Vel Total (ft/s)	6.34	Avg. Vel. (ft/s)		6.35	6.28
Max Chl Dpth (ft)	29.94	Hydr. Depth (ft)		19.27	19.02
Conv. Total (cfs)	10177220.0	Conv. (cfs)		8967927.0	1209293.1
Length Wtd. (ft)	480.19	Wetted Per. (ft)		1261.89	175.97
Min Ch El (ft)	1147.65	Shear (lb/sq ft)		0.34	0.33
Alpha	1.00	Stream Power (lb/ft s)		2.14	2.07
Frctn Loss (ft)	0.12	Cum Volume (acre-ft)		1020.59	850.88
C & E Loss (ft)	0.06	Cum SA (acres)		53.38	48.33

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1177.60	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.62	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1178.23	Reach Len. (ft)	495.00	483.91	470.00
Crit W.S. (ft)	1165.19	Flow Area (sq ft)		23906.73	3259.69
E.G. Slope (ft/ft)	0.000290	Area (sq ft)		23906.73	3259.69
Q Total (cfs)	172000.00	Flow (cfs)		152993.89	19006.11
Top Width (ft)	1410.64	Top Width (ft)		1239.38	171.27
Vel Total (ft/s)	6.33	Avg. Vel. (ft/s)		6.40	5.83
Max Chl Dpth (ft)	29.95	Hydr. Depth (ft)		19.29	19.03
Conv. Total (cfs)	10095915.0	Conv. (cfs)		8980310.0	1115604.9
Length Wtd. (ft)	480.28	Wetted Per. (ft)		1262.01	199.04
Min Ch El (ft)	1147.65	Shear (lb/sq ft)		0.34	0.30
Alpha	1.00	Stream Power (lb/ft s)		2.20	1.73
Frctn Loss (ft)	0.12	Cum Volume (acre-ft)		1020.40	319.52
C & E Loss (ft)	0.06	Cum SA (acres)		53.31	17.12

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19232.45 LB	19490.98	13121.08	2788.83	228.28	7.63	12.84	4.70
19490.98	19749.51	23953.28	4267.55	259.85	13.93	16.51	5.61
19749.51	20008.03	34555.32	5309.10	258.88	20.09	20.54	6.51
20008.03	20266.56	46921.21	6375.68	258.57	27.28	24.66	7.36
20266.56	20525.09 RB	33011.48	5144.84	256.30	19.19	20.87	6.42
20525.09	20774.73	20437.65	3256.83	175.97	11.88	19.02	6.28

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19232.45 LB	19490.98	13251.60	2792.46	228.37	7.70	12.86	4.75
19490.98	19749.51	24187.51	4271.87	259.85	14.06	16.52	5.66
19749.51	20008.03	34881.69	5313.42	258.88	20.28	20.55	6.56
20008.03	20266.56	47353.63	6380.01	258.57	27.53	24.68	7.42
20266.56	20525.09 RB	33319.46	5148.97	256.34	19.37	20.88	6.47
20525.09	20774.73	19006.11	3259.69	199.04	11.05	19.03	5.83

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: Salt River
REACH: Below Split RS: 225.54

INPUT
Description:
Station Elevation Data num= 317

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18938.47	1191.6	18981.1	1192.33	18993.79	1192.99	19007.68	1194.83	19025	1196.54
19106.6	1198	19173.11	1197.31	19198.69	1195.87	19215.15	1188.79	19225.42	1189.04
19234.68	1181.6	19240.6	1176.96	19248.64	1177.01	19280.57	1163.18	19296.94	1155.84
19306.2	1155.9	19317.71	1155.83	19319.28	1155.83	19334.9	1157.78	19340.29	1158.62
19369.01	1159.1	19399.71	1158.51	19441.23	1182.55	19457.06	1172.42	19462.82	1169.66
19487.27	1161.5	19524.35	1160.91	19529.67	1160.96	19551.2	1160.87	19572.93	1161.14
19584.94	1161.56	19611.04	1162	19616.69	1160.29	19623.48	1159.05	19666.77	1158.5
19706.73	1158.87	19715.08	1159.11	19761.22	1160.55	19784.93	1162.5	19801.56	1163.01
19855.02	1159.63	19866.19	1159	19924.82	1158.73	19942.26	1158.44	19954.04	1157.44
19961.57	1157.15	19972.88	1157.2	20006.4	1157.12	20038.21	1156.68	20059.59	1156.59
20069.02	1154.54	20082.03	1154.62	20133.72	1155.22	20186.54	1154.91	20202.68	1154.9
20234.25	1154.65	20256.42	1159.42	20285.16	1159.36	20294.53	1159.65	20301.35	1159.62
20320.22	1159.76	20326.44	1160.82	20329.17	1161.52	20343.86	1161.85	20354.35	1162
20360.65	1164.19	20369.35	1168.32	20391.39	1178.59	20397.98	1179.26	20411.01	1179.25
20416.96	1178.94	20419.37	1177.3	20427.9	1172.16	20448.14	1172.64	20465.89	1173.45
20498.5	1177.35	20502.51	1175.34	20620508.21	1172.52	20520.49	1169.22	20529.74	1164.46

```
20542.92 1159.1720559.14 1158.5720567.02  1157.4 20570.9 1156.1420578.49 1155.62
 20588.7 1153.5520595.38 1152.9720601.95  1151.320621.84 1142.0620627.86 1138.27
20641.55 1138.4720665.77 1136.2920681.09  1136.820690.08 1137.8820693.36 1137.93
20705.49 1137.4920736.56 1137.8520752.74  1138.620769.67 1139.5120773.08 1139.95
20784.85 1163.1320797.94  1167.620802.12  1168.9 20813.5  1168.220824.49 1169.07
20844.01 1162.1320847.92 1162.1920878.93  1162.220890.42 1168.7520901.05 1173.95
20906.28 1174.2320927.32 1174.0120937.13  1173.420954.28 1172.9220957.32 1172.94
20959.87 1174.3420968.41 1175.8820982.93  1168.320989.65  1164.920994.85 1163.01
21013.93 1162.0221022.02  1161.321055.88  1161.921062.26 1162.3621065.59 1162.36
21110.22 1160.6421127.86 1160.6721144.51  1160.921150.85 1162.2521155.41 1162.78
21164.73 1162.9121178.73 1162.7221185.78  1162.821190.11 1163.6221196.31 1164.27
21210.79 1165.5121227.46 1166.6321233.51  1165.921260.13 1165.8121275.95  1166.4
21294.43 1165.5221317.53 1165.1121318.39  1165.321325.43 1164.8221351.85 1163.79
21362.76 1161.3821368.33 1162.7121372.17  1163.321374.51 1161.3621378.23 1158.68
21396.21 1155.8221416.65 1152.7421428.62  1152.121430.56 1152.2621436.03 1151.37
21459.44 1149.0421476.08 1142.6521485.93    114521508.76 1147.88   21519 1147.59
21530.64 1147.0121539.58 1146.6921548.07  1147.721557.97 1148.6521566.32 1148.84
21584.52 1150.2421589.59 1150.9821600.98  1151.421610.71 1152.0621613.43 1152.37
21627.84 1154.7821635.97    115621647.42  1157.921668.79 1162.0321682.39 1161.14
21701.03  1161.6 21724.6 1161.7321729.61  1162.6 21754.7 1164.0721763.97 1163.91
21769.38 1164.0621784.23 1164.0621807.72  1162.121813.51 1161.9421836.88 1160.02
21844.76 1160.1421855.16 1160.5821873.14  1160.721880.27 1160.67 21906.2 1160.89
21911.57 1161.0221924.49 1161.5821940.15  1164.321952.32 1163.7821958.48 1162.71
21967.87 1162.84 21979.2 1163.5321985.56  1163.422016.23 1163.3422029.85 1163.77
22047.95    1164 22078.1 1164.6922082.92  1163.122085.33 1162.4722106.32 1161.82
22132.59 1160.4122144.53 1160.2722149.61  1159.422171.65 1158.1922197.69 1156.58
22207.24 1156.4122219.09 1156.57 22234.2  1156.922257.36 1156.4722259.81 1156.91
22269.76 1159.2622283.59 1157.0922291.89  1156.522315.69  1158.222333.28 1158.82
22356.45 1160.3922372.14 1161.31 22382.1  1163.722386.59 1164.3322407.33 1169.93
22411.15 1171.02 22417.4 1173.3222427.37  1177.322441.42 1182.0922448.99 1185.25
22451.35 1186.6822469.68 1189.17 22483.4  1187.622493.27 1188.8122506.46 1187.75
22525.53 1189.4922541.17 1191.65 22544.7  1191.622564.14 1190.5622577.59 1191.32
22594.98  1192.2 22614.8 1192.9522644.25  1193.822655.18 1193.7222688.44 1192.74
22714.99 1192.0822719.26 1192.0522785.93  1193.222810.38 1194.7222824.42 1195.51
22859.34 1194.63 22861.1 1194.6522875.84  1196.5 22880.6 1196.9322899.63 1195.37
22914.32  1197.222935.61 1196.8422960.11  1196.722983.28  1196.822998.72 1196.42
23052.59 1194.4423059.56 1194.6723115.78    119623123.53 1196.4623156.49 1195.83
23158.66 1195.8323196.58  1196.323217.48  1196.923232.94 1196.7123236.63 1195.99
23243.69 1195.5323245.64 1196.24 23250.6  1197.223257.82 1196.9823275.88 1195.52
23278.02 1195.4523299.57 1195.3423305.28  1195.423347.54 1195.5223380.61  1195.1
23391.63 1195.1123477.67 1195.4123485.59  1195.323541.02 1195.2523633.37 1194.71
   23652 1194.4523660.15 1194.6623806.94  1195.823818.61 1195.78 23847.2    1196
23852.14  1195.923882.68  1196.423896.09  1197.823979.49 1195.4524016.84 1194.62
24032.36 1194.2724038.01 1195.2724046.94  1196.524053.27 1196.51 24101.2 1196.03
24105.78 1195.9324152.52 1195.0624195.31  1193.424206.29 1193.1724257.57 1191.81
24270.15  1193.424287.66 1193.1724304.46  1189.324315.84 1192.0124341.12 1193.61
24344.68 1193.78 24378.1 1197.8724380.85  1197.624388.06 1195.6224396.98 1197.28
24411.65 1197.2624434.67 1196.78

Manning's n Values          num=        3
     Sta   n Val      Sta   n Val      Sta   n Val
18938.47    .03219317.71    .02821378.23    .031

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19234.6820502.51              505  514.67     515              .1       .3
Ineffective Flow     num=        1
   Sta L   Sta R    Elev
   2114524434.67    1185
```

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1177.61	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.42	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1178.03	Reach Len. (ft)	505.00	514.67	515.00
Crit W.S. (ft)	1165.28	Flow Area (sq ft)		20263.21	12877.32
E.G. Slope (ft/ft)	0.000214	Area (sq ft)		20263.21	35850.14
Q Total (cfs)	172000.00	Flow (cfs)		100464.55	71535.45
Top Width (ft)	3142.62	Top Width (ft)		1216.86	1925.76
Vel Total (ft/s)	5.19	Avg. Vel. (ft/s)		4.96	5.56
Max Chl Dpth (ft)	41.32	Hydr. Depth (ft)		16.65	20.04
Conv. Total (cfs)	11755511.0	Conv. (cfs)		6866349.5	4889161.5
Length Wtd. (ft)	514.79	Wetted Per. (ft)		1237.53	672.93
Min Ch El (ft)	1154.54	Shear (lb/sq ft)		0.22	0.26
Alpha	1.01	Stream Power (lb/ft s)		1.08	1.42
Frctn Loss (ft)	0.10	Cum Volume (acre-ft)		775.36	617.18
C & E Loss (ft)	0.03	Cum SA (acres)		39.73	34.14

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1177.63	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.42	Wt. n-Val.		0.028	0.028
E.G. Elev (ft)	1178.05	Reach Len. (ft)	505.00	514.67	515.00
Crit W.S. (ft)	1165.41	Flow Area (sq ft)		20283.57	12888.07
E.G. Slope (ft/ft)	0.000216	Area (sq ft)		20283.57	12888.07
Q Total (cfs)	172000.00	Flow (cfs)		101151.60	70848.41
Top Width (ft)	1859.47	Top Width (ft)		1216.98	642.49
Vel Total (ft/s)	5.19	Avg. Vel. (ft/s)		4.99	5.50
Max Chl Dpth (ft)	41.34	Hydr. Depth (ft)		16.67	20.06
Conv. Total (cfs)	11694248.0	Conv. (cfs)		6877278.5	4816970.0
Length Wtd. (ft)	514.79	Wetted Per. (ft)		1237.68	689.55
Min Ch El (ft)	1154.54	Shear (lb/sq ft)		0.22	0.25
Alpha	1.01	Stream Power (lb/ft s)		1.10	1.39
Frctn Loss (ft)	0.10	Cum Volume (acre-ft)		774.94	232.40
C & E Loss (ft)	0.03	Cum SA (acres)		39.67	12.73

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19234.68 LB	19488.25	13187.96	3256.49	245.68	7.67	14.02	4.05
19488.25	19741.81	22330.55	4435.39	253.97	12.98	17.49	5.03
19741.81	19995.38	23280.21	4546.66	253.84	13.54	17.93	5.12
19995.38	20248.94	32980.27	5605.99	254.13	19.17	22.11	5.88
20248.94	20502.51 RB	8685.58	2418.69	229.91	5.05	10.80	3.59
20502.51	20764.65	53074.64	7977.74	269.53	30.86	30.43	6.65
20764.65	21026.80	9901.15	2979.45	285.13	5.76	11.37	3.32
21026.80	21288.94	8559.67	1920.13	118.27	4.98	16.24	4.46

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19234.68 LB	19488.25	13280.48	3260.38	245.77	7.72	14.04	4.07
19488.25	19741.81	22483.96	4439.63	253.97	13.07	17.51	5.06
19741.81	19995.38	23439.23	4550.90	253.84	13.63	17.95	5.15
19995.38	20248.94	33195.81	5610.23	254.13	19.30	22.13	5.92
20248.94	20502.51 RB	8752.13	2422.44	229.98	5.09	10.81	3.61
20502.51	20764.65	53082.04	7982.12	269.53	30.86	30.45	6.65
20764.65	21026.80	9917.74	2983.84	285.13	5.77	11.38	3.32
21026.80	21288.94	7848.61	1922.11	134.89	4.56	16.26	4.08

Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.

CROSS SECTION RIVER: Salt River
REACH: Below Split RS: 225.44

INPUT
Description:
Station Elevation Data num= 316

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18951.76	1207.21	8978.09	1205.92	18982.63	1205.81	8994.35	1207.82	19043.28	1206.73
19071.53	1206.11	9088.22	1199.45	19095.66	1196.36	19105.73	1196.16	19122.07	1198.3
19128.16	1198.21	9155.49	1197.91	19178.86	1188.75	19187.75	1189.03	19203.48	1177.85
19211.13	1177.91	9238.41	1160.55	19301.41	1159.94	19357.13	1158.62	19367.36	1162.72
19373.25	1160.61	9380.24	1157.49	19395.35	1157.44	19404.35	1157.54	19412.2	1159.95
19415.99	1161.41	9423.07	1158.32	19457.79	1158	19472.96	1157.91	19488.71	1157.82
19502.89	1168.61	9522.47	1184.21	19531.89	1177.41	19548.25	1167.16	19560.62	1166
19585.56	1164.96	9617.95	1163.71	19626.18	1163.76	19663.63	1163.76	19677.18	1163.42

19698.08	1162.2719704.21	1161.719724.98	1160.1319734.29	1159.8219744.34	1160.5
19772.97	1154.6319806.37	1154.419815.67	1157.2319819.56	1155.8719826.37	1152.63
19857.85	1152.3519871.18	1153.419886.83	1153.4119906.23	1153.6 19933.3	1152.45
19967.92	1151.719994.79	1151.120002.41	1150.6520020.32	1150.0920046.03	1148.04
20100.24	1148.22 20145.8	1148.820147.16	1148.8620180.92	1151.2620195.46	1151.76
20219.6	1152.3320228.41	1152.120239.16	1152.0520252.08	1155.0420271.86	1155.24
20275.53	1155.1920320.99	115520335.33	1159.5420341.11	1160.16 20371.5	1163.71
20379.71	1165.1120410.13	116920415.77	1168.820438.13	1169.2820444.77	1169.04
20460.3	1169.71 20465.7	1170.120479.28	1168.520485.24	1171.6820499.02	1171.28
20500.96	1171.43720503.35	1171.6320518.11	1172.120524.28	1169.3720531.74	1171.46
20541.96	1173.9820548.45	1169.39 20555.2	1170.720567.13	1172.7420584.37	1170.68
20595.04	1172.97 20604.7	1171.43 20615	1174.2 20616.4	1174.6820627.55	1164.73
20646.7	1162.4420663.63	1160.2820677.53	1160.520681.58	1160.1720695.23	1161.25
20723.31	1163.3420726.66	1163.0520730.68	1163.220740.94	1163.1220751.19	1163.18
20756.67	1162.8520769.96	1162.520775.93	1162.920783.74	1162.6320799.82	1165.01
20820.7	1158.5120842.94	1155.7920848.53	115520852.77	1154.6620879.89	1152.02
20891.75	1151.2720899.16	1151.0320917.56	1151.320920.91	1151.41 20928.3	1150.07
20940.65	1153.2520948.28	1154.8420951.04	1155.220959.41	1155.03 20983.6	1153.78
21006.6	1152.1521010.81	1152.4121018.36	1153.221042.92	1156.76 21047.8	1155.84
21050.44	1154.4621071.66	1154.121078.63	1154.221088.25	1154.9421089.63	1155.41
21093.99	1155.5921116.46	1157.6721120.45	1158.421125.83	1159.9421138.23	1162.05
21139.96	1161.7821145.91	1161.721161.23	116221184.29	1160.3121196.67	1157.97
21201.48	1155.6721202.67	1155.3721213.63	1155.221244.79	1155.5121257.37	1156.18
21296.29	1157.5221299.86	1158.221306.97	1157.721326.53	1158.7921351.35	1159.53
21354.32	1159.6721392.18	1133.1421400.22	1132.821426.69	1134.5421436.34	1135.23
21453.31	1135.0821457.93	1132.7921471.94	1133.621505.36	1134.3421512.54	1137.76
21518.47	1141.05 21528.7	1139.6821544.87	113821557.53	1138.4921564.49	1138.87
21573.29	1145.27 21581	1150.17 21614.1	1172.421618.47	1174.9321621.04	1176.04
21626.49	1177.9721634.83	1173.9321646.28	1169.221658.26	1165.3221667.18	1164.45
21676.68	1164.1221681.97	1163.78 21690.9	1163.621699.99	1161.87 21712.7	1161.76
21721.87	1162.89 21730.6	1163.3721740.85	1164.1 21749.4	1163.9821758.71	1166.91
21774.1	1168.421790.11	1172.6221800.66	1171.921804.46	1169.89 21814.1	1168.96
21820.74	1170.3621840.57	1169.8121854.92	1168.921862.64	1168.3421883.63	1170.85
21892.1	1172.75 21896.3	1173.87 21909.3	1176.3 21920.7	1178.4921942.71	1185.09
21952.1	1185.5221961.96	1187.421987.86	1192.221988.57	1192.1722020.24	1192.54
22039.98	1193.2422045.83	1192.76 22068.1	1186.322080.84	1183.222100.02	1178.23
22102.21	1177.8722117.36	1178.2222146.23	117722155.65	1176.1622165.27	1175.53
22179.98	1174.2122192.15	1169.6322234.42	115422247.67	1153.9722293.14	1153.96
22299.21	1153.9522311.56	1153.7622313.28	1154.722338.44	117122353.41	1168.49
22362.54	1167.9822370.14	1169.8822384.36	1171.922389.46	1172.9422399.97	1176.99
22414.31	1179.2122436.72	1184.5422444.94	1186.422473.37	1190.9322475.94	1190.96
22493.3	1192.5322502.21	1190.4722509.95	1189.822521.02	1188.4922550.53	1183.37
22552.91	1182.7722553.72	1183.0822570.42	118722578.66	1190.3422583.15	1191.2
22589.23	1194.3722592.23	1195.0122598.78	1198.622606.55	1199.1522636.88	1191.96
22672.76	1192.3822719.99	1192.4322728.46	1192.422742.94	1192.4422762.72	1192.75
22776.96	1192.9222788.41	1194.41 22795.4	1192.722803.37	1192.3122817.63	1191.82
22830.76	1192.4122865.32	1191.7422875.86	1191.822936.29	1193.1623012.06	1193.33
23037.8	1193.6523087.43	1194.1923282.35	1196.323293.31	1196.3123343.63	1195.83
23379.36	1195.7423477.53	1195.47 23560.4	1195.823574.78	1200.3823589.07	1194.41
23628.52	1193.6823662.08	1192.9923718.19	1192.123781.03	1191.823792.25	1192.28
23816.79	1193.72 23839.6	1194.2723871.25	1194.223939.41	1194.4224005.26	1194.63
24065.25	1195.2624081.21	1195.4624089.23	1195.424176.23	1195.2124213.18	1193.92
24233.23	1193.3524253.56	1193.1724364.48	1194.124371.61	1191.3724376.14	1189.39
24380.67	1190.9224388.26	1192.4424431.11	1192.324450.73	1192.3624468.77	1195.04
24482.71	1197.2624492.17	1195.3724500.39	1195.924519.84	1195.6224547.05	1195.59
24578.25	1195.72				

Manning's n Values num= 2

Sta	n Val	Sta	n Val
18951.76	.03	21614.1	.029

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
19187.7	520500.96	910	765.52	560	.1	.3

Ineffective Flow num= 1

Sta L	Sta R	Elev
21	22524578.25	1185

CROSS SECTION OUTPUT Profile #PF#1

W.S. Elev (ft)	1177.57	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.		0.030	0.030
E.G. Elev (ft)	1177.90	Reach Len. (ft)	910.00	765.52	560.00
Crit W.S. (ft)	1163.31	Flow Area (sq ft)		24629.94	12649.64
E.G. Slope (ft/ft)	0.000179	Area (sq ft)		24629.94	30938.49
Q Total (cfs)	172000.00	Flow (cfs)		116244.34	55755.66
Top Width (ft)	2955.83	Top Width (ft)		1271.79	1684.03

Vel Total (ft/s)	4.61	Avg. Vel. (ft/s)	4.72	4.41
Max Chl Dpth (ft)	44.78	Hydr. Depth (ft)	19.37	17.47
Conv. Total (cfs)	12863097.0	Conv. (cfs)	8693385.0	4169712.3
Length Wtd. (ft)	732.21	Wetted Per. (ft)	1294.75	736.80
Min Ch El (ft)	1148.04	Shear (lb/sq ft)	0.21	0.19
Alpha	1.00	Stream Power (lb/ft s)	1.00	0.84
Frctn Loss (ft)	0.13	Cum Volume (acre-ft)	510.15	222.37
C & E Loss (ft)	0.01	Cum SA (acres)	25.03	12.80

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1177.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.33	Wt. n-Val.		0.030	0.030
E.G. Elev (ft)	1177.92	Reach Len. (ft)	910.00	765.52	560.00
Crit W.S. (ft)	1163.33	Flow Area (sq ft)		24648.10	12659.98
E.G. Slope (ft/ft)	0.000181	Area (sq ft)		24648.10	12659.98
Q Total (cfs)	172000.00	Flow (cfs)		116983.73	55016.27
Top Width (ft)	1995.87	Top Width (ft)		1271.83	724.04
Vel Total (ft/s)	4.61	Avg. Vel. (ft/s)		4.75	4.35
Max Chl Dpth (ft)	29.55	Hydr. Depth (ft)		19.38	17.49
Conv. Total (cfs)	12797122.0	Conv. (cfs)		8703808.0	4093313.5
Length Wtd. (ft)	732.65	Wetted Per. (ft)		1294.81	759.07
Min Ch El (ft)	1148.04	Shear (lb/sq ft)		0.21	0.19
Alpha	1.01	Stream Power (lb/ft s)		1.02	0.82
Frctn Loss (ft)	0.14	Cum Volume (acre-ft)		509.50	81.38
C & E Loss (ft)	0.01	Cum SA (acres)		24.97	4.65

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19187.75 LB	19450.39	16803.37	4085.89	246.81	9.77	17.11	4.11
19450.39	19713.04	11667.92	3326.35	255.08	6.78	13.57	3.51
19713.04	19975.68	30759.57	6039.92	264.76	17.88	23.00	5.09
19975.68	20238.32	42235.93	7284.51	262.86	24.56	27.74	5.80
20238.32	20500.96 RB	14777.56	3893.28	265.24	8.59	14.82	3.80
20500.96	20772.78	9135.40	2989.91	279.94	5.31	11.00	3.06
20772.78	21044.60	30208.13	6080.06	274.53	17.56	22.37	4.97
21044.60	21316.42	16412.10	3579.67	182.33	9.54	19.84	4.58

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19187.75 LB	19450.39	16913.73	4089.29	246.82	9.83	17.13	4.14
19450.39	19713.04	11747.80	3329.85	255.13	6.83	13.58	3.53
19713.04	19975.68	30951.68	6043.67	264.76	18.00	23.01	5.12
19975.68	20238.32	42492.19	7288.26	262.86	24.70	27.75	5.83
20238.32	20500.96 RB	14878.34	3897.04	265.24	8.65	14.84	3.82
20500.96	20772.78	9222.94	2993.79	279.94	5.36	11.01	3.08
20772.78	21044.60	30464.12	6083.94	274.53	17.71	22.38	5.01
21044.60	21316.42	15329.20	3582.24	204.61	8.91	19.86	4.28

Warning - Divided flow computed for this cross-section.

CROSS SECTION RIVER: Salt River
REACH: Below Split RS: 225.30

INPUT
Description:
Station Elevation Data num= 286

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
18663.34	1195.61	8670.64	1195.57	18679.25	1195.75	18683.52	1196.17	18690.49	1196.01
18710.61	1195.81	8764.65	1195.03	18788.89	1194.2	18811.6	1200.98	18828.17	1205.67
18839.81	1208.61	8844.12	1209.82	18852.49	1213.17	18859.56	1213.51	8869.08	1213.63
18887.38	1220.71	8947.65	1219.13	18953.04	1219.11	18961.01	1220.13	18971.82	1220.04

```
 18981.77  1219.818993.52 1219.7219018.87 1218.5919031.01 1216.9519039.13 1216.37
 19046.19  1215.419060.18 1213.7819080.97 1212.15 19086.3 1211.7419102.35 1207.11
 19109.05  1204.919121.03 1201.5519138.02 1195.65 19157.1 1194.4219172.02  1193.8
  19187.7    119319196.91 1191.7519200.66 1190.8519208.95 1187.5719211.65 1186.87
 19217.82  1186.919245.02 1187.0919252.27 1180.1719255.58 1177.1619262.55 1177.24
 19281.26    116519286.81 1161.4619332.23 1159.7919336.57 1159.4519377.67 1159.38
 19431.42  1159.119480.11 1158.0319492.88 1157.7119501.83 1157.6919551.25 1157.68
 19581.77  1157.319601.03 1157.4819658.08 1158.0419679.78 1158.4919706.92 1177.65
 19713.25  1182.319719.43 1178.6319745.65 1162.8619802.88 1162.9619816.77 1162.76
 19867.96  1160.519903.17 1160.0119909.48 1160.6719931.29  1158.619959.74 1157.12
 19974.29  1146.520287.55 1146.4620311.99 1158.51 20321.5 1157.8220362.02 1157.69
 20368.24  1157.3 20385.5 1155.82 20408.6 1156.2820420.39 1156.5120441.85 1161.41
 20449.74  1158.520452.94 1158.5920469.26  1155.420473.38 1155.1120502.45  1154.1
 20510.18    115420523.63 1153.2720526.97 1152.5820531.66 1153.8920536.04 1154.65
 20547.12  1154.320559.62 1155.2420583.33 1155.5520602.06 1156.0520611.88 1156.18
 20623.24  1156.120638.61 1156.05 20642.9 1157.0820652.56  1158.920661.59 1159.78
 20665.28  1160.720669.83 1160.6120676.85 1158.8920696.98 1156.6720706.99 1155.67
 20724.81  1154.620735.87 1153.2220746.47 1153.0820772.08 1153.0220785.66 1154.51
  20799.7  1154.920814.03 1155.0320836.12 1161.56 20838.9 1162.7920847.221162.126
 20854.06 1161.5820869.25  1160.320873.92 1160.3720877.47 1161.4220883.95 1160.97
 20892.62 1163.4820904.61  1168.320915.51  1172.4 20921.9 1174.6520924.76 1173.59
 20955.64 1170.0420979.85  1170.420990.88 1177.9120997.21 1175.2521004.38 1174.12
 21016.23 1180.8721036.71  1181.121040.81 1181.0721049.15 1176.4721071.61 1164.26
 21089.38 1156.1221122.92  1154.621133.28 1154.9121149.03 1155.6121194.13 1177.61
 21213.14 1186.7921219.24  1186.3 21235.4 1185.3121260.93  1186.421265.53 1186.58
 21275.11 1189.1521297.03  1194.521328.81 1194.5621346.51 1194.5321403.18 1196.36
 21417.48 1196.7221450.58  1197.721509.65 1198.8521528.69 1199.0521562.47 1199.02
  21584.5 1199.09 21621.4  1198.621635.35 1197.7521708.01 1196.4521708.96 1196.33
 21725.86 1190.8721743.97  1190.421756.87 1190.3721765.08 1190.0121769.27 1189.99
 21804.79  1190.121818.05  1189.721831.25 1190.2521878.59 1190.2421898.55 1189.18
 21916.39 1189.2221942.17  1190.421974.38 1190.2621990.45 1190.5722007.87 1190.51
  22047.5 1190.1422070.07  1189.922089.26 1189.2422102.72 1188.9422122.83  1189.3
 22152.25 1189.32 22192.3  1189.622211.25 1190.15 22247.8 1191.5922254.12 1194.35
 22275.04 1197.9722283.32  1199.522293.39 1200.9222306.65 1203.2722319.34 1204.72
 22326.65 1203.6122335.64  1204.822340.41 1202.3222350.92 1199.7922355.48 1199.38
 22364.17 1200.8522365.16  1201.822371.32  1203.9 22393.6 1212.02 22412.5 1217.74
 22414.33 1218.4122421.54    121622428.63 1214.8822437.89 1215.2522463.62 1215.32
 22465.86 1213.8222472.95  1210.122493.36 1198.96 22496.2 1196.88 22507.5 1192.16
 22521.54 1192.2322552.75  1192.7 22567.3 1192.8322591.38 1193.0822630.99  1193.8
 22631.89 1194.3222649.68  1202.622663.79 1201.3922665.72 1201.3722679.37 1193.49
 22711.32 1194.3322737.57  1194.922758.48 1206.41 22762.4  1205.422778.81 1195.26
 22780.61 1195.2922797.07  1193.722803.76 1193.4822822.16 1193.93 22826.3 1193.64
 22829.77 1193.7422840.28  1193.722859.94 1194.0322876.81 1193.2722891.08 1193.35
 22938.74 1194.5422968.07    119622971.12 1196.22   22983 1201.0722999.55  1206.9
 23031.41 1195.6323057.84  1194.923065.04 1195.1723093.62 1207.5923101.47 1207.71
 23118.27 1206.6423124.26  1206.323133.93 1206.2223143.11 1205.9823155.21 1197.76
 23164.34 1193.5923180.35  1193.723199.87 1193.9923210.18 1194.2923225.77  1194.5
  23269.4 1196.2623310.35  1196.723319.05 1196.7923347.17 1196.7423378.86 1196.53
 23393.61 1196.3123425.02    119523499.74 1194.2723514.17 1194.1923532.82 1194.43
 23553.87 1194.5923566.44  1194.4 23587.5 1194.3623620.19  1194.323658.51 1194.09
 23703.25 1194.9123744.19  1195.523771.46  1195.823860.21    119423873.05 1198.13
 23876.12 1196.7323888.61  1191.623907.12 1190.8323911.92 1190.8323933.97 1192.16
 23944.04 1192.8223984.13  1193.823997.45 1193.9824115.51 1193.54   24195 1195.11
  24268.6 1194.56

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
18663.34    .02519200.66     .0320847.22     .03

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
      19200.6620847.22               0       0       0              .1       .3
Ineffective Flow     num=       2
   Sta L   Sta R    Elev   Sta L   Sta R    Elev
18663.3419200.66 1190.8520847.22 24268.6 1194.56

CROSS SECTION OUTPUT    Profile #PF#1

  W.S. Elev (ft)          1177.35   Element                    Left OB    Channel   Right OB
  Vel Head (ft)              0.41   Wt. n-Val.                            0.030
  E.G. Elev (ft)          1177.76   Reach Len. (ft)
  Crit W.S. (ft)          1162.71   Flow Area (sq ft)                  33428.06
  E.G. Slope (ft/ft)     0.000188   Area (sq ft)                       33428.06    3655.35
  Q Total (cfs)         172000.00   Flow (cfs)                        172000.00
  Top Width (ft)          1883.50   Top Width (ft)                      1576.79     306.72
  Vel Total (ft/s)           5.15   Avg. Vel. (ft/s)                       5.15
  Max Chl Dpth (ft)         30.89   Hydr. Depth (ft)                      21.20
```

Conv. Total (cfs)	12547743.0	Conv. (cfs)	12547743.0
Length Wtd. (ft)		Wetted Per. (ft)	1602.29
Min Ch El (ft)	1146.46	Shear (lb/sq ft)	0.24
Alpha	1.00	Stream Power (lb/ft s)	1.26
Frctn Loss (ft)		Cum Volume (acre-ft)	
C & E Loss (ft)		Cum SA (acres)	

Warning - Divided flow computed for this cross-section.

CROSS SECTION OUTPUT Profile #PF#2

W.S. Elev (ft)	1177.36	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.41	Wt. n-Val.		0.030	
E.G. Elev (ft)	1177.77	Reach Len. (ft)			
Crit W.S. (ft)	1162.71	Flow Area (sq ft)		33335.94	
E.G. Slope (ft/ft)	0.000191	Area (sq ft)		33335.94	
Q Total (cfs)	172000.00	Flow (cfs)		172000.00	
Top Width (ft)	1569.61	Top Width (ft)		1569.61	
Vel Total (ft/s)	5.16	Avg. Vel. (ft/s)		5.16	
Max Chl Dpth (ft)	30.90	Hydr. Depth (ft)		21.24	
Conv. Total (cfs)	12451497.0	Conv. (cfs)		12451497.0	
Length Wtd. (ft)		Wetted Per. (ft)		1609.76	
Min Ch El (ft)	1146.46	Shear (lb/sq ft)		0.25	
Alpha	1.00	Stream Power (lb/ft s)		1.27	
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#1

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19200.66 LB	19529.97	20042.67	4635.76	279.42	11.65	16.88	4.32
19529.97	19859.29	20965.22	5055.10	324.31	12.19	16.09	4.15
19859.29	20188.60	51704.38	8780.48	332.96	30.06	26.66	5.89
20188.60	20517.91	43298.08	7900.32	333.65	25.17	23.99	5.48
20517.91	20847.22 RB	35989.64	7056.40	331.95	20.92	21.43	5.10

Warning - Divided flow computed for this cross-section.

FLOW DISTRIBUTION OUTPUT Profile #PF#2

Left Sta (ft)	Right Sta (ft)	Flow (cfs)	Area (sq ft)	W.P. (ft)	% Conv.	Hydr D. (ft)	Velocity (ft/s)
19200.66 LB	19529.97	20214.11	4638.51	279.43	11.75	16.89	4.36
19529.97	19859.29	21144.67	5058.25	324.35	12.29	16.09	4.18
19859.29	20188.60	52129.69	8783.77	332.96	30.31	26.67	5.93
20188.60	20517.91	43657.27	7903.61	333.65	25.38	24.00	5.52
20517.91	20847.22 RB	34854.27	6951.78	339.37	20.26	21.58	5.01

Warning - Divided flow computed for this cross-section.

Profile Output Table - Standard Table 1

Reach	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Below Split	225.30	172000.00	1146.46	1177.35	1162.71	1177.76	0.000188	5.15	33428.06	1883.50	0.20
Below Split	225.30	172000.00	1146.46	1177.36	1162.71	1177.77	0.000191	5.16	33335.94	1569.61	0.20
Below Split	225.44	172000.00	1148.04	1177.57	1163.31	1177.90	0.000179	4.72	37279.58	2955.83	0.19
Below Split	225.44	172000.00	1148.04	1177.59	1163.33	1177.92	0.000181	4.75	37308.08	1995.87	0.19
Below Split	225.54	172000.00	1154.54	1177.61	1165.28	1178.03	0.000214	4.96	33140.53	3142.62	0.21
Below Split	225.54	172000.00	1154.54	1177.63	1165.41	1178.05	0.000216	4.99	33171.64	1859.47	0.22
Below Split	225.63	172000.00	1147.65	1177.59	1165.18	1178.21	0.000286	6.35	27142.83	1944.73	0.25
Below Split	225.63	172000.00	1147.65	1177.60	1165.19	1178.23	0.000290	6.40	27166.42	1410.64	0.26
Below Split	225.73	172000.00	1149.90	1177.26	1169.53	1178.68	0.000813	9.56	17984.65	1183.92	0.42
Below Split	225.73	172000.00	1149.90	1177.29	1169.52	1178.70	0.000809	9.55	18008.41	1099.73	0.42
Below Split	225.82	172000.00	1150.92	1177.46	1168.11	1179.11	0.000763	10.30	16694.16	1010.67	0.42
Below Split	225.82	172000.00	1150.92	1177.48	1168.10	1179.13	0.000760	10.29	16711.78	875.12	0.42
Below Split	225.92	172000.00	1155.75	1178.62	1170.07	1179.54	0.000547	7.69	22376.63	1433.98	0.34
Below Split	225.92	172000.00	1155.75	1178.64	1170.07	1179.55	0.000545	7.68	22400.77	1433.98	0.34
Below Split	226.03	172000.00	1153.89	1179.15	1167.18	1179.81	0.000334	6.53	26345.38	1694.50	0.27
Below Split	226.03	172000.00	1153.89	1179.17	1167.18	1179.83	0.000333	6.52	26368.03	1496.33	0.27
North Split	226.13	156000.00	1167.09	1184.19	1184.19	1189.70	0.005168	18.83	8283.24	747.57	1.00
North Split	226.13	156000.00	1167.09	1184.19	1184.19	1189.70	0.005168	18.83	8282.97	747.57	1.00
North Split	226.24	156000.00	1169.80	1188.39	1186.74	1192.22	0.003339	15.70	9937.04	851.94	0.81
North Split	226.24	156000.00	1169.80	1188.39	1186.77	1192.22	0.003339	15.70	9936.94	851.94	0.81
North Split	226.31	156000.00	1172.40	1190.41	1187.79	1193.43	0.002499	13.96	11174.22	920.86	0.71
North Split	226.31	156000.00	1172.40	1190.41	1187.78	1193.43	0.002499	13.96	11174.22	920.86	0.71
North Split	226.44	156000.00	1173.64	1192.21	1189.01	1195.00	0.002164	13.41	11629.23	2577.88	0.66
North Split	226.44	156000.00	1173.64	1192.20	1189.02	1195.00	0.002165	13.42	11627.33	912.59	0.66
North Split	226.59	156000.00	1180.51	1196.01	1196.01	1200.84	0.005387	17.63	8847.01	912.03	1.00
North Split	226.59	156000.00	1180.51	1196.01	1196.01	1200.84	0.005388	17.63	8846.57	912.03	1.00
North Split	226.60	Bridge									
North Split	226.61	156000.00	1180.51	1199.28	1195.96	1201.98	0.002063	13.18	11832.29	912.11	0.65
North Split	226.61	156000.00	1180.51	1199.28	1195.93	1201.98	0.002064	13.19	11831.06	912.11	0.65
North Split	226.70	156000.00	1175.18	1201.14	1194.23	1202.72	0.000905	10.09	15455.73	1616.91	0.44
North Split	226.70	156000.00	1175.18	1201.14	1194.23	1202.72	0.000905	10.09	15454.90	963.65	0.44

North Split	226.79	156000.00	1178.50	1201.43	1196.14	1203.36	0.001254	11.15	13993.03	2003.29	0.52
North Split	226.79	156000.00	1178.50	1201.43	1196.14	1203.36	0.001274	11.15	13996.92	964.79	0.52
North Split	226.88	156000.00	1181.37	1201.91	1197.48	1204.12	0.001545	11.92	13087.44	1901.15	0.57
North Split	226.88	156000.00	1181.37	1201.92	1197.48	1204.12	0.001541	11.91	13097.73	957.66	0.57
North Split	226.98	156000.00	1185.00	1202.68	1198.09	1204.90	0.001513	11.95	13054.35	1495.76	0.56
North Split	226.98	156000.00	1185.00	1202.70	1198.09	1204.91	0.001538	11.93	13071.13	935.15	0.56
South Split	226.11	16000.00	1165.54	1179.91	1172.44	1179.99	0.000099	2.32	6823.15	900.22	0.13
South Split	226.11	16000.00	1165.54	1179.92	1172.44	1180.01	0.000100	2.33	6833.37	721.76	0.13
South Split	226.20	16000.00	1162.60	1179.99	1169.28	1180.03	0.000035	1.63	10037.16	1235.80	0.08
South Split	226.20	16000.00	1162.60	1180.00	1169.28	1180.04	0.000036	1.63	10049.90	900.23	0.08
South Split	226.27	16000.00	1160.30	1179.92	1173.00	1180.10	0.000264	3.38	4804.24	1353.92	0.21
South Split	226.27	16000.00	1160.30	1179.94	1173.00	1180.11	0.000273	3.37	4814.79	697.54	0.21
South Split	226.38	16000.00	1175.86	1183.02	1183.02	1185.57	0.006610	12.82	1247.73	415.24	1.00
South Split	226.38	16000.00	1175.86	1183.02	1183.02	1185.57	0.006593	12.81	1248.74	242.41	0.99
South Split	226.43	16000.00	1178.60	1185.45	1184.30	1187.04	0.003694	10.11	1582.93	267.09	0.73
South Split	226.43	16000.00	1178.60	1185.45	1184.30	1187.04	0.003699	10.11	1582.31	267.08	0.73
South Split	226.44	Bridge									
South Split	226.45	16000.00	1178.60	1186.46	1184.30	1187.61	0.002673	8.60	1860.98	314.12	0.62
South Split	226.45	16000.00	1178.60	1186.46	1184.30	1187.61	0.002672	8.60	1860.55	313.91	0.62
South Split	226.54	16000.00	1193.00	1199.02	1199.02	1201.23	0.007406	11.92	1341.86	318.38	0.99
South Split	226.54	16000.00	1193.00	1198.99	1198.99	1201.23	0.007581	12.01	1332.14	300.38	1.01
South Split	226.66	16000.00	1176.49	1202.56	1200.23	1203.16	0.001529	6.22	2571.05	566.02	0.47
South Split	226.66	16000.00	1176.49	1202.57	1200.23	1203.17	0.001519	6.21	2576.09	479.49	0.47
South Split	226.78	16000.00	1186.80	1203.42	1200.16	1204.60	0.002637	8.76	1868.98	501.79	0.64
South Split	226.78	16000.00	1186.80	1203.41	1201.87	1204.63	0.002701	8.86	1806.39	308.02	0.64
South Split	226.89	16000.00	1184.04	1204.72	1191.90	1204.79	0.000039	2.00	8013.79	599.96	0.09
South Split	226.89	16000.00	1184.04	1204.76	1191.92	1204.82	0.000039	1.99	8030.90	534.93	0.09
South Split	227.00	16000.00	1185.00	1204.72	1196.95	1204.84	0.000126	2.79	5737.01	1704.92	0.15
South Split	227.00	16000.00	1188.09	1204.75	1196.95	1204.87	0.000130	2.78	5755.44	563.30	0.15
Above Split	227.07	172000.00	1184.56	1203.39	1198.84	1205.68	0.001556	12.12	14189.01	1013.19	0.57
Above Split	227.07	172000.00	1184.56	1203.42	1198.81	1205.69	0.001548	12.10	14212.26	1013.20	0.57
Above Split	227.17	172000.00	1169.53	1204.46	1197.29	1206.35	0.001015	11.03	15589.16	926.09	0.47
Above Split	227.17	172000.00	1169.53	1204.47	1197.29	1206.36	0.001012	11.02	15604.65	926.09	0.47

Above Split	227.27	172000.00	1177.30	1204.63		1207.21	0.001706	12.89	13343.92	920.16	0.60
Above Split	227.27	172000.00	1177.30	1204.65		1207.22	0.001700	12.88	13358.86	920.38	0.60
Above Split	227.36	172000.00	1171.40	1206.30		1207.89	0.000839	10.11	17016.05	1001.17	0.43
Above Split	227.36	172000.00	1171.40	1206.32		1207.90	0.000837	10.10	17026.68	1001.17	0.43
Above Split	227.46	172000.00	1176.23	1206.39	1200.61	1208.61	0.001309	11.97	14372.61	1176.43	0.53
Above Split	227.46	172000.00	1176.23	1206.40	1200.61	1208.62	0.001306	11.96	14381.75	914.33	0.53
Above Split	227.56	172000.00	1183.86	1207.04	1201.19	1209.27	0.001274	11.98	14351.66	943.45	0.53
Above Split	227.56	172000.00	1183.86	1207.04	1201.19	1209.27	0.001272	11.98	14357.66	893.83	0.53
Above Split	227.65	172000.00	1184.24	1208.24	1201.19	1209.85	0.000882	10.18	16892.74	1506.74	0.44
Above Split	227.65	172000.00	1184.24	1208.25	1201.19	1209.85	0.000890	10.18	16901.75	1024.98	0.44
Above Split	227.71	172000.00	1194.90	1208.12	1204.97	1210.46	0.002018	12.27	14019.67	1197.53	0.63
Above Split	227.71	172000.00	1194.90	1208.14	1204.97	1210.47	0.002011	12.25	14035.32	1197.53	0.63
Above Split	227.72	Bridge									
Above Split	227.73	172000.00	1194.90	1208.73	1204.97	1210.85	0.001709	11.66	14752.07	1200.48	0.59
Above Split	227.73	172000.00	1194.90	1208.74	1204.97	1210.85	0.001705	11.65	14763.50	1200.48	0.59
Above Split	227.79	172000.00	1183.17	1209.80	1203.85	1211.32	0.001055	9.88	17401.19	1358.00	0.47
Above Split	227.79	172000.00	1183.17	1209.81	1203.85	1211.32	0.001062	9.88	17412.61	1264.04	0.47
Above Split	227.88	172000.00	1186.70	1210.29	1203.93	1211.90	0.001204	10.18	16889.09	1792.34	0.50
Above Split	227.88	172000.00	1186.70	1210.30	1203.93	1211.91	0.001201	10.18	16902.80	1290.98	0.50
Above Split	227.97	172000.00	1188.20	1211.25	1202.78	1212.39	0.000674	8.55	20125.92	2407.41	0.38
Above Split	227.97	172000.00	1188.20	1211.26	1202.78	1212.39	0.000679	8.55	20138.93	1300.00	0.38
Above Split	228.07	172000.00	1194.50	1211.09	1208.34	1213.29	0.002177	11.92	14461.47	2184.57	0.65
Above Split	228.07	172000.00	1194.50	1211.10	1208.34	1213.30	0.002179	11.92	14477.36	1370.00	0.65
Above Split	228.16	172000.00	1198.10	1212.85	1206.63	1214.02	0.000847	8.71	19886.67	2231.41	0.42
Above Split	228.16	172000.00	1198.10	1212.87	1206.63	1214.04	0.000854	8.70	19916.55	1530.00	0.42
Above Split	228.26	172000.00	1197.19	1213.62	1205.73	1214.38	0.000485	7.01	24624.36	2426.41	0.32
Above Split	228.26	172000.00	1197.19	1213.64	1205.73	1214.40	0.000488	7.00	24626.21	1710.00	0.32
Above Split	228.35	172000.00	1197.79	1213.83	1206.08	1214.64	0.000515	7.22	23808.84	2276.52	0.33
Above Split	228.35	172000.00	1197.79	1213.86	1206.10	1214.67	0.000519	7.21	23845.93	1616.41	0.33
Above Split	228.45	172000.00	1197.19	1213.90	1207.60	1215.09	0.000821	8.76	19631.74	1873.47	0.41
Above Split	228.45	172000.00	1197.19	1213.92	1207.59	1215.11	0.000828	8.74	19669.29	1417.35	0.41
Above Split	228.54	172000.00	1198.30	1213.94	1210.18	1215.86	0.001631	11.12	15461.43	2263.58	0.57
Above Split	228.54	172000.00	1198.30	1213.98	1210.18	1215.89	0.001625	11.09	15506.17	1304.25	0.57
Above Split	228.63	172000.00	1199.05	1214.88	1211.81	1216.74	0.001877	10.92	15752.48	2064.32	0.60

Above Split	228.63	172000.00	1201.84	1214.92	1211.82	1216.76	0.001872	10.88	15802.57	1519.69	0.59
Above Split	228.73	172000.00	1201.33	1216.68		1217.44	0.000811	7.00	24570.06	2228.17	0.37
Above Split	228.73	172000.00	1201.33	1216.70		1217.46	0.000806	6.99	24614.93	2225.27	0.37
Above Split	228.83	172000.00	1197.33	1217.10		1217.95	0.001156	7.38	23305.30	2469.35	0.42
Above Split	228.83	172000.00	1197.33	1217.12		1217.96	0.001149	7.37	23349.62	2469.66	0.42
Above Split	228.92	172000.00	1198.24	1217.35		1219.05	0.003063	10.46	16440.38	2303.95	0.69
Above Split	228.92	172000.00	1198.24	1217.37		1219.06	0.003045	10.44	16476.68	2306.43	0.69
Above Split	229.02	172000.00	1200.34	1218.89		1221.11	0.004556	12.06	14539.47	2287.97	0.82
Above Split	229.02	172000.00	1200.34	1218.84		1221.22	0.004859	12.39	13881.49	2083.52	0.85
Above Split	229.11	172000.00	1204.35	1221.22		1222.65	0.002144	9.71	18323.27	2436.80	0.58
Above Split	229.11	172000.00	1204.35	1221.32		1222.82	0.002162	9.81	17539.43	2015.49	0.59
Above Split	229.21	172000.00	1206.11	1222.40		1223.62	0.001520	8.91	19752.77	2302.44	0.51
Above Split	229.21	172000.00	1206.11	1222.55		1223.77	0.001480	8.88	19370.19	1978.48	0.50
Above Split	229.30	172000.00	1206.98	1223.01		1224.66	0.002457	10.30	16799.58	2077.23	0.62
Above Split	229.30	172000.00	1206.98	1223.17		1224.76	0.002333	10.14	16968.82	1970.75	0.61
Above Split	229.40	172000.00	1206.00	1224.23		1225.80	0.001991	10.06	17090.29	1784.02	0.57
Above Split	229.40	172000.00	1206.00	1224.32		1225.86	0.001935	9.97	17247.84	1786.22	0.57
Above Split	229.49	172000.00	1207.68	1225.13		1226.75	0.001789	10.20	16886.05	1630.38	0.55
Above Split	229.49	172000.00	1207.68	1225.19		1226.79	0.001758	10.15	16953.34	1602.87	0.55
Above Split	229.59	172000.00	1212.68	1225.63		1228.26	0.003119	13.03	13199.76	1340.90	0.73
Above Split	229.59	172000.00	1212.68	1225.67		1228.28	0.003073	12.97	13258.69	1340.90	0.73
Above Split	229.68	172000.00	1215.39	1226.82	1226.82	1231.36	0.005920	17.09	10066.84	1164.04	1.00
Above Split	229.68	172000.00	1215.39	1226.78	1226.78	1231.36	0.006014	17.17	10015.62	1103.87	1.00
Above Split	229.77	172000.00	1215.38	1230.08	1228.45	1233.76	0.003809	15.40	11171.98	1127.16	0.80
Above Split	229.77	172000.00	1215.38	1230.11	1228.46	1233.77	0.003773	15.35	11205.16	981.17	0.80
Above Split	229.86	172000.00	1214.88	1232.78	1228.20	1235.09	0.001636	12.20	14144.94	1157.53	0.57
Above Split	229.86	172000.00	1214.88	1232.78	1228.21	1235.09	0.001642	12.21	14083.81	988.80	0.57
Above Split	229.95	172000.00	1216.30	1233.41	1229.86	1236.02	0.001981	13.20	13647.09	1384.72	0.64
Above Split	229.95	172000.00	1216.30	1233.33	1229.91	1236.10	0.002080	13.48	13087.19	1033.72	0.65
Above Split	230.07	172000.00	1216.50	1234.59	1231.51	1237.25	0.001864	13.57	13674.05	1365.68	0.63
Above Split	230.07	172000.00	1216.50	1234.80	1231.49	1237.34	0.001792	13.25	13890.74	1130.00	0.61
Above Split	230.17	172000.00	1219.00	1235.61	1232.45	1238.24	0.001925	13.35	14065.94	1780.49	0.63
Above Split	230.17	172000.00	1219.00	1235.69	1232.44	1238.35	0.001956	13.36	13876.19	1343.47	0.63
Above Split	230.26	172000.00	1221.60	1238.09		1238.86	0.000495	7.00	25360.41	2158.68	0.32

Above Split	230.26	172000.00	1221.60	1238.11		1239.01	0.000589	7.64	23174.80	1800.00	0.35
Above Split	230.35	172000.00	1225.10	1238.59		1239.15	0.000618	6.07	29015.41	2772.61	0.32
Above Split	230.35	172000.00	1225.10	1238.64		1239.37	0.000833	7.07	25302.79	2352.30	0.38
Above Split	230.45	172000.00	1227.50	1238.89		1239.61	0.001095	6.28	25471.39	2992.91	0.41
Above Split	230.45	172000.00	1227.50	1239.07		1239.98	0.001521	7.49	22534.70	2803.16	0.49
Above Split	230.55	172000.00	1227.40	1239.56		1240.13	0.000904	5.37	28735.76	3402.81	0.36
Above Split	230.55	172000.00	1227.40	1240.01		1240.66	0.001085	6.01	26722.45	3228.98	0.39
Above Split	230.64	172000.00	1228.50	1240.00		1240.63	0.001058	6.80	27095.32	3492.81	0.44
Above Split	230.64	172000.00	1228.50	1240.49		1241.28	0.001293	7.73	24415.79	3221.47	0.49
Above Split	230.74	172000.00	1229.20	1240.61	1238.42	1241.83	0.002572	9.15	19405.96	3434.54	0.62
Above Split	230.74	172000.00	1229.20	1241.34	1238.43	1242.33	0.001892	8.25	21611.31	3072.26	0.54
Above Split	230.83	172000.00	1231.30	1241.85	1238.92	1242.84	0.001562	7.94	21599.25	3762.93	0.51
Above Split	230.83	172000.00	1231.30	1242.23	1238.90	1243.13	0.001372	7.65	22657.07	2829.58	0.49
Above Split	230.92	172000.00	1233.00	1242.65	1239.70	1243.70	0.001992	7.45	21125.64	4053.50	0.52
Above Split	230.92	172000.00	1233.00	1242.93	1239.70	1243.91	0.001782	7.25	21947.42	2897.12	0.50
Above Split	231.01	172000.00	1232.00	1243.61	1241.03	1244.73	0.002038	7.86	20539.58	3502.82	0.54
Above Split	231.01	172000.00	1232.00	1243.79	1241.04	1244.85	0.001902	7.72	21031.99	2761.93	0.52
Above Split	231.11	172000.00	1233.50	1244.58	1242.25	1245.78	0.001955	8.13	19912.99	3099.57	0.54
Above Split	231.11	172000.00	1233.50	1244.69	1242.25	1245.85	0.001868	8.02	20193.30	2637.06	0.52
Above Split	231.20	172000.00	1233.30	1245.67	1242.98	1246.76	0.001977	8.34	20525.59	3427.26	0.54
Above Split	231.20	172000.00	1233.30	1245.71	1242.96	1246.79	0.001928	8.26	20589.87	2782.35	0.53
Above Split	231.30	172000.00	1234.00	1246.65	1243.87	1247.75	0.001819	8.40	20430.32	4555.19	0.53
Above Split	231.30	172000.00	1234.00	1246.67	1243.87	1247.77	0.001799	8.35	20473.35	2591.26	0.52
Above Split	231.39	172000.00	1236.00	1247.45	1245.28	1248.82	0.002136	9.34	18316.34	4554.29	0.60
Above Split	231.39	172000.00	1236.00	1247.47	1245.28	1248.83	0.002128	9.32	18356.53	2439.95	0.60
Above Split	231.48	172000.00	1237.70	1248.47	1246.12	1249.93	0.002155	9.88	17805.80	4431.15	0.61
Above Split	231.48	172000.00	1237.70	1248.48	1246.12	1249.93	0.002146	9.86	17834.50	2450.60	0.61
Above Split	231.57	172000.00	1239.80	1249.53	1248.53	1251.40	0.003178	11.73	16380.93	3357.43	0.74
Above Split	231.57	172000.00	1239.80	1249.54	1248.53	1251.40	0.003167	11.72	16399.29	2685.08	0.74
Above Split	231.60	172000.00	1239.90	1249.51	1248.61	1252.83	0.003858	14.67	12105.21	2005.65	0.84
Above Split	231.60	172000.00	1239.90	1249.52	1248.61	1252.83	0.003851	14.66	12115.75	2010.96	0.84
Above Split	231.605	Bridge									
Above Split	231.61	175000.00	1239.90	1252.14	1248.74	1253.84	0.001536	10.83	18288.18	2660.07	0.55
Above Split	231.61	175000.00	1239.90	1252.12	1248.74	1253.84	0.001550	10.87	18025.22	2360.20	0.55

Above Split	231.67	175000.00	1240.91	1253.45	1250.21	1254.32	0.001192	7.92	23894.68	4478.34	0.47
Above Split	231.67	175000.00	1240.91	1253.43	1250.16	1254.33	0.001221	8.00	23325.24	2926.69	0.47
Above Split	231.76	175000.00	1242.70	1253.77	1252.04	1255.73	0.002643	12.05	15963.00	2978.26	0.70
Above Split	231.76	175000.00	1242.70	1253.75	1251.98	1255.77	0.002676	12.11	15633.42	2013.27	0.70
Above Split	231.86	175000.00	1242.60	1255.60	1254.69	1257.33	0.003170	11.46	16833.62	4742.45	0.72
Above Split	231.86	175000.00	1242.60	1255.60	1254.69	1257.40	0.003259	11.57	16455.29	2962.54	0.73
Above Split	231.95	175000.00	1246.10	1257.39	1254.55	1258.39	0.001411	8.99	22318.07	4932.95	0.51
Above Split	231.95	175000.00	1246.10	1257.40	1254.89	1258.52	0.001538	9.39	21174.57	3234.68	0.53
Above Split	232.04	175000.00	1246.90	1258.11	1255.85	1259.18	0.001649	9.48	21810.89	4129.00	0.55
Above Split	232.04	175000.00	1246.90	1258.15	1256.70	1259.68	0.002357	11.36	18849.34	3332.70	0.66
Above Split	232.13	175000.00	1246.60	1259.21	1255.86	1259.90	0.001112	7.58	27181.35	4168.20	0.44
Above Split	232.13	175000.00	1246.60	1259.75	1256.94	1260.58	0.001213	8.22	25084.79	3691.85	0.47
Above Split	232.22	175000.00	1247.00	1259.74		1260.39	0.000876	7.71	28808.54	4245.20	0.41
Above Split	232.22	175000.00	1247.00	1260.27		1261.17	0.001091	8.88	25363.42	3672.43	0.46
Above Split	232.32	175000.00	1247.60	1260.20		1260.81	0.000748	7.21	29568.81	4289.55	0.38
Above Split	232.32	175000.00	1247.60	1260.85		1261.69	0.000903	8.23	26103.63	3675.43	0.42
Above Split	232.41	175000.00	1248.60	1260.67		1261.19	0.000704	6.32	31297.46	4245.80	0.36
Above Split	232.41	175000.00	1248.60	1261.50		1262.12	0.000745	6.87	28894.97	3638.52	0.38
Above Split	232.50	175000.00	1249.00	1261.05		1261.52	0.000632	5.85	32347.63	3904.96	0.34
Above Split	232.50	175000.00	1249.00	1261.91		1262.46	0.000629	6.20	30106.82	3328.24	0.34
Above Split	232.60	175000.00	1248.40	1261.34		1261.90	0.000723	6.24	29246.67	3760.95	0.36
Above Split	232.60	175000.00	1248.40	1262.19		1262.86	0.000753	6.75	27005.47	3060.55	0.38
Above Split	232.70	175000.00	1248.20	1261.68	1257.38	1262.38	0.001048	6.90	26312.79	3336.12	0.41
Above Split	232.70	175000.00	1248.20	1262.53	1257.82	1263.36	0.001095	7.44	24237.75	2692.15	0.42
Above Split	232.80	175000.00	1249.10	1262.19	1258.34	1263.03	0.001371	7.63	24125.04	3112.53	0.46
Above Split	232.80	175000.00	1249.10	1263.02	1258.53	1264.07	0.001438	8.31	21296.03	2316.36	0.48
Above Split	232.89	175000.00	1251.20	1262.72		1264.11	0.002520	9.83	19142.35	2860.39	0.62
Above Split	232.89	175000.00	1251.20	1263.57		1265.12	0.002289	10.01	17569.57	2032.41	0.60
Above Split	232.98	175000.00	1253.10	1263.79	1261.66	1265.33	0.002215	10.20	18495.47	2722.77	0.59
Above Split	232.98	175000.00	1253.10	1264.70	1261.39	1266.12	0.001743	9.64	18467.74	1901.03	0.53
Above Split	233.08	175000.00	1253.70	1264.33	1263.63	1267.25	0.004027	13.87	13126.71	2021.50	0.84
Above Split	233.08	175000.00	1253.70	1265.01	1263.54	1267.71	0.003287	13.20	13375.54	1767.29	0.77
Above Split	233.18	175000.00	1255.40	1266.17	1266.17	1269.61	0.004277	15.23	12417.92	2231.90	0.88
Above Split	233.18	175000.00	1255.40	1266.11	1266.10	1270.16	0.004864	16.17	11080.53	1793.43	0.94

Above Split	233.27	175000.00	1256.40	1269.15	1267.05	1271.16	0.002085	12.24	16437.63	2406.12	0.64
Above Split	233.27	175000.00	1256.40	1269.29	1268.00	1271.98	0.002581	13.73	14431.01	1838.46	0.71
Above Split	233.36	175000.00	1256.80	1270.38	1268.35	1272.22	0.002209	11.79	16896.00	2730.26	0.63
Above Split	233.36	175000.00	1256.80	1271.32	1268.75	1273.14	0.001900	11.55	16997.16	1795.62	0.59
Above Split	233.46	175000.00	1255.90	1271.44	1269.16	1273.31	0.002058	11.80	16856.64	2606.41	0.62
Above Split	233.46	175000.00	1255.90	1272.24	1269.32	1274.08	0.001782	11.50	16741.54	1613.17	0.58
Above Split	233.55	175000.00	1256.20	1272.54	1269.20	1274.20	0.001466	11.31	18171.21	2313.94	0.55
Above Split	233.55	175000.00	1256.20	1273.17	1269.44	1274.87	0.001352	11.20	17494.76	1509.41	0.53
Above Split	233.64	175000.00	1256.30	1273.78	1266.91	1274.72	0.000598	8.13	23741.05	2659.22	0.36
Above Split	233.64	175000.00	1256.30	1274.37	1266.84	1275.36	0.000582	8.21	22497.65	1574.92	0.36
Above Split	233.73	175000.00	1256.50	1274.23	1265.99	1274.99	0.000462	7.12	26168.15	2626.04	0.32
Above Split	233.73	175000.00	1256.50	1274.87	1265.99	1275.62	0.000429	7.05	25658.76	1678.63	0.31
Above Split	233.80	175000.00	1256.90	1274.42	1267.20	1275.18	0.000530	7.11	25778.37	2490.69	0.33
Above Split	233.80	175000.00	1256.90	1275.05	1267.22	1275.80	0.000485	7.00	25492.02	1808.93	0.32
Above Split	233.89	175000.00	1256.60	1274.70	1268.02	1275.45	0.000586	6.98	25578.08	2548.56	0.34
Above Split	233.89	175000.00	1256.60	1275.34	1267.99	1276.05	0.000516	6.76	25903.73	1939.95	0.33
Above Split	234.00	175000.00	1258.50	1275.14	1268.87	1275.75	0.000531	6.26	27966.79	2483.24	0.32
Above Split	234.00	175000.00	1258.50	1275.76	1268.87	1276.31	0.000447	5.94	29457.89	2406.91	0.30
Above Split	234.09	175000.00	1260.80	1275.42		1276.06	0.000664	6.42	27250.28	2672.86	0.35
Above Split	234.09	175000.00	1260.80	1275.99		1276.57	0.000553	6.08	28789.66	2672.86	0.33
Above Split	234.18	175000.00	1262.60	1275.76		1276.51	0.001085	6.95	25169.77	2764.46	0.41
Above Split	234.18	175000.00	1262.60	1276.27		1276.94	0.000904	6.58	26589.80	2764.47	0.37
Above Split	234.28	175000.00	1262.70	1276.22	1272.79	1277.29	0.001751	8.29	21115.96	2684.18	0.52
Above Split	234.28	175000.00	1262.70	1276.64	1272.79	1277.60	0.001477	7.87	22224.80	2635.99	0.48
Above Split	234.42	175000.00	1263.90	1277.50	1274.74	1278.77	0.002195	9.04	19358.45	2624.96	0.57
Above Split	234.42	175000.00	1263.90	1277.72	1274.74	1278.92	0.002001	8.79	19904.25	2509.11	0.55
Above Split	234.51	175000.00	1265.50	1278.67	1275.01	1279.70	0.001539	8.15	21484.76	2627.63	0.49
Above Split	234.51	175000.00	1265.50	1278.79	1275.01	1279.79	0.001473	8.04	21767.97	2494.81	0.48
Above Split	234.60	175000.00	1265.80	1279.33	1276.22	1280.64	0.001990	9.21	18999.32	2257.68	0.55
Above Split	234.60	175000.00	1265.80	1279.41	1276.22	1280.70	0.001930	9.13	19176.93	2207.95	0.55
Above Split	234.70	175000.00	1267.10	1280.32		1281.64	0.001791	9.20	19011.98	2062.38	0.53
Above Split	234.70	175000.00	1267.10	1280.37		1281.67	0.001760	9.16	19112.18	2062.38	0.53
Above Split	234.79	175000.00	1265.90	1281.39		1282.28	0.000927	7.59	23046.91	2034.92	0.40
Above Split	234.79	175000.00	1265.90	1281.42		1282.31	0.000919	7.57	23110.50	2034.92	0.40

Above Split	234.89	175000.00	1266.60	1281.87		1282.72	0.000775	7.41	23632.24	1906.73	0.37
Above Split	234.89	175000.00	1266.60	1281.89		1282.74	0.000770	7.39	23682.52	1906.73	0.37
Above Split	234.99	175000.00	1266.70	1282.12	1277.41	1283.29	0.001176	8.66	20204.46	1996.69	0.47
Above Split	234.99	175000.00	1266.70	1282.15	1277.41	1283.31	0.001167	8.64	20251.25	1935.87	0.47
Above Split	235.08	175000.00	1266.70	1282.50	1277.90	1283.99	0.001275	9.82	17817.50	1569.74	0.50
Above Split	235.08	175000.00	1266.70	1282.52	1277.90	1284.01	0.001268	9.81	17847.68	1499.14	0.50
Above Split	235.19	175000.00	1269.00	1283.32	1280.17	1284.86	0.001871	9.96	17568.78	2004.35	0.58
Above Split	235.19	175000.00	1269.00	1283.33	1280.17	1284.87	0.001860	9.94	17599.52	1936.90	0.58
Above Split	235.28	175000.00	1272.10	1284.36	1284.36	1287.74	0.006067	14.75	11861.76	1814.72	1.00
Above Split	235.28	175000.00	1272.10	1284.36	1284.36	1287.74	0.006071	14.76	11859.20	1750.00	1.00
Above Split	235.38	175000.00	1271.00	1287.70	1283.56	1289.21	0.001383	9.86	17742.37	1652.66	0.52
Above Split	235.38	175000.00	1271.00	1287.70	1283.57	1289.21	0.001383	9.86	17742.95	1582.62	0.52
Above Split	235.47	175000.00	1271.50	1288.24	1284.00	1290.04	0.001637	10.75	16280.00	1543.43	0.57
Above Split	235.47	175000.00	1271.50	1288.24	1284.00	1290.04	0.001637	10.75	16280.53	1449.58	0.57
Above Split	235.56	175000.00	1270.50	1289.24	1283.38	1290.71	0.001011	9.70	18042.45	1379.63	0.46
Above Split	235.56	175000.00	1270.50	1289.24	1283.38	1290.71	0.001011	9.70	18042.77	1304.07	0.46
Above Split	235.66	175000.00	1270.60	1290.02	1282.33	1291.15	0.000668	8.54	20498.82	1314.47	0.38
Above Split	235.66	175000.00	1270.60	1290.02	1282.33	1291.15	0.000668	8.54	20499.13	1314.47	0.38
Above Split	235.75	175000.00	1271.90	1290.50	1282.15	1291.47	0.000551	7.87	22222.99	1407.06	0.35
Above Split	235.75	175000.00	1271.90	1290.51	1282.15	1291.47	0.000553	7.87	22224.17	1393.09	0.35
Above Split	235.84	175000.00	1271.30	1290.56	1283.65	1291.92	0.000814	9.37	18682.72	1440.49	0.42
Above Split	235.84	175000.00	1271.30	1290.56	1283.65	1291.92	0.000819	9.37	18685.81	1208.92	0.42
Above Split	235.93	175000.00	1273.10	1290.62	1285.75	1292.63	0.001385	11.36	15405.88	1405.50	0.54
Above Split	235.93	175000.00	1273.10	1290.63	1285.75	1292.63	0.001383	11.36	15410.90	1109.81	0.54
Above Split	236.03	175000.00	1273.60	1291.66	1286.47	1293.34	0.001279	10.40	16916.97	1556.07	0.50
Above Split	236.03	175000.00	1273.60	1291.67	1286.47	1293.34	0.001279	10.40	16920.12	1290.85	0.50
Above Split	236.12	175000.00	1274.80	1292.50	1287.10	1293.93	0.001053	9.62	18199.05	1652.18	0.47
Above Split	236.12	175000.00	1274.80	1292.50	1287.10	1293.94	0.001057	9.61	18205.61	1376.02	0.47
Above Split	236.21	175000.00	1275.30	1292.85		1294.54	0.001257	10.42	16795.99	1284.69	0.51
Above Split	236.21	175000.00	1275.30	1292.86		1294.54	0.001255	10.41	16803.52	1284.69	0.51
Above Split	236.30	175000.00	1275.10	1293.21		1295.30	0.001335	11.59	15094.79	1023.47	0.53
Above Split	236.30	175000.00	1275.10	1293.22		1295.30	0.001334	11.59	15099.79	1023.46	0.53
Above Split	236.39	175000.00	1275.90	1293.46		1296.31	0.001826	13.54	12921.09	880.15	0.62
Above Split	236.39	175000.00	1275.90	1293.46		1296.31	0.001824	13.54	12924.85	880.15	0.62

Above Split	236.49	175000.00	1276.80	1294.36		1297.33	0.002120	13.83	12649.78	935.16	0.66
Above Split	236.49	175000.00	1276.80	1294.37		1297.34	0.002118	13.83	12652.97	935.16	0.66
Above Split	236.59	175000.00	1278.30	1295.31		1298.47	0.002096	14.27	12275.83	890.27	0.67
Above Split	236.59	175000.00	1278.30	1295.31		1298.47	0.002100	14.27	12259.44	857.31	0.67
Above Split	236.68	175000.00	1278.80	1297.16	1292.25	1299.43	0.001489	12.11	14455.02	1163.52	0.56
Above Split	236.68	175000.00	1278.80	1297.17	1292.25	1299.44	0.001501	12.10	14463.88	981.04	0.56
Above Split	236.77	175000.00	1279.40	1297.65	1294.23	1300.46	0.002080	13.46	13130.52	1231.59	0.65
Above Split	236.77	175000.00	1279.40	1297.65	1294.24	1300.47	0.002093	13.48	12986.40	986.83	0.65
Above Split	236.87	175000.00	1278.30	1298.88		1301.51	0.001964	13.11	13935.72	1349.98	0.63
Above Split	236.87	175000.00	1278.30	1298.80		1301.55	0.002055	13.32	13246.34	1055.60	0.65
Above Split	236.96	175000.00	1279.40	1300.40		1302.41	0.001486	11.43	15607.90	1295.92	0.55
Above Split	236.96	175000.00	1279.40	1300.43		1302.48	0.001504	11.48	15249.67	1147.80	0.55
Above Split	237.06	175000.00	1279.90	1301.39		1303.18	0.001455	10.74	16314.33	1284.14	0.53
Above Split	237.06	175000.00	1279.90	1301.48		1303.25	0.001429	10.66	16409.59	1266.14	0.52
Above Split	237.16	175000.00	1280.50	1302.17		1303.90	0.001375	10.57	16560.47	1324.55	0.53
Above Split	237.16	175000.00	1280.50	1302.24		1303.96	0.001348	10.50	16661.53	1324.55	0.52
Above Split	237.26	175000.00	1282.50	1302.72		1304.79	0.001745	11.54	15172.96	1287.69	0.59
Above Split	237.26	175000.00	1282.50	1302.78		1304.83	0.001720	11.49	15235.21	1272.66	0.59
Above Split	237.35	175000.00	1283.00	1303.52		1305.63	0.001591	11.68	15134.91	1135.35	0.55
Above Split	237.35	175000.00	1283.00	1303.55		1305.68	0.001612	11.71	14938.82	1081.76	0.56
Above Split	237.46	175000.00	1284.70	1304.52	1299.21	1306.50	0.001279	11.34	15764.83	1209.15	0.52
Above Split	237.46	175000.00	1284.70	1304.54	1299.22	1306.56	0.001303	11.42	15317.53	1034.62	0.52
Above Split	237.56	175000.00	1287.80	1305.19	1299.82	1307.16	0.001295	11.28	15520.70	1133.73	0.52
Above Split	237.56	175000.00	1287.80	1305.29	1299.82	1307.23	0.001266	11.20	15627.86	1077.15	0.52
Above Split	237.65	175000.00	1288.40	1306.12	1298.90	1307.72	0.000870	10.14	17256.59	1114.38	0.44
Above Split	237.65	175000.00	1288.40	1306.20	1298.90	1307.78	0.000857	10.09	17335.58	1033.79	0.43

Profile Output Table - Standard Table 2

Reach	River Sta	E.G. Elev (ft)	W.S. Elev (ft)	Vel Head (ft)	Frctn Loss (ft)	C & E Loss (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Top Width (ft)
Below Split	225.30	1177.76	1177.35	0.41				172000.00		1883.50
Below Split	225.30	1177.77	1177.36	0.41				172000.00		1569.61
Below Split	225.44	1177.90	1177.57	0.33	0.13	0.01		116244.34	55755.66	2955.83
Below Split	225.44	1177.92	1177.59	0.33	0.14	0.01		116983.73	55016.27	1995.87
Below Split	225.54	1178.03	1177.61	0.42	0.10	0.03		100464.55	71535.45	3142.62
Below Split	225.54	1178.05	1177.63	0.42	0.10	0.03		101151.60	70848.41	1859.47
Below Split	225.63	1178.21	1177.59	0.62	0.12	0.06		151562.36	20437.65	1944.73
Below Split	225.63	1178.23	1177.60	0.62	0.12	0.06		152993.89	19006.11	1410.64
Below Split	225.73	1178.68	1177.26	1.42	0.24	0.24		172000.00		1183.92
Below Split	225.73	1178.70	1177.29	1.42	0.24	0.24		172000.00		1099.73
Below Split	225.82	1179.11	1177.46	1.65	0.36	0.07		172000.00		1010.67
Below Split	225.82	1179.13	1177.48	1.64	0.36	0.07		172000.00		875.12
Below Split	225.92	1179.54	1178.62	0.92	0.35	0.07		172000.00		1433.98
Below Split	225.92	1179.55	1178.64	0.92	0.35	0.07		172000.00		1433.98
Below Split	226.03	1179.81	1179.15	0.66	0.25	0.03		172000.00		1694.50
Below Split	226.03	1179.83	1179.17	0.66	0.25	0.03		172000.00		1496.33
North Split	226.13	1189.70	1184.19	5.51	0.41	1.45		156000.00		747.57
North Split	226.13	1189.70	1184.19	5.51	0.41	1.45		156000.00		747.57
North Split	226.24	1192.22	1188.39	3.83	2.36	0.17		156000.00		851.94
North Split	226.24	1192.22	1188.39	3.83	2.36	0.17		156000.00		851.94
North Split	226.31	1193.43	1190.41	3.03	1.13	0.08		156000.00		920.86
North Split	226.31	1193.43	1190.41	3.03	1.13	0.08		156000.00		920.86
North Split	226.44	1195.00	1192.21	2.79	1.54	0.02		156000.00		2577.88
North Split	226.44	1195.00	1192.20	2.80	1.55	0.02		156000.00		912.59
North Split	226.59	1200.84	1196.01	4.83	2.51	0.61		156000.00		912.03
North Split	226.59	1200.84	1196.01	4.83	2.52	0.61		156000.00		912.03
North Split	226.60	Bridge								
North Split	226.61	1201.98	1199.28	2.70				156000.00		912.11
North Split	226.61	1201.98	1199.28	2.70				156000.00		912.11
North Split	226.70	1202.72	1201.14	1.58	0.63	0.11		156000.00		1616.91
North Split	226.70	1202.72	1201.14	1.58	0.63	0.11		156000.00		963.65

North Split	226.79	1203.36	1201.43	1.93	0.53	0.10		156000.00		2003.29
North Split	226.79	1203.36	1201.43	1.93	0.54	0.10		156000.00		964.79
North Split	226.88	1204.12	1201.91	2.21	0.68	0.08		156000.00		1901.15
North Split	226.88	1204.12	1201.92	2.20	0.68	0.08		156000.00		957.66
North Split	226.98	1204.90	1202.68	2.22	0.78	0.00		156000.00		1495.76
North Split	226.98	1204.91	1202.70	2.21	0.79	0.00		156000.00		935.15
South Split	226.11	1179.99	1179.91	0.09	0.12	0.06	10956.74	5043.26		900.22
South Split	226.11	1180.01	1179.92	0.09	0.12	0.06	10910.47	5089.53		721.76
South Split	226.20	1180.03	1179.99	0.04	0.03	0.00	2126.44	13873.56		1235.80
South Split	226.20	1180.04	1180.00	0.04	0.03	0.00	2053.54	13946.46		900.23
South Split	226.27	1180.10	1179.92	0.18	0.03	0.04	136.57	15863.43		1353.92
South Split	226.27	1180.11	1179.94	0.18	0.03	0.04	140.98	15859.02		697.54
South Split	226.38	1185.57	1183.02	2.55	0.41	0.71		16000.00		415.24
South Split	226.38	1185.57	1183.02	2.55	0.42	0.71		16000.00		242.41
South Split	226.43	1187.04	1185.45	1.59	1.37	0.10		16000.00		267.09
South Split	226.43	1187.04	1185.45	1.59	1.37	0.10		16000.00		267.08
South Split	226.44	Bridge								
South Split	226.45	1187.61	1186.46	1.15	0.00	0.02		16000.00		314.12
South Split	226.45	1187.61	1186.46	1.15	0.00	0.02		16000.00		313.91
South Split	226.54	1201.23	1199.02	2.21	1.88	0.32		16000.00		318.38
South Split	226.54	1201.23	1198.99	2.24	1.90	0.33		16000.00		300.38
South Split	226.66	1203.16	1202.56	0.60	1.77	0.16		16000.00		566.02
South Split	226.66	1203.17	1202.57	0.60	1.77	0.16		16000.00		479.49
South Split	226.78	1204.60	1203.42	1.18	1.27	0.17		15847.31	152.69	501.79
South Split	226.78	1204.63	1203.41	1.22	1.28	0.19		16000.00		308.02
South Split	226.89	1204.79	1204.72	0.06	0.07	0.11		16000.00		599.96
South Split	226.89	1204.82	1204.76	0.06	0.07	0.12		16000.00		534.93
South Split	227.00	1204.84	1204.72	0.12	0.04	0.02		16000.00		1704.92
South Split	227.00	1204.87	1204.75	0.12	0.04	0.02		16000.00		563.30
Above Split	227.07	1205.68	1203.39	2.28	0.76	0.02		172000.00		1013.19
Above Split	227.07	1205.69	1203.42	2.27	0.76	0.02		172000.00		1013.20
Above Split	227.17	1206.35	1204.46	1.89	0.63	0.04		172000.00		926.09
Above Split	227.17	1206.36	1204.47	1.89	0.63	0.04		172000.00		926.09

Above Split	227.27	1207.21	1204.63	2.58	0.66	0.21		172000.00		920.16
Above Split	227.27	1207.22	1204.65	2.57	0.66	0.21		172000.00		920.38
Above Split	227.36	1207.89	1206.30	1.59	0.58	0.10		172000.00		1001.17
Above Split	227.36	1207.90	1206.32	1.58	0.58	0.10		172000.00		1001.17
Above Split	227.46	1208.61	1206.39	2.22	0.53	0.19		172000.00		1176.43
Above Split	227.46	1208.62	1206.40	2.22	0.53	0.19		172000.00		914.33
Above Split	227.56	1209.27	1207.04	2.23	0.65	0.00		172000.00		943.45
Above Split	227.56	1209.27	1207.04	2.23	0.65	0.00		172000.00		893.83
Above Split	227.65	1209.85	1208.24	1.61	0.52	0.06		172000.00		1506.74
Above Split	227.65	1209.85	1208.25	1.61	0.52	0.06		172000.00		1024.98
Above Split	227.71	1210.46	1208.12	2.34	0.40	0.22		172000.00		1197.53
Above Split	227.71	1210.47	1208.14	2.33	0.40	0.22		172000.00		1197.53
Above Split	227.72	Bridge								
Above Split	227.73	1210.85	1208.73	2.11	0.00	0.04		172000.00		1200.48
Above Split	227.73	1210.85	1208.74	2.11	0.00	0.04		172000.00		1200.48
Above Split	227.79	1211.32	1209.80	1.52	0.41	0.06		172000.00		1358.00
Above Split	227.79	1211.32	1209.81	1.52	0.41	0.06		172000.00		1264.04
Above Split	227.88	1211.90	1210.29	1.61	0.56	0.03		172000.00		1792.34
Above Split	227.88	1211.91	1210.30	1.61	0.56	0.03		172000.00		1290.98
Above Split	227.97	1212.39	1211.25	1.13	0.44	0.05		171935.53	64.46	2407.41
Above Split	227.97	1212.39	1211.26	1.13	0.44	0.05		171971.77	28.23	1300.00
Above Split	228.07	1213.29	1211.09	2.20	0.59	0.32	892.72	171107.27		2184.57
Above Split	228.07	1213.30	1211.10	2.20	0.59	0.32	655.49	171344.50		1370.00
Above Split	228.16	1214.02	1212.85	1.17	0.63	0.10		171358.50	641.50	2231.41
Above Split	228.16	1214.04	1212.87	1.17	0.63	0.10		171378.91	621.10	1530.00
Above Split	228.26	1214.38	1213.62	0.76	0.32	0.04		171885.77	114.22	2426.41
Above Split	228.26	1214.40	1213.64	0.76	0.32	0.04		171909.98	90.03	1710.00
Above Split	228.35	1214.64	1213.83	0.81	0.25	0.01		172000.00		2276.52
Above Split	228.35	1214.67	1213.86	0.81	0.25	0.01		172000.00		1616.41
Above Split	228.45	1215.09	1213.90	1.19	0.33	0.11		172000.00		1873.47
Above Split	228.45	1215.11	1213.92	1.19	0.33	0.11		172000.00		1417.35
Above Split	228.54	1215.86	1213.94	1.92	0.56	0.22		172000.00		2263.58
Above Split	228.54	1215.89	1213.98	1.91	0.56	0.22		172000.00		1304.25
Above Split	228.63	1216.74	1214.88	1.85	0.86	0.01		172000.00		2064.32

Above Split	228.63	1216.76	1214.92	1.84	0.86	0.01		172000.00		1519.69
Above Split	228.73	1217.44	1216.68	0.76	0.59	0.11		171999.53	0.48	2228.17
Above Split	228.73	1217.46	1216.70	0.76	0.59	0.11		172000.00		2225.27
Above Split	228.83	1217.95	1217.10	0.85	0.48	0.03		172000.00		2469.35
Above Split	228.83	1217.96	1217.12	0.84	0.48	0.03		172000.00		2469.66
Above Split	228.92	1219.05	1217.35	1.70	0.85	0.26		172000.00		2303.95
Above Split	228.92	1219.06	1217.37	1.69	0.85	0.26		172000.00		2306.43
Above Split	229.02	1221.11	1218.89	2.22	1.90	0.16	3323.55	168676.45		2287.97
Above Split	229.02	1221.22	1218.84	2.38	1.95	0.21		172000.00		2083.52
Above Split	229.11	1222.65	1221.22	1.44	1.46	0.08	3775.36	168224.64		2436.80
Above Split	229.11	1222.82	1221.32	1.49	1.51	0.09		172000.00		2015.49
Above Split	229.21	1223.62	1222.40	1.22	0.94	0.02	2042.20	169957.81		2302.44
Above Split	229.21	1223.77	1222.55	1.22	0.93	0.03		172000.00		1978.48
Above Split	229.30	1224.66	1223.01	1.64	0.91	0.13	363.32	171636.69		2077.23
Above Split	229.30	1224.76	1223.17	1.60	0.88	0.11		172000.00		1970.75
Above Split	229.40	1225.80	1224.23	1.57	1.14	0.01		172000.00		1784.02
Above Split	229.40	1225.86	1224.32	1.54	1.09	0.01		172000.00		1786.22
Above Split	229.49	1226.75	1225.13	1.61	0.93	0.01		171949.69	50.30	1630.38
Above Split	229.49	1226.79	1225.19	1.60	0.91	0.02		172000.00		1602.87
Above Split	229.59	1228.26	1225.63	2.64	1.21	0.31		172000.00		1340.90
Above Split	229.59	1228.28	1225.67	2.61	1.19	0.30		172000.00		1340.90
Above Split	229.68	1231.36	1226.82	4.53	2.08	0.57		172000.00		1164.04
Above Split	229.68	1231.36	1226.78	4.58	2.07	0.59		172000.00		1103.87
Above Split	229.77	1233.76	1230.08	3.68	2.32	0.08		172000.00		1127.16
Above Split	229.77	1233.77	1230.11	3.66	2.32	0.09		172000.00		981.17
Above Split	229.86	1235.09	1232.78	2.31	1.19	0.14		171839.30	160.69	1157.53
Above Split	229.86	1235.09	1232.78	2.32	1.19	0.13		172000.00		988.80
Above Split	229.95	1236.02	1233.41	2.61	0.84	0.09	7780.49	164219.52		1384.72
Above Split	229.95	1236.10	1233.33	2.76	0.87	0.13	5225.02	166774.98		1033.72
Above Split	230.07	1237.25	1234.59	2.66	1.21	0.01	17040.82	154959.17		1365.68
Above Split	230.07	1237.34	1234.80	2.54	1.22	0.02	18471.91	153528.09		1130.00
Above Split	230.17	1238.24	1235.61	2.64	0.99	0.00	9553.76	162446.23		1780.49
Above Split	230.17	1238.35	1235.69	2.66	0.98	0.04	8422.15	163577.84		1343.47
Above Split	230.26	1238.86	1238.09	0.77	0.43	0.19	2622.04	134846.02	34531.96	2158.68

Above Split	230.26	1239.01	1238.11	0.91	0.49	0.18	2676.13	147366.55	21957.33	1800.00
Above Split	230.35	1239.15	1238.59	0.56	0.27	0.02	852.16	99998.78	71149.05	2772.61
Above Split	230.35	1239.37	1238.64	0.72	0.34	0.02		116933.15	55066.86	2352.30
Above Split	230.45	1239.61	1238.89	0.72	0.41	0.05		74221.20	97778.81	2992.91
Above Split	230.45	1239.98	1239.07	0.91	0.56	0.05		90798.13	81201.87	2803.16
Above Split	230.55	1240.13	1239.56	0.57	0.51	0.01		64475.39	107524.60	3402.81
Above Split	230.55	1240.66	1240.01	0.65	0.65	0.03		76764.56	95235.43	3228.98
Above Split	230.64	1240.63	1240.00	0.63	0.48	0.02		82280.32	89719.68	3492.81
Above Split	230.64	1241.28	1240.49	0.80	0.58	0.04		99742.77	72257.23	3221.47
Above Split	230.74	1241.83	1240.61	1.22	1.02	0.18		97346.68	74653.31	3434.54
Above Split	230.74	1242.33	1241.34	0.99	0.98	0.06		97424.55	74575.45	3072.26
Above Split	230.83	1242.84	1241.85	0.99	0.98	0.02	477.04	84636.81	86886.15	3762.93
Above Split	230.83	1243.13	1242.23	0.90	0.80	0.01	415.81	85892.95	85691.23	2829.58
Above Split	230.92	1243.70	1242.65	1.05	0.85	0.02		84098.69	87901.31	4053.50
Above Split	230.92	1243.91	1242.93	0.97	0.75	0.02		85432.34	86567.66	2897.12
Above Split	231.01	1244.73	1243.61	1.11	1.01	0.02		104152.72	67847.29	3502.82
Above Split	231.01	1244.85	1243.79	1.06	0.92	0.02		105066.13	66933.87	2761.93
Above Split	231.11	1245.78	1244.58	1.19	1.02	0.02		118023.74	53976.25	3099.57
Above Split	231.11	1245.85	1244.69	1.16	0.97	0.03		118225.12	53774.88	2637.06
Above Split	231.20	1246.76	1245.67	1.09	0.97	0.01		137981.27	34018.73	3427.26
Above Split	231.20	1246.79	1245.71	1.09	0.94	0.01		137511.50	34488.49	2782.35
Above Split	231.30	1247.75	1246.65	1.10	0.99	0.01		143985.39	28014.60	4555.19
Above Split	231.30	1247.77	1246.67	1.10	0.97	0.01		143628.98	28371.02	2591.26
Above Split	231.39	1248.82	1247.45	1.37	0.92	0.15		145241.13	26758.88	4554.29
Above Split	231.39	1248.83	1247.47	1.36	0.92	0.15		145183.63	26816.38	2439.95
Above Split	231.48	1249.93	1248.47	1.46	1.06	0.05		144763.34	27236.65	4431.15
Above Split	231.48	1249.93	1248.48	1.45	1.05	0.05		144749.31	27250.69	2450.60
Above Split	231.57	1251.40	1249.53	1.87	1.25	0.23		135062.83	36937.18	3357.43
Above Split	231.57	1251.40	1249.54	1.87	1.24	0.23		135023.59	36976.41	2685.08
Above Split	231.60	1252.83	1249.51	3.32	0.64	0.80		170972.19	1027.80	2005.65
Above Split	231.60	1252.83	1249.52	3.32	0.63	0.80		170962.47	1037.53	2010.96
Above Split	231.605	Bridge								
Above Split	231.61	1253.84	1252.14	1.70	0.00	0.04		161722.42	13277.58	2660.07
Above Split	231.61	1253.84	1252.12	1.72	0.00	0.05		162074.23	12925.76	2360.20

Above Split	231.67	1254.32	1253.45	0.87	0.40	0.08	132800.34	42199.65	4478.34
Above Split	231.67	1254.33	1253.43	0.90	0.40	0.08	133724.44	41275.57	2926.69
Above Split	231.76	1255.73	1253.77	1.96	0.81	0.60	122162.13	52837.87	2978.26
Above Split	231.76	1255.77	1253.75	2.02	0.83	0.61	122472.20	52527.79	2013.27
Above Split	231.86	1257.33	1255.60	1.73	1.57	0.02	95365.62	79634.38	4742.45
Above Split	231.86	1257.40	1255.60	1.80	1.60	0.02	96234.66	78765.34	2962.54
Above Split	231.95	1258.39	1257.39	1.00	0.99	0.07	89964.62	85035.38	4932.95
Above Split	231.95	1258.52	1257.40	1.11	1.05	0.07	94170.23	80829.78	3234.68
Above Split	232.04	1259.18	1258.11	1.07	0.75	0.04	86681.02	88318.98	4129.00
Above Split	232.04	1259.68	1258.15	1.53	0.93	0.23	104274.61	70725.39	3332.70
Above Split	232.13	1259.90	1259.21	0.69	0.67	0.04	87692.75	87307.25	4168.20
Above Split	232.13	1260.58	1259.75	0.83	0.83	0.07	100744.38	74255.62	3691.85
Above Split	232.22	1260.39	1259.74	0.65	0.49	0.00	85658.69	89341.31	4245.20
Above Split	232.22	1261.17	1260.27	0.90	0.58	0.02	103498.91	71501.09	3672.43
Above Split	232.32	1260.81	1260.20	0.62	0.42	0.00	101375.36	73624.64	4289.55
Above Split	232.32	1261.69	1260.85	0.84	0.51	0.01	122465.07	52534.93	3675.43
Above Split	232.41	1261.19	1260.67	0.51	0.36	0.01	103420.79	71579.21	4245.80
Above Split	232.41	1262.12	1261.50	0.62	0.41	0.02	122216.69	52783.30	3638.52
Above Split	232.50	1261.52	1261.05	0.47	0.33	0.00	128399.86	46600.14	3904.96
Above Split	232.50	1262.46	1261.91	0.55	0.34	0.01	148918.56	26081.45	3328.24
Above Split	232.60	1261.90	1261.34	0.56	0.36	0.03	134325.91	40674.10	3760.95
Above Split	232.60	1262.86	1262.19	0.67	0.36	0.04	158835.98	16164.02	3060.55
Above Split	232.70	1262.38	1261.68	0.70	0.44	0.04	137666.08	37333.93	3336.12
Above Split	232.70	1263.36	1262.53	0.83	0.46	0.05	162826.17	12173.82	2692.15
Above Split	232.80	1263.03	1262.19	0.84	0.61	0.04	142080.72	32919.28	3112.53
Above Split	232.80	1264.07	1263.02	1.06	0.64	0.07	169593.83	5406.18	2316.36
Above Split	232.89	1264.11	1262.72	1.39	0.91	0.16	153813.38	21186.63	2860.39
Above Split	232.89	1265.12	1263.57	1.55	0.90	0.15	173465.17	1534.82	2032.41
Above Split	232.98	1265.33	1263.79	1.54	1.18	0.04	164414.33	10585.67	2722.77
Above Split	232.98	1266.12	1264.70	1.42	0.99	0.01	170645.97	4354.02	1901.03
Above Split	233.08	1267.25	1264.33	2.92	1.50	0.41	170089.69	4910.31	2021.50
Above Split	233.08	1267.71	1265.01	2.70	1.20	0.38	174838.36	161.64	1767.29
Above Split	233.18	1269.61	1266.17	3.44			165446.86	9553.14	2231.90
Above Split	233.18	1270.16	1266.11	4.05	2.05	0.40	174516.33	483.68	1793.43

Above Split	233.27	1271.16	1269.15	2.00	1.41	0.14	138213.75	36786.25	2406.12
Above Split	233.27	1271.98	1269.29	2.68	1.69	0.14	156910.78	18089.22	1838.46
Above Split	233.36	1272.22	1270.38	1.85	1.05	0.02	132381.20	42618.80	2730.26
Above Split	233.36	1273.14	1271.32	1.82	1.08	0.09	140870.45	34129.54	1795.62
Above Split	233.46	1273.31	1271.44	1.87	1.08	0.01	137921.91	37078.09	2606.41
Above Split	233.46	1274.08	1272.24	1.84	0.93	0.01	143970.64	31029.36	1613.17
Above Split	233.55	1274.20	1272.54	1.66	0.86	0.02	129588.87	45411.14	2313.94
Above Split	233.55	1274.87	1273.17	1.69	0.77	0.01	134425.41	40574.60	1509.41
Above Split	233.64	1274.72	1273.78	0.93	0.44	0.07	152707.69	22292.31	2659.22
Above Split	233.64	1275.36	1274.37	0.99	0.42	0.07	160146.52	14853.49	1574.92
Above Split	233.73	1274.99	1274.23	0.75	0.25	0.02	165457.34	9542.66	2626.04
Above Split	233.73	1275.62	1274.87	0.75	0.24	0.02	170360.34	4639.65	1678.63
Above Split	233.80	1275.18	1274.42	0.76	0.19	0.00	167651.95	7348.04	2490.69
Above Split	233.80	1275.80	1275.05	0.75	0.18	0.00	172502.75	2497.24	1808.93
Above Split	233.89	1275.45	1274.70	0.75	0.27	0.00	172193.56	2806.44	2548.56
Above Split	233.89	1276.05	1275.34	0.71	0.24	0.00	175000.00		1939.95
Above Split	234.00	1275.75	1275.14	0.61	0.29	0.01	175000.00		2483.24
Above Split	234.00	1276.31	1275.76	0.55	0.25	0.02	175000.00		2406.91
Above Split	234.09	1276.06	1275.42	0.64	0.30	0.01	175000.00		2672.86
Above Split	234.09	1276.57	1275.99	0.57	0.25	0.01	175000.00		2672.86
Above Split	234.18	1276.51	1275.76	0.75	0.42	0.03	175000.00		2764.46
Above Split	234.18	1276.94	1276.27	0.67	0.35	0.03	175000.00		2764.47
Above Split	234.28	1277.29	1276.22	1.07	0.68	0.09	175000.00		2684.18
Above Split	234.28	1277.60	1276.64	0.96	0.57	0.09	175000.00		2635.99
Above Split	234.42	1278.77	1277.50	1.27	1.42	0.06	175000.00		2624.96
Above Split	234.42	1278.92	1277.72	1.20	1.25	0.07	175000.00		2509.11
Above Split	234.51	1279.70	1278.67	1.03	0.91	0.02	175000.00		2627.63
Above Split	234.51	1279.79	1278.79	1.00	0.85	0.02	175000.00		2494.81
Above Split	234.60	1280.64	1279.33	1.32	0.85	0.09	175000.00		2257.68
Above Split	234.60	1280.70	1279.41	1.29	0.82	0.09	175000.00		2207.95
Above Split	234.70	1281.64	1280.32	1.32	0.99	0.00	175000.00		2062.38
Above Split	234.70	1281.67	1280.37	1.30	0.97	0.00	175000.00		2062.38
Above Split	234.79	1282.28	1281.39	0.90	0.61	0.04	175000.00		2034.92
Above Split	234.79	1282.31	1281.42	0.89	0.60	0.04	175000.00		2034.92

Above Split	234.89	1282.72	1281.87	0.85	0.43	0.00	175000.00		1906.73
Above Split	234.89	1282.74	1281.89	0.85	0.43	0.00	175000.00		1906.73
Above Split	234.99	1283.29	1282.12	1.16	0.47	0.09	175000.00		1996.69
Above Split	234.99	1283.31	1282.15	1.16	0.47	0.09	175000.00		1935.87
Above Split	235.08	1283.99	1282.50	1.50	0.61	0.10	175000.00		1569.74
Above Split	235.08	1284.01	1282.52	1.49	0.60	0.10	175000.00		1499.14
Above Split	235.19	1284.86	1283.32	1.54	0.85	0.01	175000.00		2004.35
Above Split	235.19	1284.87	1283.33	1.54	0.85	0.01	175000.00		1936.90
Above Split	235.28	1287.74	1284.36	3.38	1.55	0.55	175000.00		1814.72
Above Split	235.28	1287.74	1284.36	3.38	1.54	0.55	175000.00		1750.00
Above Split	235.38	1289.21	1287.70	1.51	1.29	0.19	175000.00		1652.66
Above Split	235.38	1289.21	1287.70	1.51	1.29	0.19	175000.00		1582.62
Above Split	235.47	1290.04	1288.24	1.79	0.74	0.09	175000.00		1543.43
Above Split	235.47	1290.04	1288.24	1.79	0.74	0.09	175000.00		1449.58
Above Split	235.56	1290.71	1289.24	1.46	0.63	0.03	175000.00		1379.63
Above Split	235.56	1290.71	1289.24	1.46	0.63	0.03	175000.00		1304.07
Above Split	235.66	1291.15	1290.02	1.13	0.41	0.03	175000.00		1314.47
Above Split	235.66	1291.15	1290.02	1.13	0.41	0.03	175000.00		1314.47
Above Split	235.75	1291.47	1290.50	0.96	0.30	0.02	175000.00		1407.06
Above Split	235.75	1291.47	1290.51	0.96	0.30	0.02	175000.00		1393.09
Above Split	235.84	1291.92	1290.56	1.36	0.33	0.12	175000.00		1440.49
Above Split	235.84	1291.92	1290.56	1.36	0.33	0.12	175000.00		1208.92
Above Split	235.93	1292.63	1290.62	2.00	0.51	0.19	175000.00		1405.50
Above Split	235.93	1292.63	1290.63	2.00	0.52	0.19	175000.00		1109.81
Above Split	236.03	1293.34	1291.66	1.68	0.68	0.03	174593.00	407.01	1556.07
Above Split	236.03	1293.34	1291.67	1.68	0.68	0.03	174620.52	379.48	1290.85
Above Split	236.12	1293.93	1292.50	1.44	0.57	0.02	175000.00		1652.18
Above Split	236.12	1293.94	1292.50	1.43	0.57	0.02	175000.00		1376.02
Above Split	236.21	1294.54	1292.85	1.69	0.53	0.07	175000.00		1284.69
Above Split	236.21	1294.54	1292.86	1.68	0.53	0.07	175000.00		1284.69
Above Split	236.30	1295.30	1293.21	2.09	0.64	0.12	175000.00		1023.47
Above Split	236.30	1295.30	1293.22	2.09	0.64	0.12	175000.00		1023.46
Above Split	236.39	1296.31	1293.46	2.85	0.78	0.23	175000.00		880.15
Above Split	236.39	1296.31	1293.46	2.85	0.78	0.23	175000.00		880.15

Above Split	236.49	1297.33	1294.36	2.97	0.99	0.04		175000.00		935.16
Above Split	236.49	1297.34	1294.37	2.97	0.99	0.04		175000.00		935.16
Above Split	236.59	1298.47	1295.31	3.16	1.08	0.06	19.72	174980.28		890.27
Above Split	236.59	1298.47	1295.31	3.16	1.08	0.06		175000.00		857.31
Above Split	236.68	1299.43	1297.16	2.28	0.88	0.09		175000.00		1163.52
Above Split	236.68	1299.44	1297.17	2.27	0.88	0.09		175000.00		981.04
Above Split	236.77	1300.46	1297.65	2.81	0.86	0.16	314.31	174685.69		1231.59
Above Split	236.77	1300.47	1297.65	2.82	0.87	0.16		175000.00		986.83
Above Split	236.87	1301.51	1298.88	2.64	1.04	0.02	1764.45	172757.98	477.57	1349.98
Above Split	236.87	1301.55	1298.80	2.75	1.06	0.01		174522.98	477.02	1055.60
Above Split	236.96	1302.41	1300.40	2.01	0.83	0.06	1178.03	173782.19	39.78	1295.92
Above Split	236.96	1302.48	1300.43	2.04	0.86	0.07		175000.00		1147.80
Above Split	237.06	1303.18	1301.39	1.79	0.75	0.02	38.60	174961.39		1284.14
Above Split	237.06	1303.25	1301.48	1.77	0.74	0.03		175000.00		1266.14
Above Split	237.16	1303.90	1302.17	1.73	0.71	0.01		175000.00		1324.55
Above Split	237.16	1303.96	1302.24	1.71	0.70	0.01		175000.00		1324.55
Above Split	237.26	1304.79	1302.72	2.07	0.79	0.10		174960.69	39.30	1287.69
Above Split	237.26	1304.83	1302.78	2.05	0.77	0.10		175000.00		1272.66
Above Split	237.35	1305.63	1303.52	2.11	0.83	0.01		174038.67	961.34	1135.35
Above Split	237.35	1305.68	1303.55	2.13	0.83	0.02		175000.00		1081.76
Above Split	237.46	1306.50	1304.52	1.98	0.86	0.01	1549.40	173450.59		1209.15
Above Split	237.46	1306.56	1304.54	2.03	0.87	0.01		175000.00		1034.62
Above Split	237.56	1307.16	1305.19	1.97	0.66	0.00		175000.00		1133.73
Above Split	237.56	1307.23	1305.29	1.95	0.66	0.01		175000.00		1077.15
Above Split	237.65	1307.72	1306.12	1.60	0.52	0.04		175000.00		1114.38
Above Split	237.65	1307.78	1306.20	1.58	0.51	0.04		175000.00		1033.79

Profile Output Table - Encroachment 3

Reach	River Sta	Top Wdth Act (ft)	Area (sq ft)	Vel Total (ft/s)	W.S. Elev (ft)	Base WS (ft)	Prof Delta WS (ft)
Below Split	225.30	1576.79	37083.41	5.15	1177.35	1177.35	
Below Split	225.30	1569.61	33335.94	5.16	1177.36	1177.35	0.01
Below Split	225.44	1995.83	55568.44	4.61	1177.57	1177.57	
Below Split	225.44	1995.87	37308.08	4.61	1177.59	1177.57	0.01

Below Split	225.54		1859.35	56113.35	5.19	1177.61	1177.61	
Below Split	225.54		1859.47	33171.64	5.19	1177.63	1177.61	0.02
Below Split	225.63		1410.52	31354.72	6.34	1177.59	1177.59	
Below Split	225.63		1410.64	27166.42	6.33	1177.60	1177.59	0.02
Below Split	225.73		1099.70	18140.51	9.56	1177.26	1177.26	
Below Split	225.73		1099.73	18008.41	9.55	1177.29	1177.26	0.02
Below Split	225.82		875.13	21170.18	10.30	1177.46	1177.46	
Below Split	225.82		875.12	16711.78	10.29	1177.48	1177.46	0.02
Below Split	225.92		1433.98	22376.63	7.69	1178.62	1178.62	
Below Split	225.92		1433.98	22400.77	7.68	1178.64	1178.62	0.02
Below Split	226.03		1496.34	28239.18	6.53	1179.15	1179.15	
Below Split	226.03		1496.33	26368.03	6.52	1179.17	1179.15	0.02
North Split	226.13		747.57	8283.24	18.83	1184.19	1184.19	
North Split	226.13		747.57	8282.97	18.83	1184.19	1184.19	0.00
North Split	226.24		851.94	9937.04	15.70	1188.39	1188.39	
North Split	226.24		851.94	9936.94	15.70	1188.39	1188.39	0.00
North Split	226.31		920.86	11174.22	13.96	1190.41	1190.41	
North Split	226.31		920.86	11174.22	13.96	1190.41	1190.41	0.00
North Split	226.44		912.60	42024.48	13.41	1192.21	1192.21	
North Split	226.44		912.59	11627.33	13.42	1192.20	1192.21	0.00
North Split	226.59		912.03	8847.01	17.63	1196.01	1196.01	
North Split	226.59		912.03	8846.57	17.63	1196.01	1196.01	0.00
North Split	226.60	BR D	875.42	8724.78	17.88	1196.29	1196.29	
North Split	226.60	BR D	875.42	8724.78	17.88	1196.29	1196.29	0.00
North Split	226.60	BR U	875.46	10482.39	14.88	1198.30	1198.30	
North Split	226.60	BR U	875.42	10480.42	14.88	1198.30	1198.30	0.00
North Split	226.61		912.11	11832.29	13.18	1199.28	1199.28	
North Split	226.61		912.11	11831.06	13.19	1199.28	1199.28	0.00
North Split	226.70		963.66	17504.18	10.09	1201.14	1201.14	
North Split	226.70		963.65	15454.90	10.09	1201.14	1201.14	0.00
North Split	226.79		964.79	20175.12	11.15	1201.43	1201.43	
North Split	226.79		964.79	13996.92	11.15	1201.43	1201.43	0.00
North Split	226.88		957.66	21766.53	11.92	1201.91	1201.91	
North Split	226.88		957.66	13097.73	11.91	1201.92	1201.91	0.01

North Split	226.98		935.15	17644.56	11.95	1202.68	1202.68	
North Split	226.98		935.15	13071.13	11.93	1202.70	1202.68	0.02
South Split	226.11		721.68	8362.13	2.34	1179.91	1179.91	
South Split	226.11		721.76	6833.37	2.34	1179.92	1179.91	0.01
South Split	226.20		899.61	13182.48	1.59	1179.99	1179.99	
South Split	226.20		900.23	10049.90	1.59	1180.00	1179.99	0.01
South Split	226.27		696.00	13120.99	3.33	1179.92	1179.92	
South Split	226.27		697.54	4814.79	3.32	1179.94	1179.92	0.02
South Split	226.38		242.41	1731.06	12.82	1183.02	1183.02	
South Split	226.38		242.41	1248.74	12.81	1183.02	1183.02	0.00
South Split	226.43		267.09	1582.93	10.11	1185.45	1185.45	
South Split	226.43		267.08	1582.31	10.11	1185.45	1185.45	0.00
South Split	226.44	BR D	254.05	1469.23	10.89	1185.30	1185.30	
South Split	226.44	BR D	254.04	1468.61	10.89	1185.30	1185.30	0.00
South Split	226.44	BR U	264.68	1703.95	9.39	1186.22	1186.22	
South Split	226.44	BR U	264.51	1703.65	9.39	1186.22	1186.22	0.00
South Split	226.45		314.12	1860.98	8.60	1186.46	1186.46	
South Split	226.45		313.91	1860.55	8.60	1186.46	1186.46	0.00
South Split	226.54		300.57	1345.36	11.92	1199.02	1199.02	
South Split	226.54		300.38	1332.14	12.01	1198.99	1199.02	-0.03
South Split	226.66		479.49	2662.13	6.22	1202.56	1202.56	
South Split	226.66		479.49	2576.09	6.21	1202.57	1202.56	0.01
South Split	226.78		374.20	3123.25	8.56	1203.42	1203.42	
South Split	226.78		308.02	1806.39	8.86	1203.41	1203.42	-0.01
South Split	226.89		534.92	8532.22	2.00	1204.72	1204.72	
South Split	226.89		534.93	8030.90	1.99	1204.76	1204.72	0.03
South Split	227.00		563.30	20826.69	2.79	1204.72	1204.72	
South Split	227.00		563.30	5755.44	2.78	1204.75	1204.72	0.03
Above Split	227.07		1013.19	14189.01	12.12	1203.39	1203.39	
Above Split	227.07		1013.20	14212.26	12.10	1203.42	1203.39	0.02
Above Split	227.17		926.09	15589.16	11.03	1204.46	1204.46	
Above Split	227.17		926.09	15604.65	11.02	1204.47	1204.46	0.02
Above Split	227.27		920.16	13343.92	12.89	1204.63	1204.63	
Above Split	227.27		920.38	13358.86	12.88	1204.65	1204.63	0.02

Above Split	227.36		1001.17	17016.05	10.11	1206.30	1206.30	
Above Split	227.36		1001.17	17026.68	10.10	1206.32	1206.30	0.01
Above Split	227.46		914.33	15011.03	11.97	1206.39	1206.39	
Above Split	227.46		914.33	14381.75	11.96	1206.40	1206.39	0.01
Above Split	227.56		893.84	14400.57	11.98	1207.04	1207.04	
Above Split	227.56		893.83	14357.66	11.98	1207.04	1207.04	0.01
Above Split	227.65		1024.98	19063.53	10.18	1208.24	1208.24	
Above Split	227.65		1024.98	16901.75	10.18	1208.25	1208.24	0.01
Above Split	227.71		1197.53	14019.67	12.27	1208.12	1208.12	
Above Split	227.71		1197.53	14035.32	12.25	1208.14	1208.12	0.01
Above Split	227.72	BR D	1146.29	13205.50	13.02	1207.95	1207.95	
Above Split	227.72	BR D	1146.29	13221.17	13.01	1207.97	1207.95	0.01
Above Split	227.72	BR U	1148.18	13652.24	12.60	1208.34	1208.34	
Above Split	227.72	BR U	1146.29	13663.91	12.59	1208.35	1208.34	0.01
Above Split	227.73		1200.48	14752.07	11.66	1208.73	1208.73	
Above Split	227.73		1200.48	14763.50	11.65	1208.74	1208.73	0.01
Above Split	227.79		1264.04	17871.06	9.88	1209.80	1209.80	
Above Split	227.79		1264.04	17412.61	9.88	1209.81	1209.80	0.01
Above Split	227.88		1290.97	18046.76	10.18	1210.29	1210.29	
Above Split	227.88		1290.98	16902.80	10.18	1210.30	1210.29	0.01
Above Split	227.97		1300.00	24702.44	8.55	1211.25	1211.25	
Above Split	227.97		1300.00	20138.93	8.54	1211.26	1211.25	0.01
Above Split	228.07		1370.00	17968.00	11.89	1211.09	1211.09	
Above Split	228.07		1370.00	14477.36	11.88	1211.10	1211.09	0.01
Above Split	228.16		1530.00	23197.62	8.65	1212.85	1212.85	
Above Split	228.16		1530.00	19916.55	8.64	1212.87	1212.85	0.02
Above Split	228.26		1750.00	31734.72	6.98	1213.62	1213.62	
Above Split	228.26		1710.00	24626.21	6.98	1213.64	1213.62	0.02
Above Split	228.35		1616.41	33382.96	7.22	1213.83	1213.83	
Above Split	228.35		1616.41	23845.93	7.21	1213.86	1213.83	0.02
Above Split	228.45		1417.35	22325.59	8.76	1213.90	1213.90	
Above Split	228.45		1417.35	19669.29	8.74	1213.92	1213.90	0.03
Above Split	228.54		1304.25	23980.73	11.12	1213.94	1213.94	
Above Split	228.54		1304.25	15506.17	11.09	1213.98	1213.94	0.03

Above Split	228.63	1519.69	21904.20	10.92	1214.88	1214.88	
Above Split	228.63	1519.69	15802.57	10.88	1214.92	1214.88	0.03
Above Split	228.73	2228.17	24570.06	7.00	1216.68	1216.68	
Above Split	228.73	2225.27	24614.93	6.99	1216.70	1216.68	0.02
Above Split	228.83	2469.35	23305.30	7.38	1217.10	1217.10	
Above Split	228.83	2469.66	23349.62	7.37	1217.12	1217.10	0.02
Above Split	228.92	2303.95	16440.37	10.46	1217.35	1217.35	
Above Split	228.92	2306.43	16476.67	10.44	1217.37	1217.35	0.02
Above Split	229.02	2287.97	14539.47	11.83	1218.89	1218.89	
Above Split	229.02	2083.52	13881.49	12.39	1218.84	1218.89	-0.05
Above Split	229.11	2436.80	18323.27	9.39	1221.22	1221.22	
Above Split	229.11	2015.49	17539.43	9.81	1221.32	1221.22	0.11
Above Split	229.21	2302.44	19752.77	8.71	1222.40	1222.40	
Above Split	229.21	1978.48	19370.19	8.88	1222.55	1222.40	0.15
Above Split	229.30	2077.23	16799.58	10.24	1223.01	1223.01	
Above Split	229.30	1970.75	16968.82	10.14	1223.17	1223.01	0.16
Above Split	229.40	1784.02	17090.29	10.06	1224.23	1224.23	
Above Split	229.40	1786.22	17247.84	9.97	1224.32	1224.23	0.09
Above Split	229.49	1630.38	16886.05	10.19	1225.13	1225.13	
Above Split	229.49	1602.87	16953.34	10.15	1225.19	1225.13	0.06
Above Split	229.59	1340.90	13199.76	13.03	1225.63	1225.63	
Above Split	229.59	1340.90	13258.69	12.97	1225.67	1225.63	0.04
Above Split	229.68	1104.64	10616.72	17.09	1226.82	1226.82	
Above Split	229.68	1103.87	10015.62	17.17	1226.78	1226.82	-0.05
Above Split	229.77	981.17	12373.86	15.40	1230.08	1230.08	
Above Split	229.77	981.17	11205.16	15.35	1230.11	1230.08	0.03
Above Split	229.86	1041.21	14225.33	12.16	1232.78	1232.78	
Above Split	229.86	988.80	14083.81	12.21	1232.78	1232.78	0.00
Above Split	229.95	1148.02	20342.64	12.60	1233.41	1233.41	
Above Split	229.95	1033.72	13087.19	13.14	1233.33	1233.41	-0.07
Above Split	230.07	1165.54	15144.84	12.58	1234.59	1234.59	
Above Split	230.07	1130.00	13890.74	12.38	1234.80	1234.59	0.21
Above Split	230.17	1428.48	16671.53	12.23	1235.61	1235.61	
Above Split	230.17	1343.47	13876.19	12.40	1235.69	1235.61	0.09

Above Split	230.26	2158.68	25360.41	6.78	1238.09	1238.09	
Above Split	230.26	1800.00	23174.80	7.42	1238.11	1238.09	0.02
Above Split	230.35	2772.61	29015.41	5.93	1238.59	1238.59	
Above Split	230.35	2352.30	25302.79	6.80	1238.64	1238.59	0.05
Above Split	230.45	2992.91	25471.39	6.75	1238.89	1238.89	
Above Split	230.45	2803.16	22534.70	7.63	1239.07	1238.89	0.18
Above Split	230.55	3402.81	28735.76	5.99	1239.56	1239.56	
Above Split	230.55	3228.98	26722.45	6.44	1240.01	1239.56	0.45
Above Split	230.64	3492.81	27095.32	6.35	1240.00	1240.00	
Above Split	230.64	3221.47	24415.79	7.04	1240.49	1240.00	0.49
Above Split	230.74	2947.82	22256.34	8.86	1240.61	1240.61	
Above Split	230.74	3072.26	21611.31	7.96	1241.34	1240.61	0.73
Above Split	230.83	2836.76	36368.78	7.96	1241.85	1241.85	
Above Split	230.83	2829.58	22657.07	7.59	1242.23	1241.85	0.39
Above Split	230.92	2888.87	40166.16	8.14	1242.65	1242.65	
Above Split	230.92	2897.12	21947.42	7.84	1242.93	1242.65	0.28
Above Split	231.01	2760.11	25989.67	8.37	1243.61	1243.61	
Above Split	231.01	2761.93	21031.99	8.18	1243.79	1243.61	0.18
Above Split	231.11	2635.84	21897.89	8.64	1244.58	1244.58	
Above Split	231.11	2637.06	20193.30	8.52	1244.69	1244.58	0.11
Above Split	231.20	2816.18	21171.28	8.38	1245.67	1245.67	
Above Split	231.20	2782.35	20589.87	8.35	1245.71	1245.67	0.04
Above Split	231.30	2606.83	24161.60	8.42	1246.65	1246.65	
Above Split	231.30	2591.26	20473.35	8.40	1246.67	1246.65	0.02
Above Split	231.39	2440.34	22687.77	9.39	1247.45	1247.45	
Above Split	231.39	2439.95	18356.53	9.37	1247.47	1247.45	0.02
Above Split	231.48	2448.90	21009.70	9.66	1248.47	1248.47	
Above Split	231.48	2450.60	17834.50	9.64	1248.48	1248.47	0.01
Above Split	231.57	2684.95	18490.96	10.50	1249.53	1249.53	
Above Split	231.57	2685.08	16399.29	10.49	1249.54	1249.53	0.01
Above Split	231.60	2005.65	12105.21	14.21	1249.51	1249.51	
Above Split	231.60	2010.96	12115.75	14.20	1249.52	1249.51	0.01
Above Split	231.605 BR D	2172.55	12525.40	13.97	1250.14	1250.14	
Above Split	231.605 BR D	2132.22	12493.22	14.01	1250.13	1250.14	-0.01

Above Split	231.605 BR U	2371.89	15980.61	10.95	1251.66	1251.66	
Above Split	231.605 BR U	2230.14	15760.21	11.10	1251.62	1251.66	-0.03
Above Split	231.61	2527.97	18310.81	9.57	1252.14	1252.14	
Above Split	231.61	2360.20	18025.22	9.71	1252.12	1252.14	-0.02
Above Split	231.67	3089.54	25284.58	7.32	1253.45	1253.45	
Above Split	231.67	2926.69	23325.24	7.50	1253.43	1253.45	-0.03
Above Split	231.76	2120.10	16473.89	10.96	1253.77	1253.77	
Above Split	231.76	2013.27	15633.42	11.19	1253.75	1253.77	-0.02
Above Split	231.86	3073.50	44523.02	10.40	1255.60	1255.60	
Above Split	231.86	2962.54	16455.29	10.63	1255.60	1255.60	0.00
Above Split	231.95	3415.60	44707.92	7.84	1257.39	1257.39	
Above Split	231.95	3234.68	21174.57	8.26	1257.40	1257.39	0.02
Above Split	232.04	3664.27	35021.62	8.02	1258.11	1258.11	
Above Split	232.04	3332.70	18849.34	9.28	1258.15	1258.11	0.04
Above Split	232.13	4084.52	27247.98	6.44	1259.21	1259.21	
Above Split	232.13	3691.85	25084.79	6.98	1259.75	1259.21	0.54
Above Split	232.22	4245.20	28808.54	6.07	1259.74	1259.74	
Above Split	232.22	3672.43	25363.42	6.90	1260.27	1259.74	0.54
Above Split	232.32	4289.55	29568.81	5.92	1260.20	1260.20	
Above Split	232.32	3675.43	26103.63	6.70	1260.85	1260.20	0.65
Above Split	232.41	4245.80	31297.46	5.59	1260.67	1260.67	
Above Split	232.41	3638.52	28894.97	6.06	1261.50	1260.67	0.83
Above Split	232.50	3904.96	32347.63	5.41	1261.05	1261.05	
Above Split	232.50	3328.24	30106.82	5.81	1261.91	1261.05	0.87
Above Split	232.60	3760.95	29246.67	5.98	1261.34	1261.34	
Above Split	232.60	3060.55	27005.47	6.48	1262.19	1261.34	0.85
Above Split	232.70	3203.83	26388.39	6.65	1261.68	1261.68	
Above Split	232.70	2692.15	24237.75	7.22	1262.53	1261.68	0.85
Above Split	232.80	3037.60	24147.94	7.25	1262.19	1262.19	
Above Split	232.80	2316.36	21296.03	8.22	1263.02	1262.19	0.82
Above Split	232.89	2860.39	19142.35	9.14	1262.72	1262.72	
Above Split	232.89	2032.41	17569.57	9.96	1263.57	1262.72	0.85
Above Split	232.98	2577.37	18619.27	9.46	1263.79	1263.79	
Above Split	232.98	1901.03	18467.74	9.48	1264.70	1263.79	0.91

Above Split	233.08	1914.07	13176.60	13.33	1264.33	1264.33	
Above Split	233.08	1767.29	13375.54	13.08	1265.01	1264.33	0.68
Above Split	233.18	2208.12	12421.12	14.09	1266.17	1266.17	
Above Split	233.18	1793.43	11080.53	15.79	1266.11	1266.17	-0.06
Above Split	233.27	2218.26	16830.01	10.65	1269.15	1269.15	
Above Split	233.27	1838.46	14431.01	12.13	1269.29	1269.15	0.14
Above Split	233.36	2080.63	20379.07	10.36	1270.38	1270.38	
Above Split	233.36	1795.62	16997.16	10.30	1271.32	1270.38	0.94
Above Split	233.46	1989.45	20475.70	10.38	1271.44	1271.44	
Above Split	233.46	1613.17	16741.54	10.45	1272.24	1271.44	0.80
Above Split	233.55	1834.07	18969.06	9.63	1272.54	1272.54	
Above Split	233.55	1509.41	17494.76	10.00	1273.17	1272.54	0.63
Above Split	233.64	1942.22	25849.73	7.37	1273.78	1273.78	
Above Split	233.64	1574.92	22497.65	7.78	1274.37	1273.78	0.59
Above Split	233.73	1882.51	27227.63	6.69	1274.23	1274.23	
Above Split	233.73	1678.63	25658.76	6.82	1274.87	1274.23	0.64
Above Split	233.80	1987.14	26692.90	6.79	1274.42	1274.42	
Above Split	233.80	1808.93	25492.02	6.86	1275.05	1274.42	0.63
Above Split	233.89	2099.05	26112.10	6.84	1274.70	1274.70	
Above Split	233.89	1939.95	25903.73	6.76	1275.34	1274.70	0.64
Above Split	234.00	2406.92	27992.61	6.26	1275.14	1275.14	
Above Split	234.00	2406.91	29457.89	5.94	1275.76	1275.14	0.62
Above Split	234.09	2672.86	27250.28	6.42	1275.42	1275.42	
Above Split	234.09	2672.86	28789.66	6.08	1275.99	1275.42	0.58
Above Split	234.18	2764.46	25169.77	6.95	1275.76	1275.76	
Above Split	234.18	2764.47	26589.80	6.58	1276.27	1275.76	0.51
Above Split	234.28	2635.99	21230.42	8.29	1276.22	1276.22	
Above Split	234.28	2635.99	22224.80	7.87	1276.64	1276.22	0.42
Above Split	234.42	2509.11	19495.44	9.04	1277.50	1277.50	
Above Split	234.42	2509.11	19904.25	8.79	1277.72	1277.50	0.22
Above Split	234.51	2494.80	21790.87	8.15	1278.67	1278.67	
Above Split	234.51	2494.81	21767.97	8.04	1278.79	1278.67	0.11
Above Split	234.60	2207.96	19027.66	9.21	1279.33	1279.33	
Above Split	234.60	2207.95	19176.93	9.13	1279.41	1279.33	0.08

Above Split	234.70	2062.38	19011.98	9.20	1280.32	1280.32	
Above Split	234.70	2062.38	19112.18	9.16	1280.37	1280.32	0.05
Above Split	234.79	2034.92	23046.91	7.59	1281.39	1281.39	
Above Split	234.79	2034.92	23110.50	7.57	1281.42	1281.39	0.03
Above Split	234.89	1906.73	23632.24	7.41	1281.87	1281.87	
Above Split	234.89	1906.73	23682.52	7.39	1281.89	1281.87	0.03
Above Split	234.99	1935.42	20357.04	8.66	1282.12	1282.12	
Above Split	234.99	1935.87	20251.25	8.64	1282.15	1282.12	0.02
Above Split	235.08	1498.65	18048.18	9.82	1282.50	1282.50	
Above Split	235.08	1499.14	17847.68	9.81	1282.52	1282.50	0.02
Above Split	235.19	1936.89	17764.48	9.96	1283.32	1283.32	
Above Split	235.19	1936.90	17599.52	9.94	1283.33	1283.32	0.02
Above Split	235.28	1750.02	12103.38	14.75	1284.36	1284.36	
Above Split	235.28	1750.00	11859.20	14.76	1284.36	1284.36	0.00
Above Split	235.38	1582.62	18196.97	9.86	1287.70	1287.70	
Above Split	235.38	1582.62	17742.95	9.86	1287.70	1287.70	0.00
Above Split	235.47	1449.59	16858.23	10.75	1288.24	1288.24	
Above Split	235.47	1449.58	16280.53	10.75	1288.24	1288.24	0.00
Above Split	235.56	1304.07	18522.63	9.70	1289.24	1289.24	
Above Split	235.56	1304.07	18042.77	9.70	1289.24	1289.24	0.00
Above Split	235.66	1314.47	20498.82	8.54	1290.02	1290.02	
Above Split	235.66	1314.47	20499.13	8.54	1290.02	1290.02	0.00
Above Split	235.75	1393.10	22267.96	7.87	1290.50	1290.50	
Above Split	235.75	1393.09	22224.17	7.87	1290.51	1290.50	0.00
Above Split	235.84	1208.92	20406.12	9.37	1290.56	1290.56	
Above Split	235.84	1208.92	18685.81	9.37	1290.56	1290.56	0.00
Above Split	235.93	1109.81	17652.41	11.36	1290.62	1290.62	
Above Split	235.93	1109.81	15410.90	11.36	1290.63	1290.62	0.00
Above Split	236.03	1290.85	17990.38	10.34	1291.66	1291.66	
Above Split	236.03	1290.85	16920.12	10.34	1291.67	1291.66	0.00
Above Split	236.12	1376.02	18576.11	9.62	1292.50	1292.50	
Above Split	236.12	1376.02	18205.61	9.61	1292.50	1292.50	0.00
Above Split	236.21	1284.69	16795.99	10.42	1292.85	1292.85	
Above Split	236.21	1284.69	16803.52	10.41	1292.86	1292.85	0.01

Above Split	236.30	1023.47	15094.79	11.59	1293.21	1293.21	
Above Split	236.30	1023.46	15099.79	11.59	1293.22	1293.21	0.00
Above Split	236.39	880.15	12921.09	13.54	1293.46	1293.46	
Above Split	236.39	880.15	12924.85	13.54	1293.46	1293.46	0.00
Above Split	236.49	935.16	12649.78	13.83	1294.36	1294.36	
Above Split	236.49	935.16	12652.97	13.83	1294.37	1294.36	0.00
Above Split	236.59	890.27	12275.83	14.26	1295.31	1295.31	
Above Split	236.59	857.31	12259.44	14.27	1295.31	1295.31	0.00
Above Split	236.68	981.04	14841.32	12.11	1297.16	1297.16	
Above Split	236.68	981.04	14463.88	12.10	1297.17	1297.16	0.01
Above Split	236.77	1105.73	13341.92	13.33	1297.65	1297.65	
Above Split	236.77	986.83	12986.40	13.48	1297.65	1297.65	0.00
Above Split	236.87	1349.98	13935.72	12.56	1298.88	1298.88	
Above Split	236.87	1055.60	13246.34	13.21	1298.80	1298.88	-0.08
Above Split	236.96	1295.92	15607.90	11.21	1300.40	1300.40	
Above Split	236.96	1147.80	15249.67	11.48	1300.43	1300.40	0.04
Above Split	237.06	1284.14	16314.33	10.73	1301.39	1301.39	
Above Split	237.06	1266.14	16409.59	10.66	1301.48	1301.39	0.09
Above Split	237.16	1324.55	16560.47	10.57	1302.17	1302.17	
Above Split	237.16	1324.55	16661.53	10.50	1302.24	1302.17	0.08
Above Split	237.26	1287.69	15172.96	11.53	1302.72	1302.72	
Above Split	237.26	1272.66	15235.21	11.49	1302.78	1302.72	0.06
Above Split	237.35	1135.35	15134.91	11.56	1303.52	1303.52	
Above Split	237.35	1081.76	14938.82	11.71	1303.55	1303.52	0.03
Above Split	237.46	1139.98	15937.16	11.10	1304.52	1304.52	
Above Split	237.46	1034.62	15317.53	11.42	1304.54	1304.52	0.02
Above Split	237.56	1077.15	15700.27	11.28	1305.19	1305.19	
Above Split	237.56	1077.15	15627.86	11.20	1305.29	1305.19	0.10
Above Split	237.65	1033.79	17500.97	10.14	1306.12	1306.12	
Above Split	237.65	1033.79	17335.58	10.09	1306.20	1306.12	0.08

ERRORS WARNINGS AND NOTES
Errors Warnings and Notes for Plan : Method 1 FW

River: Salt River Reach: Above Split RS: 237.65 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 237.56 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 237.46 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Note - Manning's n values were composited to a single value in the main channel.
River: Salt River Reach: Above Split RS: 237.46 Profile: PF#2
Note - Manning's n values were composited to a single value in the main channel.
River: Salt River Reach: Above Split RS: 237.35 Profile: PF#1
Note - Manning's n values were composited to a single value in the main channel.
River: Salt River Reach: Above Split RS: 237.35 Profile: PF#2
Note - Manning's n values were composited to a single value in the main channel.
River: Salt River Reach: Above Split RS: 237.06 Profile: PF#1
Note - Manning's n values were composited to a single value in the main channel.
River: Salt River Reach: Above Split RS: 237.06 Profile: PF#2
Note - Manning's n values were composited to a single value in the main channel.
River: Salt River Reach: Above Split RS: 236.96 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 236.96 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 236.87 Profile: PF#1
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 236.87 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 236.77 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 236.77 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 236.68 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.
River: Salt River Reach: Above Split RS: 236.68 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.
River: Salt River Reach: Above Split RS: 236.59 Profile: PF#1
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate

the need for additional cross sections.
River: Salt River Reach: Above Split RS: 236.59 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 236.49 Profile: PF#1
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 236.49 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 236.39 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 236.39 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 236.12 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 236.03 Profile: PF#1
Note - Manning's n values were composited to a single value in the main channel.
River: Salt River Reach: Above Split RS: 236.03 Profile: PF#2
Note - Manning's n values were composited to a single value in the main channel.
River: Salt River Reach: Above Split RS: 235.93 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 235.93 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 235.56 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 235.47 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 235.38 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 235.38 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate

the need for additional cross sections.
River: Salt River Reach: Above Split RS: 235.28 Profile: PF#1
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Manning's n values were composited to a single value in the main channel.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.
River: Salt River Reach: Above Split RS: 235.28 Profile: PF#2
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Manning's n values were composited to a single value in the main channel.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.
River: Salt River Reach: Above Split RS: 235.19 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 235.08 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 235.08 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 234.99 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 234.99 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 234.60 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 234.51 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 234.42 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 234.42 Profile: PF#2

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 234.28 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 234.00 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 233.89 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 233.80 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 233.73 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 233.64 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 233.64 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 233.55 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 233.46 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.
River: Salt River Reach: Above Split RS: 233.46 Profile: PF#2
Note - Manning's n values were composited to a single value in the main channel.
River: Salt River Reach: Above Split RS: 233.36 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.
River: Salt River Reach: Above Split RS: 233.36 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.
River: Salt River Reach: Above Split RS: 233.27 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: Salt River Reach: Above Split RS: 233.27 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 233.18 Profile: PF#1
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 233.18 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 233.08 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 233.08 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 232.98 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 232.98 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 232.89 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 232.89 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 232.80 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 232.70 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 232.70 Profile: PF#2
Warning - Divided flow computed for this cross-section.

River: Salt River Reach: Above Split RS: 232.60 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 232.32 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 232.13 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.
River: Salt River Reach: Above Split RS: 232.13 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 232.04 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 232.04 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 231.95 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 231.95 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 231.86 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.
River: Salt River Reach: Above Split RS: 231.86 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.
River: Salt River Reach: Above Split RS: 231.76 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate

the need for additional cross sections.
River: Salt River Reach: Above Split RS: 231.76 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 231.67 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 231.67 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 231.61 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 231.61 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 231.605 Profile: PF#1
Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir flow. The momentum answer has been disregarded.
River: Salt River Reach: Above Split RS: 231.605 Profile: PF#1 Upstream
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 231.605 Profile: PF#1 Downstream
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.
River: Salt River Reach: Above Split RS: 231.605 Profile: PF#2
Note - Momentum answer is not valid if the water surface is above the low chord or if there is weir flow. The momentum answer has been disregarded.
River: Salt River Reach: Above Split RS: 231.605 Profile: PF#2 Upstream
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 231.605 Profile: PF#2 Downstream
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.
River: Salt River Reach: Above Split RS: 231.60 Profile: PF#1

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 231.60 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 231.57 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 231.57 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 231.48 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 231.48 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 231.39 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 231.39 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 231.30 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 231.30 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 231.20 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 231.20 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 231.11 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 231.11 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 231.01 Profile: PF#1
Warning - Divided flow computed for this cross-section.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: Salt River Reach: Above Split RS: 231.01 Profile: PF#2

Warning - Divided flow computed for this cross-section.

River: Salt River Reach: Above Split RS: 230.92 Profile: PF#1

Warning - Divided flow computed for this cross-section.

Warning - The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.

Note - Manning's n values were composited to a single value in the main channel.

Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

River: Salt River Reach: Above Split RS: 230.92 Profile: PF#2

Warning - Divided flow computed for this cross-section.

Warning - The parabolic search method failed to converge on critical depth. The program will try the cross section slice/secant method to find critical depth.

Note - Manning's n values were composited to a single value in the main channel.

Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

River: Salt River Reach: Above Split RS: 230.83 Profile: PF#1

Warning - Divided flow computed for this cross-section.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Note - Manning's n values were composited to a single value in the main channel.

River: Salt River Reach: Above Split RS: 230.83 Profile: PF#2

Warning - Divided flow computed for this cross-section.

Note - Manning's n values were composited to a single value in the main channel.

River: Salt River Reach: Above Split RS: 230.74 Profile: PF#1

Warning - Divided flow computed for this cross-section.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Note - Manning's n values were composited to a single value in the main channel.

River: Salt River Reach: Above Split RS: 230.74 Profile: PF#2

Warning - Divided flow computed for this cross-section.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Note - Manning's n values were composited to a single value in the main channel.

River: Salt River Reach: Above Split RS: 230.64 Profile: PF#1

Warning - Divided flow computed for this cross-section.

River: Salt River Reach: Above Split RS: 230.64 Profile: PF#2

Warning - Divided flow computed for this cross-section.

River: Salt River Reach: Above Split RS: 230.55 Profile: PF#1

Warning - Divided flow computed for this cross-section.

Note - Manning's n values were composited to a single value in the main channel.

River: Salt River Reach: Above Split RS: 230.55 Profile: PF#2

Warning - Divided flow computed for this cross-section.

Note - Manning's n values were composited to a single value in the main channel.

River: Salt River Reach: Above Split RS: 230.45 Profile: PF#1

Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 230.45 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 230.35 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 230.26 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 230.26 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 230.17 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 230.17 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 230.07 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 230.07 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 229.95 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 229.95 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 229.86 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 229.86 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 229.77 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross

sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 229.77 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 229.68 Profile: PF#1
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.
River: Salt River Reach: Above Split RS: 229.68 Profile: PF#2
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.
River: Salt River Reach: Above Split RS: 229.59 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 229.59 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 229.49 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 229.40 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 229.40 Profile: PF#2
Warning - Divided flow computed for this cross-section.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 229.30 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 229.30 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 229.21 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 229.21 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 229.11 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 229.11 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 229.02 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 229.02 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 228.92 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 228.92 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: Salt River Reach: Above Split RS: 228.83 Profile: PF#1

Warning - Divided flow computed for this cross-section.

River: Salt River Reach: Above Split RS: 228.83 Profile: PF#2

Warning - Divided flow computed for this cross-section.

River: Salt River Reach: Above Split RS: 228.73 Profile: PF#1

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

River: Salt River Reach: Above Split RS: 228.73 Profile: PF#2

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

River: Salt River Reach: Above Split RS: 228.63 Profile: PF#1

Warning - Divided flow computed for this cross-section.

River: Salt River Reach: Above Split RS: 228.54 Profile: PF#1

Warning - Divided flow computed for this cross-section.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

River: Salt River Reach: Above Split RS: 228.54 Profile: PF#2

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

River: Salt River Reach: Above Split RS: 228.45 Profile: PF#1

Warning - Divided flow computed for this cross-section.

Warning - The cross-section end points had to be extended vertically for the computed water surface.

River: Salt River Reach: Above Split RS: 228.26 Profile: PF#1

Warning - Divided flow computed for this cross-section.

River: Salt River Reach: Above Split RS: 228.16 Profile: PF#1

Warning - Divided flow computed for this cross-section.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

River: Salt River Reach: Above Split RS: 228.16 Profile: PF#2

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

River: Salt River Reach: Above Split RS: 228.07 Profile: PF#1

Warning - Divided flow computed for this cross-section.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

River: Salt River Reach: Above Split RS: 228.07 Profile: PF#2

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross

sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 227.97 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 227.88 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 227.79 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 227.79 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 227.71 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 227.71 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 227.65 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 227.65 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 227.56 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Above Split RS: 227.46 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 227.46 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 227.36 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 227.36 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: Above Split RS: 227.27 Profile: PF#1

Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

River: Salt River Reach: Above Split RS: 227.27 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.

River: Salt River Reach: Above Split RS: 227.07 Profile: PF#1
Warning - A flow split was encountered. The program first calculated the momentum of both channels below the junction. An energy balance was performed across the junction from the stream with the highest momentum downstream to the section upstream.

River: Salt River Reach: Above Split RS: 227.07 Profile: PF#2
Warning - A flow split was encountered. The program first calculated the momentum of both channels below the junction. An energy balance was performed across the junction from the stream with the highest momentum downstream to the section upstream.

River: Salt River Reach: South Split RS: 227.00 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

River: Salt River Reach: South Split RS: 227.00 Profile: PF#2
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

River: Salt River Reach: South Split RS: 226.89 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

River: Salt River Reach: South Split RS: 226.89 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

River: Salt River Reach: South Split RS: 226.78 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: Salt River Reach: South Split RS: 226.78 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: Salt River Reach: South Split RS: 226.66 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate

the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.
River: Salt River Reach: South Split RS: 226.66 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Note - Manning's n values were composited to a single value in the main channel.
River: Salt River Reach: South Split RS: 226.54 Profile: PF#1
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.
River: Salt River Reach: South Split RS: 226.54 Profile: PF#2
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.
River: Salt River Reach: South Split RS: 226.43 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: South Split RS: 226.43 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: South Split RS: 226.38 Profile: PF#1
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical

depth for the water surface and continued on with the calculations.
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

River: Salt River Reach: South Split RS: 226.38 Profile: PF#2
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.

River: Salt River Reach: South Split RS: 226.27 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

River: Salt River Reach: South Split RS: 226.27 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

River: Salt River Reach: South Split RS: 226.20 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

River: Salt River Reach: South Split RS: 226.20 Profile: PF#2
Warning - Divided flow computed for this cross-section.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

River: Salt River Reach: South Split RS: 226.11 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

River: Salt River Reach: South Split RS: 226.11 Profile: PF#2
Warning - Divided flow computed for this cross-section.

Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: North Split RS: 226.88 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: North Split RS: 226.79 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: North Split RS: 226.70 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: North Split RS: 226.70 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: North Split RS: 226.61 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: North Split RS: 226.61 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
River: Salt River Reach: North Split RS: 226.60 Profile: PF#1
Warning - The flow regime calculated by the momentum equation shows class B flow. For the best solution, this profile should be run as a mixed flow problem.
Warning - Pier drag coefficient of 2.0 assumed for Class B flow.
River: Salt River Reach: North Split RS: 226.60 Profile: PF#1 Upstream
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: North Split RS: 226.60 Profile: PF#1 Downstream
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.
River: Salt River Reach: North Split RS: 226.60 Profile: PF#2
Warning - The flow regime calculated by the momentum equation shows class B flow. For the best solution, this profile should be run as a mixed flow problem.
Warning - Pier drag coefficient of 2.0 assumed for Class B flow.
River: Salt River Reach: North Split RS: 226.60 Profile: PF#2 Upstream
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: North Split RS: 226.60 Profile: PF#2 Downstream

Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.
River: Salt River Reach: North Split RS: 226.59 Profile: PF#1
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.
River: Salt River Reach: North Split RS: 226.59 Profile: PF#2
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.
River: Salt River Reach: North Split RS: 226.44 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: North Split RS: 226.44 Profile: PF#2
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: North Split RS: 226.31 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: North Split RS: 226.31 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: North Split RS: 226.24 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross

sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: North Split RS: 226.24 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
River: Salt River Reach: North Split RS: 226.13 Profile: PF#1
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.
River: Salt River Reach: North Split RS: 226.13 Profile: PF#2
Warning - The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning - The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning - During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.
Note - Multiple critical depths were found at this location. The critical depth with the lowest, valid, water surface was used.
River: Salt River Reach: Below Split RS: 226.03 Profile: PF#1
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Below Split RS: 225.92 Profile: PF#1
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: Below Split RS: 225.92 Profile: PF#2
Warning - The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
River: Salt River Reach: Below Split RS: 225.82 Profile: PF#1
Warning - Divided flow computed for this cross-section.
Warning - The cross-section end points had to be extended vertically for the computed water surface.
River: Salt River Reach: Below Split RS: 225.82 Profile: PF#2
Warning - Divided flow computed for this cross-section.
River: Salt River Reach: Below Split RS: 225.73 Profile: PF#1
Warning - Divided flow computed for this cross-section.

```
      Warning - The cross-section end points had to be extended vertically for the computed water surface.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: Salt River  Reach: Below Split     RS: 225.73     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Warning - The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for additional cross
                sections.
      Warning - The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
                This may indicate the need for additional cross sections.
River: Salt River  Reach: Below Split     RS: 225.63     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Note -    Manning's n values were composited to a single value in the main channel.
River: Salt River  Reach: Below Split     RS: 225.63     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Note -    Manning's n values were composited to a single value in the main channel.
River: Salt River  Reach: Below Split     RS: 225.54     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
      Note -    Manning's n values were composited to a single value in the main channel.
River: Salt River  Reach: Below Split     RS: 225.54     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
      Note -    Manning's n values were composited to a single value in the main channel.
River: Salt River  Reach: Below Split     RS: 225.44     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Below Split     RS: 225.44     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Below Split     RS: 225.30     Profile: PF#1
      Warning - Divided flow computed for this cross-section.
River: Salt River  Reach: Below Split     RS: 225.30     Profile: PF#2
      Warning - Divided flow computed for this cross-section.
```