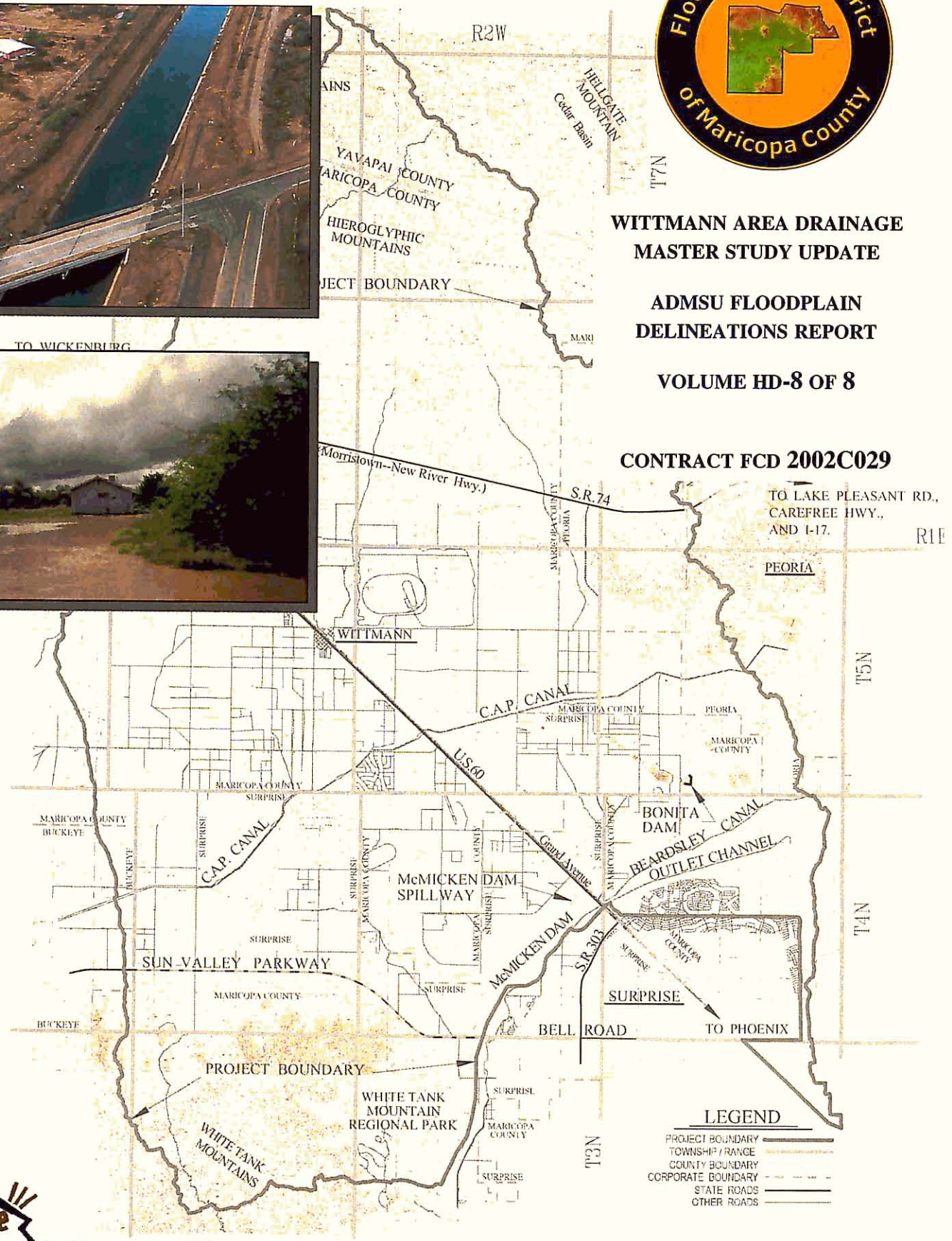

Flood Control District of Maricopa County

WITTMANN AREA DRAINAGE MASTER STUDY UPDATE

ADMSU FLOODPLAIN DELINEATIONS REPORT

VOLUME HD-8 OF 8

CONTRACT FCD 2002C029

Entellus™

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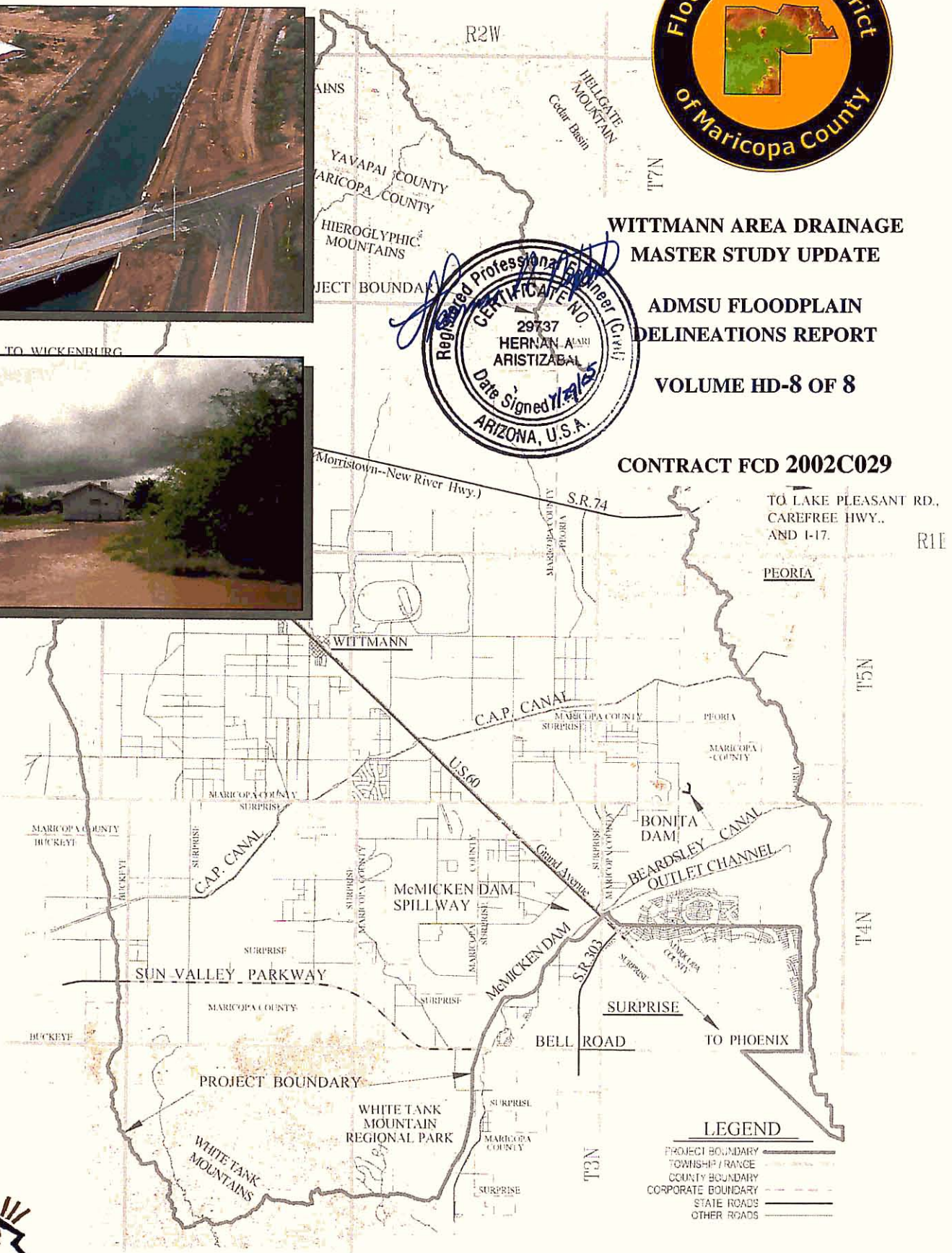
WITTMANN AREA DRAINAGE MASTER STUDY UPDATE

ADMSU FLOODPLAIN DELINEATIONS REPORT

VOLUME HD-8 OF 8

CONTRACT FCD 2002C029



Flood Control District of Maricopa County

WITTMANN AREA DRAINAGE MASTER STUDY UPDATE

ADMSU FLOODPLAIN DELINEATIONS REPORT

VOLUME HD-8 OF 8

CONTRACT FCD 2002C029

Registered Professional Engineer (Cert.)
CERTIFICATE NO.
29737
HERNAN A ARISTIZABAL
Date Signed 11/23/15
ARIZONA, U.S.A.

Entellus™

WITTMANN AREA DRAINAGE MASTER STUDY UPDATE

CONTRACT 2002C029

VOLUME NAME	VOLUME ID
EXISTING CONDITIONS ANALYSIS (PART I)	EC
ADMSU HYDROLOGY	HY
GEOMORPHOLOGY REPORT	GR
SUBSIDENCE REPORT	SU
ALTERNATIVES IDENTIFICATION (PART II)	AI
RULES OF DEVELOPMENT (PART III)	RD
ALTERNATIVE ANALYSIS MCMICKEN DAM	MA
MCMICKEN DAM HYDROLOGY	MD
MCMICKEN DAM FINAL LANDSCAPE CHARACTER COMPATABILITY ANALYSIS REPORT	LA
FLOODPLAIN DELINEATION	HD
REPORT OF SURVEY	SR
SUN VALLEY PARKWAY CULVERT EVALUATION	SV
ADMINISTRATIVE REPORT	AR

Note: Volume ID will be used for Section, Plate, Figure, and Table Identifiers.

WITTMANN AREA DRAINAGE MASTER STUDY UPDATE

FCD 2002C029

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CHECK-RAS Program: NT Check
Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\3E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\3E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\3E.G01
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Selected profiles: Floodplain;Floodway
Date: 7/18/2005
Time: 1:43:45 PM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #1,3 East (South of						
6.085		0.044	0.054	0.045	0.1	0.3
6.062		0.044	0.054	0.045	0.1	0.3
6.024		0.044	0.054	0.045	0.1	0.3
5.983		0.044	0.054	0.045	0.1	0.3
5.941		0.044	0.054	0.045	0.1	0.3
5.874		0.044	0.054	0.045	0.1	0.3
5.806		0.044	0.054	0.045	0.1	0.3
5.737		0.044	0.054	0.045	0.1	0.3
5.662		0.044	0.054	0.045	0.1	0.3
5.584		0.044	0.054	0.045	0.1	0.3
5.519		0.044	0.054	0.045	0.1	0.3
5.435		0.044	0.054	0.045	0.1	0.3
5.361		0.044	0.054	0.045	0.1	0.3
5.291		0.044	0.054	0.045	0.1	0.3
5.203		0.044	0.054	0.045	0.1	0.3
5.14		0.044	0.054	0.045	0.1	0.3
5.071		0.044	0.054	0.045	0.1	0.3
4.997		0.044	0.054	0.045	0.1	0.3
4.919		0.044	0.054	0.045	0.1	0.3
4.865		0.044	0.054	0.045	0.1	0.3
4.811		0.044	0.054	0.045	0.1	0.3
4.744		0.045	0.059	0.045	0.1	0.3
4.675		0.045	0.059	0.045	0.1	0.3
4.595		0.045	0.059	0.045	0.1	0.3
4.521		0.045	0.059	0.045	0.1	0.3
4.454		0.045	0.059	0.045	0.1	0.3
4.349		0.045	0.059	0.045	0.1	0.3
4.283		0.045	0.059	0.045	0.1	0.3
4.21		0.045	0.059	0.045	0.1	0.3
4.126		0.045	0.059	0.045	0.1	0.3
3.977		0.045	0.059	0.045	0.1	0.3
3.925		0.045	0.059	0.045	0.1	0.3
3.829		0.038	0.03	0.038	0.1	0.3
3.761		0.038	0.03	0.038	0.1	0.3
3.679		0.038	0.03	0.038	0.1	0.3
3.615		0.038	0.03	0.038	0.1	0.3
3.56		0.038	0.03	0.038	0.1	0.3
3.475		0.038	0.03	0.038	0.1	0.3
3.407		0.038	0.03	0.038	0.1	0.3
3.328		0.038	0.03	0.038	0.1	0.3
3.267		0.038	0.03	0.038	0.1	0.3
3.235		0.038	0.03	0.038	0.3	0.5
3.173		0.038	0.03	0.038	0.3	0.5
3.1715	Bridge-Up	0.038	0.03	0.038	0.3	0.5
3.1715	Bridge-Dn	0.038	0.03	0.038	0.3	0.5
3.17		0.038	0.03	0.038	0.3	0.5
3.157		0.038	0.03	0.038	0.3	0.5
3.151		0.038	0.03	0.038	0.3	0.5
3.13	Culvert-Up	0.038	0.03	0.038	0.3	0.5
3.13	Culvert-Dn	0.038	0.03	0.038	0.3	0.5
3.109		0.038	0.03	0.038	0.3	0.5
3.048		0.038	0.03	-----	0.3	0.5
		-----	0.038	-----		
2.958		0.038	-----	-----	0.1	0.3
		0.062	-----	-----		
2.877		0.048	0.062	0.062	0.1	0.3
		-----	-----	0.048		
2.817		0.03	0.062	-----	0.1	0.3

b/c of structure

		0.062	0.048	-----		
2.748		0.051	0.064	0.043	0.1	0.3
2.664		0.051	0.064	0.064	0.1	0.3
		-----	-----	0.043		
2.588		0.051	0.051	0.064	0.1	0.3
		-----	0.064	0.043		
2.548		0.051	0.051	0.064	0.1	0.3
		-----	0.064	0.043		
2.485		0.051	-----	-----	0.1	0.3
		0.064	-----	-----		
2.437		0.051	-----	-----	0.1	0.3
		0.064	-----	-----		
2.394		0.051	-----	-----	0.1	0.3
		0.064	-----	-----		
2.351		0.051	0.064	0.064	0.1	0.3
		-----	-----	0.043		
2.29		0.038	-----	-----	0.1	0.3
		0.064	-----	-----		
2.229		0.038	0.068	0.045	0.1	0.3
		0.068	0.045	0.068		
		-----	-----	0.038		
2.154		0.038	-----	-----	0.1	0.3
		0.045	-----	-----		
2.056		0.038	-----	-----	0.1	0.3
		0.068	-----	-----		
1.985		0.038	0.068	0.038	0.1	0.3
1.901		0.038	-----	-----	0.1	0.3
		0.068	-----	-----		
1.837		0.038	-----	-----	0.1	0.3
		0.068	-----	-----		
1.776		0.038	0.038	0.068	0.1	0.3
		-----	0.068	0.038		
1.706		0.038	-----	-----	0.1	0.3
		0.068	-----	-----		
1.636		0.038	-----	-----	0.1	0.3
		0.068	-----	-----		
1.555		0.038	-----	-----	0.1	0.3
		0.068	-----	-----		
1.462		0.038	0.068	0.038	0.1	0.3
1.398		0.036	-----	-----	0.1	0.3
		0.068	-----	-----		
		0.093	-----	-----		
1.381		0.063	-----	-----	0.3	0.5
		0.093	-----	-----		
1.366	Culvert-Up	0.063	-----	-----	0.3	0.5
		0.093	-----	-----		
1.366	Culvert-Dn	0.093	-----	-----	0.3	0.5
1.351		0.093	-----	-----	0.3	0.5
1.284		0.038	-----	-----	0.3	0.5
		0.093	-----	-----		
1.233		0.031	-----	-----	0.1	0.3
		0.093	-----	-----		
1.156		0.031	0.093	0.093	0.1	0.3
		-----	-----	0.044		
1.132		0.031	0.093	0.044	0.1	0.3
1.122		0.031	-----	-----	0.1	0.3
		0.093	-----	-----		
1.039		0.031	-----	-----	0.1	0.3
		0.093	-----	-----		
		0.031	-----	-----		
		0.093	-----	-----		
.942		0.031	-----	-----	0.1	0.3
		0.093	-----	-----		
		0.031	-----	-----		
		0.044	-----	-----		
.831		0.093	-----	-----	0.1	0.3
.699		0.074	-----	-----	0.1	0.3
.587		0.038	-----	-----	0.1	0.3
.522		0.048	-----	-----	0.1	0.3
.461		0.048	-----	-----	0.1	0.3
.321		0.053	-----	-----	0.1	0.3
.285		0.053	0.053	0.075	0.1	0.3
		-----	0.075	0.035		
.214		0.093	-----	-----	0.1	0.3

b/c of structure

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.03	0.093
Right Overbank n Value:	0.035	0.093
Channel n Value:	0.03	0.093
Contraction Coefficient:	0.1	0.3
Expansion Coefficient:	0.3	0.5

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

ROUGHNESS COEFFICIENT CHECK

RS: 6.085
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 6.062
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 6.024
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 5.983
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 5.941
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 5.874
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 5.806
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 5.737
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 5.662
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 5.584
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 5.519
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 5.435
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 5.361
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 5.291
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 5.203
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 5.14
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 5.071
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 4.997
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 4.919
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 4.865
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 4.811
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 4.744
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.059 The overbank n values should be reevaluated.

RS: 4.675
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.059 The overbank n values should be reevaluated.

RS: 4.595
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.059 The overbank n values should be reevaluated.

RS: 4.521
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.059 The overbank n values should be reevaluated.

RS: 4.454
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.059 The overbank n values should be reevaluated.

RS: 4.349
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.059

The overbank n values should be reevaluated.

RS: 4.283
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.059 The overbank n values should be reevaluated.

RS: 4.21
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.059 The overbank n values should be reevaluated.

RS: 4.126
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.059 The overbank n values should be reevaluated.

RS: 3.977
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.059 The overbank n values should be reevaluated.

RS: 3.925
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.059 The overbank n values should be reevaluated.

RS: 2.748
NT RC 05 The left overbank n value of 0.051 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.064 The overbank n values should be reevaluated.

RS: 1.985
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.038 are less than or equal to the channel n value of 0.068 The overbank n values should be reevaluated.

RS: 1.462
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.038 are less than or equal to the channel n value of 0.068 The overbank n values should be reevaluated.

RS: 1.156
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.132
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.132
NT RC 05 The left overbank n value of 0.031 and the right overbank n value of 0.044 are less than or equal to the channel n value of 0.093 The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

RS: 3.048
NT TL 02 Contraction and expansion loss coefficients are 0.3 and 0.5 respectively. However, this cross section is not at the structure. They should be equal to 0.1 and 0.3.

RS: 1.398
NT TL 01 This is section 4
Contraction and expansion loss coefficients are 0.1 and 0.3
They should be equal to 0.3 and 0.5 respectively.

RS: 1.284
NT TL 02 Contraction and expansion loss coefficients are 0.3 and 0.5 respectively. However, this cross section is not at the structure. They should be equal to 0.1 and 0.3.

ROUGHNESS COEFFICIENT AT STRUCTURES

RS: 3.1715
NT RS 02 The channel n value of 0.03 for the upstream internal bridge opening section is equal or larger than the channel n value of 0.03 at Section 3. Usually, the channel n value of the bridge opening section is less than the channel n value of Section 3. The selection of the n value(s) should be reevaluated.

RS: 3.1715
NT RS 02 The channel n value of 0.03 for the downstream internal bridge opening section is equal or larger than the channel n value of 0.03 at Section 2 Usually, the channel n value of the bridge opening section is less than the channel n value of Section 2. The selection of the n value(s) should be reevaluated.

---END---

CHECK-RAS Program, XS Check
Cross Section Location and Alignment Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\3E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\3E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\3E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\3E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\3E.xs
Selected profiles: Floodplain;Floodway
Date: 7/18/2005
Time: 1:43:46 PM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #1,3 East (South of						
6.085	124.386	118.853	111.625	9.18	440	C
6.062	186.265	198.504	204.441	50.76	440	C
6.024	206.286	216.987	229.877	94.34	440	D
5.983	216.932	221.002	218.429	145.49	440	D
5.941	358.622	353.164	352.089	196.14	440	
5.874	368.786	357.184	348.588	182.02	440	D
5.806	371.729	362.971	345.317	248.58	440	
5.737	385.863	397.066	403.687	148.34	440	D
5.662	419.352	409.356	396.9	195.83	440	
5.584	357.597	344.004	329.591	251.65	440	
5.519	434.988	442.719	469.387	155.94	440	
5.435	388.809	389.135	395.386	273.28	440	
5.361	353.055	368.139	405.093	391.79	440	D
5.291	467.286	464.185	428.177	379.9	440	D
5.203	353.063	332.27	356.168	972.62	780	D
5.14	355.994	361.882	356.806	396.53	780	D
5.071	398.898	390.621	386.612	271.6	780	
4.997	398.113	413.32	407.16	344.91	780	D
4.919	276.715	285.212	297.753	429.19	780	D
4.865	301.797	283.513	274.622	365.67	780	D
4.811	365.623	351.728	343.507	304.97	780	
4.744	362.585	366.554	359.071	463.23	780	
4.675	414.304	422.274	418.997	403.11	780	D
4.595	387.909	392.807	408.113	412.11	780	D
4.521	350.791	351.215	373.025	656.33	780	D
4.454	542.185	553.99	574.885	689.26	780	D
4.349	352.736	350.296	329.438	709.11	780	D
4.283	367.591	384.386	433.728	1153.81	780	
4.21	442.418	440.91	456.803	887.03	780	D,C
4.126	797.666	785.959	608.482	1121.03	780	D
3.977	271.943	273.184	349.828	1186.02	1650	D
3.925	494.87	504.652	404.653	845.51	1650	D
3.829	369.689	358.814	345.231	952.89	1650	D
3.761	435.388	435.089	460.698	1014.29	1650	D
3.679	342.976	337.748	322.007	942.78	1650	D
3.615	304.474	288.128	254.803	1008.7	1650	D
3.56	440.199	450.485	451.198	1143.35	1650	D
3.475	350.59	356.428	354.34	891.4	1650	D
3.407	396.382	415.61	419.67	845.79	1650	D
3.328	293.987	323.312	319.364	628	1650	D
3.267	159.538	167.369	188.895	548.13	1650	
3.235	414.536	328.29	265.354	386.78	1650	D,C
3.173	129.061	17.648	28.266	575.93	1650	D
3.1715	Bridge #1-Up					
3.1715	Bridge #1-Dn					
3.17	77.902	69.821	80.26	54.66	1650	D
3.157	28.449	30.245	29.427	97.78	1650	C
3.151	210.515	222.81	217.67	60.02	1650	
3.13	CULVERT#1-Up					
3.13	CULVERT#1-Dn					
3.109	305.331	321.684	343.88	75.44	1650	
3.048	452.518	476.919	500.365	198.33	1650	D,C
2.958	414.939	426.451	430.883	592.87	1650	D
2.877	318.674	317.96	313.363	645.75	1650	D
2.817	344.523	366.145	362.552	615.94	1650	D
2.748	462.113	442.952	435.514	625.04	1650	D
2.664	420.956	399.418	364.174	754.69	1650	D

2.588	224.432	210.749	199.538	652.24	1650	
2.548	336.039	331.404	325.749	509.64	1650	
2.485	262.293	253.279	253.185	583.74	1650	
2.437	220.49	228.855	274.819	580.72	1650	
2.394	228.845	226.513	257.44	724.91	1650	D
2.351	296.188	324.145	319.849	687.63	1650	D
2.29	317.616	323.915	328.589	735.09	1650	
2.229	402.114	394.656	429.15	1010.9	1650	
2.154	485.296	518.518	540.194	683.7	1950	D
2.056	380.356	375.051	372.193	388.98	1950	
1.985	462.905	441.487	438.438	374.67	1950	
1.901	320.519	336.233	334.176	441.05	1950	
1.837	308.804	324.193	324.812	506.56	1950	D
1.776	344.111	367.851	388.227	609.08	1950	
1.706	358.459	368.838	382.237	437.39	1950	
1.636	415.406	430.036	419.295	531.78	1950	
1.555	497.792	489.302	470.138	647.45	1950	D
1.462	500.001	335.304	292.571	640.83	1950	D
1.398	349.095	352.8	352.797	1222.42	2460	
1.381	63.584	90	83.087	1375.5	2460	
1.366	CULVERT#1-Up					
1.366	CULVERT#1-Dn					
1.366	CULVERT#2-Up					
1.366	CULVERT#2-Dn					
1.366	CULVERT#3-Up					
1.366	CULVERT#3-Dn					
1.366	CULVERT#4-Up					
1.366	CULVERT#4-Dn					
1.351	169.662	160.089	161.298	1027.57	2460	D
1.284	292.599	269.71	240.581	859.6	2460	
1.233	431.881	407.559	373.591	514.9	2460	
1.156	123.515	125.959	126.171	142.67	2460	
1.132	146.776	53.44	173.902	79.53	2460	© (S/C)
1.122	456.247	438.624	428.303	310	2460	
1.039	517.093	514.244	525.243	690	2460	
.942	587.998	587.629	608.069	921.21	2460	
.831	694.046	697.61	690.7	1169.56	2520	
.699	580.248	589.085	661.405	1351.81	2520	D
.587	349.398	343.725	340.073	460.98	2520	D
.522	325.055	322.491	345.364	764.4	2520	
.461	743.077	738.886	778.041	765.65	3000	
.321	180.061	188.816	394.345	2104.97	3000	
.285	1493.81	374.719	1324.56	2028.97	3000	
.214	0	0	0	154.35	3000	

B=blocked obstruction XS SC 05
C=critial depth XS SC 03
D=divided flow XS SC 01
E=cross section extended XS SC 02
K=known water-surface XS SC 04

DISTANCE CHECK

RS: 3.173
XS DT 03 Left overbank distance is greater than the channel distance by more than five times. Left overbank distance may be in error.

RS: 1.132
XS DT 01 Both right and left overbank distances are longer than the channel distance.

RS: 0.285
XS DT 01 Both right and left overbank distances are longer than the channel distance.

SPACING CHECK

INEFFECTIVE FLOW CHECK

DISCHARGE CHECK

LOCATION CHECK

RS: 1.156
XS LC 01 Lenchl Up/TopwdthAct Dn = 1.58
MaxChlDpth Up/MaxChlDpth Dn = 1.99
TopwdthAct Up/TopwdthAct Dn = 1.79
This cross section is located too far upstream from the critical depth cross section.

BOUNDARY CONDITION CHECK

XS BC 02 The name of the stream is Reach #1,3 East (South of Known WS = 1348.5 is specified as the downstream boundary for profile Floodplain

XS BC 02 The name of the stream is Reach #1,3 East (South of Known WS = 1348.5 is specified as the downstream boundary for profile Floodway

LATERAL WEIRS CHECK

---END---

CHECK-RAS Program: Floodway Check
Encroachment Method, Starting WSEL, Floodway Width, and Surcharge Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\3E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\3E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\3E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\3E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\3E.fw
Selected profiles: Floodplain;Floodway
Date: 7/18/2005
Time: 1:43:48 PM

SECNO	Method	Surcharge	EncStaL	EncStaR	LStaEff	RStaEff	Structure
Reach #1,3 East (South of							
6.085					9995.5	10004.67	
6.085	1	0.19	9994	10006	9995.41	10004.72	
6.062					9983.4	10034.16	
6.062	1	0.18	9980	10014	9982.64	10014	
6.024					9959.23	10054.02	
6.024	1	0.37	9981	10040	9981	10040	
5.983					9896.22	10057.24	
5.983	1	0.43	9968	10006	9968	10006	
5.941					9858.93	10055.07	
5.941	1	0.15	9976	10020	9976	10020	
5.874					9822.54	10031.09	
5.874	1	0.41	9967	10014	9967	10014	
5.806					9838.13	10086.71	
5.806	1	0.78	9984	10027	9984	10027	
5.737					9964.7	10150.36	
5.737	1	0.81	9984	10011	9984	10011	
5.662					9970.09	10165.92	
5.662	1	0.94	9984	10030	9984	10030	
5.584					9871.79	10123.44	
5.584	1	0.9	9980	10026	9980	10026	
5.519					9957.64	10113.58	
5.519	1	0.81	9968	10008	9968	10008	
5.435					9964.02	10237.3	
5.435	1	0.19	9980	10054	9980	10054	
5.361					9873.66	10292.41	
5.361	1	0.58	9977	10113	9977	10113	
5.291					9915.17	10372.17	
5.291	1	0.54	9975	10045	9975	10045	
5.203					9702.93	10923.61	
5.203	1	0.99	9844	10108	9844	10108	
5.14					9777.7	10208.48	
5.14	1	0.36	9929	10012	9929	10012	
5.071					9771.49	10043.09	
5.071	1	0.28	9896	10025	9896	10025	
4.997					9735.18	10096.95	
4.997	1	-0.01	9914	10017	9914	10017	
4.919					9643.56	10108.28	
4.919	1	0.44	9910	10046	9910	10046	
4.865					9737.44	10110.62	
4.865	1	0.75	9943	10021	9943	10021	
4.811					9822.92	10127.89	
4.811	1	0.41	9921	10028	9921	10028	
4.744					9725.33	10188.56	
4.744	1	0.29	9930	10078	9930	10078	
4.675					9819.76	10269.14	
4.675	1	0.53	9981	10064	9981	10064	
4.595					9748.96	10187.54	
4.595	1	0.61	9915	10032	9915	10032	
4.521					9724.27	10385.1	
4.521	1	0.47	9960	10094	9960	10094	
4.454					9878.45	10569.1	
4.454	1	0.68	9927	10077	9927	10077	
4.349					9831.8	10800	
4.349	1	0.98	9926	10164	9926	10164	
4.283					9846.19	11000	
4.283	1	0.82	9971	10166	9971	10166	
4.21					9921.55	11238	
4.21	1	0.45	9947	10402	9947	10402	

4.126					9608.11	11438	
4.126	1	0.78	9867	10692	9867	10692	
3.977					9445.92	11397.82	
3.977	1	0.51	9907	10930	9907	10930	
3.925					9522.8	11421.49	
3.925	1	0.87	9973	11002	9987.07	11002	
3.829					9712.5	11539.18	
3.829	1	0.51	9771	10975	9794.02	10975	
3.761					9813.29	11432.84	
3.761	1	0.98	9831	10797	9831	10797	
3.679					9820.85	11094.88	
3.679	1	0.67	9862	10415	9864.8	10415	
3.615					9808.39	10999.54	
3.615	1	0.97	9836	10341	9836	10341	
3.56					9518.98	10784.27	
3.56	1	0.67	9966	10160	9966	10160	
3.475					9485.12	10493.69	
3.475	1	0.91	9945	10141	9945	10141	
3.407					9480.42	10353.22	
3.407	1	0.81	9919	10102	9919	10102	
3.328					9510.29	10152.45	
3.328	1	0.78	9776	10075	9776	10075	
3.267					9565.1	10113.22	
3.267	1	0.35	9796	10030	9796	10030	
3.235					9690.76	10083.96	
3.235	1	0.22	9800	10072	9800	10072	
3.173					9502.39	10271.21	
3.173	1	-0.04	9951	10051	9951	10051	
3.1715					9524.52	10051.83	Bridge #1-Up
3.1715					9986.99	10043.95	Bridge #1-Dn
3.1715	0	0	9989.9	10045.9	9989.9	10045.9	Bridge #1-Up
3.1715	0	-0.02	9991	10047	9991	10043.84	Bridge #1-Dn
3.17					9986.99	10043.95	
3.17	1	-0.02	9991	10047	9991	10043.84	
3.157					9946.32	10044.1	
3.157	1	-0.04	9946	10041	9946.32	10041	
3.151					9961.04	10021.05	
3.151	1	0.75	9962	10027	9962	10023.6	
3.13					0	0	CULVERT#1-Up
3.13					0	0	CULVERT#1-Dn
3.13	0	0	0	0	0	0	CULVERT#1-Up
3.13	0	0	0	0	0	0	CULVERT#1-Dn
3.109					9973.6	10049.04	
3.109	1	0.08	9974	10053	9974	10049.26	
3.048					9933.49	10157.91	
3.048	1	0.21	9934	10135	9934	10135	
2.958					9764.25	10378.71	
2.958	1	0.93	9887	10170	9887	10170	
2.877					9722.27	10409.27	
2.877	1	0.99	9906	10182	9906	10182	
2.817					9701.47	10357.06	
2.817	1	0.78	9947	10187	9947	10187	
2.748					9579.88	10355.11	
2.748	1	0.44	9937	10173	9937	10173	
2.664					9630.78	10450.57	
2.664	1	0.48	9937	10274	9937	10274	
2.588					9830.38	10482.62	
2.588	1	0.28	9973	10342	9973	10342	
2.548					9955.34	10464.98	
2.548	1	0.07	9962	10400	9962	10400	
2.485					9827.89	10411.63	
2.485	1	0.09	9880	10392	9880	10392	
2.437					9893.28	10474	
2.437	1	0.32	9928	10373	9928	10373	
2.394					9894.82	10642.49	
2.394	1	0.24	9951	10250	9951	10250	
2.351					9939.99	10664.82	
2.351	1	0.52	9962	10224	9962	10224	
2.29					9966.8	10701.89	
2.29	1	0.72	10050	10353	10050	10353	
2.229					9571.1	10582	
2.229	1	0.52	9943	10376	9943	10376	
2.154					9777.79	10462.75	
2.154	1	0.25	9954	10448	9954	10448	

					3E		
2.056					9809.03	10198.01	
2.056	1	0.63	9897	10158	9897	10158	
1.985					9770.48	10145.15	
1.985	1	0.8	9900	10061	9900	10061	
1.901					9742.38	10183.43	
1.901	1	0.62	9837	10082	9837	10082	
1.837					9689.66	10197.05	
1.837	1	0.51	9887	10146	9887	10146	
1.776					9670.07	10279.14	
1.776	1	0.53	9877	10174	9877	10174	
1.706					9821.92	10259.3	
1.706	1	0.32	9956	10242	9956	10242	
1.636					9887.98	10419.76	
1.636	1	0.22	9963	10297	9963	10297	
1.555					9666.35	10386.51	
1.555	1	0.99	9735	10046	9735	10046	
1.462					9852.24	10521.63	
1.462	1	0.63	9901	10230	9901	10230	
1.398					9270	10492.42	
1.398	1	0.35	9789	10340	9789	10340	
1.381					9480.32	10855.82	
1.381	1	0.23	9695	10592	9695	10592	
1.366					0	0	CULVERT#1-Up
1.366					0	0	CULVERT#1-Dn
1.366	0	0	0	0	0	0	CULVERT#1-Up
1.366	0	0	0	0	0	0	CULVERT#1-Dn
1.366					0	0	CULVERT#2-Up
1.366					0	0	CULVERT#2-Dn
1.366	0	0	0	0	0	0	CULVERT#2-Up
1.366	0	0	0	0	0	0	CULVERT#2-Dn
1.366					0	0	CULVERT#3-Up
1.366					0	0	CULVERT#3-Dn
1.366	0	0	0	0	0	0	CULVERT#3-Up
1.366	0	0	0	0	0	0	CULVERT#3-Dn
1.366					0	0	CULVERT#4-Up
1.366					0	0	CULVERT#4-Dn
1.366	0	0	0	0	0	0	CULVERT#4-Up
1.366	0	0	0	0	0	0	CULVERT#4-Dn
1.351					9632.35	10720.89	
1.351	1	0.33	9716	10597	9716	10597	
1.284					9733	10592.6	
1.284	1	0.51	9779	10580	9779	10580	
1.233					9860.13	10375.03	
1.233	1	0.69	9966	10299	9966	10299	
1.156					9951.04	10093.71	
1.156	1	0.29	9957	10052	9957	10052	
1.132					9954.13	10033.67	
1.132	1	0.62	9954	10033	9954	10033	
1.122					9805	10115	
1.122	1	0.66	9858	10052	9858	10052	
1.039					9544	10234	
1.039	1	0.71	9705	10234	9705	10234	
0.942					9451.79	10373	
0.942	1	0.81	9677	10373	9677	10373	
0.831					9436.44	10606	
0.831	1	0.86	9683	10283	9683	10283	
0.699					9539.04	10942	
0.699	1	0.43	9752	10202	9752	10202	
0.587					9644.03	10206.15	
0.587	1	0.11	9650	10172	9650	10172	
0.522					9655.66	10420.05	
0.522	1	0.02	9660	10142	9660	10142	
0.461					9675.16	10440.81	
0.461	1	0.01	9688	10206	9688	10206	
0.321					9640.03	11745	
0.321	1	0.01	9722	11187	9722	11187	
0.285					9614.06	11643.03	
0.285	1	0.01	9682	11192	9682	11192	
0.214					9919.45	10073.8	
0.214	1	0	9920	10073	9920	10073	

ENCROACHMENT METHOD CHECK

RS: 3.1715
FW EM 01 Floodway encroachment method is not selected at this section.

RS: 3.13
FW EM 01 Floodway encroachment method is not selected at this section.

RS: 1.366
FW EM 01 Floodway encroachment method is not selected at this section.

RS: 1.366
FW EM 01 Floodway encroachment method is not selected at this section.

RS: 1.366
FW EM 01 Floodway encroachment method is not selected at this section.

RS: 1.366
FW EM 01 Floodway encroachment method is not selected at this section.

FLOODWAY WIDTH CHECK

RS: 6.085
FW FW 01 Left encroachment station 9994 is more than left channel bank station 9993.756 and less than the right channel bank station 10005.68
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 6.085
FW FW 05 The 1% annual chance flood is contained within the channel.
Right encroachment station 10006 is outside the channel.
Right channel bank station is 10005.68
Right encroachment station and/or right channel bank station should be adjusted.

RS: 6.085
FW FW 06 The right station effective of 10004.72 for the floodway profile is less than the right channel bank station of 10005.68
The right side of the floodway boundary is within the channel.
The right encroachment station of 10006 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 6.062
FW FW 03 The right channel bank station may not be at the proper location.

RS: 6.062
FW FW 06 The left station effective of 9982.64 for the floodway profile is more than the left channel bank station of 9980.09
The left side of the floodway boundary is within the channel.
The left encroachment station of 9980 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 6.024
FW FW 01 Left encroachment station 9981 is more than left channel bank station 9980.712 and less than the right channel bank station 10039.93
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 5.983
FW FW 01 Right encroachment station 10006 is less than right channel bank station 10006.21 and greater than the left channel bank station 9968.09
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 5.941
FW FW 01 Left encroachment station 9976 is more than left channel bank station 9975.83 and less than the right channel bank station 10020.3
Left encroachment station is within the channel.

The encroachment station or channel bank station should be adjusted.

RS: 5.941
FW FW 01 Right encroachment station 10020 is less than right channel bank station 10020.3 and greater than the left channel bank station 9975.83
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 5.874
FW FW 03 The right channel bank station may not be at the proper location.

RS: 5.806
FW FW 01 Right encroachment station 10027 is less than right channel bank station 10027.25 and greater than the left channel bank station 9984.1
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 5.737
FW FW 01 Right encroachment station 10011 is less than right channel bank station 10011.45 and greater than the left channel bank station 9984.39
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 5.584
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 5.519
FW FW 01 Left encroachment station 9968 is more than left channel bank station 9967.6 and less than the right channel bank station 10008.41
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 5.519
FW FW 01 Right encroachment station 10008 is less than right channel bank station 10008.41 and greater than the left channel bank station 9967.6
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 5.519
FW FW 03 The right channel bank station may not be at the proper location.

RS: 5.435
FW FW 01 Left encroachment station 9980 is more than left channel bank station 9979.573 and less than the right channel bank station 10020.06
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 5.361
FW FW 01 Left encroachment station 9977 is more than left channel bank station 9976.675 and less than the right channel bank station 10034.61
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 5.361
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 5.291
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 5.071
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.997
FW FW 01 Right encroachment station 10017 is less than right channel bank station 10017.19 and greater than the left channel bank station 9977.031
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.919
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.865
FW FW 01 Right encroachment station 10021 is less than right channel bank station 10021.08 and greater than the left channel bank station 9958.05
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.811
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.744
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.521
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.925
FW FW 06 The left station effective of 9987.07 for the floodway profile is more than the left channel bank station of 9979.69
The left side of the floodway boundary is within the channel.
The left encroachment station of 9973 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 3.56
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.475
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.407
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.407
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.328
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.267
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.173
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.17
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.157
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.157
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.157
FW FW 04 The left station effective of 9946.32 for 1% annual chance floodplain is less than the left channel bank station 9986.385

The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9946) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 3.151
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.151
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.109
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.109
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.877
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.817
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.748
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.588
FW FW 01 Left encroachment station 9973 is more than left channel bank station 9949.15 and less than the right channel bank station 10033.15
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.588
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.548
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.548
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.485
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.351
FW FW 01 Left encroachment station 9962 is more than left channel bank station 9961.55 and less than the right channel bank station 10010.47
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.351
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.29
FW FW 01 Left encroachment station 10050 is more than left channel bank station 10049.85 and less than the right channel bank station 10155.31
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.229
FW FW 01 Left encroachment station 9943 is more than left channel bank station 9942.79 and less than the right channel bank station 10077.51

Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.229
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.154
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.056
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.056
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.985
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.985
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.901
FW FW 01 Right encroachment station 10082 is less than right channel bank station 10082.49 and greater than the left channel bank station 9903.8
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.837
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.776
FW FW 01 Left encroachment station 9877 is more than left channel bank station 9871.16 and less than the right channel bank station 10234.64
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.776
FW FW 01 Right encroachment station 10174 is less than right channel bank station 10234.64 and greater than the left channel bank station 9871.16
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.776
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.776
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.706
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.636
FW FW 01 Left encroachment station 9963 is more than left channel bank station 9962.78 and less than the right channel bank station 10241.84
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.636
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.555
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.381
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.381
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.351
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.284
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.233
FW FW 01 Left encroachment station 9966 is more than left channel bank station 9965.7 and less than the right channel bank station 10092.75
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.233
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.156
FW FW 01 Left encroachment station 9957 is more than left channel bank station 9956.7 and less than the right channel bank station 10027.29
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.132
FW FW 01 Left encroachment station 9954 is more than left channel bank station 9941.93 and less than the right channel bank station 10045.55
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.132
FW FW 01 Right encroachment station 10033 is less than right channel bank station 10045.55 and greater than the left channel bank station 9941.93
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.039
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.942
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.831
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.831
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.699
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.587
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.522
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.461

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FW FW 01  Left encroachment station 9688 is more than left channel bank
          station 9687.527 and less than the right channel bank station 10177.6
          Left encroachment station is within the channel.
          The encroachment station or channel bank station should be adjusted.

RS:       0.461
FW FW 03  The Left channel bank station may not be at the proper
          location.

RS:       0.461
FW FW 03  The right channel bank station may not be at the proper
          location.

RS:       0.321
FW FW 01  Left encroachment station 9722 is more than left channel bank
          station 9721.97 and less than the right channel bank station 10180.53
          Left encroachment station is within the channel.
          The encroachment station or channel bank station should be adjusted.

RS:       0.321
FW FW 03  The Left channel bank station may not be at the proper
          location.

RS:       0.285
FW FW 01  Left encroachment station 9682 is more than left channel bank
          station 9681.72 and less than the right channel bank station 10183.29
          Left encroachment station is within the channel.
          The encroachment station or channel bank station should be adjusted.

RS:       0.285
FW FW 03  The right channel bank station may not be at the proper
          location.

RS:       0.214
FW FW 03  The Left channel bank station may not be at the proper
          location.


SURCHARGE CHECK
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DISCHARGE CHECK
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STARTING WATER-SURFACE ELEVATION CHECK
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FW SW 04  The name of the stream is Reach #1
          Encroachment method 1 is used.
          Total conveyance for the natural profile is 140591.7
          Total conveyance for the floodway profile is 129240.6
          The difference in conveyance between the floodway profile and the
          natural profile is more than 1%.
          Normal Depth option with the same energy slope as the natural
          profile must be used for the floodway profile and rerun the plan.
          This message is not applicable for the revisions.

FW SW 05  The name of stream is Reach #1
          Encroachment method 1 is used.
          The floodway starting water-surface elevation of 1348.50 is equal to the
          natural starting water-surface elevation of 1348.50
          Normal depth option with the same energy slope as the natural
          profile must be used for the floodway profile and rerun the plan.
          This message is not applicable for the revisions.

---END---
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CHECK-RAS Program: Structure Check

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\3E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\3E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\3E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\3E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\3E.br
Selected profiles: Floodplain;Floodway
Date: 7/18/2005
Time: 1:43:49 PM

RS	MaxLoChord	MnTpRd	EGEL	WSEL	MinChEl	Structure	
Reach #1,3 East (South of							
6.085			1544.22	1542.14	1536.92		
6.062			1538.46	1537.77	1535.49		
6.024			1536.93	1536.85	1531.82		
5.983			1536.35	1536.14	1530.53		
5.941			1534.69	1534.52	1528.78		
5.874			1531.54	1531.25	1526.71		
5.806			1528.95	1528.84	1524.23		
5.737			1526.97	1526.77	1522.58		
5.662			1523.62	1523.44	1519.27		
5.584			1520.26	1520.16	1517.02		
5.519			1518.32	1518.2	1514.09		
5.435			1514.08	1513.88	1510.55		
5.361			1510.98	1510.94	1507.63		
5.291			1508.03	1507.89	1505.41		
5.203			1504.1	1504.05	1501.01		
5.14			1501.95	1501.85	1498.72		
5.071			1499.34	1499.16	1493.73		
4.997			1495.96	1495.8	1490.88		
4.919			1492.4	1492.27	1488.41		
4.865			1489.95	1489.84	1486.09		
4.811			1487.56	1487.42	1483.12		
4.744			1484.97	1484.9	1480.57		
4.675			1482.15	1481.97	1477.88		
4.595			1478.94	1478.86	1474.39		
4.521			1475.76	1475.66	1472.06		
4.454			1472.75	1472.69	1469.29		
4.349			1467.79	1467.7	1464.98		
4.283			1465.46	1465.43	1462.22		
4.21			1461.85	1461.72	1460		
4.126			1458.33	1458.3	1457.2		
3.977			1453.68	1453.56	1452.85		
3.925			1450.87	1450.8	1450.92		
3.829			1447.92	1447.79	1446.76		
3.761			1445.37	1445.28	1444.56		
3.679			1442.42	1442.32	1440.82		
3.615			1440.11	1440.01	1437.47		
3.56			1438.55	1438.45	1435.08		
3.475			1435.31	1435.1	1433.48		
3.407			1432.52	1432.39	1430.82		
3.328			1429.92	1429.72	1427.32		
3.267			1428.04	1427.79	1423.18		
3.235			1426.85	1426.24	1420.91		
3.173			1426.06	1426.02	1416.8		
3.1715	1424.9	1421.97	1426.06	1424.9	1416.8	Bridge #1-Up	@ RR
3.1715	1425.8	1428.6	1425.87	1424.25	1417.7	Bridge #1-Dn	
3.17			1425.44	1424.25	1417.7		
3.157			1424.93	1423.86	1418.81		
3.151			1423.74	1422.64	1418.9		
3.13	1422.1	1420.32	0	1422.1	1418.1	CULVERT#1-Up	
3.13	1421.2	1423.78	0	1421.2	1417.2	CULVERT#1-Dn	@ U.S. 60
3.109			1422.42	1421.74	1418.1		
3.048			1421.07	1420.29	1414.77		
2.958			1417.49	1417.38	1413.63		
2.877			1414.11	1413.98	1412.58		
2.817			1410.96	1410.82	1409.83		
2.748			1408.68	1408.58	1405.23		
2.664			1405.56	1405.44	1404.53		
2.588			1403.21	1403.15	1401.23		
2.548			1401.99	1401.86	1400.72		

2.485			1399.76	1399.69	1396.94	
2.437			1398.35	1398.28	1396.27	
2.394			1396.52	1396.42	1394.88	
2.351			1394.59	1394.51	1392.14	
2.29			1392.74	1392.67	1390.42	
2.229			1390.43	1390.35	1388.89	
2.154			1387.21	1387.04	1383.17	
2.056			1384.4	1384.29	1378.57	
1.985			1382.46	1382.26	1375.71	
1.901			1380.41	1380.31	1373.27	
1.837			1378.51	1378.37	1375.63	
1.776			1376.67	1376.59	1374.41	
1.706			1374.31	1374.15	1372.25	
1.636			1372.07	1372.01	1369.29	
1.555			1369.05	1368.8	1367.14	
1.462			1366.62	1366.54	1363.43	
1.398			1366.21	1366.2	1362.51	
1.381			1365.9	1365.89	1361.21	
1.366	1364.1	1365.5	0	1364.1	1361.1	CULVERT#1-Up
1.366	1364.3	1365.3	0	1363.8	1361.3	CULVERT#1-Dn
1.366	1364.23	1365.5	0	1364.23	1361.23	CULVERT#2-Up
1.366	1363.8	1365.3	0	1362.77	1360.8	CULVERT#2-Dn
1.366	1364.8	1365.5	0	1364.08	1361.8	CULVERT#3-Up
1.366	1364.3	1365.3	0	1363.36	1361.3	CULVERT#3-Dn
1.366	1365.52	1365.5	0	1364.44	1362.52	CULVERT#4-Up
1.366	1365.12	1365.3	0	1363.97	1362.12	CULVERT#4-Dn
1.351			1363.83	1363.77	1360.79	
1.284			1363.28	1363.25	1359.74	
1.233			1362.63	1362.57	1358.16	
1.156			1360.7	1360.44	1349.68	
1.132			1358.05	1356.5	1351.08	
1.122			1356.22	1356.14	1351.37	
1.039			1354.59	1354.55	1352.32	
0.942			1354.22	1354.2	1351.41	
0.831			1353.87	1353.86	1351.48	
0.699			1352.37	1352.33	1349.37	
0.587			1349.09	1348.79	1345.08	
0.522			1348.65	1348.62	1343.06	
0.461			1348.58	1348.56	1339.2	
0.321			1348.56	1348.56	1335.79	
0.285			1348.56	1348.56	1337.16	
0.214			1348.55	1348.5	1336.31	

@ Deer Valley Rd.

RIVER/REACH: Reach #1, 3 East (South of
RIVER STATION: 3.1715
TYPE OF STRUCTURE: Bridge

Description:
Distance from Upstream XS: 0.01
Deck/Roadway Width: 15
Weir Coefficient: 2.5
Maximum allowable submergence for weir flow: 0.95
Elevation at which weir flow begins: 1428.58
Weir crest shape: Broad Crested

Sec	River Station	Length Channel	WSEL	Surch.	EGEL	TopWidth Actual	
4	3.235	328.29	1426.24	0	1426.85	386.78	
4	3.235	328.29	1426.46	0.22	1426.93	272	
3	3.173	17.65	1426.02	0	1426.06	575.93	
3	3.173	17.65	1425.98	-0.04	1426.28	96.9	
	3.1715	15.00	1424.9	0	1426.06	517.25	Bridge #1-Up
	3.1715	2.64	1424.25	0	1425.87	48.66	Bridge #1-Dn
	3.1715	15.00	1424.9	0	1426.28	50	Bridge #1-Up
	3.1715	2.64	1424.24	-0.02	1425.88	46.84	Bridge #1-Dn
2	3.17	69.82	1424.25	0	1425.44	54.66	
2	3.17	69.82	1424.24	-0.02	1425.44	52.84	
1	3.157	30.25	1423.86	0	1424.93	97.78	

1	3.157	30.25	1423.82	-0.04	1424.92	94.68

	Ineffective Flow, Section 3			Ineffective Flow, Section 2		
	Sta L	Sta R	Elev	Sta L	Sta R	Elev
1	9018.331	9502.39	1428.99			

BRIDGE:
Bridge Name: Bridge #1
LowFlowMethod: Highest Energy Answer
Momentum Cd: 0
HighFlowMethod: Pressure and Weir flow
SluiceGate Cd: 0 Submerged Cd: 0.8

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 upstream end
Criteria to check for pressure flow = Upstream energy grade line

MaxLowChord:	1424.9	MinTopRd:	1428.61	MinElPrs:	1424.9
	1424.9		1428.61		1424.9

Opening Type	StagStaL	StagStaR	EncStaL	EncStaR	LIfStaS	RIfStaS	
Bridge					9502.39		U
							D
			9991	10047			U
			9991	10047			D

	LAbutSt	RAbutSt	LMnTpRd	RMnTpRd	MnTpRd	MxLoCd	
Bridge #1	9989.23	10051.83	1421.97	1428.60	1421.97	1424.90	U
	9984.90	10046.20	1428.60	1428.60	1428.60	1425.80	D
	9991.00	10047.00	1428.60	1428.60	1428.60	1424.90	U
	9991.00	10046.20	1428.60	1428.60	1428.60	1425.80	D

Name	Q Total.	Q Struc	Q Weir	Selected Method	Flow Type
Bridge #1	1650	1650	0	Press Only	Sluicegate Pressure Flow
	1650	1650	0	Press Only	Sluicegate Pressure Flow

GEOMETRIC CHECK

TYPE OF FLOW CHECK

RS: 3.1715 This is Bridge #1
BR PF 01 Type of flow is sluicegate pressure flow because,
1. EGEL 3 of 1426.06 is equal to or less than MinTopRd of 1428.61.
2. EGEL 3 of 1426.06 is equal to or greater than MxLoCdU of 1424.90.
3. WSEL 2 of 1424.25 is less than MxLoCdD of 1425.80.

RS: 3.1715 This is Bridge #1
BR PF 01 Type of flow is sluicegate pressure flow because,
1. EGEL 3 of 1426.28 is equal to or less than MinTopRd of 1428.61.
2. EGEL 3 of 1426.28 is equal to or greater than MxLoCdU of 1424.90.
3. WSEL 2 of 1424.24 is less than MxLoCdD of 1425.80.

DISTANCE CHECK

RS: 3.1715 This is Bridge #1
ST DT 01 'Distance from Upstream XS' of 0.01 is less than the height of the bridge opening of 9.00
Section 3 should be placed at the foot of the road embankment or wing walls.
Distances at Sections 4 & 3, and 'Distance from Upstream XS' should be adjusted.

RS: 3.1715 This is Bridge #1
ST DT 02 The channel distance of 2.638001 at Downstream Internal Section is less than the height of the bridge opening of 8.10
Section 2 should be placed at the foot of the road embankment or wing walls.
Distances at Sections 4, 3 & 2 should be adjusted.

INEFFECTIVE FLOW CHECK

RS: 3.173 This is Section 3
ST IF 01 Pressure or low flow occurs at Bridge
However, right ineffective flow station was not considered at Section 3.
The ineffective flow station(s) and elevations should be inserted.

RS: 3.235 This is Section 4
ST IF 07 Ineffective flow option was considered at this section.
However, it should be a fully expanded cross section.
Ineffective flow stations and elevations should be cleared from this section, unless the areas beyond the ineffective flow stations are not within the flow path of the stream.
This message should be ignored if this section is Section 2 of the upstream structure.

RS: 3.157 This is Section 1
ST IF 07 Ineffective flow option was considered at this section.
However, it should be a fully expanded cross section.
Ineffective flow stations and elevations should be cleared from this section, unless the ares beyond the ineffective flow stations are not within the flow path of the stream.
This message should be ignored if this section is Section 3 of the downstream structure.

FLOODWAY CHECK

RS: 3.1715 This is Bridge
ST FW 01 Encroachment Method was not specified at this river station.
For flood insurance studies Encroachment Methods 4 and 1 should be used.

RS: 3.17 This is Section 2
ST FW 04 The left encroachment station of 9991 is greater than the left bank station of 9990.5
The left encroachment station is within the channel.
The encroachment station and/or channel bank station should be reevaluated.

RS: 3.173 This is Section 3
ST FW 03 The right station effective of 10271.21 for the natural profile is greater than right most abutment station of 10051.83
The 1% annual chance floodplain is outside the structure opening area.
The right encroachment station of 10051 is less than the right abutment station of 10051.83
The encroachment station should be recomputed.

RS: 3.173 This is Section 3
ST FW 10 Left encroachment station 9951 is more than the left ineffective flow station 9502.39 and equal to or greater than the right ineffective flow station -9999
The effective flow area is totally blocked by the encroachment stations.
The encroachment stations should be adjusted.

RIVER/REACH: Reach #1, 3 East (South of
RIVER STATION: 3.13
TYPE OF STRUCTURE: Culvert

Description:

Distance from Upstream XS:	0.01
Deck/Roadway Width:	160
Weir Coefficient:	2.5
Maximum allowable submergence for weir flow:	0.95
Elevation at which weir flow begins:	1423.76
Weir crest shape:	Broad Crested

Sec	River Station	Length Channel	WSEL	Surch.	EGEL	TopWidth Actual	
4	3.157	30.25	1423.86	0	1424.93	97.78	
4	3.157	30.25	1423.82	-0.04	1424.92	94.68	
3	3.151	222.81	1422.64	0	1423.74	60.02	
3	3.151	222.81	1423.39	0.75	1424.13	61.6	
	3.13	215.00	1422.1	0	0	0	CULVERT#1-Up
	3.13	7.80	1421.2	0	0	0	CULVERT#1-Dn
	3.13	215.00	1422.1	0	0	0	CULVERT#1-Up
	3.13	7.80	1421.2	0	0	0	CULVERT#1-Dn
2	3.109	321.68	1421.74	0	1422.42	75.44	
2	3.109	321.68	1421.82	0.08	1422.47	75.26	
1	3.048	476.92	1420.29	0	1421.07	198.33	
1	3.048	476.92	1420.5	0.21	1421.22	176.87	

	Ineffective Flow, Section 3 Sta L	Sta R	Elev	Ineffective Flow, Section 2 Sta L	Sta R	Elev
1	9806.29	9954.28	1423.67	9721.7	9973.6	1423.77
2	10023.6	10437.8	1424.25	10053.4	10340.47	1423.77

Opening Type	StagStaL	StagStaR	EncStaL	EncStaR	LIfStaS	RIfStaS
Culvert Group					9954.28	10023.6U
					9973.6	10053.4D
			0	0		U
			0	0		D

CULVERT:
Culvert Name: CULVERT#1
Shape: Box Rise: 4 Span: 12.5 Barrels: 4
FHWA Chart #: # 8 - flared wingwalls
FHWA Scale #: # 1 - Wingwall flared 30 to 75 deg.
Solution Crit:Highest U.S. EG

UpstrmDist:	0.01	Length:	215	n-Value:	0.015		
EntLossCoef:	0.4	ExtLossCoef:	1	CulvInvElU	1418.1	CulvInvElD	1417.2
LCntStaU:	9971	RCntStaU:	10009.1	LCntStaD	9983.4	RCntStaD	10029.2
Culvert Depth Blocked:	0						

Culv Area:	200	CulvQ:	1526.94	MinTopRd:	1423.79	
	200		1642.94		1423.83	

	LAbutSt	RAbutSt	LMnTpRd	RMnTpRd	MnTpRd	MxLoCd	
CULVERT#1	9964.75	10015.35	1420.32	1423.84	1420.32	1422.1	U
	9977.15	10035.45	1423.78	1423.78	1423.78	1421.2	D
	9964.75	10015.35	1420.32	1423.84	1420.32	1422.1	U

9977.15 10035.45 1423.78 1423.78 1423.78 1421.2 D

Name	Q Total.	Q Struc	Q Weir	Selected Method	Flow Type
CULVERT#1		1526.94	1244.03	Highest U.S. EG	Pressure Flow
		1642.94	7.06	Highest U.S. EG	Pressure and Weir Flow

GEOMETRIC CHECK

TYPE OF FLOW CHECK

RS: 3.13 This is CULVERT#1
CV PF 01 Type of flow is pressure flow because,
1. EGEL 3 of 1423.74 is less than or equal to MinTopRd of 1423.79.
2. CulvWSIn of 1422.10 is greater than or equal to MxLoCdU of 1422.10.
3. CulvWSOut of 1421.20 is greater than or equal to MxLoCdD of 1421.20.

RS: 3.13 This is CULVERT#1
CV PW 01 Type of flow is pressure and weir flow because,
1. EGEL 3 of 1424.13 is greater than MinTopRd of 1423.83.
2. CulvWSIn of 1422.10 is greater than or equal to MxLoCdU of 1422.10.
3. CulvWSOut of 1421.20 is greater than or equal to MxLoCdD of 1421.20.

DISTANCE CHECK

RS: 3.13 This is CULVERT#1
ST DT 01 'Culvert Upstrm Dist' of 0.01 is less than the height of the culvert opening of 4 .
Section 3 should be placed at the foot of the road embankment or wing walls.
Distances at Sections 4 & 3, and 'Distance from Upstream XS' should be adjusted.

CULVERT COEFFICIENT CHECK

CULVERT CRITERIA CHECK

INEFFECTIVE FLOW CHECK

RS: 3.151 This is Section 3.
ST IF 03 Pressure flow occurs at the structure. Ineffective flow is considered at Section 3.
However, the velocity head at Section 3 is more than 0.5 foot and more than the velocity head at section 4.
The ineffective flow stations should be widened until the velocity head at Section 3 is equal to or less than 0.5 foot, or equal to or less than the velocity head at Section 4.

RS: 3.109 This is Section 2
ST IF 06 Pressure flow occurs at Culvert Group 1
The velocity head at Section 2 is more than 0.5
The computed left ineffective flow station of 9973.15 is less than the selected left ineffective flow station of 9973.6
The left ineffective flow station should be adjusted.

RS: 3.157 This is Section 4
ST IF 07 Ineffective flow option was considered at this section.
However, it should be a fully expanded cross section.
Ineffective flow stations and elevations should be cleared from this section, unless the areas beyond the ineffective flow stations are not within the flow path of the stream.
This message should be ignored if this section is Section 2 of the upstream structure.

FLOODWAY CHECK

RS: 3.13 This is Culvert
ST FW 01 Encroachment Method was not specified at this river station.
For flood insurance studies Encroachment Methods 4 and 1
should be used.

RS: 3.13 This is Culvert
ST FW 09 The right most weir station of 10008.46 for the floodway profile is equal
or greater than the right most weir station of 9949.96 for the natural
profile.
The floodway weir flow boundary is equal to or outside of the
natural profile weir flow boundary.
Encroachment computations should be investigated.

RS: 3.109 This is Section 2
ST FW 04 The left encroachment station of 9974 is greater than the
left bank station of 9973.7
The left encroachment station is within the channel.
The encroachment station and/or channel bank station should be reevaluated.

RS: 3.109 This is Section 2
ST FW 08 The right station effective of 10049.04 for the natural profile.
is greater than the right channel bank station of 10038.7
The right encroachment station is outside the channel.
The right encroachment station of 10053 is greater than the right
station effective of 10049.04 for the natural profile.
The right encroachment station should be adjusted.

RS: 3.109 This is Section 2
ST FW 10 Left encroachment station 9974 is more than the left ineffective flow
station 9973.6 and less than the right ineffective flow station 10053.4
Left encroachment station is within the effective flow area.
Left encroachment station should at least be equal to the left
ineffective flow station.

RS: 3.109 This is Section 2
ST FW 10 Right encroachment station 10053 is less than the right ineffective flow
station 10053.4 and greater than the left ineffective flow station 9973.6
Right encroachment station is within the effective flow area.
Right encroachment station should at least be equal to the right
ineffective flow station.

RS: 3.151 This is Section 3
ST FW 08 The right station effective of 10021.05 for the natural profile.
is greater than the right channel bank station of 10017.8
The right encroachment station is outside the channel.
The right encroachment station of 10027 is greater than the right
station effective of 10021.05 for the natural profile.
The right encroachment station should be adjusted.

RS: 3.151 This is Section 3
ST FW 10 Left encroachment station 9962 is more than the left ineffective flow
station 9954.28 and less than the right ineffective flow station 10023.6
Left encroachment station is within the effective flow area.
Left encroachment station should at least be equal to the left
ineffective flow station.

RIVER/REACH: Reach #1, 3 East (South of
RIVER STATION: 1.366
TYPE OF STRUCTURE: Culvert

Description:

Distance from Upstream XS:	0.01
Deck/Roadway Width:	50
Weir Coefficient:	2.5
Maximum allowable submergence for weir flow:	0.95
Elevation at which weir flow begins:	1365.37
Weir crest shape:	Broad Crested

Sec	River Station	Length Channel	WSEL	Surch.	EGEL	TopWidth Actual	
4	1.398	352.80	1366.2	0	1366.21	1222.42	
4	1.398	352.80	1366.54	0.35	1366.57	551	
3	1.381	90.00	1365.89	0	1365.9	1375.5	
3	1.381	90.00	1366.12	0.23	1366.14	897	
	1.366	84.90	1364.1	0	0	0	CULVERT#1-Up
	1.366	5.09	1363.8	0	0	0	CULVERT#1-Dn
	1.366	84.90	1364.1	0	0	0	CULVERT#1-Up
	1.366	5.09	1364.1	0	0	0	CULVERT#1-Dn
	1.366	86.50	1364.23	0	0	0	CULVERT#2-Up
	1.366	3.49	1362.77	0	0	0	CULVERT#2-Dn
	1.366	86.50	1364.23	0	0	0	CULVERT#2-Up
	1.366	3.49	1363.8	0	0	0	CULVERT#2-Dn
	1.366	86.80	1364.08	0	0	0	CULVERT#3-Up
	1.366	3.19	1363.36	0	0	0	CULVERT#3-Dn
	1.366	86.80	1364.15	0	0	0	CULVERT#3-Up
	1.366	3.19	1364.1	0	0	0	CULVERT#3-Dn
	1.366	86.80	1364.44	0	0	0	CULVERT#4-Up
	1.366	3.19	1363.97	0	0	0	CULVERT#4-Dn
	1.366	86.80	1364.59	0	0	0	CULVERT#4-Up
	1.366	3.19	1364.1	0	0	0	CULVERT#4-Dn
2	1.351	160.09	1363.77	0	1363.83	1027.57	
2	1.351	160.09	1364.1	0.33	1364.16	863.39	
1	1.284	269.71	1363.25	0	1363.28	859.6	
1	1.284	269.71	1363.77	0.51	1363.78	801	

Ineffective Flow, Section 3 Sta L	Sta R	Elev	Ineffective Flow, Section 2 Sta L	Sta R	Elev

Opening Type	StagStaL	StagStaR	EncStaL	EncStaR	LIfStaS	RIfStaS
Culvert Group						U
						D
			0	0		U
			0	0		D

CULVERT:
Culvert Name: CULVERT#1
Shape: Box Rise: 3 Span: 10 Barrels: 3
FHWA Chart #: # 8 - flared wingwalls
FHWA Scale #: # 3 - Wingwall flared 0 deg. (sides extended stra
Solution Crit:Highest U.S. EG

UpstrmDist:	0.01	Length:	84.9	n-Value:	0.015		
EntLossCoef:	0.5	ExtLossCoef:	1	CulvInvElU	1361.1	CulvInvElD	1361.3
LCntStaU:	9701	RCntStaU:	9722.4	LCntStaD	9721	RCntStaD	9742.5
Culvert Depth Blocked:	0						

Culv Area:	90	CulvQ:	670.75	MinTopRd:	1365.51	
	30		236.77		1365.51	

	LAbutSt	RAbutSt	LMnTpRd	RMnTpRd	MnTpRd	MxLoCd	
CULVERT#1	9696	9727.4	1365.7	1365.5	1365.5	1364.1	U
	9716	9747.5	1366.4	1365.3	1365.3	1364.3	D
	9696	9727.4	1365.7	1365.5	1365.5	1364.1	U
	9716	9747.5	1366.4	1365.3	1365.3	1364.3	D

Opening Type	StagStaL	StagStaR	EncStaL	EncStaR	LIfStaS	RIfStaS

Culvert Group					U
					D
	0	0			U
	0	0			D

CULVERT:
Culvert Name: CULVERT#2
Shape: Box Rise: 3 Span: 10 Barrels: 3
FHWA Chart #: # 8 - flared wingwalls
FHWA Scale #: # 3 - Wingwall flared 0 deg. (sides extended stra
Solution Crit:Highest U.S. EG

UpstrmDist:	0.01	Length:	86.5	n-Value:	0.015		
EntLossCoef:	0.5	ExtLossCoef:	1	CulvInvElU	1361.23	CulvInvElD	1360.8
LCntStaU:	9973	RCntStaU:	9994.1	LCntStaD	9972.5	RCntStaD	9993.7
Culvert Depth Blocked:	0						

Culv Area:	90	CulvQ:	651.08	MinTopRd:	1365.51	
	90		734.5		1365.51	

	LAbutSt	RAbutSt	LMnTpRd	RMnTpRd	MnTpRd	MxLoCd	
CULVERT#2	9968	9999.1	1365.7	1365.5	1365.5	1364.23	U
	9967.5	9998.7	1365.3	1365.3	1365.3	1363.8	D
	9968	9999.1	1365.7	1365.5	1365.5	1364.23	U
	9967.5	9998.7	1365.3	1365.3	1365.3	1363.8	D

Opening Type	StagStaL	StagStaR	EncStaL	EncStaR	LIfStaS	RIfStaS	
Culvert Group							U
							D
			0	0			U
			0	0			D

CULVERT:
Culvert Name: CULVERT#3
Shape: Box Rise: 3 Span: 10 Barrels: 3
FHWA Chart #: # 8 - flared wingwalls
FHWA Scale #: # 3 - Wingwall flared 0 deg. (sides extended stra
Solution Crit:Highest U.S. EG

UpstrmDist:	0.01	Length:	86.8	n-Value:	0.015		
EntLossCoef:	0.5	ExtLossCoef:	1	CulvInvElU	1361.8	CulvInvElD	1361.3
LCntStaU:	10227	RCntStaU:	10248.2	LCntStaD	10229	RCntStaD	10250.3
Culvert Depth Blocked:	0						

Culv Area:	90	CulvQ:	587.43	MinTopRd:	1365.51	
	90		611.15		1365.51	

	LAbutSt	RAbutSt	LMnTpRd	RMnTpRd	MnTpRd	MxLoCd	
CULVERT#3	10222	10253.2	1365.5	1365.5	1365.5	1364.8	U
	10224	10255.3	1365.3	1366.06	1365.3	1364.3	D
	10222	10253.2	1365.5	1365.5	1365.5	1364.8	U
	10224	10255.3	1365.3	1366.06	1365.3	1364.3	D

Opening Type	StagStaL	StagStaR	EncStaL	EncStaR	LIfStaS	RIfStaS	
Culvert Group							U
							D
			0	0			U
			0	0			D

CULVERT:
Culvert Name: CULVERT#4
Shape: Box Rise: 3 Span: 10 Barrels: 3
FHWA Chart #: # 8 - flared wingwalls
FHWA Scale #: # 3 - Wingwall flared 0 deg. (sides extended stra
Solution Crit:Highest U.S. EG

UpstrmDist:	0.01	Length:	86.8	n-Value:	0.015		
EntLossCoef:	0.5	ExtLossCoef:	1	CulvInvElU	1362.52	CulvInvElD	1362.12
LCntStaU:	10564	RCntStaU:	10585.2	LCntStaD	10571	RCntStaD	10592.4

Culvert Depth Blocked: 0

Culv Area:	90	CulvQ:	454.47	MinTopRd:	1365.51
	90		505.98		1365.51

	LAbutSt	RAbutSt	LMnTpRd	RMnTpRd	MnTpRd	MxLoCd	
CULVERT#4	10559	10590.2	1365.5	1367.4	1365.5	1365.52	U
	10566	10597.4	1365.3	1366.8	1365.3	1365.12	D
	10559	10590.2	1365.5	1367.4	1365.5	1365.52	U
	10566	10597.4	1365.3	1366.8	1365.3	1365.12	D

Name	Q Total.	Q Struc	Q Weir	Selected Method	Flow Type
CULVERT#1		670.75	96.26	Highest U.S. EG	Pressure and Weir Flow
		236.77	371.6	Highest U.S. EG	Pressure and Weir Flow
CULVERT#2		651.08	96.26	Highest U.S. EG	Pressure and Weir Flow
		734.5	371.6	Highest U.S. EG	Pressure and Weir Flow
CULVERT#3		587.43	96.26	Highest U.S. EG	Low and Weir Flow
		611.15	371.6	Highest U.S. EG	Low and Weir Flow
CULVERT#4		454.47	96.26	Highest U.S. EG	Low and Weir Flow
		505.98	371.6	Highest U.S. EG	Low and Weir Flow

GEOMETRIC CHECK

TYPE OF FLOW CHECK

RS: 1.366 This is CULVERT#1
CV PW 01 Type of flow is pressure and weir flow because,
1. EGEL 3 of 1365.9 is greater than MinTopRd of 1365.51.
2. CulvWSIn of 1364.10 is greater than or equal to MxLoCdU of 1364.10.
3. CulvWSOut of 1363.80 is less than MxLoCdD of 1364.30.
4. Q/AD^0.5 of 4.30 is greater than or equal to 4.0.

RS: 1.366 This is CULVERT#2
CV PW 01 Type of flow is pressure and weir flow because,
1. EGEL 3 of 1365.9 is greater than MinTopRd of 1365.51.
2. CulvWSIn of 1364.23 is greater than or equal to MxLoCdU of 1364.23.
3. CulvWSOut of 1362.77 is less than MxLoCdD of 1363.80.
4. Q/AD^0.5 of 4.18 is greater than or equal to 4.0.

RS: 1.366 This is CULVERT#3
CV LW 01 Type of flow is low and weir flow because,
1. EGEL 3 of 1365.9 is greater than MinTopRd of 1365.51.
2. CulvWSIn of 1364.08 is less than MxLoCdU of 1364.80.
3. CulvWSOut of 1363.36 is less than MxLoCdD of 1364.30.
4. Q/AD^0.5 of 3.77 is less than 4.0.

RS: 1.366 This is CULVERT#4
CV LW 01 Type of flow is low and weir flow because,
1. EGEL 3 of 1365.9 is greater than MinTopRd of 1365.51.
2. CulvWSIn of 1364.44 is less than MxLoCdU of 1365.52.
3. CulvWSOut of 1363.97 is less than MxLoCdD of 1365.12.
4. Q/AD^0.5 of 2.92 is less than 4.0.

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RS:       1.366 This is CULVERT#1
CV PW 01  Type of flow is pressure and weir flow because,
          1. EGEL 3 of 1366.14 is greater than MinTopRd of 1365.51.
          2. CulvWSIn of 1364.10 is greater than or equal to MxLoCdU of 1364.10.
          3. CulvWSOut of 1364.10 is less than MxLoCdD of 1364.30.
          4. Q/AD^0.5 of 4.56 is greater than or equal to 4.0.

RS:       1.366 This is CULVERT#2
CV PW 01  Type of flow is pressure and weir flow because,
          1. EGEL 3 of 1366.14 is greater than MinTopRd of 1365.51.
          2. CulvWSIn of 1364.23 is greater than or equal to MxLoCdU of 1364.23.
          3. CulvWSOut of 1363.80 is greater than or equal to MxLoCdD of 1363.80.

RS:       1.366 This is CULVERT#3
CV LW 01  Type of flow is low and weir flow because,
          1. EGEL 3 of 1366.14 is greater than MinTopRd of 1365.51.
          2. CulvWSIn of 1364.15 is less than MxLoCdU of 1364.80.
          3. CulvWSOut of 1364.10 is less than MxLoCdD of 1364.30.
          4. Q/AD^0.5 of 3.92 is less than 4.0.

RS:       1.366 This is CULVERT#4
CV LW 01  Type of flow is low and weir flow because,
          1. EGEL 3 of 1366.14 is greater than MinTopRd of 1365.51.
          2. CulvWSIn of 1364.59 is less than MxLoCdU of 1365.52.
          3. CulvWSOut of 1364.10 is less than MxLoCdD of 1365.12.
          4. Q/AD^0.5 of 3.25 is less than 4.0.

DISTANCE CHECK
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RS:       1.366 This is CULVERT#1
ST DT 01  'Culvert Upstrm Dist' of 0.01 is less than the height of the
          culvert opening of 3 .
          Section 3 should be placed at the foot of the road embankment or
          wing walls.
          Distances at Sections 4 & 3, and 'Distance from Upstream XS'
          should be adjusted.


RS:       1.366 This is CULVERT#2
ST DT 01  'Culvert Upstrm Dist' of 0.01 is less than the height of the
          culvert opening of 3 .
          Section 3 should be placed at the foot of the road embankment or
          wing walls.
          Distances at Sections 4 & 3, and 'Distance from Upstream XS'
          should be adjusted.


RS:       1.366 This is CULVERT#3
ST DT 01  'Culvert Upstrm Dist' of 0.01 is less than the height of the
          culvert opening of 3 .
          Section 3 should be placed at the foot of the road embankment or
          wing walls.
          Distances at Sections 4 & 3, and 'Distance from Upstream XS'
          should be adjusted.


RS:       1.366 This is CULVERT#4
ST DT 01  'Culvert Upstrm Dist' of 0.01 is less than the height of the
          culvert opening of 3 .
          Section 3 should be placed at the foot of the road embankment or
          wing walls.
          Distances at Sections 4 & 3, and 'Distance from Upstream XS'
          should be adjusted.


CULVERT COEFFICIENT CHECK
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RS:       1.366 This is CULVERT#1
CV CF 01  Culvert Chart # is 8 and Scale # is 3
          Culvert entrance shape is Wingwall flared 0 deg. (sides extended stra
          Culvert entrance loss coefficient is 0.5 It should be equal
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to 0.7
Please refer to Table 6.3 on page 6-22 and Tabble 6.4 on page 6-23
of HEC-RAS Hydraulic Reference Manual, September 1998.

RS: 1.366 This is CULVERT#2
CV CF 01 Culvert Chart # is 8 and Scale # is 3
Culvert entrance shape is Wingwall flared 0 deg. (sides extended stra
Culvert entrance loss coefficient is 0.5 It should be equal
to 0.7
Please refer to Table 6.3 on page 6-22 and Tabble 6.4 on page 6-23
of HEC-RAS Hydraulic Reference Manual, September 1998.

RS: 1.366 This is CULVERT#3
CV CF 01 Culvert Chart # is 8 and Scale # is 3
Culvert entrance shape is Wingwall flared 0 deg. (sides extended stra
Culvert entrance loss coefficient is 0.5 It should be equal
to 0.7
Please refer to Table 6.3 on page 6-22 and Tabble 6.4 on page 6-23
of HEC-RAS Hydraulic Reference Manual, September 1998.

RS: 1.366 This is CULVERT#4
CV CF 01 Culvert Chart # is 8 and Scale # is 3
Culvert entrance shape is Wingwall flared 0 deg. (sides extended stra
Culvert entrance loss coefficient is 0.5 It should be equal
to 0.7
Please refer to Table 6.3 on page 6-22 and Tabble 6.4 on page 6-23
of HEC-RAS Hydraulic Reference Manual, September 1998.

CULVERT CRITERIA CHECK

INEFFECTIVE FLOW CHECK

RS: 1.398 This is Section 4
ST IF 07 Ineffective flow option was considered at this section.
However, it should be a fully expanded cross section.
Ineffective flow stations and elevations should be cleared from
this section, unless the areas beyond the ineffective flow stations
are not within the flow path of the stream.
This message should be ignored if this section is Section 2 of
the upstream structure.

RS: 1.284 This is Section 1
ST IF 07 Ineffective flow option was considered at this section.
However, it should be a fully expanded cross section.
Ineffective flow stations and elevations should be cleared from
this section, unless the ares beyond the ineffective flow stations
are not within the flow path of the stream.
This message should be ignored if this section is Section 3 of the downstream
structure.

RS: 1.398 This is Section 4
ST IF 07 Ineffective flow option was considered at this section.
However, it should be a fully expanded cross section.
Ineffective flow stations and elevations should be cleared from
this section, unless the areas beyond the ineffective flow stations
are not within the flow path of the stream.
This message should be ignored if this section is Section 2 of
the upstream structure.

RS: 1.284 This is Section 1
ST IF 07 Ineffective flow option was considered at this section.
However, it should be a fully expanded cross section.
Ineffective flow stations and elevations should be cleared from
this section, unless the ares beyond the ineffective flow stations
are not within the flow path of the stream.
This message should be ignored if this section is Section 3 of the downstream
structure.

RS: 1.398 This is Section 4
ST IF 07 Ineffective flow option was considered at this section.
However, it should be a fully expanded cross section.
Ineffective flow stations and elevations should be cleared from

this section, unless the areas beyond the ineffective flow stations
are not within the flow path of the stream.
This message should be ignored if this section is Section 2 of
the upstream structure.

RS: 1.284 This is Section 1
ST IF 07 Ineffective flow option was considered at this section.
However, it should be a fully expanded cross section.
Ineffective flow stations and elevations should be cleared from
this section, unless the ares beyond the ineffective flow stations
are not within the flow path of the stream.
This message should be ignored if this section is Section 3 of the downstream
structure.

RS: 1.398 This is Section 4
ST IF 07 Ineffective flow option was considered at this section.
However, it should be a fully expanded cross section.
Ineffective flow stations and elevations should be cleared from
this section, unless the areas beyond the ineffective flow stations
are not within the flow path of the stream.
This message should be ignored if this section is Section 2 of
the upstream structure.

RS: 1.284 This is Section 1
ST IF 07 Ineffective flow option was considered at this section.
However, it should be a fully expanded cross section.
Ineffective flow stations and elevations should be cleared from
this section, unless the ares beyond the ineffective flow stations
are not within the flow path of the stream.
This message should be ignored if this section is Section 3 of the downstream
structure.

FLOODWAY CHECK

RS: 1.366 This is Culvert
ST FW 01 Encroachment Method was not specified at this river station.
For flood insurance studies Encroachment Methods 4 and 1
should be used.

RS: 1.366 This is Culvert
ST FW 09 The right most weir station of 10355.12 for the floodway profile is equal
or greater than the right most weir station of 10315.13 for the natural
profile.
The floodway weir flow boundary is equal to or outside of the
natural profile weir flow boundary.
Encroachment computations should be investigated.

RS: 1.351 This is Section 2
ST FW 03 The right station effective of 10720.89 for the natural profile is greater than
right most abutment station of 10597.4
The right encroachment station of 10597 is less than the
The 1% annual chance floodplain is outside the structure opening area.
right abutment station of 10597.4
The encroachment station should be recomputed.

---END

4 EAST

4E

CHECK-RAS Program: NT Check
Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E.nt
Selected profiles: Floodplain;Floodway
Date: 7/27/2005
Time: 5:47:57 PM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #1,4 East (South of						
2.418		0.039	0.051	0.039	0.1	0.3
2.377		0.039	0.051	0.039	0.1	0.3
2.336		0.039	0.051	0.039	0.1	0.3
2.305		0.039	0.051	0.039	0.1	0.3
2.23		0.039	0.051	0.039	0.1	0.3
2.17		0.039	0.051	0.039	0.2	0.4
2.108		0.039	0.051	0.039	0.2	0.4
2.078		0.039	0.051	0.039	0.2	0.4
2.051		0.039	0.051	0.039	0.2	0.4
1.992		0.039	0.051	0.039	0.1	0.3
1.938		0.039	0.051	0.039	0.1	0.3
1.932		0.044	0.06	0.049	0.1	0.3
1.903		0.044	0.06	0.049	0.1	0.3
1.822		0.044	0.06	0.049	0.1	0.3
1.796		0.044	0.06	0.049	0.1	0.3
1.772		0.044	0.06	0.049	0.1	0.3
1.709		0.044	0.06	0.049	0.1	0.3
1.625		0.044	0.06	0.049	0.1	0.3
1.556		0.044	0.06	0.049	0.1	0.3
1.481		0.044	0.06	0.049	0.1	0.3
1.43		0.044	0.06	0.049	0.1	0.3
1.382		0.044	0.06	0.049	0.1	0.3
1.336		0.044	0.06	0.049	0.1	0.3
1.269		0.048	-----	-----	0.1	0.3
		0.062	-----	-----		
1.227		0.044	0.06	0.049	0.1	0.3
1.176		0.044	0.06	0.049	0.1	0.3
1.113		0.044	0.06	0.049	0.1	0.3
1.027		0.044	0.06	0.049	0.1	0.3
.928		0.044	0.06	0.049	0.1	0.3
.83		0.044	0.06	0.049	0.1	0.3
.719		0.044	0.06	0.049	0.1	0.3
.624		0.044	0.06	0.049	0.1	0.3
.535		0.044	0.06	0.049	0.1	0.3
.462		0.044	0.06	0.049	0.1	0.3
.416		0.044	0.06	0.049	0.1	0.3
.355		0.044	0.06	0.049	0.1	0.3
.315		0.048	0.062	0.048	0.1	0.3
.241		0.048	0.062	0.048	0.1	0.3

BIC very defined channel that meanders.

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.039	0.062
Right Overbank n Value:	0.039	0.049
Channel n Value:	0.051	0.062
Contraction Coefficient:	0.1	0.2
Expansion Coefficient:	0.3	0.4

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

ROUGHNESS COEFFICIENT CHECK

RS: 2.418
NT RC 05 The left overbank n value of 0.039 and the right overbank n value of 0.039 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.377
NT RC 05 The left overbank n value of 0.039 and the right overbank n value of 0.039 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.336
NT RC 05 The left overbank n value of 0.039 and the right overbank n value of 0.039 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.305
NT RC 05 The left overbank n value of 0.039 and the right overbank n value of 0.039 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.23
NT RC 05 The left overbank n value of 0.039 and the right overbank n value of 0.039 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.17
NT RC 05 The left overbank n value of 0.039 and the right overbank n value of 0.039 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.108
NT RC 05 The left overbank n value of 0.039 and the right overbank n value of 0.039 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.078
NT RC 05 The left overbank n value of 0.039 and the right overbank n value of 0.039 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.051
NT RC 05 The left overbank n value of 0.039 and the right overbank n value of 0.039 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 1.992
NT RC 05 The left overbank n value of 0.039 and the right overbank n value of 0.039 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 1.938
NT RC 05 The left overbank n value of 0.039 and the right overbank n value of 0.039 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 1.932
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 1.903
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 1.822
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 1.796
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 1.772
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06

The overbank n values should be reevaluated.

RS: 1.709
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 1.625
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 1.556
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 1.481
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 1.43
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 1.382
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 1.336
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 1.227
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 1.176
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 1.113
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 1.027
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 0.928
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 0.83
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 0.719
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 0.624
NT RC 05 The left overbank n value of 0.044 and the right overbank n value

of 0.049 are less than or equal to the channel n value of 0.06
The overbank n values should be reevaluated.

RS: 0.535
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06
The overbank n values should be reevaluated.

RS: 0.462
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06
The overbank n values should be reevaluated.

RS: 0.416
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06
The overbank n values should be reevaluated.

RS: 0.355
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06
The overbank n values should be reevaluated.

RS: 0.315
NT RC 05 The left overbank n value of 0.048 and the right overbank n value of 0.048 are less than or equal to the channel n value of 0.062
The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

RS: 2.17
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4 respectively. However, this cross section is not at the structure.
They should be equal to 0.1 and 0.3.

RS: 2.108
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4 respectively. However, this cross section is not at the structure.
They should be equal to 0.1 and 0.3.

RS: 2.078
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4 respectively. However, this cross section is not at the structure.
They should be equal to 0.1 and 0.3.

RS: 2.051
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4 respectively. However, this cross section is not at the structure.
They should be equal to 0.1 and 0.3.

ROUGHNESS COEFFICIENT AT STRUCTURES

---END---

CHECK-RAS Program, XS Check
Cross Section Location and Alignment Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E.xs
Selected profiles: Floodplain;Floodway
Date: 7/27/2005
Time: 5:47:57 PM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #1,4 East (South of						
2.418	214.131	215.384	215.882	9.82	530	C (S/C)
2.377	192.691	217.476	223.178	28.94	530	
2.336	168.927	163.753	162.679	29.77	530	
2.305	393.162	395.384	393.691	20.03	530	
2.23	322.757	314.581	311.806	28.5	530	
2.17	328.369	329.365	336.135	32.07	530	
2.108	148.368	156.111	162.831	50.57	530	
2.078	140.906	144.676	164.907	99.65	530	
2.051	309.07	312.208	303.77	63.29	530	
1.992	299.601	285.402	283.824	21.43	530	
1.938	30.5	26.829	32.62	256.72	530	
1.932	174.442	159.355	158.8	238.05	530	C (S/C)
1.903	423.575	427.721	429.259	21.32	530	
1.822	137.298	135.332	139.125	49.75	530	
1.796	131.928	128.119	135.577	111.7	530	
1.772	338.988	330.583	325.459	26.64	530	
1.709	418.586	445.881	446.988	55.28	670	
1.625	357.01	365.52	368.422	72.43	670	D
1.556	398.542	397.486	385.331	65.55	670	
1.481	272.481	270.763	271.41	66.57	670	
1.43	252.175	254.573	267.654	46.85	670	D
1.382	252.124	243.187	225.049	140.43	670	D
1.336	336.102	351.558	343.936	122.72	670	
1.269	221.971	221.651	209.824	72.46	670	
1.227	263.632	268.851	275.844	93.34	670	
1.176	335.45	335.214	332.411	66.98	670	
1.113	451.339	455.947	473.776	57.95	670	
1.027	522.371	521.509	523.003	269.26	670	D
.928	523.811	516.883	527.872	354.53	670	
.83	568.68	586.492	542.174	610.6	670	D
.719	493.135	502.939	523.69	595.56	670	D
.624	475.707	470.547	466.355	501.64	670	
.535	393.975	384.72	395.502	499.46	670	D
.462	254.513	241.01	231.689	611.19	670	D
.416	311.132	323.975	344.902	724.08	670	D (E) ok, bk left side is ineffective.
.355	179.893	209.973	214.049	479.76	670	
.315	383.07	388.97	389.249	713.05	670	D
.241	0	0	0	743.3	670	D

B=blocked obstruction XS SC 05
C=critial depth XS SC 03
D=divided flow XS SC 01
E=cross section extended XS SC 02
K=known water-surface XS SC 04

DISTANCE CHECK

SPACING CHECK

INEFFECTIVE FLOW CHECK

DISCHARGE CHECK

LOCATION CHECK

BOUNDARY CONDITION CHECK

XS BC 02 The name of the stream is Reach #1,4 East (South of
Normal S = 0.00843 is specified as the downstream boundary
for profile Floodplain

XS BC 02 The name of the stream is Reach #1,4 East (South of
Normal S = 0.00843 is specified as the downstream boundary
for profile Floodway

LATERAL WEIRS CHECK

---END---

CHECK-RAS Program: Floodway Check
Encroachment Method, Starting WSEL, Floodway Width, and Surcharge Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E.fw
Selected profiles: Floodplain;Floodway
Date: 7/27/2005
Time: 5:47:59 PM

SECNO	Method	Surcharge	EncStaL	EncStaR	LStaEff	RStaEff	Structure
Reach #1,4 East (South of							
2.418					9996.58	10006.4	
2.418	1	0	9979	10027	9996.58	10006.4	
2.377					9984.74	10013.69	
2.377	1	0.01	9912	10046	9984.67	10013.69	
2.336					9989.49	10019.26	
2.336	1	0.08	9988	10021	9989.37	10019.46	
2.305					9993.97	10014	
2.305	1	0.11	9995	10012	9995	10012	
2.23					9980.74	10009.24	
2.23	1	-0.01	9988	10010	9988	10009.23	
2.17					9983.47	10015.54	
2.17	1	0.08	9982	10017	9983.22	10015.76	
2.108					9978.61	10029.18	
2.108	1	0	9980	10018	9980	10018	
2.078					9958.45	10058.1	
2.078	1	0.1	9978	10058	9978	10058	
2.051					9986.84	10050.12	
2.051	1	0.19	9988	10044	9988	10044	
1.992					9990.81	10012.23	
1.992	1	0.92	9989	10016	9990.04	10013.71	
1.938					9791.68	10048.4	
1.938	1	0.68	9985	10014	9985	10014	
1.932					9788.38	10026.43	
1.932	1	0.26	9969	10024	9969	10024	
1.903					9990.67	10011.98	
1.903	1	0.08	9909	10072	9990.54	10012.04	
1.822					9972.41	10022.16	
1.822	1	-0.01	9971	10015	9972.43	10015	
1.796					9952.56	10064.34	
1.796	1	-0.01	9872	10144	9952.57	10064.31	
1.772					9985.79	10012.43	
1.772	1	-0.01	9900	10060	9985.8	10012.42	
1.709					9958.64	10013.92	
1.709	1	0.25	9975	10013	9975	10013	
1.625					9893.99	10011.93	
1.625	1	0.2	9906	10012	9906	10011.98	
1.556					9966.13	10031.68	
1.556	1	0.01	9974	10008	9974	10008	
1.481					9957.83	10024.4	
1.481	1	0.05	9983	10025	9983	10024.45	
1.43					9956.58	10020.52	
1.43	1	0.69	9980	10020	9980	10020	
1.382					9974.95	10116.02	
1.382	1	0.38	9990	10022	9990	10022	
1.336					9980.63	10103.35	
1.336	1	-0.01	9980	10090	9980.64	10090	
1.269					9966.18	10038.64	
1.269	1	0.01	9966	10038	9966.16	10038	
1.227					9919.34	10012.68	
1.227	1	0.01	9920	10011	9920	10011	
1.176					9956.33	10023.32	
1.176	1	-0.01	9954	10027	9956.35	10023.3	
1.113					9975.63	10033.58	
1.113	1	0.09	9973	10038	9975.52	10033.78	
1.027					9971.61	10400.03	
1.027	1	1.01	9970	10013	9970	10013	
0.928					9979.67	10334.2	
0.928	1	0.79	9972	10050	9977.18	10050	

					4E	
0.83					9971.74	10640.31
0.83	1	0.93	9972	10137	9972	10137
0.719					9795.81	10449.25
0.719	1	0.72	9933	10079	9933	10079
0.624					9836.13	10337.77
0.624	1	0.74	9961	10157	9961	10157
0.535					9744.54	10266.11
0.535	1	0.8	9925	10046	9925	10046
0.462					9790.31	10448.29
0.462	1	0.88	9963	10075	9963	10075
0.416					9637.2	10390.61
0.416	1	0.91	9950	10060	9950	10060
0.355					9793.25	10273.01
0.355	1	0.88	9940	10053	9940	10053
0.315					9818.07	10544.42
0.315	1	0.95	9953	10045	9953	10045
0.241					9882.15	10761.28
0.241	1	1	9974	10089	9974	10089

ENCROACHMENT METHOD CHECK

FLOODWAY WIDTH CHECK

RS: 2.418
FW FW 04 The left station effective of 9996.58 for 1% annual chance floodplain is less than the left channel bank station 9998.04
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9979) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 2.418
FW FW 04 The right station effective of 10006.4 for 1% annual chance floodplain is greater than the right channel bank station (10004.76).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10027) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 2.377
FW FW 05 The 1% annual chance flood is contained within the channel.
Left encroachment station 9912 is outside the channel.
Left channel bank station is 9983.65
Left encroachment station and/or left channel bank station should be adjusted.

RS: 2.377
FW FW 05 The 1% annual chance flood is contained within the channel.
Right encroachment station 10046 is outside the channel.
Right channel bank station is 10013.87
Right encroachment station and/or right channel bank station should be adjusted.

RS: 2.377
FW FW 06 The left station effective of 9984.67 for the floodway profile is more than the left channel bank station of 9983.65
The left side of the floodway boundary is within the channel.
The left encroachment station of 9912 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 2.377
FW FW 06 The right station effective of 10013.69 for the floodway profile is less than the right channel bank station of 10013.87
The right side of the floodway boundary is within the channel.
The right encroachment station of 10046 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 2.336
FW FW 05 The 1% annual chance flood is contained within the channel.
Left encroachment station 9988 is outside the channel.
Left channel bank station is 9988.21
Left encroachment station and/or left channel bank station should be adjusted.

RS: 2.336
FW FW 05 The 1% annual chance flood is contained within the channel.
Right encroachment station 10021 is outside the channel.
Right channel bank station is 10020.55
Right encroachment station and/or right channel bank station should be adjusted.

RS: 2.336
FW FW 06 The left station effective of 9989.37 for the floodway profile is more than the left channel bank station of 9988.21
The left side of the floodway boundary is within the channel.
The left encroachment station of 9988 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 2.336
FW FW 06 The right station effective of 10019.46 for the floodway profile is less than the right channel bank station of 10020.55
The right side of the floodway boundary is within the channel.
The right encroachment station of 10021 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 2.305
FW FW 01 Left encroachment station 9995 is more than left channel bank station 9994.961 and less than the right channel bank station 10011.98
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.305
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.23
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.23
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.23
FW FW 04 The right station effective of 10009.24 for 1% annual chance floodplain is greater than the right channel bank station (10008.15).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10010) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 2.17
FW FW 01 Left encroachment station 9982 is more than left channel bank station 9981.68 and less than the right channel bank station 10017.38
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.17
FW FW 01 Right encroachment station 10017 is less than right channel bank station 10017.38 and greater than the left channel bank station 9981.68
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.108
FW FW 01 Left encroachment station 9980 is more than left channel bank station 9979.82 and less than the right channel bank station 10018.03
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.108
FW FW 01 Right encroachment station 10018 is less than right channel bank station 10018.03 and greater than the left channel bank station 9979.82
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.108
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.108
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.078
FW FW 01 Left encroachment station 9978 is more than left channel bank station 9977.67 and less than the right channel bank station 10058.1
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.078
FW FW 01 Right encroachment station 10058 is less than right channel bank station 10058.1 and greater than the left channel bank station 9977.67
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.051
FW FW 01 Left encroachment station 9988 is more than left channel bank station 9987.75 and less than the right channel bank station 10044.38
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.051
FW FW 01 Right encroachment station 10044 is less than right channel bank station 10044.38 and greater than the left channel bank station 9987.75
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.051
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.992
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.822
FW FW 01 Left encroachment station 9971 is more than left channel bank station 9970.55 and less than the right channel bank station 10013.7
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.796
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.796
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.796
FW FW 04 The left station effective of 9952.56 for 1% annual chance floodplain is less than the left channel bank station 9978.67
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9872) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 1.796
FW FW 04 The right station effective of 10064.34 for 1% annual chance floodplain is greater than the right channel bank station (10024.72).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10144) is outside of 1% annual chance floodplain.

The right encroachment station should be adjusted.

RS: 1.772
FW FW 04 The left station effective of 9985.79 for 1% annual chance floodplain is less than the left channel bank station 9985.791
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9900) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 1.772
FW FW 06 The left station effective of 9985.8 for the floodway profile is more than the left channel bank station of 9985.791
The left side of the floodway boundary is within the channel.
The left encroachment station of 9900 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 1.772
FW FW 06 The right station effective of 10012.42 for the floodway profile is less than the right channel bank station of 10012.43
The right side of the floodway boundary is within the channel.
The right encroachment station of 10060 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 1.709
FW FW 01 Right encroachment station 10013 is less than right channel bank station 10013.39 and greater than the left channel bank station 9975.05
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.481
FW FW 01 Left encroachment station 9983 is more than left channel bank station 9982.52 and less than the right channel bank station 10024.4
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.43
FW FW 01 Right encroachment station 10020 is less than right channel bank station 10020.51 and greater than the left channel bank station 9981.307
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.336
FW FW 04 The left station effective of 9980.63 for 1% annual chance floodplain is less than the left channel bank station 9983.573
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9980) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 1.269
FW FW 01 Right encroachment station 10038 is less than right channel bank station 10038.67 and greater than the left channel bank station 9966.169
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.269
FW FW 05 The 1% annual chance flood is contained within the channel.
Left encroachment station 9966 is outside the channel.
Left channel bank station is 9966.169
Left encroachment station and/or left channel bank station should be adjusted.

RS: 1.227
FW FW 01 Right encroachment station 10011 is less than right channel bank station 10011.2 and greater than the left channel bank station 9972.865
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.227
FW FW 03 The right channel bank station may not be at the proper

location.

RS: 1.176
FW FW 04 The left station effective of 9956.33 for 1% annual chance floodplain is less than the left channel bank station 9956.345
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9954) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 1.176
FW FW 04 The right station effective of 10023.32 for 1% annual chance floodplain is greater than the right channel bank station (10023.31).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10027) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 1.176
FW FW 06 The left station effective of 9956.35 for the floodway profile is more than the left channel bank station of 9956.345
The left side of the floodway boundary is within the channel.
The left encroachment station of 9954 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 1.176
FW FW 06 The right station effective of 10023.3 for the floodway profile is less than the right channel bank station of 10023.31
The right side of the floodway boundary is within the channel.
The right encroachment station of 10027 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 1.113
FW FW 05 The 1% annual chance flood is contained within the channel.
Left encroachment station 9973 is outside the channel.
Left channel bank station is 9975.59
Left encroachment station and/or left channel bank station should be adjusted.

RS: 1.113
FW FW 05 The 1% annual chance flood is contained within the channel.
Right encroachment station 10038 is outside the channel.
Right channel bank station is 10033.66
Right encroachment station and/or right channel bank station should be adjusted.

RS: 1.027
FW FW 01 Right encroachment station 10013 is less than right channel bank station 10013.8 and greater than the left channel bank station 9973.722
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.027
FW FW 04 The left station effective of 9971.61 for 1% annual chance floodplain is less than the left channel bank station 9973.722
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9970) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 0.928
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.928
FW FW 04 The left station effective of 9979.67 for 1% annual chance floodplain is less than the left channel bank station 9979.725
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9972) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 0.83
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.719
FW FW 01 Left encroachment station 9933 is more than left channel bank station 9932.775 and less than the right channel bank station 10078.26
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.719
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.624
FW FW 01 Right encroachment station 10157 is less than right channel bank station 10158.08 and greater than the left channel bank station 9961.877
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.624
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.535
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.416
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.355
FW FW 01 Left encroachment station 9940 is more than left channel bank station 9939.971 and less than the right channel bank station 10024.6
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.355
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.315
FW FW 01 Left encroachment station 9953 is more than left channel bank station 9952.35 and less than the right channel bank station 10023.75
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.241
FW FW 01 Left encroachment station 9974 is more than left channel bank station 9973.71 and less than the right channel bank station 10038.45
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

SURCHARGE CHECK

RS: 1.027
FW SC 02 The surcharge value is greater than the maximum allowable value of 1

DISCHARGE CHECK

STARTING WATER-SURFACE ELEVATION CHECK

---END---

4 EAST_DIKE FAILURE

4E-FAILURE
CHECK-RAS Program: NT Check
Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E-FAILURE.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E-FAILURE.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E-FAILURE.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E-FAILURE.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E-FAILURE.nt
Selected profiles: Floodplain
Date: 7/27/2005
Time: 5:51:53 PM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #1,4 East (South of						
1.027		0.044	0.06	0.049	0.1	0.3
.928		0.044	0.06	0.049	0.1	0.3
.83		0.044	0.06	0.049	0.1	0.3
.719		0.044	0.06	0.049	0.1	0.3
.624		0.044	0.06	0.049	0.1	0.3
.535		0.044	0.06	0.049	0.1	0.3
.462		0.044	0.06	0.049	0.1	0.3
.416		0.044	0.06	0.049	0.1	0.3
.355		0.044	0.06	0.049	0.1	0.3
.315		0.048	0.062	0.048	0.1	0.3
.241		0.048	0.062	0.048	0.1	0.3

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.044	0.048
Right Overbank n Value:	0.048	0.049
Channel n Value:	0.06	0.062
Contraction Coefficient:	0.1	0.1
Expansion Coefficient:	0.3	0.3

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

ROUGHNESS COEFFICIENT CHECK

RS: 1.027
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 0.928
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 0.83
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 0.719
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 0.624
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 0.535
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 0.462
NT RC 05 The left overbank n value of 0.044 and the right overbank n value

of 0.049 are less than or equal to the channel n value of 0.06
The overbank n values should be reevaluated.

RS: 0.416
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06
The overbank n values should be reevaluated.

RS: 0.355
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.049 are less than or equal to the channel n value of 0.06
The overbank n values should be reevaluated.

RS: 0.315
NT RC 05 The left overbank n value of 0.048 and the right overbank n value of 0.048 are less than or equal to the channel n value of 0.062
The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

ROUGHNESS COEFFICIENT AT STRUCTURES

---END---

4E-FAILURE
CHECK-RAS Program, XS Check
Cross Section Location and Alignment Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E-FAILURE.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E-FAILURE.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E-FAILURE.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E-FAILURE.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\4E-FAILURE.xs
Selected profiles: Floodplain
Date: 7/27/2005
Time: 5:51:53 PM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #1,4 East (South of						
1.027	522.371	521.509	523.003	270.86	670	D
.928	523.811	516.883	527.872	418.38	670	D
.83	568.68	586.492	542.174	811.14	670	D
.719	493.135	502.939	523.69	935.94	670	D
.624	475.707	470.547	466.355	726.09	670	D
.535	393.975	384.72	395.502	669.73	670	D
.462	254.513	241.01	231.689	688.92	670	D
.416	311.132	323.975	344.902	813.31	670	D
.355	179.893	209.973	214.049	527.51	670	D
.315	383.07	388.97	389.249	713.05	670	D
.241	0	0	0	743.3	670	D

B=blocked obstruction XS SC 05
C=critial depth XS SC 03
D=divided flow XS SC 01
E=cross section extended XS SC 02
K=known water-surface XS SC 04

DISTANCE CHECK

SPACING CHECK

INEFFECTIVE FLOW CHECK

DISCHARGE CHECK

XS DC 02 Constant dicharge used for the Reach #1,4 East (South of

LOCATION CHECK

BOUNDARY CONDITION CHECK

XS BC 02 The name of the stream is Reach #1,4 East (South of
Normal S = 0.00843 is specified as the downstream boundary
for profile Floodplain

LATERAL WEIRS CHECK

---END---

5 EAST

CHECK-RAS Program: NT Check
Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\5E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\5E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\5E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\5E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\5E.nt
Selected profiles: Floodplain;Floodway
Date: 7/25/2005
Time: 8:48:17 AM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #1,5 East						
5.146		0.035	0.052	0.037	0.3	0.5
5.12		0.035	0.052	0.037	0.3	0.5
5.064		0.035	0.052	0.037	0.1	0.3
5.016		0.035	0.052	0.037	0.1	0.3
4.953		0.035	0.052	0.037	0.1	0.3
4.881		0.035	0.052	0.037	0.1	0.3
4.847		0.035	0.052	0.037	0.1	0.3
4.806		0.035	0.052	0.037	0.1	0.3
4.759		0.035	0.052	0.037	0.1	0.3
4.696		0.035	0.052	0.037	0.1	0.3
4.63		0.035	0.052	0.037	0.1	0.3
4.58		0.035	0.052	0.037	0.1	0.3
4.534		0.035	0.052	0.037	0.1	0.3
4.487		0.035	0.052	0.037	0.1	0.3
4.444		0.035	0.052	0.037	0.1	0.3
4.381		0.037	0.065	0.037	0.1	0.3
4.318		0.037	0.065	0.037	0.1	0.3
4.26		0.037	0.065	0.037	0.1	0.3
4.185		0.037	0.065	0.037	0.1	0.3
4.111		0.037	0.065	0.037	0.1	0.3
4.052		0.037	0.065	0.037	0.1	0.3
4.01		0.037	0.065	0.037	0.1	0.3
3.938		0.037	0.065	0.037	0.1	0.3
3.853		0.037	0.065	0.037	0.1	0.3
3.785		0.037	0.065	0.037	0.1	0.3
3.734		0.037	0.065	0.037	0.1	0.3
3.721		0.037	0.065	0.037	0.1	0.3
3.711		0.037	-----	-----	0.1	0.3
		0.051	-----	-----		
		0.034	-----	-----		
		0.05	-----	-----		
3.622		0.037	-----	-----	0.1	0.3
		0.051	-----	-----		
		0.034	-----	-----		
		0.05	-----	-----		
3.541		0.037	-----	-----	0.1	0.3
		0.051	-----	-----		
		0.034	-----	-----		
		0.05	-----	-----		
3.424		0.037	-----	-----	0.1	0.3
		0.051	-----	-----		
		0.034	-----	-----		
		0.05	-----	-----		
3.386		0.037	-----	-----	0.1	0.3
		0.051	-----	-----		
		0.034	-----	-----		
		0.05	-----	-----		
3.341		0.037	-----	-----	0.1	0.3
		0.051	-----	-----		
		0.034	-----	-----		
		0.05	-----	-----		
3.248		0.037	-----	-----	0.1	0.3
		0.051	-----	-----		
		0.034	-----	-----		
		0.05	-----	-----		
3.147		0.037	-----	-----	0.1	0.3
		0.051	-----	-----		
		0.034	-----	-----		

CAP section

			5E		
	0.05	-----	-----		
3.06	0.037	0.05	-----	0.1	0.3
	0.051	0.031	-----		
	0.034	-----	-----		
	0.05	-----	-----		
2.955	0.037	-----	-----	0.1	0.3
	0.051	-----	-----		
	0.037	-----	-----		
	0.051	-----	-----		
	0.034	-----	-----		
	0.05	-----	-----		
2.864	0.037	-----	-----	0.1	0.3
	0.051	-----	-----		
	0.037	-----	-----		
	0.034	-----	-----		
	0.05	-----	-----		
2.765	0.034	0.05	0.031	0.1	0.3
2.693	0.034	0.05	0.031	0.1	0.3
2.61	0.034	0.05	0.031	0.1	0.3
2.555	0.034	0.05	0.031	0.1	0.3
2.489	0.034	0.05	0.031	0.1	0.3
2.422	0.034	0.05	0.031	0.1	0.3
2.381	0.034	0.05	0.031	0.1	0.3
2.302	0.034	0.05	0.031	0.1	0.3
2.257	0.034	0.05	0.031	0.1	0.3
2.208	0.034	0.05	0.031	0.1	0.3
2.131	0.034	0.05	0.031	0.1	0.3
2.052	0.034	0.05	0.031	0.1	0.3
1.976	0.034	0.05	0.031	0.1	0.3
1.898	0.034	0.05	0.031	0.1	0.3
1.824	0.034	0.05	0.031	0.1	0.3
1.751	0.034	0.05	0.031	0.1	0.3
1.683	0.034	0.05	0.031	0.1	0.3
1.59	0.034	0.05	0.031	0.1	0.3
1.499	0.034	0.05	0.031	0.1	0.3
1.414	0.034	0.05	0.031	0.1	0.3
1.329	0.034	0.05	0.031	0.1	0.3
1.298	0.034	0.05	0.031	0.1	0.3
1.264	0.034	0.05	0.031	0.1	0.3
1.22	0.034	0.05	0.031	0.1	0.3
1.115	0.034	0.05	0.031	0.1	0.3

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.034	0.051
Right Overbank n Value:	0.031	0.037
Channel n Value:	0.031	0.065
Contraction Coefficient:	0.1	0.3
Expansion Coefficient:	0.3	0.5

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

ROUGHNESS COEFFICIENT CHECK

RS: 5.146
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 5.12
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 5.064
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 5.016
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.052

The overbank n values should be reevaluated.

RS: 4.953
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.881
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.847
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.806
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.759
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.696
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.63
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.58
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.534
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.487
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.444
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.381
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.065 The overbank n values should be reevaluated.

RS: 4.318
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.065 The overbank n values should be reevaluated.

RS: 4.26
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.065 The overbank n values should be reevaluated.

RS: 4.185
NT RC 05 The left overbank n value of 0.037 and the right overbank n value

of 0.037 are less than or equal to the channel n value of 0.065
The overbank n values should be reevaluated.

RS: 4.111
NT RC 05 The left overbank n value of 0.037 and the right overbank n value
of 0.037 are less than or equal to the channel n value of 0.065
The overbank n values should be reevaluated.

RS: 4.052
NT RC 05 The left overbank n value of 0.037 and the right overbank n value
of 0.037 are less than or equal to the channel n value of 0.065
The overbank n values should be reevaluated.

RS: 4.01
NT RC 05 The left overbank n value of 0.037 and the right overbank n value
of 0.037 are less than or equal to the channel n value of 0.065
The overbank n values should be reevaluated.

RS: 3.938
NT RC 05 The left overbank n value of 0.037 and the right overbank n value
of 0.037 are less than or equal to the channel n value of 0.065
The overbank n values should be reevaluated.

RS: 3.853
NT RC 05 The left overbank n value of 0.037 and the right overbank n value
of 0.037 are less than or equal to the channel n value of 0.065
The overbank n values should be reevaluated.

RS: 3.785
NT RC 05 The left overbank n value of 0.037 and the right overbank n value
of 0.037 are less than or equal to the channel n value of 0.065
The overbank n values should be reevaluated.

RS: 3.734
NT RC 05 The left overbank n value of 0.037 and the right overbank n value
of 0.037 are less than or equal to the channel n value of 0.065
The overbank n values should be reevaluated.

RS: 3.721
NT RC 05 The left overbank n value of 0.037 and the right overbank n value
of 0.037 are less than or equal to the channel n value of 0.065
The overbank n values should be reevaluated.

RS: 2.765
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.765
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.765
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 2.693
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.693
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.693
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 2.61

NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.61
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.61
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 2.555
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.555
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.555
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 2.489
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.489
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.489
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 2.422
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.422
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.422
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 2.381
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.381
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.381
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 2.302
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.302
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.302
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 2.257
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.257
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.257
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 2.208
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.208
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.208
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 2.131
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.131
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.131
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 2.052
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.052
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.052
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 1.976
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.976
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.976
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 1.898
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.898
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.898
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 1.824
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.824
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.824
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 1.751
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.751
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.751
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 1.683
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.683
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.683
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05

The overbank n values should be reevaluated.

RS: 1.59
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.59
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.59
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 1.499
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.499
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.499
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 1.414
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.414
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.414
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 1.329
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.329
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.329
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 1.298
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.298
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.298
NT RC 05 The left overbank n value of 0.034 and the right overbank n value

of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 1.264
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.264
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.264
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 1.22
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.22
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.22
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.031 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

RS: 5.146
NT TL 02 Contraction and expansion loss coefficients are 0.3 and 0.5
respectively. However, this cross section is not at the structure.
They should be equal to 0.1 and 0.3.

RS: 5.12
NT TL 02 Contraction and expansion loss coefficients are 0.3 and 0.5
respectively. However, this cross section is not at the structure.
They should be equal to 0.1 and 0.3.

ROUGHNESS COEFFICIENT AT STRUCTURES

---END---

CHECK-RAS Program, XS Check
Cross Section Location and Alignment Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\5E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\5E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\5E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\5E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\5E.xs
Selected profiles: Floodplain;Floodway
Date: 7/25/2005
Time: 8:48:18 AM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #1,5 East						
5.146	148.73	135.383	124.841	10.69	420	
5.12	294.928	293.762	316.161	171.63	580	
5.064	256.777	254.5	256.092	208.78	580	D
5.016	329.132	333.316	335.317	265	580	D (E) (SK)
4.953	372.326	379.129	366.908	71.65	580	D
4.881	174.978	179.147	180.158	121.43	580	D
4.847	219.433	215.626	212.777	226.63	580	
4.806	278.155	246.404	238.44	246.49	580	
4.759	317.436	334.025	351.005	495.15	580	D
4.696	341.559	349.866	349.761	56.99	580	D
4.63	263.447	261.967	270.451	159.12	580	
4.58	247.188	241.608	234.438	353.05	580	D
4.534	250.401	250.785	251.47	114.25	580	D
4.487	238.475	228.117	224.842	207.33	580	
4.444	332.864	332.916	342.564	199.14	580	
4.381	328.279	330.685	305.514	463.35	580	D (SK)
4.318	253.545	305.628	361.98	227.62	580	D
4.26	430.203	395.945	356.087	674.25	580	D
4.185	380.785	390.901	438.735	607.48	750	D (C) (B) Due to ponding area not
4.111	249.36	313.948	415.856	548.55	750	hydraulically connected to
4.052	206.462	222.734	254.496	262.07	750	D upstream / downstream x-sections
4.01	381.942	380.097	384.24	424.01	750	
3.938	458.772	446.523	470.196	429.38	750	
3.853	364.889	356.853	353.47	303.18	750	
3.785	272.22	268.665	269.366	42.63	800	(A) (SK)
3.734	79.399	67.962	58.701	241.93	800	
3.721	99.508	51.798	10.307	156.68	800	
3.711	451.287	471.733	472.656	870.32	1500	D
3.622	432.909	425.623	411.548	767.98	1500	D
3.541	563.904	616.197	551.994	1166.25	1500	D
3.424	192.957	200.523	183.086	1320.55	1500	D
3.386	230.733	236.161	270.734	1469.83	1500	D
3.341	452.178	493.133	450.42	1534.91	1500	D
3.248	502.433	534.864	574.034	903.9	1500	D
3.147	450.021	460.575	465.465	856.76	1500	D
3.06	524.406	555.855	534.526	1291.31	1500	D
2.955	486.123	479.224	470.969	1248.66	1500	D
2.864	604.936	521.162	427.027	1269.9	1500	D
2.765	361.538	379.052	403.301	425.43	800	D
2.693	441.761	439.91	441.79	381.67	800	D
2.61	286.098	288.529	275.81	433.03	800	
2.555	350.832	349.512	362.632	283.59	830	(A) (SK)
2.489	355.311	355.105	371.008	400.57	830	D
2.422	210.57	218.463	217.584	318.68	830	D
2.381	441.453	419.44	409.407	376.84	830	D
2.302	239.58	240.172	246.473	412.43	830	D
2.257	264.312	256.575	258.298	417.51	830	
2.208	414.694	404.507	402.532	315.34	830	D
2.131	429.944	418.898	427.531	219.66	830	D
2.052	388.659	398.799	419.418	190.93	830	
1.976	400.197	409.659	408.898	385.41	830	D
1.898	389.109	391.166	396.789	235.37	830	D (C) (SK)
1.824	392.597	383.272	388.403	481.93	910	D
1.751	359.275	359	349.631	425.27	910	D
1.683	484.741	488.777	499.051	425.1	910	D
1.59	453.316	482.342	489.728	568.06	910	D
1.499	492.847	450.411	407.402	643.61	910	D

1.414	417.437	447.94	427.658	254.9		910
1.329	235.317	161.533	161.101	535.68		910
1.298	81.506	181.068	213.056	159.95		910
1.264	241.383	229.836	235.017	335.81		910
1.22	561.73	555.212	553.997	509.52		910
1.115	0	0	0	493.13		910

D, C (5/C)
C (5/C)

B=blocked obstruction XS SC 05
C=critial depth XS SC 03
D=divided flow XS SC 01
E=cross section extended XS SC 02
K=known water-surface XS SC 04

DISTANCE CHECK

SPACING CHECK

INEFFECTIVE FLOW CHECK

DISCHARGE CHECK

RS: 2.765
XS DC 01 Discharge decreases in the downstream direction.

LOCATION CHECK

RS: 3.853
XS LC 01 Lenchl Up/TopwdthAct Dn = 8.37
MaxChlDpth Up/MaxChlDpth Dn = 1.31
TopwdthAct Up/TopwdthAct Dn = 7.11
This cross section is located too far upstream from the critical depth cross section.

RS: 1.976
XS LC 01 Lenchl Up/TopwdthAct Dn = 1.74
MaxChlDpth Up/MaxChlDpth Dn = 1.29
TopwdthAct Up/TopwdthAct Dn = 1.64
This cross section is located too far upstream from the critical depth cross section.

RS: 1.499
XS LC 01 Lenchl Up/TopwdthAct Dn = 1.77
MaxChlDpth Up/MaxChlDpth Dn = 1.94
TopwdthAct Up/TopwdthAct Dn = 2.52
This cross section is located too far upstream from the critical depth cross section.

BOUNDARY CONDITION CHECK

XS BC 02 The name of the stream is Reach #1,5 East
Normal S = 0.009 is specified as the downstream boundary for profile Floodplain

XS BC 02 The name of the stream is Reach #1,5 East
Normal S = 0.009 is specified as the downstream boundary for profile Floodway

LATERAL WEIRS CHECK

---END---

CHECK-RAS Program: Floodway Check
Encroachment Method, Starting WSEL, Floodway Width, and Surcharge Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\5E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\5E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\5E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\5E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\5E.fw
Selected profiles: Floodplain;Floodway
Date: 7/25/2005
Time: 8:48:20 AM

SECNO	Method	Surcharge	EncStaL	EncStaR	LStaEff	RStaEff	Structure
Reach #1,5 East							
5.146					9991.88	10002.57	
5.146	1	0.03	9988	10008	9991.88	10002.59	
5.12					9915.37	10087	
5.12	1	0.56	9986	10051	9986	10051	
5.064					9965.7	10208	
5.064	1	0.75	9979	10112	9979	10112	
5.016					9992.13	10320.59	
5.016	1	0.88	9992	10115	9992	10115	
4.953					9988.44	10253.92	
4.953	1	0.72	9975	10114	9980.84	10114	
4.881					9930.05	10065.72	
4.881	1	0.92	9982	10046	9982	10046	
4.847					9886.03	10112.65	
4.847	1	0.67	9974	10030	9974	10030	
4.806					9789.84	10036.33	
4.806	1	0.77	9992	10024	9992	10024	
4.759					9759.81	10328.55	
4.759	1	0.86	9974	10065	9974	10065	
4.696					9963.05	10038.83	
4.696	1	0.78	9982	10012	9982	10012	
4.63					9941.72	10100.84	
4.63	1	0.94	9992	10049	9992	10049	
4.58					9754.67	10147.4	
4.58	1	0.4	9964	10022	9964	10022	
4.534					9943.18	10196.31	
4.534	1	0.89	9945	10014	9945	10014	
4.487					9925.11	10132.43	
4.487	1	0.54	9967	10056	9967	10056	
4.444					9871.1	10070.24	
4.444	1	0.79	9969	10054	9969	10054	
4.381					9715.25	10187.29	
4.381	1	0.56	9927	10021	9927	10021	
4.318					9889.88	10335.78	
4.318	1	0.28	9880	10019	9888.88	10019	
4.26					9854.42	10704	
4.26	1	0.93	9945	10155	9945	10155	
4.185					9960.27	10776.94	
4.185	1	0.52	9962	10171	9962	10171	
4.111					9799.05	10347.6	
4.111	1	0.89	9940	10224	9940	10224	
4.052					9826.08	10169.5	
4.052	1	1	9949	10090	9949	10090	
4.01					9833.69	10257.7	
4.01	1	0.95	9932	10095	9932	10095	
3.938					9815.84	10245.22	
3.938	1	0.76	9929	10096	9929	10096	
3.853					9708.92	10012.09	
3.853	1	0.46	9940	10011	9940	10011	
3.785					9977.2	10019.83	
3.785	1	0.07	9983	10015	9983	10015	
3.734					9870.07	10112	
3.734	1	0.77	9966	10047	9966	10047	
3.721					9974.77	10131.45	
3.721	1	0.63	9976	10033	9976	10033	
3.711					8941.85	10134.33	
3.711	1	0.45	9980	10039	9982.94	10039	
3.622					8998.92	10222.3	
3.622	1	0.77	9972	10124	9972	10124	

					5E	
3.541					8670.89	10308.68
3.541	1	0.88	9953	10088	9953	10088
3.424					8487.03	10542.65
3.424	1	0.89	9937	10092	9937	10092
3.386					8373.1	10592.66
3.386	1	1	9909	10056	9909	10056
3.341					8438.07	10630.55
3.341	1	0.88	9980	10131	9980	10131
3.248					9263.98	10463.65
3.248	1	0.47	9985	10078	9985	10078
3.147					9063.46	10470.69
3.147	1	1	9961	10101	9961	10101
3.06					9033.81	10423.15
3.06	1	0.6	9961	10110	9961	10110
2.955					9138.59	10484.81
2.955	1	0.92	9958	10091	9958	10091
2.864					9025.83	10489.17
2.864	1	1	9938	10107	9938	10107
2.765					9932.18	10399.25
2.765	1	0.86	9950	10119	9950	10119
2.693					9820.79	10259.37
2.693	1	0.8	9970	10070	9970	10070
2.61					9896.91	10329.94
2.61	1	0.85	9973	10117	9973	10117
2.555					9950.42	10234.01
2.555	1	0.84	9985	10078	9985	10078
2.489					9875.08	10279.38
2.489	1	0.56	9981	10093	9981	10093
2.422					9858.04	10177.96
2.422	1	0.94	9980	10065	9980	10065
2.381					9865.72	10273.54
2.381	1	0.68	9965	10035	9965	10035
2.302					9759.83	10176.61
2.302	1	0.97	9912	10010	9912	10010
2.257					9849.38	10266.89
2.257	1	0.55	9984	10049	9984	10049
2.208					9946.34	10301.51
2.208	1	0.92	9977	10094	9977	10094
2.131					9972.32	10237.3
2.131	1	0.75	9968	10045	9968	10045
2.052					9877.51	10068.44
2.052	1	0.43	9977	10058	9977	10058
1.976					9943.63	10329.74
1.976	1	0.8	9965	10035	9965	10035
1.898					9938.75	10195.18
1.898	1	0.54	9988	10044	9988	10044
1.824					9814.13	10296.36
1.824	1	0.84	9976	10082	9976	10082
1.751					9671.39	10255.74
1.751	1	0.79	9934	10080	9934	10080
1.683					9456.4	10033.73
1.683	1	0.99	9712	10020	9712	10020
1.59					9300.18	10038.39
1.59	1	0.98	9876	10039	9876	10039
1.499					9448.86	10113.88
1.499	1	0.67	9817	10032	9817	10032
1.414					9750.9	10166.82
1.414	1	0.37	9827	10031	9827	10021.43
1.329					9645.42	10181.1
1.329	1	0.21	9878	10158	9878	10158
1.298					9959.57	10119.53
1.298	1	0.1	9953	10110	9959.3	10110
1.264					9786.04	10121.85
1.264	1	0.8	9919	10038	9919	10038
1.22					9698.01	10207.54
1.22	1	0.75	9914	10068	9914	10068
1.115					9804.79	10297.92
1.115	1	0.54	10101	10272	10101	10272

ENCROACHMENT METHOD CHECK

FLOODWAY WIDTH CHECK

RS: 5.146
FW FW 01 Left encroachment station 9988 is more than left channel bank station 9987.55 and less than the right channel bank station 10008.47
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 5.146
FW FW 01 Right encroachment station 10008 is less than right channel bank station 10008.47 and greater than the left channel bank station 9987.55
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 5.12
FW FW 01 Right encroachment station 10051 is less than right channel bank station 10051.17 and greater than the left channel bank station 9986.119
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 5.064
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 5.064
FW FW 03 The right channel bank station may not be at the proper location.

RS: 5.016
FW FW 01 Left encroachment station 9992 is more than left channel bank station 9975.8 and less than the right channel bank station 10015.81
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.881
FW FW 03 The right channel bank station may not be at the proper location.

RS: 4.847
FW FW 01 Left encroachment station 9974 is more than left channel bank station 9973.91 and less than the right channel bank station 10014.13
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.806
FW FW 01 Left encroachment station 9992 is more than left channel bank station 9991.975 and less than the right channel bank station 10023.82
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.696
FW FW 01 Right encroachment station 10012 is less than right channel bank station 10012.31 and greater than the left channel bank station 9982.13
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.696
FW FW 03 The right channel bank station may not be at the proper location.

RS: 4.63
FW FW 01 Left encroachment station 9992 is more than left channel bank station 9991.77 and less than the right channel bank station 10023.72
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.58
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.58
FW FW 03 The right channel bank station may not be at the proper

location.

RS: 4.534
FW FW 01 Right encroachment station 10014 is less than right channel bank station 10014.34 and greater than the left channel bank station 9945.2
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.534
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.487
FW FW 01 Left encroachment station 9967 is more than left channel bank station 9966.89 and less than the right channel bank station 10027.93
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.487
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.444
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.381
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.318
FW FW 03 The right channel bank station may not be at the proper location.

RS: 4.318
FW FW 04 The left station effective of 9889.88 for 1% annual chance floodplain is less than the left channel bank station 9964.314
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9880) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 4.26
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.26
FW FW 03 The right channel bank station may not be at the proper location.

RS: 4.111
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.938
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.853
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.785
FW FW 01 Left encroachment station 9983 is more than left channel bank station 9982.96 and less than the right channel bank station 10015.27
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.785
FW FW 01 Right encroachment station 10015 is less than right channel bank station 10015.27 and greater than the left channel bank station 9982.96
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.785
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.785
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.734
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.721
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.721
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.711
FW FW 01 Right encroachment station 10039 is less than right channel bank station 10039.71 and greater than the left channel bank station 9982.47
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.711
FW FW 06 The left station effective of 9982.94 for the floodway profile is more than the left channel bank station of 9982.47
The left side of the floodway boundary is within the channel.
The left encroachment station of 9980 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 3.424
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.147
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.06
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.955
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.765
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.693
FW FW 01 Left encroachment station 9970 is more than left channel bank station 9969.591 and less than the right channel bank station 10047.03
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.693
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.555
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.489
FW FW 01 Left encroachment station 9981 is more than left channel bank station 9980.55 and less than the right channel bank station 10016.71
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.422
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.302
FW FW 01 Right encroachment station 10010 is less than right channel bank station 10010.06 and greater than the left channel bank station 9967.785
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.257
FW FW 01 Left encroachment station 9984 is more than left channel bank station 9983.542 and less than the right channel bank station 10019.82
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.208
FW FW 01 Left encroachment station 9977 is more than left channel bank station 9976.886 and less than the right channel bank station 10017.71
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.208
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.131
FW FW 01 Left encroachment station 9968 is more than left channel bank station 9967.628 and less than the right channel bank station 10032.56
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.683
FW FW 01 Right encroachment station 10020 is less than right channel bank station 10020.31 and greater than the left channel bank station 9980.684
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.329
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.298
FW FW 06 The left station effective of 9959.3 for the floodway profile is more than the left channel bank station of 9958.175
The left side of the floodway boundary is within the channel.
The left encroachment station of 9953 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 1.22
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.115
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.115
FW FW 03 The right channel bank station may not be at the proper location.

SURCHARGE CHECK

DISCHARGE CHECK

RS: 3.711
FW FD 01 The floodway discharge of 800 is not equal to the natural 1% chance

discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

RS: 3.622
FW FD 01 The floodway discharge of 800 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

RS: 3.541
FW FD 01 The floodway discharge of 800 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

RS: 3.424
FW FD 01 The floodway discharge of 800 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

RS: 3.386
FW FD 01 The floodway discharge of 800 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

RS: 3.341
FW FD 01 The floodway discharge of 800 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

RS: 3.248
FW FD 01 The floodway discharge of 800 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

RS: 3.147
FW FD 01 The floodway discharge of 800 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

RS: 3.06
FW FD 01 The floodway discharge of 800 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

RS: 2.955
FW FD 01 The floodway discharge of 800 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

RS: 2.864
FW FD 01 The floodway discharge of 800 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

STARTING WATER-SURFACE ELEVATION CHECK

---END---

6 EAST

CHECK-RAS Program: NT Check
Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6E.nt
Selected profiles: Floodplain;Floodway
Date: 7/25/2005
Time: 2:47:52 PM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #1,6 East						
4.966		0.035	0.05	0.036	0.2	0.4
4.896		0.035	0.05	0.036	0.2	0.4
4.832		0.035	0.05	0.036	0.2	0.4
4.772		0.035	0.05	0.036	0.2	0.4
4.728		0.035	0.05	0.036	0.1	0.3
4.63		0.035	0.05	0.036	0.1	0.3
4.551		0.035	0.05	0.036	0.1	0.3
4.476		0.035	0.05	0.036	0.1	0.3
4.408		0.035	0.05	0.036	0.1	0.3
4.374		0.035	0.05	0.036	0.1	0.3
4.344		0.035	0.05	0.036	0.1	0.3
4.293		0.035	0.05	0.036	0.1	0.3
4.214		0.035	0.05	0.036	0.1	0.3
4.157		0.035	0.05	0.036	0.1	0.3
4.105		0.035	0.05	0.036	0.1	0.3
4.034		0.035	0.05	0.036	0.1	0.3
3.949		0.037	0.051	0.037	0.1	0.3
3.902		0.037	0.051	0.037	0.1	0.3
3.842		0.037	0.051	0.037	0.1	0.3
3.768		0.037	-----	-----	0.1	0.3
		0.051	-----	-----		
3.684		0.037	-----	-----	0.1	0.3
		0.051	-----	-----		
3.59		0.037	-----	-----	0.1	0.3
		0.051	-----	-----		
3.485		0.037	-----	-----	0.1	0.3
		0.051	-----	-----		
3.442		0.037	-----	-----	0.1	0.3
		0.051	-----	-----		
3.397		0.037	-----	-----	0.1	0.3
		0.051	-----	-----		
3.305		0.037	-----	-----	0.1	0.3
		0.051	-----	-----		
3.213		0.037	-----	-----	0.1	0.3
		0.0501	-----	-----		
3.131		0.037	-----	-----	0.1	0.3
		0.051	-----	-----		
3.032		0.037	-----	-----	0.1	0.3
		0.051	-----	-----		
2.941		0.037	0.051	0.037	0.1	0.3
		0.051	0.037	0.051		
		-----	-----	0.034		
		-----	-----	0.05		
		-----	-----	0.031		
2.859		0.037	0.051	0.037	0.1	0.3
2.764		0.037	0.051	0.037	0.1	0.3
2.663		0.037	0.051	0.037	0.1	0.3
2.582		0.037	0.051	0.037	0.1	0.3
2.525		0.037	0.051	0.037	0.1	0.3
2.438		0.037	0.051	0.037	0.1	0.3
2.377		0.037	0.051	0.037	0.1	0.3
2.316		0.037	0.051	0.037	0.1	0.3
2.25		0.037	0.051	0.037	0.1	0.3
2.197		0.037	0.051	0.037	0.1	0.3
2.146		0.037	0.051	0.037	0.1	0.3
2.116		0.037	0.051	0.037	0.1	0.3
2.08		0.037	0.051	0.037	0.1	0.3
2.054		0.042	-----	-----	0.1	0.3

blc of overlap

			6E		
	0.053	-----	-----		
	0.042	-----	-----		
1.995	0.042	0.053	0.042	0.1	0.3
1.929	0.042	0.053	0.042	0.1	0.3

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.035	0.053
Right Overbank n Value:	0.031	0.051
Channel n Value:	0.037	0.053
Contraction Coefficient:	0.1	0.2
Expansion Coefficient:	0.3	0.4

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

ROUGHNESS COEFFICIENT CHECK

RS: 4.966
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.05 The overbank n values should be reevaluated.

RS: 4.896
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.05 The overbank n values should be reevaluated.

RS: 4.832
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.05 The overbank n values should be reevaluated.

RS: 4.772
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.05 The overbank n values should be reevaluated.

RS: 4.728
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.05 The overbank n values should be reevaluated.

RS: 4.63
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.05 The overbank n values should be reevaluated.

RS: 4.551
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.05 The overbank n values should be reevaluated.

RS: 4.476
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.05 The overbank n values should be reevaluated.

RS: 4.408
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.05 The overbank n values should be reevaluated.

RS: 4.374
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.05 The overbank n values should be reevaluated.

RS: 4.344
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.05 The overbank n values should be reevaluated.

RS: 4.293
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.05 The overbank n values should be reevaluated.

RS: 4.214
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.05 The overbank n values should be reevaluated.

RS: 4.157
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.05 The overbank n values should be reevaluated.

RS: 4.105
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.05 The overbank n values should be reevaluated.

RS: 4.034
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.05 The overbank n values should be reevaluated.

RS: 3.949
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 3.902
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 3.842
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.859
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.764
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.663
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.582
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.525
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.438
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.377
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.316
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.25
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.197
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.146
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.116
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 2.08
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.037 are less than or equal to the channel n value of 0.051 The overbank n values should be reevaluated.

RS: 1.995
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

RS: 4.966
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4 respectively. However, this cross section is not at the structure. They should be equal to 0.1 and 0.3.

RS: 4.896
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4 respectively. However, this cross section is not at the structure. They should be equal to 0.1 and 0.3.

RS: 4.832
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4 respectively. However, this cross section is not at the structure. They should be equal to 0.1 and 0.3.

RS: 4.772
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4 respectively. However, this cross section is not at the structure. They should be equal to 0.1 and 0.3.

ROUGHNESS COEFFICIENT AT STRUCTURES

---END---

CHECK-RAS Program, XS Check
Cross Section Location and Alignment Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6E.xs
Selected profiles: Floodplain;Floodway
Date: 7/25/2005
Time: 2:47:53 PM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #1,6 East						
4.966	374.715	368.203	332.073	37.94	440	
4.896	317.403	339.504	328.46	46.12	440	
4.832	315	316.521	308.443	70.7	440	
4.772	227.889	231.355	233.367	82.45	440	
4.728	490.114	517.179	513.819	125.61	440	
4.63	418.466	418.594	418.306	80.68	440	
4.551	392.025	396.495	399.862	62.69	440	
4.476	356.397	356.562	355.783	127.63	440	
4.408	190.867	177.098	168.779	77.38	440	
4.374	153.798	156.389	154.877	108.49	440	
4.344	265.586	270.933	264.081	153.51	440	
4.293	413.8	417.42	411.356	110.55	440	
4.214	304.748	303.192	305.762	154.77	440	D
4.157	268.866	275.416	282.339	132.67	440	
4.105	355.897	373.946	379.543	395.88	440	C (SIC)
4.034	418.664	446.887	442.727	239.07	440	D
3.949	261.053	249.816	251.978	248.89	700	D
3.902	305.278	316.606	290.265	455.6	700	
3.842	380.77	392.108	384.899	519.46	700	D
3.768	447.617	441.233	755.186	843.56	1500	D
3.684	464.42	497.145	396.201	1101.29	1500	D
3.59	490.525	554.907	494.54	984.43	1500	D C (SIC)
3.485	202.592	226.747	265.274	1555.38	1500	D
3.442	223.201	236.091	274.843	1388.01	1500	D
3.397	606.793	486.669	448.432	1760.92	1500	D
3.305	457.366	483.376	504.26	841.38	1500	D
3.213	427.677	432.743	457.773	991.85	1500	D
3.131	518.502	523.614	531.561	1143.85	1500	D
3.032	481.039	481.082	471.315	1274.03	1500	D
2.941	430.406	430.454	414.329	1134.92	1500	D
2.859	509.979	500.899	566.23	648.59	700	D
2.764	530.414	530.957	532.066	604.46	700	D
2.663	439.272	426.638	422.401	751.99	700	D
2.582	303.952	301.001	307.364	563.64	700	D
2.525	461.549	458.53	510.067	668.48	700	
2.438	319.262	324.494	313.132	290.38	700	D
2.377	297.768	320.887	312.875	587.33	700	
2.316	331.644	347.83	354.242	557.49	700	D
2.25	295.118	281.742	280.823	525.79	700	
2.197	262.317	269.08	246.33	408.61	700	D C (SIC)
2.146	112.045	156.677	325.717	439.46	700	
2.116	216.603	187.725	124.005	241.86	700	D
2.08	138.926	138.51	143.335	218.45	700	
2.054	318.644	308.858	290.613	107.21	700	D
1.995	352.894	346.203	348.921	211.35	700	
1.929	597.49	596.366	601.868	106.17	700	

B=blocked obstruction XS SC 05
C=critial depth XS SC 03
D=divided flow XS SC 01
E=cross section extended XS SC 02
K=known water-surface XS SC 04

DISTANCE CHECK

SPACING CHECK

INEFFECTIVE FLOW CHECK

DISCHARGE CHECK

RS: 2.859
XS DC 01 Discharge decreases in the downstream direction.

LOCATION CHECK

BOUNDARY CONDITION CHECK

XS BC 02 The name of the stream is Reach #1,6 East
Normal S = 0.0063 is specified as the downstream boundary
for profile Floodplain

XS BC 02 The name of the stream is Reach #1,6 East
Normal S = 0.0063 is specified as the downstream boundary
for profile Floodway

LATERAL WEIRS CHECK

---END---

CHECK-RAS Program: Floodway Check

Encroachment Method, Starting WSEL, Floodway Width, and Surcharge Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6E.fw
Selected profiles: Floodplain;Floodway
Date: 7/25/2005
Time: 2:47:54 PM

SECNO	Method	Surcharge	EncStaL	EncStaR	LStaEff	RStaEff	Structure
Reach #1,6 East							
4.966					9981.51	10019.45	
4.966	1	0.16	9987	10015	9987	10015	
4.896					9974.94	10021.06	
4.896	1	0.08	9985	10018	9985	10018	
4.832					9979.31	10050.01	
4.832	1	0.04	9980	10028	9980	10028	
4.772					9962.34	10044.79	
4.772	1	0.07	9972	10021	9972	10021	
4.728					9973.03	10098.64	
4.728	1	0.38	9979	10031	9979	10031	
4.63					9943.7	10024.38	
4.63	1	0.08	9983	10017	9983	10017	
4.551					9981.56	10044.24	
4.551	1	0.36	9982	10016	9982	10016	
4.476					9932.25	10059.88	
4.476	1	0.28	9977	10013	9977	10013	
4.408					9953.45	10030.83	
4.408	1	0.47	9978	10013	9978	10013	
4.374					9925.83	10034.32	
4.374	1	0.42	9984	10021	9984	10021	
4.344					9969.64	10123.15	
4.344	1	0.37	9981	10021	9981	10021	
4.293					9915.34	10025.89	
4.293	1	0.3	9982	10017	9982	10017	
4.214					9956.12	10131.56	
4.214	1	0.52	9986	10022	9986	10022	
4.157					9904.67	10037.34	
4.157	1	0.49	9967	10014	9967	10014	
4.105					9635.85	10031.73	
4.105	1	0.9	9967	10015	9967	10015	
4.034					9813.79	10063.74	
4.034	1	0.23	9979	10015	9979	10015	
3.949					9732.13	10032.15	
3.949	1	0.81	9961	10018	9961	10018	
3.902					9771.19	10226.79	
3.902	1	0.94	9947	10016	9947	10016	
3.842					9687.5	10218.06	
3.842	1	0.92	9949	10033	9949	10033	
3.768					9487.52	10678.74	
3.768	1	0.87	9922	10053	9922	10053	
3.684					9379.64	10656.89	
3.684	1	0.99	9829	10077	9829	10077	
3.59					9205.33	10827.08	
3.59	1	1	9826	10079	9826	10079	
3.485					9055.88	11132.58	
3.485	1	0.83	9891	10137	9891	10137	
3.442					8818.9	11030.23	
3.442	1	0.73	9918	10095	9918	10095	
3.397					8791.49	10995.65	
3.397	1	0.97	9921	10073	9921	10073	
3.305					9736.56	10920.88	
3.305	1	0.9	9953	10056	9953	10056	
3.213					9648.95	11071.77	
3.213	1	0.94	9956	10075	9956	10075	
3.131					9626.13	11007.17	
3.131	1	0.71	9966	10126	9966	10126	
3.032					9704.49	11055.2	
3.032	1	0.99	9951	10086	9951	10086	

2.941					9655.59	11106.71
2.941	1	0.42	9950	10045	9950	10045
2.859					9728.02	10425
2.859	1	0.73	9956	10099	9956	10099
2.764					9775.48	10514.51
2.764	1	1	9983	10091	9983	10091
2.663					9827.9	10591.62
2.663	1	0.81	9942	10087	9942	10087
2.582					9754.64	10344.57
2.582	1	0.92	9951	10074	9951	10074
2.525					9580.65	10249.13
2.525	1	0.68	9888	10022	9888	10022
2.438					9905.33	10215.47
2.438	1	0.4	9994	10113	9994	10113
2.377					9678.73	10266.06
2.377	1	0.99	9984	10099	9984	10099
2.316					9654.77	10268.68
2.316	1	0.68	9938	10017	9938	10017
2.25					9675.97	10201.77
2.25	1	1	9898	10006	9898	10006
2.197					9738.95	10236.79
2.197	1	0.89	9958	10016	9958	10016
2.146					9927.01	10366.47
2.146	1	0.9	9972	10105	9972	10105
2.116					9931.09	10200.1
2.116	1	0.94	9959	10104	9959	10104
2.08					9864.65	10083.1
2.08	1	0.72	9962	10018	9962	10018
2.054					9737.06	10027.82
2.054	1	1	9977	10018	9977	10018
1.995					9791.51	10002.86
1.995	1	0.5	9900	10003	9900	10003
1.929					9948.13	10054.3
1.929	1	0.03	9960	10018	9960	10018

ENCROACHMENT METHOD CHECK

FLOODWAY WIDTH CHECK

RS: 4.728
FW FW 03 The right channel bank station may not be at the proper location.

RS: 4.63
FW FW 01 Left encroachment station 9983 is more than left channel bank station 9982.9 and less than the right channel bank station 10016.98
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.551
FW FW 01 Left encroachment station 9982 is more than left channel bank station 9980.94 and less than the right channel bank station 10016
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.476
FW FW 01 Left encroachment station 9977 is more than left channel bank station 9976.51 and less than the right channel bank station 10013.13
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.476
FW FW 01 Right encroachment station 10013 is less than right channel bank station 10013.13 and greater than the left channel bank station 9976.51
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.408
FW FW 01 Left encroachment station 9978 is more than left channel bank

station 9977.68 and less than the right channel bank station 10013.08
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.408
FW FW 01 Right encroachment station 10013 is less than right channel bank station 10013.08 and greater than the left channel bank station 9977.68
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.374
FW FW 01 Left encroachment station 9984 is more than left channel bank station 9983.79 and less than the right channel bank station 10021.3
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.374
FW FW 01 Right encroachment station 10021 is less than right channel bank station 10021.3 and greater than the left channel bank station 9983.79
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.374
FW FW 03 The right channel bank station may not be at the proper location.

RS: 4.344
FW FW 01 Left encroachment station 9981 is more than left channel bank station 9980.62 and less than the right channel bank station 10021.28
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.344
FW FW 01 Right encroachment station 10021 is less than right channel bank station 10021.28 and greater than the left channel bank station 9980.62
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.293
FW FW 01 Right encroachment station 10017 is less than right channel bank station 10017.2 and greater than the left channel bank station 9982
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.214
FW FW 01 Left encroachment station 9986 is more than left channel bank station 9985.57 and less than the right channel bank station 10022.22
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.214
FW FW 01 Right encroachment station 10022 is less than right channel bank station 10022.22 and greater than the left channel bank station 9985.57
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.157
FW FW 01 Left encroachment station 9967 is more than left channel bank station 9966.74 and less than the right channel bank station 10013.76
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.105
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.902
FW FW 01 Right encroachment station 10016 is less than right channel bank station 10016.32 and greater than the left channel bank station 9977.495
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.842
FW FW 03 The right channel bank station may not be at the proper

location.

RS: 3.768
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.485
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.397
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.305
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.131
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.941
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.859
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.663
FW FW 01 Left encroachment station 9942 is more than left channel bank station 9941.905 and less than the right channel bank station 10033.74
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.663
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.438
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.197
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.197
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.146
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.08
FW FW 01 Right encroachment station 10018 is less than right channel bank station 10018.04 and greater than the left channel bank station 9974.317
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.08
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.054
FW FW 01 Left encroachment station 9977 is more than left channel bank station 9976.823 and less than the right channel bank station 10015.61
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.054
FW FW 03 The Left channel bank station may not be at the proper

location.

RS: 1.995
FW FW 01 Right encroachment station 10003 is less than right channel bank station 10003.03 and greater than the left channel bank station 9955.95
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.995
FW FW 03 The Left channel bank station may not be at the proper location.

SURCHARGE CHECK

DISCHARGE CHECK

RS: 3.768
FW FD 01 The floodway discharge of 700 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

RS: 3.684
FW FD 01 The floodway discharge of 700 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

RS: 3.59
FW FD 01 The floodway discharge of 700 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

RS: 3.485
FW FD 01 The floodway discharge of 700 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

RS: 3.442
FW FD 01 The floodway discharge of 700 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

RS: 3.397
FW FD 01 The floodway discharge of 700 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

RS: 3.305
FW FD 01 The floodway discharge of 700 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

RS: 3.213
FW FD 01 The floodway discharge of 700 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

RS: 3.131
FW FD 01 The floodway discharge of 700 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

RS: 3.032
FW FD 01 The floodway discharge of 700 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

RS: 2.941
FW FD 01 The floodway discharge of 700 is not equal to the natural 1% chance discharge of 1500
Please justify the use of different discharges for the natural and floodway profiles.

STARTING WATER-SURFACE ELEVATION CHECK

---END---

6 EAST SOUTH

6ES

CHECK-RAS Program: NT Check

Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6ES.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6ES.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6ES.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6ES.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6ES.nt
Selected profiles: Floodplain;Floodway
Date: 7/25/2005
Time: 3:08:34 PM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #1,6 East						
2.054		0.042	-----	-----	0.1	0.3
		0.053	-----	-----		
		0.042	-----	-----		
1.995		0.042	0.053	0.042	0.1	0.3
1.929		0.042	0.053	0.042	0.1	0.3
1.859		0.034	0.047	0.034	0.1	0.3
1.816		0.034	0.047	0.034	0.1	0.3
1.755		0.034	0.047	0.034	0.1	0.3
1.674		0.034	0.047	0.034	0.1	0.3
1.633		0.034	0.047	0.034	0.1	0.3
1.619		0.034	0.047	0.034	0.1	0.3
1.607		0.034	0.047	0.034	0.1	0.3
1.513		0.034	0.047	0.034	0.1	0.3
1.425		0.034	0.047	0.034	0.1	0.3
1.343		0.034	0.047	0.034	0.1	0.3
1.257		0.034	0.047	0.034	0.1	0.3
1.199		0.034	0.047	0.034	0.1	0.3
1.194		0.034	0.047	0.034	0.1	0.3
1.115		-----	0.034	0.034	0.1	0.3
		-----	0.047	-----		
1.02		0.034	0.047	0.034	0.1	0.3
.984		0.046	0.055	0.046	0.1	0.3
.909		0.046	0.055	0.046	0.1	0.3
.843		0.046	0.055	0.046	0.1	0.3

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.034	0.053
Right Overbank n Value:	0.034	0.046
Channel n Value:	0.034	0.055
Contraction Coefficient:	0.1	0.1
Expansion Coefficient:	0.3	0.3

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

ROUGHNESS COEFFICIENT CHECK

RS: 1.995
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 1.929
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 1.859
NT RC 01 Left overbank n value is less than 0.035 The n value for overbank is usually larger then 0.035. The n value should be reevaluated.

RS: 1.859
NT RC 01 Right overbank n value is less than 0.035 The n value for overbank is usually larger then 0.035. The n value should be reevaluated.

RS: 1.859
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.047
The overbank n values should be reevaluated.

RS: 1.816
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.816
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.816
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.047
The overbank n values should be reevaluated.

RS: 1.755
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.755
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.755
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.047
The overbank n values should be reevaluated.

RS: 1.674
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.674
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.674
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.047
The overbank n values should be reevaluated.

RS: 1.633
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.633
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.633
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.047
The overbank n values should be reevaluated.

RS: 1.619
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.619
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.

The n value should be reevaluated.

RS: 1.619
NT RC 05 The left overbank n value of 0.034 and the right overbank n value of 0.034 are less than or equal to the channel n value of 0.047 The overbank n values should be reevaluated.

RS: 1.607
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.607
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.607
NT RC 05 The left overbank n value of 0.034 and the right overbank n value of 0.034 are less than or equal to the channel n value of 0.047 The overbank n values should be reevaluated.

RS: 1.513
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.513
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.513
NT RC 05 The left overbank n value of 0.034 and the right overbank n value of 0.034 are less than or equal to the channel n value of 0.047 The overbank n values should be reevaluated.

RS: 1.425
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.425
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.425
NT RC 05 The left overbank n value of 0.034 and the right overbank n value of 0.034 are less than or equal to the channel n value of 0.047 The overbank n values should be reevaluated.

RS: 1.343
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.343
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.343
NT RC 05 The left overbank n value of 0.034 and the right overbank n value of 0.034 are less than or equal to the channel n value of 0.047 The overbank n values should be reevaluated.

RS: 1.257
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.257
NT RC 01 Right overbank n value is less than 0.035

The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.257
NT RC 05 The left overbank n value of 0.034 and the right overbank n value of 0.034 are less than or equal to the channel n value of 0.047
The overbank n values should be reevaluated.

RS: 1.199
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.199
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.199
NT RC 05 The left overbank n value of 0.034 and the right overbank n value of 0.034 are less than or equal to the channel n value of 0.047
The overbank n values should be reevaluated.

RS: 1.194
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.194
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.194
NT RC 05 The left overbank n value of 0.034 and the right overbank n value of 0.034 are less than or equal to the channel n value of 0.047
The overbank n values should be reevaluated.

RS: 1.115
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.02
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.02
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.02
NT RC 05 The left overbank n value of 0.034 and the right overbank n value of 0.034 are less than or equal to the channel n value of 0.047
The overbank n values should be reevaluated.

RS: 0.984
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055
The overbank n values should be reevaluated.

RS: 0.909
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055
The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

ROUGHNESS COEFFICIENT AT STRUCTURES

---END---

CHECK-RAS Program, XS Check
Cross Section Location and Alignment Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6ES.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6ES.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6ES.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6ES.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6ES.xs
Selected profiles: Floodplain;Floodway
Date: 7/25/2005
Time: 3:08:35 PM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #1,6 East						
2.054	318.644	308.858	290.613	315.03	1360	D
1.995	352.894	346.203	348.921	232.62	1360	D
1.929	232.365	228.179	238.473	221.6	1360	
1.859	365.125	368.187	363.395	124.43	420	
1.816	318.422	319.865	326.902	52.26	420	D
1.755	430.673	425.949	425.941	43.67	420	D
1.674	226.645	218.866	215.949	47.65	420	D
1.633	70.256	75.336	74.656	101.9	420	D,C (SIC)
1.619	64.358	62.009	66.16	135.73	420	D
1.607	494.531	493.737	491.529	124.77	420	D,C (SIC)
1.513	455.464	465.175	447.175	179.32	420	D
1.425	438.154	434.307	448.32	176.51	420	D
1.343	460.923	455.111	452.92	66.81	420	
1.257	323.003	306.919	309.495	56.73	420	
1.199	225.292	239.188	245.809	36.58	420	D
1.194	190.28	189.834	185.107	78.96	420	D
1.115	496.062	504.141	518.371	450.63	420	D
1.02	179.241	188.981	199.795	262.93	420	D
.984	412.07	397.478	385.473	49.36	420	D
.909	339.721	351.545	366.284	206.36	1200	D
.843	0	0	0	185.27	1200	

B=blocked obstruction XS SC 05
C=critial depth XS SC 03
D=divided flow XS SC 01
E=cross section extended XS SC 02
K=known water-surface XS SC 04

DISTANCE CHECK

SPACING CHECK

INEFFECTIVE FLOW CHECK

DISCHARGE CHECK

RS: 1.859
XS DC 01 Discharge decreases in the downstream direction.

RS: 1.755
XS DC 04 There is no flow on the left overbank at the downstream cross section. There is no flow on the right overbank at this section.

RS: 1.674
XS DC 05 There is no flow on the right overbank at the downstream cross section. There is no flow on the left overbank at this section.

LOCATION CHECK

BOUNDARY CONDITION CHECK

XS BC 02 The name of the stream is Reach #1,6 East
Normal S = 0.0057 is specified as the downstream boundary
for profile Floodplain

XS BC 02 The name of the stream is Reach #1,6 East
Normal S = 0.0057 is specified as the downstream boundary
for profile Floodway

LATERAL WEIRS CHECK

---END---

CHECK-RAS Program: Floodway Check
Encroachment Method, Starting WSEL, Floodway Width, and Surcharge Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6ES.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6ES.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6ES.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6ES.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\6ES.fw
Selected profiles: Floodplain;Floodway
Date: 7/25/2005
Time: 3:08:36 PM

SECNO	Method	Surcharge	EncStaL	EncStaR	LStaEff	RStaEff	Structure
Reach #1,6 East							
2.054					9544.48	10037.07	
2.054	1	0.97	9776	10016	9776	10016	
1.995					9774.73	10010.46	
1.995	1	0.99	9900	10011	9900	10011	
1.929					9938.6	10160.2	
1.929	1	0.28	9960	10018	9960	10018	
1.859					9885.4	10009.83	
1.859	1	0.19	9980	10010	9980	10010	
1.816					9925.46	10010.57	
1.816	1	0.13	9984	10011	9984	10010.75	
1.755					9968.7	10013.63	
1.755	1	-0.04	9981	10029	9982.26	10013.54	
1.674					9984.09	10032.08	
1.674	1	0.15	9984	10022	9984	10022	
1.633					9898.17	10013.77	
1.633	1	-0.04	9930	10042	9930	10013.54	
1.619					9855.88	10018.69	
1.619	1	0.31	9960	10036	9960	10019.27	
1.607					9825.35	10020.91	
1.607	1	0.59	9950	10021	9966.67	10021	
1.513					9761.71	10015.55	
1.513	1	0.83	9911	10015	9911	10015	
1.425					9914.42	10149.56	
1.425	1	0.26	9973	10016	9973	10016	
1.343					9963.57	10030.38	
1.343	1	0.15	9985	10027	9985	10027	
1.257					9963.47	10020.2	
1.257	1	0.13	9980	10016	9980	10016	
1.199					9989.07	10027.1	
1.199	1	0.22	9993	10015	9993	10015	
1.194					9982.31	10180.3	
1.194	1	1	9983	10015	9983	10015	
1.115					9964.25	10432.1	
1.115	1	0.91	9964	10019	9964	10019	
1.02					9862.13	10126.61	
1.02	1	0.1	9946	10007	9946	10007	
0.984					9979.33	10051.53	
0.984	1	0.07	9982	10013	9982	10013	
0.909					9647.07	10048.46	
0.909	1	0.06	9892	10048	9892	10048	
0.843					9890.46	10075.73	
0.843	1	0.05	9954	10075	9954	10075	

ENCROACHMENT METHOD CHECK

FLOODWAY WIDTH CHECK

RS: 2.054
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.995
FW FW 03 The Left channel bank station may not be at the proper

location.

RS: 1.995
FW FW 04 The right station effective of 10010.46 for 1% annual chance floodplain is greater than the right channel bank station (10003.03).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10011) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 1.929
FW FW 01 Right encroachment station 10018 is less than right channel bank station 10018.95 and greater than the left channel bank station 9960.737
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.929
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.859
FW FW 01 Right encroachment station 10010 is less than right channel bank station 10012.2 and greater than the left channel bank station 9981.399
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.816
FW FW 01 Left encroachment station 9984 is more than left channel bank station 9983.59 and less than the right channel bank station 10011.48
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.816
FW FW 01 Right encroachment station 10011 is less than right channel bank station 10011.48 and greater than the left channel bank station 9983.59
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.755
FW FW 06 The left station effective of 9982.26 for the floodway profile is more than the left channel bank station of 9981.27
The left side of the floodway boundary is within the channel.
The left encroachment station of 9981 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 1.755
FW FW 06 The right station effective of 10013.54 for the floodway profile is less than the right channel bank station of 10013.7
The right side of the floodway boundary is within the channel.
The right encroachment station of 10029 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 1.633
FW FW 06 The right station effective of 10013.54 for the floodway profile is less than the right channel bank station of 10015.92
The right side of the floodway boundary is within the channel.
The right encroachment station of 10042 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 1.619
FW FW 06 The right station effective of 10019.27 for the floodway profile is less than the right channel bank station of 10019.92
The right side of the floodway boundary is within the channel.
The right encroachment station of 10036 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 1.607
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.607
FW FW 04 The right station effective of 10020.91 for 1% annual chance floodplain is greater than the right channel bank station (10014.44).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10021) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 1.513
FW FW 01 Right encroachment station 10015 is less than right channel bank station 10020.34 and greater than the left channel bank station 9981.66
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.343
FW FW 01 Right encroachment station 10027 is less than right channel bank station 10027.06 and greater than the left channel bank station 9985.13
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.343
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.257
FW FW 01 Right encroachment station 10016 is less than right channel bank station 10016.41 and greater than the left channel bank station 9981.169
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.257
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.199
FW FW 01 Left encroachment station 9993 is more than left channel bank station 9992.794 and less than the right channel bank station 10014.54
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.199
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.194
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.115
FW FW 01 Left encroachment station 9964 is more than left channel bank station 9955.277 and less than the right channel bank station 10010.1
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.02
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.984
FW FW 01 Left encroachment station 9982 is more than left channel bank station 9981.66 and less than the right channel bank station 10012.63
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.984
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.909
FW FW 03 The right channel bank station may not be at the proper

location.

RS: 0.843
FW FW 03 The right channel bank station may not be at the proper location.

SURCHARGE CHECK

DISCHARGE CHECK

STARTING WATER-SURFACE ELEVATION CHECK

---END---

7 EAST – EAST SPLIT

7E_ES
CHECK-RAS Program: NT Check
Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_ES.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_ES.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_ES.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_ES.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_ES.nt
Selected profiles: Floodplain;Floodway
Date: 7/27/2005
Time: 6:01:49 PM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #1,7 East-East Spli						
1.458		0.036	0.049	0.036	0.1	0.3
1.395		0.036	0.049	0.036	0.1	0.3
1.306		0.036	0.049	0.036	0.1	0.3
1.242		0.036	0.049	0.036	0.1	0.3
1.187		0.036	0.049	0.036	0.1	0.3
1.128		0.036	0.049	0.036	0.1	0.3
1.064		0.036	0.049	0.036	0.1	0.3
1.001		0.036	0.049	0.036	0.1	0.3
.947		0.036	0.049	0.036	0.1	0.3
.884		0.036	0.049	0.036	0.1	0.3
.812		0.036	0.049	0.036	0.1	0.3
.759		0.036	0.049	0.036	0.1	0.3
.722		0.036	0.049	0.036	0.1	0.3
.67		0.036	0.049	0.036	0.1	0.3
.607		0.036	0.049	0.036	0.1	0.3
.541		0.036	0.049	0.036	0.1	0.3
.473		0.036	0.049	0.036	0.1	0.3
.397		0.036	0.049	0.036	0.1	0.3
.322		0.036	0.049	0.036	0.1	0.3
.276		0.036	0.049	0.036	0.1	0.3
.21		0.036	0.049	0.036	0.1	0.3

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.036	0.036
Right Overbank n Value:	0.036	0.036
Channel n Value:	0.049	0.049
Contraction Coefficient:	0.1	0.1
Expansion Coefficient:	0.3	0.3

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

ROUGHNESS COEFFICIENT CHECK

RS: 1.458
NT RC 05 The left overbank n value of 0.036 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.049 The overbank n values should be reevaluated.

RS: 1.395
NT RC 05 The left overbank n value of 0.036 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.049 The overbank n values should be reevaluated.

RS: 1.306
NT RC 05 The left overbank n value of 0.036 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.049 The overbank n values should be reevaluated.

RS: 1.242
NT RC 05 The left overbank n value of 0.036 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.049 The overbank n values should be reevaluated.

RS: 1.187
NT RC 05 The left overbank n value of 0.036 and the right overbank n value

of 0.036 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

RS: 1.128
NT RC 05 The left overbank n value of 0.036 and the right overbank n value
of 0.036 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

RS: 1.064
NT RC 05 The left overbank n value of 0.036 and the right overbank n value
of 0.036 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

RS: 1.001
NT RC 05 The left overbank n value of 0.036 and the right overbank n value
of 0.036 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

RS: 0.947
NT RC 05 The left overbank n value of 0.036 and the right overbank n value
of 0.036 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

RS: 0.884
NT RC 05 The left overbank n value of 0.036 and the right overbank n value
of 0.036 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

RS: 0.812
NT RC 05 The left overbank n value of 0.036 and the right overbank n value
of 0.036 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

RS: 0.759
NT RC 05 The left overbank n value of 0.036 and the right overbank n value
of 0.036 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

RS: 0.722
NT RC 05 The left overbank n value of 0.036 and the right overbank n value
of 0.036 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

RS: 0.67
NT RC 05 The left overbank n value of 0.036 and the right overbank n value
of 0.036 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

RS: 0.607
NT RC 05 The left overbank n value of 0.036 and the right overbank n value
of 0.036 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

RS: 0.541
NT RC 05 The left overbank n value of 0.036 and the right overbank n value
of 0.036 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

RS: 0.473
NT RC 05 The left overbank n value of 0.036 and the right overbank n value
of 0.036 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

RS: 0.397
NT RC 05 The left overbank n value of 0.036 and the right overbank n value
of 0.036 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

RS: 0.322
NT RC 05 The left overbank n value of 0.036 and the right overbank n value
of 0.036 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

RS: 0.276

NT RC 05 The left overbank n value of 0.036 and the right overbank n value
of 0.036 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

ROUGHNESS COEFFICIENT AT STRUCTURES

---END---

CHECK-RAS Program, XS Check
Cross Section Location and Alignment Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_ES.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_ES.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_ES.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_ES.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_ES.xs
Selected profiles: Floodplain;Floodway
Date: 7/27/2005
Time: 6:01:50 PM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #1,7 East-East Spli						
1.458	302.031	330.855	350.025	144.54	410	D
1.395	472.351	469.6	473.861	147.2	410	
1.306	342.917	335.659	337.175	82.2	410	D
1.242	290.754	291.338	288.789	150.19	410	D
1.187	312.448	311.392	313.492	98.99	410	
1.128	337.501	337.835	315.736	149.82	410	
1.064	327.482	332.666	333.263	83.39	410	
1.001	264.926	286.704	297.346	55.99	410	D
.947	342.304	332.431	324.206	56.2	410	D
.884	376.646	377.839	377.346	91.25	410	
.812	281.741	281.687	284.819	36.1	410	
.759	184.988	193.006	203.518	82.21	410	
.722	281.237	272.728	264.863	47.4	410	
.67	329.149	333.975	334.789	56.53	410	
.607	350.301	347.998	347.226	121.85	410	D
.541	358.494	359.367	360.953	79.31	410	
.473	407.944	398.673	408.566	91.11	410	
.397	402.564	397.633	399.283	160.88	410	
.322	252.345	244.743	238.156	75.69	410	
.276	337.354	348.872	360.623	92.02	410	D
.21	0	0	0	62.1	410	D

B=blocked obstruction XS SC 05
C=critial depth XS SC 03
D=divided flow XS SC 01
E=cross section extended XS SC 02
K=known water-surface XS SC 04

DISTANCE CHECK

SPACING CHECK

INEFFECTIVE FLOW CHECK

DISCHARGE CHECK

RS: 0.947
XS DC 04 There is no flow on the left overbank at the downstream cross section. There is no flow on the right overbank at this section.

XS DC 02 Constant dicharge used for the Reach #1,7 East-East Spli

LOCATION CHECK

BOUNDARY CONDITION CHECK

XS BC 02 The name of the stream is Reach #1,7 East-East Spli
Normal S = 0.009 is specified as the downstream boundary
for profile Floodplain

XS BC 02 The name of the stream is Reach #1,7 East-East Spli
Normal S = 0.009 is specified as the downstream boundary
for profile Floodway

LATERAL WEIRS CHECK

---END---

CHECK-RAS Program: Floodway Check
Encroachment Method, Starting WSEL, Floodway Width, and Surcharge Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_ES.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_ES.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_ES.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_ES.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_ES.fw
Selected profiles: Floodplain;Floodway
Date: 7/27/2005
Time: 6:01:51 PM

SECNO	Method	Surcharge	EncStaL	EncStaR	LStaEff	RStaEff	Structure
Reach #1,7 East-East Spli							
1.458					9859.13	10098.43	
1.458	1	0.15	9959	10041	9959	10041	
1.395					9927.58	10074.77	
1.395	1	0.17	9970	10058	9970	10058	
1.306					9917.24	10025.84	
1.306	1	0.26	9962	10021	9962	10021	
1.242					9888.35	10040.94	
1.242	1	0.37	9987	10041	9987	10041	
1.187					9922.87	10021.86	
1.187	1	0.54	9978	10022	9978	10022	
1.128					9936.11	10085.93	
1.128	1	0.46	9973	10021	9973	10021	
1.064					9978.34	10061.73	
1.064	1	0.19	9983	10010	9983	10010	
1.001					9944.87	10017.8	
1.001	1	-0.04	9980	10041	9980	10017.62	
0.947					9937.61	10010.86	
0.947	1	0.11	9959	10015	9966.72	10011.31	
0.884					9996.86	10088.12	
0.884	1	0.17	9997	10071	9997	10071	
0.812					9977.68	10013.78	
0.812	1	-0.04	9974	10016	9977.78	10013.67	
0.759					9953.47	10035.67	
0.759	1	0.64	9960	10006	9960	10006	
0.722					9966.56	10013.97	
0.722	1	0.17	9987	10005	9987	10005	
0.67					9988.49	10045.01	
0.67	1	0.01	9904	10048	9988.48	10045.03	
0.607					9889.68	10029.76	
0.607	1	0.41	9940	10020	9940	10020	
0.541					9979.4	10058.71	
0.541	1	0.09	9980	10030	9980	10030	
0.473					9992.8	10083.91	
0.473	1	0.27	9992	10051	9992	10051	
0.397					9974.04	10134.92	
0.397	1	0.48	9986	10025	9986	10025	
0.322					9957.6	10033.29	
0.322	1	0.69	9991	10023	9991	10023	
0.276					9902.7	10011.38	
0.276	1	0.95	9949	10011	9949	10011	
0.21					9917.44	10012.91	
0.21	1	0.86	9943	10012	9943	10012	

ENCROACHMENT METHOD CHECK

FLOODWAY WIDTH CHECK

RS: 1.395
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.395
FW FW 03 The right channel bank station may not be at the proper

location.

RS: 1.306
FW FW 01 Left encroachment station 9962 is more than left channel bank station 9961.6 and less than the right channel bank station 10007.19
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.306
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.242
FW FW 01 Left encroachment station 9987 is more than left channel bank station 9975.418 and less than the right channel bank station 10040.53
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.242
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.242
FW FW 04 The right station effective of 10040.94 for 1% annual chance floodplain is greater than the right channel bank station (10040.53).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10041) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 1.187
FW FW 04 The right station effective of 10021.86 for 1% annual chance floodplain is greater than the right channel bank station (10021.61).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10022) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 1.128
FW FW 01 Right encroachment station 10021 is less than right channel bank station 10021.43 and greater than the left channel bank station 9973.23
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.064
FW FW 01 Left encroachment station 9983 is more than left channel bank station 9982.69 and less than the right channel bank station 10010.06
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.064
FW FW 01 Right encroachment station 10010 is less than right channel bank station 10010.06 and greater than the left channel bank station 9982.69
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.001
FW FW 04 The right station effective of 10017.8 for 1% annual chance floodplain is greater than the right channel bank station (10009.12).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10041) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 0.947
FW FW 01 Left encroachment station 9959 is more than left channel bank station 9958.65 and less than the right channel bank station 10015.23
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.947
FW FW 01 Right encroachment station 10015 is less than right channel bank station 10015.23 and greater than the left channel bank station 9958.65
Right encroachment station is within the channel.

The encroachment station or channel bank station should be adjusted.

RS: 0.884
FW FW 01 Left encroachment station 9997 is more than left channel bank station 9996.76 and less than the right channel bank station 10050.64
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.812
FW FW 05 The 1% annual chance flood is contained within the channel.
Left encroachment station 9974 is outside the channel.
Left channel bank station is 9974.84
Left encroachment station and/or left channel bank station should be adjusted.

RS: 0.812
FW FW 05 The 1% annual chance flood is contained within the channel.
Right encroachment station 10016 is outside the channel.
Right channel bank station is 10015.67
Right encroachment station and/or right channel bank station should be adjusted.

RS: 0.812
FW FW 06 The left station effective of 9977.78 for the floodway profile is more than the left channel bank station of 9974.84
The left side of the floodway boundary is within the channel.
The left encroachment station of 9974 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 0.812
FW FW 06 The right station effective of 10013.67 for the floodway profile is less than the right channel bank station of 10015.67
The right side of the floodway boundary is within the channel.
The right encroachment station of 10016 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 0.759
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.722
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.722
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.67
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.67
FW FW 04 The left station effective of 9988.49 for 1% annual chance floodplain is less than the left channel bank station 9988.7
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9904) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 0.67
FW FW 04 The right station effective of 10045.01 for 1% annual chance floodplain is greater than the right channel bank station (10044.92).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10048) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 0.607
FW FW 01 Right encroachment station 10020 is less than right channel bank station 10020.26 and greater than the left channel bank station 9960.28
Right encroachment station is within the channel.

The encroachment station or channel bank station should be adjusted.

RS: 0.607
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.397
FW FW 01 Left encroachment station 9986 is more than left channel bank station 9985.95 and less than the right channel bank station 10013.4
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.322
FW FW 01 Right encroachment station 10023 is less than right channel bank station 10023.12 and greater than the left channel bank station 9991.06
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.322
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.276
FW FW 01 Right encroachment station 10011 is less than right channel bank station 10014.8 and greater than the left channel bank station 9991.24
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.21
FW FW 01 Right encroachment station 10012 is less than right channel bank station 10012.91 and greater than the left channel bank station 9978.53
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.21
FW FW 03 The right channel bank station may not be at the proper location.

SURCHARGE CHECK

DISCHARGE CHECK

STARTING WATER-SURFACE ELEVATION CHECK

---END---

7 EAST – WEST SPLIT

7E_WS
CHECK-RAS Program: NT Check
Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_WS.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_WS.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_WS.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_WS.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_WS.nt
Selected profiles: Floodplain;Floodway
Date: 7/27/2005
Time: 6:11:02 PM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #1,7 East-West Spli						
.951		0.036	0.049	0.036	0.3	0.5
.9		0.036	0.049	0.036	0.3	0.5
.815		0.036	0.049	0.036	0.1	0.3
.75		0.036	0.049	0.036	0.1	0.3
.696		0.036	0.049	0.036	0.1	0.3
.582		0.036	0.049	0.036	0.1	0.3
.517		0.036	0.049	0.036	0.1	0.3
.447		0.036	0.049	0.036	0.1	0.3
.38		0.036	0.049	0.036	0.1	0.3
.319		0.036	0.049	0.036	0.1	0.3
.255		0.036	0.049	0.036	0.1	0.3
.205		0.036	0.049	0.036	0.1	0.3
.126		0.036	0.049	0.036	0.1	0.3
.046		0.036	0.049	0.036	0.1	0.3

b/c of cap overhute

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.036	0.036
Right Overbank n Value:	0.036	0.036
Channel n Value:	0.049	0.049
Contraction Coefficient:	0.1	0.3
Expansion Coefficient:	0.3	0.5

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

ROUGHNESS COEFFICIENT CHECK

RS: 0.951
NT RC 05 The left overbank n value of 0.036 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.049 The overbank n values should be reevaluated.

RS: 0.9
NT RC 05 The left overbank n value of 0.036 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.049 The overbank n values should be reevaluated.

RS: 0.815
NT RC 05 The left overbank n value of 0.036 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.049 The overbank n values should be reevaluated.

RS: 0.75
NT RC 05 The left overbank n value of 0.036 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.049 The overbank n values should be reevaluated.

RS: 0.696
NT RC 05 The left overbank n value of 0.036 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.049 The overbank n values should be reevaluated.

RS: 0.582
NT RC 05 The left overbank n value of 0.036 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.049 The overbank n values should be reevaluated.

RS: 0.517
NT RC 05 The left overbank n value of 0.036 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.049 The overbank n values should be reevaluated.

RS: 0.447
NT RC 05 The left overbank n value of 0.036 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.049 The overbank n values should be reevaluated.

RS: 0.38
NT RC 05 The left overbank n value of 0.036 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.049 The overbank n values should be reevaluated.

RS: 0.319
NT RC 05 The left overbank n value of 0.036 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.049 The overbank n values should be reevaluated.

RS: 0.255
NT RC 05 The left overbank n value of 0.036 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.049 The overbank n values should be reevaluated.

RS: 0.205
NT RC 05 The left overbank n value of 0.036 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.049 The overbank n values should be reevaluated.

RS: 0.126
NT RC 05 The left overbank n value of 0.036 and the right overbank n value of 0.036 are less than or equal to the channel n value of 0.049 The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

RS: 0.951
NT TL 02 Contraction and expansion loss coefficients are 0.3 and 0.5 respectively. However, this cross section is not at the structure. They should be equal to 0.1 and 0.3.

RS: 0.9
NT TL 02 Contraction and expansion loss coefficients are 0.3 and 0.5 respectively. However, this cross section is not at the structure. They should be equal to 0.1 and 0.3.

ROUGHNESS COEFFICIENT AT STRUCTURES

---END---

CHECK-RAS Program, XS Check
Cross Section Location and Alignment Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_WS.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_WS.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_WS.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_WS.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_WS.xs
Selected profiles: Floodplain;Floodway
Date: 7/27/2005
Time: 6:11:02 PM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #1,7 East-West Spli						
.951	271.417	267.056	266.449	12.23	410	C (514)
.9	454.555	450.688	453.015	49.58	410	
.815	339.286	341.865	343.264	65.46	410	
.75	286.242	283.876	282.992	223.23	410	D
.696	600.017	603.265	598.868	65.14	280	
.582	344.674	341.754	349.673	235.06	280	D
.517	373.665	368.187	354.813	322.72	280	D
.447	350.658	353.062	355.919	240.2	280	D
.38	313.537	320.407	329.519	283.08	280	D
.319	330.389	335.475	345.124	245.6	280	D
.255	293.428	266.014	274.392	297.73	280	D
.205	419.7	416.066	434.598	307.63	280	D
.126	417.399	421.291	425.721	69.92	280	D
.046	0	0	0	320.28	280	D

B=blocked obstruction XS SC 05
C=critial depth XS SC 03
D=divided flow XS SC 01
E=cross section extended XS SC 02
K=known water-surface XS SC 04

DISTANCE CHECK

SPACING CHECK

INEFFECTIVE FLOW CHECK

DISCHARGE CHECK

RS: 0.696
XS DC 01 Discharge decreases in the downstream direction.

LOCATION CHECK

BOUNDARY CONDITION CHECK

XS BC 02 The name of the stream is Reach #1,7 East-West Spli
Normal S = 0.0093 is specified as the downstream boundary
for profile Floodplain

XS BC 02 The name of the stream is Reach #1,7 East-West Spli
Normal S = 0.0093 is specified as the downstream boundary
for profile Floodway

LATERAL WEIRS CHECK

---END---

CHECK-RAS Program: Floodway Check
Encroachment Method, Starting WSEL, Floodway Width, and Surcharge Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_WS.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_WS.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_WS.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_WS.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\7E_WS.fw
Selected profiles: Floodplain;Floodway
Date: 7/27/2005
Time: 6:11:04 PM

SECNO	Method	Surcharge	EncStaL	EncStaR	LStaEff	RStaEff	Structure
Reach #1,7 East-West Spli							
0.951					9993.7	10005.92	
0.951	1	-0.02	9993	10007	9993.71	10005.92	
0.9					9986.81	10036.39	
0.9	1	-0.03	9986	10037	9986.89	10036.32	
0.815					9961.4	10026.85	
0.815	1	0.12	9970	10020	9970	10020	
0.75					9840.69	10101.89	
0.75	1	0.02	9947	10028	9947	10028	
0.696					9968.39	10033.53	
0.696	1	0.14	9968	10023	9968	10023	
0.582					9967.69	10266	
0.582	1	0.46	9973	10030	9973	10026.92	
0.517					9982.94	10406.61	
0.517	1	0.91	9983	10022	9983	10022	
0.447					9977.04	10310.93	
0.447	1	0.74	9977	10022	9977	10022	
0.38					9935.61	10362.59	
0.38	1	0.82	9985	10052	9985	10052	
0.319					9866.05	10256.12	
0.319	1	0.43	9967	10014	9967	10014	
0.255					9853.76	10226.95	
0.255	1	0.83	9979	10045	9979	10045	
0.205					9870.63	10193.31	
0.205	1	0.43	9971	10027	9971	10027	
0.126					9971.79	10113.7	
0.126	1	0.36	9972	10011	9972	10011	
0.046					9696	10024.59	
0.046	1	0.98	9980	10010	9980	10010	

ENCROACHMENT METHOD CHECK

FLOODWAY WIDTH CHECK

RS: 0.951
FW FW 04 The left station effective of 9993.7 for 1% annual chance floodplain is less than the left channel bank station 9993.73
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9993) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 0.951
FW FW 06 The right station effective of 10005.92 for the floodway profile is less than the right channel bank station of 10005.97
The right side of the floodway boundary is within the channel.
The right encroachment station of 10007 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 0.9
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.9
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.9
FW FW 04 The left station effective of 9986.81 for 1% annual chance floodplain is less than the left channel bank station 9986.9
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9986) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 0.9
FW FW 04 The right station effective of 10036.39 for 1% annual chance floodplain is greater than the right channel bank station (10036.3).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10037) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 0.815
FW FW 01 Left encroachment station 9970 is more than left channel bank station 9969.68 and less than the right channel bank station 10020
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.696
FW FW 04 The left station effective of 9968.39 for 1% annual chance floodplain is less than the left channel bank station 9969.504
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9968) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 0.517
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.447
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.447
FW FW 04 The left station effective of 9977.04 for 1% annual chance floodplain is less than the left channel bank station 9977.53
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9977) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 0.38
FW FW 01 Left encroachment station 9985 is more than left channel bank station 9984.975 and less than the right channel bank station 10014.89
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.319
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.255
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.205
FW FW 01 Left encroachment station 9971 is more than left channel bank station 9970.28 and less than the right channel bank station 10009.69
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.046
FW FW 01 Right encroachment station 10010 is less than right channel bank station 10010.01 and greater than the left channel bank station 9980.51

Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.046
FW FW 03 The Left channel bank station may not be at the proper location.

SURCHARGE CHECK

DISCHARGE CHECK

STARTING WATER-SURFACE ELEVATION CHECK

---END---

8 EAST

8E

CHECK-RAS Program: NT Check

Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\8E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\8E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\8E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\8E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\8E.nt
Selected profiles: Floodplain;Floodway
Date: 7/15/2005
Time: 8:50:15 AM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #1,8 East (South of						
3.029		0.041	0.052	0.041	0.1	0.3
2.953		0.041	0.052	0.041	0.1	0.3
2.898		0.041	0.052	0.041	0.1	0.3
2.799		0.041	0.052	0.041	0.1	0.3
2.711		0.041	0.052	0.041	0.1	0.3
2.681		0.041	0.052	0.041	0.1	0.3
2.633		0.041	0.052	0.041	0.1	0.3
2.583		0.041	0.052	0.041	0.1	0.3
2.53		0.041	0.052	0.041	0.1	0.3
2.477		0.041	0.052	0.041	0.1	0.3
2.403		0.041	0.052	0.041	0.1	0.3
2.313		0.041	0.052	0.041	0.1	0.3
2.249		0.041	0.052	0.041	0.1	0.3
2.177		0.041	0.052	0.041	0.1	0.3
2.101		0.041	0.052	0.041	0.1	0.3
2.024		0.041	0.052	0.041	0.1	0.3
1.969		0.041	0.052	0.041	0.1	0.3
1.925		0.041	0.052	0.041	0.1	0.3
1.87		0.041	0.052	0.041	0.1	0.3
1.826		0.041	0.052	0.041	0.1	0.3
1.759		0.041	0.052	0.041	0.1	0.3
1.681		0.041	0.052	0.041	0.1	0.3
1.617		0.041	0.052	0.041	0.1	0.3
1.56		0.042	0.053	0.042	0.1	0.3
1.48		0.042	0.053	0.042	0.1	0.3
1.421		0.042	0.053	0.042	0.1	0.3
1.332		0.042	0.053	0.042	0.1	0.3
1.267		0.042	0.053	0.042	0.1	0.3
1.205		0.042	0.053	0.042	0.1	0.3
1.162		0.042	0.053	0.042	0.1	0.3
1.13		0.042	0.053	0.042	0.1	0.3
1.063		0.042	0.053	0.042	0.1	0.3
1.019		0.042	0.053	0.042	0.1	0.3
.954		0.042	0.053	0.042	0.1	0.3
.915		0.042	0.053	0.042	0.1	0.3
.852		0.042	0.053	0.042	0.1	0.3
.771		0.042	0.053	0.042	0.1	0.3
.701		0.042	0.053	0.042	0.1	0.3
.623		0.042	0.053	0.042	0.1	0.3
.568		0.042	0.053	0.042	0.1	0.3
.52		0.042	0.053	0.042	0.1	0.3
.455		0.042	0.053	0.042	0.3	0.5
.4405	Culvert-Up	0.042	0.053	0.042	0.3	0.5
.4405	Culvert-Dn	0.042	0.053	0.042	0.3	0.5
.426		0.042	0.053	0.042	0.3	0.5
.329		0.042	0.053	0.042	0.3	0.5
.283		0.042	0.053	0.042	0.1	0.3
.23		0.042	0.053	0.042	0.1	0.3
.168		0.042	0.053	0.042	0.1	0.3
.1		0.042	0.053	0.042	0.1	0.3

blc of structure

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.041	0.042
Right Overbank n Value:	0.041	0.042
Channel n Value:	0.052	0.053
Contraction Coefficient:	0.1	0.3

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

Expansion Coefficient: 0.3 0.5

ROUGHNESS COEFFICIENT CHECK

RS: 3.029
NT RC 05 The left overbank n value of 0.041 and the right overbank n value of 0.041 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 2.953
NT RC 05 The left overbank n value of 0.041 and the right overbank n value of 0.041 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 2.898
NT RC 05 The left overbank n value of 0.041 and the right overbank n value of 0.041 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 2.799
NT RC 05 The left overbank n value of 0.041 and the right overbank n value of 0.041 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 2.711
NT RC 05 The left overbank n value of 0.041 and the right overbank n value of 0.041 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 2.681
NT RC 05 The left overbank n value of 0.041 and the right overbank n value of 0.041 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 2.633
NT RC 05 The left overbank n value of 0.041 and the right overbank n value of 0.041 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 2.583
NT RC 05 The left overbank n value of 0.041 and the right overbank n value of 0.041 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 2.53
NT RC 05 The left overbank n value of 0.041 and the right overbank n value of 0.041 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 2.477
NT RC 05 The left overbank n value of 0.041 and the right overbank n value of 0.041 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 2.403
NT RC 05 The left overbank n value of 0.041 and the right overbank n value of 0.041 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 2.313
NT RC 05 The left overbank n value of 0.041 and the right overbank n value of 0.041 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 2.249
NT RC 05 The left overbank n value of 0.041 and the right overbank n value of 0.041 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 2.177
NT RC 05 The left overbank n value of 0.041 and the right overbank n value

of 0.041 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 2.101
NT RC 05 The left overbank n value of 0.041 and the right overbank n value
of 0.041 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 2.024
NT RC 05 The left overbank n value of 0.041 and the right overbank n value
of 0.041 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 1.969
NT RC 05 The left overbank n value of 0.041 and the right overbank n value
of 0.041 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 1.925
NT RC 05 The left overbank n value of 0.041 and the right overbank n value
of 0.041 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 1.87
NT RC 05 The left overbank n value of 0.041 and the right overbank n value
of 0.041 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 1.826
NT RC 05 The left overbank n value of 0.041 and the right overbank n value
of 0.041 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 1.759
NT RC 05 The left overbank n value of 0.041 and the right overbank n value
of 0.041 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 1.681
NT RC 05 The left overbank n value of 0.041 and the right overbank n value
of 0.041 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 1.617
NT RC 05 The left overbank n value of 0.041 and the right overbank n value
of 0.041 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 1.56
NT RC 05 The left overbank n value of 0.042 and the right overbank n value
of 0.042 are less than or equal to the channel n value of 0.053
The overbank n values should be reevaluated.

RS: 1.48
NT RC 05 The left overbank n value of 0.042 and the right overbank n value
of 0.042 are less than or equal to the channel n value of 0.053
The overbank n values should be reevaluated.

RS: 1.421
NT RC 05 The left overbank n value of 0.042 and the right overbank n value
of 0.042 are less than or equal to the channel n value of 0.053
The overbank n values should be reevaluated.

RS: 1.332
NT RC 05 The left overbank n value of 0.042 and the right overbank n value
of 0.042 are less than or equal to the channel n value of 0.053
The overbank n values should be reevaluated.

RS: 1.267
NT RC 05 The left overbank n value of 0.042 and the right overbank n value
of 0.042 are less than or equal to the channel n value of 0.053
The overbank n values should be reevaluated.

RS: 1.205

NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 1.162
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 1.13
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 1.063
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 1.019
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 0.954
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 0.915
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 0.852
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 0.771
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 0.701
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 0.623
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 0.568
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 0.52
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 0.455
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 0.4405
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 0.4405
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 0.426
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 0.329
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 0.283
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 0.23
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

RS: 0.168
NT RC 05 The left overbank n value of 0.042 and the right overbank n value of 0.042 are less than or equal to the channel n value of 0.053 The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

RS: 0.52
NT TL 01 This is section 4
Contraction and expansion loss coefficients are 0.1 and 0.3
They should be equal to 0.3 and 0.5 respectively.

RS: 0.329
NT TL 02 Contraction and expansion loss coefficients are 0.3 and 0.5 respectively. However, this cross section is not at the structure.
They should be equal to 0.1 and 0.3.

ROUGHNESS COEFFICIENT AT STRUCTURES

---END---

CHECK-RAS Program, XS Check
Cross Section Location and Alignment Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\8E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\8E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\8E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\8E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\8E.xs
Selected profiles: Floodplain;Floodway
Date: 7/15/2005
Time: 8:50:16 AM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #1,8 East (South of						
3.029	391.598	399.971	397.723	13.07	490	
2.953	296.036	288.615	278.897	65.95	490	
2.898	510.861	521.982	531.884	51.8	490	
2.799	466.148	465.068	463.474	35	490	
2.711	170.341	158.449	154.689	108.26	490	
2.681	247.244	253.593	259.137	109.09	490	D
2.633	263.451	266.209	266.399	47.18	490	
2.583	280.7	280.664	277.011	71.29	490	
2.53	271.723	282.031	282.693	85.53	490	
2.477	387.48	392.246	379.135	115.06	490	
2.403	460.752	472.656	459.805	54.83	490	
2.313	334.923	337.87	314.944	103.45	490	D
2.249	380.054	380.689	387.324	59.93	490	
2.177	394.626	400.481	426.942	92.67	490	
2.101	415.424	405.941	391.842	103.82	490	
2.024	287.103	289.381	285.59	113.77	490	
1.969	244.201	232.128	229.845	122.41	490	
1.925	281.238	288.018	294.411	69.71	490	
1.87	220.976	231.729	236.258	137.24	490	D
1.826	360.399	355.261	331.701	279.86	490	
1.759	410.248	412.223	396.663	187.27	490	
1.681	300.413	335.505	348.866	110.79	490	D,E — Divided flow, OK
1.617	286.228	310.333	335.519	80.24	490	D
1.56	433.417	413.54	385.526	194.6	710	D
1.48	317.438	312.255	317.6	103.71	710	
1.421	468.173	470.657	446.029	447.87	710	
1.332	332.561	345.064	342.755	132.39	710	D,C (s/c)
1.267	319.903	325.558	327.281	92.29	710	
1.205	237.308	228.167	228.082	166.75	710	D
1.162	161.665	169.01	174.738	220.73	710	
1.13	351.167	351.29	341.48	27.19	710	C (s/c)
1.063	228.341	231.217	237.709	72.87	710	
1.019	320.219	343.983	355.571	56.71	710	
.954	211.546	206.933	205.069	140.14	1080	
.915	333.702	330.239	304.698	159.91	1080	
.852	427.792	428.899	427.625	91.75	1080	
.771	359.565	367.137	376.14	69.85	1080	
.701	421.09	412.563	405.052	242.37	1080	
.623	294.689	288.475	264.292	262.55	1080	
.568	254.232	253.435	251.812	234.09	1080	D
.52	325.631	344.207	372.808	123.34	1080	D
.455	154.937	155.686	160.757	465.83	1080	
.4405	CULVERT#1-Up					
.4405	CULVERT#1-Dn					
.426	531.542	511.261	502.368	46.9	1080	
.329	242.232	243.784	234.169	264.9	1080	D
.283	285.311	279.61	277.78	433.6	1080	D
.23	266.807	329.352	338.646	176.5	1080	D,C (s/c)
.168	362.269	356.936	344.694	225.2	1080	D
.1	0	0	0	76.75	1080	

B=blocked obstruction XS SC 05
C=critial depth XS SC 03
D=divided flow XS SC 01
E=cross section extended XS SC 02
K=known water-surface XS SC 04

DISTANCE CHECK

SPACING CHECK

INEFFECTIVE FLOW CHECK

DISCHARGE CHECK

LOCATION CHECK

RS: 1.421
XS LC 01 Lenchl Up/TopwdthAct Dn = 3.56
MaxChlDpth Up/MaxChlDpth Dn = 1.13
TopwdthAct Up/TopwdthAct Dn = 3.38
This cross section is located too far upstream from the critical depth cross section.

RS: 1.162
XS LC 01 Lenchl Up/TopwdthAct Dn = 6.22
MaxChlDpth Up/MaxChlDpth Dn = 1.43
TopwdthAct Up/TopwdthAct Dn = 8.12
This cross section is located too far upstream from the critical depth cross section.

RS: 0.283
XS LC 01 Lenchl Up/TopwdthAct Dn = 1.58
MaxChlDpth Up/MaxChlDpth Dn = 1.36
TopwdthAct Up/TopwdthAct Dn = 2.46
This cross section is located too far upstream from the critical depth cross section.

BOUNDARY CONDITION CHECK

XS BC 02 The name of the stream is Reach #1,8 East (South of
Normal S = 0.0104 is specified as the downstream boundary for profile Floodplain

XS BC 02 The name of the stream is Reach #1,8 East (South of
Normal S = 0.0104 is specified as the downstream boundary for profile Floodway

LATERAL WEIRS CHECK

---END---

CHECK-RAS Program: Floodway Check
Encroachment Method, Starting WSEL, Floodway Width, and Surcharge Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\8E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\8E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\8E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\8E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\8E.fw
Selected profiles: Floodplain;Floodway
Date: 7/15/2005
Time: 8:50:18 AM

SECNO	Method	Surcharge	EncStaL	EncStaR	LStaEff	RStaEff	Structure
Reach #1,8 East (South of							
3.029					9992.88	10005.94	
3.029	1	-0.03	9990	10009	9992.91	10005.92	
2.953					9963.7	10029.65	
2.953	1	0.14	9974	10024	9974	10024	
2.898					9983.06	10034.85	
2.898	1	0.04	9984	10023	9984	10023	
2.799					9993.71	10028.72	
2.799	1	0.11	9959	10166	9993.53	10029.54	
2.711					9902.43	10010.68	
2.711	1	0.19	9936	10008	9936	10008	
2.681					9960.43	10075.17	
2.681	1	0.11	9977	10044	9977	10044	
2.633					9970.91	10018.09	
2.633	1	0.03	9901	10078	9970.17	10018.27	
2.583					9971.32	10042.62	
2.583	1	-0.03	9921	10098	9971.77	10042.4	
2.53					9985.65	10071.18	
2.53	1	0.36	9991	10052	9991	10052	
2.477					9933.56	10048.62	
2.477	1	0.22	9968	10033	9968	10033	
2.403					9969.9	10024.74	
2.403	1	0.38	9986	10025	9986	10025	
2.313					9981.61	10097.87	
2.313	1	0.05	9986	10038	9986	10038	
2.249					9958.98	10018.91	
2.249	1	0.46	9965	10014	9965	10014	
2.177					9988.53	10081.2	
2.177	1	0.89	9992	10040	9992	10040	
2.101					9945.48	10049.3	
2.101	1	0.34	9976	10018	9976	10018	
2.024					9944.49	10058.25	
2.024	1	0.87	9981	10021	9981	10021	
1.969					9883.98	10006.39	
1.969	1	0.45	9947	10006	9947	10006	
1.925					9943.75	10013.46	
1.925	1	0.19	9963	10010	9963	10010	
1.87					9942.25	10081.88	
1.87	1	0.75	9991	10040	9991	10040	
1.826					9943.24	10223.1	
1.826	1	0.8	9982	10051	9982	10051	
1.759					9989.84	10177.11	
1.759	1	0.76	9992	10043	9992	10043	
1.681					9937.55	10098.06	
1.681	1	0.15	9984	10049	9984	10049	
1.617					9960.18	10071.32	
1.617	1	0.99	9967	10051	9967	10051	
1.56					9815.72	10043.94	
1.56	1	0.4	9923	10012	9923	10012	
1.48					9964.63	10068.34	
1.48	1	0.46	9965	10029	9965	10029	
1.421					9851.68	10299.54	
1.421	1	0.83	9981	10083	9981	10083	
1.332					9923.96	10175.97	
1.332	1	0.77	9974	10054	9974	10054	
1.267					9936.19	10028.48	
1.267	1	0.21	9943	10027	9943	10027	
1.205					9981.5	10158.5	
1.205	1	0.71	9982	10065	9982	10065	

					8E		
1.162					9982.97	10203.7	
1.162	1	0.17	9989	10031	9989	10031	
1.13					9984.78	10011.98	
1.13	1	0.69	9984	10014	9984	10013.13	
1.063					9988.53	10061.4	
1.063	1	0.32	9993	10040	9993	10040	
1.019					9978.68	10035.39	
1.019	1	0.29	9978	10034	9978	10034	
0.954					9873.33	10013.48	
0.954	1	0.3	9933	10013	9933	10013	
0.915					9902.34	10062.25	
0.915	1	0.5	9935	10022	9935	10022	
0.852					9920.72	10012.46	
0.852	1	0.33	9957	10007	9957	10007	
0.771					9983.46	10053.31	
0.771	1	0.04	9956	10054	9983.37	10053.47	
0.701					9809.4	10051.77	
0.701	1	0.07	9976	10044	9976	10044	
0.623					9979.25	10241.8	
0.623	1	0.17	9980	10092	9980	10092	
0.568					9962.59	10231.79	
0.568	1	0.06	9965	10023	9965	10023	
0.52					9834.88	10061.02	
0.52	1	0.38	9971	10034	9971	10034	
0.455					9595.77	10061.6	
0.455	1	0.78	9940	10022	9940	10022	
0.4405					0	0	CULVERT#1-Up
0.4405					0	0	CULVERT#1-Dn
0.4405	0	0	0	0	0	0	CULVERT#1-Up
0.4405	0	0	0	0	0	0	CULVERT#1-Dn
0.426					9971	10017.9	
0.426	1	0.01	9926	10021	9971	10017.9	
0.329					9716	10039.74	
0.329	1	0.54	9913	10039	9913	10039	
0.283					9691.23	10133.78	
0.283	1	0.5	9907	10028	9907	10028	
0.23					9779.5	10037.05	
0.23	1	0.07	9897	10055	9897	10043.47	
0.168					9798.7	10026.71	
0.168	1	0	9813	10026	9813	10026	
0.1					9954.25	10031	
0.1	1	0.02	9970	10030	9970	10030	

ENCROACHMENT METHOD CHECK

RS: 0.4405
FW EM 01 Floodway encroachment method is not selected at this section.

FLOODWAY WIDTH CHECK

RS: 3.029
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.029
FW FW 04 The left station effective of 9992.88 for 1% annual chance floodplain is less than the left channel bank station 9993.283
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9990) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 3.029
FW FW 04 The right station effective of 10005.94 for 1% annual chance floodplain is greater than the right channel bank station (10005.51).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10009) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 2.953
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.898
FW FW 01 Left encroachment station 9984 is more than left channel bank station 9983.94 and less than the right channel bank station 10010.02
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.898
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.799
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.799
FW FW 04 The left station effective of 9993.71 for 1% annual chance floodplain is less than the left channel bank station 9993.718
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9959) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 2.799
FW FW 04 The right station effective of 10028.72 for 1% annual chance floodplain is greater than the right channel bank station (10022.62).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10166) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 2.711
FW FW 01 Left encroachment station 9936 is more than left channel bank station 9935.85 and less than the right channel bank station 10007.72
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.711
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.681
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.633
FW FW 04 The left station effective of 9970.91 for 1% annual chance floodplain is less than the left channel bank station 9972.18
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9901) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 2.633
FW FW 04 The right station effective of 10018.09 for 1% annual chance floodplain is greater than the right channel bank station (10015.85).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10078) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 2.583
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.583
FW FW 04 The left station effective of 9971.32 for 1% annual chance floodplain is less than the left channel bank station 9974.24
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9921) is outside of 1% annual

chance floodplain.
The left encroachment station should be adjusted.

RS: 2.583
FW FW 04 The right station effective of 10042.62 for 1% annual chance floodplain is greater than the right channel bank station (10036.35).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10098) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 2.53
FW FW 01 Left encroachment station 9991 is more than left channel bank station 9990.71 and less than the right channel bank station 10042.16
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.477
FW FW 01 Right encroachment station 10033 is less than right channel bank station 10033.23 and greater than the left channel bank station 9968.46
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.477
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.403
FW FW 01 Left encroachment station 9986 is more than left channel bank station 9985.58 and less than the right channel bank station 10024.78
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.313
FW FW 01 Right encroachment station 10038 is less than right channel bank station 10038.29 and greater than the left channel bank station 9986.6
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.313
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.313
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.249
FW FW 01 Left encroachment station 9965 is more than left channel bank station 9964.97 and less than the right channel bank station 10014.25
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.249
FW FW 01 Right encroachment station 10014 is less than right channel bank station 10014.25 and greater than the left channel bank station 9964.97
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.249
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.249
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.177
FW FW 01 Left encroachment station 9992 is more than left channel bank station 9991.631 and less than the right channel bank station 10021.01
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.177

FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.101
FW FW 01 Left encroachment station 9976 is more than left channel bank station 9975.988 and less than the right channel bank station 10017.89
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.101
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.024
FW FW 01 Left encroachment station 9981 is more than left channel bank station 9980.67 and less than the right channel bank station 10020.7
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.969
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.87
FW FW 01 Right encroachment station 10040 is less than right channel bank station 10040.45 and greater than the left channel bank station 9991.1
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.87
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.826
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.759
FW FW 01 Left encroachment station 9992 is more than left channel bank station 9991.631 and less than the right channel bank station 10018.49
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.681
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.48
FW FW 01 Left encroachment station 9965 is more than left channel bank station 9964.625 and less than the right channel bank station 10028.82
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.205
FW FW 01 Left encroachment station 9982 is more than left channel bank station 9981.121 and less than the right channel bank station 10037.97
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.13
FW FW 01 Left encroachment station 9984 is more than left channel bank station 9982.41 and less than the right channel bank station 10013.93
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.13
FW FW 05 The 1% annual chance flood is contained within the channel.
Right encroachment station 10014 is outside the channel.
Right channel bank station is 10013.93
Right encroachment station and/or right channel bank station should be adjusted.

RS: 1.13
FW FW 06 The right station effective of 10013.13 for the floodway profile is less than the right channel bank station of 10013.93

The right side of the floodway boundary is within the channel.
The right encroachment station of 10014 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 1.019
FW FW 01 Left encroachment station 9978 is more than left channel bank station 9977.33 and less than the right channel bank station 10031.29
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.019
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.954
FW FW 01 Left encroachment station 9933 is more than left channel bank station 9932.99 and less than the right channel bank station 10012.54
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.852
FW FW 01 Left encroachment station 9957 is more than left channel bank station 9956.91 and less than the right channel bank station 10007.24
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.852
FW FW 01 Right encroachment station 10007 is less than right channel bank station 10007.24 and greater than the left channel bank station 9956.91
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.852
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.852
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.771
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.771
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.771
FW FW 04 The left station effective of 9983.46 for 1% annual chance floodplain is less than the left channel bank station 9987.17
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9956) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 0.771
FW FW 04 The right station effective of 10053.31 for 1% annual chance floodplain is greater than the right channel bank station (10045.33).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10054) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 0.701
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.623
FW FW 01 Left encroachment station 9980 is more than left channel bank station 9979.584 and less than the right channel bank station 10054.22
Left encroachment station is within the channel.

The encroachment station or channel bank station should be adjusted.

RS: 0.623
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.426
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.426
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.283
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.23
FW FW 04 The right station effective of 10037.05 for 1% annual chance floodplain is greater than the right channel bank station (10032.89).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10055) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 0.168
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.1
FW FW 03 The Left channel bank station may not be at the proper location.

SURCHARGE CHECK

DISCHARGE CHECK

STARTING WATER-SURFACE ELEVATION CHECK

---END---

CHECK-RAS Program: Structure Check

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\8E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\8E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\8E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\8E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\8E.br
Selected profiles: Floodplain;Floodway
Date: 7/15/2005
Time: 8:50:19 AM

RS	MaxLoChord	MnTpRd	EGEL	WSEL	MinChEl	Structure
Reach #1,8 East (South of						
3.029			1543.83	1542.04	1535.03	
2.953			1536.66	1536.37	1533.26	
2.898			1534.72	1534.47	1529.7	
2.799			1529.54	1528.68	1524.74	
2.711			1525.02	1524.89	1522	
2.681			1524.26	1524.08	1519.32	
2.633			1522.04	1521.47	1517.21	
2.583			1519.24	1519.03	1514.97	
2.53			1516.31	1515.9	1512.91	
2.477			1513.77	1513.64	1510.32	
2.403			1510.53	1509.99	1506.37	
2.313			1506.68	1506.52	1502.2	
2.249			1503.94	1503.46	1499.21	
2.177			1499.72	1499.51	1496.31	
2.101			1496.64	1496.41	1492.3	
2.024			1492.11	1491.78	1488.72	
1.969			1489.57	1489.43	1485.75	
1.925			1487.22	1486.65	1483.25	
1.87			1483.97	1483.82	1481.69	
1.826			1482.45	1482.33	1478.58	
1.759			1479.95	1479.79	1475.62	
1.681			1476.47	1476.25	1472.1	
1.617			1473.64	1473.42	1470.13	
1.56			1471.55	1471.35	1467.01	
1.48			1467.85	1467.43	1464.14	
1.421			1465.42	1465.33	1461.73	
1.332			1461.26	1460.74	1457.54	
1.267			1458.37	1458.25	1454.68	
1.205			1456.87	1456.53	1451.75	
1.162			1455.42	1455.25	1449.65	
1.13			1453.9	1452.53	1448.51	
1.063			1450.35	1450.15	1446.34	
1.019			1449.12	1448.69	1444.84	
0.954			1446.53	1446.29	1442.35	
0.915			1444.95	1444.64	1440.62	
0.852			1442.32	1441.95	1437.17	
0.771			1438.65	1438.09	1434.06	
0.701			1435.74	1435.42	1431.05	
0.623			1432.93	1432.72	1428.35	
0.568			1430.8	1430.43	1425.3	
0.52			1428.57	1428.01	1423.82	
0.455			1426.43	1426.24	1421.6	
0.4405	1424	1425.56	0	1424	1421	CULVERT#1-Up
0.4405	1423.7	1420.92	0	1423.7	1420.7	CULVERT#1-Dn
0.426			1425.58	1425.01	1420.69	
0.329			1420.98	1420.71	1416.89	
0.283			1419.47	1419.36	1415.05	
0.23			1416.95	1416.42	1413.25	
0.168			1414.95	1414.86	1410.3	
0.1			1413.35	1412.77	1408.06	

@ Jomax Rd.

RIVER/REACH: Reach #1, 8 East (South of
RIVER STATION: 0.4405
TYPE OF STRUCTURE: Culvert

Description:

	8E
Distance from Upstream XS:	0.01
Deck/Roadway Width:	120
Weir Coefficient:	2.5
Maximum allowable submergence for weir flow:	0.95
Elevation at which weir flow begins:	1426.04
Weir crest shape:	Broad Crested

Sec	River Station	Length Channel	WSEL	Surch.	EGEL	TopWidth Actual	
4	0.52	344.21	1428.01	0	1428.57	123.34	
4	0.52	344.21	1428.39	0.38	1428.89	63	
3	0.455	155.69	1426.24	0	1426.43	465.83	
3	0.455	155.69	1427.01	0.78	1427.25	82	
	0.4405	153.00	1424	0	0	0	CULVERT#1-Up
	0.4405	2.68	1423.7	0	0	0	CULVERT#1-Dn
	0.4405	153.00	1424	0	0	0	CULVERT#1-Up
	0.4405	2.68	1423.7	0	0	0	CULVERT#1-Dn
2	0.426	511.26	1425.01	0	1425.58	46.9	
2	0.426	511.26	1425.02	0.01	1425.59	46.9	
1	0.329	243.78	1420.71	0	1420.98	264.9	
1	0.329	243.78	1421.25	0.54	1421.55	126	

	Ineffective Flow, Section 3			Ineffective Flow, Section 2		
	Sta L	Sta R	Elev	Sta L	Sta R	Elev
1	9361.02	9965.59	1426.04	9635.99	9971	1426.04
2	10015.9	10065.95	1426.01	10017.9	10051.65	1426.01

Opening Type	StagStaL	StagStaR	EncStaL	EncStaR	LIfStaS	RIfStaS	
Culvert Group					9965.59	10015.9	U
					9971	10017.9	D
			0	0			U
			0	0			D

CULVERT:
Culvert Name: CULVERT#1

Shape:	Box	Rise:	3	Span:	6.3	Barrels:	5

FHWA Chart #: # 8 - flared wingwalls
FHWA Scale #: # 1 - Wingwall flared 30 to 75 deg.
Solution Crit:Highest U.S. EG

UpstrmDist:	0.01	Length:	153	n-Value:	0.015		
EntLossCoef:	0.4	ExtLossCoef:	1	CulvInvElU	1421	CulvInvElD	1420.7
LCntStaU:	9975.2	RCntStaU:	10009.9	LCntStaD	9975.7	RCntStaD	10009.8
Culvert Depth Blocked:	0						

Culv Area:	94.5	CulvQ:	585.7	MinTopRd:	1426.05
	94.5		733.89		1426.05

	LAbutSt	RAbutSt	LMnTpRd	RMnTpRd	MnTpRd	MxLoCd	
CULVERT#1	9972.05	10013.05	1425.56	1426	1425.56	1424	U
	9972.55	10012.95	1420.92	1426.08	1420.92	1423.7	D
	9972.05	10013.05	1425.56	1426	1425.56	1424	U
	9972.55	10012.95	1420.92	1426.08	1420.92	1423.7	D

Name	Q Total.	Q Struc	Q Weir	Selected Method	Flow Type
CULVERT#1		585.7	494.31	Highest U.S. EG	Pressure and Weir Flow
		733.89	346.11	Highest U.S. EG	Pressure and Weir Flow

GEOMETRIC CHECK

TYPE OF FLOW CHECK

RS: 0.4405 This is CULVERT#1
CV PW 01 Type of flow is pressure and weir flow because,
1. EGEL 3 of 1426.43 is greater than MinTopRd of 1426.05.
2. CulvWSIn of 1424.00 is greater than or equal to MxLoCdU of 1424.00.
3. CulvWSOut of 1423.70 is greater than or equal to MxLoCdD of 1423.70.

RS: 0.4405 This is CULVERT#1
CV PW 01 Type of flow is pressure and weir flow because,
1. EGEL 3 of 1427.25 is greater than MinTopRd of 1426.05.
2. CulvWSIn of 1424.00 is greater than or equal to MxLoCdU of 1424.00.
3. CulvWSOut of 1423.70 is greater than or equal to MxLoCdD of 1423.70.

DISTANCE CHECK

RS: 0.4405 This is CULVERT#1
ST DT 01 'Culvert Upstrm Dist' of 0.01 is less than the height of the
culvert opening of 3 .
Section 3 should be placed at the foot of the road embankment or
wing walls.
Distances at Sections 4 & 3, and 'Distance from Upstream XS'
should be adjusted.

RS: 0.4405 This is CULVERT#1
ST DT 02 The channel distance of 2.676005 at Downstream Internal Section is less than
the height of the culvert opening of 3
Section 2 should be placed at the foot of the road embankment or
wing walls.
Distances at Sections 4, 3 & 2 should be adjusted.

CULVERT COEFFICIENT CHECK

CULVERT CRITERIA CHECK

INEFFECTIVE FLOW CHECK

RS: 0.426 This is Section 2
ST IF 02 Weir flow occurs at Culvert Group 1
However, the ineffective flow elevation of 1426.04 between stations 9635.99
and 9971 is equal to or greater than the WSEL of 1425.01
The LMnTpRdD is 1420.92 and the MxLoCdD is 1423.7
The ineffective flow elevation should be between the LMnTpRdD and the MxLoCdD
if LMnTpRdD is greater than MxLoCdD. Otherwise, It should be equal to LMnTpRdD.
It should also be less than the WSEL.

RS: 0.426 This is Section 2
ST IF 02 Weir flow occurs at Culvert Group 1
However, the ineffective flow elevation of 1426.01 between stations 10017.9
and 10051.65 is equal to or greater than the WSEL of 1425.01
The RMnTpRdD is 1426.08 and the MxLoCdD is 1423.7
The ineffective flow elevation should be between the RMnTpRdD and the MxLoCdD
if RMnTpRdD is greater than MxLoCdD. Otherwise, It should be equal to RMnTpRdD.
It should also be less than the WSEL.

FLOODWAY CHECK

RS: 0.4405 This is Culvert
ST FW 01 Encroachment Method was not specified at this river station.
For flood insurance studies Encroachment Methods 4 and 1
should be used.

```
RS:       0.426This is Section 2
ST FW 08  The left station effective of 9971 for the natural profile.
          is less than the left channel bank station of 9971.5
          The left encroachment station is outside the channel.
          The left encroachment station of 9926 is less than the left
          station effective of 9971 for the natural profile.
          The left encroachment station should be adjusted.

RS:       0.455 This is Section 3
ST FW 04  The right encroachment station of 10022 is less than the
          right bank station of 10024.18
          The right encroachment station is within the channel.
          The encroachment station and/or channel bank station should be reevaluated.

---END
```

9 EAST

CHECK-RAS Program: NT Check
Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E.nt
Selected profiles: Floodplain;Floodway
Date: 7/13/2005
Time: 11:58:52 AM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #1,9 East						
4.666		0.052	0.057	0.052	0.1	0.3
4.652		0.052	0.057	0.052	0.1	0.3
4.618		0.052	0.057	0.052	0.1	0.3
4.596		0.052	0.057	0.052	0.1	0.3
4.558		0.052	0.057	0.052	0.1	0.3
4.536		0.052	0.057	0.052	0.1	0.3
4.524		0.052	0.057	0.052	0.1	0.3
4.471		0.052	0.057	0.052	0.1	0.3
4.442		0.052	0.057	0.052	0.1	0.3
4.386		0.052	0.057	0.052	0.1	0.3
4.338		0.052	0.057	0.052	0.1	0.3
4.27		0.052	0.057	0.052	0.1	0.3
4.206		0.052	0.057	0.052	0.1	0.3
4.152		0.052	0.057	0.052	0.1	0.3
4.092		0.052	0.057	0.052	0.1	0.3
4.052		0.052	0.057	0.052	0.1	0.3
3.998		0.052	0.057	0.052	0.1	0.3
3.927		0.052	0.057	0.052	0.1	0.3
3.837		0.052	0.057	0.052	0.1	0.3
3.76		0.052	0.057	0.052	0.1	0.3
3.681		0.052	0.057	0.052	0.1	0.3
3.617		0.052	0.057	0.052	0.1	0.3
3.545		0.052	0.057	0.052	0.1	0.3
3.464		0.052	0.057	0.052	0.1	0.3
3.394		0.052	0.057	0.052	0.1	0.3
3.346		0.052	0.057	0.052	0.1	0.3
3.267		0.052	0.057	0.052	0.1	0.3
3.208		0.045	0.054	0.045	0.1	0.3
3.091		0.045	0.054	0.045	0.1	0.3
3.021		0.045	0.054	0.045	0.1	0.3
2.966		0.045	0.054	0.045	0.1	0.3
2.892		0.045	0.054	0.045	0.1	0.3
2.815		0.045	0.054	0.045	0.1	0.3
2.74		0.045	0.054	0.045	0.1	0.3
2.688		0.045	0.054	0.045	0.1	0.3
2.647		0.045	0.054	0.045	0.1	0.3
2.577		0.045	0.054	0.045	0.1	0.3
2.511		0.045	0.054	0.045	0.1	0.3
2.452		0.045	0.054	0.045	0.1	0.3
2.382		0.045	0.054	0.045	0.1	0.3
2.321		0.046	0.055	0.046	0.1	0.3
2.256		0.046	0.055	0.046	0.1	0.3
2.202		0.046	0.055	0.046	0.1	0.3
2.155		0.046	0.055	0.046	0.1	0.3
2.036		0.046	0.055	0.046	0.1	0.3
1.962		0.046	0.055	0.046	0.1	0.3
1.899		0.046	0.055	0.046	0.1	0.3
1.876		0.046	0.055	0.046	0.1	0.3
1.839		0.046	0.055	0.046	0.1	0.3
1.791		0.046	0.055	0.046	0.1	0.3
1.751		0.046	0.055	0.046	0.1	0.3
1.711		0.046	0.055	0.046	0.1	0.3
1.655		0.046	0.055	0.046	0.1	0.3
1.601		0.046	0.055	0.046	0.1	0.3
1.57		0.046	0.055	0.046	0.1	0.3
1.538		0.046	0.055	0.046	0.1	0.3
1.473		0.046	0.055	0.046	0.1	0.3
1.4		0.046	0.055	0.046	0.1	0.3

1.308	0.046	0.055	0.046	0.1	0.3
1.244	0.046	0.055	0.046	0.1	0.3
1.144	0.046	0.055	0.046	0.1	0.3
1.05	0.046	0.055	0.046	0.2	0.4
.979	0.046	0.055	0.046	0.2	0.4
.912	0.046	0.055	0.046	0.2	0.4

bend, wash a confluence w/ 6E-South.

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.045	0.052
Right Overbank n Value:	0.045	0.052
Channel n Value:	0.054	0.057
Contraction Coefficient:	0.1	0.2
Expansion Coefficient:	0.3	0.4

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

ROUGHNESS COEFFICIENT CHECK

RS: 4.666
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 4.652
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 4.618
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 4.596
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 4.558
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 4.536
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 4.524
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 4.471
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 4.442
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 4.386
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 4.338
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057

The overbank n values should be reevaluated.

RS: 4.27
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 4.206
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 4.152
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 4.092
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 4.052
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 3.998
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 3.927
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 3.837
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 3.76
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 3.681
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 3.617
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 3.545
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 3.464
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 3.394
NT RC 05 The left overbank n value of 0.052 and the right overbank n value of 0.052 are less than or equal to the channel n value of 0.057 The overbank n values should be reevaluated.

RS: 3.346
NT RC 05 The left overbank n value of 0.052 and the right overbank n value

of 0.052 are less than or equal to the channel n value of 0.057
The overbank n values should be reevaluated.

RS: 3.267
NT RC 05 The left overbank n value of 0.052 and the right overbank n value
of 0.052 are less than or equal to the channel n value of 0.057
The overbank n values should be reevaluated.

RS: 3.208
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.054
The overbank n values should be reevaluated.

RS: 3.091
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.054
The overbank n values should be reevaluated.

RS: 3.021
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.054
The overbank n values should be reevaluated.

RS: 2.966
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.054
The overbank n values should be reevaluated.

RS: 2.892
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.054
The overbank n values should be reevaluated.

RS: 2.815
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.054
The overbank n values should be reevaluated.

RS: 2.74
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.054
The overbank n values should be reevaluated.

RS: 2.688
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.054
The overbank n values should be reevaluated.

RS: 2.647
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.054
The overbank n values should be reevaluated.

RS: 2.577
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.054
The overbank n values should be reevaluated.

RS: 2.511
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.054
The overbank n values should be reevaluated.

RS: 2.452
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.054
The overbank n values should be reevaluated.

RS: 2.382
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.054
The overbank n values should be reevaluated.

RS: 2.321

NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 2.256
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 2.202
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 2.155
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 2.036
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 1.962
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 1.899
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 1.876
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 1.839
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 1.791
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 1.751
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 1.711
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 1.655
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 1.601
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 1.57
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 1.538
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 1.473
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 1.4
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 1.308
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 1.244
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 1.144
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 1.05
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

RS: 0.979
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.055 The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

RS: 1.05
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4 respectively. However, this cross section is not at the structure. They should be equal to 0.1 and 0.3.

RS: 0.979
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4 respectively. However, this cross section is not at the structure. They should be equal to 0.1 and 0.3.

RS: 0.912
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4 respectively. However, this cross section is not at the structure. They should be equal to 0.1 and 0.3.

ROUGHNESS COEFFICIENT AT STRUCTURES

---END---

CHECK-RAS Program, XS Check
Cross Section Location and Alignment Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E.xs
Selected profiles: Floodplain;Floodway
Date: 7/13/2005
Time: 11:58:53 AM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #1,9 East						
4.666	73.042	74.48	75.101	59.16	390	
4.652	175.305	178.521	179.288	47.6	390	D
4.618	121.436	118.127	116.187	40.4	390	
4.596	197.64	198.297	200.635	36.47	390	
4.558	115.196	117.868	118.971	39.72	390	
4.536	63.689	65.229	65.422	39.89	390	
4.524	283.959	281.342	281.078	31.14	390	
4.471	154.624	154.302	146.051	119.22	390	
4.442	290.212	295.773	280.601	142.02	390	D
4.386	255.707	255.347	251.363	235.58	390	D
4.338	344.386	359.977	318.942	153.22	390	D © (Slc)
4.27	314.222	337.576	346.706	95.18	390	D
4.206	283.841	284.918	277.363	52.47	390	
4.152	322.06	317.706	313.346	70.46	390	D
4.092	209.801	212.389	215.307	44.75	390	
4.052	291.148	285.753	274.321	64.89	390	D
3.998	368.204	375.867	377.868	49.47	390	
3.927	465.862	476.112	480.113	89.35	390	D
3.837	416.262	408.502	383.567	47.74	440	
3.76	416.746	415.967	405.194	67.93	440	D
3.681	327.75	338.679	356.064	239.06	440	D
3.617	385.521	382.338	382.288	65.7	440	D
3.545	411.345	425.72	388.853	278.24	440	D
3.464	365.216	369.74	331.325	355.65	440	D
3.394	250.975	254.363	261.851	168.21	440	D
3.346	420.152	418.605	405.052	258.75	440	D
3.267	312.643	310.589	298.263	213.64	440	D
3.208	506.651	619.222	620.453	265.14	440	
3.091	367.836	371.263	373.98	124.58	500	D
3.021	268.205	291.714	295.881	188.97	500	
2.966	404.396	389.456	374.643	142.51	500	
2.892	412.7	408.071	407.745	243.61	500	
2.815	362.153	394.717	428.639	223.83	500	
2.74	283.669	276.296	275.823	262.43	340	
2.688	235.876	217.205	207.401	123.46	340	D
2.647	403.232	367.055	334.173	159.59	340	
2.577	349.518	349.517	345.644	132.19	340	D
2.511	319.998	312.339	296.119	104.29	340	
2.452	348.819	370.528	390.773	168.72	340	
2.382	312.177	320.193	336.485	183.45	500	D
2.321	345.677	344.079	343.802	207.12	590	D
2.256	290.41	282.798	264.154	314.79	590	D
2.202	549.705	524.039	378.675	255.49	590	D
2.155	373.2	352.812	259.471	324.87	590	D
2.036	371.178	392.651	386.463	272.57	590	
1.962	325.86	331.907	320.123	212.69	590	
1.899	116.541	123.002	125.265	142.71	590	D
1.876	179.456	193.497	195.396	176.95	590	
1.839	246.701	252.86	258.485	172.08	590	D
1.791	221.017	210.855	200.198	254.12	590	
1.751	208.57	209.774	210.351	119.94	590	
1.711	253.365	293.453	323.346	116.45	590	
1.655	285.906	284.755	281.614	149.3	590	
1.601	174.133	164.93	154.209	157.25	590	D
1.57	176.673	168.231	158.184	325.78	590	D
1.538	346.469	345.571	336.968	296.51	590	D
1.473	409.644	388.058	354.204	290.65	590	D

1.4	493.645	483.467	491.82	321.84	590	
1.308	330.138	335.825	348.69	245.77	590	D
1.244	519.299	528.581	529.385	286.83	590	D
1.144	456.796	498.019	550.245	527.91	590	D
1.05	325.763	373.539	444.692	176.2	570	D
.979	339.721	351.545	366.284	141.45	570	D
.912	0	0	0	104.13	570	

B=blocked obstruction XS SC 05
C=critial depth XS SC 03
D=divided flow XS SC 01
E=cross section extended XS SC 02
K=known water-surface XS SC 04

DISTANCE CHECK

SPACING CHECK

INEFFECTIVE FLOW CHECK

DISCHARGE CHECK

RS: 4.536
XS DC 04 There is no flow on the left overbank at the downstream cross section. There is no flow on the right overbank at this section.

RS: 4.338
XS DC 05 There is no flow on the right overbank at the downstream cross section. There is no flow on the left overbank at this section.

RS: 4.27
XS DC 04 There is no flow on the left overbank at the downstream cross section. There is no flow on the right overbank at this section.

RS: 4.052
XS DC 05 There is no flow on the right overbank at the downstream cross section. There is no flow on the left overbank at this section.

RS: 2.74
XS DC 01 Discharge decreases in the downstream direction.

RS: 1.05
XS DC 01 Discharge decreases in the downstream direction.

LOCATION CHECK

RS: 4.386
XS LC 01 Lenchl Up/TopwdthAct Dn = 1.67
MaxChlDpth Up/MaxChlDpth Dn = 1.18
TopwdthAct Up/TopwdthAct Dn = 1.54
This cross section is located too far upstream from the critical depth cross section.

BOUNDARY CONDITION CHECK

XS BC 02 The name of the stream is Reach #1,9 East
Normal S = 0.005 is specified as the downstream boundary for profile Floodplain

XS BC 02 The name of the stream is Reach #1,9 East
Normal S = 0.005 is specified as the downstream boundary

for profile Floodway

LATERAL WEIRS CHECK

---END---

CHECK-RAS Program: Floodway Check
Encroachment Method, Starting WSEL, Floodway Width, and Surcharge Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E.fw
Selected profiles: Floodplain;Floodway
Date: 7/13/2005
Time: 11:58:54 AM

SECNO	Method	Surcharge	EncStaL	EncStaR	LStaEff	RStaEff	Structure
Reach #1,9 East							
4.666					9958.34	10017.51	
4.666	1	0	9971	10012	9971	10012	
4.652					9973.51	10027.44	
4.652	1	-0.01	9979	10033	9979	10027.33	
4.618					9979.98	10020.38	
4.618	1	0.07	9980	10025	9980	10021.28	
4.596					9984.38	10020.85	
4.596	1	0.05	9989	10026	9989	10021.64	
4.558					9970.94	10010.66	
4.558	1	0.04	9979	10014	9979	10010.73	
4.536					9981.92	10021.81	
4.536	1	0.01	9992	10036	9992	10022.12	
4.524					9990.66	10021.8	
4.524	1	-0.03	9990	10029	9990.73	10021.43	
4.471					9936.72	10055.94	
4.471	1	0.1	9957	10042	9957	10042	
4.442					9933.49	10097.82	
4.442	1	-0.04	9973	10041	9973	10036.3	
4.386					9976.12	10247.99	
4.386	1	0.22	9977	10084	9977	10084	
4.338					9985.99	10275.12	
4.338	1	-0.03	9984	10174	9986.13	10174	
4.27					9839.43	10015.5	
4.27	1	0.01	9840	10022	9840	10015.51	
4.206					9986.46	10038.93	
4.206	1	-0.02	9979	10054	9986.52	10038.33	
4.152					9920.94	10015.17	
4.152	1	0.02	9921	10014	9921	10014	
4.092					9993.05	10037.8	
4.092	1	-0.05	9992	10040	9993.16	10037.55	
4.052					9990.53	10074.9	
4.052	1	0.1	9991	10074	9991	10074	
3.998					9962.45	10011.92	
3.998	1	-0.04	9979	10011	9979	10011	
3.927					9892.83	10045.07	
3.927	1	0.2	9991	10043	9993.49	10043	
3.837					9977.02	10024.76	
3.837	1	0.06	9984	10017	9984	10017	
3.76					9979.82	10048.14	
3.76	1	0.28	9979	10022	9979.05	10022	
3.681					9937.14	10200.9	
3.681	1	0.28	9942	10093	9942	10093	
3.617					9986.58	10090.03	
3.617	1	0.06	9985	10101	9986.38	10090.38	
3.545					9864.6	10217.62	
3.545	1	0.09	9979	10169	9979.24	10169	
3.464					9979.52	10360.77	
3.464	1	0.52	9980	10120	9980	10120	
3.394					9951.44	10224.31	
3.394	1	0.83	9969	10043	9969	10043	
3.346					9930	10230.73	
3.346	1	0.52	9970	10045	9970	10045	
3.267					9994.68	10238.78	
3.267	1	0.94	9994	10091	9994	10091	
3.208					9971.6	10236.74	
3.208	1	0.55	9988	10073	9988	10073	
3.091					9895.74	10022.66	
3.091	1	0.7	9958	10023	9958	10023	

					9E	
3.021					9839.98	10028.94
3.021	1	0.54	9962	10025	9962	10025
2.966					9895.9	10038.41
2.966	1	0.6	9964	10038	9964	10038
2.892					9870.93	10114.54
2.892	1	0.4	9942	10046	9942	10046
2.815					9944.07	10167.89
2.815	1	0.09	9953	10154	9953	10154
2.74					9865.27	10127.7
2.74	1	0.65	9944	10035	9944	10035
2.688					9901.02	10034.36
2.688	1	0.44	9968	10020	9968	10020
2.647					9896.44	10056.03
2.647	1	0.42	9954	10013	9954	10013
2.577					9981.96	10132.72
2.577	1	0.74	9986	10025	9986	10025
2.511					9940.92	10045.2
2.511	1	0.6	9979	10014	9979	10014
2.452					9976.01	10144.73
2.452	1	0.2	9977	10043	9977	10043
2.382					9895.12	10098.24
2.382	1	0.29	9971	10023	9971	10023
2.321					9908.34	10162.85
2.321	1	0.77	9930	10041	9930	10041
2.256					9900.64	10254.16
2.256	1	0.73	9954	10091	9954	10091
2.202					9930.94	10300.2
2.202	1	0.99	9931	10058	9931	10058
2.155					9920.84	10430.3
2.155	1	0.79	9957	10055	9957	10055
2.036					9976.44	10249
2.036	1	0.52	9978	10069	9978	10069
1.962					9879.91	10092.6
1.962	1	0.59	9958	10041	9958	10041
1.899					9881.14	10023.96
1.899	1	0.51	9969	10018	9969	10018
1.876					9841.31	10018.26
1.876	1	0.46	9940	10014	9940	10014
1.839					9904.46	10085.04
1.839	1	0.94	9980	10037	9980	10037
1.791					9883.65	10137.78
1.791	1	0.65	9967	10016	9967	10016
1.751					9980.96	10100.9
1.751	1	0.51	9979	10013	9979	10013
1.711					9959.96	10076.41
1.711	1	0.52	9980	10013	9980	10013
1.655					9929.19	10078.49
1.655	1	0.45	9979	10018	9979	10018
1.601					9822.33	10079.48
1.601	1	0.89	9985	10027	9985	10027
1.57					9818.23	10166.71
1.57	1	0.79	9975	10020	9975	10020
1.538					9839.12	10176.74
1.538	1	0.67	9983	10031	9983	10031
1.473					9901.98	10210.79
1.473	1	0.9	9964	10070	9964	10070
1.4					9891.55	10213.39
1.4	1	0.52	9980	10066	9980	10066
1.308					9986.65	10276.5
1.308	1	0.77	9986	10083	9986	10083
1.244					9985.97	10366.63
1.244	1	0.93	9985	10164	9985	10164
1.144					9919.69	10451.59
1.144	1	0.51	9927	10096	9927	10096
1.05					9789.22	10145.13
1.05	1	0.2	9949	10139	9980.06	10139
0.979					9640.69	10031.02
0.979	1	0	9878	10034	9889.52	10031.02
0.912					9960.67	10064.8
0.912	1	-0.01	9961	10064	9961	10064

ENCROACHMENT METHOD CHECK

FLOODWAY WIDTH CHECK

RS: 4.666
FW FW 01 Right encroachment station 10012 is less than right channel bank station 10012.39 and greater than the left channel bank station 9971.28
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.666
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.666
FW FW 03 The right channel bank station may not be at the proper location.

RS: 4.652
FW FW 06 The right station effective of 10027.33 for the floodway profile is less than the right channel bank station of 10027.47
The right side of the floodway boundary is within the channel.
The right encroachment station of 10033 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 4.618
FW FW 01 Left encroachment station 9980 is more than left channel bank station 9979.692 and less than the right channel bank station 10020.77
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.618
FW FW 05 The 1% annual chance flood is contained within the channel.
Right encroachment station 10025 is outside the channel.
Right channel bank station is 10020.77
Right encroachment station and/or right channel bank station should be adjusted.

RS: 4.596
FW FW 01 Left encroachment station 9989 is more than left channel bank station 9988.93 and less than the right channel bank station 10016.46
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.596
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.596
FW FW 04 The right station effective of 10020.85 for 1% annual chance floodplain is greater than the right channel bank station (10016.46).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10026) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 4.558
FW FW 06 The right station effective of 10010.73 for the floodway profile is less than the right channel bank station of 10010.76
The right side of the floodway boundary is within the channel.
The right encroachment station of 10014 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 4.536
FW FW 01 Left encroachment station 9992 is more than left channel bank station 9991.66 and less than the right channel bank station 10021.45
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.536
FW FW 04 The right station effective of 10021.81 for 1% annual chance floodplain is greater than the right channel bank station (10021.45).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10036) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 4.524
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.524
FW FW 04 The left station effective of 9990.66 for 1% annual chance floodplain is less than the left channel bank station 9990.678
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9990) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 4.524
FW FW 04 The right station effective of 10021.8 for 1% annual chance floodplain is greater than the right channel bank station (10020.58).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10029) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 4.524
FW FW 06 The left station effective of 9990.73 for the floodway profile is more than the left channel bank station of 9990.678
The left side of the floodway boundary is within the channel.
The left encroachment station of 9990 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 4.471
FW FW 03 The right channel bank station may not be at the proper location.

RS: 4.442
FW FW 03 The right channel bank station may not be at the proper location.

RS: 4.442
FW FW 06 The right station effective of 10036.3 for the floodway profile is less than the right channel bank station of 10037.04
The right side of the floodway boundary is within the channel.
The right encroachment station of 10041 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 4.338
FW FW 06 The left station effective of 9986.13 for the floodway profile is more than the left channel bank station of 9985.906
The left side of the floodway boundary is within the channel.
The left encroachment station of 9984 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 4.206
FW FW 04 The right station effective of 10038.93 for 1% annual chance floodplain is greater than the right channel bank station (10015.74).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10054) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 4.206
FW FW 06 The left station effective of 9986.52 for the floodway profile is more than the left channel bank station of 9983.311

The left side of the floodway boundary is within the channel.
The left encroachment station of 9979 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 4.092
FW FW 04 The right station effective of 10037.8 for 1% annual chance floodplain is greater than the right channel bank station (10037.78).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10040) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 4.092
FW FW 06 The left station effective of 9993.16 for the floodway profile is more than the left channel bank station of 9993.045
The left side of the floodway boundary is within the channel.
The left encroachment station of 9992 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 4.092
FW FW 06 The right station effective of 10037.55 for the floodway profile is less than the right channel bank station of 10037.78
The right side of the floodway boundary is within the channel.
The right encroachment station of 10040 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 4.052
FW FW 01 Left encroachment station 9991 is more than left channel bank station 9990.34 and less than the right channel bank station 10024.02
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.998
FW FW 01 Right encroachment station 10011 is less than right channel bank station 10011.91 and greater than the left channel bank station 9979.99
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.998
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.998
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.927
FW FW 01 Right encroachment station 10043 is less than right channel bank station 10043.3 and greater than the left channel bank station 9992.72
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.927
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.927
FW FW 06 The left station effective of 9993.49 for the floodway profile is more than the left channel bank station of 9992.72
The left side of the floodway boundary is within the channel.
The left encroachment station of 9991 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 3.837
FW FW 01 Left encroachment station 9984 is more than left channel bank station 9983.224 and less than the right channel bank station 10016.9

Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.837
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.837
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.76
FW FW 01 Right encroachment station 10022 is less than right channel bank station 10022.72 and greater than the left channel bank station 9979.818
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.76
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.617
FW FW 04 The right station effective of 10090.03 for 1% annual chance floodplain is greater than the right channel bank station (10039.16).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10101) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 3.617
FW FW 06 The left station effective of 9986.38 for the floodway profile is more than the left channel bank station of 9985.31
The left side of the floodway boundary is within the channel.
The left encroachment station of 9985 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 3.545
FW FW 01 Left encroachment station 9979 is more than left channel bank station 9978.815 and less than the right channel bank station 10016.75
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.394
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.267
FW FW 01 Left encroachment station 9994 is more than left channel bank station 9991.7 and less than the right channel bank station 10019.23
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.091
FW FW 01 Right encroachment station 10023 is less than right channel bank station 10026.03 and greater than the left channel bank station 9958.27
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.091
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.021
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.966
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.647
FW FW 03 The Left channel bank station may not be at the proper

location.

RS: 2.452
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.382
FW FW 01 Right encroachment station 10023 is less than right channel bank station 10023.01 and greater than the left channel bank station 9971.92
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.382
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.256
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.839
FW FW 01 Left encroachment station 9980 is more than left channel bank station 9979.951 and less than the right channel bank station 10037.3
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.839
FW FW 01 Right encroachment station 10037 is less than right channel bank station 10037.3 and greater than the left channel bank station 9979.951
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.655
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.57
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.473
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.308
FW FW 01 Left encroachment station 9986 is more than left channel bank station 9973.414 and less than the right channel bank station 10020.11
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.244
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.979
FW FW 06 The left station effective of 9889.52 for the floodway profile is more than the left channel bank station of 9881.27
The left side of the floodway boundary is within the channel.
The left encroachment station of 9878 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 0.979
FW FW 06 The right station effective of 10031.02 for the floodway profile is less than the right channel bank station of 10031.81
The right side of the floodway boundary is within the channel.
The right encroachment station of 10034 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 0.912
FW FW 01 Left encroachment station 9961 is more than left channel bank

station 9960.87 and less than the right channel bank station 10072.9
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.912
FW FW 01 Right encroachment station 10064 is less than right channel bank station 10072.9 and greater than the left channel bank station 9960.87
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

SURCHARGE CHECK

DISCHARGE CHECK

STARTING WATER-SURFACE ELEVATION CHECK

---END---

9 EAST SPLIT

9E_SPLIT
CHECK-RAS Program: NT Check
Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E_SPLIT.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E_SPLIT.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E_SPLIT.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E_SPLIT.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E_SPLIT.nt
Selected profiles: Floodplain_Split;Floodway_Split
Date: 7/22/2005
Time: 1:45:25 PM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #2,9E-Split						
.421		0.045	0.054	0.045	0.1	0.3
.346		0.045	0.054	0.045	0.1	0.3
.268		0.045	0.054	0.045	0.1	0.3
.169		0.045	0.054	0.045	0.1	0.3
.124		0.045	0.054	0.045	0.1	0.3
.054		0.045	0.054	0.045	0.1	0.3
0		0.045	0.054	0.045	0.1	0.3

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.045	0.045
Right Overbank n Value:	0.045	0.045
Channel n Value:	0.054	0.054
Contraction Coefficient:	0.1	0.1
Expansion Coefficient:	0.3	0.3

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

ROUGHNESS COEFFICIENT CHECK

RS: 0.421
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 0.346
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 0.268
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 0.169
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 0.124
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

RS: 0.054
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.054 The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

ROUGHNESS COEFFICIENT AT STRUCTURES

---END---

9E_SPLIT
CHECK-RAS Program, XS Check
Cross Section Location and Alignment Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E_SPLIT.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E_SPLIT.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E_SPLIT.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E_SPLIT.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E_SPLIT.xs
Selected profiles: Floodplain_Split;Floodway_Split
Date: 7/22/2005
Time: 1:45:25 PM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #2,9E-Split						
.421	362.153	401.646	428.639	225.92	500	
.346	416.802	413.939	412.952	169.1	160	D
.268	461.617	520.371	533.472	185.05	160	D
.169	224.764	237.501	220.361	162.67	160	D
.124	368.699	370.886	355.577	263.69	160	D
.054	310.154	284.863	246.347	164.38	160	D
0	320.193	320.193	320.193	189.68	500	D

split location

B=blocked obstruction XS SC 05
C=critial depth XS SC 03
D=divided flow XS SC 01
E=cross section extended XS SC 02
K=known water-surface XS SC 04

DISTANCE CHECK

SPACING CHECK

INEFFECTIVE FLOW CHECK

DISCHARGE CHECK

RS: 0.346
XS DC 01 Discharge decreases in the downstream direction.

LOCATION CHECK

BOUNDARY CONDITION CHECK

XS BC 02 The name of the stream is Reach #2,9E-Split
Known WS = 1427.66 is specified as the downstream boundary
for profile Floodplain_Split

XS BC 02 The name of the stream is Reach #2,9E-Split
Known WS = 1427.95 is specified as the downstream boundary
for profile Floodway_Split

known wse from wash 9E model.

LATERAL WEIRS CHECK

---END---

9E_SPLIT
CHECK-RAS Program: Floodway Check
Encroachment Method, Starting WSEL, Floodway Width, and Surcharge Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E_SPLIT.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E_SPLIT.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E_SPLIT.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E_SPLIT.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\9E_SPLIT.fw
Selected profiles: Floodplain_Split;Floodway_Split
Date: 7/22/2005
Time: 1:45:27 PM

SECNO	Method	Surcharge	EncStaL	EncStaR	LStaEff	RStaEff	Structure
Reach #2,9E-Split							
0.421					9943.29	10169.21	
0.421	1	0.09	9953	10154	9953	10154	
0.346					9824.77	10017.84	
0.346	1	0.59	9974	10017	9974	10017	
0.268					9802.57	10017.21	
0.268	1	0.84	9949	10017	9949	10017	
0.169					9850.09	10025.93	
0.169	1	0.32	9943	10018	9943	10018	
0.124					9935.53	10223.73	
0.124	1	0.63	9943	10023	9943	10023	
0.054					9959.53	10228.57	
0.054	1	0.39	9981	10046	9981	10035.65	
0					9895.2	10164.15	
0	1	0.29	9971	10023	9971	10023	

ENCROACHMENT METHOD CHECK

FLOODWAY WIDTH CHECK

RS: 0.346
FW FW 01 Right encroachment station 10017 is less than right channel bank station 10017.56 and greater than the left channel bank station 9991.95
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.346
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.268
FW FW 01 Right encroachment station 10017 is less than right channel bank station 10017.47 and greater than the left channel bank station 9970.35
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.124
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.054
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0
FW FW 01 Right encroachment station 10023 is less than right channel bank station 10023.01 and greater than the left channel bank station 9971.92
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0
FW FW 03 The right channel bank station may not be at the proper location.

SURCHARGE CHECK

DISCHARGE CHECK

STARTING WATER-SURFACE ELEVATION CHECK

FW SW 04 The name of the stream is Reach #2
Encroachment method 1 is used.
Total conveyance for the natural profile is 5772
Total conveyance for the floodway profile is 5920.3
The difference in conveyance between the floodway profile and the natural profile is more than 1%.
Normal Depth option with the same energy slope as the natural profile must be used for the floodway profile and rerun the plan.
This message is not applicable for the revisions.

---END---

10 EAST

CHECK-RAS Program: NT Check
Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E\10E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E\10E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E\10E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E\10E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E\10E.nt
Selected profiles: Floodplain;Floodway
Date: 9/7/2005
Time: 11:39:11 AM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #1,10 East (South o						
4.466		0.038	0.052	0.043	0.3	0.5
4.423		0.038	0.052	0.043	0.1	0.3
4.378		0.038	0.052	0.043	0.1	0.3
4.314		0.038	0.052	0.043	0.1	0.3
4.253		0.038	0.052	0.043	0.1	0.3
4.223		0.038	0.052	0.043	0.1	0.3
4.172		0.038	0.052	0.043	0.1	0.3
4.094		0.038	0.052	0.043	0.1	0.3
4.052		0.038	0.052	0.043	0.1	0.3
3.984		0.038	0.052	0.043	0.1	0.3
3.905		0.038	0.052	0.043	0.1	0.3
3.852		0.038	0.052	0.043	0.1	0.3
3.818		0.038	0.052	0.043	0.1	0.3
3.783		0.038	0.052	0.043	0.1	0.3
3.724		0.038	0.052	0.043	0.1	0.3
3.667		0.038	0.052	0.043	0.1	0.3
3.63		0.038	0.052	0.043	0.1	0.3
3.573		0.038	0.052	0.043	0.1	0.3
[redacted]538		0.038	0.052	0.043	0.1	0.3
[redacted]488		0.038	0.052	0.043	0.1	0.3
3.473		0.038	0.052	0.043	0.1	0.3
3.436		0.038	0.052	0.043	0.1	0.3
3.4		0.038	0.052	0.043	0.1	0.3
3.349		0.038	0.052	0.043	0.1	0.3
3.294		0.038	0.052	0.043	0.1	0.3
3.235		0.038	0.052	0.043	0.1	0.3
3.2		0.038	0.052	0.043	0.1	0.3
3.151		0.038	0.052	0.043	0.1	0.3
3.089		0.038	0.052	0.043	0.1	0.3
3.057		0.038	0.052	0.043	0.1	0.3
2.97		0.04	0.049	0.039	0.1	0.3
2.896		0.04	0.049	0.039	0.1	0.3
2.847		0.04	0.049	0.039	0.1	0.3
2.795		0.04	0.049	0.039	0.2	0.4
2.718		0.04	0.049	0.039	0.2	0.4
2.654		0.038	0.051	0.038	0.1	0.3
2.578		0.038	0.051	0.038	0.1	0.3
2.496		0.038	0.051	0.038	0.1	0.3
2.422		0.038	0.051	0.038	0.1	0.3
2.345		0.038	0.051	0.038	0.1	0.3
2.264		0.038	0.051	0.038	0.1	0.3
2.216		0.038	0.051	0.038	0.1	0.3
2.169		0.038	0.051	0.038	0.1	0.3
2.11		0.038	0.051	0.038	0.1	0.3
2.053		0.038	0.051	0.038	0.1	0.3
2.037		0.038	0.051	0.038	0.1	0.3
1.979		0.038	0.051	0.038	0.1	0.3
1.929		0.038	0.051	0.038	0.1	0.3
1.878		0.038	0.051	0.038	0.1	0.3
1.827		0.038	0.051	0.038	0.1	0.3
1.734		0.039	0.05	0.041	0.1	0.3
1.63		0.039	0.05	0.041	0.1	0.3
1.538		0.039	0.05	0.041	0.1	0.3
1.465		0.039	0.05	0.041	0.1	0.3
[redacted]412		0.039	0.05	0.041	0.1	0.3
[redacted]323		0.039	0.05	0.041	0.1	0.3
[redacted]245		0.039	0.05	0.041	0.1	0.3
1.199		0.033	0.047	0.033	0.1	0.3
1.131		0.033	0.047	0.033	0.1	0.3
1.062		0.033	0.047	0.033	0.1	0.3
1.008		0.033	0.047	0.033	0.1	0.3

B/c of outflow @ overcrit

split location at 10E (ES-2)

				10E.nt	
.927	0.033	0.047	0.033	0.1	0.3
.877	0.033	0.047	0.033	0.1	0.3
.793	0.033	0.047	0.033	0.1	0.3
[redacted]733	0.033	0.047	0.033	0.1	0.3
[redacted]66	0.033	0.047	0.033	0.1	0.3
[redacted]596	0.033	0.047	0.033	0.1	0.3
.541	0.033	0.047	0.033	0.1	0.3
.462	0.033	0.047	0.033	0.1	0.3

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.033	0.04
Right Overbank n Value:	0.033	0.043
Channel n Value:	0.047	0.052
Contraction Coefficient:	0.1	0.3
Expansion Coefficient:	0.3	0.5

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

ROUGHNESS COEFFICIENT CHECK

RS: 4.466
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.423
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.378
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.314
[redacted]RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.253
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.223
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.172
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.094
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.052
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.984
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.905
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.852
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.818
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.783
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.724
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.667
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.63
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.573
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.538
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.488
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.473
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.436
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.4
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.349
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.294
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.235
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.2
NT RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

3.151
RC 05 The left overbank n value of 0.038 and the right overbank n value of 0.043 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.089

NT RC 05 The left overbank n value of 0.038 and the right overbank n value
of 0.043 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

[redacted] 3.057
[redacted]RC 05 The left overbank n value of 0.038 and the right overbank n value
of 0.043 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 2.97
NT RC 05 The left overbank n value of 0.04 and the right overbank n value
of 0.039 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

RS: 2.896
NT RC 05 The left overbank n value of 0.04 and the right overbank n value
of 0.039 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

RS: 2.847
NT RC 05 The left overbank n value of 0.04 and the right overbank n value
of 0.039 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

RS: 2.795
NT RC 05 The left overbank n value of 0.04 and the right overbank n value
of 0.039 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

RS: 2.718
NT RC 05 The left overbank n value of 0.04 and the right overbank n value
of 0.039 are less than or equal to the channel n value of 0.049
The overbank n values should be reevaluated.

RS: 2.654
NT RC 05 The left overbank n value of 0.038 and the right overbank n value
of 0.038 are less than or equal to the channel n value of 0.051
The overbank n values should be reevaluated.

[redacted] 2.578
[redacted]C 05 The left overbank n value of 0.038 and the right overbank n value
of 0.038 are less than or equal to the channel n value of 0.051
The overbank n values should be reevaluated.

RS: 2.496
NT RC 05 The left overbank n value of 0.038 and the right overbank n value
of 0.038 are less than or equal to the channel n value of 0.051
The overbank n values should be reevaluated.

RS: 2.422
NT RC 05 The left overbank n value of 0.038 and the right overbank n value
of 0.038 are less than or equal to the channel n value of 0.051
The overbank n values should be reevaluated.

RS: 2.345
NT RC 05 The left overbank n value of 0.038 and the right overbank n value
of 0.038 are less than or equal to the channel n value of 0.051
The overbank n values should be reevaluated.

RS: 2.264
NT RC 05 The left overbank n value of 0.038 and the right overbank n value
of 0.038 are less than or equal to the channel n value of 0.051
The overbank n values should be reevaluated.

RS: 2.216
NT RC 05 The left overbank n value of 0.038 and the right overbank n value
of 0.038 are less than or equal to the channel n value of 0.051
The overbank n values should be reevaluated.

RS: 2.169
NT RC 05 The left overbank n value of 0.038 and the right overbank n value
of 0.038 are less than or equal to the channel n value of 0.051
The overbank n values should be reevaluated.

RS: 2.11
[redacted]RC 05 The left overbank n value of 0.038 and the right overbank n value
[redacted] of 0.038 are less than or equal to the channel n value of 0.051
The overbank n values should be reevaluated.

RS: 2.053
NT RC 05 The left overbank n value of 0.038 and the right overbank n value
of 0.038 are less than or equal to the channel n value of 0.051

The overbank n values should be reevaluated.

RS: 2.037
NT RC 05 The left overbank n value of 0.038 and the right overbank n value
of 0.038 are less than or equal to the channel n value of 0.051
The overbank n values should be reevaluated.

RS: 1.979
NT RC 05 The left overbank n value of 0.038 and the right overbank n value
of 0.038 are less than or equal to the channel n value of 0.051
The overbank n values should be reevaluated.

RS: 1.929
NT RC 05 The left overbank n value of 0.038 and the right overbank n value
of 0.038 are less than or equal to the channel n value of 0.051
The overbank n values should be reevaluated.

RS: 1.878
NT RC 05 The left overbank n value of 0.038 and the right overbank n value
of 0.038 are less than or equal to the channel n value of 0.051
The overbank n values should be reevaluated.

RS: 1.827
NT RC 05 The left overbank n value of 0.038 and the right overbank n value
of 0.038 are less than or equal to the channel n value of 0.051
The overbank n values should be reevaluated.

RS: 1.734
NT RC 05 The left overbank n value of 0.039 and the right overbank n value
of 0.041 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 1.63
NT RC 05 The left overbank n value of 0.039 and the right overbank n value
of 0.041 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 1.538
NT RC 05 The left overbank n value of 0.039 and the right overbank n value
of 0.041 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 1.465
NT RC 05 The left overbank n value of 0.039 and the right overbank n value
of 0.041 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 1.412
NT RC 05 The left overbank n value of 0.039 and the right overbank n value
of 0.041 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 1.323
NT RC 05 The left overbank n value of 0.039 and the right overbank n value
of 0.041 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 1.245
NT RC 05 The left overbank n value of 0.039 and the right overbank n value
of 0.041 are less than or equal to the channel n value of 0.05
The overbank n values should be reevaluated.

RS: 1.199
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.199
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.199
NT RC 05 The left overbank n value of 0.033 and the right overbank n value
of 0.033 are less than or equal to the channel n value of 0.047
The overbank n values should be reevaluated.

1.131
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.131
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

[redacted]: 1.131
NT RC 05 The left overbank n value of 0.033 and the right overbank n value
of 0.033 are less than or equal to the channel n value of 0.047
The overbank n values should be reevaluated.

RS: 1.062
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.062
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.062
NT RC 05 The left overbank n value of 0.033 and the right overbank n value
of 0.033 are less than or equal to the channel n value of 0.047
The overbank n values should be reevaluated.

RS: 1.008
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.008
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.008
NT RC 05 The left overbank n value of 0.033 and the right overbank n value
of 0.033 are less than or equal to the channel n value of 0.047
The overbank n values should be reevaluated.

[redacted] 0.927
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.927
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.927
NT RC 05 The left overbank n value of 0.033 and the right overbank n value
of 0.033 are less than or equal to the channel n value of 0.047
The overbank n values should be reevaluated.

RS: 0.877
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.877
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.877
NT RC 05 The left overbank n value of 0.033 and the right overbank n value
of 0.033 are less than or equal to the channel n value of 0.047
The overbank n values should be reevaluated.

RS: 0.793
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

[redacted] 0.793
[redacted]RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.793
NT RC 05 The left overbank n value of 0.033 and the right overbank n value

of 0.033 are less than or equal to the channel n value of 0.047
The overbank n values should be reevaluated.

RS: 0.733
[redacted]C 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.733
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.733
NT RC 05 The left overbank n value of 0.033 and the right overbank n value
of 0.033 are less than or equal to the channel n value of 0.047
The overbank n values should be reevaluated.

RS: 0.656
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.656
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.656
NT RC 05 The left overbank n value of 0.033 and the right overbank n value
of 0.033 are less than or equal to the channel n value of 0.047
The overbank n values should be reevaluated.

RS: 0.596
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.596
[redacted]C 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.596
NT RC 05 The left overbank n value of 0.033 and the right overbank n value
of 0.033 are less than or equal to the channel n value of 0.047
The overbank n values should be reevaluated.

RS: 0.541
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.541
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.541
NT RC 05 The left overbank n value of 0.033 and the right overbank n value
of 0.033 are less than or equal to the channel n value of 0.047
The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

RS: 4.466
NT TL 02 Contraction and expansion loss coefficients are 0.3 and 0.5
respectively. However, this cross section is not at the structure.
They should be equal to 0.1 and 0.3.

RS: 2.795
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4
respectively. However, this cross section is not at the structure.
They should be equal to 0.1 and 0.3.

[redacted] 2.718
[redacted]TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4
respectively. However, this cross section is not at the structure.
They should be equal to 0.1 and 0.3.

ROUGHNESS COEFFICIENT AT STRUCTURES

---END---

CHECK-RAS Program, XS Check
Cross Section Location and Alignment Review

[redacted]ect File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-[redacted]draulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E\10E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E\10E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E\10E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E\10E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E\10E.xs
Selected profiles: Floodplain;Floodway
Date: 9/7/2005
Time: 11:39:11 AM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #1,10 East (South o						
4.466	221.943	228.771	233.485	45.68	220	
4.423	239.748	238.931	232.989	33.34	220	D
4.378	337.823	338.046	346.769	60.47	220	D
4.314	320.014	324.447	325.834	74.65	220	D
4.253	195.504	158.656	135.925	109.03	220	
4.223	260.161	268.085	276.631	40.3	140	
4.172	412.379	413.393	411.972	55.39	140	
4.094	232.244	222.151	210.09	49.59	140	
4.052	352.903	361.104	369.912	64.66	140	
3.984	404.273	419.139	430.821	54.84	140	D
3.905	272.055	278.233	276.237	144.27	140	D
3.852	178.457	178.791	184.027	128.05	140	
3.818	173.291	186.836	187.875	66.3	140	D, C (S/C)
3.783	300.793	311.773	306.726	59.75	250	
3.724	312.943	300.96	296.14	116.12	250	
3.667	199.596	196.996	194.176	33.53	250	C (S/C)
3.63	302.807	301.373	296.287	118.8	250	
[redacted]3	180.239	183.03	186.164	18.39	250	
[redacted]8	266.164	262.609	256.675	37.91	300	
3.488	78.651	77.027	86.855	39.87	300	
3.473	200.815	194.996	190.603	57.42	300	D
3.436	187.231	192.514	202.386	37.76	300	
3.4	265.067	267.105	262.892	75.96	300	D
3.349	277.97	291.147	300.479	79.34	300	
3.294	308.859	310.761	311.927	35.15	300	
3.235	193.143	186.814	175.484	61.18	300	
3.2	240.523	259.132	265.82	22.51	300	
3.151	328.775	327.833	329.334	44.02	300	
3.089	168.675	170.917	168.695	41.24	300	
3.057	470.186	460.351	457.297	104.64	370	
2.97	374.797	388.097	399.656	63.53	370	
2.896	250.656	256.456	254.66	157.75	370	D
2.847	284.567	274.21	274.21	146.26	370	D
2.795	427.692	406.56	312.752	242.57	370	
2.718	342.542	335.772	335.146	132.43	230	C (S/C)
2.654	402.923	403.511	404.605	22.66	230	
2.578	429.476	434.128	434.336	41.02	230	
2.496	388.264	393.255	393.252	42.37	230	
2.422	415.138	408.021	404.759	36	230	
2.345	422.813	429.69	440.252	40.01	290	
2.264	259.829	253.099	245.863	52.65	290	
2.216	244.976	248.942	254.9	82.65	290	
2.169	313.104	310.282	308.655	56.06	290	
2.11	319.244	302.342	286.367	113.28	290	
2.053	75.314	84.48	97.528	60.16	290	
2.037	292.836	304.342	318.546	30.64	290	C (S/C)
1.979	272.662	262.423	249.766	64.2	290	
1.929	263.928	266.93	281.905	64.32	290	
1.878	275.763	266.967	268.91	119.42	290	
1.827	491.454	493.265	496.199	186.9	290	
1.734	527.004	548.4	548.922	184.97	290	
1.63	470.82	483.915	492.459	200.46	290	
1.538	394.185	384.782	371.191	151.65	290	D
[redacted]65	270.656	277.963	279.362	186.27	290	D
[redacted]2	454.367	468.592	476.181	168.95	440	
1.323	401.224	411.699	413.821	282.83	440	
1.245	233.132	242.141	247.735	217.81	440	
1.199	339.837	358.133	368.257	257.25	440	
1.131	370.512	362.767	356.663	299.65	440	D
1.062	299.886	286.249	276.137	421.63	440	D

					10E.xs	
1.008	437.007	428.211	424.691	263.18	440	D
.927	264.633	266.152	235.633	230.42	440	D
.877	433.787	443.519	469.498	218.29	440	D
[redacted]	286.016	317.006	333.138	344.63	440	D
[redacted]	400.586	408.43	443.39	383.48	440	D
[redacted]	322.174	316.111	317.018	316.45	440	D
.596	304.964	292.972	265.216	143.47	440	
.541	423.907	416.886	418.745	318.52	440	
.462	0	0	0	540.69	440	D

B=blocked obstruction
C=critial depth
D=divided flow
E=cross section extended
K=known water-surface

XS SC 05
XS SC 03
XS SC 01
XS SC 02
XS SC 04

DISTANCE CHECK

SPACING CHECK

INEFFECTIVE FLOW CHECK

DISCHARGE CHECK

RS: 4.314
XS DC 05 There is no flow on the right overbank at the downstream cross section. There is no flow on the left overbank at this section.

RS: 4.223
XS DC 01 Discharge decreases in the downstream direction.

[redacted] 3.349
XS DC 04 There is no flow on the left overbank at the downstream cross section. There is no flow on the right overbank at this section.

RS: 2.718
XS DC 01 Discharge decreases in the downstream direction.

LOCATION CHECK

RS: 3.852
XS LC 01 Lenchl Up/TopwdthAct Dn = 2.70
MaxChlDpth Up/MaxChlDpth Dn = 1.33
TopwdthAct Up/TopwdthAct Dn = 1.93
This cross section is located too far upstream from the critical depth cross section.

RS: 3.724
XS LC 01 Lenchl Up/TopwdthAct Dn = 8.98
MaxChlDpth Up/MaxChlDpth Dn = 1.21
TopwdthAct Up/TopwdthAct Dn = 3.46
This cross section is located too far upstream from the critical depth cross section.

RS: 2.795
XS LC 01 Lenchl Up/TopwdthAct Dn = 3.07
MaxChlDpth Up/MaxChlDpth Dn = 1.11
TopwdthAct Up/TopwdthAct Dn = 1.83
This cross section is located too far upstream from the critical depth cross section.

BOUNDARY CONDITION CHECK

[redacted]C 02 The name of the stream is Reach #1,10 East (South o
Normal S = 0.0033 is specified as the downstream boundary for profile Floodplain

XS BC 02 The name of the stream is Reach #1,10 East (South o
Normal S = 0.0033 is specified as the downstream boundary

for profile Floodway

LATERAL WEIRS CHECK

---END---

CHECK-RAS Program: Floodway Check
Encroachment Method, Starting WSEL, Floodway Width, and Surcharge Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E\10E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E\10E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E\10E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E\10E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E\10E.fw
Selected profiles: Floodplain;Floodway
Date: 9/7/2005
Time: 11:39:13 AM

SECNO	Method	Surcharge	EncStaL	EncStaR	LStaEff	RStaEff	Structure
Reach #1,10 East (South o							
4.466					9980.4	10026.08	
4.466	1	0.04	9983	10015	9983	10015	
4.423					9984.57	10048.63	
4.423	1	0.23	9983	10024	9983.17	10008.77	
4.378					9952.18	10012.86	
4.378	1	0.07	9971	10010	9971	10010	
4.314					9986.04	10080.96	
4.314	1	0.43	9985	10022	9985	10022	
4.253					9910.43	10019.45	
4.253	1	0.2	9973	10019	9973	10019	
4.223					9982.01	10022.31	
4.223	1	0.12	9984	10013	9984	10013	
4.172					9983.22	10038.61	
4.172	1	-0.02	9985	10011	9985	10011	
4.094					9972.06	10021.65	
4.094	1	0.18	9976	10006	9976	10006	
4.052					9990.03	10054.69	
4.052	1	0.02	9991	10010	9991	10010	
[redacted]984					9934.4	10029.58	
[redacted]984	1	0.2	9976	10016	9976	10016	
3.905					9959.6	10111.48	
3.905	1	0.57	9972	10010	9972	10010	
3.852					9991.96	10120.01	
3.852	1	0.53	9992	10029	9992	10029	
3.818					9990.23	10079.59	
3.818	1	0.48	9992	10011	9992	10011	
3.783					9963.68	10023.43	
3.783	1	0.4	9989	10020	9989	10020	
3.724					9930	10046.12	
3.724	1	0.28	9977	10024	9977	10024	
3.667					9987.04	10020.57	
3.667	1	0	9987	10020	9987.05	10020	
3.63					9908.63	10027.43	
3.63	1	0.18	9974	10010	9974	10010	
3.573					9993.56	10011.95	
3.573	1	0	9974	10070	9993.56	10011.96	
3.538					9990.35	10028.26	
3.538	1	0	9990	10026	9990.35	10026	
3.488					9980.5	10020.38	
3.488	1	0.08	9974	10020	9980.02	10020	
3.473					9966.67	10028.38	
3.473	1	0.02	9977	10008	9977	10008	
3.436					9991.97	10029.73	
3.436	1	0.07	9992	10040	9992	10030.36	
3.4					9977.3	10061.1	
3.4	1	0.21	9981	10045	9981	10045	
3.349					9936.2	10015.54	
3.349	1	0.15	9973	10016	9973	10016	
3.294					9979.96	10015.1	
3.294	1	0.02	9977	10015	9979.86	10015	
3.235					9988.78	10049.96	
3.235	1	0.01	9983	10045	9988.77	10045	
3.2					9990.58	10013.09	
3.2	1	0.07	9991	10013	9991	10013	
[redacted]151					9967.14	10011.16	
[redacted]151	1	0.01	9971	10008	9971	10008	
[redacted]089					9972.48	10013.72	
3.089	1	0.17	9974	10013	9974	10013	
3.057					9946.7	10051.33	
3.057	1	0.08	9980	10014	9980	10014	
2.97					9976.27	10039.8	

2.97	1	0.18	9980	10015	9980	10015
2.896					9928.3	10086.53
2.896	1	0.02	9968	10039	9968	10039
[illegible]847					9975.83	10130.22
[illegible]847	1	0.17	9976	10054	9976	10054
[illegible]795					9909.36	10151.93
2.795	1	0.45	9945	10022	9945	10022
2.718					9975.44	10107.87
2.718	1	0.04	9977	10053	9977	10053
2.654					9983.83	10006.48
2.654	1	0.01	9987	10007	9987	10006.51
2.578					9977.61	10018.63
2.578	1	-0.01	9977	10019	9977.67	10018.62
2.496					9978.43	10020.8
2.496	1	0.01	9979	10021	9979	10020.9
2.422					9990.35	10026.36
2.422	1	-0.01	9990	10026	9990.41	10026
2.345					9988.2	10028.21
2.345	1	0.04	9990	10024	9990	10024
2.264					9976.67	10029.32
2.264	1	0.05	9980	10026	9980	10026
2.216					9985.16	10067.81
2.216	1	0	9987	10058	9987	10058
2.169					9973.3	10029.36
2.169	1	0.02	9969	10034	9973.17	10029.44
2.11					9953.04	10066.32
2.11	1	0.13	9960	10055	9960	10055
2.053					9970.45	10030.61
2.053	1	0.09	9989	10032	9989	10031.07
2.037					9994.72	10025.36
2.037	1	0.02	9985	10035	9994.68	10025.45
1.979					9961.37	10025.57
1.979	1	0.07	9963	10016	9963	10016
1.929					9984.18	10048.51
1.929	1	0.01	9986	10036	9986	10036
1.878					9923.39	10042.81
1.878	1	0.13	9955	10036	9955	10036
1.827					9932.8	10119.7
1.827	1	0.55	9972	10041	9972	10041
[illegible]734					9836.9	10021.88
[illegible]734	1	0.88	9970	10027	9970	10027
1.63					9851.55	10052.01
1.63	1	0.76	9969	10054	9969	10054
1.538					9866.61	10025.15
1.538	1	0.84	9985	10018	9985	10018
1.465					9973.23	10161.31
1.465	1	0.25	9980	10031	9980	10031
1.412					9892.4	10061.35
1.412	1	0.58	9974	10042	9974	10042
1.323					9842.58	10125.4
1.323	1	0.87	9959	10023	9959	10023
1.245					9801.16	10018.98
1.245	1	0.98	9950	10019	9950	10019
1.199					9770.02	10027.26
1.199	1	0.58	9949	10030	9949	10030
1.131					9645.88	10053.53
1.131	1	0.99	9925	10053	9925	10053
1.062					9600.59	10055.93
1.062	1	0.72	9974	10056	9974	10056
1.008					9749.27	10116.5
1.008	1	0.79	9979	10078	9979	10078
0.927					9808.23	10048.72
0.927	1	0.78	9931	10023	9931	10023
0.877					9863.14	10089.91
0.877	1	0.91	9938	10028	9938	10028
0.793					9844.05	10232
0.793	1	0.83	9991	10046	9991	10046
0.733					9822.01	10254.09
0.733	1	0.44	9968	10030	9968	10030
0.656					9777.92	10103.47
0.656	1	0.17	9965	10018	9965	10018
0.596					9917.64	10061.11
0.596	1	0.39	9952	10049	9952	10049
0.541					9720.41	10038.93
0.541	1	0.82	9900	10038	9900	10038
[illegible]462					9680.46	10362.25
[illegible]462	1	0.98	9906	10098	9906	10098

ENCROACHMENT METHOD CHECK

FLOODWAY WIDTH CHECK

RS: 4.466
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.423
FW FW 01 Left encroachment station 9983 is more than left channel bank station 9975.44 and less than the right channel bank station 10024.37
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.423
FW FW 01 Right encroachment station 10024 is less than right channel bank station 10024.37 and greater than the left channel bank station 9975.44
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.378
FW FW 01 Left encroachment station 9971 is more than left channel bank station 9970.77 and less than the right channel bank station 10010.43
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.378
FW FW 01 Right encroachment station 10010 is less than right channel bank station 10010.43 and greater than the left channel bank station 9970.77
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.378
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.314
FW FW 01 Left encroachment station 9985 is more than left channel bank station 9984.94 and less than the right channel bank station 10021.97
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.253
FW FW 01 Left encroachment station 9973 is more than left channel bank station 9972.85 and less than the right channel bank station 10018.52
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.223
FW FW 01 Right encroachment station 10013 is less than right channel bank station 10013.45 and greater than the left channel bank station 9984.24
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.223
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.172
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.984
FW FW 01 Left encroachment station 9976 is more than left channel bank station 9975.51 and less than the right channel bank station 10015.76
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.905
FW FW 01 Left encroachment station 9972 is more than left channel bank station 9971.73 and less than the right channel bank station 10010.42
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

3.905
FW 01 Right encroachment station 10010 is less than right channel bank station 10010.42 and greater than the left channel bank station 9971.73
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.852

FW FW 01 Left encroachment station 9992 is more than left channel bank station 9991.93 and less than the right channel bank station 10028.7
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.852
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.783
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.724
FW FW 01 Right encroachment station 10024 is less than right channel bank station 10024.33 and greater than the left channel bank station 9977.47
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.724
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.667
FW FW 04 The left station effective of 9987.04 for 1% annual chance floodplain is less than the left channel bank station 9987.053
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9987) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 3.63
FW FW 01 Right encroachment station 10010 is less than right channel bank station 10010.18 and greater than the left channel bank station 9974.456
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.573
FW FW 05 The 1% annual chance flood is contained within the channel.
Left encroachment station 9974 is outside the channel.
Left channel bank station is 9992.386
Left encroachment station and/or left channel bank station should be adjusted.

RS: 3.573
FW FW 05 The 1% annual chance flood is contained within the channel.
Right encroachment station 10070 is outside the channel.
Right channel bank station is 10027.95
Right encroachment station and/or right channel bank station should be adjusted.

RS: 3.573
FW FW 06 The left station effective of 9993.56 for the floodway profile is more than the left channel bank station of 9992.386
The left side of the floodway boundary is within the channel.
The left encroachment station of 9974 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 3.573
FW FW 06 The right station effective of 10011.96 for the floodway profile is less than the right channel bank station of 10027.95
The right side of the floodway boundary is within the channel.
The right encroachment station of 10070 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 3.538
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.538
FW FW 04 The left station effective of 9990.35 for 1% annual chance floodplain is less than the left channel bank station 9990.42
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9990) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 3.488
FW FW 06 The left station effective of 9980.02 for the floodway profile is more than the left channel bank station of 9974.51

The left side of the floodway boundary is within the channel.
The left encroachment station of 9974 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 3.436
FW FW 01 Left encroachment station 9992 is more than left channel bank station 9991.631 and less than the right channel bank station 10029.23
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.436
FW FW 04 The right station effective of 10029.73 for 1% annual chance floodplain is greater than the right channel bank station (10029.23).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10040) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 3.4
FW FW 01 Left encroachment station 9981 is more than left channel bank station 9980.61 and less than the right channel bank station 10013.77
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.4
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.349
FW FW 01 Right encroachment station 10016 is less than right channel bank station 10016.05 and greater than the left channel bank station 9975.24
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.294
FW FW 03 The right channel bank station may not be at the proper location.

3.294
FW FW 06 The left station effective of 9979.86 for the floodway profile is more than the left channel bank station of 9977.36
The left side of the floodway boundary is within the channel.
The left encroachment station of 9977 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 3.235
FW FW 01 Right encroachment station 10045 is less than right channel bank station 10045.42 and greater than the left channel bank station 9988.819
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.235
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.235
FW FW 04 The left station effective of 9988.78 for 1% annual chance floodplain is less than the left channel bank station 9988.819
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9983) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 3.2
FW FW 01 Left encroachment station 9991 is more than left channel bank station 9990.584 and less than the right channel bank station 10013.3
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.2
FW FW 01 Right encroachment station 10013 is less than right channel bank station 10013.3 and greater than the left channel bank station 9990.584
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.151
FW FW 01 Left encroachment station 9971 is more than left channel bank station 9970.83 and less than the right channel bank station 10008.38

Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

3.151
[redacted]W 01 Right encroachment station 10008 is less than right channel bank station 10008.38 and greater than the left channel bank station 9970.83
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.151
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.089
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.057
FW FW 01 Left encroachment station 9980 is more than left channel bank station 9979.74 and less than the right channel bank station 10013.82
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.97
FW FW 01 Right encroachment station 10015 is less than right channel bank station 10015.28 and greater than the left channel bank station 9980.1
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.97
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.896
FW FW 01 Left encroachment station 9968 is more than left channel bank station 9967.56 and less than the right channel bank station 10038.87
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

2.896
[redacted]FW 03 The right channel bank station may not be at the proper location.

RS: 2.847
FW FW 01 Left encroachment station 9976 is more than left channel bank station 9975.56 and less than the right channel bank station 10054.32
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.847
FW FW 01 Right encroachment station 10054 is less than right channel bank station 10054.32 and greater than the left channel bank station 9975.56
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.795
FW FW 01 Left encroachment station 9945 is more than left channel bank station 9944.97 and less than the right channel bank station 10022.39
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.795
FW FW 01 Right encroachment station 10022 is less than right channel bank station 10022.39 and greater than the left channel bank station 9944.97
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.718
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.718
FW FW 03 The right channel bank station may not be at the proper location.

2.654
[redacted]FW 06 The right station effective of 10006.51 for the floodway profile is less than the right channel bank station of 10006.92
The right side of the floodway boundary is within the channel.
The right encroachment station of 10007 is greater than the right channel bank station.
The right encroachment station should be the same as the right

channel bank station.

RS: 2.578
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.578
FW FW 04 The left station effective of 9977.61 for 1% annual chance floodplain is less than the left channel bank station 9979.11
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9977) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 2.578
FW FW 04 The right station effective of 10018.63 for 1% annual chance floodplain is greater than the right channel bank station (10018.62).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10019) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 2.496
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.496
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.496
FW FW 04 The right station effective of 10020.8 for 1% annual chance floodplain is greater than the right channel bank station (10020.33).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10021) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 2.422
FW 03 The right channel bank station may not be at the proper location.

RS: 2.422
FW FW 04 The left station effective of 9990.35 for 1% annual chance floodplain is less than the left channel bank station 9993.64
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9990) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 2.345
FW FW 01 Left encroachment station 9990 is more than left channel bank station 9989.95 and less than the right channel bank station 10024.17
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.345
FW FW 01 Right encroachment station 10024 is less than right channel bank station 10024.17 and greater than the left channel bank station 9989.95
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.345
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.264
FW FW 01 Left encroachment station 9980 is more than left channel bank station 9979.99 and less than the right channel bank station 10026.16
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.264
FW FW 01 Right encroachment station 10026 is less than right channel bank station 10026.16 and greater than the left channel bank station 9979.99
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.264
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.264
FW FW 03 The right channel bank station may not be at the proper location.

[redacted] 2.216
[redacted]FW 03 The Left channel bank station may not be at the proper location.

RS: 2.169
FW FW 01 Left encroachment station 9969 is more than left channel bank station 9968.8 and less than the right channel bank station 10033.58
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.169
FW FW 05 The 1% annual chance flood is contained within the channel.
Right encroachment station 10034 is outside the channel.
Right channel bank station is 10033.58
Right encroachment station and/or right channel bank station should be adjusted.

RS: 2.169
FW FW 06 The right station effective of 10029.44 for the floodway profile is less than the right channel bank station of 10033.58
The right side of the floodway boundary is within the channel.
The right encroachment station of 10034 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 2.053
FW FW 01 Right encroachment station 10032 is less than right channel bank station 10032.03 and greater than the left channel bank station 9989.34
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.053
FW FW 03 The Left channel bank station may not be at the proper location.

[redacted] 2.037
[redacted]FW 01 Right encroachment station 10035 is less than right channel bank station 10035.51 and greater than the left channel bank station 9985.33
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.037
FW FW 05 The 1% annual chance flood is contained within the channel.
Left encroachment station 9985 is outside the channel.
Left channel bank station is 9985.33
Left encroachment station and/or left channel bank station should be adjusted.

RS: 2.037
FW FW 06 The left station effective of 9994.68 for the floodway profile is more than the left channel bank station of 9985.33
The left side of the floodway boundary is within the channel.
The left encroachment station of 9985 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 1.979
FW FW 01 Left encroachment station 9963 is more than left channel bank station 9962.76 and less than the right channel bank station 10016.33
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.979
FW FW 01 Right encroachment station 10016 is less than right channel bank station 10016.33 and greater than the left channel bank station 9962.76
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.979
FW FW 03 The Left channel bank station may not be at the proper location.

[redacted] 1.979
[redacted]FW 03 The right channel bank station may not be at the proper location.

RS: 1.929
FW FW 03 The right channel bank station may not be at the proper

location.

RS: 1.878
[redacted] FW 01 Left encroachment station 9955 is more than left channel bank station 9954.54 and less than the right channel bank station 10036.17
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.878
FW FW 01 Right encroachment station 10036 is less than right channel bank station 10036.17 and greater than the left channel bank station 9954.54
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.878
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.827
FW FW 01 Left encroachment station 9972 is more than left channel bank station 9971.719 and less than the right channel bank station 10040.61
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.734
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.63
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.465
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.412
FW FW 03 The right channel bank station may not be at the proper location.

[redacted] 1.323
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.245
FW FW 04 The right station effective of 10018.98 for 1% annual chance floodplain is greater than the right channel bank station (10018.97).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10019) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 1.062
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.062
FW FW 04 The right station effective of 10055.93 for 1% annual chance floodplain is greater than the right channel bank station (10037.15).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10056) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 1.008
FW FW 01 Left encroachment station 9979 is more than left channel bank station 9978.64 and less than the right channel bank station 10029.79
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.877
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.877
[redacted] FW 03 The right channel bank station may not be at the proper location.

RS: 0.793
FW FW 01 Left encroachment station 9991 is more than left channel bank station 9990.68 and less than the right channel bank station 10023.22
Left encroachment station is within the channel.

The encroachment station or channel bank station should be adjusted.

RS: 0.733
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.656
FW FW 01 Right encroachment station 10018 is less than right channel bank station 10018.29 and greater than the left channel bank station 9965.48
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.596
FW FW 01 Left encroachment station 9952 is more than left channel bank station 9951.91 and less than the right channel bank station 10049.42
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.596
FW FW 01 Right encroachment station 10049 is less than right channel bank station 10049.42 and greater than the left channel bank station 9951.91
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.596
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.541
FW FW 01 Right encroachment station 10038 is less than right channel bank station 10079.51 and greater than the left channel bank station 9915.253
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.541
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.462
FW FW 01 Right encroachment station 10098 is less than right channel bank station 10098.11 and greater than the left channel bank station 9963.813
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

SURCHARGE CHECK

DISCHARGE CHECK

STARTING WATER-SURFACE ELEVATION CHECK

---END---

10 EAST (EAST SPLIT-1)

CHECK-RAS Program: NT Check
Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\10ES1.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\10ES1.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\10ES1.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\10ES1.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\10ES1.nt
Selected profiles: Floodplain;Floodway
Date: 7/15/2005
Time: 11:03:06 AM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #1,10 East-East Spl						
.85		0.037	0.042	0.035	0.1	0.3
.83		0.037	0.042	0.035	0.1	0.3
.76		0.037	0.042	0.035	0.1	0.3
.72		0.037	0.042	0.035	0.1	0.3
.64		0.037	0.042	0.035	0.1	0.3
.57		0.037	0.042	0.035	0.1	0.3
.51		0.037	0.042	0.035	0.1	0.3
.45		0.037	0.042	0.035	0.1	0.3
.4		0.037	0.042	0.035	0.1	0.3
.34		0.037	0.042	0.035	0.1	0.3
.29		0.037	0.042	0.035	0.1	0.3
.22		0.037	0.042	0.035	0.1	0.3
.16		0.037	0.042	0.035	0.1	0.3
.13		0.037	0.042	0.035	0.1	0.3
.1		0.037	0.042	0.035	0.1	0.3

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.037	0.037
Right Overbank n Value:	0.035	0.035
Channel n Value:	0.042	0.042
Contraction Coefficient:	0.1	0.1
Expansion Coefficient:	0.3	0.3

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

ROUGHNESS COEFFICIENT CHECK

RS: 0.85
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.042 The overbank n values should be reevaluated.

RS: 0.83
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.042 The overbank n values should be reevaluated.

RS: 0.76
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.042 The overbank n values should be reevaluated.

RS: 0.72
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.042 The overbank n values should be reevaluated.

RS: 0.64
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.042 The overbank n values should be reevaluated.

RS: 0.57
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.042

The overbank n values should be reevaluated.

RS: 0.51
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.042 The overbank n values should be reevaluated.

RS: 0.45
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.042 The overbank n values should be reevaluated.

RS: 0.4
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.042 The overbank n values should be reevaluated.

RS: 0.34
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.042 The overbank n values should be reevaluated.

RS: 0.29
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.042 The overbank n values should be reevaluated.

RS: 0.22
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.042 The overbank n values should be reevaluated.

RS: 0.16
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.042 The overbank n values should be reevaluated.

RS: 0.13
NT RC 05 The left overbank n value of 0.037 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.042 The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

ROUGHNESS COEFFICIENT AT STRUCTURES

---END---

CHECK-RAS Program, XS Check
Cross Section Location and Alignment Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\10ES1.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\10ES1.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\10ES1.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\10ES1.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\10ES1.xs
Selected profiles: Floodplain;Floodway
Date: 7/15/2005
Time: 11:03:07 AM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #1,10 East-East Spl						
.85	90.867	105.025	114.604	106.19	220	
.83	362.414	353.15	334.415	53.16	100	D
.76	210.832	208.549	210.249	124.91	100	D
.72	443.11	439.444	427.711	156.55	100	D
.64	389.491	383.475	386.905	26.89	100	D,C (SK)
.57	300.603	298.574	296.993	44.64	100	
.51	330.703	324.884	322.07	22.08	100	
.45	245.619	249.706	253.907	22.24	100	
.4	306.459	295.779	297.583	20.35	100	
.34	277.378	276.045	281.306	48.96	100	
.29	386.563	381.332	384.251	19.19	100	
.22	344.064	330.464	330.722	72.98	100	
.16	222.205	244.108	260.582	21.02	100	D,C (SK)
.13	137.688	138.723	138.509	18.45	100	
.1	0	0	0	21.23	100	

B=blocked obstruction XS SC 05
C=critial depth XS SC 03
D=divided flow XS SC 01
E=cross section extended XS SC 02
K=known water-surface XS SC 04

DISTANCE CHECK

SPACING CHECK

INEFFECTIVE FLOW CHECK

DISCHARGE CHECK

RS: 0.83
XS DC 01 Discharge decreases in the downstream direction.

RS: 0.72
XS DC 05 There is no flow on the right overbank at the downstream cross section. There is no flow on the left overbank at this section.

RS: 0.64
XS DC 04 There is no flow on the left overbank at the downstream cross section. There is no flow on the right overbank at this section.

RS: 0.57
XS DC 05 There is no flow on the right overbank at the downstream cross section. There is no flow on the left overbank at this section.

LOCATION CHECK

BOUNDARY CONDITION CHECK

XS BC 02 The name of the stream is Reach #1,10 East-East Spl
Normal S = 0.0121 is specified as the downstream boundary
for profile Floodplain

XS BC 02 The name of the stream is Reach #1,10 East-East Spl
Normal S = 0.0121 is specified as the downstream boundary
for profile Floodway

LATERAL WEIRS CHECK

---END---

10ES1

CHECK-RAS Program: Floodway Check

Encroachment Method, Starting WSEL, Floodway Width, and Surcharge Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\10ES1.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\10ES1.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\10ES1.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\10ES1.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\10ES1.fw
Selected profiles: Floodplain;Floodway
Date: 7/15/2005
Time: 11:03:08 AM

SECNO	Method	Surcharge	EncStaL	EncStaR	LStaEff	RStaEff	Structure
Reach #1,10 East-East Spl							
0.85					9911.62	10017.81	
0.85	1	0.45	9972	10019	9972	10019	
0.83					9908.67	10035.18	
0.83	1	0.98	9992	10037	9992	10037	
0.76					9980.47	10150.88	
0.76	1	0.92	9986	10019	9986	10019	
0.72					9973.37	10147.09	
0.72	1	0.65	9973	10017	9973	10017	
0.64					9976.02	10008.34	
0.64	1	0.19	9992	10019	9992.34	10009.46	
0.57					9990.5	10035.14	
0.57	1	0	9991	10026	9991	10026	
0.51					9987.89	10009.98	
0.51	1	0.03	9988	10010	9988	10010	
0.45					9989.26	10011.5	
0.45	1	-0.03	9991	10011	9991	10011	
0.4					9989.46	10009.81	
0.4	1	0.06	9989	10009	9989.18	10009	
0.34					9967.41	10016.36	
0.34	1	0	9976	10008	9976	10008	
0.29					9990.61	10009.8	
0.29	1	0.07	9992	10009	9992	10009	
0.22					9959.24	10032.22	
0.22	1	0.11	9989	10018	9989	10018	
0.16					9990.7	10016.4	
0.16	1	0	9933	10050	9990.7	10016.4	
0.13					9997.69	10016.14	
0.13	1	0	9992	10017	9997.7	10016.14	
0.1					9988.25	10009.48	
0.1	1	0	9981	10014	9988.25	10009.48	

ENCROACHMENT METHOD CHECK

FLOODWAY WIDTH CHECK

RS: 0.83
FW FW 01 Right encroachment station 10037 is less than right channel bank station 10037.29 and greater than the left channel bank station 9992.49
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.76
FW FW 01 Left encroachment station 9986 is more than left channel bank station 9985.75 and less than the right channel bank station 10011.73
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.72
FW FW 01 Left encroachment station 9973 is more than left channel bank station 9951.801 and less than the right channel bank station 10004.6
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.64
FW FW 01 Left encroachment station 9992 is more than left channel bank station 9991.6 and less than the right channel bank station 10019.46
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.64
FW FW 01 Right encroachment station 10019 is less than right channel bank station 10019.46 and greater than the left channel bank station 9991.6
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.57
FW FW 01 Left encroachment station 9991 is more than left channel bank station 9990.55 and less than the right channel bank station 10025.5
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.57
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.51
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.51
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.51
FW FW 04 The right station effective of 10009.98 for 1% annual chance floodplain is greater than the right channel bank station (10009.94).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10010) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 0.45
FW FW 01 Right encroachment station 10011 is less than right channel bank station 10011.08 and greater than the left channel bank station 9991.08
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.45
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.4
FW FW 01 Right encroachment station 10009 is less than right channel bank station 10009.8 and greater than the left channel bank station 9989.525
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.4
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.4
FW FW 04 The left station effective of 9989.46 for 1% annual chance floodplain is less than the left channel bank station 9989.525
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9989) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 0.34
FW FW 01 Right encroachment station 10008 is less than right channel bank station 10008.1 and greater than the left channel bank station 9976.96
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.34
FW FW 03 The Left channel bank station may not be at the proper

location.

RS: 0.34
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.29
FW FW 01 Right encroachment station 10009 is less than right channel bank station 10009.37 and greater than the left channel bank station 9992.06
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.29
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.22
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.16
FW FW 04 The right station effective of 10016.4 for 1% annual chance floodplain is greater than the right channel bank station (10011.1).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10050) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 0.16
FW FW 06 The left station effective of 9990.7 for the floodway profile is more than the left channel bank station of 9990.01
The left side of the floodway boundary is within the channel.
The left encroachment station of 9933 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 0.13
FW FW 01 Left encroachment station 9992 is more than left channel bank station 9991.95 and less than the right channel bank station 10017.42
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.13
FW FW 01 Right encroachment station 10017 is less than right channel bank station 10017.42 and greater than the left channel bank station 9991.95
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.1
FW FW 01 Left encroachment station 9981 is more than left channel bank station 9980.69 and less than the right channel bank station 10013.32
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.1
FW FW 05 The 1% annual chance flood is contained within the channel.
Right encroachment station 10014 is outside the channel.
Right channel bank station is 10013.32
Right encroachment station and/or right channel bank station should be adjusted.

RS: 0.1
FW FW 06 The right station effective of 10009.48 for the floodway profile is less than the right channel bank station of 10013.32
The right side of the floodway boundary is within the channel.
The right encroachment station of 10014 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

SURCHARGE CHECK

DISCHARGE CHECK

STARTING WATER-SURFACE ELEVATION CHECK

---END---

10 EAST (EAST SPLIT-2)

CHECK-RAS Program: NT Check
Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E-ES2\10ES2.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E-ES2\10ES2.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E-ES2\10ES2.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E-ES2\10ES2.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E-ES2\10ES2.nt
Selected profiles: Floodplain;Floodway
Date: 9/7/2005
Time: 11:11:04 AM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #1,10 East-East Spl						
2.634		0.034	0.037	0.034	0.1	0.3
2.582		0.034	0.037	0.034	0.1	0.3
2.54		0.034	0.037	0.034	0.1	0.3
2.495		0.034	0.037	0.034	0.1	0.3
2.437		0.034	0.037	0.034	0.1	0.3
2.357		0.034	0.037	0.034	0.1	0.3
2.264		0.034	0.037	0.034	0.1	0.3
2.176		0.034	0.037	0.034	0.1	0.3
2.1		0.034	0.037	0.034	0.1	0.3
2.034		0.034	0.037	0.034	0.1	0.3
1.934		0.034	0.037	0.034	0.1	0.3
1.853		0.034	0.037	0.034	0.1	0.3
1.783		0.034	0.037	0.034	0.1	0.3
1.686		0.034	0.037	0.034	0.1	0.3
1.612		0.034	0.037	0.034	0.1	0.3
1.535		0.034	0.037	0.034	0.1	0.3
1.475		0.034	0.037	0.034	0.1	0.3
1.399		0.034	0.037	0.034	0.1	0.3
1.306		0.034	0.037	0.034	0.1	0.3
1.237		0.034	0.037	0.034	0.1	0.3
1.15		0.034	0.037	0.034	0.1	0.3
1.094		0.034	0.037	0.034	0.1	0.3
1.012		0.034	0.037	0.034	0.1	0.3
.934		0.034	0.037	0.034	0.1	0.3
.85		0.034	0.037	0.034	0.1	0.3
.737		0.034	0.037	0.034	0.1	0.3
.65		0.034	0.037	0.037	0.1	0.3
		-----	-----	0.034		
.591		0.034	-----	-----	0.1	0.3
		0.037	-----	-----		
.531		0.034	0.037	0.034	0.1	0.3
.468		0.034	-----	-----	0.1	0.3
		0.045	-----	-----		
.365		0.037	-----	-----	0.1	0.3
		0.048	-----	-----		
.3		0.037	-----	0	0.1	0.3
		-----	-----	0.048		

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.034	0.048
Right Overbank n Value:	0	0.048
Channel n Value:	0.037	0.037
Contraction Coefficient:	0.1	0.1
Expansion Coefficient:	0.3	0.3

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

ROUGHNESS COEFFICIENT CHECK

RS: 2.634
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.634
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.634
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

RS: 2.582
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.582
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.582
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

RS: 2.54
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.54
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.54
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

RS: 2.495
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.495
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.495
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

RS: 2.437
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.437
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.437
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

RS: 2.357
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.357
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

2.357
RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

RS: 2.264

NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

2.264
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.264
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

RS: 2.176
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.176
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.176
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

RS: 2.1
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.1
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

2.1
RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

RS: 2.034
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.034
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 2.034
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

RS: 1.934
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.934
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.934
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

RS: 1.853
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.853
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.

The n value should be reevaluated.

RS: 1.853
NT RC 05 The left overbank n value of 0.034 and the right overbank n value of 0.034 are less than or equal to the channel n value of 0.037 The overbank n values should be reevaluated.

RS: 1.783
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.783
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.783
NT RC 05 The left overbank n value of 0.034 and the right overbank n value of 0.034 are less than or equal to the channel n value of 0.037 The overbank n values should be reevaluated.

RS: 1.686
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.686
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.686
NT RC 05 The left overbank n value of 0.034 and the right overbank n value of 0.034 are less than or equal to the channel n value of 0.037 The overbank n values should be reevaluated.

RS: 1.612
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.612
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.612
NT RC 05 The left overbank n value of 0.034 and the right overbank n value of 0.034 are less than or equal to the channel n value of 0.037 The overbank n values should be reevaluated.

RS: 1.535
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.535
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.535
NT RC 05 The left overbank n value of 0.034 and the right overbank n value of 0.034 are less than or equal to the channel n value of 0.037 The overbank n values should be reevaluated.

RS: 1.475
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.475
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.475
NT RC 05 The left overbank n value of 0.034 and the right overbank n value of 0.034 are less than or equal to the channel n value of 0.037 The overbank n values should be reevaluated.

RS: 1.399
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.399
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.399
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

RS: 1.306
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.306
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.306
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

RS: 1.237
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.237
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.237
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

RS: 1.15
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.15
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.15
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

RS: 1.094
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.094
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.094
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

RS: 1.012
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.012
NT RC 01 Right overbank n value is less than 0.035

The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.012
[redacted]C 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

RS: 0.934
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.934
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.934
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

RS: 0.85
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.85
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.85
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

RS: 0.737
NT RC 01 Left overbank n value is less than 0.035
[redacted] The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.737
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.737
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

RS: 0.65
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.531
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.531
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 0.531
NT RC 05 The left overbank n value of 0.034 and the right overbank n value
of 0.034 are less than or equal to the channel n value of 0.037
The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

[redacted]HNESS COEFFICIENT AT STRUCTURES

---END---

CHECK-RAS Program, XS Check
Cross Section Location and Alignment Review

[redacted]ect File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E-ES2\10ES2.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E-ES2\10ES2.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E-ES2\10ES2.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E-ES2\10ES2.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E-ES2\10ES2.xs
Selected profiles: Floodplain;Floodway
Date: 9/7/2005
Time: 11:11:06 AM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #1,10 East-East Spl						
2.634	287.643	274.755	266.673	222.37	370	D,C (s/c)
2.582	221.67	223.326	234.057	25.03	200	
2.54	234.369	238.663	246.544	50.29	200	
2.495	310.876	305.448	303.492	35.97	200	
2.437	420.891	421.109	420.766	30.59	200	
2.357	489.524	491.273	492.497	30.9	200	
2.264	469.433	464.129	464.677	36.09	200	
2.176	409.309	402.871	399.41	72.6	200	
2.1	345.487	349.326	343.671	32.21	200	D
2.034	503.168	527.831	509.685	82.16	200	D
1.934	436.895	429.079	411.165	219.37	200	D
1.853	366.484	367.525	362.88	302.73	200	
1.783	510.316	510.863	509.131	334.21	200	D
1.686	394.059	392.641	373.942	209.71	200	
1.612	411.731	408.194	398.049	402.77	200	D
1.535	323.294	315.391	409.522	216.71	200	D
1.475	387.966	399.231	393.771	48.32	200	D
[redacted]99	489.648	490.31	493.863	88.6	200	D
[redacted]6	345.969	365.564	367.459	101.15	200	
1.237	454.97	458.852	459.829	218.19	200	D
1.15	291.743	293.781	300.256	292.05	200	C (s/c)
1.094	412.374	435.547	447.982	258.87	200	
1.012	434.234	412.744	392.201	101.59	200	
.934	459.793	441.582	454.066	141.89	200	D
.85	563.704	594.833	618.313	107.53	200	D
.737	451.929	458.053	441.683	135.82	200	D
.65	317.407	311.06	305.597	292.13	200	
.591	314.557	316.139	347.894	291.51	200	D
.531	344.138	333.472	374.507	162.14	200	
.468	548.618	545.235	501.928	152.45	200	
.365	350.998	342.443	352.424	304.03	200	D
.3	0	0	0	150.18	200	D

B=blocked obstruction XS SC 05
C=critial depth XS SC 03
D=divided flow XS SC 01
E=cross section extended XS SC 02
K=known water-surface XS SC 04

DISTANCE CHECK

SPACING CHECK

INEFFECTIVE FLOW CHECK

[redacted]CHARGE CHECK

RS: 2.582
XS DC 01 Discharge decreases in the downstream direction.

RS: 0.85

XS DC 05 There is no flow on the right overbank at the downstream
cross section. There is no flow on the left overbank at this section.

RS: 0.468
XS DC 05 There is no flow on the right overbank at the downstream
cross section. There is no flow on the left overbank at this section.

RS: 0.365
XS DC 04 There is no flow on the left overbank at the downstream
cross section. There is no flow on the right overbank at this section.

LOCATION CHECK

BOUNDARY CONDITION CHECK

XS BC 02 The name of the stream is Reach #1,10 East-East Spl
Known WS = 1352.04 is specified as the downstream boundary
for profile Floodplain

XS BC 02 The name of the stream is Reach #1,10 East-East Spl
Known WS = 1352.04 is specified as the downstream boundary
for profile Floodway

LATERAL WEIRS CHECK

---END---

CHECK-RAS Program: Floodway Check
Encroachment Method, Starting WSEL, Floodway Width, and Surcharge Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E-ES2\10ES2.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E-ES2\10ES2.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E-ES2\10ES2.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E-ES2\10ES2.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Deliverables\TDN (Detailed Reports)\TDN Section 5-hydraulics\MODIFED-UPDATED MODELS, TABLES, ETC.---08-26-05--AMB\10E-ES2\10ES2.fw
Selected profiles: Floodplain;Floodway
Date: 9/7/2005
Time: 11:11:08 AM

SECNO	Method	Surcharge	EncStaL	EncStaR	LStaEff	RStaEff	Structure
Reach #1,10 East-East Spl							
2.634					9912.6	10149.7	
2.634	1	0.07	9946	10025	9946	10025	
2.582					9983.56	10008.59	
2.582	1	-0.03	9983	10012	9983.6	10008.5	
2.54					9972.12	10022.4	
2.54	1	0.03	9978	10025	9978	10024.96	
2.495					9985.56	10021.53	
2.495	1	-0.02	9985	10019	9985.57	10019	
2.437					9983.03	10013.62	
2.437	1	0.06	9983	10016	9983	10013.79	
2.357					9981.49	10012.39	
2.357	1	-0.01	9985	10008	9985	10008	
2.264					9984.91	10021	
2.264	1	0.05	9984	10023	9984.58	10021.28	
2.176					9963.22	10035.82	
2.176	1	0.08	9980	10017	9980	10017	
2.1					9935.04	10021	
2.1	1	-0.01	9806	10047	9935.71	10020.95	
[illegible]034					9935.31	10040.01	
[illegible]034	1	0.09	9982	10014	9982	10014	
[illegible]934					9759.23	10046.8	
1.934	1	0.21	9957	10026	9957	10026	
1.853					9836.47	10139.2	
1.853	1	0.52	9968	10031	9968	10031	
1.783					9808.5	10231.64	
1.783	1	0.91	9970	10022	9970	10022	
1.686					9853.93	10063.64	
1.686	1	0.11	9967	10029	9967	10029	
1.612					9882.61	10339.21	
1.612	1	0.33	9930	10010	9930	10010	
1.535					9791.24	10040.26	
1.535	1	0.06	9952	10054	9952	10041.35	
1.475					9982.18	10041.55	
1.475	1	0.27	9984	10013	9984	10013	
1.399					9976.01	10073.94	
1.399	1	0.7	9987	10013	9987	10013	
1.306					9961.14	10062.29	
1.306	1	0.26	9979	10019	9979	10019	
1.237					9830	10055.3	
1.237	1	0.35	9968	10039	9968	10039	
1.15					9733.43	10025.48	
1.15	1	0.18	9960	10026	9960	10026	
1.094					9782.86	10041.73	
1.094	1	0.1	9916	10036	9916	10036	
1.012					9960.35	10061.94	
1.012	1	0.05	9980	10058	9980	10058	
0.934					9934.75	10111.66	
0.934	1	0.13	9963	10040	9963	10040	
0.85					9981	10189.32	
0.85	1	0.59	9980	10034	9980	10034	
0.737					9836.74	10020.55	
0.737	1	0.37	9964	10021	9964	10021	
0.65					9930.96	10223.08	
0.65	1	0.31	9948	10008	9948	10008	
[illegible]591					9865.84	10185	
[illegible]591	1	0.55	9988	10054	9988	10054	
[illegible]531					9899.59	10061.72	
0.531	1	0.06	9980	10047	9980	10047	
0.468					9965.49	10117.94	
0.468	1	0.08	9965	10060	9965	10060	
0.365					9677.98	10015.55	

0.365	1	-0.03	9679	10014	9679	10014
0.3					9896.95	10147.64
0.3	1	0	9897	10146	9897	10146

ENCROACHMENT METHOD CHECK

FLOODWAY WIDTH CHECK

RS: 2.582
FW FW 01 Left encroachment station 9983 is more than left channel bank station 9982.577 and less than the right channel bank station 10011.96
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.582
FW FW 05 The 1% annual chance flood is contained within the channel.
Right encroachment station 10012 is outside the channel.
Right channel bank station is 10011.96
Right encroachment station and/or right channel bank station should be adjusted.

RS: 2.582
FW FW 06 The right station effective of 10008.5 for the floodway profile is less than the right channel bank station of 10011.96
The right side of the floodway boundary is within the channel.
The right encroachment station of 10012 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 2.54
FW FW 01 Left encroachment station 9978 is more than left channel bank station 9977.6 and less than the right channel bank station 10024.94
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.495
FW FW 01 Right encroachment station 10019 is less than right channel bank station 10019.27 and greater than the left channel bank station 9985.977
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.495
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.495
FW FW 04 The left station effective of 9985.56 for 1% annual chance floodplain is less than the left channel bank station 9985.977
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9985) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 2.437
FW FW 04 The left station effective of 9983.03 for 1% annual chance floodplain is less than the left channel bank station 9983.07
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9983) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 2.437
FW FW 06 The right station effective of 10013.79 for the floodway profile is less than the right channel bank station of 10015.81
The right side of the floodway boundary is within the channel.
The right encroachment station of 10016 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 2.357
FW FW 01 Left encroachment station 9985 is more than left channel bank station 9984.63 and less than the right channel bank station 10007.78
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.357

FW FW 03 The Left channel bank station may not be at the proper location.

2.264
[redacted]W 05 The 1% annual chance flood is contained within the channel.
Left encroachment station 9984 is outside the channel.
Left channel bank station is 9984.412
Left encroachment station and/or left channel bank station should be adjusted.

RS: 2.264
FW FW 05 The 1% annual chance flood is contained within the channel.
Right encroachment station 10023 is outside the channel.
Right channel bank station is 10022.96
Right encroachment station and/or right channel bank station should be adjusted.

RS: 2.264
FW FW 06 The left station effective of 9984.58 for the floodway profile is more than the left channel bank station of 9984.412
The left side of the floodway boundary is within the channel.
The left encroachment station of 9984 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 2.264
FW FW 06 The right station effective of 10021.28 for the floodway profile is less than the right channel bank station of 10022.96
The right side of the floodway boundary is within the channel.
The right encroachment station of 10023 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 2.176
FW FW 01 Left encroachment station 9980 is more than left channel bank station 9979.6 and less than the right channel bank station 10016.9
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

2.176
[redacted]W 03 The right channel bank station may not be at the proper location.

RS: 2.1
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.1
FW FW 04 The left station effective of 9935.04 for 1% annual chance floodplain is less than the left channel bank station 9995.06
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9806) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 2.1
FW FW 04 The right station effective of 10021 for 1% annual chance floodplain is greater than the right channel bank station (10019.41).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10047) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 2.034
FW FW 01 Left encroachment station 9982 is more than left channel bank station 9981.95 and less than the right channel bank station 10014.34
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.034
FW FW 01 Right encroachment station 10014 is less than right channel bank station 10014.34 and greater than the left channel bank station 9981.95
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

1.853
[redacted]W 01 Left encroachment station 9968 is more than left channel bank station 9967.84 and less than the right channel bank station 10030.74
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.853

FW FW 03 The Left channel bank station may not be at the proper location.

1.783
FW 01 Right encroachment station 10022 is less than right channel bank station 10022.43 and greater than the left channel bank station 9970.22
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.686
FW FW 01 Left encroachment station 9967 is more than left channel bank station 9966.6 and less than the right channel bank station 10029.34
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.686
FW FW 01 Right encroachment station 10029 is less than right channel bank station 10029.34 and greater than the left channel bank station 9966.6
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.612
FW FW 01 Left encroachment station 9930 is more than left channel bank station 9929.65 and less than the right channel bank station 10009.87
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.612
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.535
FW FW 04 The right station effective of 10040.26 for 1% annual chance floodplain is greater than the right channel bank station (10033.03).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10054) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

1.475
FW 01 Left encroachment station 9984 is more than left channel bank station 9983.57 and less than the right channel bank station 10012.59
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.399
FW FW 01 Left encroachment station 9987 is more than left channel bank station 9986.96 and less than the right channel bank station 10012.64
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.306
FW FW 01 Right encroachment station 10019 is less than right channel bank station 10019.09 and greater than the left channel bank station 9979.24
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.237
FW FW 01 Right encroachment station 10039 is less than right channel bank station 10039.28 and greater than the left channel bank station 9968.05
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.15
FW FW 01 Left encroachment station 9960 is more than left channel bank station 9959.938 and less than the right channel bank station 10025.41
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.15
FW FW 04 The right station effective of 10025.48 for 1% annual chance floodplain is greater than the right channel bank station (10025.41).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10026) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 1.094
FW FW 01 Right encroachment station 10036 is less than right channel bank station 10036.37 and greater than the left channel bank station 9944.282
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.012
FW FW 01 Left encroachment station 9980 is more than left channel bank station 9979.956 and less than the right channel bank station 10057.69
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.012
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.934
FW FW 01 Left encroachment station 9963 is more than left channel bank station 9962.59 and less than the right channel bank station 10040.13
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.934
FW FW 01 Right encroachment station 10040 is less than right channel bank station 10040.13 and greater than the left channel bank station 9962.59
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.85
FW FW 01 Right encroachment station 10034 is less than right channel bank station 10034.38 and greater than the left channel bank station 9980.837
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.737
FW FW 04 The right station effective of 10020.55 for 1% annual chance floodplain is greater than the right channel bank station (10020.36).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10021) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 0.65
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.65
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.591
FW FW 01 Left encroachment station 9988 is more than left channel bank station 9987.051 and less than the right channel bank station 10053.01
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.591
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.531
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.365
FW FW 01 Right encroachment station 10014 is less than right channel bank station 10015.96 and greater than the left channel bank station 9932.701
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.365
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.3
FW FW 01 Left encroachment station 9897 is more than left channel bank station 9895.269 and less than the right channel bank station 10040.06
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

[redacted]HARGE CHECK

DISCHARGE CHECK

STARTING WATER-SURFACE ELEVATION CHECK

END---

11 EAST

11EAST
CHECK-RAS Program: NT Check
Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST.nt
Selected profiles: Floodplain;Floodway
Date: 7/11/2005
Time: 4:46:11 PM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #1,11 East (South o						
4.615		0.04	0.052	0.04	0.3	0.5
4.606		0.04	0.052	0.04	0.3	0.5
4.552		0.04	0.052	0.04	0.1	0.3
4.522		0.04	0.052	0.04	0.1	0.3
4.461		0.04	0.052	0.04	0.1	0.3
4.394		0.04	0.052	0.04	0.1	0.3
4.354		0.04	0.052	0.04	0.1	0.3
4.341		0.04	0.052	0.04	0.1	0.3
4.323		0.04	0.052	0.04	0.1	0.3
4.284		0.04	0.052	0.04	0.1	0.3
4.254		0.04	0.052	0.04	0.1	0.3
4.208		0.04	0.052	0.04	0.1	0.3
4.158		0.04	0.052	0.04	0.1	0.3
4.114		0.04	0.052	0.04	0.1	0.3
4.077		0.04	0.052	0.04	0.1	0.3
4.043		0.04	0.052	0.04	0.1	0.3
3.991		0.04	0.052	0.04	0.1	0.3
3.931		0.04	0.052	0.04	0.1	0.3
3.885		0.04	0.052	0.04	0.1	0.3
3.834		0.04	0.052	0.04	0.1	0.3
3.78		0.04	0.052	0.04	0.1	0.3
3.729		0.04	0.052	0.04	0.1	0.3
3.675		0.04	0.052	0.04	0.1	0.3
3.629		0.04	0.052	0.04	0.1	0.3
3.592		0.04	0.052	0.04	0.1	0.3
3.534		0.04	0.052	0.04	0.1	0.3
3.479		0.04	0.052	0.04	0.1	0.3
3.43		0.04	0.052	0.04	0.1	0.3
3.373		0.04	0.052	0.04	0.1	0.3
3.332		0.035	0.044	0.035	0.1	0.3
3.278		0.035	0.044	0.035	0.1	0.3
3.201		0.035	0.044	0.035	0.1	0.3
3.12		0.035	0.044	0.035	0.1	0.3
3.054		0.035	0.044	0.035	0.1	0.3
2.985		0.035	0.044	0.035	0.1	0.3
2.906		0.035	0.044	0.035	0.1	0.3
2.846		0.035	0.044	0.035	0.1	0.3
2.786		0.035	0.044	0.035	0.2	0.4
2.737		0.035	0.044	0.035	0.2	0.4
2.675		0.035	0.044	0.035	0.2	0.4
2.618		0.035	0.044	0.035	0.2	0.4
2.561		0.044	0.056	0.046	0.1	0.3
2.523		0.044	0.056	0.046	0.1	0.3
2.475		0.044	0.056	0.046	0.1	0.3
2.438		0.044	0.056	0.046	0.1	0.3
2.385		0.044	0.056	0.046	0.1	0.3
2.35		0.044	0.056	0.046	0.1	0.3
2.285		0.044	0.056	0.046	0.1	0.3
2.21		0.044	0.056	0.046	0.1	0.3
2.163		0.044	0.056	0.046	0.1	0.3
2.076		0.044	0.056	0.046	0.1	0.3
2.011		0.044	0.056	0.046	0.1	0.3
1.947		0.044	0.056	0.046	0.1	0.3
1.884		0.044	0.056	0.046	0.1	0.3
1.836		0.044	0.056	0.046	0.1	0.3
1.764		0.044	0.056	0.046	0.1	0.3
1.693		0.044	0.056	0.046	0.1	0.3
1.634		0.044	0.056	0.046	0.1	0.3

b/c of overchute @ CAP

change in flow direction and width at confluence due to natural conditions

11EAST

1.613	0.044	-----	-----	0.2	0.4
	0.015	-----	-----		
1.598	0.015	0.015	0.015	0.2	0.4
1.591	0.015	0.015	0.015	0.2	0.4
1.578	0.015	0.015	0.015	0.2	0.4
1.567	0.015	0.015	0.015	0.2	0.4
1.557	0.015	0.015	0.015	0.2	0.4
1.546	0.044	0.056	0.046	0.2	0.4
1.482	0.044	0.056	0.046	0.1	0.3
1.397	0.044	0.056	0.046	0.1	0.3
1.35	0.044	0.056	0.046	0.1	0.3
1.294	0.044	0.056	0.046	0.1	0.3
1.255	0.044	0.056	0.046	0.1	0.3
1.189	0.044	0.056	0.046	0.1	0.3
1.137	0.044	0.056	0.046	0.1	0.3
1.099	0.044	0.056	0.046	0.1	0.3
.999	0.044	0.056	0.046	0.1	0.3
.92	0.044	0.056	0.046	0.1	0.3
.848	0.044	0.056	0.046	0.1	0.3
.765	0.046	0.061	0.046	0.1	0.3
.677	0.046	0.061	0.046	0.1	0.3
.613	0.046	0.061	0.046	0.1	0.3
.536	0.046	0.061	0.046	0.1	0.3
.469	0.046	0.061	0.046	0.1	0.3
.403	0.046	0.061	0.046	0.1	0.3
.337	0.046	0.061	0.046	0.1	0.3
.27	0.046	0.061	0.046	0.1	0.3
.217	0.046	0.061	0.046	0.1	0.3
.189	0.046	0.061	0.046	0.1	0.3
.14	0.046	0.061	0.046	0.1	0.3
.064	0.046	0.061	0.046	0.1	0.3
0	0.046	0.061	0.046	0.1	0.3

Through breach section at Bonita Dam

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.015	0.046
Right Overbank n Value:	0.015	0.046
Channel n Value:	0.015	0.061
Contraction Coefficient:	0.1	0.3
Expansion Coefficient:	0.3	0.5

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

ROUGHNESS COEFFICIENT CHECK

RS: 4.615
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.606
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.552
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.522
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.461
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 4.394
NT RC 05 The left overbank n value of 0.04 and the right overbank n value

of 0.04 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 4.354
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 4.341
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 4.323
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 4.284
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 4.254
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 4.208
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 4.158
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 4.114
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 4.077
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 4.043
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 3.991
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 3.931
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 3.885
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 3.834
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052
The overbank n values should be reevaluated.

RS: 3.78

NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.729
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.675
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.629
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.592
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.534
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.479
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.43
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.373
NT RC 05 The left overbank n value of 0.04 and the right overbank n value of 0.04 are less than or equal to the channel n value of 0.052 The overbank n values should be reevaluated.

RS: 3.332
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.044 The overbank n values should be reevaluated.

RS: 3.278
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.044 The overbank n values should be reevaluated.

RS: 3.201
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.044 The overbank n values should be reevaluated.

RS: 3.12
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.044 The overbank n values should be reevaluated.

RS: 3.054
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.044 The overbank n values should be reevaluated.

RS: 2.985
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.044 The overbank n values should be reevaluated.

RS: 2.906
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.044 The overbank n values should be reevaluated.

RS: 2.846
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.044 The overbank n values should be reevaluated.

RS: 2.786
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.044 The overbank n values should be reevaluated.

RS: 2.737
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.044 The overbank n values should be reevaluated.

RS: 2.675
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.044 The overbank n values should be reevaluated.

RS: 2.618
NT RC 05 The left overbank n value of 0.035 and the right overbank n value of 0.035 are less than or equal to the channel n value of 0.044 The overbank n values should be reevaluated.

RS: 2.561
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 2.523
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 2.475
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 2.438
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 2.385
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 2.35
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 2.285
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 2.21
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 2.163
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 2.076
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 2.011
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 1.947
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 1.884
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 1.836
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 1.764
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 1.693
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 1.634
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 1.598
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.598
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.598
NT RC 03 Channel n value is equal to or less than 0.025
The n value of the channel is usually larger than 0.025.
The n value should be reevaluated it if is not representing a concrete lined channel.

RS: 1.598
NT RC 05 The left overbank n value of 0.015 and the right overbank n value of 0.015 are less than or equal to the channel n value of 0.015 The overbank n values should be reevaluated.

RS: 1.591
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.591
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.591
NT RC 03 Channel n value is equal to or less than 0.025

The n value of the channel is usually larger than 0.025.
The n value should be reevaluated it if is not representing a concrete lined channel.

RS: 1.591
NT RC 05 The left overbank n value of 0.015 and the right overbank n value of 0.015 are less than or equal to the channel n value of 0.015
The overbank n values should be reevaluated.

RS: 1.578
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.578
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.578
NT RC 03 Channel n value is equal to or less than 0.025
The n value of the channel is usually larger than 0.025.
The n value should be reevaluated it if is not representing a concrete lined channel.

RS: 1.578
NT RC 05 The left overbank n value of 0.015 and the right overbank n value of 0.015 are less than or equal to the channel n value of 0.015
The overbank n values should be reevaluated.

RS: 1.567
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.567
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.567
NT RC 03 Channel n value is equal to or less than 0.025
The n value of the channel is usually larger than 0.025.
The n value should be reevaluated it if is not representing a concrete lined channel.

RS: 1.567
NT RC 05 The left overbank n value of 0.015 and the right overbank n value of 0.015 are less than or equal to the channel n value of 0.015
The overbank n values should be reevaluated.

RS: 1.557
NT RC 01 Left overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.557
NT RC 01 Right overbank n value is less than 0.035
The n value for overbank is usually larger then 0.035.
The n value should be reevaluated.

RS: 1.557
NT RC 03 Channel n value is equal to or less than 0.025
The n value of the channel is usually larger than 0.025.
The n value should be reevaluated it if is not representing a concrete lined channel.

RS: 1.557
NT RC 05 The left overbank n value of 0.015 and the right overbank n value of 0.015 are less than or equal to the channel n value of 0.015
The overbank n values should be reevaluated.

RS: 1.546
NT RC 05 The left overbank n value of 0.044 and the right overbank n value

of 0.046 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.482
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.397
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.35
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.294
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.255
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.189
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.137
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.099
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 0.999
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 0.92
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 0.848
NT RC 05 The left overbank n value of 0.044 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 0.765
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.061
The overbank n values should be reevaluated.

RS: 0.677
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.061
The overbank n values should be reevaluated.

RS: 0.613
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.061
The overbank n values should be reevaluated.

RS: 0.536

NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.061 The overbank n values should be reevaluated.

RS: 0.469
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.061 The overbank n values should be reevaluated.

RS: 0.403
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.061 The overbank n values should be reevaluated.

RS: 0.337
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.061 The overbank n values should be reevaluated.

RS: 0.27
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.061 The overbank n values should be reevaluated.

RS: 0.217
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.061 The overbank n values should be reevaluated.

RS: 0.189
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.061 The overbank n values should be reevaluated.

RS: 0.14
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.061 The overbank n values should be reevaluated.

RS: 0.064
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.061 The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

RS: 4.615
NT TL 02 Contraction and expansion loss coefficients are 0.3 and 0.5 respectively. However, this cross section is not at the structure. They should be equal to 0.1 and 0.3.

RS: 4.606
NT TL 02 Contraction and expansion loss coefficients are 0.3 and 0.5 respectively. However, this cross section is not at the structure. They should be equal to 0.1 and 0.3.

RS: 2.786
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4 respectively. However, this cross section is not at the structure. They should be equal to 0.1 and 0.3.

RS: 2.737
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4 respectively. However, this cross section is not at the structure. They should be equal to 0.1 and 0.3.

RS: 2.675
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4 respectively. However, this cross section is not at the structure. They should be equal to 0.1 and 0.3.

RS: 2.618
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4

respectively. However, this cross section is not at the structure.
They should be equal to 0.1 and 0.3.

RS: 1.613
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4
respectively. However, this cross section is not at the structure.
They should be equal to 0.1 and 0.3.

RS: 1.598
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4
respectively. However, this cross section is not at the structure.
They should be equal to 0.1 and 0.3.

RS: 1.591
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4
respectively. However, this cross section is not at the structure.
They should be equal to 0.1 and 0.3.

RS: 1.578
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4
respectively. However, this cross section is not at the structure.
They should be equal to 0.1 and 0.3.

RS: 1.567
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4
respectively. However, this cross section is not at the structure.
They should be equal to 0.1 and 0.3.

RS: 1.557
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4
respectively. However, this cross section is not at the structure.
They should be equal to 0.1 and 0.3.

RS: 1.546
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4
respectively. However, this cross section is not at the structure.
They should be equal to 0.1 and 0.3.

ROUGHNESS COEFFICIENT AT STRUCTURES

---END---

11EAST
CHECK-RAS Program, XS Check
Cross Section Location and Alignment Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST.xs
Selected profiles: Floodplain;Floodway
Date: 7/11/2005
Time: 4:46:12 PM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #1,11 East (South o						
4.615	40.64	44.984	52.292	27.38	910	
4.606	286.265	284.992	273.039	56.21	970	
4.552	160.054	156.859	144.488	129.06	970	D
4.522	326.163	324.398	317.551	156.39	970	
4.461	340.664	351.131	356.809	162.04	970	split flow
4.394	241.073	211.063	191.317	138.31	560	D
4.354	64.401	67.936	73.383	265.64	560	D
4.341	102.604	93.703	90.181	252.56	560	
4.323	199.071	203.994	204.597	124.96	560	D
4.284	137.265	157.502	171.862	99.24	560	
4.254	232.651	243.353	257.514	125.98	560	D
4.208	258.476	266.179	263.249	57.76	560	D
4.158	231.03	230.38	230.294	96.87	560	
4.114	194.432	194.263	192.558	122.98	560	D
4.077	173.297	178.839	179.766	115.03	560	D
4.043	263.739	272.569	273.597	165.39	560	D
3.991	313.426	318.344	324.295	191.11	560	
3.931	243.601	243.32	238.149	142.71	560	D
3.885	258.013	270.391	286.476	92.24	560	
3.834	279.73	286.848	296.89	118.29	560	
3.78	270.992	267.32	254.924	118.6	560	
3.729	288.668	284.874	279.06	271.29	560	
3.675	225.927	242.103	248.439	248.61	560	D
3.629	189.102	197.802	207.8	162.92	560	
3.592	310.535	306.17	298.861	111.04	560	D
3.534	297.9	291.901	281.086	244.66	560	
3.479	253.691	260.897	275.206	251.1	560	D
3.43	297.483	301.268	303.544	198.1	560	D
3.373	219.299	218.697	221.068	244.71	560	D
3.332	289.364	285.217	262.015	154.42	1030	D
3.278	399.962	406.502	413.881	274.86	1030	D
3.201	416.938	428.406	438.33	339.74	1030	D (SIC)
3.12	351.419	348.248	315.398	408.46	1030	D
3.054	365.592	364.561	354.643	511.46	1030	D
2.985	413.724	415.05	427.239	454.84	1030	
2.906	322.308	317.23	315.725	195.99	1030	D
2.846	304.545	317.753	323.559	426.37	1030	
2.786	217.339	258.245	280.821	520.64	1030	D (SIC)
2.737	272.851	329.883	329.931	440.85	1030	D
2.675	297.531	302.794	303.195	272.18	1030	D (SIC)
2.618	300.683	299.21	290.211	152.3	1270	
2.561	206.273	200.307	194.407	121.77	1270	D
2.523	243.911	252.805	258.241	188.58	1270	D
2.475	198.698	197.002	190.019	140.61	1270	
2.438	267.357	279.065	289.576	179.4	1270	
2.385	184.554	186.165	196.826	135.15	1270	D
2.35	349.238	344.448	342.583	267.01	1270	
2.285	400.668	397.55	392.868	144.47	1270	D
2.21	240.31	246.208	246.728	288.97	1270	
2.163	469.02	461.171	455.816	258.67	1270	D
2.076	348.864	342.837	342.817	263.82	1270	D
2.011	316.422	338.063	338.07	328.9	1300	D
1.947	388.133	334.282	305.767	252.47	1300	D
1.884	236.114	254.942	271.394	485.04	1300	D
1.836	398.037	379.37	368.112	444.5	1300	
1.764	390.867	376.379	355.885	530.56	1300	D
1.693	331.595	313.851	289.694	345.58	1300	D

1.634	114.99	109.495	117.11	430.15	1300	
1.613	107.036	78.449	70.216	205.74	1310	D,C
1.598	31.468	36.98	37.787	72.83	1310	C
1.591	62.827	68.897	78.108	68.06	1310	C
1.578	60.038	60.093	57.273	66.69	1310	
1.567	48.138	50.3	56.175	76.8	1310	D
1.557	58.385	59.913	71.188	85.58	1310	
1.546	324.24	338.55	348.056	200.32	1310	
1.482	474.119	451.36	428.97	200.63	1310	
1.397	267.775	249.318	233.616	358.44	1310	D
1.35	306.677	297.632	284.585	275.9	1310	D
1.294	211.706	205.73	200.432	272.21	1310	D
1.255	339.557	348.326	354.987	242.62	1310	D
1.189	253.633	273.348	278.353	271.74	1310	
1.137	205.556	198.928	198.772	320.95	1310	D
1.099	582.942	530.6	530.593	272.64	1310	D
.999	417.843	415.321	399.385	320.01	1310	
.92	382.3	382.357	400.235	382.04	1310	
.848	423.97	436.684	438.259	939.04	2950	
.765	386.765	463.148	473.219	782.53	2950	
.677	324.832	340.221	344.103	772.66	2950	
.613	466.663	405.669	355.882	874.63	2950	
.536	412.573	353.107	280.14	842.23	2950	D
.469	272.404	350.81	374.53	1004.71	3000	D
.403	349.998	346.125	318.211	1013.53	3000	D
.337	579.884	354.665	316.406	1249	3000	D
.27	294.573	277.651	218.437	771	3000	D,E
.217	159.722	149.972	133.786	787.56	3000	D,E
.189	239.071	258.483	298.963	718.63	3000	D,E
.14	356.459	401.776	452.634	809.78	3000	D,E
.064	295.093	335.958	384.469	667.51	3000	E
0	0	0	0	81.67	3000	

left side fine

left side fine b/c included in eff.; right OK. b/c w/ accuracy

ok b/c ponding

B=blocked obstruction XS SC 05
C=critial depth XS SC 03
D=divided flow XS SC 01
E=cross section extended XS SC 02
K=known water-surface XS SC 04

DISTANCE CHECK

SPACING CHECK

INEFFECTIVE FLOW CHECK

DISCHARGE CHECK

RS: 4.394
XS DC 01 Discharge decreases in the downstream direction.

LOCATION CHECK

BOUNDARY CONDITION CHECK

XS BC 02 The name of the stream is Reach #1,11 East (South o
Known WS = 1346 is specified as the downstream boundary
for profile Floodplain

XS BC 02 The name of the stream is Reach #1,11 East (South o
Known WS = 1346 is specified as the downstream boundary
for profile Floodway

Known wsel for stnajc behind Beardsley Canal.

LATERAL WEIRS CHECK

---END---

11EAST

CHECK-RAS Program: Floodway Check

Encroachment Method, Starting WSEL, Floodway Width, and Surcharge Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST.fw
Selected profiles: Floodplain;Floodway
Date: 7/11/2005
Time: 4:46:14 PM

SECNO	Method	Surcharge	EncStaL	EncStaR	LStaEff	RStaEff	Structure
Reach #1,11 East (South o							
4.615					9986.11	10013.5	
4.615	1	0.69	9989	10012	9989	10012	
4.606					9965.12	10021.33	
4.606	1	0.72	9972	10021	9972	10021	
4.552					9979.28	10110.02	
4.552	1	0.67	9983	10036	9983	10036	
4.522					9949.34	10105.73	
4.522	1	0.48	9978	10034	9978	10034	
4.461					9890.62	10052.66	
4.461	1	0.25	9970	10055	9970	10055	
4.394					9789.23	10035.81	
4.394	1	0.11	9968	10040	9968	10036.36	
4.354					9765.65	10044.57	
4.354	1	0.99	9965	10030	9965	10030	
4.341					9783.56	10036.12	
4.341	1	0.61	9970	10035	9970	10035	
4.323					9869.77	10045.02	
4.323	1	0.97	9951	10045	9951	10045	
4.284					9922.13	10021.37	
4.284	1	0.95	9973	10021	9973	10021	
4.254					9906.71	10073.45	
4.254	1	0.56	9978	10031	9981.71	10031	
4.208					9918.04	10044.9	
4.208	1	0	9987	10045	9987.49	10044.92	
4.158					9948.21	10045.08	
4.158	1	0.14	9981	10037	9981	10037	
4.114					9953.63	10092.7	
4.114	1	0.41	9967	10037	9967	10026.21	
4.077					9931.67	10073.08	
4.077	1	0.79	9969	10021	9969	10021	
4.043					9867.32	10061.62	
4.043	1	0.73	9965	10020	9965	10020	
3.991					9824.62	10015.72	
3.991	1	0.64	9968	10016	9968	10016	
3.931					9939.15	10094.1	
3.931	1	0.03	9970	10045	9974.45	10045	
3.885					9962.31	10054.55	
3.885	1	0.26	9963	10041	9963	10041	
3.834					9975.24	10093.53	
3.834	1	0.19	9978	10036	9978	10036	
3.78					9911.27	10029.86	
3.78	1	0.32	9926	10026	9926	10026	
3.729					9821.51	10092.8	
3.729	1	0.51	9963	10018	9963	10018	
3.675					9855.05	10121.63	
3.675	1	0.54	9963	10029	9963	10029	
3.629					9883.67	10046.59	
3.629	1	0.07	9976	10051	9976	10047.43	
3.592					9935.39	10050.26	
3.592	1	0.28	9955	10030	9955	10030	
3.534					9859.67	10104.33	
3.534	1	0.82	9958	10034	9958	10034	
3.479					9858.14	10162.49	
3.479	1	0.72	9965	10036	9965	10036	
3.43					9911.23	10141.54	
3.43	1	0.81	9956	10034	9956	10034	
3.373					9912.16	10174.7	
3.373	1	0.46	9938	10013	9938	10013	

					11EAST	
3.332					9858.67	10056.08
3.332	1	0.51	9972	10061	9972	10061
3.278					9941.75	10220.7
3.278	1	0.12	9955	10076	9955	10076
3.201					9938.63	10288.9
3.201	1	0.22	9979	10226	9979	10226
3.12					9955.31	10517.1
3.12	1	0.86	9963	10154	9963	10154
3.054					9735.9	10296.6
3.054	1	0.39	9967	10116	9967	10116
2.985					9768.56	10223.4
2.985	1	0.01	9958	10134	9958	10134
2.906					9858.49	10201.07
2.906	1	0.23	9948	10197	9950.5	10197
2.846					9789.73	10216.1
2.846	1	0.49	9970	10165	9970	10165
2.786					9579.42	10205.81
2.786	1	0.34	9903	10054	9903	10054
2.737					9528.33	10167.46
2.737	1	0.77	9861	10076	9861	10076
2.675					9684.07	10018.54
2.675	1	0.29	9871	10018	9871	10018
2.618					9861.79	10014.09
2.618	1	0.65	9927	10017	9927	10017
2.561					9870.01	10064.05
2.561	1	0.12	9974	10033	9974	10017
2.523					9857.82	10050.95
2.523	1	0.39	9946	10023	9946	10023
2.475					9978.95	10119.56
2.475	1	0.89	9980	10047	9980	10047
2.438					9972.22	10151.62
2.438	1	0.62	9978	10043	9978	10043
2.385					9863.49	10027.43
2.385	1	0.83	9966	10025	9966	10025
2.35					9818.41	10085.42
2.35	1	0.75	9958	10028	9958	10028
2.285					9792.19	10119.7
2.285	1	0.51	9967	10051	9973.1	10051
2.21					9729.67	10018.64
2.21	1	0.72	9837	10026	9837	10020.83
2.163					9721.17	10015.25
2.163	1	0.36	9853	10015	9853	10015
2.076					9774.62	10044.48
2.076	1	0.35	9856	10049	9856	10047.93
2.011					9798.14	10131.56
2.011	1	0.39	9887	10038	9887	10038
1.947					9787.6	10042.51
1.947	1	0.62	9901	10023	9901	10023
1.884					9668.59	10174.01
1.884	1	0.64	9921	10020	9921	10020
1.836					9804.8	10249.3
1.836	1	0.87	9916	10037	9916	10037
1.764					9773.43	10312.91
1.764	1	0.72	9885	10093	9885	10093
1.693					9905.51	10257.78
1.693	1	0.9	9776	10100	9899.75	10100
1.634					9695	10125.15
1.634	1	0.4	9831	10040	9831	10040
1.613					9791	10018.42
1.613	1	0.58	9885	10020	9885	10020
1.598					9964.58	10037.42
1.598	1	0.01	9965	10037	9965	10037
1.591					9968.18	10036.24
1.591	1	0	9963	10049	9968.19	10036.22
1.578					9962.29	10028.98
1.578	1	0.51	9962	10030	9962	10030
1.567					9966.02	10055.11
1.567	1	0.47	9966	10042	9966	10042
1.557					9969.94	10055.53
1.557	1	0.51	9969	10033	9969	10033
1.546					9877.94	10078.25
1.546	1	0.46	9945	10025	9945	10025
1.482					9843.32	10043.95
1.482	1	0.86	9929	10016	9929	10016

					11EAST	
1.397					9795.22	10159.59
1.397	1	0.49	9970	10026	9970	10026
1.35					9883.44	10159.86
1.35	1	0.35	9968	10029	9968	10029
1.294					9889.35	10214.16
1.294	1	0.8	9943	10032	9943	10032
1.255					9890.44	10137.24
1.255	1	0.43	9951	10032	9951	10032
1.189					9900.55	10172.29
1.189	1	0.8	9929	10023	9929	10023
1.137					9854.35	10240.04
1.137	1	0.63	9959	10046	9959	10046
1.099					9866.31	10175.86
1.099	1	0.78	9968	10057	9968	10057
0.999					9905.94	10225.95
0.999	1	0.85	9940	10039	9940	10039
0.92					9858.5	10240.54
0.92	1	0.36	9899	10022	9899	10022
0.848					9167.4	10106.44
0.848	1	0.47	9585	10025	9585	10025
0.765					9241.36	10023.9
0.765	1	0.91	9758	10020	9758	10020
0.677					9276.13	10048.79
0.677	1	0.87	9808	10023	9808	10023
0.613					9393.84	10268.46
0.613	1	0.95	9799	10030	9799	10030
0.536					9450.35	10301.38
0.536	1	0.98	9771	10038	9771	10038
0.469					9171.17	10209.14
0.469	1	0.91	9549	10030	9549	10030
0.403					8893.52	10074.08
0.403	1	0.93	9449	10035	9449	10035
0.337					8866.3	10137.94
0.337	1	0.89	9409	10026	9409	10026
0.27					9515.03	10409.37
0.27	1	0.93	9611	10190	9611	10190
0.217					9571.14	10378.35
0.217	1	0.82	9659	10132	9659	10132
0.189					9591.69	10330.98
0.189	1	0.66	9705	10161	9705	10161
0.14					9584.37	10396.5
0.14	1	0.3	9727	10355	9727	10355
0.064					9757.9	10425.41
0.064	1	0.17	9866	10398	9866	10398
0					9968.83	10050.5
0	1	0	9970	10046	9970	10046

ENCROACHMENT METHOD CHECK

FLOODWAY WIDTH CHECK

RS: 4.615
FW FW 01 Left encroachment station 9989 is more than left channel bank station 9988.7 and less than the right channel bank station 10011.66
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.615
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.615
FW FW 03 The right channel bank station may not be at the proper location.

RS: 4.606
FW FW 01 Right encroachment station 10021 is less than right channel bank station 10021.33 and greater than the left channel bank station 9972.01
Right encroachment station is within the channel.

The encroachment station or channel bank station should be adjusted.

RS: 4.606
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.461
FW FW 04 The right station effective of 10052.66 for 1% annual chance floodplain is greater than the right channel bank station (10025.03).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10055) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 4.394
FW FW 01 Left encroachment station 9968 is more than left channel bank station 9967.61 and less than the right channel bank station 10035.79
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.394
FW FW 04 The right station effective of 10035.81 for 1% annual chance floodplain is greater than the right channel bank station (10035.79).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10040) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 4.354
FW FW 03 The right channel bank station may not be at the proper location.

RS: 4.341
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.323
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.284
FW FW 01 Right encroachment station 10021 is less than right channel bank station 10021.36 and greater than the left channel bank station 9980.187
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.284
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.254
FW FW 06 The left station effective of 9981.71 for the floodway profile is more than the left channel bank station of 9980.04
The left side of the floodway boundary is within the channel.
The left encroachment station of 9978 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 4.208
FW FW 04 The right station effective of 10044.9 for 1% annual chance floodplain is greater than the right channel bank station (10034.52).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10045) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 4.208
FW FW 06 The left station effective of 9987.49 for the floodway profile is more than the left channel bank station of 9987.372
The left side of the floodway boundary is within the channel.
The left encroachment station of 9987 is less than the left channel bank station.
The left encroachment station should be the same as the left

channel bank station.

RS: 4.114
FW FW 03 The right channel bank station may not be at the proper location.

RS: 4.077
FW FW 01 Right encroachment station 10021 is less than right channel bank station 10021.24 and greater than the left channel bank station 9969.36
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.077
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.991
FW FW 04 The right station effective of 10015.72 for 1% annual chance floodplain is greater than the right channel bank station (10015.7).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10016) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 3.885
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.78
FW FW 01 Left encroachment station 9926 is more than left channel bank station 9925.389 and less than the right channel bank station 10026.52
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.78
FW FW 01 Right encroachment station 10026 is less than right channel bank station 10026.52 and greater than the left channel bank station 9925.389
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.729
FW FW 01 Left encroachment station 9963 is more than left channel bank station 9962.722 and less than the right channel bank station 10017.71
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.629
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.629
FW FW 04 The right station effective of 10046.59 for 1% annual chance floodplain is greater than the right channel bank station (10045.15).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10051) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 3.592
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.534
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.479
FW FW 01 Right encroachment station 10036 is less than right channel bank station 10036.13 and greater than the left channel bank station 9974.76
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.373
FW FW 03 The Left channel bank station may not be at the proper

location.

RS: 3.332
FW FW 04 The right station effective of 10056.08 for 1% annual chance floodplain is greater than the right channel bank station (10053.09).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10061) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 3.054
FW FW 01 Left encroachment station 9967 is more than left channel bank station 9966.558 and less than the right channel bank station 10026.27
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.054
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.054
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.985
FW FW 01 Left encroachment station 9958 is more than left channel bank station 9957.756 and less than the right channel bank station 10023.64
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.906
FW FW 01 Left encroachment station 9948 is more than left channel bank station 9947.855 and less than the right channel bank station 10027.7
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.737
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.675
FW FW 01 Right encroachment station 10018 is less than right channel bank station 10018.34 and greater than the left channel bank station 9978.436
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.675
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.618
FW FW 04 The right station effective of 10014.09 for 1% annual chance floodplain is greater than the right channel bank station (10013.16).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10017) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 2.475
FW FW 01 Left encroachment station 9980 is more than left channel bank station 9979.55 and less than the right channel bank station 10043.59
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.385
FW FW 01 Left encroachment station 9966 is more than left channel bank station 9965.74 and less than the right channel bank station 10025.37
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.385
FW FW 01 Right encroachment station 10025 is less than right channel bank station 10025.37 and greater than the left channel bank station 9965.74
Right encroachment station is within the channel.

The encroachment station or channel bank station should be adjusted.

RS: 2.35
FW FW 01 Right encroachment station 10028 is less than right channel bank station 10028.19 and greater than the left channel bank station 9971.222
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.285
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.285
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.163
FW FW 01 Right encroachment station 10015 is less than right channel bank station 10015.41 and greater than the left channel bank station 9976.472
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.076
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.011
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.947
FW FW 01 Right encroachment station 10023 is less than right channel bank station 10023.4 and greater than the left channel bank station 9982.525
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.947
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.884
FW FW 01 Right encroachment station 10020 is less than right channel bank station 10020.06 and greater than the left channel bank station 9978.219
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.884
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.693
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.693
FW FW 04 The left station effective of 9905.51 for 1% annual chance floodplain is less than the left channel bank station 9949.58
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9776) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 1.634
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.613
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.598
FW FW 01 Right encroachment station 10037 is less than right channel bank station 10037.02 and greater than the left channel bank station 9965.485
Right encroachment station is within the channel.

The encroachment station or channel bank station should be adjusted.

RS: 1.591
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.591
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.591
FW FW 04 The left station effective of 9968.18 for 1% annual chance floodplain is less than the left channel bank station 9968.199
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9963) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 1.591
FW FW 04 The right station effective of 10036.24 for 1% annual chance floodplain is greater than the right channel bank station (10036.21).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10049) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 1.578
FW FW 04 The left station effective of 9962.29 for 1% annual chance floodplain is less than the left channel bank station 9962.291
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9962) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 1.557
FW FW 01 Right encroachment station 10033 is less than right channel bank station 10033.29 and greater than the left channel bank station 9969.934
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.546
FW FW 01 Right encroachment station 10025 is less than right channel bank station 10025.4 and greater than the left channel bank station 9945.24
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.482
FW FW 01 Right encroachment station 10016 is less than right channel bank station 10016.32 and greater than the left channel bank station 9930.543
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.482
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.397
FW FW 01 Right encroachment station 10026 is less than right channel bank station 10026.11 and greater than the left channel bank station 9973.748
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.35
FW FW 01 Right encroachment station 10029 is less than right channel bank station 10029.14 and greater than the left channel bank station 9968.019
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.294
FW FW 01 Left encroachment station 9943 is more than left channel bank station 9942.617 and less than the right channel bank station 10031.78
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.294
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.294
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.255
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.189
FW FW 01 Left encroachment station 9929 is more than left channel bank station 9928.966 and less than the right channel bank station 10023.46
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.189
FW FW 01 Right encroachment station 10023 is less than right channel bank station 10023.46 and greater than the left channel bank station 9928.966
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.137
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.099
FW FW 01 Left encroachment station 9968 is more than left channel bank station 9967.597 and less than the right channel bank station 10020.96
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.92
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.765
FW FW 01 Right encroachment station 10020 is less than right channel bank station 10020.25 and greater than the left channel bank station 9976.51
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.765
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.677
FW FW 01 Right encroachment station 10023 is less than right channel bank station 10023.35 and greater than the left channel bank station 9978.082
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.613
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.536
FW FW 01 Right encroachment station 10038 is less than right channel bank station 10038.34 and greater than the left channel bank station 9955.963
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.403
FW FW 01 Right encroachment station 10035 is less than right channel bank station 10035.32 and greater than the left channel bank station 9957.437
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.403
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.217
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.189
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 0.14
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.064
FW FW 03 The right channel bank station may not be at the proper location.

SURCHARGE CHECK

DISCHARGE CHECK

STARTING WATER-SURFACE ELEVATION CHECK

FW SW 05 The name of stream is Reach #1
Encroachment method 1 is used.
The floodway starting water-surface elevation of 1346.00 is equal to the natural starting water-surface elevation of 1346.00
Normal depth option with the same energy slope as the natural profile must be used for the floodway profile and rerun the plan.
This message is not applicable for the revisions.

---END---

11 EAST DIKE FAILURE

11EAST-FAILURE
CHECK-RAS Program: NT Check
Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST-FAILURE.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST-FAILURE.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST-FAILURE.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST-FAILURE.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST-FAILURE.nt
Selected profiles: Floodplain
Date: 7/12/2005
Time: 9:11:57 AM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #1,11 East (South o						
.337		0.046	0.061	0.046	0.1	0.3
.27		0.046	0.061	0.046	0.1	0.3
.217		0.046	0.061	0.046	0.1	0.3
.189		0.046	0.061	0.046	0.1	0.3
.14		0.046	0.061	0.046	0.1	0.3
.064		0.046	0.061	0.046	0.1	0.3
0		0.046	0.061	0.046	0.1	0.3

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.046	0.046
Right Overbank n Value:	0.046	0.046
Channel n Value:	0.061	0.061
Contraction Coefficient:	0.1	0.1
Expansion Coefficient:	0.3	0.3

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

ROUGHNESS COEFFICIENT CHECK

RS: 0.337
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.061 The overbank n values should be reevaluated.

RS: 0.27
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.061 The overbank n values should be reevaluated.

RS: 0.217
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.061 The overbank n values should be reevaluated.

RS: 0.189
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.061 The overbank n values should be reevaluated.

RS: 0.14
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.061 The overbank n values should be reevaluated.

RS: 0.064
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.061 The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

ROUGHNESS COEFFICIENT AT STRUCTURES

---END---

11EAST-FAILURE
CHECK-RAS Program, XS Check
Cross Section Location and Alignment Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST-FAILURE.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST-FAILURE.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST-FAILURE.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST-FAILURE.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\11EAST-FAILURE.xs
Selected profiles: Floodplain
Date: 7/12/2005
Time: 9:11:58 AM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #1,11 East (South o						
.337	579.884	354.665	316.406	1013.97	3000	D
.27	294.573	277.651	218.437	1251.18	3000	D
.217	159.722	149.972	133.786	1299.17	3000	D
.189	239.071	258.483	298.963	1478.11	3000	D
.14	356.459	401.776	452.634	2499.76	3000	D
.064	295.093	335.958	384.469	2888.23	3000	(E)
0	0	0	0	81.67	3000	

located in existing pond behind the Beardsley Canal.

B=blocked obstruction XS SC 05
C=critial depth XS SC 03
D=divided flow XS SC 01
E=cross section extended XS SC 02
K=known water-surface XS SC 04

DISTANCE CHECK

SPACING CHECK

INEFFECTIVE FLOW CHECK

DISCHARGE CHECK

XS DC 02 Constant dicharge used for the Reach #1,11 East (South o

LOCATION CHECK

BOUNDARY CONDITION CHECK

XS BC 02 The name of the stream is Reach #1,11 East (South o
Known WS = 1346 is specified as the downstream boundary
for profile Floodplain

storage elevation behind Beardsley Canal.

LATERAL WEIRS CHECK

---END---

BONITA DIKE CHANNEL

BONITA DIKE CHANNEL
CHECK-RAS Program: NT Check
Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\BONITA DIKE CHANNEL.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\BONITA DIKE CHANNEL.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\BONITA DIKE CHANNEL.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\BONITA DIKE CHANNEL.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\BONITA DIKE CHANNEL.nt
Selected profiles: Floodplain
Date: 7/12/2005
Time: 1:21:45 PM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #1,Bonita Dike Chan						
.283		0.045	0.056	0.045	0.1	0.3
.241		0.045	0.056	0.045	0.1	0.3
.186		0.045	0.056	0.045	0.1	0.3
.148		0.045	0.056	0.045	0.1	0.3
.116		0.045	0.056	0.045	0.1	0.3
.059		0.045	0.056	0.045	0.1	0.3
.018		0.045	0.056	0.045	0.1	0.3
0		0.045	0.056	0.045	0.1	0.3

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.045	0.045
Right Overbank n Value:	0.045	0.045
Channel n Value:	0.056	0.056
Contraction Coefficient:	0.1	0.1
Expansion Coefficient:	0.3	0.3

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

ROUGHNESS COEFFICIENT CHECK

RS: 0.283
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 0.241
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 0.186
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 0.148
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 0.116
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 0.059
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 0.018
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

ROUGHNESS COEFFICIENT AT STRUCTURES

---END---

BONITA DIKE CHANNEL
CHECK-RAS Program, XS Check
Cross Section Location and Alignment Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\BONITA DIKE CHANNEL.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\BONITA DIKE CHANNEL.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\BONITA DIKE CHANNEL.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\BONITA DIKE CHANNEL.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\BONITA DIKE CHANNEL.xs
Selected profiles: Floodplain
Date: 7/12/2005
Time: 1:21:46 PM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #1,Bonita Dike Chan						
.283	219.397	223.218	223.438	86.7	140	
.241	287.731	288.847	289.324	70.03	140	
.186	203.724	201.319	204.567	102.3	140	
.148	166.9	168.739	167.834	29.01	140	
.116	298.942	303.307	301.187	27.88	140	
.059	216.634	216.122	214.171	30.59	140	
.018	78.09	96.694	123.073	30.64	140	
0	0	0	0	53.13	140	

(c) supercritical

B=blocked obstruction XS SC 05
C=critial depth XS SC 03
D=divided flow XS SC 01
E=cross section extended XS SC 02
K=known water-surface XS SC 04

DISTANCE CHECK

SPACING CHECK

INEFFECTIVE FLOW CHECK

DISCHARGE CHECK

XS DC 02 Constant dicharge used for the Reach #1,Bonita Dike Chan

LOCATION CHECK

BOUNDARY CONDITION CHECK

XS BC 02 The name of the stream is Reach #1,Bonita Dike Chan
Normal S = 0.0091 is specified as the downstream boundary
for profile Floodplain

LATERAL WEIRS CHECK

---END---

12 EAST

CHECK-RAS Program: NT Check
Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E.nt
Selected profiles: Floodplain;Floodway
Date: 7/29/2005
Time: 9:38:24 AM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #1,12 East (South o						
4.554		0.046	0.06	0.046	0.1	0.3
4.494		0.046	0.06	0.046	0.1	0.3
4.423		0.046	0.06	0.046	0.1	0.3
4.365		0.046	0.06	0.046	0.1	0.3
4.332		0.046	0.06	0.046	0.1	0.3
4.299		0.046	0.06	0.046	0.1	0.3
4.239		0.046	0.06	0.046	0.1	0.3
4.166		0.046	0.06	0.046	0.1	0.3
4.127		0.046	0.06	0.046	0.1	0.3
4.088		0.046	0.06	0.046	0.1	0.3
4.021		0.046	0.06	0.046	0.1	0.3
3.951		0.046	0.06	0.046	0.1	0.3
3.902		0.046	0.06	0.046	0.1	0.3
3.867		0.046	0.06	0.046	0.1	0.3
3.804		0.046	0.06	0.046	0.1	0.3
3.716		0.046	0.06	0.046	0.1	0.3
3.649		0.046	0.06	0.046	0.1	0.3
3.582		0.046	0.06	0.046	0.1	0.3
3.506		0.046	0.06	0.046	0.1	0.3
3.46		0.046	0.06	0.046	0.1	0.3
3.41		0.046	0.06	0.046	0.1	0.3
3.342		0.046	0.06	0.046	0.1	0.3
3.303		0.046	0.06	0.046	0.1	0.3
3.283		0.046	0.06	0.046	0.1	0.3
3.262		0.046	0.06	0.046	0.1	0.3
3.216		0.046	0.06	0.046	0.1	0.3
3.17		0.046	0.06	0.046	0.1	0.3
3.129		0.046	0.06	0.046	0.1	0.3
3.09		0.046	0.06	0.046	0.1	0.3
3.046		0.043	0.056	0.051	0.1	0.3
2.991		0.043	0.056	0.051	0.1	0.3
2.973		0.043	0.056	0.051	0.1	0.3
2.896		0.043	0.056	0.051	0.1	0.3
2.862		0.043	0.056	0.051	0.1	0.3
2.814		0.043	0.056	0.051	0.1	0.3
2.77		0.043	0.056	0.051	0.1	0.3
2.712		0.043	0.056	0.051	0.1	0.3
2.637		0.043	0.056	0.051	0.1	0.3
2.62		0.043	0.056	0.051	0.1	0.3

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.043	0.046
Right Overbank n Value:	0.046	0.051
Channel n Value:	0.056	0.06
Contraction Coefficient:	0.1	0.1
Expansion Coefficient:	0.3	0.3

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

ROUGHNESS COEFFICIENT CHECK

RS: 4.554
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06
The overbank n values should be reevaluated.

RS: 4.494
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 4.423
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 4.365
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 4.332
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 4.299
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 4.239
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 4.166
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 4.127
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 4.088
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 4.021
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.951
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.902
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.867
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.804
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.716
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06

The overbank n values should be reevaluated.

RS: 3.649
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.582
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.506
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.46
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.41
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.342
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.303
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.283
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.262
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.216
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.17
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.129
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.09
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.046
NT RC 05 The left overbank n value of 0.043 and the right overbank n value of 0.051 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 2.991
NT RC 05 The left overbank n value of 0.043 and the right overbank n value

of 0.051 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 2.973
NT RC 05 The left overbank n value of 0.043 and the right overbank n value of 0.051 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 2.896
NT RC 05 The left overbank n value of 0.043 and the right overbank n value of 0.051 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 2.862
NT RC 05 The left overbank n value of 0.043 and the right overbank n value of 0.051 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 2.814
NT RC 05 The left overbank n value of 0.043 and the right overbank n value of 0.051 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 2.77
NT RC 05 The left overbank n value of 0.043 and the right overbank n value of 0.051 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 2.712
NT RC 05 The left overbank n value of 0.043 and the right overbank n value of 0.051 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 2.637
NT RC 05 The left overbank n value of 0.043 and the right overbank n value of 0.051 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

ROUGHNESS COEFFICIENT AT STRUCTURES

---END---

12E

CHECK-RAS Program, XS Check

Cross Section Location and Alignment Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E.xs
Selected profiles: Floodplain;Floodway
Date: 7/29/2005
Time: 9:38:25 AM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #1,12 East (South o						
4.554	321.208	321.89	322.297	9.45	360	
4.494	372.679	374.581	375.966	33.03	360	
4.423	304.45	304.47	306.672	29.6	360	
4.365	179.811	176.607	172.707	56.83	360	
4.332	171.643	172.533	169.994	58.34	360	
4.299	315.621	316.812	320.076	108.93	360	D
4.239	347.38	384.177	374.904	119.57	360	D
4.166	196.877	206.195	211.062	190.3	360	
4.127	194.749	203.974	205.63	173.53	360	D
4.088	365.316	355.571	347.726	70.57	290	D
4.021	378.964	368.355	364.108	170.12	290	D
3.951	255.523	258.72	260.366	115.8	290	D
3.902	165.571	184.204	186.017	160.4	290	
3.867	331.015	330.021	321.409	78.28	290	D
3.804	467.314	466.868	454.404	83.13	290	D
3.716	352.249	354.875	356.575	30.07	360	
3.649	356.62	355.339	348.358	73.3	360	
3.582	375.301	399.701	418.673	31.43	360	
3.506	247.647	244.55	239.422	42.64	360	
3.46	263.651	261.366	252.679	68.93	360	
3.41	354.75	360.709	362.997	67.25	360	
3.342	204.398	207.091	208.243	63.53	360	
3.303	112.89	107.561	107.498	39.57	360	
3.283	114.784	111.853	108.687	47.01	360	
3.262	244.254	242.17	239.545	40.63	360	
3.216	244.656	241.337	237.565	124	360	D
3.17	218.712	214.407	209.806	56.24	360	D
3.129	205.697	207.993	209.474	55.61	360	
3.09	219.141	230.187	235.497	56.52	360	
3.046	294.839	292.412	298.828	121.55	360	
2.991	97.467	94.448	91.149	33.51	360	D,C
2.973	423.917	408.229	403.211	75.88	360	
2.896	183.058	179.543	171.908	39.02	360	C (5/C)
2.862	237.803	254.251	262.279	58.68	360	
2.814	216.008	231.246	264.259	137.98	360	
2.77	307.212	307.314	308.239	182.21	360	D
2.712	384.174	397.413	411.953	304.31	360	D
2.637	67.224	91.798	134.838	114.16	360	
2.62	0	0	0	118.23	360	D

B=blocked obstruction XS SC 05
C=critial depth XS SC 03
D=divided flow XS SC 01
E=cross section extended XS SC 02
K=known water-surface XS SC 04

DISTANCE CHECK

SPACING CHECK

INEFFECTIVE FLOW CHECK

DISCHARGE CHECK

RS: 4.088
XS DC 01 Discharge decreases in the downstream direction.

RS: 3.867
XS DC 04 There is no flow on the left overbank at the downstream
cross section. There is no flow on the right overbank at this section.

LOCATION CHECK

RS: 3.046
XS LC 01 Lenchl Up/TopwdthAct Dn = 8.73
MaxChlDpth Up/MaxChlDpth Dn = 1.27
TopwdthAct Up/TopwdthAct Dn = 3.63
This cross section is located too far upstream from the
critical depth cross section.

RS: 2.973
XS LC 01 Lenchl Up/TopwdthAct Dn = 10.46
MaxChlDpth Up/MaxChlDpth Dn = 1.36
TopwdthAct Up/TopwdthAct Dn = 1.94
This cross section is located too far upstream from the
critical depth cross section.

BOUNDARY CONDITION CHECK

XS BC 02 The name of the stream is Reach #1,12 East (South o
Normal S = 0.0097 is specified as the downstream boundary
for profile Floodplain

XS BC 02 The name of the stream is Reach #1,12 East (South o
Normal S = 0.0097 is specified as the downstream boundary
for profile Floodway

LATERAL WEIRS CHECK

---END---

CHECK-RAS Program: Floodway Check
Encroachment Method, Starting WSEL, Floodway Width, and Surcharge Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E.fw
Selected profiles: Floodplain;Floodway
Date: 7/29/2005
Time: 9:38:28 AM

SECNO	Method	Surcharge	EncStaL	EncStaR	LStaEff	RStaEff	Structure
Reach #1,12 East (South o							
4.554					9994.03	10003.48	
4.554	1	0.03	9991	10005	9994.03	10003.49	
4.494					9983.42	10016.45	
4.494	1	0	9988	10016	9988	10016	
4.423					9976.85	10006.46	
4.423	1	0.02	9976	10007	9976.78	10006.48	
4.365					9975.55	10032.38	
4.365	1	0.12	9987	10021	9987	10021	
4.332					9971.85	10030.19	
4.332	1	0.42	9978	10008	9978	10008	
4.299					9920.71	10063.76	
4.299	1	0.07	9979	10027	9979	10025.88	
4.239					9948.41	10109.8	
4.239	1	0.47	9980	10018	9980	10018	
4.166					9825.05	10015.35	
4.166	1	0.47	9982	10016	9982	10015.81	
4.127					9842.96	10033.42	
4.127	1	0.07	9912	10033	9912	10033	
4.088					9950.58	10027.91	
4.088	1	0.13	9977	10027	9977	10027	
4.021					9862.22	10032.67	
4.021	1	0.69	9975	10026	9975	10026	
3.951					9837.6	10004.64	
3.951	1	0.42	9909	10004	9909	10004	
3.902					9852.27	10012.68	
3.902	1	0.55	9911	10011	9911	10011	
3.867					9893.28	10008.4	
3.867	1	0.73	9951	10008	9951	10008	
3.804					9972.7	10066.6	
3.804	1	-0.04	9973	10013	9973	10008.23	
3.716					9984.05	10014.12	
3.716	1	0.26	9984	10014	9984	10014	
3.649					9942.2	10015.5	
3.649	1	0.24	9975	10016	9975	10015.82	
3.582					9981.65	10013.09	
3.582	1	0	9982	10013	9982	10013	
3.506					9970.7	10013.34	
3.506	1	0	9968	10095	9970.7	10013.34	
3.46					9979.86	10048.79	
3.46	1	0	9973	10097	9979.86	10048.79	
3.41					9955.78	10023.03	
3.41	1	0	9950	10022	9955.78	10022	
3.342					9973.48	10037.01	
3.342	1	0	9972	10039	9973.48	10037.01	
3.303					9990.39	10029.96	
3.303	1	0	9980	10030	9990.34	10029.97	
3.283					9969.64	10016.65	
3.283	1	0	9975	10023	9975	10016.65	
3.262					9981.87	10022.5	
3.262	1	0.01	9961	10031	9981.83	10022.57	
3.216					9941.09	10078.71	
3.216	1	0.01	9959	10014	9959	10014	
3.17					9978.85	10054.4	
3.17	1	0.06	9980	10020	9980	10020	
3.129					9959.88	10015.49	
3.129	1	0.01	9975	10015	9975	10015	
3.09					9959.92	10016.44	
3.09	1	0.11	9967	10016	9967	10016	

					12E	
3.046					9954.22	10075.77
3.046	1	0.12	9974	10027	9974	10027
2.991					9948.58	10006.49
2.991	1	0	9950	10008	9950	10006.48
2.973					9949.01	10024.89
2.973	1	0.01	9963	10015	9963	10015
2.896					9995.23	10034.25
2.896	1	0.02	9953	10074	9995.16	10036.25
2.862					9965.78	10024.46
2.862	1	0.11	9966	10012	9966	10012
2.814					9880.88	10018.86
2.814	1	0.09	9938	10017	9938	10017
2.77					9840.73	10054.21
2.77	1	0.61	9955	10053	9955	10053
2.712					9836.91	10150.2
2.712	1	0.97	9982	10021	9982	10021
2.637					9975.18	10089.33
2.637	1	0.19	9975	10029	9975.12	10029
2.62					9982.55	10114.56
2.62	1	0	9978	10120	9982.55	10114.56

ENCROACHMENT METHOD CHECK

FLOODWAY WIDTH CHECK

RS: 4.554
FW FW 04 The left station effective of 9994.03 for 1% annual chance floodplain is less than the left channel bank station 9994.031
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9991) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 4.494
FW FW 03 The right channel bank station may not be at the proper location.

RS: 4.423
FW FW 04 The left station effective of 9976.85 for 1% annual chance floodplain is less than the left channel bank station 9976.868
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9976) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 4.423
FW FW 04 The right station effective of 10006.46 for 1% annual chance floodplain is greater than the right channel bank station (10006.45).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10007) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 4.365
FW FW 01 Right encroachment station 10021 is less than right channel bank station 10021.31 and greater than the left channel bank station 9987.01
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.332
FW FW 01 Left encroachment station 9978 is more than left channel bank station 9977.83 and less than the right channel bank station 10008.08
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.332
FW FW 01 Right encroachment station 10008 is less than right channel bank station 10008.08 and greater than the left channel bank station 9977.83
Right encroachment station is within the channel.

The encroachment station or channel bank station should be adjusted.

RS: 4.332
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.299
FW FW 01 Right encroachment station 10027 is less than right channel bank station 10027.06 and greater than the left channel bank station 9979.67
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.239
FW FW 01 Right encroachment station 10018 is less than right channel bank station 10018.28 and greater than the left channel bank station 9980.192
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.239
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 4.127
FW FW 01 Right encroachment station 10033 is less than right channel bank station 10034.21 and greater than the left channel bank station 9979.11
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 4.021
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.951
FW FW 01 Right encroachment station 10004 is less than right channel bank station 10004.65 and greater than the left channel bank station 9980.115
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.951
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.902
FW FW 01 Right encroachment station 10011 is less than right channel bank station 10011.17 and greater than the left channel bank station 9978.832
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.902
FW FW 03 The right channel bank station may not be at the proper location.

RS: 3.867
FW FW 01 Right encroachment station 10008 is less than right channel bank station 10009.12 and greater than the left channel bank station 9989.887
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.804
FW FW 01 Left encroachment station 9973 is more than left channel bank station 9972.709 and less than the right channel bank station 10008.62
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.804
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.804
FW FW 06 The right station effective of 10008.23 for the floodway profile is less than the right channel bank station of 10008.62
The right side of the floodway boundary is within the channel.
The right encroachment station of 10013 is greater than the right channel bank station.

The right encroachment station should be the same as the right channel bank station.

RS: 3.716
FW FW 01 Right encroachment station 10014 is less than right channel bank station 10014.13 and greater than the left channel bank station 9984.036
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.716
FW FW 05 The 1% annual chance flood is contained within the channel.
Left encroachment station 9984 is outside the channel.
Left channel bank station is 9984.036
Left encroachment station and/or left channel bank station should be adjusted.

RS: 3.582
FW FW 01 Right encroachment station 10013 is less than right channel bank station 10013.09 and greater than the left channel bank station 9984.991
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.506
FW FW 05 The 1% annual chance flood is contained within the channel.
Left encroachment station 9968 is outside the channel.
Left channel bank station is 9970.676
Left encroachment station and/or left channel bank station should be adjusted.

RS: 3.506
FW FW 05 The 1% annual chance flood is contained within the channel.
Right encroachment station 10095 is outside the channel.
Right channel bank station is 10013.38
Right encroachment station and/or right channel bank station should be adjusted.

RS: 3.506
FW FW 06 The left station effective of 9970.7 for the floodway profile is more than the left channel bank station of 9970.676
The left side of the floodway boundary is within the channel.
The left encroachment station of 9968 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 3.506
FW FW 06 The right station effective of 10013.34 for the floodway profile is less than the right channel bank station of 10013.38
The right side of the floodway boundary is within the channel.
The right encroachment station of 10095 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 3.46
FW FW 04 The left station effective of 9979.86 for 1% annual chance floodplain is less than the left channel bank station 9986.36
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9973) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 3.46
FW FW 04 The right station effective of 10048.79 for 1% annual chance floodplain is greater than the right channel bank station (10020.27).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10097) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 3.41
FW FW 04 The left station effective of 9955.78 for 1% annual chance floodplain is less than the left channel bank station 9955.782
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9950) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 3.342
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.342
FW FW 04 The left station effective of 9973.48 for 1% annual chance floodplain is less than the left channel bank station 9973.482
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9972) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 3.283
FW FW 01 Left encroachment station 9975 is more than left channel bank station 9974.836 and less than the right channel bank station 10016.66
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.283
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.283
FW FW 06 The right station effective of 10016.65 for the floodway profile is less than the right channel bank station of 10016.66
The right side of the floodway boundary is within the channel.
The right encroachment station of 10023 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 3.262
FW FW 05 The 1% annual chance flood is contained within the channel.
Left encroachment station 9961 is outside the channel.
Left channel bank station is 9981.34
Left encroachment station and/or left channel bank station should be adjusted.

RS: 3.262
FW FW 05 The 1% annual chance flood is contained within the channel.
Right encroachment station 10031 is outside the channel.
Right channel bank station is 10022.52
Right encroachment station and/or right channel bank station should be adjusted.

RS: 3.262
FW FW 06 The left station effective of 9981.83 for the floodway profile is more than the left channel bank station of 9981.34
The left side of the floodway boundary is within the channel.
The left encroachment station of 9961 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 3.129
FW FW 01 Right encroachment station 10015 is less than right channel bank station 10015.49 and greater than the left channel bank station 9977.453
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.09
FW FW 01 Left encroachment station 9967 is more than left channel bank station 9966.67 and less than the right channel bank station 10016.43
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.09
FW FW 01 Right encroachment station 10016 is less than right channel bank station 10016.43 and greater than the left channel bank station 9966.67
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 3.09
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 3.046
FW FW 01 Right encroachment station 10027 is less than right channel bank station 10027.39 and greater than the left channel bank station 9984.081
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.991
FW FW 01 Right encroachment station 10008 is less than right channel bank station 10008.2 and greater than the left channel bank station 9979.56
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.973
FW FW 01 Right encroachment station 10015 is less than right channel bank station 10015.02 and greater than the left channel bank station 9968.281
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.896
FW FW 04 The left station effective of 9995.23 for 1% annual chance floodplain is less than the left channel bank station 9995.402
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9953) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 2.896
FW FW 04 The right station effective of 10034.25 for 1% annual chance floodplain is greater than the right channel bank station (10022.71).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10074) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

RS: 2.814
FW FW 01 Right encroachment station 10017 is less than right channel bank station 10020 and greater than the left channel bank station 9980
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.77
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.712
FW FW 01 Left encroachment station 9982 is more than left channel bank station 9981.77 and less than the right channel bank station 10020.84
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.637
FW FW 06 The left station effective of 9975.12 for the floodway profile is more than the left channel bank station of 9975.06
The left side of the floodway boundary is within the channel.
The left encroachment station of 9975 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 2.62
FW FW 01 Left encroachment station 9978 is more than left channel bank station 9977.902 and less than the right channel bank station 10032.3
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.62
FW FW 04 The right station effective of 10114.56 for 1% annual chance floodplain is greater than the right channel bank station (10032.3).
The 1% annual chance floodplain is outside the channel.
However, the right encroachment station (10120) is outside of 1% annual chance floodplain.
The right encroachment station should be adjusted.

SURCHARGE CHECK

DISCHARGE CHECK

STARTING WATER-SURFACE ELEVATION CHECK

---END---

12 EAST SPLIT

12E_SPLIT
CHECK-RAS Program: NT Check
Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E_SPLIT.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E_SPLIT.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E_SPLIT.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E_SPLIT.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E_SPLIT.nt
Selected profiles: Floodplain
Date: 7/29/2005
Time: 9:21:14 AM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #2,12E_Split						
4.109		0.046	0.06	0.046	0.1	0.3
4.07		0.046	0.06	0.046	0.1	0.3
3.997		0.046	0.06	0.046	0.1	0.3
3.933		0.046	0.06	0.046	0.1	0.3
3.854		0.046	0.06	0.046	0.1	0.3
3.795		0.046	0.06	0.046	0.1	0.3
3.716		0.046	0.06	0.046	0.1	0.3

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.046	0.046
Right Overbank n Value:	0.046	0.046
Channel n Value:	0.06	0.06
Contraction Coefficient:	0.1	0.1
Expansion Coefficient:	0.3	0.3

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

ROUGHNESS COEFFICIENT CHECK

RS: 4.109
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 4.07
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.997
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.933
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.854
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

RS: 3.795
NT RC 05 The left overbank n value of 0.046 and the right overbank n value of 0.046 are less than or equal to the channel n value of 0.06 The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

ROUGHNESS COEFFICIENT AT STRUCTURES

---END---

12E_SPLIT
CHECK-RAS Program, XS Check
Cross Section Location and Alignment Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E_SPLIT.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E_SPLIT.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E_SPLIT.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E_SPLIT.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\12E_SPLIT.xs
Selected profiles: Floodplain
Date: 7/29/2005
Time: 9:21:14 AM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #2,12E_Split						
4.109	209.895	203.359	198.163	173.56	360	D
4.07	385.486	384.75	387.665	40.1	70	
3.997	332.983	337.465	338.11	25.75	70	
3.933	410.327	414.551	418.047	22.46	70	
3.854	310.595	313.446	314.384	24.3	70	
3.795	419.684	419.077	416.643	30.42	70	
3.716	0	0	0	30.19	360	

B=blocked obstruction XS SC 05
C=critial depth XS SC 03
D=divided flow XS SC 01
E=cross section extended XS SC 02
K=known water-surface XS SC 04

DISTANCE CHECK

SPACING CHECK

INEFFECTIVE FLOW CHECK

DISCHARGE CHECK

RS: 4.07
XS DC 01 Discharge decreases in the downstream direction.

LOCATION CHECK

RS: 4.07
XS LC 01 Lenchl Up/TopwdthAct Dn = 14.94
MaxChlDpth Up/MaxChlDpth Dn = 2.37
TopwdthAct Up/TopwdthAct Dn = 1.56
This cross section is located too far upstream from the
critical depth cross section.

BOUNDARY CONDITION CHECK

XS BC 02 The name of the stream is Reach #2,12E_Split
Known WS = 1490.96 is specified as the downstream boundary
for profile Floodplain

LATERAL WEIRS CHECK

---END---

13 EAST

CHECK-RAS Program: NT Check
Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\13E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\13E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\13E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\13E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\13E.nt
Selected profiles: Floodplain;Floodway
Date: 7/12/2005
Time: 10:46:43 AM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #1,13 East (South o						
2.294		0.045	0.056	0.045	0.1	0.3
2.239		0.045	0.056	0.045	0.1	0.3
2.191		0.045	0.056	0.045	0.1	0.3
2.137		0.045	0.056	0.045	0.1	0.3
2.076		0.045	0.056	0.045	0.1	0.3
2.043		0.045	0.056	0.045	0.1	0.3
2.027		0.045	0.056	0.045	0.1	0.3
2.006		0.045	0.056	0.045	0.2	0.4
2.001		0.045	0.056	0.045	0.2	0.4
1.934		0.045	0.056	0.045	0.1	0.3
1.918		0.045	0.056	0.045	0.1	0.3
1.896		0.045	0.056	0.045	0.1	0.3
1.842		0.045	0.056	0.045	0.1	0.3
1.794		0.045	0.056	0.045	0.1	0.3
1.737		0.045	0.056	0.045	0.1	0.3
1.635		0.045	0.056	0.045	0.1	0.3
1.581		0.045	0.056	0.045	0.1	0.3
1.529		0.045	0.056	0.045	0.1	0.3
1.446		0.045	0.056	0.045	0.1	0.3
1.368		0.045	0.056	0.045	0.1	0.3
1.284		0.045	0.056	0.045	0.1	0.3
1.189		0.045	0.056	0.045	0.1	0.3
1.09		0.045	0.056	0.045	0.1	0.3
.995		0.045	0.056	0.045	0.1	0.3
.917		0.045	0.056	0.045	0.1	0.3
.848		0.045	0.056	0.045	0.1	0.3

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.045	0.045
Right Overbank n Value:	0.045	0.045
Channel n Value:	0.056	0.056
Contraction Coefficient:	0.1	0.2
Expansion Coefficient:	0.3	0.4

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

ROUGHNESS COEFFICIENT CHECK

RS: 2.294
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 2.239
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 2.191
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 2.137
NT RC 05 The left overbank n value of 0.045 and the right overbank n value

of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 2.076
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 2.043
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 2.027
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 2.006
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 2.001
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.934
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.918
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.896
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.842
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.794
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.737
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.635
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.581
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.529
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.446

NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.368
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.284
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.189
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.09
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 0.995
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 0.917
NT RC 05 The left overbank n value of 0.045 and the right overbank n value
of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

RS: 2.006
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4
respectively. However, this cross section is not at the structure.
They should be equal to 0.1 and 0.3.

RS: 2.001
NT TL 02 Contraction and expansion loss coefficients are 0.2 and 0.4
respectively. However, this cross section is not at the structure.
They should be equal to 0.1 and 0.3.

ROUGHNESS COEFFICIENT AT STRUCTURES

---END---

CHECK-RAS Program, XS Check
Cross Section Location and Alignment Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\13E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\13E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\13E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\13E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\13E.xs
Selected profiles: Floodplain;Floodway
Date: 7/12/2005
Time: 10:46:44 AM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #1,13 East (South o						
2.294	500	500.814	500	126.26	460	C (SC)
2.239	218.976	253.651	267.271	82.18	460	
2.191	285.256	287.014	287.698	80.07	460	
2.137	321.615	321.137	309.456	70.42	460	
2.076	170.741	175.7	188.71	63.27	460	
2.043	78.144	86.394	94.813	93.3	460	
2.027	122.862	114.137	120.181	155.56	460	C (SC)
2.006	28.395	28.587	30.98	18.15	460	
2.001	342.435	352.068	350.404	122.67	460	
1.934	94.177	97.736	95.892	82.27	460	D C (SC)
1.918	118.045	117.472	109.829	75.4	460	
1.896	290.535	286.094	266.65	44.05	460	
1.842	260.76	255.38	254.849	52.18	460	D
1.794	283.962	302.335	306.741	58.19	460	D
1.737	527.269	538.642	543.203	247.66	460	D
1.635	298.649	285.74	256.263	229.38	1810	
1.581	280.178	276.925	255.616	214.97	1810	
1.529	447.141	436.393	409.361	282.97	1830	
1.446	434.132	443.348	459.44	377.96	1830	
1.368	374.125	391.339	398.223	629.79	1830	D
1.284	480.205	495.417	498.977	674.57	1830	D
1.189	496.638	521.422	522	628.79	1830	D
1.09	471.118	503.708	509.32	560.33	1830	D
.995	365.415	408.852	374.927	856.18	1830	
.917	358.346	362.367	369.007	645.48	1830	D
.848	0	0	0	746.2	1830	D

B=blocked obstruction XS SC 05
C=critial depth XS SC 03
D=divided flow XS SC 01
E=cross section extended XS SC 02
K=known water-surface XS SC 04

DISTANCE CHECK

SPACING CHECK

INEFFECTIVE FLOW CHECK

DISCHARGE CHECK

LOCATION CHECK

RS: 2.027
XS LC 01 Lenchl Up/TopwdthAct Dn = 6.29
MaxChlDpth Up/MaxChlDpth Dn = 1.43

TopwdthAct Up/TopwdthAct Dn = 8.57
This cross section is located too far upstream from the
critical depth cross section.

RS: 2.001
XS LC 01 Lenchl Up/TopwdthAct Dn = 4.28
MaxChlDpth Up/MaxChlDpth Dn = 1.40
TopwdthAct Up/TopwdthAct Dn = 1.49
This cross section is located too far upstream from the
critical depth cross section.

BOUNDARY CONDITION CHECK

XS BC 02 The name of the stream is Reach #1,13 East (South o
Normal S = 0.0094 is specified as the downstream boundary
for profile Floodplain

XS BC 02 The name of the stream is Reach #1,13 East (South o
Normal S = 0.0094 is specified as the downstream boundary
for profile Floodway

LATERAL WEIRS CHECK

---END---

CHECK-RAS Program: Floodway Check
Encroachment Method, Starting WSEL, Floodway Width, and Surcharge Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\13E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\13E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\13E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\13E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\13E.fw
Selected profiles: Floodplain;Floodway
Date: 7/12/2005
Time: 10:46:46 AM

SECNO	Method	Surcharge	EncStaL	EncStaR	LStaEff	RStaEff	Structure
Reach #1,13 East (South o							
2.294					134.54	260.8	
2.294	0	0	0	0	134.54	260.8	
2.239					9945.75	10027.93	
2.239	1	0.74	9979	10020	9979	10020	
2.191					9935.59	10015.66	
2.191	1	0.3	9986	10015	9986	10015	
2.137					9958.98	10029.41	
2.137	1	0.09	9972	10021	9972	10021	
2.076					9957.97	10021.24	
2.076	1	0.11	9967	10020	9967	10020	
2.043					9940.85	10034.15	
2.043	1	0.09	9957	10022	9957	10022	
2.027					9916.4	10071.96	
2.027	1	0.06	9958	10058	9958	10058	
2.006					9991.34	10009.49	
2.006	1	0	9991	10010	9991.34	10009.49	
2.001					9895.44	10018.11	
2.001	1	0.41	9943	10017	9943	10017	
1.934					9987.73	10088.44	
1.934	1	0.27	9988	10065	9988	10063.03	
1.918					9975.97	10051.37	
1.918	1	0.02	9972	10052	9975.92	10051.39	
1.896					9971.87	10015.92	
1.896	1	0.06	9970	10018	9971.71	10016.03	
1.842					9965.59	10020.11	
1.842	1	0.19	9990	10017	9990	10017	
1.794					9922.58	10012.6	
1.794	1	0.92	9972	10013	9972	10013	
1.737					9748.6	10063.68	
1.737	1	0.92	9938	10017	9938	10017	
1.635					9800.98	10030.37	
1.635	1	0.66	9967	10015	9967	10015	
1.581					9901.95	10116.93	
1.581	1	0.66	9958	10022	9958	10022	
1.529					9935.34	10218.32	
1.529	1	0.37	9966	10078	9966	10078	
1.446					9883.04	10261	
1.446	1	0.81	9939	10107	9939	10107	
1.368					9822.22	10501.01	
1.368	1	0.73	9946	10170	9946	10170	
1.284					9781.81	10496.55	
1.284	1	1	9875	10155	9875	10155	
1.189					9629.13	10322.75	
1.189	1	0.71	9813	10083	9813	10083	
1.09					9565.52	10134.18	
1.09	1	0.56	9750	10056	9750	10056	
0.995					9552.49	10408.67	
0.995	1	0.65	9766	10027	9766	10027	
0.917					9433.32	10103.46	
0.917	1	0.4	9782	10042	9782	10042	
0.848					9315.73	10080.6	
0.848	1	0.35	9734	10072	9734	10072	

ENCROACHMENT METHOD CHECK

RS: 2.294
FW EM 01 Floodway encroachment method is not selected at this section.

FLOODWAY WIDTH CHECK

RS: 2.294
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.294
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.137
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.076
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.043
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.043
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.027
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.006
FW FW 04 The left station effective of 9991.34 for 1% annual chance floodplain is less than the left channel bank station 9991.749
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9991) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 2.006
FW FW 06 The right station effective of 10009.49 for the floodway profile is less than the right channel bank station of 10009.72
The right side of the floodway boundary is within the channel.
The right encroachment station of 10010 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 2.001
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.934
FW FW 06 The right station effective of 10063.03 for the floodway profile is less than the right channel bank station of 10064.02
The right side of the floodway boundary is within the channel.
The right encroachment station of 10065 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 1.918
FW FW 05 The 1% annual chance flood is contained within the channel.
Left encroachment station 9972 is outside the channel.
Left channel bank station is 9972.04
Left encroachment station and/or left channel bank station should be adjusted.

RS: 1.918
FW FW 05 The 1% annual chance flood is contained within the channel.
Right encroachment station 10052 is outside the channel.

Right channel bank station is 10051.82
Right encroachment station and/or right channel bank station should be adjusted.

RS: 1.918
FW FW 06 The left station effective of 9975.92 for the floodway profile is more than the left channel bank station of 9972.04
The left side of the floodway boundary is within the channel.
The left encroachment station of 9972 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 1.918
FW FW 06 The right station effective of 10051.39 for the floodway profile is less than the right channel bank station of 10051.82
The right side of the floodway boundary is within the channel.
The right encroachment station of 10052 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 1.896
FW FW 01 Left encroachment station 9970 is more than left channel bank station 9969.53 and less than the right channel bank station 10017.86
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.896
FW FW 05 The 1% annual chance flood is contained within the channel.
Right encroachment station 10018 is outside the channel.
Right channel bank station is 10017.86
Right encroachment station and/or right channel bank station should be adjusted.

RS: 1.896
FW FW 06 The right station effective of 10016.03 for the floodway profile is less than the right channel bank station of 10017.86
The right side of the floodway boundary is within the channel.
The right encroachment station of 10018 is greater than the right channel bank station.
The right encroachment station should be the same as the right channel bank station.

RS: 1.842
FW FW 01 Left encroachment station 9990 is more than left channel bank station 9989.89 and less than the right channel bank station 10016.62
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.794
FW FW 01 Right encroachment station 10013 is less than right channel bank station 10013.51 and greater than the left channel bank station 9972.25
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.635
FW FW 01 Left encroachment station 9967 is more than left channel bank station 9966.544 and less than the right channel bank station 10015.48
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.635
FW FW 01 Right encroachment station 10015 is less than right channel bank station 10015.48 and greater than the left channel bank station 9966.544
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.581
FW FW 01 Left encroachment station 9958 is more than left channel bank station 9957.751 and less than the right channel bank station 10021.67
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 1.529
FW FW 03 The Left channel bank station may not be at the proper

location.

RS: 1.368
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 1.368
FW FW 03 The right channel bank station may not be at the proper location.

RS: 0.995
FW FW 01 Right encroachment station 10027 is less than right channel bank station 10027.21 and greater than the left channel bank station 9986.174
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 0.848
FW FW 03 The Left channel bank station may not be at the proper location.

SURCHARGE CHECK

DISCHARGE CHECK

STARTING WATER-SURFACE ELEVATION CHECK

---END---

14 EAST

CHECK-RAS Program: NT Check
Manning's n Value and Transition Loss Coefficient Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\14E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\14E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\14E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\14E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\14E.nt
Selected profiles: Floodplain;Floodway
Date: 7/12/2005
Time: 12:57:16 PM

SECNO	STRUCTURE	NLOB	NCHL	NROB	CNTR	EXP
Reach #1,14 East						
2.244		0.045	0.056	0.045	0.1	0.3
2.168		0.045	0.056	0.045	0.1	0.3
2.135		0.045	0.056	0.045	0.1	0.3
2.112		0.045	0.056	0.045	0.1	0.3
2.089		0.045	0.056	0.045	0.1	0.3
2.026		0.045	0.056	0.045	0.1	0.3
1.941		0.045	0.056	0.045	0.1	0.3
1.894		0.045	0.056	0.045	0.1	0.3
1.831		0.045	0.056	0.045	0.1	0.3
1.772		0.045	0.056	0.045	0.1	0.3
1.635		0.045	0.056	0.045	0.1	0.3

---Summary of Statistics---

	Minimum	Maximum
Left Overbank n Value:	0.045	0.045
Right Overbank n Value:	0.045	0.045
Channel n Value:	0.056	0.056
Contraction Coefficient:	0.1	0.1
Expansion Coefficient:	0.3	0.3

Typical desert washes have heavy vegetation in the wash and almost no vegetation in the overbanks. Therefore, most channel "n" values are larger than the overbanks.

ROUGHNESS COEFFICIENT CHECK

RS: 2.244
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 2.168
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 2.135
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 2.112
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 2.089
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 2.026
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.056 The overbank n values should be reevaluated.

RS: 1.941
NT RC 05 The left overbank n value of 0.045 and the right overbank n value

of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.894
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.831
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

RS: 1.772
NT RC 05 The left overbank n value of 0.045 and the right overbank n value of 0.045 are less than or equal to the channel n value of 0.056
The overbank n values should be reevaluated.

TRANSITION LOSS COEFFICIENT CHECK

ROUGHNESS COEFFICIENT AT STRUCTURES

---END---

CHECK-RAS Program, XS Check
Cross Section Location and Alignment Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\14E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\14E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\14E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\14E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\14E.xs
Selected profiles: Floodplain;Floodway
Date: 7/12/2005
Time: 12:57:17 PM

SECNO	Len Lob	Len Chl	Len Rob	TopWdthAct	Q Total	Flow Code
Reach #1,14 East						
2.244	410	400.3	985	199.14	1380	
2.168	171.93	171.93	171.93	142.74	1380	
2.135	121.377	121.377	121.377	203.31	1380	
2.112	146.232	118.842	99.754	50.63	1380	
2.089	324.049	332.25	338.232	123.16	1380	
2.026	435.515	446.175	452.137	195.87	1380	
1.941	273.539	249.817	229.627	263.34	1380	
1.894	331.5	331.103	323.51	293.16	1380	
1.831	309.417	311.108	319.351	311.8	1380	C (SC)
1.772	630.039	725.767	733.978	373.88	1380	
1.635	0	0	0	219.47	1380	

B=blocked obstruction XS SC 05
C=critial depth XS SC 03
D=divided flow XS SC 01
E=cross section extended XS SC 02
K=known water-surface XS SC 04

DISTANCE CHECK

SPACING CHECK

INEFFECTIVE FLOW CHECK

DISCHARGE CHECK

XS DC 02 Constant dicharge used for the Reach #1,14 East

LOCATION CHECK

BOUNDARY CONDITION CHECK

XS BC 02 The name of the stream is Reach #1,14 East
Normal S = 0.0077 is specified as the downstream boundary
for profile Floodplain

XS BC 02 The name of the stream is Reach #1,14 East
Normal S = 0.0077 is specified as the downstream boundary
for profile Floodway

LATERAL WEIRS CHECK

---END---

CHECK-RAS Program: Floodway Check
Encroachment Method, Starting WSEL, Floodway Width, and Surcharge Review

Project File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\14E.PRJ
Plan File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\14E.P01
Geometry File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\14E.G01
Flow File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\14E.F01
Report File: P:\300\310\310032 (Wittmann ADMSU)\Tasks\HydraFEMA\Detailed\SOUTH_CAP\14E.fw
Selected profiles: Floodplain;Floodway
Date: 7/12/2005
Time: 12:57:18 PM

SECNO	Method	Surcharge	EncStaL	EncStaR	LStaEff	RStaEff	Structure
Reach #1,14 East							
2.244					114.37	313.51	
2.244	0	-0.04	0	0	115.02	312.74	
2.168					280.57	423.31	
2.168	0	0.1	0	0	279.66	425.58	
2.135					96.89	300.2	
2.135	0	0.2	0	0	94.34	305.32	
2.112					9968.19	10018.82	
2.112	1	0.34	9978	10018	9978	10018	
2.089					9964.27	10087.43	
2.089	1	0.62	9965	10032	9965	10032	
2.026					9917.43	10113.3	
2.026	1	0.96	9977	10041	9977	10041	
1.941					9856.95	10120.29	
1.941	1	0.82	9978	10031	9978	10031	
1.894					9847.52	10140.68	
1.894	1	0.3	9965	10026	9965	10026	
1.831					9976.48	10288.28	
1.831	1	0.78	9977	10098	9977	10098	
1.772					9972.65	10346.53	
1.772	1	0.99	9970	10081	9970	10081	
1.635					9815.06	10034.53	
1.635	1	0.34	9962	10021	9962	10021	

ENCROACHMENT METHOD CHECK

RS: 2.244
FW EM 01 Floodway encroachment method is not selected at this section.

RS: 2.168
FW EM 01 Floodway encroachment method is not selected at this section.

RS: 2.135
FW EM 01 Floodway encroachment method is not selected at this section.

FLOODWAY WIDTH CHECK

RS: 2.168
FW FW 05 The 1% annual chance flood is contained within the channel.
Left encroachment station 0 is outside the channel.
Left channel bank station is 276.547
Left encroachment station and/or left channel bank station should be adjusted.

RS: 2.168
FW FW 06 The left station effective of 279.66 for the floodway profile is more
than the left channel bank station of 276.547
The left side of the floodway boundary is within the channel.
The left encroachment station of 0 is less than the left channel
bank station.
The left encroachment station should be the same as the left
channel bank station.

RS: 2.135
FW FW 05 The 1% annual chance flood is contained within the channel.

Left encroachment station 0 is outside the channel.
Left channel bank station is 84.15
Left encroachment station and/or left channel bank station should be adjusted.

RS: 2.135
FW FW 06 The left station effective of 94.34 for the floodway profile is more than the left channel bank station of 84.15
The left side of the floodway boundary is within the channel.
The left encroachment station of 0 is less than the left channel bank station.
The left encroachment station should be the same as the left channel bank station.

RS: 2.112
FW FW 01 Right encroachment station 10018 is less than right channel bank station 10018.21 and greater than the left channel bank station 9978.25
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.089
FW FW 01 Left encroachment station 9965 is more than left channel bank station 9964.879 and less than the right channel bank station 10031.96
Left encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

RS: 2.089
FW FW 03 The Left channel bank station may not be at the proper location.

RS: 2.089
FW FW 03 The right channel bank station may not be at the proper location.

RS: 2.026
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.831
FW FW 03 The right channel bank station may not be at the proper location.

RS: 1.772
FW FW 04 The left station effective of 9972.65 for 1% annual chance floodplain is less than the left channel bank station 9973.303
The 1% annual chance floodplain is outside the channel.
However, the left encroachment station (9970) is outside of 1% annual chance floodplain.
The left encroachment station should be adjusted.

RS: 1.635
FW FW 01 Right encroachment station 10021 is less than right channel bank station 10021.12 and greater than the left channel bank station 9972.178
Right encroachment station is within the channel.
The encroachment station or channel bank station should be adjusted.

SURCHARGE CHECK

DISCHARGE CHECK

STARTING WATER-SURFACE ELEVATION CHECK

---END---

E.8 Summary of Errors and Warnings

List of Washes

1. WASH 3 WEST
2. T4N-R3W-S08E
3. T5N-R3W-S19
4. IONA WASH
5. IONA WASH (NORTH)
6. IONA NORTH WEST SPLIT-1
7. IONA EAST SPLIT-1
8. IONA EAST SPLIT-2
9. TRILBY WASH
10. CIRCLE CITY AREA WASH 1
11. WASH 2 WEST (NORTH OF CAP)
12. 2 WEST TRIBUTARY-1
13. 2 WEST TRIBUTARY-2
14. WITTMANN WASH
15. WITTMANN WASH (NORTH SPLIT)
16. WITTMANN WASH (SOUTH SPLIT)
17. WITTMANN TRIBUTARY
18. T5N-R3W-S24E
19. T5N-R2W-S19E
20. T5N-R2W-S19W
21. T5N-R3W-S01S
22. T5N-R2W-S07
23. WASH 2 EAST (NORTH OF CAP)
24. 2 EAST TRIBUTARY
25. WASH 7 EAST
26. 7 EAST TRIBUTARY
27. IONA EAST (SOUTH OF CAP)
28. IONA WEST (SOUTH OF CAP)
29. WASH 2 WEST (SOUTH OF CAP)
30. WASH 1 WEST
31. WASH 1 EAST
32. WASH 2 EAST (SOUTH OF CAP)
33. 2 EAST DIKE FAILURE
34. WASH 3 EAST
35. WASH 4 EAST
36. 4 EAST DIKE FAILURE
37. WASH 5 EAST
38. WASH 6 EAST
39. 6 EAST SOUTH
40. 7 EAST-EAST SPLIT
41. 7 EAST-WEST SPLIT
42. WASH 8 EAST
43. WASH 9 EAST
44. 9 EAST SPLIT
45. WASH 10 EAST
46. 10 EAST (EAST SPLIT-1)
47. 10 EAST (EAST SPLIT-2)
48. WASH 11 EAST
49. 11 EAST DIKE FAILURE
50. BONITA DIKE CHANNEL
51. WASH 12 EAST
52. 12 EAST SPLIT
53. WASH 13 EAST
54. WASH 14 EAST

3 WEST

Errors Warnings and Notes for Plan :

Location:	River: Reach #1 Reach: Reach #1 RS: 6.37 Profile: Floodplain
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.
Note:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 6.12 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 5.73 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 5.41 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 5.24 Profile: Floodplain
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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 5.06 Profile: Floodplain
Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 4.88 Profile: Floodplain
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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 4.71 Profile: Floodplain
Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 4.5 Profile: Floodplain
Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 4.21 Profile: Floodplain
Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 3.87 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

Errors Warnings and Notes for Plan : (Continued)

Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 3.64 Profile: Floodplain
Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 3.37 Profile: Floodplain
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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 3.1 Profile: Floodplain
Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.91 Profile: Floodplain
Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.68 Profile: Floodplain
Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.51 Profile: Floodplain
Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.35 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.23 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.05 Profile: Floodplain
Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.89 Profile: Floodplain
Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.81 Profile: Floodplain
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:	The user has entered a known water surface elevation at this cross section.

Errors Warnings and Notes for Plan : (Continued)

Location:	River: Reach #1 Reach: Reach #1 RS: 1.63 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.48 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.34 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.289 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.196 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.168 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.112 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.049 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.948 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.86 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.781 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.701 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

Errors Warnings and Notes for Plan : (Continued)

Location:	River: Reach #1 Reach: Reach #1 RS: 0.618 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.544 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.403 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.129 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.047 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.

T4N-R3W-S08E

Errors Warnings and Notes for Plan : T4N-R3W-S08E

Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 4.891 Profile: Floodplain
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:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 4.817 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 4.752 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 4.652 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 4.585 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 4.493 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 4.417 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 4.336 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 4.256 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 4.178 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

(S/C)

Errors Warnings and Notes for Plan : T4N-R3W-S08E (Continued)

Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 4.102 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 4.014 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 3.937 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 3.856 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 3.779 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 3.698 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 3.604 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 3.524 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 3.439 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 3.363 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 3.288 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 3.213 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 3.115 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 3.028 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 2.96 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.

Errors Warnings and Notes for Plan : T4N-R3W-S08E (Continued)

	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 2.864 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 2.778 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 2.699 Profile: Floodplain
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:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 2.625 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 2.527 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 2.44 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 2.343 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 2.259 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 2.156 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 2.073 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 1.986 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 1.9 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 1.817 Profile: Floodplain

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Errors Warnings and Notes for Plan : T4N-R3W-S08E (Continued)

Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 1.737 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 1.666 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 1.607 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 1.539 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 1.489 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 1.412 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 1.353 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 1.274 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 1.184 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 1.09 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 1.005 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 0.921 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 0.831 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.

Errors Warnings and Notes for Plan : T4N-R3W-S08E (Continued)

	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 0.734 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 0.641 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 0.552 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 0.459 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 0.366 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 0.268 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 0.184 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T4N-R3W-S08E RS: 0.076 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.

T5N-R3W-S19

Errors Warnings and Notes for Plan : T5N-R3W-S19S

Location:	River: Reach #2 Reach: T5N-R3W-S19 RS: 0.58 Profile: Floodplain
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:	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.
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.
Location:	River: Reach #2 Reach: T5N-R3W-S19 RS: 0.51 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #2 Reach: T5N-R3W-S19 RS: 0.413 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #2 Reach: T5N-R3W-S19 RS: 0.338 Profile: Floodplain
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.
Location:	River: Reach #2 Reach: T5N-R3W-S19 RS: 0.263 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #2 Reach: T5N-R3W-S19 RS: 0.185 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #2 Reach: T5N-R3W-S19 RS: 0.078 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

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IONA WASH

Errors Warnings and Notes for Plan : Iona Wash

Location:	River: Reach #1 Reach: Iona Wash RS: 4.901 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona Wash RS: 4.844 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona Wash RS: 4.777 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona Wash RS: 4.696 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona Wash RS: 4.629 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona Wash RS: 4.547 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona Wash RS: 4.479 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona Wash RS: 4.413 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona Wash RS: 4.314 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.

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Errors Warnings and Notes for Plan : Iona Wash (Continued)

Location:	River: Reach #1 Reach: Iona Wash RS: 4.243 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona Wash RS: 4.161 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona Wash RS: 4.071 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona Wash RS: 3.99 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona Wash RS: 3.889 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona Wash RS: 3.818 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona Wash RS: 3.736 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona Wash RS: 3.648 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona Wash RS: 3.528 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona Wash RS: 3.415 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona Wash RS: 3.335 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona Wash RS: 3.25 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.

Errors Warnings and Notes for Plan : Iona Wash (Continued)

	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona Wash RS: 3.154 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona Wash RS: 3.056 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona Wash RS: 2.98 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona Wash RS: 2.944 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona Wash RS: 2.882 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona Wash RS: 2.759 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona Wash RS: 2.644 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona Wash RS: 2.507 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona Wash RS: 2.433 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona Wash RS: 2.396 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona Wash RS: 2.293 Profile: Floodplain
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.

Errors Warnings and Notes for Plan : Iona Wash (Continued)

Location:	River: Reach #1 Reach: Iona Wash RS: 2.237 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona Wash RS: 2.137 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona Wash RS: 2.06 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona Wash RS: 1.985 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona Wash RS: 1.907 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona Wash RS: 1.847 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona Wash RS: 1.762 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona Wash RS: 1.671 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7

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Errors Warnings and Notes for Plan : Iona Wash (Continued)

	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.
Location:	River: Reach #1 Reach: Iona Wash RS: 1.587 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona Wash RS: 1.496 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona Wash RS: 1.404 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona Wash RS: 1.322 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona Wash RS: 1.264 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona Wash RS: 1.109 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona Wash RS: 1.016 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona Wash RS: 0.914 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

Errors Warnings and Notes for Plan : Iona Wash (Continued)

Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona Wash RS: 0.821 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona Wash RS: 0.726 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona Wash RS: 0.623 Profile: Floodplain
Warning:	The 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona Wash RS: 0.531 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona Wash RS: 0.439 Profile: Floodplain
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:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona Wash RS: 0.333 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona Wash RS: 0.232 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona Wash RS: 0.118 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.

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Errors Warnings and Notes for Plan : 310032

Location:	River: Reach #1 Reach: Iona North RS: 5.018 Profile: Floodplain
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.
ning:	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.
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.
Location:	River: Reach #1 Reach: Iona North RS: 5.018 Profile: Floodway
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 energy loss was 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.
Location:	River: Reach #1 Reach: Iona North RS: 4.925 Profile: Floodplain
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:	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.
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.
Location:	River: Reach #1 Reach: Iona North RS: 4.925 Profile: Floodway
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.
ning:	The cross section had to be extended vertically during the critical depth calculations.
ing:	The energy loss was 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.
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.
Location:	River: Reach #1 Reach: Iona North RS: 4.826 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 4.826 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 4.755 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 4.755 Profile: Floodway
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: Iona North RS: 4.664 Profile: Floodplain
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:	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.
ning:	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.
Location:	River: Reach #1 Reach: Iona North RS: 4.664 Profile: Floodway
Warning:	The cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

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Errors Warnings and Notes for Plan : 310032 (Continued)

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.
[illegible]tion:	River: Reach #1 Reach: Iona North RS: 4.584 Profile: Floodplain
[illegible]ing:	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 energy loss was 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.
Location:	River: Reach #1 Reach: Iona North RS: 4.584 Profile: Floodway
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 cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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.
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.
Location:	River: Reach #1 Reach: Iona North RS: 4.486 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m), between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 4.486 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
[illegible]ing:	The energy loss was greater than 1.0 ft (0.3 m), between the current and previous cross section.
	This may indicate the need for additional cross sections.
[illegible]ion:	River: Reach #1 Reach: Iona North RS: 4.396 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m), between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 4.396 Profile: Floodway
Warning:	The 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.
Location:	River: Reach #1 Reach: Iona North RS: 4.312 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m), between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 4.312 Profile: Floodway
Warning:	The cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: Iona North RS: 4.247 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m), between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 4.247 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m), between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 4.164 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m), between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 4.164 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
[illegible]	additional cross sections.
[illegible]ing:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona North RS: 4.092 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

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Errors Warnings and Notes for Plan : 310032 (Continued)

Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
[redacted]tion:	River: Reach #1 Reach: Iona North RS: 4.092 Profile: Floodway
[redacted]ning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 4.038 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 4.038 Profile: Floodway
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: Iona North RS: 3.946 Profile: Floodplain
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 energy loss was 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.
Location:	River: Reach #1 Reach: Iona North RS: 3.946 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 3.879 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona North RS: 3.879 Profile: Floodway
[redacted]ning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
[redacted]ing:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 3.796 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona North RS: 3.796 Profile: Floodway
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 conveyance ratio (upstream 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 cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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.
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.
Location:	River: Reach #1 Reach: Iona North RS: 3.689 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
[redacted]ning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 3.689 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 3.602 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

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Errors Warnings and Notes for Plan : 310032 (Continued)

Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona North RS: 3.602 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 3.523 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona North RS: 3.523 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona North RS: 3.422 Profile: Floodplain
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:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona North RS: 3.422 Profile: Floodway
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:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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 cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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.
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.
Location:	River: Reach #1 Reach: Iona North RS: 3.349 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona North RS: 3.349 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona North RS: 3.257 Profile: Floodplain
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.

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Errors Warnings and Notes for Plan : 310032 (Continued)

	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.
tion:	River: Reach #1 Reach: Iona North RS: 3.257 Profile: Floodway
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:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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 cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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.
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.
Location:	River: Reach #1 Reach: Iona North RS: 3.18 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona North RS: 3.18 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
ing:	The cross section had to be extended vertically during the critical depth calculations.
ing:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: Iona North RS: 3.087 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona North RS: 3.087 Profile: Floodway
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.
tion:	River: Reach #1 Reach: Iona North RS: 3.043 Profile: Floodplain
	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Iona North RS: 3.043 Profile: Floodway
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Iona North RS: 3.0415 Profile: Floodplain

Errors Warnings and Notes for Plan : 310032 (Continued)

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.
[redacted]tion:	River: Reach #1 Reach: Iona North RS: 3.0415 Profile: Floodplain Upstream
	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Iona North RS: 3.0415 Profile: Floodplain Downstream
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Iona North RS: 3.0415 Profile: Floodway
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.
Location:	River: Reach #1 Reach: Iona North RS: 3.0415 Profile: Floodway Upstream
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Iona North RS: 3.0415 Profile: Floodway Downstream
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Iona North RS: 3.04 Profile: Floodplain
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:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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
[redacted]	subcritical answer. The program defaulted to critical depth.
	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Iona North RS: 3.04 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Iona North RS: 3.007 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 2.959 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Iona North RS: 2.959 Profile: Floodway
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Iona North RS: 2.9555 Profile: Floodplain Upstream
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
[redacted]ion:	River: Reach #1 Reach: Iona North RS: 2.9555 Profile: Floodplain Downstream
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Iona North RS: 2.9555 Profile: Floodway Upstream
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.

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Errors Warnings and Notes for Plan : 310032 (Continued)

Location:	River: Reach #1 Reach: Iona North RS: 2.9555 Profile: Floodway Downstream
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
[redacted]ation:	River: Reach #1 Reach: Iona North RS: 2.952 Profile: Floodplain
	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Iona North RS: 2.952 Profile: Floodway
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Iona North RS: 2.945 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona North RS: 2.945 Profile: Floodway
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona North RS: 2.939 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Iona North RS: 2.939 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Iona North RS: 2.9355 Profile: Floodplain
Warning:	Pier drag coefficient of 2.0 assumed for Class B flow.
Warning:	The sluice gate calculations did not converge during the pressure flow only calculation.
[redacted]e:	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.
Note:	The downstream water surface is below the minimum elevation for pressure flow. The sluice gate
	equations were used for pressure flow.
Location:	River: Reach #1 Reach: Iona North RS: 2.9355 Profile: Floodplain Upstream
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Iona North RS: 2.9355 Profile: Floodplain 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.
Location:	River: Reach #1 Reach: Iona North RS: 2.9355 Profile: Floodway
Warning:	Pier drag coefficient of 2.0 assumed for Class B flow.
Warning:	The sluice gate calculations did not converge during the pressure flow only calculation.
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.
Note:	The downstream water surface is below the minimum elevation for pressure flow. The sluice gate
	equations were used for pressure flow.
Location:	River: Reach #1 Reach: Iona North RS: 2.9355 Profile: Floodway Upstream
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
[redacted]ion:	River: Reach #1 Reach: Iona North RS: 2.9355 Profile: Floodway Downstream
[redacted]rning:	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

Errors Warnings and Notes for Plan : 310032 (Continued)

	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.
[illegible]tion:	River: Reach #1 Reach: Iona North RS: 2.932 Profile: Floodplain
[illegible]ing:	The 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Iona North RS: 2.932 Profile: Floodway
Warning:	The 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Iona North RS: 2.919 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 2.919 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 2.85 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 2.85 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 2.791 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
[illegible]tion:	River: Reach #1 Reach: Iona North RS: 2.791 Profile: Floodway
[illegible]ing:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 2.678 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 2.678 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona North RS: 2.599 Profile: Floodplain
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:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona North RS: 2.599 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
[illegible]rning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
[illegible]rning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 2.526 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.

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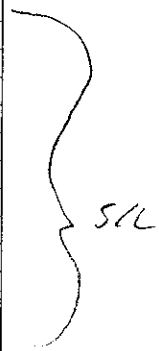
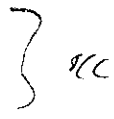
Errors Warnings and Notes for Plan : 310032 (Continued)

Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
[redacted]rning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
[redacted]	This may indicate the need for additional cross sections.
tion:	River: Reach #1 Reach: Iona North RS: 2.526 Profile: Floodway
Warning:	The conveyance ratio (upstream 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 cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: Iona North RS: 2.436 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona North RS: 2.436 Profile: Floodway
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.
[redacted]rning:	The cross section had to be extended vertically during the critical depth calculations.
[redacted]ning:	The energy loss was 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.
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.
Location:	River: Reach #1 Reach: Iona North RS: 2.324 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona North RS: 2.324 Profile: Floodway
Warning:	Divided flow computed for this cross-section.
Warning:	The 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.
Location:	River: Reach #1 Reach: Iona North RS: 2.227 Profile: Floodplain
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:	The energy loss was 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.
Location:	River: Reach #1 Reach: Iona North RS: 2.227 Profile: Floodway
Warning:	The cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
[redacted]	This may indicate the need for additional cross sections.
ing:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: Iona North RS: 2.149 Profile: Floodplain
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 energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.





Errors Warnings and Notes for Plan : 310032 (Continued)

	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.
ation:	River: Reach #1 Reach: Iona North RS: 2.149 Profile: Floodway
Warning:	The cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: Iona North RS: 2.08 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 2.08 Profile: Floodway
Warning:	The cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: Iona North RS: 2 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 2 Profile: Floodway
Warning:	The cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: Iona North RS: 1.925 Profile: Floodplain
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.
ning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona North RS: 1.925 Profile: Floodway
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 cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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.
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.
Location:	River: Reach #1 Reach: Iona North RS: 1.83 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona North RS: 1.83 Profile: Floodway
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: Iona North RS: 1.758 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
rning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 1.758 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 1.683 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.

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Errors Warnings and Notes for Plan : 310032 (Continued)

	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 1.683 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 1.603 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona North RS: 1.603 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona North RS: 1.578 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 1.578 Profile: Floodway
Warning:	The energy loss was 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:	*The parabolic search method failed to converge on critical depth. The program will try the cross*
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: Iona North RS: 1.505 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona North RS: 1.505 Profile: Floodway
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.
Location:	River: Reach #1 Reach: Iona North RS: 1.4 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona North RS: 1.4 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona North RS: 1.293 Profile: Floodplain
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.

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Errors Warnings and Notes for Plan : 310032 (Continued)

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.
[redacted]ning:	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.
Location:	River: Reach #1 Reach: Iona North RS: 1.293 Profile: Floodway
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 energy loss was 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.
Location:	River: Reach #1 Reach: Iona North RS: 1.219 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona North RS: 1.219 Profile: Floodway
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona North RS: 1.147 Profile: Floodplain
[redacted]ning:	Divided flow computed for this cross-section.
[redacted]ing:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona North RS: 1.147 Profile: Floodway
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona North RS: 1.074 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona North RS: 1.074 Profile: Floodway
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona North RS: 0.991 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
[redacted]ning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
[redacted]ning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 0.991 Profile: Floodway
Warning:	Divided flow computed for this cross-section.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7

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Errors Warnings and Notes for Plan : 310032 (Continued)

	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.
[redacted]tion:	River: Reach #1 Reach: Iona North RS: 0.905 Profile: Floodplain
[redacted]ing:	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.
Location:	River: Reach #1 Reach: Iona North RS: 0.905 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 0.833 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona North RS: 0.833 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 0.765 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona North RS: 0.765 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 0.682 Profile: Floodplain
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.
[redacted]cation:	River: Reach #1 Reach: Iona North RS: 0.682 Profile: Floodway
[redacted]ning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: Iona North RS: 0.656 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona North RS: 0.656 Profile: Floodway
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: Iona North RS: 0.569 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 0.569 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 0.492 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 0.492 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 0.396 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 0.396 Profile: Floodway
[redacted]rning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
[redacted]cation:	River: Reach #1 Reach: Iona North RS: 0.305 Profile: Floodplain
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.
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.

Errors Warnings and Notes for Plan : 310032 (Continued)

	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona North RS: 0.305 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
ion:	River: Reach #1 Reach: Iona North RS: 0.219 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona North RS: 0.219 Profile: Floodway
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona North RS: 0.104 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona North RS: 0.104 Profile: Floodway
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 energy loss was 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:	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.
Location:	River: Reach #1 Reach: Iona North RS: 0 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Location:	River: Reach #1 Reach: Iona North RS: 0 Profile: Floodway
ning:	Divided flow computed for this cross-section.
ing:	Slope too steep for slope area to converge during supercritical flow calculations (normal depth is
	below critical depth). Water surface set to critical depth.

IONA NORTH WEST SLPIT-1

Errors Warnings and Notes for Plan : Iona North W

Location:	River: Reach #2 Reach: Iona North WS-1 RS: 0.549 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #2 Reach: Iona North WS-1 RS: 0.45 Profile: Floodplain
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.
Location:	River: Reach #2 Reach: Iona North WS-1 RS: 0.388 Profile: Floodplain
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:	The energy loss was 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.
Location:	River: Reach #2 Reach: Iona North WS-1 RS: 0.318 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #2 Reach: Iona North WS-1 RS: 0.224 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #2 Reach: Iona North WS-1 RS: 0.156 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #2 Reach: Iona North WS-1 RS: 0.1 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

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IONA EAST SPLIT-1

Errors Warnings and Notes for Plan : Iona ES-1

Location:	River: Reach #1 Reach: Iona ES-1 RS: 5.261 Profile: Floodplain
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.
ning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 5.261 Profile: Floodway
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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 5.172 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 5.172 Profile: Floodway
Warning:	The conveyance ratio (upstream 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 cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 5.108 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
ion:	River: Reach #1 Reach: Iona ES-1 RS: 5.108 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 5.056 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 5.056 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 4.977 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 4.977 Profile: Floodway
Warning:	The conveyance ratio (upstream 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 cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 4.895 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 4.895 Profile: Floodway

Errors Warnings and Notes for Plan : Iona ES-1 (Continued)

Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 4.808 Profile: Floodplain
[redacted]rning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 4.808 Profile: Floodway
Warning:	The conveyance ratio (upstream 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 cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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:	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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 4.732 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 4.732 Profile: Floodway
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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 4.638 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
[redacted]e:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 4.638 Profile: Floodway
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 4.539 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 4.539 Profile: Floodway
Warning:	The conveyance ratio (upstream 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 cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 4.46 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
[redacted]	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 4.46 Profile: Floodway
Warning:	The conveyance ratio (upstream 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 cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.

Errors Warnings and Notes for Plan : Iona ES-1 (Continued)

	This may indicate the need for additional cross sections.
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.
[redacted]tion:	River: Reach #1 Reach: Iona ES-1 RS: 4.349 Profile: Floodplain
[redacted]ing:	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 conveyance ratio (upstream 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 4.349 Profile: Floodway
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 4.047 Profile: Floodplain
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.
Note:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 4.047 Profile: Floodway
Warning:	Divided flow computed for this cross-section.
[redacted]ning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 3.759 Profile: Floodplain
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 conveyance ratio (upstream 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 3.759 Profile: Floodway
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 3.419 Profile: Floodplain
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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 3.419 Profile: Floodway
Warning:	Divided flow computed for this cross-section.
[redacted]ning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
[redacted]ning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 3.13 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.

Errors Warnings and Notes for Plan : Iona ES-1 (Continued)

Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
[redacted]tion:	River: Reach #1 Reach: Iona ES-1 RS: 3.13 Profile: Floodway
[redacted]ing:	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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 2.828 Profile: Floodplain
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.
Note:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 2.828 Profile: Floodway
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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 2.545 Profile: Floodplain
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.
[redacted]	This may indicate the need for additional cross sections.
	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 2.545 Profile: Floodway
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 2.266 Profile: Floodplain
Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 2.266 Profile: Floodway
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.
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 2.054 Profile: Floodplain
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.
[redacted]:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 2.054 Profile: Floodway
Warning:	The conveyance ratio (upstream 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 cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.

Errors Warnings and Notes for Plan : Iona ES-1 (Continued)

	This may indicate the need for additional cross sections.
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.
[redacted]:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 1.949 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 1.949 Profile: Floodway
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 1.834 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 1.834 Profile: Floodway
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
[redacted]ion:	surface was used.
Warning:	River: Reach #1 Reach: Iona ES-1 RS: 1.722 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 1.722 Profile: Floodway
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 1.628 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 1.628 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
[redacted]:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
[redacted]ation:	River: Reach #1 Reach: Iona ES-1 RS: 1.547 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7

Errors Warnings and Notes for Plan : Iona ES-1 (Continued)

	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.
[redacted]tion:	River: Reach #1 Reach: Iona ES-1 RS: 1.547 Profile: Floodway
[redacted]ing:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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 cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 1.48 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 1.48 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 1.387 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 1.387 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 1.298 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
[redacted]tion:	River: Reach #1 Reach: Iona ES-1 RS: 1.298 Profile: Floodway
[redacted]ing:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 1.187 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 1.187 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 1.091 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 1.091 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 1.002 Profile: Floodplain
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.
[redacted]ion:	River: Reach #1 Reach: Iona ES-1 RS: 1.002 Profile: Floodway
[redacted]ning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.916 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.

Errors Warnings and Notes for Plan : Iona ES-1 (Continued)

Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.916 Profile: Floodway
[redacted]ing:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.827 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.827 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.737 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.737 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.654 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.654 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.579 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
[redacted]ion:	River: Reach #1 Reach: Iona ES-1 RS: 0.579 Profile: Floodway
[redacted]ing:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.492 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.492 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.408 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.408 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.329 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.329 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
[redacted]on:	River: Reach #1 Reach: Iona ES-1 RS: 0.272 Profile: Floodplain
[redacted]ning:	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.

Errors Warnings and Notes for Plan : Iona ES-1 (Continued)

Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.272 Profile: Floodway
[redacted]ning:	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:	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.
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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.179 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.179 Profile: Floodway
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.151 Profile: Floodplain
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.
[redacted]ning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.151 Profile: Floodway
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.061 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0.061 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona ES-1 RS: 0 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

IONA EAST SPLIT-2

Errors Warnings and Notes for Plan : Iona East Sp

Location:	River: Reach #2 Reach: Iona East Split- RS: 2.151 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #2 Reach: Iona East Split- RS: 2.051 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #2 Reach: Iona East Split- RS: 1.97 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #2 Reach: Iona East Split- RS: 1.868 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #2 Reach: Iona East Split- RS: 1.798 Profile: Floodplain
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.
Location:	River: Reach #2 Reach: Iona East Split- RS: 1.729 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #2 Reach: Iona East Split- RS: 1.674 Profile: Floodplain
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.
Location:	River: Reach #2 Reach: Iona East Split- RS: 1.601 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #2 Reach: Iona East Split- RS: 1.482 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #2 Reach: Iona East Split- RS: 1.407 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #2 Reach: Iona East Split- RS: 1.344 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #2 Reach: Iona East Split- RS: 1.224 Profile: Floodplain
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.
Location:	River: Reach #2 Reach: Iona East Split- RS: 1.143 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

Errors Warnings and Notes for Plan : Iona East Sp (Continued)

Location:	River: Reach #2 Reach: Iona East Split- RS: 1.044 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #2 Reach: Iona East Split- RS: 0.982 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #2 Reach: Iona East Split- RS: 0.904 Profile: Floodplain
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.
Location:	River: Reach #2 Reach: Iona East Split- RS: 0.778 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #2 Reach: Iona East Split- RS: 0.684 Profile: Floodplain
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.
Location:	River: Reach #2 Reach: Iona East Split- RS: 0.609 Profile: Floodplain
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.
Location:	River: Reach #2 Reach: Iona East Split- RS: 0.525 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #2 Reach: Iona East Split- RS: 0.427 Profile: Floodplain
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.
Location:	River: Reach #2 Reach: Iona East Split- RS: 0.379 Profile: Floodplain
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.
Location:	River: Reach #2 Reach: Iona East Split- RS: 0.314 Profile: Floodplain
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.

(SIC)

Errors Warnings and Notes for Plan : Iona East Sp (Continued)

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

TRILBY WASH

Errors Warnings and Notes for Plan : Zone A

Location:	River: Reach #1 Reach: TRILBY RS: 20.434 Profile: Zone A
Warning:	The 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: TRILBY RS: 20.281 Profile: Zone A
Warning:	Divided flow computed for this cross-section.
Warning:	The 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: TRILBY RS: 20.08 Profile: Zone A
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.
Note:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: TRILBY RS: 19.829 Profile: Zone A
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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: TRILBY RS: 19.686 Profile: Zone A
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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: TRILBY RS: 19.556 Profile: Zone A
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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: TRILBY RS: 19.493 Profile: Zone A
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 energy loss was 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.
Location:	River: Reach #1 Reach: TRILBY RS: 19.439 Profile: Zone A
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 energy loss was 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.

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Errors Warnings and Notes for Plan : Zone A (Continued)

Location:	River: Reach #1 Reach: TRILBY RS: 19.352 Profile: Zone A
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:	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.
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.
Location:	River: Reach #1 Reach: TRILBY RS: 19.298 Profile: Zone A
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 energy loss was 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.
Location:	River: Reach #1 Reach: TRILBY RS: 19.24 Profile: Zone A
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 energy loss was 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.
Location:	River: Reach #1 Reach: TRILBY RS: 19.158 Profile: Zone A
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 energy loss was 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.
Location:	River: Reach #1 Reach: TRILBY RS: 19.104 Profile: Zone A
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 energy loss was 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.
Location:	River: Reach #1 Reach: TRILBY RS: 19.018 Profile: Zone A
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 energy loss was 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

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Errors Warnings and Notes for Plan : Zone A (Continued)

	subcritical answer. The program defaulted to critical depth.
Location:	River: Reach #1 Reach: TRILBY RS: 18.927 Profile: Zone A
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 energy loss was 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.
Location:	River: Reach #1 Reach: TRILBY RS: 18.854 Profile: Zone A
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 energy loss was 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.
Location:	River: Reach #1 Reach: TRILBY RS: 18.769 Profile: Zone A
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: TRILBY RS: 18.71 Profile: Zone A
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.
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.
Location:	River: Reach #1 Reach: TRILBY RS: 18.615 Profile: Zone A
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: TRILBY RS: 18.537 Profile: Zone A
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 energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

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Errors Warnings and Notes for Plan : Zone A (Continued)

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.

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CIRCLE CITY AREA WASH 1

Errors Warnings and Notes for Plan :

Location:	River: Reach #1 Reach: Reach #1 RS: 1.738 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.687 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.61 Profile: Floodplain
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:	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.
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.539 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.454 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.373 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.281 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.208 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.121 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.03 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.977 Profile: Floodplain

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Errors Warnings and Notes for Plan : (Continued)

Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.894 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.829 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.707 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.629 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.555 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.493 Profile: Floodplain
Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.

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2 WEST (NORTH OF CAP)

Errors Warnings and Notes for Plan :

Location:	River: Reach #1 Reach: Reach #1 RS: 3.553 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 3.484 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 3.399 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 3.315 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 3.219 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 3.136 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 3.045 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.965 Profile: Floodplain
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 energy loss was 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.884 Profile: Floodplain
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 conveyance ratio (upstream 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.

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Errors Warnings and Notes for Plan : (Continued)

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.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.718 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.667 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.622 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.565 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.478 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.426 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.369 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.303 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.215 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7

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Errors Warnings and Notes for Plan : (Continued)

	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.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.134 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.048 Profile: Floodplain
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:	The energy loss was 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.023 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.947 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.911 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.808 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.75 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.714 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.658 Profile: Floodplain
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.

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Errors Warnings and Notes for Plan : (Continued)

Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.592 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.55 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.472 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.387 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.298 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.196 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.127 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.11 Profile: Floodplain
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.

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Errors Warnings and Notes for Plan : (Continued)

Location:	River: Reach #1 Reach: Reach #1 RS: 1.046 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.961 Profile: Floodplain
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:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.9 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.812 Profile: Floodplain
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 energy loss was 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.736 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.673 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.597 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.

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Errors Warnings and Notes for Plan : (Continued)

	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.53 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.426 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.319 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.237 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.161 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.066 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.

2 WEST TRIBUTARY-1

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 3.413 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 3.335 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 3.237 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 3.161 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 3.062 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 2.969 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 2.885 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 2.788 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 2.73 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 2.64 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 2.571 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 2.51 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 2.418 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 2.339 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 2.262 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 2.195 Profile: Floodplain
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:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 2.105 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 2.091 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 2.033 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 1.944 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 1.864 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 1.793 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 1.74 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 1.651 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 1.572 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 1.511 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 1.393 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 1.328 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 1.25 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 1.181 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 1.098 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 1.031 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 0.974 Profile: Floodplain
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 conveyance ratio (upstream 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,

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Errors Warnings and Notes for Plan : 310.032 (Continued)

	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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 0.9 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 0.81 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 0.728 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 0.629 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 0.543 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 0.456 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 0.36 Profile: Floodplain
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 energy loss was 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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 0.282 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 0.109 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash 2 West Trib RS: 0 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

2 WEST TRIBUTARY-2

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 3.014 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 2.953 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 2.893 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 2.817 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 2.722 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 2.633 Profile: Floodplain
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:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 2.549 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 2.479 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 2.401 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 2.346 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

	This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 2.276 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 2.195 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 2.138 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 2.078 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 2.007 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 1.932 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 1.846 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 1.765 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 1.679 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 1.66 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 1.571 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 1.469 Profile: Floodplain

Errors Warnings and Notes for Plan : 310.032 (Continued)

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.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 1.386 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 1.315 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 1.272 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 1.199 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 1.128 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 1.04 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 0.937 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 0.85 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 0.79 Profile: Floodplain
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.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 0.726 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 0.638 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 0.508 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 0.405 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 0.313 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 0.225 Profile: Floodplain
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 conveyance ratio (upstream 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:	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.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 0.154 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West Trib-2 RS: 0.084 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.

WITTMANN WASH

Errors Warnings and Notes for Plan : 310032

Location:	River: Reach #1 Reach: Wittmann Wash RS: 5.774 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 5.727 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 5.671 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 5.587 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 5.476 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 5.345 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 5.254 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 5.15 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 5.056 Profile: Floodplain
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 conveyance ratio (upstream 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.

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Errors Warnings and Notes for Plan : 310032 (Continued)

Location:	River: Reach #1 Reach: Wittmann Wash RS: 5.006 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 4.955 Profile: Floodplain
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:	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.
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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 4.847 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 4.738 Profile: Floodplain
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:	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.
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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 4.676 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 4.573 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 4.455 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

Errors Warnings and Notes for Plan : 310032 (Continued)

Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 4.37 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 4.271 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 4.19 Profile: Floodplain
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:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 4.102 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 4.048 Profile: Floodplain
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:	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.
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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.956 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.868 Profile: Floodplain

Errors Warnings and Notes for Plan : 310032 (Continued)

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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.773 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.69 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.597 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.516 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.428 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.377 Profile: Floodplain
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.

Errors Warnings and Notes for Plan : 310032 (Continued)

Warning:	The energy loss was 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.327 Profile: Floodplain Culv: CULVERT#1
Note:	The normal depth exceeds the height of the culvert. The program assumes that the normal depth is
	equal to the height of the culvert.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.321 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.305 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.274 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.141 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.085 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.034 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.008 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.004 Profile: Floodplain Upstream
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy

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Errors Warnings and Notes for Plan : 310032 (Continued)

	was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.004 Profile: Floodplain Downstream
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.987 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.972 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.9645 Profile: Floodplain Upstream
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.9645 Profile: Floodplain Downstream
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.957 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.952 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.949 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.9415 Profile: Floodplain Upstream
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.9415 Profile: Floodplain Downstream
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.934 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.916 Profile: Floodplain

Errors Warnings and Notes for Plan : 310032 (Continued)

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:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.885 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.86 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.837 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.753 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.694 Profile: Floodplain
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 energy loss was 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.632 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

Errors Warnings and Notes for Plan : 310032 (Continued)

Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.58 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.507 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.419 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.338 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.246 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.161 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 2.081 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 1.989 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 1.933 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 1.833 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.

Errors Warnings and Notes for Plan : 310032 (Continued)

	This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 1.747 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 1.674 Profile: Floodplain
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 energy loss was 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 1.569 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 1.512 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 1.466 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 1.394 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 1.312 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 1.248 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 1.177 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 1.078 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 0.996 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7

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Errors Warnings and Notes for Plan : 310032 (Continued)

	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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 0.916 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 0.855 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 0.808 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 0.712 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 0.634 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 0.529 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 0.438 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 0.339 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

Errors Warnings and Notes for Plan : 310032 (Continued)

Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 0.246 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 0.17 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 0.082 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 0.04 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 0.019 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.

WITTMANN WASH (NORTH SPLIT)

Errors Warnings and Notes for Plan : 310032

Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.428 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.377 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.327 Profile: Floodplain Culv: CULVERT#1
Note:	The normal depth exceeds the height of the culvert. The program assumes that the normal depth is
	equal to the height of the culvert.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.321 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.305 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.226 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Wash RS: 3.154 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.

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WITTMANN WASH (SOUTH SPLIT)

Errors Warnings and Notes for Plan : Wittmann Sou

Location:	River: Reach #3 Reach: Wittmann South S RS: 0.807 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #3 Reach: Wittmann South S RS: 0.746 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #3 Reach: Wittmann South S RS: 0.684 Profile: Floodplain
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:	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.
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.
Location:	River: Reach #3 Reach: Wittmann South S RS: 0.593 Profile: Floodplain
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.
Location:	River: Reach #3 Reach: Wittmann South S RS: 0.509 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.

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Errors Warnings and Notes for Plan : Wittmann Sou (Continued)

Location:	River: Reach #3 Reach: Wittmann South S RS: 0.458 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #3 Reach: Wittmann South S RS: 0.415 Profile: Floodplain
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:	The conveyance ratio (upstream 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.
Location:	River: Reach #3 Reach: Wittmann South S RS: 0.328 Profile: Floodplain
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.
Location:	River: Reach #3 Reach: Wittmann South S RS: 0.278 Profile: Floodplain
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.
Location:	River: Reach #3 Reach: Wittmann South S RS: 0.169 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #3 Reach: Wittmann South S RS: 0.09 Profile: Floodplain
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 conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.

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Errors Warnings and Notes for Plan : Wittmann Sou (Continued)

Warning:	The energy loss was 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.
Location:	River: Reach #3 Reach: Wittmann South S RS: 0.016 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

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Errors Warnings and Notes for Plan : 310032

Location:	River: Reach #1 Reach: Wittmann Tributa RS: 2.156 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 2.064 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 1.983 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 1.919 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 1.851 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 1.77 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 1.693 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 1.631 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 1.578 Profile: Floodplain
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 energy loss was 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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 1.473 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.

Errors Warnings and Notes for Plan : 310032 (Continued)

Location:	River: Reach #1 Reach: Wittmann Tributa RS: 1.396 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 1.33 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 1.237 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 1.13 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 1.047 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 0.952 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 0.864 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 0.789 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 0.697 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 0.622 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 0.554 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.

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Errors Warnings and Notes for Plan : 310032 (Continued)

	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 0.468 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 0.396 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 0.306 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 0.235 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 0.153 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 0.066 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wittmann Tributa RS: 0 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

T5N-R3W-S24E

Errors Warnings and Notes for Plan : 310032

Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 2.71 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 2.617 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 2.525 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 2.454 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 2.404 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 2.32 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 2.243 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 2.164 Profile: Floodplain
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.
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 2.071 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 1.976 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 1.906 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

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Errors Warnings and Notes for Plan : 310032 (Continued)

Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 1.801 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 1.697 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 1.623 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 1.538 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 1.462 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 1.39 Profile: Floodplain
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 energy loss was 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.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 1.304 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 1.213 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 1.104 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 1.037 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 0.972 Profile: Floodplain
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:	The conveyance ratio (upstream 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.

(SK)

Errors Warnings and Notes for Plan : 310032 (Continued)

	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.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 0.89 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 0.806 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 0.725 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 0.681 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 0.6795 Profile: Floodplain Upstream
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 0.6795 Profile: Floodplain Downstream
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 0.678 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 0.658 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 0.635 Profile: Floodplain
Warning:	During subcritical analysis, while trying to calculate culvert and weir flow, the program could not get a
	balance of energy within the specified tolerance and number of trials. The program used the solution
	with the minimum error.

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Errors Warnings and Notes for Plan : 310032 (Continued)

Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 0.635 Profile: Floodplain Culv: CULVERT#1
Warning:	During subcritical analysis, with the exit loss set =1.0, the projected WSEL in culvert has a lower
	energy than the downstream energy. Most likely, the downstream cross section blocks part of the
	culvert or the ineffective area is set too far in. Instead of projecting the WSEL, the program did an
	energy balance to get the WSEL inside the culvert at the downstream end.
Warning:	During the culvert inlet computations, the program could not balance the culvert/weir flow. The
	reported inlet energy grade answer may not be valid.
Warning:	During the culvert outlet computations, the program could not balance the culvert/weir flow. The
	reported outlet energy grade answer may not be valid.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 0.612 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 0.548 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 0.472 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 0.393 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 0.319 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 0.258 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 0.158 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 0.076 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R3W-S24E RS: 0 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

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T5N-R2W-S19E

Errors Warnings and Notes for Plan :

Location:	River: Reach #1 Reach: Reach #1 RS: 2.054 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.981 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.859 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.741 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.653 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.56 Profile: Floodplain
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 energy loss was 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.497 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.421 Profile: Floodplain
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:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.

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Errors Warnings and Notes for Plan : (Continued)

Warning:	The energy loss was 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.33 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.244 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.147 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.042 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.954 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.855 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.778 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.695 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.586 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.503 Profile: Floodplain
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 conveyance ratio (upstream 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.

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Errors Warnings and Notes for Plan : (Continued)

Location:	River: Reach #1 Reach: Reach #1 RS: 0.394 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.302 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.24 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.21 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.15 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.075 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.013 Profile: Floodplain

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Errors Warnings and Notes for Plan : (Continued)

Warning:	Divided flow computed for this cross-section.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.

T5N-R2W-S19W

Errors Warnings and Notes for Plan : 310032

Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 3.763 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 3.678 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 3.576 Profile: Floodplain
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 energy loss was 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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 3.483 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 3.397 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 3.369 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 3.318 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 3.265 Profile: Floodplain
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

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Errors Warnings and Notes for Plan : 310032 (Continued)

	subcritical answer. The program defaulted to critical depth.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 3.221 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 3.13 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 3.037 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 2.953 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 2.859 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 2.789 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 2.725 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 2.64 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 2.575 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 2.493 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 2.398 Profile: Floodplain
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 conveyance ratio (upstream 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

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Errors Warnings and Notes for Plan : 310032 (Continued)

	surface was used.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 2.343 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 2.299 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 2.265 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 2.187 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 2.124 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 1.99 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 1.902 Profile: Floodplain
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 conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 1.866 Profile: Floodplain

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Errors Warnings and Notes for Plan : 310032 (Continued)

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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 1.787 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 1.704 Profile: Floodplain
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 energy loss was 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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 1.632 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 1.607 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 1.538 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 1.474 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 1.398 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 1.315 Profile: Floodplain

Errors Warnings and Notes for Plan : 310032 (Continued)

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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 1.225 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 1.135 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 1.079 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 1.004 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 0.923 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 0.846 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 0.764 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 0.662 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 0.589 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 0.497 Profile: Floodplain

Errors Warnings and Notes for Plan : 310032 (Continued)

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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 0.408 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 0.332 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 0.244 Profile: Floodplain
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:	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.
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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 0.164 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The 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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 0.086 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T5N-R2W-S19W RS: 0 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

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T5N-R3W-S01S

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.934 Profile: Floodplain
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.
[redacted]ng:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.934 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.881 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.881 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.817 Profile: Floodplain
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:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.817 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.721 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
[redacted]	or greater than 1.4. This may indicate the need for additional cross sections.
[redacted]rning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.721 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.62 Profile: Floodplain
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:	The energy loss was 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.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.62 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.61 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.61 Profile: Floodway
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
[redacted]	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.54 Profile: Floodplain
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.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The energy loss was 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.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.54 Profile: Floodway
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.53 Profile: Floodplain
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:	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.
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.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.53 Profile: Floodway
Warning:	The cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.437 Profile: Floodplain
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 energy loss was 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.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.437 Profile: Floodway
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:	The energy loss was 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.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.371 Profile: Floodplain
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 energy loss was 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.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.371 Profile: Floodway
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:	The cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
[redacted]ing:	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.
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.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.344 Profile: Floodplain

(S/C)

Errors Warnings and Notes for Plan : 310.032 (Continued)

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:	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.
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.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.344 Profile: Floodway
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.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.268 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.268 Profile: Floodway
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.
Location:	River: Reach #1 Reach: T5N-R3W-S01S RS: 0.194 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

(S/C)

T5N-R2W-S07

Errors Warnings and Notes for Plan : 310032

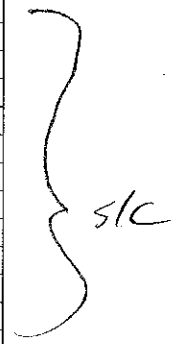
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.82 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
[redacted]tion:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.82 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.736 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.736 Profile: Floodway
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.647 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.647 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.57 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.57 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
[redacted]	This may indicate the need for additional cross sections.
[redacted]cation:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.486 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.486 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.43 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.43 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.403 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.403 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
[redacted]	This may indicate the need for additional cross sections.
[redacted]tion:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.31 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.

Errors Warnings and Notes for Plan : 310032 (Continued)

Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.31 Profile: Floodway
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
[redacted]ning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
[redacted]	This may indicate the need for additional cross sections.
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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.235 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.235 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.205 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.205 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.124 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.124 Profile: Floodway
[redacted]rning:	Divided flow computed for this cross-section.
[redacted]ing:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.045 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 1.045 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.961 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.961 Profile: Floodway
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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.875 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.875 Profile: Floodway
Warning:	Divided flow computed for this cross-section.
[redacted]ng:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.779 Profile: Floodplain
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.

Errors Warnings and Notes for Plan : 310032 (Continued)

Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.779 Profile: Floodway
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.
[redacted]ion:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.682 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.682 Profile: Floodway
Warning:	The cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.588 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.588 Profile: Floodway
Warning:	The cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.474 Profile: Floodplain
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:	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.
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
[redacted]	subcritical answer. The program defaulted to critical depth.
[redacted]cation:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.474 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.39 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.39 Profile: Floodway
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.305 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.305 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.235 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.235 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
[redacted]	This may indicate the need for additional cross sections.
[redacted]tion:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.166 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.166 Profile: Floodway



Errors Warnings and Notes for Plan : 310032 (Continued)

Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.094 Profile: Floodplain
[illegible]ning:	Divided flow computed for this cross-section.
[illegible]ng:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.094 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.048 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Location:	River: Reach #1 Reach: Wash T5N-R2W-S07 RS: 0.048 Profile: Floodway
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.

2 EAST (NORTH OF CAP)

Errors Warnings and Notes for Plan :

Location:	River: Reach #1 Reach: Reach #1 RS: 2.598 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.571 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.542 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.501 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.412 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.347 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.276 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.196 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.12 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 2.077 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.991 Profile: Floodplain

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Errors Warnings and Notes for Plan : (Continued)

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 energy loss was 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.907 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.831 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.742 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.651 Profile: Floodplain
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:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.559 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.478 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.417 Profile: Floodplain
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 energy loss was 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.338 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

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2 EAST TRIBUTARY

Errors Warnings and Notes for Plan :

Location:	River: Reach #1 Reach: Reach #1 RS: 1.753 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.698 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.646 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.578 Profile: Floodplain
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:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.496 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.416 Profile: Floodplain
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:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.317 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.233 Profile: Floodplain
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.

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Errors Warnings and Notes for Plan : (Continued)

Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.147 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.078 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 1 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.92 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.844 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.762 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

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Errors Warnings and Notes for Plan : (Continued)

Location:	River: Reach #1 Reach: Reach #1 RS: 0.681 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.599 Profile: Floodplain
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 energy loss was 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.537 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.45 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.392 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

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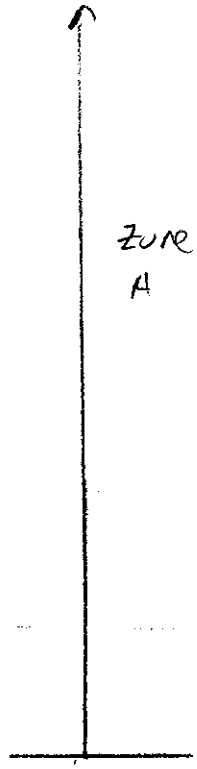
7 EAST

Errors Warnings and Notes for Plan :

Location:	River: Reach #1 Reach: Reach #1 RS: 1.854 Profile: Floodplain
Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.625 Profile: Floodplain
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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.399 Profile: Floodplain
Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 1.122 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.897 Profile: Floodplain
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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.811 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.724 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.637 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.561 Profile: Floodplain
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.
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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.467 Profile: Floodplain
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.



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Errors Warnings and Notes for Plan : (Continued)

Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.385 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.287 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.2 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Reach #1 RS: 0.127 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.

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7 EAST TRIBUTARY

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: All elevations a RS: 2.039 Profile: Floodplain
Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: All elevations a RS: 1.903 Profile: Floodplain
Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: All elevations a RS: 1.848 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: All elevations a RS: 1.776 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: All elevations a RS: 1.686 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: All elevations a RS: 1.596 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: All elevations a RS: 1.518 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: All elevations a RS: 1.451 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: All elevations a RS: 1.383 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: All elevations a RS: 1.323 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: All elevations a RS: 1.271 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: All elevations a RS: 1.187 Profile: Floodplain
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 conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The energy loss was 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.
Location:	River: Reach #1 Reach: All elevations a RS: 1.105 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: All elevations a RS: 1.031 Profile: Floodplain
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:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: All elevations a RS: 0.94 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: All elevations a RS: 0.857 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: All elevations a RS: 0.778 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: All elevations a RS: 0.722 Profile: Floodplain
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 energy loss was 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.
Location:	River: Reach #1 Reach: All elevations a RS: 0.666 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: All elevations a RS: 0.567 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: All elevations a RS: 0.488 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: All elevations a RS: 0.418 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: All elevations a RS: 0.347 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: All elevations a RS: 0.291 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: All elevations a RS: 0.198 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: All elevations a RS: 0.145 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: All elevations a RS: 0.099 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: All elevations a RS: 0.043 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

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Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: Iona East (South RS: 3.709 Profile: Floodplain
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 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 cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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.
Location:	River: Reach #1 Reach: Iona East (South RS: 3.683 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona East (South RS: 3.654 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona East (South RS: 3.615 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona East (South RS: 3.554 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona East (South RS: 3.476 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona East (South RS: 3.389 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona East (South RS: 3.32 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona East (South RS: 3.242 Profile: Floodplain
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

3,709 was deleted from model

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Errors Warnings and Notes for Plan : 310.032 (Continued)

	values.
Warning:	The energy loss was 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.
Location:	River: Reach #1 Reach: Iona East (South RS: 3.169 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona East (South RS: 3.108 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona East (South RS: 3.049 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona East (South RS: 3.001 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona East (South RS: 2.932 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona East (South RS: 2.86 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona East (South RS: 2.814 Profile: Floodplain

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Errors Warnings and Notes for Plan : 310.032 (Continued)

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.
Location:	River: Reach #1 Reach: Iona East (South RS: 2.761 Profile: Floodplain
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:	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.
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.
Location:	River: Reach #1 Reach: Iona East (South RS: 2.699 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona East (South RS: 2.625 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona East (South RS: 2.566 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona East (South RS: 2.471 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona East (South RS: 2.385 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona East (South RS: 2.317 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona East (South RS: 2.244 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona East (South RS: 2.189 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: Iona East (South RS: 2.106 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona East (South RS: 2.05 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona East (South RS: 1.986 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona East (South RS: 1.899 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona East (South RS: 1.845 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona East (South RS: 1.775 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona East (South RS: 1.73 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona East (South RS: 1.664 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona East (South RS: 1.567 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona East (South RS: 1.497 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona East (South RS: 1.438 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona East (South RS: 1.371 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona East (South RS: 1.294 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona East (South RS: 1.215 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: Iona East (South RS: 1.146 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona East (South RS: 1.062 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona East (South RS: 0.983 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona East (South RS: 0.855 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona East (South RS: 0.808 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

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Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: Iona West (South RS: 2.991 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona West (South RS: 2.914 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona West (South RS: 2.803 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Manning's n values were composited to a single value in the main channel.
Location:	River: Reach #1 Reach: Iona West (South RS: 2.728 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona West (South RS: 2.659 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona West (South RS: 2.573 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona West (South RS: 2.529 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona West (South RS: 2.451 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona West (South RS: 2.363 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona West (South RS: 2.279 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona West (South RS: 2.203 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona West (South RS: 2.126 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

	This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona West (South RS: 2.034 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona West (South RS: 1.99 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona West (South RS: 1.925 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona West (South RS: 1.858 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona West (South RS: 1.786 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona West (South RS: 1.747 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona West (South RS: 1.652 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona West (South RS: 1.615 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona West (South RS: 1.582 Profile: Floodplain
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 conveyance ratio (upstream 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.
Warning:	There is no flow in the channel. Check that the channel stations are correctly coded. To force flow
	into the channel, a levee or ineffective flow may have to be added or the Manning's n of the
	overbank could be increased.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona West (South RS: 1.549 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water

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Errors Warnings and Notes for Plan : 310.032 (Continued)

	surface was used.
Location:	River: Reach #1 Reach: Iona West (South RS: 1.504 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona West (South RS: 1.44 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona West (South RS: 1.348 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona West (South RS: 1.291 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona West (South RS: 1.237 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona West (South RS: 1.156 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona West (South RS: 1.097 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona West (South RS: 1.022 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Location:	River: Reach #1 Reach: Iona West (South RS: 0.98 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Location:	River: Reach #1 Reach: Iona West (South RS: 0.936 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona West (South RS: 0.879 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Iona West (South RS: 0.815 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: Iona West (South RS: 0.722 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Iona West (South RS: 0.651 Profile: Floodplain
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.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: Iona West (South RS: 0.572 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona West (South RS: 0.521 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona West (South RS: 0.447 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona West (South RS: 0.378 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: Iona West (South RS: 0.289 Profile: Floodplain
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.

2 WEST (SOUTH OF CAP)

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 2 West (South of RS: 7.277 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 7.227 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 7.167 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 West (South of RS: 7.102 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 West (South of RS: 7.027 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 6.97 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 6.936 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 6.899 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 6.844 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.

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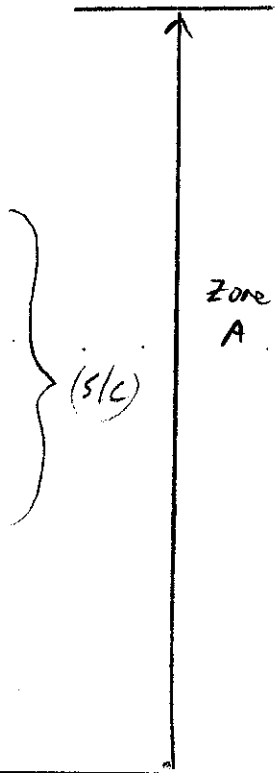
Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: 2 West (South of RS: 6.794 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 6.72 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 6.642 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 6.589 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 6.511 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 West (South of RS: 6.414 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 6.355 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 6.155 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 5.925 Profile: Floodplain
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 conveyance ratio (upstream 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



Errors Warnings and Notes for Plan : 310.032 (Continued)

	surface was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 5.727 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 5.291 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 5.065 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 4.862 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 4.65 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 4.423 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 West (South of RS: 4.243 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 4.103 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 3.924 Profile: Floodplain
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.

(S/C)

Zone 1

Errors Warnings and Notes for Plan : 310.032 (Continued)

	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 West (South of RS: 3.702 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 3.478 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 3.27 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 3.075 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 2.879 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 2.616 Profile: Floodplain
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.

Zone A

(SIC)

(SIC)

Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: 2 West (South of RS: 2.543 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 2.361 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 2.198 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 2.18 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 2.173 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 2.168 Profile: Floodplain Downstream
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 2.163 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 2.151 Profile: Floodplain
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:	Divided flow computed for this cross-section.
Warning:	The 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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 2.096 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 2.02 Profile: Floodplain

Zone A

(Sic)

Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 West (South of RS: 1.949 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 West (South of RS: 1.863 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 1.779 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 1.692 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 1.635 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 1.586 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 West (South of RS: 1.554 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 1.486 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: 2 West (South of RS: 1.412 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 1.336 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Location:	River: Reach #1 Reach: 2 West (South of RS: 1.285 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 1.204 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 1.107 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 West (South of RS: 1.041 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 West (South of RS: 0.967 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 West (South of RS: 0.877 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 West (South of RS: 0.787 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 West (South of RS: 0.708 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 0.637 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 West (South of RS: 0.579 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 West (South of RS: 0.521 Profile: Floodplain
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.

Errors Warnings and Notes for Plan : 310.032 (Continued)

	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 West (South of RS: 0.451 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 West (South of RS: 0.376 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 West (South of RS: 0.303 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

1 WEST

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 1 West (South of RS: 6.497 Profile: Floodplain
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 cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 6.453 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 6.39 Profile: Floodplain
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:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 6.32 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 6.23 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 6.173 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 6.083 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.

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(5/c)

Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: 1 West (South of RS: 5.994 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 5.945 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 5.888 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 5.836 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 West (South of RS: 5.787 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 5.733 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 5.672 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 5.606 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 5.542 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 5.463 Profile: Floodplain
Warning:	The 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 5.397 Profile: Floodplain
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:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

	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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 5.31 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 West (South of RS: 5.251 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 West (South of RS: 5.188 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 West (South of RS: 5.135 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 West (South of RS: 5.069 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 West (South of RS: 5.006 Profile: Floodplain
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 energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 4.971 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 4.929 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 West (South of RS: 4.872 Profile: Floodplain
Warning:	The 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 4.783 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 West (South of RS: 4.741 Profile: Floodplain
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.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 4.672 Profile: Floodplain
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:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 4.512 Profile: Floodplain
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.
Note:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: 1 West (South of RS: 4.356 Profile: Floodplain
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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: 1 West (South of RS: 4.234 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: 1 West (South of RS: 4.073 Profile: Floodplain
Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: 1 West (South of RS: 3.881 Profile: Floodplain
Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: 1 West (South of RS: 3.66 Profile: Floodplain
Warning:	The energy loss was 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:	The user has entered a known water surface elevation at this cross section.
Location:	River: Reach #1 Reach: 1 West (South of RS: 3.511 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water

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Errors Warnings and Notes for Plan : 310.032 (Continued)

	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 3.427 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 3.313 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 3.219 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 3.149 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 3.1 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 3.057 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 2.978 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 2.897 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 2.811 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 2.725 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.

Errors Warnings and Notes for Plan : 310.032 (Continued)

	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 West (South of RS: 2.669 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 West (South of RS: 2.593 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 West (South of RS: 2.513 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 West (South of RS: 2.453 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 2.388 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 2.34 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 2.277 Profile: Floodplain
Warning:	The 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 2.211 Profile: Floodplain
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:	The energy loss was 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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 2.135 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 West (South of RS: 2.081 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 West (South of RS: 2.022 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 1.932 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 1.859 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 1.803 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 1.722 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 West (South of RS: 1.625 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 1.56 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 1.498 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 1.395 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 1.302 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 1.242 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 1.176 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 1.116 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 1.089 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 1.0735 Profile: Floodplain Upstream
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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 1.0735 Profile: Floodplain 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:	The energy loss was 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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 1.058 Profile: Floodplain
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:	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.
Warning:	There is no flow in the channel. Check that the channel stations are correctly coded. To force flow
	into the channel, a levee or ineffective flow may have to be added or the Manning's n of the
	overbank could be increased.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 0.998 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 West (South of RS: 0.932 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 0.862 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 West (South of RS: 0.778 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 0.701 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 0.634 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 0.558 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 0.49 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 West (South of RS: 0.419 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 0.345 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 West (South of RS: 0.287 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 0.22 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 1 West (South of RS: 0.154 Profile: Floodplain
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.

1 EAST

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 1 East (South of RS: 1.31 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 East (South of RS: 1.26 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 1 East (South of RS: 1.18 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 1 East (South of RS: 1.09 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 East (South of RS: 1.01 Profile: Floodplain
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:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.96 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.91 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.88 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.8725 Profile: Floodplain
Warning:	For the final momentum answer at the bridge, the upstream energy was computed lower than the
	energy inside of the bridge deck. This is not physically possible. Please review your bridge data and

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Errors Warnings and Notes for Plan : 310.032 (Continued)

	results for reasonableness.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.8725 Profile: Floodplain Downstream
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.87 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.86 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.85 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.81 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.79 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.74 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.64 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.58 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.51 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.46 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.4 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.33 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.27 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.18 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.1 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 1 East (South of RS: 0.05 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

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2 EAST (SOUTH OF CAP)

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 2 East RS: 4.38 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 East RS: 4.338 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 East RS: 4.247 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 East RS: 4.192 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 East RS: 4.145 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 East RS: 4.085 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 East RS: 4.017 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 East RS: 3.938 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 East RS: 3.849 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 East RS: 3.772 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 East RS: 3.71 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 East RS: 3.613 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 East RS: 3.547 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 East RS: 3.468 Profile: Floodplain
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:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 East RS: 3.37 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 East RS: 3.277 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 East RS: 3.196 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 East RS: 3.163 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 2 East RS: 3.161 Profile: Floodplain
Warning:	Pier drag coefficient of 2.0 assumed for Class B flow.
Location:	River: Reach #1 Reach: 2 East RS: 3.161 Profile: Floodplain Upstream
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 2 East RS: 3.161 Profile: Floodplain Downstream
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 2 East RS: 3.159 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 2 East RS: 3.141 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 East RS: 3.097 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 2 East RS: 3.091 Profile: Floodplain Culv: CULVERT#1
Note:	During subcritical analysis, the culvert direct step method, the solution went to normal depth.
Location:	River: Reach #1 Reach: 2 East RS: 3.085 Profile: Floodplain

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Errors Warnings and Notes for Plan : 310.032 (Continued)

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.
Location:	River: Reach #1 Reach: 2 East RS: 3.078 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 East RS: 3.036 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 East RS: 2.997 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 East RS: 2.972 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 East RS: 2.931 Profile: Floodplain
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:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 East RS: 2.9 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 East RS: 2.824 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 East RS: 2.75 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 East RS: 2.667 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 East RS: 2.65 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 2 East RS: 2.634 Profile: Floodplain
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 conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 2 East RS: 2.625 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 East RS: 2.583 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 East RS: 2.526 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 East RS: 2.419 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 East RS: 2.225 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 East RS: 2.052 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 East RS: 1.895 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 East RS: 1.838 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 East RS: 1.781 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 East RS: 1.708 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 East RS: 1.685 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 East RS: 1.593 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 East RS: 1.523 Profile: Floodplain
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.
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water

Errors Warnings and Notes for Plan : 310.032 (Continued)

	surface was used.
Location:	River: Reach #1 Reach: 2 East RS: 1.461 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 East RS: 1.392 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 East RS: 1.285 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 East RS: 1.213 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 East RS: 1.167 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 East RS: 1.13 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 East RS: 1.048 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 East RS: 0.977 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 East RS: 0.911 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 East RS: 0.864 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 East RS: 0.812 Profile: Floodplain
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.

Errors Warnings and Notes for Plan : 310.032 (Continued)

	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 East RS: 0.747 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 2 East RS: 0.703 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 East RS: 0.655 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 East RS: 0.612 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 East RS: 0.572 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 East RS: 0.47 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 2 East RS: 0.39 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 East RS: 0.329 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 East RS: 0.267 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 2 East RS: 0.195 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7

Errors Warnings and Notes for Plan : 310.032 (Continued)

	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.
Location:	River: Reach #1 Reach: 2 East RS: 0.116 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 East RS: 0 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

2 EAST-DIKE FAILURE

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 2 East RS: 0.703 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 East RS: 0.66 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 East RS: 0.61 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 East RS: 0.56 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 2 East RS: 0.47 Profile: Floodplain
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.

3 EAST

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 3 East (South of RS: 6.085 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 6.062 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 6.024 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 5.983 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 5.941 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 3 East (South of RS: 5.874 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 5.806 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 5.737 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 5.662 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: 3 East (South of RS: 5.584 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 3 East (South of RS: 5.519 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 5.435 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 5.361 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 5.291 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 5.203 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 5.14 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 5.071 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 3 East (South of RS: 4.997 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 4.919 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 4.865 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 4.811 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 3 East (South of RS: 4.744 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.

Errors Warnings and Notes for Plan : 310.032 (Continued)

	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 3 East (South of RS: 4.675 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 4.595 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 4.521 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 4.454 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 4.349 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 4.283 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 4.21 Profile: Floodplain
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 conveyance ratio (upstream 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.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: 3 East (South of RS: 4.126 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.977 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.925 Profile: Floodplain
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.
Warning:	There is no flow in the channel. Check that the channel stations are correctly coded. To force flow
	into the channel, a levee or ineffective flow may have to be added or the Manning's n of the
	overbank could be increased.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.829 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.761 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.679 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.615 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.56 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.475 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.407 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.328 Profile: Floodplain
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.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: 3 East (South of RS: 3.267 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.235 Profile: Floodplain
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:	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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.173 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.1715 Profile: Floodplain
Note:	The downstream water surface is below the minimum elevation for pressure flow. The sluice gate
	equations were used for pressure flow.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.1715 Profile: Floodplain Upstream
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.17 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.157 Profile: Floodplain
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 energy loss was 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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.151 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.13 Profile: Floodplain
Warning:	During subcritical analysis, while trying to calculate culvert and weir flow, the program could not get a
	balance of energy within the specified tolerance and number of trials. The program used the solution
	with the minimum error.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.13 Profile: Floodplain Culv: CULVERT#1
Warning:	During the culvert inlet computations, the program could not balance the culvert/weir flow. The
	reported inlet energy grade answer may not be valid.
Warning:	During the culvert outlet computations, the program could not balance the culvert/weir flow. The
	reported outlet energy grade answer may not be valid.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.109 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy

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Errors Warnings and Notes for Plan : 310.032 (Continued)

	was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 3.048 Profile: Floodplain
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:	Manning's n values were composited to a single value in the main channel.
Location:	River: Reach #1 Reach: 3 East (South of RS: 2.958 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 2.877 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 2.817 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 2.748 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 2.664 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 2.588 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 2.548 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 2.485 Profile: Floodplain

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 3 East (South of RS: 2.437 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 2.394 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 2.351 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 2.29 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 2.229 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 2.154 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 2.056 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 1.985 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 3 East (South of RS: 1.901 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 1.837 Profile: Floodplain
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.

Errors Warnings and Notes for Plan : 310.032 (Continued)

	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 3 East (South of RS: 1.776 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 1.706 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 1.636 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 1.555 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 1.462 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 1.398 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 1.351 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 1.284 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 1.233 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 1.156 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 1.132 Profile: Floodplain
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.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 1.122 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 1.039 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 0.942 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 0.831 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 0.699 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 0.587 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 3 East (South of RS: 0.522 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 3 East (South of RS: 0.461 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 3 East (South of RS: 0.285 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.

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Location:	River: Reach #1 Reach: 3 East (South of RS: 0.214 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.

4 EAST

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 4 East (South of RS: 2.418 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 4 East (South of RS: 2.377 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 4 East (South of RS: 2.336 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 4 East (South of RS: 2.305 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 4 East (South of RS: 2.23 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 4 East (South of RS: 2.17 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 4 East (South of RS: 2.108 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 4 East (South of RS: 2.078 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 4 East (South of RS: 2.051 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 4 East (South of RS: 1.992 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 4 East (South of RS: 1.938 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 4 East (South of RS: 1.932 Profile: Floodplain

Errors Warnings and Notes for Plan : 310.032 (Continued)

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.
Location:	River: Reach #1 Reach: 4 East (South of RS: 1.903 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 4 East (South of RS: 1.822 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 4 East (South of RS: 1.796 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 4 East (South of RS: 1.772 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 4 East (South of RS: 1.709 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 4 East (South of RS: 1.625 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 4 East (South of RS: 1.556 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 4 East (South of RS: 1.481 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 4 East (South of RS: 1.43 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 4 East (South of RS: 1.382 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 4 East (South of RS: 1.336 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 4 East (South of RS: 1.269 Profile: Floodplain

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 4 East (South of RS: 1.227 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 4 East (South of RS: 1.176 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 4 East (South of RS: 1.113 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 4 East (South of RS: 1.027 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 4 East (South of RS: 0.928 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 4 East (South of RS: 0.83 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 4 East (South of RS: 0.719 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 4 East (South of RS: 0.624 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 4 East (South of RS: 0.535 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 4 East (South of RS: 0.462 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 4 East (South of RS: 0.416 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 4 East (South of RS: 0.355 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 4 East (South of RS: 0.315 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 4 East (South of RS: 0.241 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

4 EAST_DIKE FAILURE

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 4 East (South of RS: 1.027 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 4 East (South of RS: 0.928 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 4 East (South of RS: 0.83 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 4 East (South of RS: 0.719 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 4 East (South of RS: 0.624 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 4 East (South of RS: 0.535 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 4 East (South of RS: 0.462 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 4 East (South of RS: 0.416 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 4 East (South of RS: 0.355 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 4 East (South of RS: 0.315 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 4 East (South of RS: 0.241 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

5 EAST

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 5 East RS: 5.146 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 5 East RS: 5.12 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 5 East RS: 5.064 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 5 East RS: 5.016 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 5 East RS: 4.953 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 4.881 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 4.847 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 5 East RS: 4.806 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 5 East RS: 4.759 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 4.696 Profile: Floodplain
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.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 5 East RS: 4.63 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 5 East RS: 4.58 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 5 East RS: 4.534 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 4.487 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 5 East RS: 4.444 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 5 East RS: 4.381 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 5 East RS: 4.318 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 4.26 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 5 East RS: 4.185 Profile: Floodplain
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 conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7

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Errors Warnings and Notes for Plan : 310.032 (Continued)

	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.
Location:	River: Reach #1 Reach: 5 East RS: 4.111 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 5 East RS: 4.052 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 4.01 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 5 East RS: 3.938 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 5 East RS: 3.853 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 5 East RS: 3.785 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 3.734 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 5 East RS: 3.721 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 5 East RS: 3.711 Profile: Floodplain
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.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: 5 East RS: 3.622 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 3.541 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 5 East RS: 3.424 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 3.386 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 3.341 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 3.248 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 3.147 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 3.06 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 2.955 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 2.864 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 2.765 Profile: Floodplain
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.

Errors Warnings and Notes for Plan : 310.032 (Continued)

	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 5 East RS: 2.693 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 2.61 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 5 East RS: 2.555 Profile: Floodplain
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:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 5 East RS: 2.489 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 2.422 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 2.381 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 2.302 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 5 East RS: 2.257 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 5 East RS: 2.208 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 2.131 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7

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Errors Warnings and Notes for Plan : 310.032 (Continued)

	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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 5 East RS: 2.052 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 5 East RS: 1.976 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 1.898 Profile: Floodplain
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:	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.
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.
Location:	River: Reach #1 Reach: 5 East RS: 1.824 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 1.751 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 5 East RS: 1.683 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 5 East RS: 1.59 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 5 East RS: 1.499 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7

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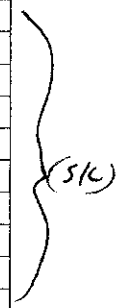
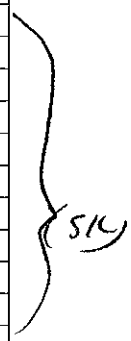
Errors Warnings and Notes for Plan : 310.032 (Continued)

	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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 5 East RS: 1.414 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 5 East RS: 1.329 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 5 East RS: 1.298 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 5 East RS: 1.264 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 5 East RS: 1.22 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.





6 EAST

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 6 East RS: 4.966 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 6 East RS: 4.896 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 6 East RS: 4.832 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 6 East RS: 4.772 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 6 East RS: 4.728 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 6 East RS: 4.63 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 6 East RS: 4.551 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 6 East RS: 4.476 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 6 East RS: 4.408 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 6 East RS: 4.374 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 6 East RS: 4.344 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 6 East RS: 4.293 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 6 East RS: 4.214 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 4.157 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: 6 East RS: 4.105 Profile: Floodplain
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:	The energy loss was 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.
Location:	River: Reach #1 Reach: 6 East RS: 4.034 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 3.949 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 3.902 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 6 East RS: 3.842 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 6 East RS: 3.768 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 3.684 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 3.59 Profile: Floodplain
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 conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 6 East RS: 3.485 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 3.442 Profile: Floodplain

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Errors Warnings and Notes for Plan : 310.032 (Continued)

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.
Location:	River: Reach #1 Reach: 6 East RS: 3.397 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 3.305 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 3.213 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 3.131 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 3.032 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 2.941 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 2.859 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 2.764 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 2.663 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 2.582 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 2.525 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 6 East RS: 2.438 Profile: Floodplain

Errors Warnings and Notes for Plan : 310.032 (Continued)

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.
Location:	River: Reach #1 Reach: 6 East RS: 2.377 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 6 East RS: 2.316 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 2.25 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 6 East RS: 2.197 Profile: Floodplain
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:	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.
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.
Location:	River: Reach #1 Reach: 6 East RS: 2.146 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 6 East RS: 2.116 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 6 East RS: 2.08 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 6 East RS: 2.054 Profile: Floodplain
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.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 6 East RS: 1.995 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 6 East RS: 1.929 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.

6 EAST SOUTH

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 6 East RS: 2.054 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 1.995 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 1.929 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 6 East RS: 1.859 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 6 East RS: 1.816 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 6 East RS: 1.755 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 1.674 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 1.633 Profile: Floodplain
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 conveyance ratio (upstream 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.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 6 East RS: 1.619 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 6 East RS: 1.607 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 6 East RS: 1.513 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 1.425 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 1.343 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 6 East RS: 1.257 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 6 East RS: 1.199 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 6 East RS: 1.194 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 6 East RS: 1.115 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 6 East RS: 1.02 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 6 East RS: 0.984 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 6 East RS: 0.909 Profile: Floodplain
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.

7 EAST – EAST SPLIT

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 7 East-East Spli RS: 1.458 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 7 East-East Spli RS: 1.395 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 7 East-East Spli RS: 1.306 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 7 East-East Spli RS: 1.242 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 7 East-East Spli RS: 1.187 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 7 East-East Spli RS: 1.128 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 7 East-East Spli RS: 1.064 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 7 East-East Spli RS: 1.001 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 7 East-East Spli RS: 0.947 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 7 East-East Spli RS: 0.884 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 7 East-East Spli RS: 0.812 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7

Errors Warnings and Notes for Plan : 310.032 (Continued)

	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.
Location:	River: Reach #1 Reach: 7 East-East Spli RS: 0.759 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 7 East-East Spli RS: 0.722 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 7 East-East Spli RS: 0.67 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 7 East-East Spli RS: 0.607 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 7 East-East Spli RS: 0.541 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 7 East-East Spli RS: 0.473 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 7 East-East Spli RS: 0.397 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 7 East-East Spli RS: 0.322 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 7 East-East Spli RS: 0.276 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 7 East-East Spli RS: 0.21 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

7 EAST – WEST SPLIT

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 7 East-West Spli RS: 0.951 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 7 East-West Spli RS: 0.9 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 7 East-West Spli RS: 0.815 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 7 East-West Spli RS: 0.75 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 7 East-West Spli RS: 0.696 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 7 East-West Spli RS: 0.582 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 7 East-West Spli RS: 0.517 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 7 East-West Spli RS: 0.447 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 7 East-West Spli RS: 0.38 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 7 East-West Spli RS: 0.319 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 7 East-West Spli RS: 0.255 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 7 East-West Spli RS: 0.205 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 7 East-West Spli RS: 0.126 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 7 East-West Spli RS: 0.046 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.

8 EAST

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 8 East (South of RS: 3.029 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 2.953 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 8 East (South of RS: 2.898 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 2.799 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 2.681 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 2.633 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 2.583 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 2.53 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 2.477 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 2.403 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 8 East (South of RS: 2.313 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 2.249 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 2.177 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 8 East (South of RS: 2.101 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 2.024 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 1.969 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 1.925 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 1.87 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 1.826 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 8 East (South of RS: 1.759 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 8 East (South of RS: 1.681 Profile: Floodplain
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.

Divided flow

Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: 8 East (South of RS: 1.617 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 1.56 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 1.48 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 8 East (South of RS: 1.421 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 1.332 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 1.267 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 1.205 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 8 East (South of RS: 1.162 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.

(SIC)

Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 8 East (South of RS: 1.13 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 1.063 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 1.019 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 0.954 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 8 East (South of RS: 0.915 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 8 East (South of RS: 0.852 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 8 East (South of RS: 0.771 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 8 East (South of RS: 0.701 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 8 East (South of RS: 0.623 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 8 East (South of RS: 0.568 Profile: Floodplain
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.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: 8 East (South of RS: 0.52 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 0.455 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 8 East (South of RS: 0.426 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy
	was used.
Location:	River: Reach #1 Reach: 8 East (South of RS: 0.329 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 0.283 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 0.23 Profile: Floodplain
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:	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.
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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 0.168 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 8 East (South of RS: 0.1 Profile: Floodplain
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.

(S1C)

9 EAST

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 9 East RS: 4.652 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 4.618 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 9 East RS: 4.596 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 9 East RS: 4.536 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 9 East RS: 4.524 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 9 East RS: 4.471 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 9 East RS: 4.442 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 4.386 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 4.338 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 9 East RS: 4.27 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 4.206 Profile: Floodplain

Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 9 East RS: 4.152 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 4.092 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 9 East RS: 4.052 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 9 East RS: 3.998 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 9 East RS: 3.927 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 3.837 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 9 East RS: 3.76 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 3.681 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 9 East RS: 3.617 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 9 East RS: 3.545 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 3.464 Profile: Floodplain
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.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: 9 East RS: 3.394 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 3.346 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 9 East RS: 3.267 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 3.208 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 9 East RS: 3.091 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 3.021 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 9 East RS: 2.966 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 9 East RS: 2.892 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 9 East RS: 2.815 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 9 East RS: 2.74 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 9 East RS: 2.688 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 9 East RS: 2.647 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 9 East RS: 2.577 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 2.511 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 9 East RS: 2.452 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 9 East RS: 2.382 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 2.321 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 2.256 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 9 East RS: 2.202 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 9 East RS: 2.155 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 9 East RS: 2.036 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.

Errors Warnings and Notes for Plan : 310.032 (Continued)

	This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 9 East RS: 1.962 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 9 East RS: 1.899 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 1.876 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 9 East RS: 1.839 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 1.791 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 9 East RS: 1.751 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 9 East RS: 1.711 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 9 East RS: 1.655 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 9 East RS: 1.601 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 9 East RS: 1.57 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 1.538 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 1.473 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 1.4 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 9 East RS: 1.308 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 9 East RS: 1.244 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 1.144 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 1.05 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 9 East RS: 0.979 Profile: Floodplain
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.

9 EAST SPLIT

Errors Warnings and Notes for Plan : 9E-Split

Location:	River: Reach #2 Reach: 9E-Split RS: 0.421 Profile: Floodplain_Split
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #2 Reach: 9E-Split RS: 0.346 Profile: Floodplain_Split
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.
Location:	River: Reach #2 Reach: 9E-Split RS: 0.268 Profile: Floodplain_Split
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.
Location:	River: Reach #2 Reach: 9E-Split RS: 0.169 Profile: Floodplain_Split
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.
Location:	River: Reach #2 Reach: 9E-Split RS: 0.124 Profile: Floodplain_Split
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.
Location:	River: Reach #2 Reach: 9E-Split RS: 0.054 Profile: Floodplain_Split
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.
Location:	River: Reach #2 Reach: 9E-Split RS: 0 Profile: Floodplain_Split
Warning:	Divided flow computed for this cross-section.

10 EAST

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 10 East (South o RS: 4.466 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
[redacted]ning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 4.466 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 4.423 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 4.423 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 4.378 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 4.378 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 4.314 Profile: Floodplain
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.
[redacted]tion:	River: Reach #1 Reach: 10 East (South o RS: 4.314 Profile: Floodway
[redacted]rning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 4.253 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 4.253 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 4.223 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 4.223 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 4.172 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 4.172 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 4.094 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
[redacted]tion:	River: Reach #1 Reach: 10 East (South o RS: 4.094 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 4.052 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: 10 East (South o RS: 4.052 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
[redacted]tion:	River: Reach #1 Reach: 10 East (South o RS: 3.984 Profile: Floodplain
[redacted]rning:	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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.984 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.905 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.905 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.852 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.852 Profile: Floodway
Warning:	The conveyance ratio (upstream 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.818 Profile: Floodplain
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.
[redacted]ning:	Divided flow computed for this cross-section.
[redacted]rning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.818 Profile: Floodway
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 conveyance ratio (upstream 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.
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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.783 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.783 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.724 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
[redacted]rning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
[redacted]	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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.724 Profile: Floodway

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.667 Profile: Floodplain
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:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.667 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.63 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.63 Profile: Floodway
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
[redacted]ning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.573 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.573 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.538 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.538 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.473 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.473 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.436 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
[redacted]ning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.436 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.4 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
[redacted]ning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.4 Profile: Floodway
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.349 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.349 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.294 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.294 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
[redacted]tion:	River: Reach #1 Reach: 10 East (South o RS: 3.235 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.235 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.2 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.2 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.151 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.151 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.089 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
[redacted]ation:	River: Reach #1 Reach: 10 East (South o RS: 3.057 Profile: Floodplain
[redacted]ning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 3.057 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.97 Profile: Floodplain

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Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.97 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.896 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.896 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.847 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.847 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.795 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.795 Profile: Floodway
Warning:	The conveyance ratio (upstream 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.718 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.718 Profile: Floodway
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 conveyance ratio (upstream 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.
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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.654 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.654 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.578 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.

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Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.578 Profile: Floodway
[redacted]ing:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.496 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.496 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.422 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.422 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.345 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
[redacted]tion:	River: Reach #1 Reach: 10 East (South o RS: 2.345 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.264 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.264 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.216 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.216 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.169 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
[redacted]tion:	River: Reach #1 Reach: 10 East (South o RS: 2.169 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.11 Profile: Floodplain

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Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.11 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.053 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.053 Profile: Floodway
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.037 Profile: Floodplain
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:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 2.037 Profile: Floodway
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:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.979 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.979 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.929 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.929 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.878 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.

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	This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
[redacted]ation:	River: Reach #1 Reach: 10 East (South o RS: 1.878 Profile: Floodway
[redacted]ote:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.827 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.827 Profile: Floodway
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.734 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.734 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.63 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.63 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
[redacted]ation:	River: Reach #1 Reach: 10 East (South o RS: 1.538 Profile: Floodplain
[redacted]arning:	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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.538 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.465 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.465 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.412 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.412 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
[redacted]e:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.323 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water

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	surface was used.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.323 Profile: Floodway
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.245 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.245 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.199 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.199 Profile: Floodway
Warning:	The conveyance ratio (upstream 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.131 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.131 Profile: Floodway
Warning:	The conveyance ratio (upstream 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 cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.062 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.062 Profile: Floodway
Warning:	The cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.008 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 1.008 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 0.927 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 0.927 Profile: Floodway
Warning:	The conveyance ratio (upstream 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: 10 East (South o RS: 0.877 Profile: Floodplain
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.
[redacted]rning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 0.877 Profile: Floodway
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: 10 East (South o RS: 0.793 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East (South o RS: 0.793 Profile: Floodway
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East (South o RS: 0.733 Profile: Floodplain
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 conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
[redacted]ning:	The energy loss was 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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 0.733 Profile: Floodway
Warning:	The cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: 10 East (South o RS: 0.656 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East (South o RS: 0.656 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East (South o RS: 0.596 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East (South o RS: 0.596 Profile: Floodway
[redacted]rning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East (South o RS: 0.541 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East (South o RS: 0.541 Profile: Floodway
[redacted]ning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East (South o RS: 0.462 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East (South o RS: 0.462 Profile: Floodway
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.

10 EAST (EAST SPLIT-1)

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.85 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.83 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.76 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.72 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.64 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.57 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.51 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.45 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.4 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.34 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.29 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.22 Profile: Floodplain

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.16 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.13 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.

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10 EAST (EAST SPLIT-2)

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 10 East-East Spl RS: 2.634 Profile: Floodplain
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.
[redacted]ing:	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.
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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 2.634 Profile: Floodway
Warning:	The conveyance ratio (upstream 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 2.582 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 2.582 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 2.54 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 2.54 Profile: Floodway
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.
[redacted]	This may indicate the need for additional cross sections.
[redacted]cation:	River: Reach #1 Reach: 10 East-East Spl RS: 2.495 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 2.495 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 2.437 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 2.437 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 2.357 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 2.357 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 2.264 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 2.264 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 2.176 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
[redacted]tion:	River: Reach #1 Reach: 10 East-East Spl RS: 2.176 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 2.1 Profile: Floodplain

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Errors Warnings and Notes for Plan : 310.032 (Continued)

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.
[redacted]ning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 2.1 Profile: Floodway
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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 2.034 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 2.034 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.934 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.934 Profile: Floodway
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.853 Profile: Floodplain
[redacted]ning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.853 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.783 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.783 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.686 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.686 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.612 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.612 Profile: Floodway
[redacted]rning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.535 Profile: Floodplain
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.

Errors Warnings and Notes for Plan : 310.032 (Continued)

	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.535 Profile: Floodway
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:	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.
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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.475 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.475 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.399 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.399 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.306 Profile: Floodplain
[redacted]ning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.306 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.237 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.237 Profile: Floodway
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.15 Profile: Floodplain
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 conveyance ratio (upstream 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.
[redacted]rning:	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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.15 Profile: Floodway
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.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.094 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.094 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.012 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 1.012 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.934 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.934 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.85 Profile: Floodplain
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.
[redacted]tion:	River: Reach #1 Reach: 10 East-East Spl RS: 0.85 Profile: Floodway
[redacted]rning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.737 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.737 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.65 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.65 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.591 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.591 Profile: Floodway
[redacted]rning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.531 Profile: Floodplain

Errors Warnings and Notes for Plan : 310.032 (Continued)

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.
[illegible]ning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.531 Profile: Floodway
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.468 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.468 Profile: Floodway
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.365 Profile: Floodplain
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.
[illegible]e:	The user has entered a known water surface elevation at this cross section.
[illegible]cation:	River: Reach #1 Reach: 10 East-East Spl RS: 0.365 Profile: Floodway
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.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.3 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Location:	River: Reach #1 Reach: 10 East-East Spl RS: 0.3 Profile: Floodway
Warning:	Divided flow computed for this cross-section.

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Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 11 East (South o RS: 4.606 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 4.552 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 4.522 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 11 East (South o RS: 4.461 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 4.394 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 4.354 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Location:	River: Reach #1 Reach: 11 East (South o RS: 4.341 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 11 East (South o RS: 4.323 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 4.284 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 11 East (South o RS: 4.254 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 4.208 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 4.158 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 11 East (South o RS: 4.114 Profile: Floodplain
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.

Errors Warnings and Notes for Plan : 310.032 (Continued)

	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 11 East (South o RS: 4.077 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 4.043 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 3.991 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 3.931 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 3.885 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 3.834 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 11 East (South o RS: 3.78 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 11 East (South o RS: 3.729 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 3.675 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 3.629 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 11 East (South o RS: 3.592 Profile: Floodplain
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.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: 11 East (South o RS: 3.534 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 11 East (South o RS: 3.479 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 3.43 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 3.373 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 3.332 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 3.278 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 3.201 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 3.12 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 3.054 Profile: Floodplain
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.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

	This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 2.985 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 2.906 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 2.846 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 2.786 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 2.737 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 2.675 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 2.618 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for

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Errors Warnings and Notes for Plan : 310.032 (Continued)

	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 2.561 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 2.523 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 2.475 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 2.438 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 2.385 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 2.35 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 2.285 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 2.21 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 2.163 Profile: Floodplain
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.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: 11 East (South o RS: 2.076 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 2.011 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 1.947 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 1.884 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 1.836 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 1.764 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 1.693 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 1.634 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 1.613 Profile: Floodplain
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:	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.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: 11 East (South o RS: 1.598 Profile: Floodplain
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 energy loss was 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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 1.591 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 1.578 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 11 East (South o RS: 1.567 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Location:	River: Reach #1 Reach: 11 East (South o RS: 1.557 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 11 East (South o RS: 1.546 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 11 East (South o RS: 1.482 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 11 East (South o RS: 1.397 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 1.35 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 1.294 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 1.255 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 1.189 Profile: Floodplain

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Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 11 East (South o RS: 1.137 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 1.099 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0.999 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0.92 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0.848 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0.765 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0.677 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0.613 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0.536 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0.469 Profile: Floodplain
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.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0.403 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0.337 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0.27 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0.217 Profile: Floodplain
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.
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0.189 Profile: Floodplain
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.
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0.14 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0.064 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water

Errors Warnings and Notes for Plan : 310.032 (Continued)

	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The cross section had to be extended vertically during the critical depth calculations.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.

11 EAST DIKE FAILURE

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 11 East (South o RS: 0.337 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0.27 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0.217 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0.189 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0.14 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0.064 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 11 East (South o RS: 0 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The cross section had to be extended vertically during the critical depth calculations.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.

BONITA DIKE CHANNEL

Errors Warnings and Notes for Plan : Bonita Dike

Location:	River: Reach #1 Reach: Bonita Dike Chan RS: 0.283 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Bonita Dike Chan RS: 0.241 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Bonita Dike Chan RS: 0.186 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Bonita Dike Chan RS: 0.148 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Bonita Dike Chan RS: 0.116 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: Bonita Dike Chan RS: 0.059 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: Bonita Dike Chan RS: 0.018 Profile: Floodplain
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:	The conveyance ratio (upstream 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.

12 EAST

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 12 East (South o RS: 4.554 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.554 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.494 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.494 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.423 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.423 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.365 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.365 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.332 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.332 Profile: Floodway
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.299 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.299 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.239 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.239 Profile: Floodway
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7

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	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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.166 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.166 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.127 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.127 Profile: Floodway
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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.088 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.088 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.021 Profile: Floodplain
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.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 12 East (South o RS: 4.021 Profile: Floodway
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.951 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.951 Profile: Floodway
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 conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.

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Warning:	The energy loss was 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.902 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.902 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.867 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.867 Profile: Floodway
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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.804 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.804 Profile: Floodway
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.716 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.716 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.649 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.649 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.582 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.582 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.506 Profile: Floodplain

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Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.506 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.46 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.46 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.41 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.41 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.342 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.342 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.303 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.303 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.283 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.283 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.262 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.262 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: 12 East (South o RS: 3.216 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.216 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.17 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.17 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.129 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.129 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.09 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.09 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.046 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 3.046 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.

Errors Warnings and Notes for Plan : 310.032 (Continued)

	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 2.991 Profile: Floodplain
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:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 2.991 Profile: Floodway
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:	Divided flow computed for this cross-section.
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 2.973 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 2.973 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 2.896 Profile: Floodplain
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:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.

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Errors Warnings and Notes for Plan : 310.032 (Continued)

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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 2.896 Profile: Floodway
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:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 2.862 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 2.862 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 2.814 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 12 East (South o RS: 2.814 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 2.77 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 12 East (South o RS: 2.77 Profile: Floodway
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 12 East (South o RS: 2.712 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 2.712 Profile: Floodway
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7

Errors Warnings and Notes for Plan : 310.032 (Continued)

	or greater than 1.4. This may indicate the need for additional cross sections.
Warning:	The cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: 12 East (South o RS: 2.637 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 2.637 Profile: Floodway
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:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 12 East (South o RS: 2.62 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Location:	River: Reach #1 Reach: 12 East (South o RS: 2.62 Profile: Floodway
Warning:	Divided flow computed for this cross-section.

12 EAST SPLIT

Errors Warnings and Notes for Plan : 12E_Split

Location:	River: Reach #2 Reach: 12E_Split RS: 4.109 Profile: Floodplain
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.
Location:	River: Reach #2 Reach: 12E_Split RS: 4.07 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #2 Reach: 12E_Split RS: 3.997 Profile: Floodplain
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:	The conveyance ratio (upstream 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.
Location:	River: Reach #2 Reach: 12E_Split RS: 3.933 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #2 Reach: 12E_Split RS: 3.854 Profile: Floodplain
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:	The conveyance ratio (upstream 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.
Location:	River: Reach #2 Reach: 12E_Split RS: 3.795 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.

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13 EAST

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 13 East (South o RS: 2.294 Profile: Floodplain
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 13 East (South o RS: 2.294 Profile: Floodway
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 conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 13 East (South o RS: 2.239 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 13 East (South o RS: 2.239 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 13 East (South o RS: 2.191 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 13 East (South o RS: 2.191 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 13 East (South o RS: 2.137 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 13 East (South o RS: 2.137 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 13 East (South o RS: 2.043 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Location:	River: Reach #1 Reach: 13 East (South o RS: 2.043 Profile: Floodway
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 13 East (South o RS: 2.027 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 13 East (South o RS: 2.027 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 13 East (South o RS: 2.006 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 13 East (South o RS: 2.006 Profile: Floodway
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.
Location:	River: Reach #1 Reach: 13 East (South o RS: 2.001 Profile: Floodplain
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 13 East (South o RS: 2.001 Profile: Floodway
Warning:	The conveyance ratio (upstream 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 cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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:	The parabolic search method failed to converge on critical depth. The program will try the cross
	section slice/secant method to find critical depth.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.934 Profile: Floodplain
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

Errors Warnings and Notes for Plan : 310.032 (Continued)

	values.
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:	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.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.934 Profile: Floodway
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:	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.
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.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.896 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.896 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.842 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.842 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.794 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.794 Profile: Floodway
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.737 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Warning:	The 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.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.737 Profile: Floodway
Warning:	The 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.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.635 Profile: Floodplain

Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.635 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.581 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.581 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.529 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.529 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.446 Profile: Floodplain
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.446 Profile: Floodway
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.368 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.368 Profile: Floodway
Warning:	The conveyance ratio (upstream 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.284 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.284 Profile: Floodway
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.189 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.

Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.189 Profile: Floodway
Warning:	The conveyance ratio (upstream 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 cross section had to be extended vertically during the critical depth calculations.
Warning:	The energy loss was 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:	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.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.09 Profile: Floodplain
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.
Location:	River: Reach #1 Reach: 13 East (South o RS: 1.09 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 13 East (South o RS: 0.995 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 13 East (South o RS: 0.995 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 13 East (South o RS: 0.917 Profile: Floodplain
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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 13 East (South o RS: 0.917 Profile: Floodway
Warning:	The energy loss was 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:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 13 East (South o RS: 0.848 Profile: Floodplain
Warning:	Divided flow computed for this cross-section.
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.
Location:	River: Reach #1 Reach: 13 East (South o RS: 0.848 Profile: Floodway
Note:	Multiple critical depths were found at this location. The critical depth with the lowest, valid, water
	surface was used.

14 EAST

Errors Warnings and Notes for Plan : 310.032

Location:	River: Reach #1 Reach: 14 East RS: 2.244 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 14 East RS: 2.244 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 14 East RS: 2.168 Profile: Floodplain
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 14 East RS: 2.168 Profile: Floodway
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 14 East RS: 2.135 Profile: Floodplain
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 14 East RS: 2.135 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7
	or greater than 1.4. This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 14 East RS: 2.112 Profile: Floodplain
Warning:	The 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.
Location:	River: Reach #1 Reach: 14 East RS: 2.112 Profile: Floodway
Warning:	The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for
	additional cross sections.
Warning:	The conveyance ratio (upstream 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.
Location:	River: Reach #1 Reach: 14 East RS: 2.089 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 14 East RS: 2.089 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 14 East RS: 2.026 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 14 East RS: 2.026 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 14 East RS: 1.941 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 14 East RS: 1.941 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 14 East RS: 1.894 Profile: Floodplain

Errors Warnings and Notes for Plan : 310.032 (Continued)

Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 14 East RS: 1.894 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 14 East RS: 1.831 Profile: Floodplain
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:	The energy loss was 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.
Location:	River: Reach #1 Reach: 14 East RS: 1.831 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 14 East RS: 1.772 Profile: Floodplain
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.
Location:	River: Reach #1 Reach: 14 East RS: 1.772 Profile: Floodway
Warning:	The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section.
	This may indicate the need for additional cross sections.

E.9 Effective FIS models

TRILBY WASH

Entellus™

SHEET _____ OF _____

BY _____ DATE _____

CHECK _____ DATE _____

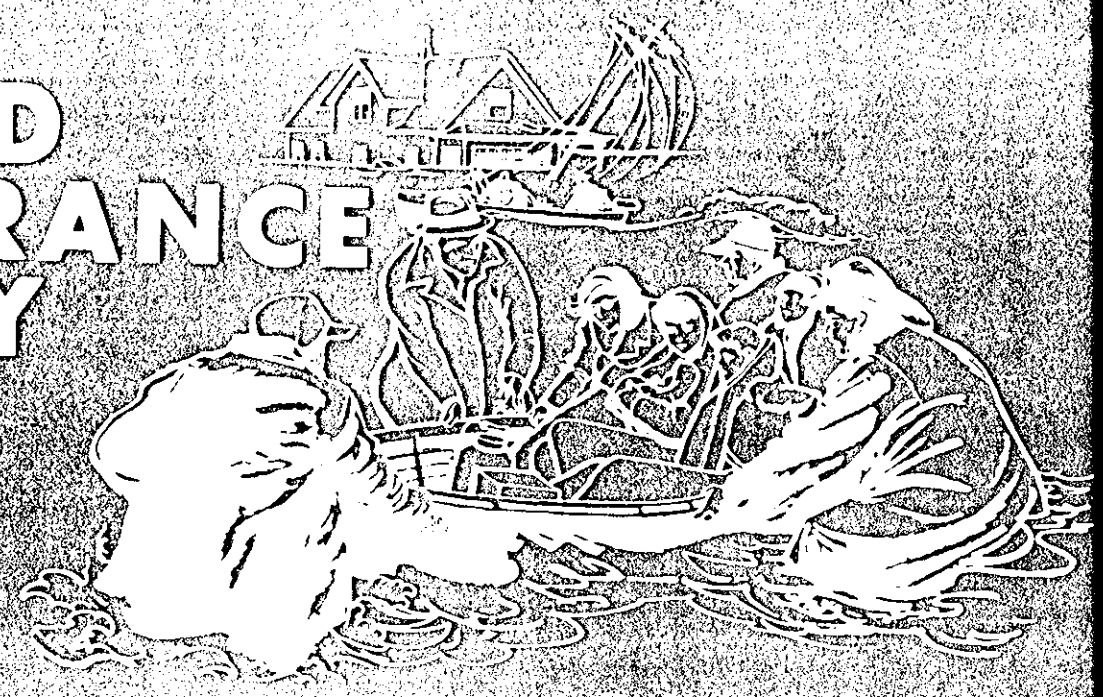
CLIENT _____

JOB NAME _____ JOB NO. _____

Trilby north of US60

Q from effective model is 2970 cfs where the new delineation starts. Q from the new model is 5900 cfs.

FLOOD INSURANCE STUDY



MARICOPA COUNTY, ARIZONA
AND INCORPORATED AREAS
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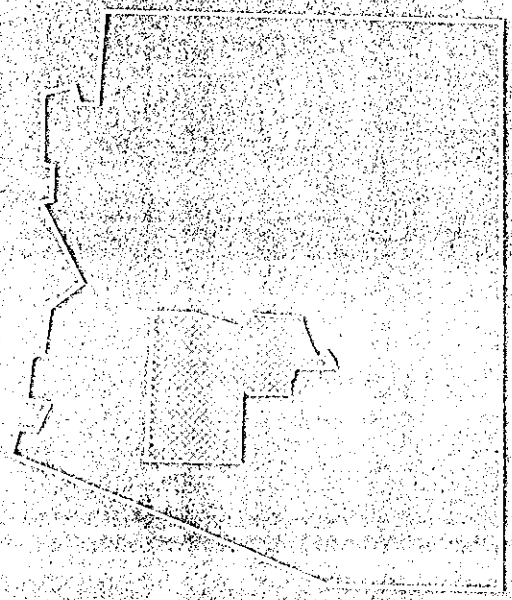
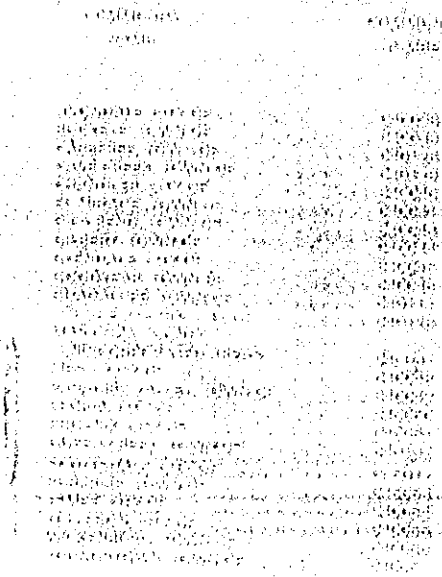




REVISED DECEMBER 4, 1991

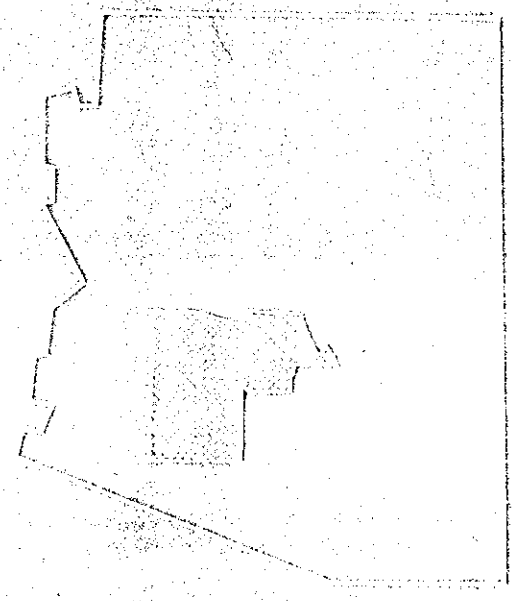
Federal Emergency Management Agency

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
					(FEET NGVD)			
Trilby Wash (Cont'd)								
AY	15.899	418	471	2.4	1,761.1	1,761.1	1,761.3	0.2
AZ	16.113	319	535	3.3	1,774.5	1,774.5	1,774.7	0.2
BA	16.255	154	535	5.6	1,783.4	1,783.4	1,783.8	0.4
BB	16.481	210	775	3.9	1,797.2	1,797.2	1,798.0	0.8
BC	16.714	124	402	7.4	1,810.7	1,810.7	1,810.7	0.0
BD	16.937	66	275	10.9	1,823.3	1,823.3	1,823.3	0.0
BE	17.135	91	324	9.2	1,835.4	1,835.4	1,835.4	0.0
BF	17.319	95	414	6.7	1,846.4	1,846.4	1,846.9	0.5
BG	17.476	147	670	4.2	1,855.0	1,855.0	1,855.3	0.3
BH	17.577	200	415	7.2	1,861.4	1,861.4	1,861.4	0.0
BI	17.763	230	471	6.3	1,874.2	1,874.2	1,874.6	0.4
BJ	18.006	150	369	8.1	1,887.7	1,887.7	1,887.9	0.2
BK	18.263	195	562	5.3	1,903.5	1,903.5	1,904.2	0.7
BL	18.542	145	530	5.6	1,922.9	1,922.9	1,923.8	0.9
Trilby Wash-Middle Channel								
A	15.915	152	183	3.3	1,760.0	1,760.0	1,760.4	0.4
B	16.051	168	210	2.9	1,769.6	1,769.6	1,769.8	0.2
Trilby Wash-West Channel								
A	15.754	209	449	4.2	1,750.5	1,750.5	1,750.5	0.0
B	15.956	240	418	3.0	1,760.1	1,760.1	1,760.4	0.3
C	16.138	118	229	5.4	1,773.1	1,773.1	1,773.4	0.3
BA	16.306	154	500	6.0	1,783.4	1,783.4	1,783.6	0.2

[1]Miles Above McMicken Dam Outlet Works

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA
AND INCORPORATED AREAS
VOLUME 1 OF 9



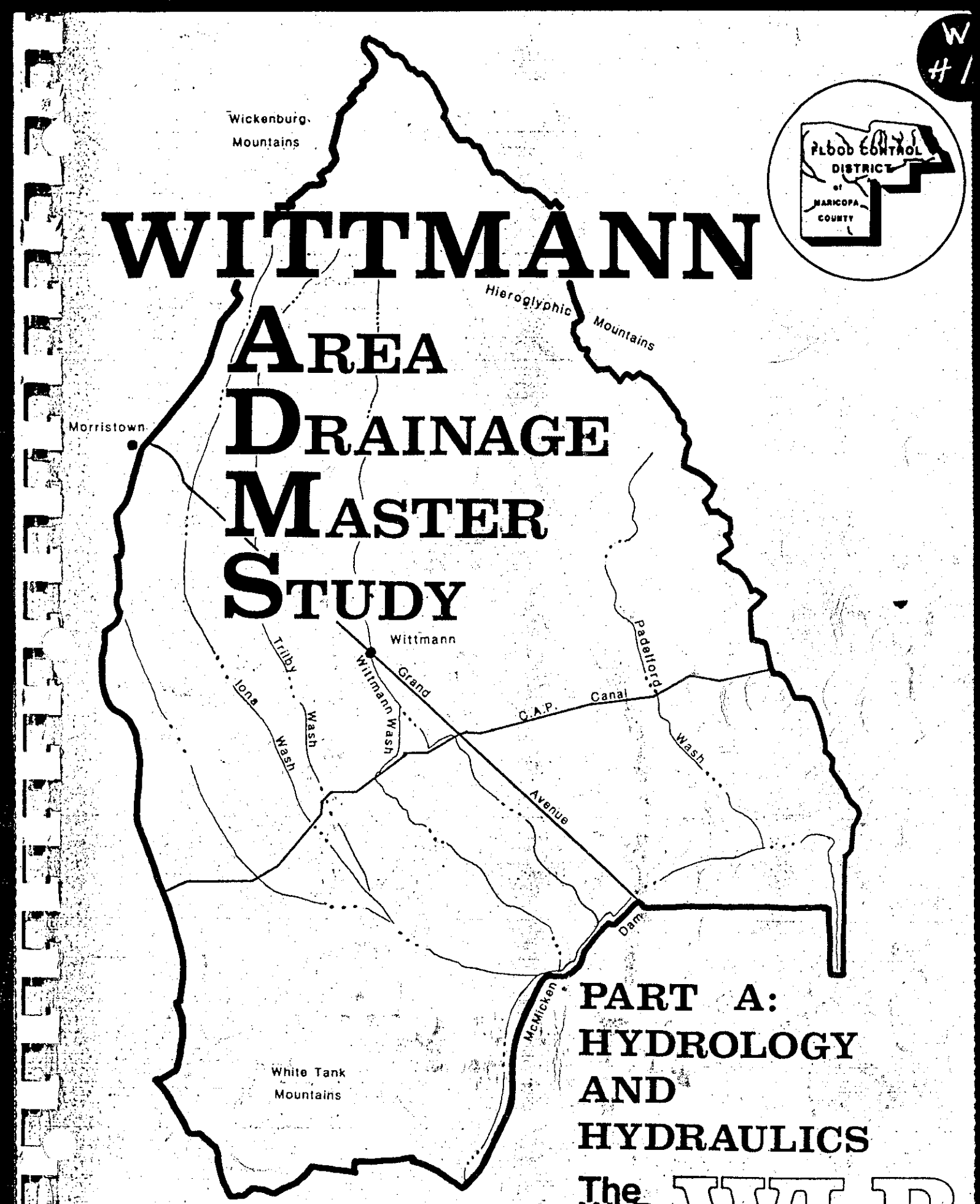
REVISED DECEMBER [illegible], 1999

Federal Emergency Management Agency

Table 3. Summary of Discharges (Cont'd)

Flooding Source and Location	Drainage Area (Square Miles)	Peak Discharges (cfs) 10-Year	50-Year	100-Year	500-Year
Circle City - Wash 4 along RR					
Upstream of confluence with Wash 4	--[1]	28	54	179	--[2]
Circle City - Wash 4					
At confluence with Wash 3	0.16	51[3]	85[3]	125[3]	--[2]
Downstream of Grand Avenue (U.S. Highway 89)	0.14	41[3]	65[3]	78[3]	--[2]
Upstream of railroad	0.14	45	94	132	--[2]
Circle City - Wash 5					
At confluence with Wash 6	0.05	30[3]	85[3]	85[3]	--[2]
Upstream of Grand Avenue	0.05	30[3]	93[3]	101[3]	--[2]
Upstream of railroad	0.05	33	176[4]	309[4]	--[2]
200 feet upstream of railroad	0.05	33	65	89	--[2]
Circle City - Wash 6					
At confluence with Wash 3	0.72	117[3]	196[3]	199[3]	--[2]
At confluence with Wash 5	0.67	87[3]	111[3]	114[3]	--[2]
Upstream of railroad	0.62	167	361	479	--[2]
Circle City - Wash 7					
At Black Mountain Road	0.57	109	192	215	--[2]
Trilby Wash at Circle City					
At Black Mountain Road	16.10	1,297[3]	2,280[3]	2,780[3]	--[2]
Upstream of AT&SFRR	16.10	1,380	2,428	2,970	--[2]
Trilby Wash-CAP to Black Mountain Road					
At Carefree Highway	--[1]	--[1]	--[1]	2,995	--[1]
Upstream of White Wing Road	--[1]	--[1]	--[1]	3,322	--[1]

[1]Not Computed, Overflow From Wash 5
[2]Not Computed
[3]Decrease Due to Storage Behind AT&SFRR
[4]Increase Due to Overflow from Wash 6



WITTMANN AREA DRAINAGE MASTER STUDY

PART A: HYDROLOGY AND HYDRAULICS

The WLB Group Inc.

WLB

R 4 W — R 3 W — R 2 W — R 1 W

T 8 N — T 7 N — T 6 N — T 5 N — T 4 N — T 3 N

WICKENBURG MOUNTAINS

YAVAPAI COUNTY
MARICOPA COUNTY

BITTER CREEK

HIEROGLYPHIC MOUNTAINS

YAVAPAI COUNTY
MARICOPA COUNTY

GRAND AVE.

A. T. & S.F. R.R.

MORRISTOWN

WASH

TRIBBY

MORRISTOWN HIGHWAY (S.R. 74)

CIRCLE CITY

CHRYSLER PROVING GROUNDS

BOYD VALLEY RD.

WITTMANN

CROZIER RD.

203rd AVE.

PADELFORD

C.A.P. CANAL

PATTON RD.

JOMAX RD

LUKE A.F.B. AUXILIARY FIELD #1

HAPPY VALLEY ROAD

LUKE A.F.B. AUXILIARY FIELD #2

BUNKER PEAK

LAKE BONITA

BEARDSLEY

DAM OUTLET CHANNEL

McMICKEN DAM OUTLET WASH

C.A.P. CANAL

PINNACLE PEAK

195th AVE.

183rd AVE.

DEER VALLEY

NORTHWEST LANDFILL

AREA RETAINED BASIN

SARIVAL AVE.

REEMS RD.

BULLARD AVE.

LITCHFIELD RD.

DYSART RD.

BEARDSLEY RD.

BEARDSLEY

SUN CITY WEST

SUN VALLEY PARKWAY

McMICKEN DAM

COTTON LN.

CITRUS RD.

UNION HILLS DR.

BELL RD.

ATCHISON TOPEKA & SANTA FE RAILROAD
GRAND AVENUE (U.S. 60 & U.S. 89)

EL MIRAGE RD.

AGUA FRIA RIVER

GREENWAY RD.

WADDELL RD.

WHITE TANK MOUNTAINS

CACTUS RD.

PERRYVILLE RD.

PEORIA AVE.

JACKRABBIT RD.

OLIVE AVE.

0' 1000' 2000' 4000' 6000'

WLB Group WLB

DRAINAGE AREA MAP

WITTMANN ADMS

LEGEND

- DRAINAGE AREA BOUNDARY
- SUBAREA BOUNDARY
- SUBAREA NUMBER (00)
- CONCENTRATION POINT •
- C.A.P. CANAL
- CONCRETE PIPE OVERCHUTE
- CONCRETE OVERCHUTE
- BRIDGE

21-1

CONCENTRATION POINT NOS.	STATION	2-YR (CFS)	5-YR (CFS)	10-YR (CFS)	50-YR (CFS)	100-YR (CFS)	BASIN AREA	LOCATION REMARKS
24	Inflow	0.	1.	3.	6.	8.	0.01	AT&SF Railroad
	Diversion to 25	0.	0.	0.	0.	0.	0.01	
	Outflow	0.	1.	1.	2.	3.	0.01	
25	Inflow	1.	6.	12.	33.	51.	0.05	AT&SF Railroad
	Diversion to 26	0.	0.	0.	1.	9.	0.05	
	Outflow	1.	5.	9.	24.	32.	0.05	
26B		926.	1802.	2381.	3919.	4685.	12.72	
26A		663.	1331.	1774.	2956.	3550.	14.98	
26	Inflow	487.	1009.	1380.	2428.	2970.	16.10	AT&SF Railroad
	Outflow	487.	1009.	1380.	2428.	2970.	16.10	Trilby Wash Crossing
27	Inflow	1.	7.	13.	40.	53.	0.06	AT&SF Railroad
	Diversion to 28	0.	0.	0.	9.	23.	0.06	
	Outflow	1.	6.	11.	26.	28.	0.06	
28	Inflow	7.	28.	49.	133.	188.	0.24	AT&SF Railroad
	Diversion to 29	0.	0.	0.	52.	99.	0.24	
	Outflow	7.	26.	44.	65.	70.	0.24	
29	Inflow	2.	6.	8.	55.	102.	0.01	AT&SF Railroad
	Diversion to 30	0.	0.	0.	16.	67.	0.01	
	Outflow	1.	3.	4.	26.	31.	0.01	

-From WLB86 [illegible] Hydrology Model-

```
818     KK   25
819     KM     RUNOFF FROM SUBWATERSHED 25.
820     BA   .05
821     LS         72
822     UK   150  .0200    .10    100
823     RK  2450  .0143    .05    .05   TRAP          40

824     KK   C25
825     KM     ADD HYDROGRAPHS AT C25.
826     HC    2

827     KK   C25
828     KM     STORAGE ROUTE THROUGH C25.  48" ORCP ON R.R.
829     RS    1   STOR     0      0
830     SV    0   .38    .58     .8   1.04
831     SQ    0    23     52     99    171
832     SE 1860.5 1862.5   1863  1863.5   1864

833     KK   C25
834     KM     DIVERT FLOW AT C25.
835     DT   DIV25
836     DI    0    23     52     99    171
837     DQ    0     0     15     52    113
1                          HEC-1 INPUT                          PAGE 21

LINE      ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

838     KK   C63B
839     KM     ROUTE FLOW FROM C25 TO C63B.
840     RM    1  1.97    .2

841     KK   C63B
842     KM     ADD HYDROGRAPHS AT C63B.
843     HC    4

844     KK   26B
845     KM     RUNOFF FROM SUBWATERSHED 26B.
846     BA  12.72
847     LS         86
848     UI    0   338   778  1523  2576  3691  4131  4635  4635  4085
849     UI  3258  2817  2330  2215  1580  1471  1204  1050   990   937
850     UI   858   602   574   536   295   283   272   259   157   151
851     UI   146   141   137   163    71    69    67    65    64    62
852     UI    33     0     0     0     0     0     0     0     0     0

853     KK   C26A
854     KM     ROUTE FLOW FROM C26B TO C26A.
855     RM    1   .46    .2

856     KK   26A
857     KM     RUNOFF FROM SUBWATERSHED 26A.
```

Trilby - North of Orlo

(1) River: "RIVER-1" Reach: "Reach-1" RS:18.087
- Station and elevation data contains duplicate points. At point(s):2,3,4,5 The cross section points filter can be used to remove duplicate points.

(1) River: "RIVER-1" Reach: "Reach-1" RS:17.763
- Station and elevation data contains duplicate points. At point(s):6 The cross section points filter can be used to remove duplicate points.

(2) River: "RIVER-1" Reach: "Reach-1" RS:17.513 BR
- Bridge/Culvert has an upstream distance of zero, HEC-RAS requires a positive distance between the upstream cross section and the face of the bridge. A zero distance was allowed in versions prior to 3.0. A table was added to the geometric data editor to facilitate global editing of bridge distances and widths. Some length will need to be added to the upstream distance column and an amount greater than that will have to be subtracted from the bridge width column.

(2) River: "RIVER-1" Reach: "Reach-1" RS:17.482 BR
- Bridge/Culvert has an upstream distance of zero, HEC-RAS requires a positive distance between the upstream cross section and the face of the bridge. A zero distance was allowed in versions prior to 3.0. A table was added to the geometric data editor to facilitate global editing of bridge distances and widths. Some length will need to be added to the upstream distance column and an amount greater than that will have to be subtracted from the bridge width column.

↑ Warning Messages from HEC-RAS when importing HEC-2 main.

(1) Action taken: Using the filter cross-section points option in HEC-RAS, the unnecessary points were removed. The modified cross sections were compared to the unchanged cross sections, and there were no differences.

(2) Action taken: The distance was changed to .01. The bridge widths were changed so that they were slightly narrower than the distance between cross sections upstream and downstream.

⇒ The water surface elevations did not change.

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

```
DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.16
1        National Geodetic Survey,   Retrieval Date = MARCH 30, 2005
 DV0918 ***********************************************************************
 DV0918  DESIGNATION -  RV 102
 DV0918  PID         -  DV0918
 DV0918  STATE/COUNTY-  AZ/MARICOPA
 DV0918  USGS QUAD   -  WITTMANN (1981)
 DV0918
 DV0918                         *CURRENT SURVEY CONTROL
 DV0918  ______________________________________________________________________
 DV0918* NAD 83(1986)-  33 46 33.      (N)     112 31 31.      (W)      SCALED
 DV0918* NAVD 88     -       512.22    (+/-2cm)     1680.5     (feet)   VERTCON
 DV0918  ______________________________________________________________________
 DV0918  GEOID HEIGHT-          -29.82  (meters)                         GEOID03
 DV0918
 DV0918  VERT ORDER  -  SECOND    CLASS 0 (See Below)
 DV0918
 DV0918.The horizontal coordinates were scaled from a topographic map and have
 DV0918.an estimated accuracy of +/- 6 seconds.
 DV0918
 DV0918.The NAVD 88 height was computed by applying the VERTCON shift value to
 DV0918.the NGVD 29 height (displayed under SUPERSEDED SURVEY CONTROL.)
 DV0918.The vertical order pertains to the NGVD 29 superseded value.
 DV0918
 DV0918.The geoid height was determined by GEOID03.
 DV0918
 DV0918;                      North         East     Units  Estimated Accuracy
 DV0918;SPC AZ C      -   307,960.      156,990.       MT  (+/- 180 meters Scaled)
 DV0918
 DV0918                            SUPERSEDED SURVEY CONTROL
 DV0918
 DV0918  NGVD 29 (??/??/92)  511.620  (m)          1678.54     (f) ADJ UNCH    2 0
 DV0918
 DV0918.Superseded values are not recommended for survey control.
 DV0918.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 DV0918.See file dsdata.txt to determine how the superseded data were derived.
 DV0918
 DV0918_U.S. NATIONAL GRID SPATIAL ADDRESS: 12SUC587383(NAD 83)
 DV0918_MARKER: R = RIVET
 DV0918_SETTING: 36 = SET IN A MASSIVE STRUCTURE
 DV0918_SP_SET: BRIDGE
 DV0918_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
 DV0918
 DV0918  HISTORY      - Date      Condition        Report By
 DV0918  HISTORY      - UNK       MONUMENTED       ATSFRR
 DV0918  HISTORY      - 1939      GOOD             NGS
 DV0918
 DV0918                            STATION DESCRIPTION
 DV0918
 DV0918'DESCRIBED BY NATIONAL GEODETIC SURVEY 1939
 DV0918'7.9 MI SE FROM HOT SPRINGS JUNCTION.
 DV0918'7.9 MILES SOUTHEAST ALONG THE ATCHISON, TOPEKA AND SANTA FE RAILWAY
 DV0918'FROM HOT SPRINGS JUNCTION, NORTHWEST OF MILEPOST 159, OPPOSITE BRIDGE
 DV0918'A 159, AT A HIGHWAY BRIDGE, AND IN THE TOP OF THE EAST CONCRETE WIND
 DV0918'WALL.  A STANDARD MONEL-METAL RIVET.

 *** retrieval complete.
```

APPENDIX F. DVD

DVD IS IN FRONT OF VOLUME 1 (D-1)