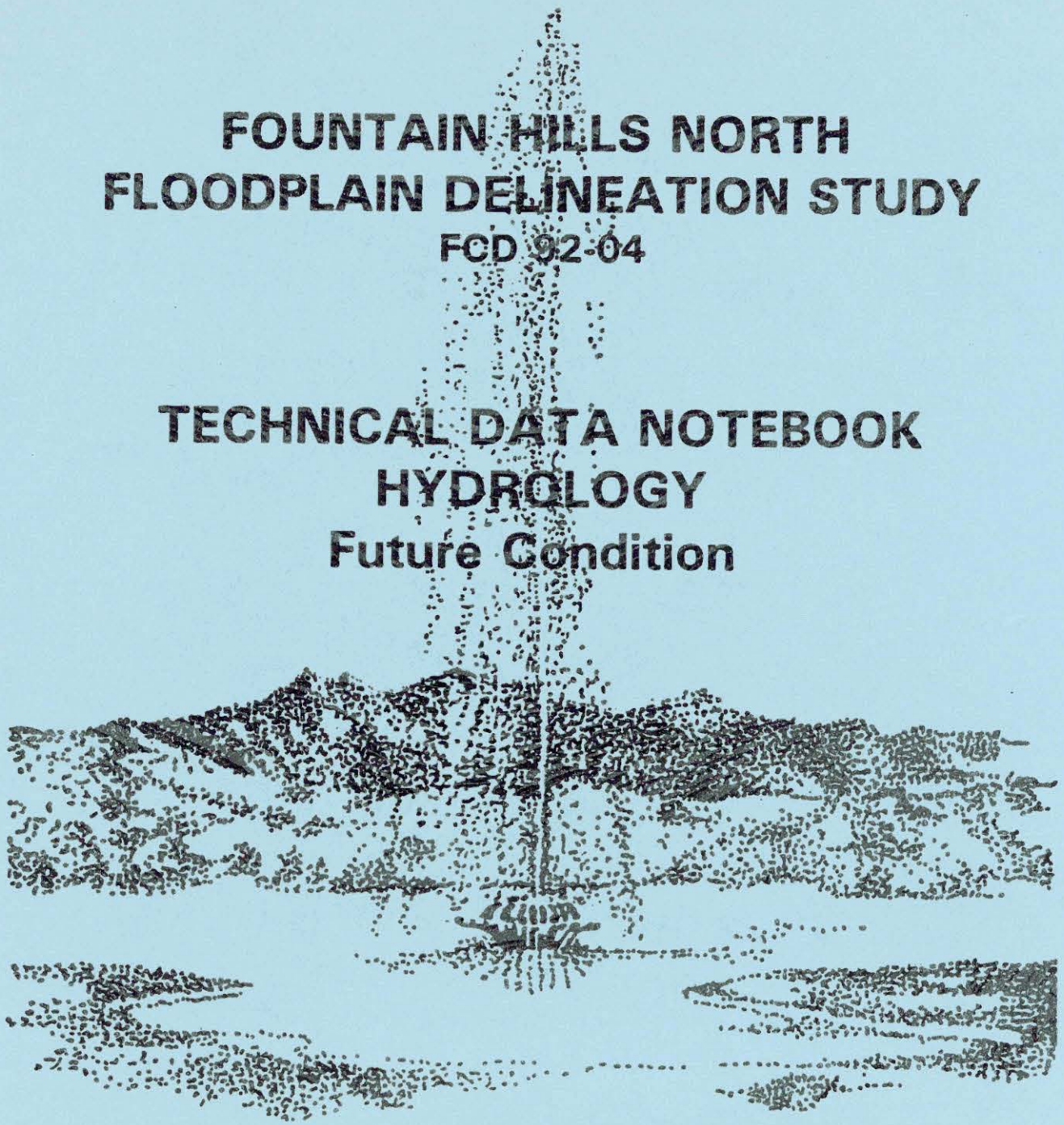
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
PHOENIX, ARIZONA

FOUNTAIN HILLS NORTH FLOODPLAIN DELINEATION STUDY

FCD 92-04

TECHNICAL DATA NOTEBOOK HYDROLOGY

Future Condition



George V. Sabol Consulting Engineers, Inc.

Scottsdale, Arizona

NOVEMBER 1994

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PHOENIX, ARIZONA

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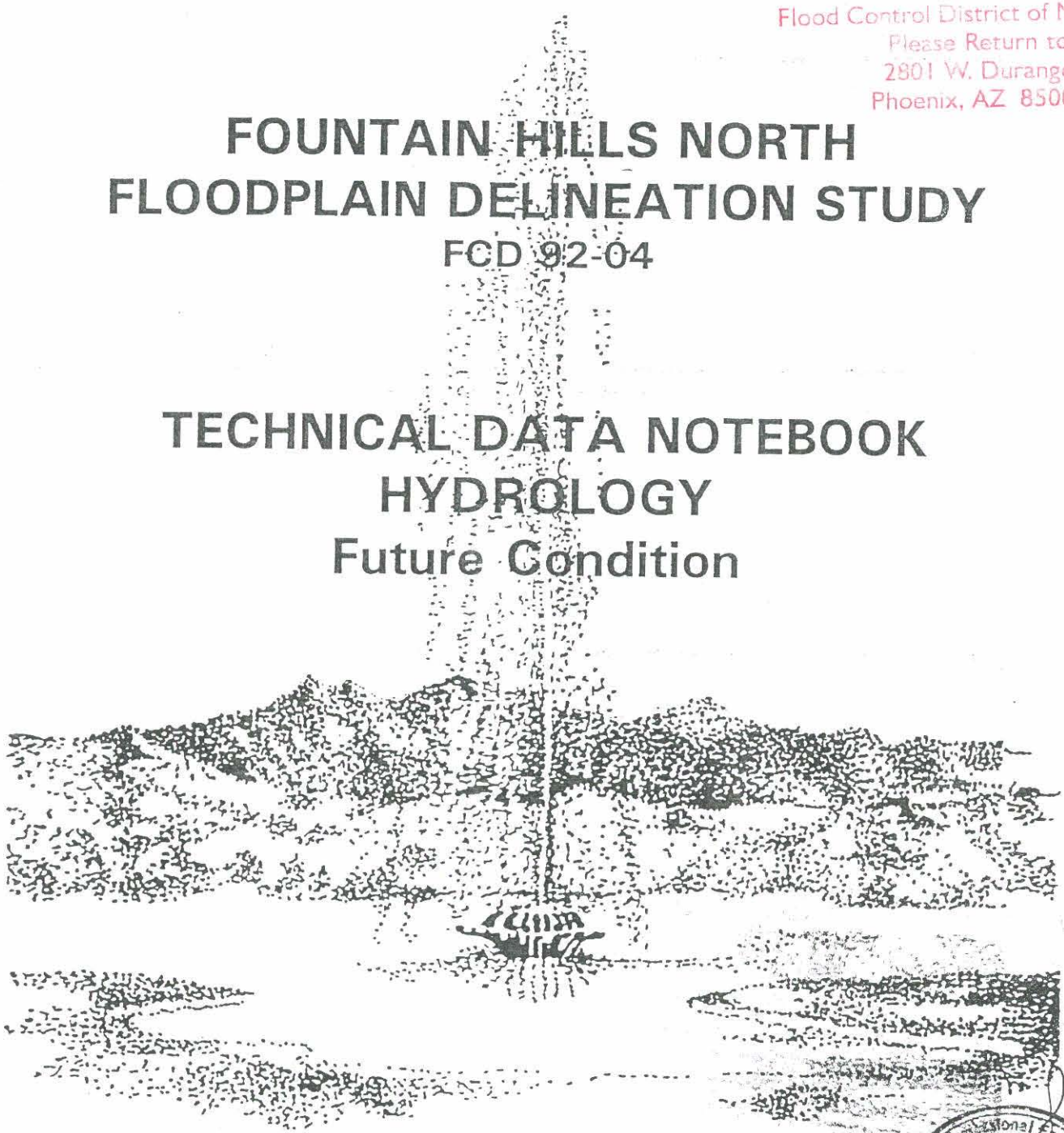

George V. Sabol Consulting Engineers, Inc.

Scottsdale, Arizona

NOVEMBER 1994

Registered Professional Engineer (Civil)
CERTIFICATE NO.
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THOMAS R.
LOOMIS
Date Signed 11-7-94
ARIZONA, U.S.A.

PREFACE

The Fountain Hills North Floodplain Delineation Study (Contract No. FCD 92-04) was performed for:

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TABLE OF CONTENTS

	Page
INTRODUCTION	1
FUTURE CONDITION PARAMETERS	1

LIST OF TABLES
(following Page 2)

S-3 XKSAT and Terrain Classifications by Subbasin
S-5 Subbasin Land Use Areas and Urban RTIMP Estimates
S-6 Subbasin Weighted DTHETA and Surface Loss Parameters
S-7 Subbasin Time of Concentration Parameters
S-8a Time of Concentration and Duration of Rainfall Excess, 100-year, 6-hour
S-8b Time of Concentration and Duration of Rainfall Excess, 100-year, 24-hour
S-8c Time of Concentration and Duration of Rainfall Excess, 10-year, 6-hour
S-8d Time of Concentration and Duration of Rainfall Excess, 10-year, 24-hour
S-9 Summary of Future Condition Subbasin Parameters
S-10 Summary of Clark Unit Hydrograph Parameters, 100-year and 10-year Future Condition T_c and R Values

R-1 Reach Route Physical Data
R-2a Reach Route Hydraulic Data, 10-year, 6-hour Storm
R-2b Reach Route Hydraulic Data, 10-year, 24-hour Storm
R-2c Reach Route Hydraulic Data, 100-year, 6-hour Storm
R-2d Reach Route Hydraulic Data, 100-year, 24-hour Storm

F-1 Future Condition 100-year, 6-hour Results
F-2 Future Condition 100-year, 24-hour Results
F-3 Future Condition 10-year, 6-hour Results
F-4 Future Condition 10-year, 24-hour Results
F-5 Future Condition 100-year Peak Discharges in Numerical Order by Type
F-6 Future Condition 10-year Peak Discharges in Numerical Order by Type
F-7 Summary of 10-year and 100-year, 6-hour and 24-hour Runoff Volumes

LIST OF APPENDICES
(following Tables)

D 100-year, 6-hour Storm HEC-1 Output, Future Condition
E 100-year, 24-hour Storm HEC-1 Output, Future Condition
F 10-year, 6-hour Storm HEC-1 Output, Future Condition
G 10-year, 24-hour Storm HEC-1 Output, Future Condition

INTRODUCTION

This report is a supplement to the existing condition report titled *Fountain Hills North Floodplain Delineation Study Technical Data Notebook, Hydrology, Existing Condition*. The purpose in preparing this supplemental report is to provide an estimate of future condition peak discharges for the Fountain Hills North study area. Refer to the existing condition report for a discussion of how the HEC-1 models were prepared and for a description of modeling parameters. The information contained herein is the tables and computer output which changed as a result of the future condition parameter changes. Other tables and substantiating calculations are contained in the existing condition report. The 10-year and 100-year, 6-hour and 24-hour, storms are modeled.

FUTURE CONDITION PARAMETERS

The existing condition HEC-1 models were used as the basis for the future condition models. The adjustments made to the existing condition model are:

1. Subbasin percent impervious (RTIMP), XKSAT and DTHETA values are adjusted;
2. Time of concentration (T_c) values are recalculated to reflect the changes in RTIMP and rainfall excess; and
3. The number of routing computation steps are adjusted for each reach to reflect the change in peak discharge.

The adjustments to RTIMP are made using the Town of Fountain Hills Zoning Master Plan. The land use codes in Table S-5 that were labled with a "-N" or "-P()" in the existing condition report are changed to a "-F" or "P(100)" respectively. This changes the land use of each polygon within each subbasin to be 100 percent developed. The XKSAT and DTHETA values are then adjusted because of the change in vegetation cover density and soil moisture assumption for the urban areas. A "normal" soil moisture condition is assumed for the future condition models. The HEC-1 input files were then revised to include the changed RTIMP, XKSAT and DTHETA values for each subbasin. New Tc and R values were calculated using the modified MCUHPI program. The HEC-1 models were run and the number of routing steps optimized.

Revised copies of Tables S-3, S-5, S-6, S-7, S-8, S-9 and S-10 are contained herein. The revised routing parameters are listed in Table R-2. The future condition results are summarized in Tables F-1 through F-7. Copies of the HEC-1 output files are in Appendices D, E, F and G.

TABLE S-3

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

201A

Soil Map Unit No. ...	41	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	138.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
19% ... Vegetation Cover Density (VCD) in percent
1.10 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.19 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.217**

201B

Soil Map Unit No. ...	41	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	51.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
24% ... Vegetation Cover Density (VCD) in percent
1.16 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.20 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.081**

201C

Soil Map Unit No. ...	40	41	93	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	0.1	49.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	0.33	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
16% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.079**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

201D

Soil Map Unit No. ...	41	93	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	45.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.33	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
22% ... Vegetation Cover Density (VCD) in percent
1.14 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.19 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.071**

201E

Soil Map Unit No. ...	40	41	93	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	0.1	99.7	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	0.33	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.19 ... XKSAT (Log averaged)
31% ... Vegetation Cover Density (VCD) in percent
1.23 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.23 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.183**

202A

Soil Map Unit No. ...	40	41	93	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	0.4	0.7	23.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	0.33	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.32 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.34 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.038**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

202B

Soil Map Unit No. ...	40	41	93	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	2.2	0.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	0.33	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.29 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.31 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.018**

202C

Soil Map Unit No. ...	93	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.35 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.008**

202D

Soil Map Unit No. ...	40	41	93	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	17.0	17.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	0.33	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.19 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.20 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.063**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

202E

Soil Map Unit No. ...	40	41	93	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	11.7	52.4	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	0.33	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.104**

202F

Soil Map Unit No. ...	41	93	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	7.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.33	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.19 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.20 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.013**

202G

Soil Map Unit No. ...	41	66	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	8.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.23	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.013**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

202H

Soil Map Unit No. ...	41	66	93	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	54.9	39.5	20.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.23	0.33	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.21 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.22 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.179**

202I

Soil Map Unit No. ...	40	41	66	93	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	5.3	0.6	0.8	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	0.23	0.33	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.23 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.24 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.017**

203A

Soil Map Unit No. ...	40	41	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	8.4	170.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
28% ... Vegetation Cover Density (VCD) in percent
1.20 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.20 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.279**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

203B

Soil Map Unit No. ...	40	41	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	2.9	25.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
17% ... Vegetation Cover Density (VCD) in percent
1.08 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.044**

203C

Soil Map Unit No. ...	41	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	66.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
24% ... Vegetation Cover Density (VCD) in percent
1.15 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.20 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.103**

203D

Soil Map Unit No. ...	40	41	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	0.3	68.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
25% ... Vegetation Cover Density (VCD) in percent
1.16 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.20 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.108**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

203E

Soil Map Unit No. ...	40	41	96	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	6.3	33.2	20.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	0.07	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.13 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.13 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.093**

203F

Soil Map Unit No. ...	40	41	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	5.3	208.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
30% ... Vegetation Cover Density (VCD) in percent
1.22 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.21 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.333**

203G

Soil Map Unit No. ...	41	96	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	144.5	14.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.07	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.16 ... XKSAT (Log averaged)
23% ... Vegetation Cover Density (VCD) in percent
1.14 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.248**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

203H

Soil Map Unit No. ...	40	41	66	93	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	0.1	100.1	8.7	23.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	0.23	0.33	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.20 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.21 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.207**

203I

Soil Map Unit No. ...	40	41	66	93	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	15.5	15.7	20.2	57.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	0.23	0.33	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.26 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.27 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.171**

203J

Soil Map Unit No. ...	40	66	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	16.1	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.23	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.19 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.20 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.039**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

203K

Soil Map Unit No. ...	40	66	93	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	81.8	17.4	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.23	0.33	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.18 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.19 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.160**

204A

Soil Map Unit No. ...	40	41	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	68.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.108**

204B

Soil Map Unit No. ...	8	40	96	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	0.5	78.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.07	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.7% ... Terrain = Valley (composite)
99.3% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.126**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

204C

Soil Map Unit No. ...	40	0	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	49.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	---	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	---	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.077**

204D

Soil Map Unit No. ...	40	0	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	28.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	---	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	---	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.044**

204E

Soil Map Unit No. ...	40	0	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	45.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	---	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	---	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.071**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

204F

Soil Map Unit No. ...	36	40	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	28.2	21.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.07	0.17	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.10 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.11 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.077**

205A

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	75.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
30% ... Vegetation Cover Density (VCD) in percent
1.22 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.40 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.118**

205B

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	135.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
30% ... Vegetation Cover Density (VCD) in percent
1.22 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.40 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.211**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

205C

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	37.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
31% ... Vegetation Cover Density (VCD) in percent
1.23 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.41 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.059**

205D

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	204.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
30% ... Vegetation Cover Density (VCD) in percent
1.22 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.40 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.319**

205E

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	139.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
30% ... Vegetation Cover Density (VCD) in percent
1.22 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.40 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.218**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

205F

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	103.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
31% ... Vegetation Cover Density (VCD) in percent
1.23 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.41 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.161**

205G

Soil Map Unit No. ...	31	61	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	105.9	12.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.15	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	---	---	---	---	---	---	---	---	---	---

0.30 ... XKSAT (Log averaged)
38% ... Vegetation Cover Density (VCD) in percent
1.31 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.40 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
31.2% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
10.8% ... Terrain = Hillside (composite)
89.2% ... Terrain = Mountain (composite) **Total area in square miles = 0.185**

205H

Soil Map Unit No. ...	31	61	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	150.3	16.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.15	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	---	---	---	---	---	---	---	---	---	---

0.31 ... XKSAT (Log averaged)
35% ... Vegetation Cover Density (VCD) in percent
1.28 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.39 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
31.6% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
9.9% ... Terrain = Hillside (composite)
90.1% ... Terrain = Mountain (composite) **Total area in square miles = 0.261**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

205I

Soil Map Unit No. ...	8	31	40	61	96	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	3.0	98.2	17.4	104.2	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.33	0.17	0.15	0.07	---	---	---	---	---	---	---
% Rock ...	0%	35%	0%	0%	0%	---	---	---	---	---	---	---
Terrain Class ...	Valley	Mountain	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---

0.22 ... XKSAT (Log averaged)
35% ... Vegetation Cover Density (VCD) in percent
1.28 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.28 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
15.2% ... RTIMP (Composite)
1.3% ... Terrain = Valley (composite)
55.3% ... Terrain = Hillside (composite)
43.4% ... Terrain = Mountain (composite) **Total area in square miles = 0.354**

205J

Soil Map Unit No. ...	8	31	41	61	96	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	58.1	23.5	93.4	34.9	26.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.33	0.17	0.15	0.07	---	---	---	---	---	---	---
% Rock ...	0%	35%	0%	0%	0%	---	---	---	---	---	---	---
Terrain Class ...	Valley	Mountain	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---

0.25 ... XKSAT (Log averaged)
30% ... Vegetation Cover Density (VCD) in percent
1.22 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.30 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
3.5% ... RTIMP (Composite)
24.6% ... Terrain = Valley (composite)
65.5% ... Terrain = Hillside (composite)
9.9% ... Terrain = Mountain (composite) **Total area in square miles = 0.369**

205K

Soil Map Unit No. ...	8	31	40	41	93	96	96	0	0	0	0	0
Soil Map Unit Area(ac) ...	4.5	6.9	19.2	125.0	0.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.33	0.17	0.17	0.33	0.07	0.07	---	---	---	---	---
% Rock ...	0%	35%	0%	0%	0%	0%	0%	---	---	---	---	---
Terrain Class ...	Valley	Mountain	Hillslope	Hillslope	Hillslope	Hillslope	Hillslope	---	---	---	---	---

0.18 ... XKSAT (Log averaged)
30% ... Vegetation Cover Density (VCD) in percent
1.22 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.22 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
1.5% ... RTIMP (Composite)
2.8% ... Terrain = Valley (composite)
92.7% ... Terrain = Hillside (composite)
4.4% ... Terrain = Mountain (composite) **Total area in square miles = 0.245**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

205L

Soil Map Unit No. ...	8	41	93	96	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	15.6	31.0	14.7	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.33	0.07	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.23 ... XKSAT (Log averaged)
30% ... Vegetation Cover Density (VCD) in percent
1.22 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.29 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
20.7% ... Terrain = Valley (composite)
79.3% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.118**

205M

Soil Map Unit No. ...	8	41	93	96	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	16.0	51.5	2.9	18.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.33	0.07	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.20 ... XKSAT (Log averaged)
19% ... Vegetation Cover Density (VCD) in percent
1.10 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.22 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
18.0% ... Terrain = Valley (composite)
82.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.139**

205N

Soil Map Unit No. ...	8	40	41	93	96	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	1.1	14.7	63.0	13.6	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.17	0.33	0.07	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	0%	0%	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---

0.18 ... XKSAT (Log averaged)
28% ... Vegetation Cover Density (VCD) in percent
1.20 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.21 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
1.1% ... Terrain = Valley (composite)
98.9% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.156**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

206A

Soil Map Unit No. ...	8	41	96	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	11.2	68.1	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.07	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.21 ... XKSAT (Log averaged)
18% ... Vegetation Cover Density (VCD) in percent
1.09 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.23 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
13.7% ... Terrain = Valley (composite)
86.3% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.128**

206B

Soil Map Unit No. ...	8	40	41	96	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	12.5	6.4	33.7	8.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.17	0.07	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.21 ... XKSAT (Log averaged)
16% ... Vegetation Cover Density (VCD) in percent
1.07 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.23 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
20.4% ... Terrain = Valley (composite)
79.6% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.095**

206C

Soil Map Unit No. ...	8	40	41	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	6.1	0.6	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.17	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.34 ... XKSAT (Log averaged)
16% ... Vegetation Cover Density (VCD) in percent
1.07 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.36 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
39.8% ... Terrain = Valley (composite)
60.2% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.024**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

206D

Soil Map Unit No. ...	40	41	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	32.1	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.062**

206E

Soil Map Unit No. ...	8	40	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	5.9	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	---	---	---	---	---	---	---	---	---	---

0.34 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.36 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
40.6% ... Terrain = Valley (composite)
59.4% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.023**

206F

Soil Map Unit No. ...	8	40	41	96	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	34.2	10.9	48.2	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.17	0.07	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.29 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.30 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
34.0% ... Terrain = Valley (composite)
66.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.157**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

206G

Soil Map Unit No. ...	8	40	41	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	7.4	49.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.17	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.21 ... XKSAT (Log averaged)
17% ... Vegetation Cover Density (VCD) in percent
1.07 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.23 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
13.0% ... Terrain = Valley (composite)
87.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.089**

206H

Soil Map Unit No. ...	41	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	37.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.059**

206I

Soil Map Unit No. ...	41	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.021**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

206J

Soil Map Unit No. ...	41	0	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	38.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	---	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	---	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.060**

206K

Soil Map Unit No. ...	41	0	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	35.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	---	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	---	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.056**

206L

Soil Map Unit No. ...	41	0	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	38.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	---	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	---	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.060**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

206M

Soil Map Unit No. ...	8	40	41	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	5.4	0.0	32.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.17	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.22 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.23 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
14.0% ... Terrain = Valley (composite)
86.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.060**

206N

Soil Map Unit No. ...	8	40	41	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	26.7	39.3	31.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.17	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.27 ... XKSAT (Log averaged)
16% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.29 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
27.5% ... Terrain = Valley (composite)
72.5% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.152**

207A

Soil Map Unit No. ...	31	40	61	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	139.6	23.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.17	0.15	---	---	---	---	---	---	---	---	---
% Rock ...	35%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.30 ... XKSAT (Log averaged)
30% ... Vegetation Cover Density (VCD) in percent
1.22 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.37 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
29.8% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
14.8% ... Terrain = Hillside (composite)
85.2% ... Terrain = Mountain (composite) **Total area in square miles = 0.256**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

207B

Soil Map Unit No. ...	31	40	61	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	123.5	8.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.17	0.15	---	---	---	---	---	---	---	---	---
% Rock ...	35%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.31 ... XKSAT (Log averaged)
30% ... Vegetation Cover Density (VCD) in percent
1.22 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.38 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
32.4% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
7.4% ... Terrain = Hillside (composite)
92.6% ... Terrain = Mountain (composite) **Total area in square miles = 0.208**

207C

Soil Map Unit No. ...	31	40	61	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	43.3	7.5	59.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.17	0.15	---	---	---	---	---	---	---	---	---
% Rock ...	35%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.21 ... XKSAT (Log averaged)
35% ... Vegetation Cover Density (VCD) in percent
1.28 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.26 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
13.7% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
60.9% ... Terrain = Hillside (composite)
39.1% ... Terrain = Mountain (composite) **Total area in square miles = 0.173**

207D

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	126.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
24% ... Vegetation Cover Density (VCD) in percent
1.15 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.38 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.197**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

207E

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	100.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
22% ... Vegetation Cover Density (VCD) in percent
1.14 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.38 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.157**

207F

Soil Map Unit No. ...	31	61	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	77.7	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.15	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	---	---	---	---	---	---	---	---	---	---

0.32 ... XKSAT (Log averaged)
29% ... Vegetation Cover Density (VCD) in percent
1.21 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.39 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
33.7% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
3.8% ... Terrain = Hillside (composite)
96.2% ... Terrain = Mountain (composite) **Total area in square miles = 0.126**

207G

Soil Map Unit No. ...	31	40	41	61	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	35.4	0.0	48.0	67.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.17	0.17	0.15	---	---	---	---	---	---	---	---
% Rock ...	35%	0%	0%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.19 ... XKSAT (Log averaged)
28% ... Vegetation Cover Density (VCD) in percent
1.20 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.23 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
8.2% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
76.6% ... Terrain = Hillside (composite)
23.4% ... Terrain = Mountain (composite) **Total area in square miles = 0.236**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

207H

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	79.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
18% ... Vegetation Cover Density (VCD) in percent
1.09 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.36 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.124**

207I

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	46.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.35 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.073**

207J

Soil Map Unit No. ...	31	41	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	57.6	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.17	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	---	---	---	---	---	---	---	---	---	---

0.32 ... XKSAT (Log averaged)
16% ... Vegetation Cover Density (VCD) in percent
1.07 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.34 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
34.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
3.0% ... Terrain = Hillside (composite)
97.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.093**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

207K

Soil Map Unit No. ...	31	41	96	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	22.6	53.9	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.17	0.07	---	---	---	---	---	---	---	---	---
% Rock ...	35%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.19 ... XKSAT (Log averaged)
17% ... Vegetation Cover Density (VCD) in percent
1.08 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.21 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
9.6% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
72.7% ... Terrain = Hillside (composite)
27.3% ... Terrain = Mountain (composite) **Total area in square miles = 0.130**

207L

Soil Map Unit No. ...	41	96	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	45.4	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.07	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.15 ... XKSAT (Log averaged)
16% ... Vegetation Cover Density (VCD) in percent
1.07 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.16 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.080**

207M

Soil Map Unit No. ...	8	41	96	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	2.2	59.7	12.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.07	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.15 ... XKSAT (Log averaged)
19% ... Vegetation Cover Density (VCD) in percent
1.10 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.17 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
3.0% ... Terrain = Valley (composite)
97.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.116**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

207N

Soil Map Unit No. ...	8	41	96	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	8.3	21.2	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.07	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.25 ... XKSAT (Log averaged)
16% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.27 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
26.2% ... Terrain = Valley (composite)
73.8% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.049**

207O

Soil Map Unit No. ...	8	41	96	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	12.2	57.5	13.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.07	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.19 ... XKSAT (Log averaged)
20% ... Vegetation Cover Density (VCD) in percent
1.11 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.21 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
14.6% ... Terrain = Valley (composite)
85.4% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.131**

208A

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	88.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.35 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.139**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

208B

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	17.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.35 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.027**

208C

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	42.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
25% ... Vegetation Cover Density (VCD) in percent
1.17 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.38 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.066**

208D

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	47.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.35 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.075**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

208E

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	39.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.35 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.062**

208F

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	44.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.35 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.069**

208G

Soil Map Unit No. ...	31	41	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	66.1	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.17	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	---	---	---	---	---	---	---	---	---	---

0.29 ... XKSAT (Log averaged)
17% ... Vegetation Cover Density (VCD) in percent
1.08 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.31 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
27.9% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
20.2% ... Terrain = Hillside (composite)
79.8% ... Terrain = Mountain (composite) **Total area in square miles = 0.129**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

208H

Soil Map Unit No. ...	31	41	63	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	4.9	20.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.17	0.14	---	---	---	---	---	---	---	---	---
% Rock ...	35%	0%	25%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.19 ... XKSAT (Log averaged)
21% ... Vegetation Cover Density (VCD) in percent
1.12 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.21 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
8.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
82.2% ... Terrain = Hillside (composite)
17.8% ... Terrain = Mountain (composite) **Total area in square miles = 0.043**

208I

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	74.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.35 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.117**

208J

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	51.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.35 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.081**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

208K

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	30.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.35 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.048**

208L

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	37.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.35 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.059**

208M

Soil Map Unit No. ...	31	63	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	98.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.14	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	25%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	---	---	---	---	---	---	---	---	---	---

0.32 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.34 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
34.7% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
3.5% ... Terrain = Hillside (composite)
96.5% ... Terrain = Mountain (composite) **Total area in square miles = 0.159**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

208N

Soil Map Unit No. ...	31	41	63	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	0.2	1.6	28.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.17	0.14	---	---	---	---	---	---	---	---	---
% Rock ...	35%	0%	25%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.14 ... XKSAT (Log averaged)
17% ... Vegetation Cover Density (VCD) in percent
1.07 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.15 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
23.7% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
99.4% ... Terrain = Hillside (composite)
0.6% ... Terrain = Mountain (composite) **Total area in square miles = 0.047**

208O

Soil Map Unit No. ...	31	63	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	124.9	22.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.14	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	25%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	---	---	---	---	---	---	---	---	---	---

0.29 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.31 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
33.5% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
15.1% ... Terrain = Hillside (composite)
84.9% ... Terrain = Mountain (composite) **Total area in square miles = 0.230**

208P

Soil Map Unit No. ...	31	63	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	9.6	27.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.14	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	25%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
27.6% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
74.3% ... Terrain = Hillside (composite)
25.7% ... Terrain = Mountain (composite) **Total area in square miles = 0.058**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

208Q

Soil Map Unit No. ...	31	63	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	36.2	24.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.14	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	25%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	---	---	---	---	---	---	---	---	---	---

0.23 ... XKSAT (Log averaged)
16% ... Vegetation Cover Density (VCD) in percent
1.07 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.25 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
31.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
40.1% ... Terrain = Hillside (composite)
59.9% ... Terrain = Mountain (composite) **Total area in square miles = 0.094**

208R

Soil Map Unit No. ...	63	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.14	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	25%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---

0.14 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.15 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
25.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.010**

208S

Soil Map Unit No. ...	63	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	43.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.14	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	25%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---

0.14 ... XKSAT (Log averaged)
16% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.15 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
25.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.068**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

208T

Soil Map Unit No. ...	31	63	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	40.5	43.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.14	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	25%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	---	---	---	---	---	---	---	---	---	---

0.21 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.22 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
29.8% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
52.0% ... Terrain = Hillside (composite)
48.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.132**

208U

Soil Map Unit No. ...	31	63	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	35.8	49.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.14	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	25%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	---	---	---	---	---	---	---	---	---	---

0.20 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.21 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
29.2% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
58.1% ... Terrain = Hillside (composite)
41.9% ... Terrain = Mountain (composite) **Total area in square miles = 0.134**

208V

Soil Map Unit No. ...	63	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	17.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.14	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	25%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---

0.14 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.15 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
25.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.028**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

208W

Soil Map Unit No. ...	41	63	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	9.4	22.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.14	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	25%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.15 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.16 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
17.7% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.050**

208X

Soil Map Unit No. ...	8	41	63	96	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	6.1	10.1	31.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.14	0.07	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	25%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.19 ... XKSAT (Log averaged)
20% ... Vegetation Cover Density (VCD) in percent
1.12 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.21 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
16.5% ... RTIMP (Composite)
12.6% ... Terrain = Valley (composite)
87.4% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.075**

209A

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	235.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
24% ... Vegetation Cover Density (VCD) in percent
1.15 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.38 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.368**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

209B

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	53.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.35 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.083**

209C

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	40.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
17% ... Vegetation Cover Density (VCD) in percent
1.08 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.36 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.064**

209D

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	156.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
17% ... Vegetation Cover Density (VCD) in percent
1.08 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.36 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.244**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

209E

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	95.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.35 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.149**

209F

Soil Map Unit No. ...	31	41	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	127.7	16.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.17	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	---	---	---	---	---	---	---	---	---	---

0.31 ... XKSAT (Log averaged)
26% ... Vegetation Cover Density (VCD) in percent
1.18 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.36 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
30.9% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
11.6% ... Terrain = Hillside (composite)
88.4% ... Terrain = Mountain (composite) **Total area in square miles = 0.226**

209G

Soil Map Unit No. ...	31	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	130.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	---	---	---	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.35 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
35.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
0.0% ... Terrain = Hillside (composite)
100.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.204**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

209H

Soil Map Unit No. ...	31	41	63	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	14.4	20.2	18.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.17	0.14	---	---	---	---	---	---	---	---	---
% Rock ...	35%	0%	25%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.19 ... XKSAT (Log averaged)
24% ... Vegetation Cover Density (VCD) in percent
1.15 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.22 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
18.3% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
73.1% ... Terrain = Hillside (composite)
26.9% ... Terrain = Mountain (composite) **Total area in square miles = 0.083**

209I

Soil Map Unit No. ...	31	41	61	63	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	2.8	34.3	58.8	20.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.17	0.15	0.14	---	---	---	---	---	---	---	---
% Rock ...	35%	0%	0%	25%	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.16 ... XKSAT (Log averaged)
16% ... Vegetation Cover Density (VCD) in percent
1.07 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.17 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
5.3% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
97.6% ... Terrain = Hillside (composite)
2.4% ... Terrain = Mountain (composite) **Total area in square miles = 0.182**

210A

Soil Map Unit No. ...	8	40	41	96	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	19.7	5.3	42.2	11.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.17	0.07	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.23 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.24 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
25.1% ... Terrain = Valley (composite)
74.9% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.123**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

210B

Soil Map Unit No. ...	41	63	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	56.9	11.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.14	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	25%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.16 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.17 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
4.2% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.107**

210C

Soil Map Unit No. ...	8	40	41	63	96	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	16.8	0.2	18.6	11.0	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.17	0.14	0.07	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	25%	0%	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---

0.26 ... XKSAT (Log averaged)
16% ... Vegetation Cover Density (VCD) in percent
1.07 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.28 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
5.3% ... RTIMP (Composite)
32.1% ... Terrain = Valley (composite)
67.9% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.082**

210D

Soil Map Unit No. ...	31	41	63	96	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	29.6	15.5	25.3	18.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.17	0.14	0.07	---	---	---	---	---	---	---	---
% Rock ...	35%	0%	25%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
18.7% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
66.9% ... Terrain = Hillside (composite)
33.1% ... Terrain = Mountain (composite) **Total area in square miles = 0.140**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

210E

Soil Map Unit No. ...	41	96	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	9.7	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.07	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.11 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.12 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.028**

210F

Soil Map Unit No. ...	31	96	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	58.3	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.07	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	---	---	---	---	---	---	---	---	---	---

0.32 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.34 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
34.4% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
1.6% ... Terrain = Hillside (composite)
98.4% ... Terrain = Mountain (composite) **Total area in square miles = 0.093**

210G

Soil Map Unit No. ...	31	96	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	71.5	31.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.07	---	---	---	---	---	---	---	---	---	---
% Rock ...	35%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	---	---	---	---	---	---	---	---	---	---

0.20 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.22 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
24.2% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
30.8% ... Terrain = Hillside (composite)
69.2% ... Terrain = Mountain (composite) **Total area in square miles = 0.162**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

210H

Soil Map Unit No. ...	31	40	61	63	96	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	6.5	6.7	20.9	2.9	7.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.33	0.17	0.15	0.14	0.07	---	---	---	---	---	---	---
% Rock ...	35%	0%	0%	25%	0%	---	---	---	---	---	---	---
Terrain Class ...	Mountain	Hillslope	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---

0.15 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.16 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
6.7% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
85.4% ... Terrain = Hillside (composite)
14.6% ... Terrain = Mountain (composite) **Total area in square miles = 0.070**

210I

Soil Map Unit No. ...	40	41	96	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	4.7	4.1	22.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	0.07	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.09 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.09 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.049**

210J

Soil Map Unit No. ...	8	41	96	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	0.6	39.2	26.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.07	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.12 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.13 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.9% ... Terrain = Valley (composite)
99.1% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.103**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

210K

Soil Map Unit No. ...	8	40	41	96	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	6.5	6.6	5.7	30.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.17	0.07	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.12 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.13 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
13.1% ... Terrain = Valley (composite)
86.9% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.077**

210L

Soil Map Unit No. ...	8	40	41	61	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	13.6	23.9	36.2	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.17	0.15	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.22 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.23 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
15.5% ... Terrain = Valley (composite)
84.5% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.137**

210M

Soil Map Unit No. ...	8	40	41	96	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	16.4	50.4	0.1	37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.17	0.07	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.16 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.17 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
15.8% ... Terrain = Valley (composite)
84.2% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.162**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

210N

Soil Map Unit No. ...	8	40	96	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	17.6	7.4	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.07	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.38 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.40 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
56.5% ... Terrain = Valley (composite)
43.5% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.049**

211A

Soil Map Unit No. ...	41	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	91.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.143**

211B

Soil Map Unit No. ...	41	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	69.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.109**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

211C

Soil Map Unit No. ...	8	40	41	96	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	2.5	0.2	20.5	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.17	0.07	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
9.1% ... Terrain = Valley (composite)
90.9% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.043**

211D

Soil Map Unit No. ...	8	40	41	96	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	25.1	11.7	7.4	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.17	0.07	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.44 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.46 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
55.6% ... Terrain = Valley (composite)
44.4% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.071**

211E

Soil Map Unit No. ...	8	40	41	96	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	22.6	34.3	29.6	13.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.17	0.07	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.22 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.24 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
22.7% ... Terrain = Valley (composite)
77.3% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.156**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

211F

Soil Map Unit No. ...	8	36	40	41	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	29.5	0.4	23.0	19.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.07	0.17	0.17	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.34 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.36 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
40.9% ... Terrain = Valley (composite)
59.1% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.113**

211G

Soil Map Unit No. ...	40	41	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	1.3	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.008**

211H

Soil Map Unit No. ...	40	41	96	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	41.8	0.2	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	0.07	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.15 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.16 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.073**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

211I

Soil Map Unit No. ...	40	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	26.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.041**

211J

Soil Map Unit No. ...	40	96	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	8.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.07	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.15 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.16 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.015**

211K

Soil Map Unit No. ...	8	40	96	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	14.6	14.1	36.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.07	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.15 ... XKSAT (Log averaged)
17% ... Vegetation Cover Density (VCD) in percent
1.08 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.16 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
22.4% ... Terrain = Valley (composite)
77.6% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.102**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

211L

Soil Map Unit No. ...	8	40	41	96	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	26.7	25.0	4.2	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.17	0.07	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.33 ... XKSAT (Log averaged)
16% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.36 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
43.6% ... Terrain = Valley (composite)
56.4% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.096**

211M

Soil Map Unit No. ...	40	41	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	39.7	12.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.081**

211N

Soil Map Unit No. ...	40	41	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	3.1	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.020**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

211O

Soil Map Unit No. ...	40	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	26.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.041**

211P

Soil Map Unit No. ...	8	40	41	96	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	0.7	6.6	0.5	13.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.17	0.17	0.07	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.10 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.11 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
3.3% ... Terrain = Valley (composite)
96.7% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.033**

211Q

Soil Map Unit No. ...	41	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	13.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.021**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

211R

Soil Map Unit No. ...	40	41	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	8.4	45.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.084**

211S

Soil Map Unit No. ...	40	41	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	10.6	21.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
21% ... Vegetation Cover Density (VCD) in percent
1.12 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.19 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.050**

211T

Soil Map Unit No. ...	40	41	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	20.3	22.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.066**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

211U

Soil Map Unit No. ...	40	41	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	3.8	13.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.027**

211V

Soil Map Unit No. ...	40	41	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	3.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	0.17	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.005**

211W

Soil Map Unit No. ...	40	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.17	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---

0.17 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.18 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.030**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

211X

Soil Map Unit No. ...	8	36	40	41	96	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	35.7	10.2	88.9	0.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.07	0.17	0.17	0.07	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	0%	0%	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---

0.25 ... XKSAT (Log averaged)
16% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.26 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
26.0% ... Terrain = Valley (composite)
74.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.214**

211Y

Soil Map Unit No. ...	8	36	40	41	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	3.0	27.2	24.1	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.07	0.17	0.17	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	0%	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---

0.12 ... XKSAT (Log averaged)
17% ... Vegetation Cover Density (VCD) in percent
1.07 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.13 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
5.2% ... Terrain = Valley (composite)
94.8% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.089**

211Z

Soil Map Unit No. ...	8	36	40	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	24.8	13.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.07	0.17	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.31 ... XKSAT (Log averaged)
19% ... Vegetation Cover Density (VCD) in percent
1.09 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.34 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
47.0% ... Terrain = Valley (composite)
53.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.083**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

211AA

Soil Map Unit No. ...	36	40	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	7.8	13.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.07	0.17	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---	---

0.12 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.13 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.034**

211AB

Soil Map Unit No. ...	36	40	41	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	11.0	14.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.07	0.17	0.17	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.12 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.12 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.040**

211AC

Soil Map Unit No. ...	36	0	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	17.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.07	---	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	---	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	---	---	---	---	---	---	---	---	---	---	---

0.07 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.07 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.027**

TABLE S-3
XKSAT AND TERRAIN CLASSIFICATIONS BY SUB-BASIN
Future Condition

211AD

Soil Map Unit No. ...	36	40	41	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	23.3	3.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.07	0.17	0.17	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.08 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.08 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.041**

211AE

Soil Map Unit No. ...	8	36	0	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	5.5	16.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.96	0.07	---	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	---	---	---	---	---	---	---	---	---	---
Terrain Class ...	Valley	Hillslope	---	---	---	---	---	---	---	---	---	---

0.14 ... XKSAT (Log averaged)
17% ... Vegetation Cover Density (VCD) in percent
1.08 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.15 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
25.1% ... Terrain = Valley (composite)
74.9% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.034**

211AF

Soil Map Unit No. ...	36	40	41	0	0	0	0	0	0	0	0	0
Soil Map Unit Area(ac) ...	1.3	30.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
XKSAT(Unadj) ...	0.07	0.17	0.17	---	---	---	---	---	---	---	---	---
% Rock ...	0%	0%	0%	---	---	---	---	---	---	---	---	---
Terrain Class ...	Hillslope	Hillslope	Hillslope	---	---	---	---	---	---	---	---	---

0.16 ... XKSAT (Log averaged)
15% ... Vegetation Cover Density (VCD) in percent
1.06 ... Ck: 0.889+1.111*VCD - Applied EXCEPT for XKSAT>=1.2 & VCD<=10%

0.17 ... XKSAT (Adj. for VCD using Ck=XKSAT(adj)/XKSAT(unadj))
0.0% ... RTIMP (Composite)
0.0% ... Terrain = Valley (composite)
100.0% ... Terrain = Hillside (composite)
0.0% ... Terrain = Mountain (composite) **Total area in square miles = 0.053**

TABLE S-5

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

201A	Land Use Identifier ...	LDR-F	ND	0	0	0	0	0	0
	Land Use Area(ac) ...	44.0	94.6	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	25%	0%	—	—	—	—	—	—
	Land Use Char. ...	Urban	Natural	—	—	—	—	—	—
	Urban Area ...	44.0	—	—	—	—	—	—	—
	31.8% ... Percent Urban						Urban area in square miles =		0.0688
	7.9% ... Composite Urban Percent Impervious						Total area in square miles =		0.2166
201B	Land Use Identifier ...	LDR-F	ND	0	0	0	0	0	0
	Land Use Area(ac) ...	3.8	47.8	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	25%	0%	—	—	—	—	—	—
	Land Use Char. ...	Urban	Natural	—	—	—	—	—	—
	Urban Area ...	3.8	—	—	—	—	—	—	—
	7.3% ... Percent Urban						Urban area in square miles =		0.0059
	1.8% ... Composite Urban Percent Impervious						Total area in square miles =		0.0807
201C	Land Use Identifier ...	LDR-F	ND	0	0	0	0	0	0
	Land Use Area(ac) ...	48.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	25%	0%	—	—	—	—	—	—
	Land Use Char. ...	Urban	Natural	—	—	—	—	—	—
	Urban Area ...	48.0	—	—	—	—	—	—	—
	95.4% ... Percent Urban						Urban area in square miles =		0.0749
	23.8% ... Composite Urban Percent Impervious						Total area in square miles =		0.0786
201D	Land Use Identifier ...	LDR-F	ND	0	0	0	0	0	0
	Land Use Area(ac) ...	15.9	29.5	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	25%	0%	—	—	—	—	—	—
	Land Use Char. ...	Urban	Natural	—	—	—	—	—	—
	Urban Area ...	15.9	—	—	—	—	—	—	—
	35.0% ... Percent Urban						Urban area in square miles =		0.0248
	8.7% ... Composite Urban Percent Impervious						Total area in square miles =		0.0709
201E	Land Use Identifier ...	C-F	LDR-F	ND	0	0	0	0	0
	Land Use Area(ac) ...	2.0	33.2	81.9	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	75%	25%	0%	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	Natural	—	—	—	—	—
	Urban Area ...	2.0	33.2	—	—	—	—	—	—
	30.1% ... Percent Urban						Urban area in square miles =		0.0551
	8.4% ... Composite Urban Percent Impervious						Total area in square miles =		0.1831

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

202A	Land Use Identifier ...	C-F	LDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	2.2	22.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	75%	25%	---	---	---	---	---	---
	Land Use Char. ...	Urban	Urban	---	---	---	---	---	---
	Urban Area ...	2.2	22.0	---	---	---	---	---	---
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0378**
	29.6% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0378**
202B	Land Use Identifier ...	C-F	LDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	0.9	10.6	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	75%	25%	---	---	---	---	---	---
	Land Use Char. ...	Urban	Urban	---	---	---	---	---	---
	Urban Area ...	0.9	10.6	---	---	---	---	---	---
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0179**
	29.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0179**
202C	Land Use Identifier ...	C-F	LDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	1.3	3.6	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	75%	25%	---	---	---	---	---	---
	Land Use Char. ...	Urban	Urban	---	---	---	---	---	---
	Urban Area ...	1.3	3.6	---	---	---	---	---	---
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0077**
	38.7% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0077**
202D	Land Use Identifier ...	C-F	LDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	2.4	37.6	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	75%	25%	---	---	---	---	---	---
	Land Use Char. ...	Urban	Urban	---	---	---	---	---	---
	Urban Area ...	2.4	37.6	---	---	---	---	---	---
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0626**
	28.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0626**
202E	Land Use Identifier ...	C-F	LDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	2.5	64.1	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	75%	25%	---	---	---	---	---	---
	Land Use Char. ...	Urban	Urban	---	---	---	---	---	---
	Urban Area ...	2.5	64.1	---	---	---	---	---	---
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.1041**
	26.9% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.1041**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

202F	Land Use Identifier ...	C-F	LDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	2.2	6.2	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	75%	25%	—	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	—	—	—	—	—	—
	Urban Area ...	2.2	6.2	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0131**
	38.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0131**
202G	Land Use Identifier ...	C-F	LDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	1.8	6.6	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	75%	25%	—	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	—	—	—	—	—	—
	Urban Area ...	1.8	6.6	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0132**
	35.5% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0132**
202H	Land Use Identifier ...	C-F	LDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	4.3	110.5	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	75%	25%	—	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	—	—	—	—	—	—
	Urban Area ...	4.3	110.5	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.1794**
	26.9% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.1794**
202I	Land Use Identifier ...	C-F	MDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	10.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	75%	45%	—	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	—	—	—	—	—	—
	Urban Area ...	10.5	0.7	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0175**
	73.2% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0175**
203A	Land Use Identifier ...	DE	LDR-F	MDR-F	MDR-F	ND	0	0	0
	Land Use Area(ac) ...	14.4	24.4	1.3	3.5	135.1	0.0	0.0	0.0
	Percent Impervious ...	0%	25%	45%	45%	0%	—	—	—
	Land Use Char. ...	Natural	Urban	Urban	Urban	Natural	—	—	—
	Urban Area ...	—	24.4	1.3	3.5	—	—	—	—
	16.3% ... Percent Urban						**Urban area in square miles =**		**0.0456**
	4.6% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.2792**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

203B	Land Use Identifier ...	DE	LDR-F	LDR-F	MDR-F	0	0	0	0
	Land Use Area(ac) ...	3.1	4.0	20.4	0.9	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	25%	25%	45%	—	—	—	—
	Land Use Char. ...	Natural	Urban	Urban	Urban	—	—	—	—
	Urban Area ...	—	4.0	20.4	0.9	—	—	—	—
	89.2%	**... Percent Urban**					**Urban area in square miles =**		**0.0396**
	22.9%	**... Composite Urban Percent Impervious**					**Total area in square miles =**		**0.0445**
203C	Land Use Identifier ...	LDR-F	LDR-F	MDR-F	ND	0	0	0	0
	Land Use Area(ac) ...	0.2	17.6	10.1	38.2	0.0	0.0	0.0	0.0
	Percent Impervious ...	25%	25%	45%	0%	—	—	—	—
	Land Use Char. ...	Urban	Urban	Urban	Natural	—	—	—	—
	Urban Area ...	0.2	17.6	10.1	—	—	—	—	—
	42.2%	**... Percent Urban**					**Urban area in square miles =**		**0.0434**
	13.6%	**... Composite Urban Percent Impervious**					**Total area in square miles =**		**0.1031**
203D	Land Use Identifier ...	LDR-F	ND	0	0	0	0	0	0
	Land Use Area(ac) ...	23.8	45.3	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	25%	0%	—	—	—	—	—	—
	Land Use Char. ...	Urban	Natural	—	—	—	—	—	—
	Urban Area ...	23.8	—	—	—	—	—	—	—
	34.5%	**... Percent Urban**					**Urban area in square miles =**		**0.0372**
	8.6%	**... Composite Urban Percent Impervious**					**Total area in square miles =**		**0.1080**
203E	Land Use Identifier ...	LDR-F	0	0	0	0	0	0	0
	Land Use Area(ac) ...	59.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	25%	—	—	—	—	—	—	—
	Land Use Char. ...	Urban	—	—	—	—	—	—	—
	Urban Area ...	59.7	—	—	—	—	—	—	—
	100.0%	**... Percent Urban**					**Urban area in square miles =**		**0.0934**
	25.0%	**... Composite Urban Percent Impervious**					**Total area in square miles =**		**0.0934**
203F	Land Use Identifier ...	ND	0	0	0	0	0	0	0
	Land Use Area(ac) ...	213.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	—	—	—	—	—	—	—
	Land Use Char. ...	Natural	—	—	—	—	—	—	—
	Urban Area ...	—	—	—	—	—	—	—	—
	0.0%	**... Percent Urban**					**Urban area in square miles =**		**0.0000**
	0.0%	**... Composite Urban Percent Impervious**					**Total area in square miles =**		**0.3333**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

203G	Land Use Identifier ...	LDR-F	ND	0	0	0	0	0	0
	Land Use Area(ac) ...	58.5	100.3	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	25%	0%	—	—	—	—	—	—
	Land Use Char. ...	Urban	Natural	—	—	—	—	—	—
	Urban Area ...	58.5	—	—	—	—	—	—	—
	36.9% ... Percent Urban						**Urban area in square miles =**		**0.0915**
	9.2% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.2482**
203H	Land Use Identifier ...	LDR-F	0	0	0	0	0	0	0
	Land Use Area(ac) ...	132.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	25%	—	—	—	—	—	—	—
	Land Use Char. ...	Urban	—	—	—	—	—	—	—
	Urban Area ...	132.3	—	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.2068**
	25.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.2068**
203I	Land Use Identifier ...	C-F	LDR-F	MDR-F	0	0	0	0	0
	Land Use Area(ac) ...	9.0	100.2	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	75%	25%	45%	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	Urban	—	—	—	—	—
	Urban Area ...	9.0	100.2	0.0	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.1707**
	29.1% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.1707**
203J	Land Use Identifier ...	C-F	LDR-F	MDR-F	0	0	0	0	0
	Land Use Area(ac) ...	18.1	2.5	4.2	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	75%	25%	45%	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	Urban	—	—	—	—	—
	Urban Area ...	18.1	2.5	4.2	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0389**
	64.8% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0389**
203K	Land Use Identifier ...	C-F	DE	MDR-F	0	0	0	0	0
	Land Use Area(ac) ...	5.2	3.5	93.9	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	75%	0%	45%	—	—	—	—	—
	Land Use Char. ...	Urban	Natural	Urban	—	—	—	—	—
	Urban Area ...	5.2	—	93.9	—	—	—	—	—
	96.6% ... Percent Urban						**Urban area in square miles =**		**0.1547**
	45.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.1602**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

204A

Land Use Identifier ...	LDR-F	0	0	0	0	0	0	0
Land Use Area(ac) ...	68.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent Impervious ...	25%	—	—	—	—	—	—	—
Land Use Char. ...	Urban	—	—	—	—	—	—	—
Urban Area ...	68.9	—	—	—	—	—	—	—

100.0% ... Percent Urban — **Urban area in square miles = 0.1077**
25.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1077**

204B

Land Use Identifier ...	C-F	LDR-F	0	0	0	0	0	0
Land Use Area(ac) ...	2.7	78.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent Impervious ...	75%	25%	—	—	—	—	—	—
Land Use Char. ...	Urban	Urban	—	—	—	—	—	—
Urban Area ...	2.7	78.0	—	—	—	—	—	—

100.0% ... Percent Urban — **Urban area in square miles = 0.1260**
26.7% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1260**

204C

Land Use Identifier ...	C-F	C-F	MDR-F	MFR-F	0	0	0	0
Land Use Area(ac) ...	12.8	15.6	10.7	10.0	0.0	0.0	0.0	0.0
Percent Impervious ...	75%	75%	45%	65%	—	—	—	—
Land Use Char. ...	Urban	Urban	Urban	Urban	—	—	—	—
Urban Area ...	12.8	15.6	10.7	10.0	—	—	—	—

100.0% ... Percent Urban — **Urban area in square miles = 0.0767**
66.4% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0767**

204D

Land Use Identifier ...	C-F	MDR-F	MFR-F	0	0	0	0	0
Land Use Area(ac) ...	2.0	16.7	9.5	0.0	0.0	0.0	0.0	0.0
Percent Impervious ...	75%	45%	65%	—	—	—	—	—
Land Use Char. ...	Urban	Urban	Urban	—	—	—	—	—
Urban Area ...	2.0	16.7	9.5	—	—	—	—	—

100.0% ... Percent Urban — **Urban area in square miles = 0.0441**
53.9% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0441**

204E

Land Use Identifier ...	C-F	MDR-F	MFR-F	MFR-F	SCHOOL	0	0	0
Land Use Area(ac) ...	1.4	28.7	0.7	1.4	12.9	0.0	0.0	0.0
Percent Impervious ...	75%	45%	65%	65%	25%	—	—	—
Land Use Char. ...	Urban	Urban	Urban	Urban	Urban	—	—	—
Urban Area ...	1.4	28.7	0.7	1.4	12.9	—	—	—

100.0% ... Percent Urban — **Urban area in square miles = 0.0705**
41.2% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0705**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

204F	Land Use Identifier ...	MDR-F	0	0	0	0	0	0	0
	Land Use Area(ac) ...	49.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	45%	—	—	—	—	—	—	—
	Land Use Char. ...	Urban	—	—	—	—	—	—	—
	Urban Area ...	49.4	—	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0771**
	45.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0771**
205A	Land Use Identifier ...	ND	0	0	0	0	0	0	0
	Land Use Area(ac) ...	75.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	—	—	—	—	—	—	—
	Land Use Char. ...	Natural	—	—	—	—	—	—	—
	Urban Area ...	—	—	—	—	—	—	—	—
	0.0% ... Percent Urban						**Urban area in square miles =**		**0.0000**
	0.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.1175**
205B	Land Use Identifier ...	ND	0	0	0	0	0	0	0
	Land Use Area(ac) ...	135.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	—	—	—	—	—	—	—
	Land Use Char. ...	Natural	—	—	—	—	—	—	—
	Urban Area ...	—	—	—	—	—	—	—	—
	0.0% ... Percent Urban						**Urban area in square miles =**		**0.0000**
	0.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.2112**
205C	Land Use Identifier ...	ND	0	0	0	0	0	0	0
	Land Use Area(ac) ...	37.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	—	—	—	—	—	—	—
	Land Use Char. ...	Natural	—	—	—	—	—	—	—
	Urban Area ...	—	—	—	—	—	—	—	—
	0.0% ... Percent Urban						**Urban area in square miles =**		**0.0000**
	0.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0588**
205D	Land Use Identifier ...	ND	0	0	0	0	0	0	0
	Land Use Area(ac) ...	204.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	—	—	—	—	—	—	—
	Land Use Char. ...	Natural	—	—	—	—	—	—	—
	Urban Area ...	—	—	—	—	—	—	—	—
	0.0% ... Percent Urban						**Urban area in square miles =**		**0.0000**
	0.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.3191**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

205E	Land Use Identifier ...	ND	0	0	0	0	0	0	0
	Land Use Area(ac) ...	139.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	—	—	—	—	—	—	—
	Land Use Char. ...	Natural	—	—	—	—	—	—	—
	Urban Area ...	—	—	—	—	—	—	—	—

0.0% ... Percent Urban — **Urban area in square miles = 0.0000**
0.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.2175**

205F	Land Use Identifier ...	ND	0	0	0	0	0	0	0
	Land Use Area(ac) ...	103.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	—	—	—	—	—	—	—
	Land Use Char. ...	Natural	—	—	—	—	—	—	—
	Urban Area ...	—	—	—	—	—	—	—	—

0.0% ... Percent Urban — **Urban area in square miles = 0.0000**
0.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1613**

205G	Land Use Identifier ...	ND	0	0	0	0	0	0	0
	Land Use Area(ac) ...	118.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	—	—	—	—	—	—	—
	Land Use Char. ...	Natural	—	—	—	—	—	—	—
	Urban Area ...	—	—	—	—	—	—	—	—

0.0% ... Percent Urban — **Urban area in square miles = 0.0000**
0.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1855**

205H	Land Use Identifier ...	ND	0	0	0	0	0	0	0
	Land Use Area(ac) ...	166.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	—	—	—	—	—	—	—
	Land Use Char. ...	Natural	—	—	—	—	—	—	—
	Urban Area ...	—	—	—	—	—	—	—	—

0.0% ... Percent Urban — **Urban area in square miles = 0.0000**
0.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.2605**

205I	Land Use Identifier ...	ND	0	0	0	0	0	0	0
	Land Use Area(ac) ...	226.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	—	—	—	—	—	—	—
	Land Use Char. ...	Natural	—	—	—	—	—	—	—
	Urban Area ...	—	—	—	—	—	—	—	—

0.0% ... Percent Urban — **Urban area in square miles = 0.0000**
0.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.3539**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

205J	Land Use Identifier ...	ND	0	0	0	0	0	0	0
	Land Use Area(ac) ...	236.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	—	—	—	—	—	—	—
	Land Use Char. ...	Natural	—	—	—	—	—	—	—
	Urban Area ...	—	—	—	—	—	—	—	—

0.0% ... Percent Urban — **Urban area in square miles = 0.0000**
0.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.3695**

205K	Land Use Identifier ...	ND	0	0	0	0	0	0	0
	Land Use Area(ac) ...	157.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	—	—	—	—	—	—	—
	Land Use Char. ...	Natural	—	—	—	—	—	—	—
	Urban Area ...	—	—	—	—	—	—	—	—

0.0% ... Percent Urban — **Urban area in square miles = 0.0000**
0.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.2454**

205L	Land Use Identifier ...	ND	0	0	0	0	0	0	0
	Land Use Area(ac) ...	75.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	—	—	—	—	—	—	—
	Land Use Char. ...	Natural	—	—	—	—	—	—	—
	Urban Area ...	—	—	—	—	—	—	—	—

0.0% ... Percent Urban — **Urban area in square miles = 0.0000**
0.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1176**

205M	Land Use Identifier ...	DE	LDR-F	LDR-F	MDR-F	ND	0	0	0
	Land Use Area(ac) ...	24.3	9.2	2.8	37.4	15.1	0.0	0.0	0.0
	Percent Impervious ...	0%	25%	25%	45%	0%	—	—	—
	Land Use Char. ...	Natural	Urban	Urban	Urban	Natural	—	—	—
	Urban Area ...	—	9.2	2.8	37.4	—	—	—	—

55.6% ... Percent Urban — **Urban area in square miles = 0.0771**
22.3% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1385**

205N	Land Use Identifier ...	DE	MDR-F	ND	0	0	0	0	0
	Land Use Area(ac) ...	16.9	1.8	81.2	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	45%	0%	—	—	—	—	—
	Land Use Char. ...	Natural	Urban	Natural	—	—	—	—	—
	Urban Area ...	—	1.8	—	—	—	—	—	—

1.8% ... Percent Urban — **Urban area in square miles = 0.0028**
0.8% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1561**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

206A	Land Use Identifier ...	DE	LDR-F	LDR-F	MDR-F	ND	0	0	0
	Land Use Area(ac) ...	18.2	0.0	4.7	57.9	0.9	0.0	0.0	0.0
	Percent Impervious ...	0%	25%	25%	45%	0%	—	—	—
	Land Use Char. ...	Natural	Urban	Urban	Urban	Natural	—	—	—
	Urban Area ...	—	0.0	4.7	57.9	—	—	—	—
	76.7% ... Percent Urban						**Urban area in square miles =**		**0.0980**
	33.3% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.1278**
206B	Land Use Identifier ...	DE	LDR-F	MDR-F	0	0	0	0	0
	Land Use Area(ac) ...	4.6	0.6	55.8	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	25%	45%	—	—	—	—	—
	Land Use Char. ...	Natural	Urban	Urban	—	—	—	—	—
	Urban Area ...	—	0.6	55.8	—	—	—	—	—
	92.5% ... Percent Urban						**Urban area in square miles =**		**0.0880**
	41.4% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0952**
206C	Land Use Identifier ...	DE	LDR-F	MDR-F	0	0	0	0	0
	Land Use Area(ac) ...	1.2	9.8	4.2	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	25%	45%	—	—	—	—	—
	Land Use Char. ...	Natural	Urban	Urban	—	—	—	—	—
	Urban Area ...	—	9.8	4.2	—	—	—	—	—
	92.2% ... Percent Urban						**Urban area in square miles =**		**0.0219**
	28.5% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0238**
206D	Land Use Identifier ...	LDR-F	LDR-F	MDR-F	0	0	0	0	0
	Land Use Area(ac) ...	1.1	2.8	35.5	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	25%	25%	45%	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	Urban	—	—	—	—	—
	Urban Area ...	1.1	2.8	35.5	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0616**
	43.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0616**
206E	Land Use Identifier ...	LDR-F	MDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	14.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	25%	45%	—	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	—	—	—	—	—	—
	Urban Area ...	14.0	0.5	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0227**
	25.8% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0227**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

206F	Land Use Identifier ...	DE	LDR-F	LDR-F	LDR-F	MDR-F	0	0	0
	Land Use Area(ac) ...	2.0	80.9	6.3	9.0	2.4	0.0	0.0	0.0
	Percent Impervious ...	0%	25%	25%	25%	45%	—	—	—
	Land Use Char. ...	Natural	Urban	Urban	Urban	Urban	—	—	—
	Urban Area ...	—	80.9	6.3	9.0	2.4	—	—	—

98.0% ... Percent Urban — **Urban area in square miles = 0.1540**
25.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1571**

206G	Land Use Identifier ...	C-F	C-F	DE	LDR-F	LDR-F	MDR-F	MFR-F	MFR-F
	Land Use Area(ac) ...	2.9	0.8	5.9	30.0	6.6	9.9	0.0	1.1
	Percent Impervious ...	75%	75%	0%	25%	25%	45%	65%	65%
	Land Use Char. ...	Urban	Urban	Natural	Urban	Urban	Urban	Urban	Urban
	Urban Area ...	2.9	0.8	—	30.0	6.6	9.9	0.0	1.1

89.7% ... Percent Urban — **Urban area in square miles = 0.0802**
29.9% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0895**

206H	Land Use Identifier ...	LDR-F	LDR-F	MDR-F	0	0	0	0	0
	Land Use Area(ac) ...	15.4	1.0	21.3	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	25%	25%	45%	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	Urban	—	—	—	—	—
	Urban Area ...	15.4	1.0	21.3	—	—	—	—	—

100.0% ... Percent Urban — **Urban area in square miles = 0.0590**
36.3% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0590**

206I	Land Use Identifier ...	LDR-F	LDR-F	MDR-F	0	0	0	0	0
	Land Use Area(ac) ...	0.3	6.5	6.5	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	25%	25%	45%	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	Urban	—	—	—	—	—
	Urban Area ...	0.3	6.5	6.5	—	—	—	—	—

100.0% ... Percent Urban — **Urban area in square miles = 0.0208**
34.8% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0208**

206J	Land Use Identifier ...	LDR-F	MDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	0.9	37.4	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	25%	45%	—	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	—	—	—	—	—	—
	Urban Area ...	0.9	37.4	—	—	—	—	—	—

100.0% ... Percent Urban — **Urban area in square miles = 0.0599**
44.5% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0599**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

206K

Land Use Identifier ...	LDR-F	LDR-F	MDR-F	0	0	0	0	0
Land Use Area(ac) ...	29.4	4.9	1.4	0.0	0.0	0.0	0.0	0.0
Percent Impervious ...	25%	25%	45%	---	---	---	---	---
Land Use Char. ...	Urban	Urban	Urban	---	---	---	---	---
Urban Area ...	29.4	4.9	1.4	---	---	---	---	---

100.0% ... Percent Urban — **Urban area in square miles = 0.0558**
25.8% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0558**

206L

Land Use Identifier ...	LDR-F	LDR-F	MDR-F	0	0	0	0	0
Land Use Area(ac) ...	18.2	19.9	0.0	0.0	0.0	0.0	0.0	0.0
Percent Impervious ...	25%	25%	45%	---	---	---	---	---
Land Use Char. ...	Urban	Urban	Urban	---	---	---	---	---
Urban Area ...	18.2	19.9	0.0	---	---	---	---	---

100.0% ... Percent Urban — **Urban area in square miles = 0.0595**
25.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0595**

206M

Land Use Identifier ...	DE	LDR-F	MDR-F	MFR-F	0	0	0	0
Land Use Area(ac) ...	1.1	0.0	32.3	4.7	0.0	0.0	0.0	0.0
Percent Impervious ...	0%	25%	45%	65%	---	---	---	---
Land Use Char. ...	Natural	Urban	Urban	Urban	---	---	---	---
Urban Area ...	---	0.0	32.3	4.7	---	---	---	---

97.1% ... Percent Urban — **Urban area in square miles = 0.0579**
46.2% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0596**

206N

Land Use Identifier ...	C-F	DE	MDR-F	MFR-F	MFR-F	SCHOOL	0	0
Land Use Area(ac) ...	0.7	15.7	8.3	69.7	2.3	0.5	0.0	0.0
Percent Impervious ...	75%	0%	45%	65%	65%	25%	---	---
Land Use Char. ...	Urban	Natural	Urban	Urban	Urban	Urban	---	---
Urban Area ...	0.7	---	8.3	69.7	2.3	0.5	---	---

83.8% ... Percent Urban — **Urban area in square miles = 0.1272**
52.7% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1518**

207A

Land Use Identifier ...	ND	0	0	0	0	0	0	0
Land Use Area(ac) ...	163.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent Impervious ...	0%	---	---	---	---	---	---	---
Land Use Char. ...	Natural	---	---	---	---	---	---	---
Urban Area ...	---	---	---	---	---	---	---	---

0.0% ... Percent Urban — **Urban area in square miles = 0.0000**
0.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.2561**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

207B	Land Use Identifier ...	ND	0	0	0	0	0	0	0
	Land Use Area(ac) ...	133.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	---	---	---	---	---	---	---
	Land Use Char. ...	Natural	---	---	---	---	---	---	---
	Urban Area ...	---	---	---	---	---	---	---	---

0.0% ... Percent Urban — **Urban area in square miles = 0.0000**
0.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.2082**

207C	Land Use Identifier ...	ND	0	0	0	0	0	0	0
	Land Use Area(ac) ...	110.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	---	---	---	---	---	---	---
	Land Use Char. ...	Natural	---	---	---	---	---	---	---
	Urban Area ...	---	---	---	---	---	---	---	---

0.0% ... Percent Urban — **Urban area in square miles = 0.0000**
0.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1730**

207D	Land Use Identifier ...	ND	VLDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	73.2	53.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	15%	---	---	---	---	---	---
	Land Use Char. ...	Natural	Urban	---	---	---	---	---	---
	Urban Area ...	---	53.0	---	---	---	---	---	---

42.0% ... Percent Urban — **Urban area in square miles = 0.0828**
6.3% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1971**

207E	Land Use Identifier ...	ND	VLDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	37.3	62.8	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	15%	---	---	---	---	---	---
	Land Use Char. ...	Natural	Urban	---	---	---	---	---	---
	Urban Area ...	---	62.8	---	---	---	---	---	---

62.7% ... Percent Urban — **Urban area in square miles = 0.0982**
9.4% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1565**

207F	Land Use Identifier ...	ND	VLDR-F	VLDR-F	0	0	0	0	0
	Land Use Area(ac) ...	55.6	0.3	24.9	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	15%	15%	---	---	---	---	---
	Land Use Char. ...	Natural	Urban	Urban	---	---	---	---	---
	Urban Area ...	---	0.3	24.9	---	---	---	---	---

31.2% ... Percent Urban — **Urban area in square miles = 0.0393**
4.7% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1261**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

207G

Land Use Identifier ...	DE	LDR-F	ND	VLDR-F	0	0	0	0
Land Use Area(ac) ...	1.5	0.7	140.9	8.1	0.0	0.0	0.0	0.0
Percent Impervious ...	0%	25%	0%	15%	—	—	—	—
Land Use Char. ...	Natural	Urban	Natural	Urban	—	—	—	—
Urban Area ...	—	0.7	—	8.1	—	—	—	—

5.8% ... Percent Urban — **Urban area in square miles = 0.0138**
0.9% ... Composite Urban Percent Impervious — **Total area in square miles = 0.2363**

207H

Land Use Identifier ...	ND	VLDR-F	0	0	0	0	0	0
Land Use Area(ac) ...	17.1	62.6	0.0	0.0	0.0	0.0	0.0	0.0
Percent Impervious ...	0%	15%	—	—	—	—	—	—
Land Use Char. ...	Natural	Urban	—	—	—	—	—	—
Urban Area ...	—	62.6	—	—	—	—	—	—

78.5% ... Percent Urban — **Urban area in square miles = 0.0978**
11.8% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1245**

207I

Land Use Identifier ...	VLDR-F	0	0	0	0	0	0	0
Land Use Area(ac) ...	46.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent Impervious ...	15%	—	—	—	—	—	—	—
Land Use Char. ...	Urban	—	—	—	—	—	—	—
Urban Area ...	46.7	—	—	—	—	—	—	—

100.0% ... Percent Urban — **Urban area in square miles = 0.0729**
15.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0729**

207J

Land Use Identifier ...	DE	LDR-F	MDR-F	ND	VLDR-F	VLDR-F	0	0
Land Use Area(ac) ...	0.5	1.7	0.3	2.7	9.3	44.9	0.0	0.0
Percent Impervious ...	0%	25%	45%	0%	15%	15%	—	—
Land Use Char. ...	Natural	Urban	Urban	Natural	Urban	Urban	—	—
Urban Area ...	—	1.7	0.3	—	9.3	44.9	—	—

94.7% ... Percent Urban — **Urban area in square miles = 0.0878**
14.6% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0928**

207K

Land Use Identifier ...	DE	LDR-F	LDR-F	LDR-F	MDR-F	MDR-F	ND	VLDR-F
Land Use Area(ac) ...	13.6	32.7	0.8	0.9	30.3	0.0	0.1	4.7
Percent Impervious ...	0%	25%	25%	25%	45%	45%	0%	15%
Land Use Char. ...	Natural	Urban	Urban	Urban	Urban	Urban	Natural	Urban
Urban Area ...	—	32.7	0.8	0.9	30.3	0.0	—	4.7

83.6% ... Percent Urban — **Urban area in square miles = 0.1083**
27.6% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1296**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

207L	Land Use Identifier ...	DE	LDR-F	LDR-F	MDR-F	MDR-F	ND	0	0
	Land Use Area(ac) ...	0.7	1.7	19.0	26.5	0.0	3.5	0.0	0.0
	Percent Impervious ...	0%	25%	25%	45%	45%	0%	---	---
	Land Use Char. ...	Natural	Urban	Urban	Urban	Urban	Natural	---	---
	Urban Area ...	---	1.7	19.0	26.5	0.0	---	---	---

91.8% ... Percent Urban — **Urban area in square miles = 0.0738**
33.3% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0804**

207M	Land Use Identifier ...	C-F	DE	LDR-F	LDR-F	MDR-F	MDR-F	0	0
	Land Use Area(ac) ...	4.1	16.7	0.1	49.9	1.4	2.0	0.0	0.0
	Percent Impervious ...	75%	0%	25%	25%	45%	45%	---	---
	Land Use Char. ...	Urban	Natural	Urban	Urban	Urban	Urban	---	---
	Urban Area ...	4.1	---	0.1	49.9	1.4	2.0	---	---

77.5% ... Percent Urban — **Urban area in square miles = 0.0899**
23.1% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1159**

207N	Land Use Identifier ...	DE	LDR-F	MDR-F	MDR-F	0	0	0	0
	Land Use Area(ac) ...	0.9	12.3	0.1	18.2	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	25%	45%	45%	---	---	---	---
	Land Use Char. ...	Natural	Urban	Urban	Urban	---	---	---	---
	Urban Area ...	---	12.3	0.1	18.2	---	---	---	---

97.1% ... Percent Urban — **Urban area in square miles = 0.0477**
35.9% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0492**

207O	Land Use Identifier ...	DE	LDR-F	LDR-F	MDR-F	SCHOOL	VLDR-F	VLDR-F	0
	Land Use Area(ac) ...	22.9	0.4	27.2	22.5	10.0	0.3	0.1	0.0
	Percent Impervious ...	0%	25%	25%	45%	25%	15%	15%	---
	Land Use Char. ...	Natural	Urban	Urban	Urban	Urban	Urban	Urban	---
	Urban Area ...	---	0.4	27.2	22.5	10.0	0.3	0.1	---

72.6% ... Percent Urban — **Urban area in square miles = 0.0947**
23.5% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1305**

208A	Land Use Identifier ...	ND	VLDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	0.8	87.9	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	15%	---	---	---	---	---	---
	Land Use Char. ...	Natural	Urban	---	---	---	---	---	---
	Urban Area ...	---	87.9	---	---	---	---	---	---

99.1% ... Percent Urban — **Urban area in square miles = 0.1373**
14.9% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1386**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

208B	Land Use Identifier ...	VLDR-F	0	0	0	0	0	0	0
	Land Use Area(ac) ...	17.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	15%	—	—	—	—	—	—	—
	Land Use Char. ...	Urban	—	—	—	—	—	—	—
	Urban Area ...	17.2	—	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0269**
	15.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0269**
208C	Land Use Identifier ...	ND	VLDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	28.0	14.5	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	15%	—	—	—	—	—	—
	Land Use Char. ...	Natural	Urban	—	—	—	—	—	—
	Urban Area ...	—	14.5	—	—	—	—	—	—
	34.0% ... Percent Urban						**Urban area in square miles =**		**0.0226**
	5.1% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0664**
208D	Land Use Identifier ...	VLDR-F	0	0	0	0	0	0	0
	Land Use Area(ac) ...	47.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	15%	—	—	—	—	—	—	—
	Land Use Char. ...	Urban	—	—	—	—	—	—	—
	Urban Area ...	47.7	—	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0745**
	15.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0745**
208E	Land Use Identifier ...	DE	LDR-F	VLDR-F	0	0	0	0	0
	Land Use Area(ac) ...	0.4	0.7	38.6	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	25%	15%	—	—	—	—	—
	Land Use Char. ...	Natural	Urban	Urban	—	—	—	—	—
	Urban Area ...	—	0.7	38.6	—	—	—	—	—
	98.9% ... Percent Urban						**Urban area in square miles =**		**0.0614**
	15.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0621**
208F	Land Use Identifier ...	DE	MDR-F	VLDR-F	0	0	0	0	0
	Land Use Area(ac) ...	0.6	0.2	43.4	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	45%	15%	—	—	—	—	—
	Land Use Char. ...	Natural	Urban	Urban	—	—	—	—	—
	Urban Area ...	—	0.2	43.4	—	—	—	—	—
	98.6% ... Percent Urban						**Urban area in square miles =**		**0.0681**
	14.9% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0691**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

208G	Land Use Identifier ...	DE	LDR-F	LDR-F	MDR-F	MDR-F	MDR-F	MDR-F	VLDR-F
	Land Use Area(ac) ...	11.5	23.4	22.7	4.3	2.0	5.8	9.3	3.7
	Percent Impervious ...	0%	25%	25%	45%	45%	45%	45%	15%
	Land Use Char. ...	Natural	Urban	Urban	Urban	Urban	Urban	Urban	Urban
	Urban Area ...	—	23.4	22.7	4.3	2.0	5.8	9.3	3.7
	86.1% ... Percent Urban						**Urban area in square miles =**		**0.1114**
	26.3% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.1294**
208H	Land Use Identifier ...	DE	LDR-F	MDR-F	MDR-F	MDR-F	0	0	0
	Land Use Area(ac) ...	10.2	1.1	5.7	10.3	0.1	0.0	0.0	0.0
	Percent Impervious ...	0%	25%	45%	45%	45%	—	—	—
	Land Use Char. ...	Natural	Urban	Urban	Urban	Urban	—	—	—
	Urban Area ...	—	1.1	5.7	10.3	0.1	—	—	—
	62.7% ... Percent Urban						**Urban area in square miles =**		**0.0268**
	27.4% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0428**
208I	Land Use Identifier ...	VLDR-F	0	0	0	0	0	0	0
	Land Use Area(ac) ...	74.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	15%	—	—	—	—	—	—	—
	Land Use Char. ...	Urban	—	—	—	—	—	—	—
	Urban Area ...	74.9	—	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.1171**
	15.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.1171**
208J	Land Use Identifier ...	VLDR-F	0	0	0	0	0	0	0
	Land Use Area(ac) ...	51.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	15%	—	—	—	—	—	—	—
	Land Use Char. ...	Urban	—	—	—	—	—	—	—
	Urban Area ...	51.9	—	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0811**
	15.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0811**
208K	Land Use Identifier ...	LDR-F	VLDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	13.3	17.1	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	25%	15%	—	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	—	—	—	—	—	—
	Urban Area ...	13.3	17.1	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0476**
	19.4% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0476**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

208L

Land Use Identifier ...	LDR-F	VLDR-F	0	0	0	0	0	0
Land Use Area(ac) ...	4.9	32.7	0.0	0.0	0.0	0.0	0.0	0.0
Percent Impervious ...	25%	15%	—	—	—	—	—	—
Land Use Char. ...	Urban	Urban	—	—	—	—	—	—
Urban Area ...	4.9	32.7	—	—	—	—	—	—

100.0% ... Percent Urban — **Urban area in square miles = 0.0588**
16.3% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0588**

208M

Land Use Identifier ...	DE	LDR-F	MDR-F	MDR-F	VLDR-F	0	0	0
Land Use Area(ac) ...	0.2	29.1	27.1	5.4	40.3	0.0	0.0	0.0
Percent Impervious ...	0%	25%	45%	45%	15%	—	—	—
Land Use Char. ...	Natural	Urban	Urban	Urban	Urban	—	—	—
Urban Area ...	—	29.1	27.1	5.4	40.3	—	—	—

99.8% ... Percent Urban — **Urban area in square miles = 0.1591**
27.4% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1594**

208N

Land Use Identifier ...	DE	LDR-F	MDR-F	MDR-F	MDR-F	MDR-F	0	0
Land Use Area(ac) ...	4.0	0.4	4.1	17.0	0.0	4.7	0.0	0.0
Percent Impervious ...	0%	25%	45%	45%	45%	45%	—	—
Land Use Char. ...	Natural	Urban	Urban	Urban	Urban	Urban	—	—
Urban Area ...	—	0.4	4.1	17.0	0.0	4.7	—	—

86.7% ... Percent Urban — **Urban area in square miles = 0.0409**
38.8% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0471**

208O

Land Use Identifier ...	VLDR-F	0	0	0	0	0	0	0
Land Use Area(ac) ...	147.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent Impervious ...	15%	—	—	—	—	—	—	—
Land Use Char. ...	Urban	—	—	—	—	—	—	—
Urban Area ...	147.1	—	—	—	—	—	—	—

100.0% ... Percent Urban — **Urban area in square miles = 0.2299**
15.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.2299**

208P

Land Use Identifier ...	LDR-F	MDR-F	MDR-F	VLDR-F	0	0	0	0
Land Use Area(ac) ...	4.5	18.6	0.7	13.6	0.0	0.0	0.0	0.0
Percent Impervious ...	25%	45%	45%	15%	—	—	—	—
Land Use Char. ...	Urban	Urban	Urban	Urban	—	—	—	—
Urban Area ...	4.5	18.6	0.7	13.6	—	—	—	—

100.0% ... Percent Urban — **Urban area in square miles = 0.0584**
31.7% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0584**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

208Q	Land Use Identifier ...	DE	LDR-F	MDR-F	MDR-F	MDR-F	VLDR-F	0	0
	Land Use Area(ac) ...	5.5	5.5	15.1	2.2	0.2	31.9	0.0	0.0
	Percent Impervious ...	0%	25%	45%	45%	45%	15%	—	—
	Land Use Char. ...	Natural	Urban	Urban	Urban	Urban	Urban	—	—
	Urban Area ...	—	5.5	15.1	2.2	0.2	31.9	—	—

91.0% ... Percent Urban — **Urban area in square miles = 0.0857**
23.3% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0943**

208R	Land Use Identifier ...	MDR-F	MDR-F	VLDR-F	0	0	0	0	0
	Land Use Area(ac) ...	3.3	0.1	3.3	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	45%	45%	15%	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	Urban	—	—	—	—	—
	Urban Area ...	3.3	0.1	3.3	—	—	—	—	—

100.0% ... Percent Urban — **Urban area in square miles = 0.0105**
30.2% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0105**

208S	Land Use Identifier ...	DE	MDR-F	MDR-F	MDR-F	VLDR-F	0	0	0
	Land Use Area(ac) ...	2.8	0.2	15.3	25.4	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	45%	45%	45%	15%	—	—	—
	Land Use Char. ...	Natural	Urban	Urban	Urban	Urban	—	—	—
	Urban Area ...	—	0.2	15.3	25.4	0.0	—	—	—

93.5% ... Percent Urban — **Urban area in square miles = 0.0638**
42.1% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0682**

208T	Land Use Identifier ...	VLDR-F	0	0	0	0	0	0	0
	Land Use Area(ac) ...	84.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	15%	—	—	—	—	—	—	—
	Land Use Char. ...	Urban	—	—	—	—	—	—	—
	Urban Area ...	84.3	—	—	—	—	—	—	—

100.0% ... Percent Urban — **Urban area in square miles = 0.1318**
15.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1318**

208U	Land Use Identifier ...	VLDR-F	0	0	0	0	0	0	0
	Land Use Area(ac) ...	85.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	15%	—	—	—	—	—	—	—
	Land Use Char. ...	Urban	—	—	—	—	—	—	—
	Urban Area ...	85.6	—	—	—	—	—	—	—

100.0% ... Percent Urban — **Urban area in square miles = 0.1337**
15.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1337**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

208V	Land Use Identifier ...	MDR-F	VLDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	0.7	17.1	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	45%	15%	—	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	—	—	—	—	—	—
	Urban Area ...	0.7	17.1	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0278**
	16.1% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0278**
208W	Land Use Identifier ...	MDR-F	VLDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	10.8	21.5	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	45%	15%	—	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	—	—	—	—	—	—
	Urban Area ...	10.8	21.5	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0504**
	25.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0504**
208X	Land Use Identifier ...	DE	MDR-F	MDR-F	MDR-F	VLDR-F	0	0	0
	Land Use Area(ac) ...	15.4	0.0	3.5	17.0	12.3	0.0	0.0	0.0
	Percent Impervious ...	0%	45%	45%	45%	15%	—	—	—
	Land Use Char. ...	Natural	Urban	Urban	Urban	Urban	—	—	—
	Urban Area ...	—	0.0	3.5	17.0	12.3	—	—	—
	68.0% ... Percent Urban						**Urban area in square miles =**		**0.0513**
	22.9% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0754**
209A	Land Use Identifier ...	ND	VLDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	134.8	100.6	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	15%	—	—	—	—	—	—
	Land Use Char. ...	Natural	Urban	—	—	—	—	—	—
	Urban Area ...	—	100.6	—	—	—	—	—	—
	42.7% ... Percent Urban						**Urban area in square miles =**		**0.1572**
	6.4% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.3678**
209B	Land Use Identifier ...	VLDR-F	0	0	0	0	0	0	0
	Land Use Area(ac) ...	53.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	15%	—	—	—	—	—	—	—
	Land Use Char. ...	Urban	—	—	—	—	—	—	—
	Urban Area ...	53.2	—	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0831**
	15.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0831**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

209C

Land Use Identifier ...	ND	VLDR-F	0	0	0	0	0	0
Land Use Area(ac) ...	5.4	35.5	0.0	0.0	0.0	0.0	0.0	0.0
Percent Impervious ...	0%	15%	—	—	—	—	—	—
Land Use Char. ...	Natural	Urban	—	—	—	—	—	—
Urban Area ...	—	35.5	—	—	—	—	—	—

86.8% ... Percent Urban — **Urban area in square miles = 0.0555**
13.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0639**

209D

Land Use Identifier ...	ND	VLDR-F	0	0	0	0	0	0
Land Use Area(ac) ...	14.2	142.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent Impervious ...	0%	15%	—	—	—	—	—	—
Land Use Char. ...	Natural	Urban	—	—	—	—	—	—
Urban Area ...	—	142.0	—	—	—	—	—	—

90.9% ... Percent Urban — **Urban area in square miles = 0.2219**
13.6% ... Composite Urban Percent Impervious — **Total area in square miles = 0.2442**

209E

Land Use Identifier ...	VLDR-F	0	0	0	0	0	0	0
Land Use Area(ac) ...	95.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent Impervious ...	15%	—	—	—	—	—	—	—
Land Use Char. ...	Urban	—	—	—	—	—	—	—
Urban Area ...	95.4	—	—	—	—	—	—	—

100.0% ... Percent Urban — **Urban area in square miles = 0.1490**
15.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1490**

209F

Land Use Identifier ...	MDR-F	ND	VLDR-F	0	0	0	0	0
Land Use Area(ac) ...	12.4	79.9	52.2	0.0	0.0	0.0	0.0	0.0
Percent Impervious ...	45%	0%	15%	—	—	—	—	—
Land Use Char. ...	Urban	Natural	Urban	—	—	—	—	—
Urban Area ...	12.4	—	52.2	—	—	—	—	—

44.7% ... Percent Urban — **Urban area in square miles = 0.1009**
9.3% ... Composite Urban Percent Impervious — **Total area in square miles = 0.2257**

209G

Land Use Identifier ...	ND	VLDR-F	0	0	0	0	0	0
Land Use Area(ac) ...	0.7	129.8	0.0	0.0	0.0	0.0	0.0	0.0
Percent Impervious ...	0%	15%	—	—	—	—	—	—
Land Use Char. ...	Natural	Urban	—	—	—	—	—	—
Urban Area ...	—	129.8	—	—	—	—	—	—

99.5% ... Percent Urban — **Urban area in square miles = 0.2028**
14.9% ... Composite Urban Percent Impervious — **Total area in square miles = 0.2038**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

209H	Land Use Identifier ...	ND	VLDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	23.8	29.6	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	15%	—	—	—	—	—	—
	Land Use Char. ...	Natural	Urban	—	—	—	—	—	—
	Urban Area ...	—	29.6	—	—	—	—	—	—

55.4% ... Percent Urban — **Urban area in square miles = 0.0462**
8.3% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0835**

209I	Land Use Identifier ...	ND	VLDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	17.8	98.9	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	15%	—	—	—	—	—	—
	Land Use Char. ...	Natural	Urban	—	—	—	—	—	—
	Urban Area ...	—	98.9	—	—	—	—	—	—

84.7% ... Percent Urban — **Urban area in square miles = 0.1545**
12.7% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1823**

210A	Land Use Identifier ...	DE	LDR-F	LDR-F	MDR-F	VLDR-F	VLDR-F	VLDR-F	VLDR-F
	Land Use Area(ac) ...	0.6	0.4	0.2	4.4	26.1	0.6	12.9	33.3
	Percent Impervious ...	0%	25%	25%	45%	15%	15%	15%	15%
	Land Use Char. ...	Natural	Urban	Urban	Urban	Urban	Urban	Urban	Urban
	Urban Area ...	—	0.4	0.2	4.4	26.1	0.6	12.9	33.3

99.2% ... Percent Urban — **Urban area in square miles = 0.1218**
16.7% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1227**

210B	Land Use Identifier ...	DE	LDR-F	MDR-F	MDR-F	MDR-F	VLDR-F	VLDR-F	0
	Land Use Area(ac) ...	0.3	37.5	0.1	18.3	10.2	0.1	1.8	0.0
	Percent Impervious ...	0%	25%	45%	45%	45%	15%	15%	—
	Land Use Char. ...	Natural	Urban	Urban	Urban	Urban	Urban	Urban	—
	Urban Area ...	—	37.5	0.1	18.3	10.2	0.1	1.8	—

99.5% ... Percent Urban — **Urban area in square miles = 0.1062**
33.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.1067**

210C	Land Use Identifier ...	DE	MDR-F	VLDR-F	0	0	0	0	0
	Land Use Area(ac) ...	3.0	5.0	44.2	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	45%	15%	—	—	—	—	—
	Land Use Char. ...	Natural	Urban	Urban	—	—	—	—	—
	Urban Area ...	—	5.0	44.2	—	—	—	—	—

94.2% ... Percent Urban — **Urban area in square miles = 0.0770**
17.0% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0817**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

210D	Land Use Identifier ...	VLDR-F	0	0	0	0	0	0	0
	Land Use Area(ac) ...	89.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	15%	—	—	—	—	—	—	—
	Land Use Char. ...	Urban	—	—	—	—	—	—	—
	Urban Area ...	89.4	—	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.1397**
	15.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.1397**
210E	Land Use Identifier ...	VLDR-F	0	0	0	0	0	0	0
	Land Use Area(ac) ...	17.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	15%	—	—	—	—	—	—	—
	Land Use Char. ...	Urban	—	—	—	—	—	—	—
	Urban Area ...	17.6	—	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0275**
	15.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0275**
210F	Land Use Identifier ...	VLDR-F	0	0	0	0	0	0	0
	Land Use Area(ac) ...	59.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	15%	—	—	—	—	—	—	—
	Land Use Char. ...	Urban	—	—	—	—	—	—	—
	Urban Area ...	59.3	—	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0926**
	15.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0926**
210G	Land Use Identifier ...	VLDR-F	0	0	0	0	0	0	0
	Land Use Area(ac) ...	103.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	15%	—	—	—	—	—	—	—
	Land Use Char. ...	Urban	—	—	—	—	—	—	—
	Urban Area ...	103.4	—	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.1615**
	15.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.1615**
210H	Land Use Identifier ...	VLDR-F	0	0	0	0	0	0	0
	Land Use Area(ac) ...	44.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	15%	—	—	—	—	—	—	—
	Land Use Char. ...	Urban	—	—	—	—	—	—	—
	Urban Area ...	44.6	—	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0697**
	15.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0697**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

210I	Land Use Identifier ...	VLDR-F	0	0	0	0	0	0	0
	Land Use Area(ac) ...	31.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	15%	—	—	—	—	—	—	—
	Land Use Char. ...	Urban	—	—	—	—	—	—	—
	Urban Area ...	31.4	—	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0491**
	15.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0491**
210J	Land Use Identifier ...	VLDR-F	0	0	0	0	0	0	0
	Land Use Area(ac) ...	66.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	15%	—	—	—	—	—	—	—
	Land Use Char. ...	Urban	—	—	—	—	—	—	—
	Urban Area ...	66.1	—	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.1033**
	15.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.1033**
210K	Land Use Identifier ...	VLDR-F	VLDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	48.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	15%	15%	—	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	—	—	—	—	—	—
	Urban Area ...	48.8	0.5	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0771**
	15.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0771**
210L	Land Use Identifier ...	MDR-F	MDR-F	MDR-F	RW	VLDR-F	0	0	0
	Land Use Area(ac) ...	0.0	2.6	0.0	0.0	85.3	0.0	0.0	0.0
	Percent Impervious ...	45%	45%	45%	90%	15%	—	—	—
	Land Use Char. ...	Urban	Urban	Urban	Urban	Urban	—	—	—
	Urban Area ...	0.0	2.6	0.0	0.0	85.3	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.1374**
	15.9% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.1374**
210M	Land Use Identifier ...	SCHOOL	VLDR-F	VLDR-F	0	0	0	0	0
	Land Use Area(ac) ...	0.2	103.1	0.6	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	25%	15%	15%	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	Urban	—	—	—	—	—
	Urban Area ...	0.2	103.1	0.6	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.1624**
	15.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.1624**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

210N	Land Use Identifier ...	DE	MFR-F	SCHOOL	VLDR-F	0	0	0	0
	Land Use Area(ac) ...	0.1	0.6	1.4	29.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	65%	25%	15%	—	—	—	—
	Land Use Char. ...	Natural	Urban	Urban	Urban	—	—	—	—
	Urban Area ...	—	0.6	1.4	29.0	—	—	—	—
	99.7% ... Percent Urban						**Urban area in square miles =**		**0.0484**
	16.4% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0485**
211A	Land Use Identifier ...	LDR-F	MDR-F	MDR-F	VLDR-F	0	0	0	0
	Land Use Area(ac) ...	54.7	6.4	0.0	30.3	0.0	0.0	0.0	0.0
	Percent Impervious ...	25%	45%	45%	15%	—	—	—	—
	Land Use Char. ...	Urban	Urban	Urban	Urban	—	—	—	—
	Urban Area ...	54.7	6.4	0.0	30.3	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.1429**
	23.1% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.1429**
211B	Land Use Identifier ...	LDR-F	LDR-F	LDR-F	MDR-F	VLDR-F	0	0	0
	Land Use Area(ac) ...	0.5	0.2	11.8	7.9	49.0	0.0	0.0	0.0
	Percent Impervious ...	25%	25%	25%	45%	15%	—	—	—
	Land Use Char. ...	Urban	Urban	Urban	Urban	Urban	—	—	—
	Urban Area ...	0.5	0.2	11.8	7.9	49.0	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.1085**
	20.2% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.1085**
211C	Land Use Identifier ...	MDR-F	SCHOOL	0	0	0	0	0	0
	Land Use Area(ac) ...	26.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	45%	25%	—	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	—	—	—	—	—	—
	Urban Area ...	26.7	0.7	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0428**
	44.5% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0428**
211D	Land Use Identifier ...	LDR-F	MDR-F	MFR-F	SCHOOL	VLDR-F	VLDR-F	0	0
	Land Use Area(ac) ...	3.3	23.4	5.5	0.2	5.1	7.6	0.0	0.0
	Percent Impervious ...	25%	45%	65%	25%	15%	15%	—	—
	Land Use Char. ...	Urban	Urban	Urban	Urban	Urban	Urban	—	—
	Urban Area ...	3.3	23.4	5.5	0.2	5.1	7.6	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0705**
	37.4% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0705**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

211E	Land Use Identifier ...	MDR-F	MFR-F	SCHOOL	0	0	0	0	0
	Land Use Area(ac) ...	85.4	0.1	14.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	45%	65%	25%	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	Urban	—	—	—	—	—
	Urban Area ...	85.4	0.1	14.0	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.1555**
	42.2% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.1555**
211F	Land Use Identifier ...	DE	MDR-F	MFR-F	MFR-F	0	0	0	0
	Land Use Area(ac) ...	2.4	0.0	69.6	0.2	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	45%	65%	65%	—	—	—	—
	Land Use Char. ...	Natural	Urban	Urban	Urban	—	—	—	—
	Urban Area ...	—	0.0	69.6	0.2	—	—	—	—
	96.6% ... Percent Urban						**Urban area in square miles =**		**0.1091**
	62.8% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.1129**
211G	Land Use Identifier ...	RW	0	0	0	0	0	0	0
	Land Use Area(ac) ...	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	90%	—	—	—	—	—	—	—
	Land Use Char. ...	Urban	—	—	—	—	—	—	—
	Urban Area ...	4.9	—	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0076**
	90.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0076**
211H	Land Use Identifier ...	MDR-F	MDR-F	SCHOOL	VLDR-F	0	0	0	0
	Land Use Area(ac) ...	0.6	3.5	1.6	41.3	0.0	0.0	0.0	0.0
	Percent Impervious ...	45%	45%	25%	15%	—	—	—	—
	Land Use Char. ...	Urban	Urban	Urban	Urban	—	—	—	—
	Urban Area ...	0.6	3.5	1.6	41.3	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0734**
	17.9% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0734**
211I	Land Use Identifier ...	MDR-F	0	0	0	0	0	0	0
	Land Use Area(ac) ...	26.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	45%	—	—	—	—	—	—	—
	Land Use Char. ...	Urban	—	—	—	—	—	—	—
	Urban Area ...	26.1	—	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0408**
	45.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0408**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

211J	Land Use Identifier ...	MDR-F	MDR-F	SCHOOL	0	0	0	0	0
	Land Use Area(ac) ...	1.1	5.6	2.7	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	45%	45%	25%	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	Urban	—	—	—	—	—
	Urban Area ...	1.1	5.6	2.7	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0148**
	39.2% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0148**
211K	Land Use Identifier ...	DE	MDR-F	MFR-F	SCHOOL	VLDR-F	0	0	0
	Land Use Area(ac) ...	10.7	7.6	13.6	32.9	0.5	0.0	0.0	0.0
	Percent Impervious ...	0%	45%	65%	25%	15%	—	—	—
	Land Use Char. ...	Natural	Urban	Urban	Urban	Urban	—	—	—
	Urban Area ...	—	7.6	13.6	32.9	0.5	—	—	—
	83.6% ... Percent Urban						**Urban area in square miles =**		**0.0852**
	31.5% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.1020**
211L	Land Use Identifier ...	C-F	DE	MDR-F	MDR-F	MFR-F	MFR-F	MFR-F	0
	Land Use Area(ac) ...	0.8	8.8	39.2	1.7	2.7	6.4	1.5	0.0
	Percent Impervious ...	75%	0%	45%	45%	65%	65%	65%	—
	Land Use Char. ...	Urban	Natural	Urban	Urban	Urban	Urban	Urban	—
	Urban Area ...	0.8	—	39.2	1.7	2.7	6.4	1.5	—
	85.6% ... Percent Urban						**Urban area in square miles =**		**0.0820**
	42.4% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0958**
211M	Land Use Identifier ...	MDR-F	MFR-F	MFR-F	0	0	0	0	0
	Land Use Area(ac) ...	38.9	11.0	2.1	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	45%	65%	65%	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	Urban	—	—	—	—	—
	Urban Area ...	38.9	11.0	2.1	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0813**
	50.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0813**
211N	Land Use Identifier ...	MDR-F	MDR-F	MFR-F	0	0	0	0	0
	Land Use Area(ac) ...	0.3	5.2	7.6	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	45%	45%	65%	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	Urban	—	—	—	—	—
	Urban Area ...	0.3	5.2	7.6	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0204**
	56.6% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0204**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

211O	Land Use Identifier ...	MDR-F	MDR-F	MFR-F	0	0	0	0	0
	Land Use Area(ac) ...	0.1	25.9	0.4	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	45%	45%	65%	---	---	---	---	---
	Land Use Char. ...	Urban	Urban	Urban	---	---	---	---	---
	Urban Area ...	0.1	25.9	0.4	---	---	---	---	---
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0412**
	45.3% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0412**
211P	Land Use Identifier ...	MDR-F	MDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	21.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	45%	45%	---	---	---	---	---	---
	Land Use Char. ...	Urban	Urban	---	---	---	---	---	---
	Urban Area ...	21.3	0.2	---	---	---	---	---	---
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0335**
	45.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0335**
211Q	Land Use Identifier ...	MDR-F	MFR-F	SCHOOL	0	0	0	0	0
	Land Use Area(ac) ...	1.9	0.8	10.8	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	45%	65%	25%	---	---	---	---	---
	Land Use Char. ...	Urban	Urban	Urban	---	---	---	---	---
	Urban Area ...	1.9	0.8	10.8	---	---	---	---	---
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0211**
	30.0% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0211**
211R	Land Use Identifier ...	DE	MDR-F	MFR-F	SCHOOL	0	0	0	0
	Land Use Area(ac) ...	0.0	25.3	4.6	24.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	45%	65%	25%	---	---	---	---
	Land Use Char. ...	Natural	Urban	Urban	Urban	---	---	---	---
	Urban Area ...	---	25.3	4.6	24.0	---	---	---	---
	99.9% ... Percent Urban						**Urban area in square miles =**		**0.0843**
	37.8% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0844**
211S	Land Use Identifier ...	DE	MDR-F	MFR-F	MFR-F	0	0	0	0
	Land Use Area(ac) ...	13.8	11.6	6.6	0.2	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	45%	65%	65%	---	---	---	---
	Land Use Char. ...	Natural	Urban	Urban	Urban	---	---	---	---
	Urban Area ...	---	11.6	6.6	0.2	---	---	---	---
	57.4% ... Percent Urban						**Urban area in square miles =**		**0.0289**
	30.1% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0504**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

211T	Land Use Identifier ...	C-F	DE	MDR-F	MFR-F	MFR-F	MFR-F	MFR-F	MFR-F
	Land Use Area(ac) ...	2.0	0.8	0.0	2.6	7.7	2.5	11.0	15.9
	Percent Impervious ...	75%	0%	45%	65%	65%	65%	65%	65%
	Land Use Char. ...	Urban	Natural	Urban	Urban	Urban	Urban	Urban	Urban
	Urban Area ...	2.0	—	0.0	2.6	7.7	2.5	11.0	15.9

98.1% ... Percent Urban — Urban area in square miles = 0.0651
64.2% ... Composite Urban Percent Impervious — Total area in square miles = 0.0664

211U	Land Use Identifier ...	MDR-F	MDR-F	RW	VLDR-F	0	0	0	0
	Land Use Area(ac) ...	8.5	0.7	8.3	0.1	0.0	0.0	0.0	0.0
	Percent Impervious ...	45%	45%	90%	15%	—	—	—	—
	Land Use Char. ...	Urban	Urban	Urban	Urban	—	—	—	—
	Urban Area ...	8.5	0.7	8.3	0.1	—	—	—	—

100.0% ... Percent Urban — Urban area in square miles = 0.0274
66.0% ... Composite Urban Percent Impervious — Total area in square miles = 0.0274

211V	Land Use Identifier ...	RW	0	0	0	0	0	0	0
	Land Use Area(ac) ...	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	90%	—	—	—	—	—	—	—
	Land Use Char. ...	Urban	—	—	—	—	—	—	—
	Urban Area ...	3.1	—	—	—	—	—	—	—

100.0% ... Percent Urban — Urban area in square miles = 0.0049
90.0% ... Composite Urban Percent Impervious — Total area in square miles = 0.0049

211W	Land Use Identifier ...	C-F	MFR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	16.4	2.6	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	75%	65%	—	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	—	—	—	—	—	—
	Urban Area ...	16.4	2.6	—	—	—	—	—	—

100.0% ... Percent Urban — Urban area in square miles = 0.0297
73.7% ... Composite Urban Percent Impervious — Total area in square miles = 0.0297

211X	Land Use Identifier ...	DE	MDR-F	MFR-F	MFR-F	MFR-F	MFR-F	0	0
	Land Use Area(ac) ...	17.4	0.6	61.7	3.0	40.3	13.9	0.0	0.0
	Percent Impervious ...	0%	45%	65%	65%	65%	65%	—	—
	Land Use Char. ...	Natural	Urban	Urban	Urban	Urban	Urban	—	—
	Urban Area ...	—	0.6	61.7	3.0	40.3	13.9	—	—

87.3% ... Percent Urban — Urban area in square miles = 0.1867
56.6% ... Composite Urban Percent Impervious — Total area in square miles = 0.2139

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

211Y	Land Use Identifier ...	DE	MDR-F	MFR-F	0	0	0	0	0
	Land Use Area(ac) ...	6.6	21.3	29.3	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	45%	65%	---	---	---	---	---
	Land Use Char. ...	Natural	Urban	Urban	---	---	---	---	---
	Urban Area ...	---	21.3	29.3	---	---	---	---	---

88.5% ... Percent Urban — **Urban area in square miles = 0.0790**
50.1% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0893**

211Z	Land Use Identifier ...	DE	MDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	12.4	40.4	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	45%	---	---	---	---	---	---
	Land Use Char. ...	Natural	Urban	---	---	---	---	---	---
	Urban Area ...	---	40.4	---	---	---	---	---	---

76.5% ... Percent Urban — **Urban area in square miles = 0.0632**
34.4% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0825**

211AA	Land Use Identifier ...	MDR-F	SCHOOL	0	0	0	0	0	0
	Land Use Area(ac) ...	15.6	6.1	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	45%	25%	---	---	---	---	---	---
	Land Use Char. ...	Urban	Urban	---	---	---	---	---	---
	Urban Area ...	15.6	6.1	---	---	---	---	---	---

100.0% ... Percent Urban — **Urban area in square miles = 0.0340**
39.4% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0340**

211AB	Land Use Identifier ...	MDR-F	MFR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	13.1	12.4	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	45%	65%	---	---	---	---	---	---
	Land Use Char. ...	Urban	Urban	---	---	---	---	---	---
	Urban Area ...	13.1	12.4	---	---	---	---	---	---

100.0% ... Percent Urban — **Urban area in square miles = 0.0397**
54.7% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0397**

211AC	Land Use Identifier ...	DE	MDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	0.1	17.5	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	45%	---	---	---	---	---	---
	Land Use Char. ...	Natural	Urban	---	---	---	---	---	---
	Urban Area ...	---	17.5	---	---	---	---	---	---

99.5% ... Percent Urban — **Urban area in square miles = 0.0273**
44.8% ... Composite Urban Percent Impervious — **Total area in square miles = 0.0275**

TABLE S-5

SUB-BASIN LAND USE AREAS AND URBAN RTIMP ESTIMATES
Future Condition

211AD	Land Use Identifier ...	DE	MDR-F	MFR-F	0	0	0	0	0
	Land Use Area(ac) ...	0.0	24.9	1.5	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	45%	65%	—	—	—	—	—
	Land Use Char. ...	Natural	Urban	Urban	—	—	—	—	—
	Urban Area ...	—	24.9	1.5	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0413**
	46.2% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0413**
211AE	Land Use Identifier ...	DE	MDR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	3.4	18.7	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	0%	45%	—	—	—	—	—	—
	Land Use Char. ...	Natural	Urban	—	—	—	—	—	—
	Urban Area ...	—	18.7	—	—	—	—	—	—
	84.8% ... Percent Urban						**Urban area in square miles =**		**0.0292**
	38.2% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0344**
211AF	Land Use Identifier ...	MDR-F	MFR-F	0	0	0	0	0	0
	Land Use Area(ac) ...	21.2	12.5	0.0	0.0	0.0	0.0	0.0	0.0
	Percent Impervious ...	45%	65%	—	—	—	—	—	—
	Land Use Char. ...	Urban	Urban	—	—	—	—	—	—
	Urban Area ...	21.2	12.5	—	—	—	—	—	—
	100.0% ... Percent Urban						**Urban area in square miles =**		**0.0527**
	52.4% ... Composite Urban Percent Impervious						**Total area in square miles =**		**0.0527**

TABLE S-6

Table S-6

Subbasin Weighted DTHETA and Surface Loss Parameters
Future Condition

[1] Sub-basin ID	[2] Log Avg. XKSAT	[3] DTHETA (Dry)	[4] DTHETA (Normal)	[5] PSIF	[6] Percent Valley Area	[7] Percent Hillslope Area	[8] Percent Mountain Area	[9] Percent Urban Area	[10] Adjusted Hillslope Area	[11] Adjusted Mountain Area	[12] Adjusted Valley Area	[13] V,H,M Veg. Cover	[14] Urban Veg. Cover	[15] RTIMP (urban)	[16] RTIMP (rock)	[17] RTIMP (total)	[18] DTHETA (wghtd)	[19] Vegetation Cover (wghtd)	[20] IA (wghtd)
201A	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	31.8%	68.2%	0.0%	0.0%	21%	15%	7.9%	0.0%	7.9%	0.35	19%	0.13
201B	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	7.3%	92.7%	0.0%	0.0%	25%	15%	1.8%	0.0%	1.8%	0.38	24%	0.15
201C	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	95.4%	4.6%	0.0%	0.0%	33%	15%	23.8%	0.0%	23.8%	0.26	16%	0.09
201D	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	35.0%	65.0%	0.0%	0.0%	26%	15%	8.7%	0.0%	8.7%	0.34	22%	0.13
201E	0.19	0.38	0.25	5.60	0.0%	100.0%	0.0%	30.1%	69.9%	0.0%	0.0%	38%	15%	8.4%	0.0%	8.4%	0.34	31%	0.13
202A	0.32	0.35	0.25	4.40	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	30%	15%	29.6%	0.0%	29.6%	0.25	15%	0.09
202B	0.29	0.35	0.25	4.55	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	30%	15%	29.0%	0.0%	29.0%	0.25	15%	0.09
202C	0.33	0.35	0.25	4.35	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	32%	15%	38.7%	0.0%	38.7%	0.25	15%	0.08
202D	0.19	0.38	0.25	5.60	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	30%	15%	28.0%	0.0%	28.0%	0.25	15%	0.09
202E	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	31%	15%	26.9%	0.0%	26.9%	0.25	15%	0.09
202F	0.19	0.38	0.25	5.60	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	31%	15%	38.0%	0.0%	38.0%	0.25	15%	0.08
202G	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	31%	15%	35.5%	0.0%	35.5%	0.25	15%	0.08
202H	0.21	0.37	0.25	5.20	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	35%	15%	26.9%	0.0%	26.9%	0.25	15%	0.09
202I	0.23	0.36	0.25	5.10	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	30%	15%	73.2%	0.0%	73.2%	0.25	15%	0.06
203A	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	16.3%	83.7%	0.0%	0.0%	31%	15%	4.6%	0.0%	4.6%	0.37	28%	0.14
203B	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	89.2%	10.8%	0.0%	0.0%	33%	15%	22.9%	0.0%	22.9%	0.27	17%	0.09
203C	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	42.2%	57.8%	0.0%	0.0%	30%	15%	13.6%	0.0%	13.6%	0.33	24%	0.12
203D	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	34.5%	65.5%	0.0%	0.0%	30%	15%	8.6%	0.0%	8.6%	0.34	25%	0.13
203E	0.13	0.37	0.19	6.60	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	23%	15%	25.0%	0.0%	25.0%	0.19	15%	0.09
203F	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%	30%	15%	0.0%	0.0%	0.0%	0.39	30%	0.15
203G	0.16	0.40	0.25	6.00	0.0%	100.0%	0.0%	36.9%	63.1%	0.0%	0.0%	27%	15%	9.2%	0.0%	9.2%	0.34	23%	0.13
203H	0.20	0.38	0.25	5.40	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	19%	15%	25.0%	0.0%	25.0%	0.25	15%	0.09
203I	0.26	0.35	0.25	4.80	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	25%	15%	29.1%	0.0%	29.1%	0.25	15%	0.09
203J	0.19	0.38	0.25	5.60	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	21%	15%	64.8%	0.0%	64.8%	0.25	15%	0.07
203K	0.18	0.38	0.25	5.60	0.0%	100.0%	0.0%	96.6%	3.4%	0.0%	0.0%	27%	15%	45.0%	0.0%	45.0%	0.25	15%	0.08
204A	0.17	0.39	0.25	5.80	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	21%	15%	25.0%	0.0%	25.0%	0.25	15%	0.09
204B	0.17	0.39	0.25	5.80	0.7%	99.3%	0.0%	100.0%	0.0%	0.0%	0.0%	29%	15%	26.7%	0.0%	26.7%	0.25	15%	0.09
204C	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	27%	15%	66.4%	0.0%	66.4%	0.25	15%	0.07
204D	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	15%	15%	53.9%	0.0%	53.9%	0.25	15%	0.07

Table S-6

Subbasin Weighted DTHETA and Surface Loss Parameters
Future Condition

[1] Sub-basin ID	[2] Log Avg. XKSAT	[3] DTHETA (Dry)	[4] DTHETA (Normal)	[5] PSIF	[6] Percent Valley Area	[7] Percent Hillslope Area	[8] Percent Mountain Area	[9] Percent Urban Area	[10] Adjusted Hillslope Area	[11] Adjusted Mountain Area	[12] Adjusted Valley Area	[13] V,H,M Veg. Cover	[14] Urban Veg. Cover	[15] RTIMP (urban)	[16] RTIMP (rock)	[17] RTIMP (total)	[18] DTHETA (wghtd)	[19] Vegetation Cover (wghtd)	[20] IA (wghtd)
204E	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	21%	15%	41.2%	0.0%	41.2%	0.25	15%	0.08
204F	0.10	0.35	0.15	7.00	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	20%	15%	45.0%	0.0%	45.0%	0.15	15%	0.08
205A	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	30%	15%	0.0%	35.0%	35.0%	0.35	30%	0.25
205B	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	30%	15%	0.0%	35.0%	35.0%	0.35	30%	0.25
205C	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	31%	15%	0.0%	35.0%	35.0%	0.35	31%	0.25
205D	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	30%	15%	0.0%	35.0%	35.0%	0.35	30%	0.25
205E	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	30%	15%	0.0%	35.0%	35.0%	0.35	30%	0.25
205F	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	31%	15%	0.0%	35.0%	35.0%	0.35	31%	0.25
205G	0.30	0.35	0.25	4.50	0.0%	10.8%	89.2%	0.0%	10.8%	89.2%	0.0%	38%	15%	0.0%	31.2%	31.2%	0.35	38%	0.24
205H	0.31	0.35	0.25	4.50	0.0%	9.9%	90.1%	0.0%	9.9%	90.1%	0.0%	35%	15%	0.0%	31.6%	31.6%	0.35	35%	0.24
205I	0.22	0.37	0.25	5.20	1.3%	55.3%	43.4%	0.0%	55.3%	43.4%	1.3%	35%	15%	0.0%	15.2%	15.2%	0.37	35%	0.20
205J	0.25	0.35	0.25	4.90	24.6%	65.5%	9.9%	0.0%	65.5%	9.9%	24.6%	30%	15%	0.0%	3.5%	3.5%	0.35	30%	0.21
205K	0.18	0.38	0.25	5.60	2.8%	92.7%	4.4%	0.0%	92.7%	4.4%	2.8%	30%	15%	0.0%	1.5%	1.5%	0.38	30%	0.16
205L	0.23	0.36	0.25	5.00	20.7%	79.3%	0.0%	0.0%	79.3%	0.0%	20.7%	30%	15%	0.0%	0.0%	0.0%	0.36	30%	0.19
205M	0.20	0.38	0.25	5.40	18.0%	82.0%	0.0%	55.6%	26.3%	0.0%	18.0%	25%	15%	22.3%	0.0%	22.3%	0.31	19%	0.15
205N	0.18	0.39	0.25	5.70	1.1%	98.9%	0.0%	1.8%	97.1%	0.0%	1.1%	28%	15%	0.8%	0.0%	0.8%	0.39	28%	0.15
206A	0.21	0.37	0.25	5.30	13.7%	86.3%	0.0%	76.7%	9.6%	0.0%	13.7%	27%	15%	33.3%	0.0%	33.3%	0.28	18%	0.12
206B	0.21	0.37	0.25	5.20	20.4%	79.6%	0.0%	92.5%	0.0%	0.0%	7.5%	30%	15%	41.4%	0.0%	41.4%	0.26	16%	0.10
206C	0.34	0.35	0.25	4.35	39.8%	60.2%	0.0%	92.2%	0.0%	0.0%	7.8%	29%	15%	28.5%	0.0%	28.5%	0.26	16%	0.11
206D	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	30%	15%	43.0%	0.0%	43.0%	0.25	15%	0.08
206E	0.34	0.35	0.25	4.30	40.6%	59.4%	0.0%	100.0%	0.0%	0.0%	0.0%	25%	15%	25.8%	0.0%	25.8%	0.25	15%	0.09
206F	0.29	0.35	0.25	4.60	34.0%	66.0%	0.0%	98.0%	0.0%	0.0%	2.0%	30%	15%	25.0%	0.0%	25.0%	0.25	15%	0.09
206G	0.21	0.37	0.25	5.20	13.0%	87.0%	0.0%	89.7%	0.0%	0.0%	10.3%	30%	15%	29.9%	0.0%	29.9%	0.26	17%	0.11
206H	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	30%	15%	36.3%	0.0%	36.3%	0.25	15%	0.08
206I	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	30%	15%	34.8%	0.0%	34.8%	0.25	15%	0.08
206J	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	25%	15%	44.5%	0.0%	44.5%	0.25	15%	0.08
206K	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	30%	15%	25.8%	0.0%	25.8%	0.25	15%	0.09
206L	0.17	0.39	0.25	5.80	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	30%	15%	25.0%	0.0%	25.0%	0.25	15%	0.09
206M	0.22	0.37	0.25	5.20	14.0%	86.0%	0.0%	97.1%	0.0%	0.0%	2.9%	25%	15%	46.2%	0.0%	46.2%	0.25	15%	0.08

Table S-6

Subbasin Weighted DTHETA and Surface Loss Parameters
Future Condition

[1] Sub-basin ID	[2] Log Avg. XKSAT	[3] DTHETA (Dry)	[4] DTHETA (Normal)	[5] PSIF	[6] Percent Valley Area	[7] Percent Hillslope Area	[8] Percent Mountain Area	[9] Percent Urban Area	[10] Adjusted Hillslope Area	[11] Adjusted Mountain Area	[12] Adjusted Valley Area	[13] V,H,M Veg. Cover	[14] Urban Veg. Cover	[15] RTIMP (urban)	[16] RTIMP (rock)	[17] RTIMP (total)	[18] DTHETA (wghtd)	[19] Vegetation Cover (wghtd)	[20] IA (wghtd)
206N	0.27	0.35	0.25	4.65	27.5%	72.5%	0.0%	83.8%	0.0%	0.0%	16.2%	20%	15%	52.7%	0.0%	52.7%	0.27	16%	0.11
207A	0.30	0.35	0.25	4.55	0.0%	14.8%	85.2%	0.0%	14.8%	85.2%	0.0%	30%	15%	0.0%	29.8%	29.8%	0.35	30%	0.24
207B	0.31	0.35	0.25	4.45	0.0%	7.4%	92.6%	0.0%	7.4%	92.6%	0.0%	30%	15%	0.0%	32.4%	32.4%	0.35	30%	0.24
207C	0.21	0.37	0.25	5.30	0.0%	60.9%	39.1%	0.0%	60.9%	39.1%	0.0%	35%	15%	0.0%	13.7%	13.7%	0.37	35%	0.19
207D	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	42.0%	0.0%	58.0%	0.0%	30%	15%	6.3%	35.0%	41.3%	0.31	24%	0.18
207E	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	62.7%	0.0%	37.3%	0.0%	35%	15%	9.4%	35.0%	44.4%	0.29	22%	0.15
207F	0.32	0.35	0.25	4.40	0.0%	3.8%	96.2%	31.2%	0.0%	68.8%	0.0%	35%	15%	4.7%	33.7%	38.4%	0.32	29%	0.20
207G	0.19	0.38	0.25	5.60	0.0%	76.6%	23.4%	5.8%	70.8%	23.4%	0.0%	29%	15%	0.9%	8.2%	9.1%	0.37	28%	0.17
207H	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	78.5%	0.0%	21.5%	0.0%	30%	15%	11.8%	35.0%	46.8%	0.27	18%	0.13
207I	0.33	0.35	0.25	4.40	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	30%	15%	15.0%	35.0%	50.0%	0.25	15%	0.09
207J	0.32	0.35	0.25	4.40	0.0%	3.0%	97.0%	94.7%	0.0%	5.3%	0.0%	32%	15%	14.6%	34.0%	48.6%	0.26	16%	0.10
207K	0.19	0.38	0.25	5.40	0.0%	72.7%	27.3%	83.6%	0.0%	16.4%	0.0%	30%	15%	27.6%	9.6%	37.2%	0.27	17%	0.11
207L	0.15	0.40	0.25	6.00	0.0%	100.0%	0.0%	91.8%	8.2%	0.0%	0.0%	26%	15%	33.3%	0.0%	33.3%	0.26	16%	0.09
207M	0.15	0.40	0.25	6.00	3.0%	97.0%	0.0%	77.5%	19.5%	0.0%	3.0%	32%	15%	23.1%	0.0%	23.1%	0.28	19%	0.11
207N	0.25	0.35	0.25	4.80	26.2%	73.8%	0.0%	97.1%	0.0%	0.0%	2.9%	34%	15%	35.9%	0.0%	35.9%	0.25	16%	0.09
207O	0.19	0.38	0.25	5.60	14.6%	85.4%	0.0%	72.6%	12.8%	0.0%	14.6%	32%	15%	23.5%	0.0%	23.5%	0.29	20%	0.13
208A	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	99.1%	0.0%	0.9%	0.0%	30%	15%	14.9%	35.0%	49.9%	0.25	15%	0.09
208B	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	35%	15%	15.0%	35.0%	50.0%	0.25	15%	0.09
208C	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	34.0%	0.0%	66.0%	0.0%	30%	15%	5.1%	35.0%	40.1%	0.32	25%	0.20
208D	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	35%	15%	15.0%	35.0%	50.0%	0.25	15%	0.09
208E	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	98.9%	0.0%	1.1%	0.0%	32%	15%	15.0%	35.0%	50.0%	0.25	15%	0.09
208F	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	98.6%	0.0%	1.4%	0.0%	32%	15%	14.9%	35.0%	49.9%	0.25	15%	0.09
208G	0.29	0.35	0.25	4.60	0.0%	20.2%	79.8%	86.1%	0.0%	13.9%	0.0%	28%	15%	26.3%	27.9%	54.2%	0.26	17%	0.11
208H	0.19	0.38	0.25	5.60	0.0%	82.2%	17.8%	62.7%	19.5%	17.8%	0.0%	30%	15%	27.4%	8.0%	35.4%	0.30	21%	0.12
208I	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	35%	15%	15.0%	35.0%	50.0%	0.25	15%	0.09
208J	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	35%	15%	15.0%	35.0%	50.0%	0.25	15%	0.09
208K	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	37%	15%	19.4%	35.0%	54.4%	0.25	15%	0.09
208L	0.33	0.35	0.25	4.40	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	37%	15%	16.3%	35.0%	51.3%	0.25	15%	0.09
208M	0.32	0.35	0.25	4.40	0.0%	3.5%	96.5%	99.8%	0.0%	0.2%	0.0%	37%	15%	27.4%	34.7%	62.0%	0.25	15%	0.09

Table S-6

Subbasin Weighted DTHETA and Surface Loss Parameters
Future Condition

[1] Sub-basin ID	[2] Log Avg. XKSAT	[3] DTHETA (Dry)	[4] DTHETA (Normal)	[5] PSIF	[6] Percent Valley Area	[7] Percent Hillslope Area	[8] Percent Mountain Area	[9] Percent Urban Area	[10] Adjusted Hillslope Area	[11] Adjusted Mountain Area	[12] Adjusted Valley Area	[13] V,H,M Veg. Cover	[14] Urban Veg. Cover	[15] RTIMP (urban)	[16] RTIMP (rock)	[17] RTIMP (total)	[18] DTHETA (wghtd)	[19] Vegetation Cover (wghtd)	[20] IA (wghtd)
208N	0.14	0.39	0.23	6.20	0.0%	99.4%	0.6%	86.7%	12.7%	0.6%	0.0%	28%	15%	38.8%	23.7%	62.5%	0.25	17%	0.09
208O	0.29	0.35	0.25	4.60	0.0%	15.1%	84.9%	100.0%	0.0%	0.0%	0.0%	35%	15%	15.0%	33.5%	48.5%	0.25	15%	0.09
208P	0.17	0.39	0.25	5.70	0.0%	74.3%	25.7%	100.0%	0.0%	0.0%	0.0%	28%	15%	31.7%	27.6%	59.3%	0.25	15%	0.08
208Q	0.23	0.36	0.25	5.00	0.0%	40.1%	59.9%	91.0%	0.0%	9.0%	0.0%	28%	15%	23.3%	31.0%	54.3%	0.26	16%	0.10
208R	0.14	0.39	0.23	6.20	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	28%	15%	30.2%	25.0%	55.2%	0.23	15%	0.08
208S	0.14	0.39	0.23	6.20	0.0%	100.0%	0.0%	93.5%	6.5%	0.0%	0.0%	28%	15%	42.1%	25.0%	67.1%	0.24	16%	0.08
208T	0.21	0.37	0.25	5.20	0.0%	52.0%	48.0%	100.0%	0.0%	0.0%	0.0%	35%	15%	15.0%	29.8%	44.8%	0.25	15%	0.09
208U	0.20	0.37	0.25	5.30	0.0%	58.1%	41.9%	100.0%	0.0%	0.0%	0.0%	35%	15%	15.0%	29.2%	44.2%	0.25	15%	0.09
208V	0.14	0.38	0.21	6.40	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	28%	15%	16.1%	25.0%	41.1%	0.21	15%	0.09
208W	0.15	0.39	0.23	6.20	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	32%	15%	25.0%	17.7%	42.7%	0.23	15%	0.09
208X	0.19	0.38	0.25	5.60	12.6%	87.4%	0.0%	68.0%	19.4%	0.0%	12.6%	32%	15%	22.9%	16.5%	39.4%	0.29	20%	0.13
209A	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	42.7%	0.0%	57.3%	0.0%	30%	15%	6.4%	35.0%	41.4%	0.31	24%	0.18
209B	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	30%	15%	15.0%	35.0%	50.0%	0.25	15%	0.09
209C	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	86.8%	0.0%	13.2%	0.0%	30%	15%	13.0%	35.0%	48.0%	0.26	17%	0.11
209D	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	90.9%	0.0%	9.1%	0.0%	35%	15%	13.6%	35.0%	48.6%	0.26	17%	0.11
209E	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	30%	15%	15.0%	35.0%	50.0%	0.25	15%	0.09
209F	0.31	0.35	0.25	4.50	0.0%	11.6%	88.4%	44.7%	0.0%	55.3%	0.0%	35%	15%	9.3%	30.9%	40.2%	0.31	26%	0.18
209G	0.33	0.35	0.25	4.35	0.0%	0.0%	100.0%	99.5%	0.0%	0.5%	0.0%	30%	15%	14.9%	35.0%	49.9%	0.25	15%	0.09
209H	0.19	0.38	0.25	5.60	0.0%	73.1%	26.9%	55.4%	17.7%	26.9%	0.0%	35%	15%	8.3%	18.3%	26.6%	0.31	24%	0.15
209I	0.16	0.40	0.25	6.00	0.0%	97.6%	2.4%	84.7%	12.9%	2.4%	0.0%	22%	15%	12.7%	5.3%	18.0%	0.27	16%	0.10
210A	0.23	0.36	0.25	5.00	25.1%	74.9%	0.0%	99.2%	0.0%	0.0%	0.8%	26%	15%	16.7%	0.0%	16.7%	0.25	15%	0.09
210B	0.16	0.39	0.25	5.80	0.0%	100.0%	0.0%	99.5%	0.5%	0.0%	0.0%	30%	15%	33.0%	4.2%	37.1%	0.25	15%	0.08
210C	0.26	0.35	0.25	4.80	32.1%	67.9%	0.0%	94.2%	0.0%	0.0%	5.8%	32%	15%	17.0%	5.3%	22.3%	0.26	16%	0.11
210D	0.17	0.39	0.25	5.80	0.0%	66.9%	33.1%	100.0%	0.0%	0.0%	0.0%	26%	15%	15.0%	18.7%	33.7%	0.25	15%	0.09
210E	0.11	0.36	0.17	6.80	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	32%	15%	15.0%	0.0%	15.0%	0.17	15%	0.09
210F	0.32	0.35	0.25	4.40	0.0%	1.6%	98.4%	100.0%	0.0%	0.0%	0.0%	30%	15%	15.0%	34.4%	49.4%	0.25	15%	0.09
210G	0.20	0.37	0.25	5.30	0.0%	30.8%	69.2%	100.0%	0.0%	0.0%	0.0%	28%	15%	15.0%	24.2%	39.2%	0.25	15%	0.09
210H	0.15	0.39	0.23	6.20	0.0%	85.4%	14.6%	100.0%	0.0%	0.0%	0.0%	32%	15%	15.0%	6.7%	21.7%	0.23	15%	0.09
210I	0.09	0.32	0.15	7.60	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	28%	15%	15.0%	0.0%	15.0%	0.15	15%	0.09

Table S-6

Subbasin Weighted DTHETA and Surface Loss Parameters
Future Condition

[1] Sub-basin ID	[2] Log Avg. XKSAT	[3] DTHETA (Dry)	[4] DTHETA (Normal)	[5] PSIF	[6] Percent Valley Area	[7] Percent Hillslope Area	[8] Percent Mountain Area	[9] Percent Urban Area	[10] Adjusted Hillslope Area	[11] Adjusted Mountain Area	[12] Adjusted Valley Area	[13] V,H,M Veg. Cover	[14] Urban Veg. Cover	[15] RTIMP (urban)	[16] RTIMP (rock)	[17] RTIMP (total)	[18] DTHETA (wghtd)	[19] Vegetation Cover (wghtd)	[20] IA (wghtd)
210J	0.12	0.37	0.19	6.60	0.9%	99.1%	0.0%	100.0%	0.0%	0.0%	0.0%	32%	15%	15.0%	0.0%	15.0%	0.19	15%	0.09
210K	0.12	0.37	0.19	6.60	13.1%	86.9%	0.0%	100.0%	0.0%	0.0%	0.0%	28%	15%	15.0%	0.0%	15.0%	0.19	15%	0.09
210L	0.22	0.37	0.25	5.20	15.5%	84.5%	0.0%	100.0%	0.0%	0.0%	0.0%	34%	15%	15.9%	0.0%	15.9%	0.25	15%	0.09
210M	0.16	0.39	0.25	5.80	15.8%	84.2%	0.0%	100.0%	0.0%	0.0%	0.0%	29%	15%	15.0%	0.0%	15.0%	0.25	15%	0.09
210N	0.38	0.35	0.25	4.10	56.5%	43.5%	0.0%	99.7%	0.0%	0.0%	0.3%	30%	15%	16.4%	0.0%	16.4%	0.25	15%	0.09
211A	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	32%	15%	23.1%	0.0%	23.1%	0.25	15%	0.09
211B	0.17	0.39	0.25	5.80	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	32%	15%	20.2%	0.0%	20.2%	0.25	15%	0.09
211C	0.17	0.39	0.25	5.70	9.1%	90.9%	0.0%	100.0%	0.0%	0.0%	0.0%	27%	15%	44.5%	0.0%	44.5%	0.25	15%	0.08
211D	0.44	0.35	0.25	3.85	55.6%	44.4%	0.0%	100.0%	0.0%	0.0%	0.0%	27%	15%	37.4%	0.0%	37.4%	0.25	15%	0.08
211E	0.22	0.36	0.25	5.10	22.7%	77.3%	0.0%	100.0%	0.0%	0.0%	0.0%	20%	15%	42.2%	0.0%	42.2%	0.25	15%	0.08
211F	0.34	0.35	0.25	4.30	40.9%	59.1%	0.0%	96.6%	0.0%	0.0%	3.4%	20%	15%	62.8%	0.0%	62.8%	0.25	15%	0.08
211G	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	30%	15%	90.0%	0.0%	90.0%	0.25	15%	0.06
211H	0.15	0.40	0.25	6.00	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	26%	15%	17.9%	0.0%	17.9%	0.25	15%	0.09
211I	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	24%	15%	45.0%	0.0%	45.0%	0.25	15%	0.08
211J	0.15	0.39	0.23	6.20	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	27%	15%	39.2%	0.0%	39.2%	0.23	15%	0.08
211K	0.15	0.40	0.25	6.00	22.4%	77.6%	0.0%	83.6%	0.0%	0.0%	16.4%	27%	15%	31.5%	0.0%	31.5%	0.27	17%	0.13
211L	0.33	0.35	0.25	4.35	43.6%	56.4%	0.0%	85.6%	0.0%	0.0%	14.4%	20%	15%	42.4%	0.0%	42.4%	0.26	16%	0.11
211M	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	31%	15%	50.0%	0.0%	50.0%	0.25	15%	0.07
211N	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	27%	15%	56.6%	0.0%	56.6%	0.25	15%	0.07
211O	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	27%	15%	45.3%	0.0%	45.3%	0.25	15%	0.08
211P	0.10	0.35	0.15	7.00	3.3%	96.7%	0.0%	100.0%	0.0%	0.0%	0.0%	20%	15%	45.0%	0.0%	45.0%	0.15	15%	0.08
211Q	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	29%	15%	30.0%	0.0%	30.0%	0.25	15%	0.08
211R	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	99.9%	0.1%	0.0%	0.0%	29%	15%	37.8%	0.0%	37.8%	0.25	15%	0.08
211S	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	57.4%	42.6%	0.0%	0.0%	29%	15%	30.1%	0.0%	30.1%	0.31	21%	0.11
211T	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	98.1%	1.9%	0.0%	0.0%	28%	15%	64.2%	0.0%	64.2%	0.25	15%	0.07
211U	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	20%	15%	66.0%	0.0%	66.0%	0.25	15%	0.07
211V	0.17	0.39	0.25	5.80	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	30%	15%	90.0%	0.0%	90.0%	0.25	15%	0.06
211W	0.17	0.39	0.25	5.70	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	30%	15%	73.7%	0.0%	73.7%	0.25	15%	0.06
211X	0.25	0.35	0.25	4.90	26.0%	74.0%	0.0%	87.3%	0.0%	0.0%	12.7%	20%	15%	56.6%	0.0%	56.6%	0.26	16%	0.10

Table S-6

Subbasin Weighted DTHETA and Surface Loss Parameters
Future Condition

[1] Sub-basin ID	[2] Log Avg. XKSAT	[3] DTHETA (Dry)	[4] DTHETA (Normal)	[5] PSIF	[6] Percent Valley Area	[7] Percent Hillslope Area	[8] Percent Mountain Area	[9] Percent Urban Area	[10] Adjusted Hillslope Area	[11] Adjusted Mountain Area	[12] Adjusted Valley Area	[13] V,H,M Veg. Cover	[14] Urban Veg. Cover	[15] RTIMP (urban)	[16] RTIMP (rock)	[17] RTIMP (total)	[18] DTHETA (wghtd)	[19] Vegetation Cover (wghtd)	[20] IA (wghtd)
211Y	0.12	0.37	0.19	6.60	5.2%	94.8%	0.0%	88.5%	6.3%	0.0%	5.2%	30%	15%	50.1%	0.0%	50.1%	0.21	17%	0.09
211Z	0.31	0.35	0.25	4.50	47.0%	53.0%	0.0%	76.5%	0.0%	0.0%	23.5%	30%	15%	34.4%	0.0%	34.4%	0.27	19%	0.14
211AA	0.12	0.37	0.19	6.60	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	30%	15%	39.4%	0.0%	39.4%	0.19	15%	0.08
211AB	0.12	0.36	0.17	6.80	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	30%	15%	54.7%	0.0%	54.7%	0.17	15%	0.07
211AC	0.07	0.29	0.15	8.40	0.0%	100.0%	0.0%	99.5%	0.5%	0.0%	0.0%	30%	15%	44.8%	0.0%	44.8%	0.15	15%	0.08
211AD	0.08	0.30	0.15	8.00	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	27%	15%	46.2%	0.0%	46.2%	0.15	15%	0.08
211AE	0.14	0.38	0.21	6.40	25.1%	74.9%	0.0%	84.8%	0.0%	0.0%	15.2%	27%	15%	38.2%	0.0%	38.2%	0.24	17%	0.12
211AF	0.16	0.39	0.25	5.80	0.0%	100.0%	0.0%	100.0%	0.0%	0.0%	0.0%	25%	15%	52.4%	0.0%	52.4%	0.25	15%	0.07

Note: 1. DTHETA(Dry), DTHETA(Normal), and PSIF are taken from Table S-1 using bare ground Log. Avg. XKSAT for lookup.

2. IA(weighted) is based on:

Valley:	0.35
Hillslope:	0.15
Mountain:	0.25
Urban (pervious):	0.10

TABLE S-7

Table S-7

Future Condition Subbasin Time of Concentration Parameters

[1] Subbasin ID	[2] Drainage Area (sm)	[3] Elevation Top	[4] Elevation Bottom	[5] Flow Path (miles)	[6] Slope (ft/mi)	[7] Adjust. Slope (ft/mi)	[8] Valley Area (%)	[9] Hillslope Area (%)	[10] Mountain Area (%)	[11] Urban Area %	[12] Weighted Kb Equation Parameters m	[13] Weighted Kb Equation Parameters b	[14] Kb
201A	0.21655	1903.0	1639.0	1.269	208	208	0.0%	68.2%	0.0%	31.8%	-0.01905	0.12	0.07
201B	0.08068	1791.0	1639.0	0.680	223	223	0.0%	92.7%	0.0%	7.3%	-0.02362	0.14	0.10
201C	0.07857	1717.0	1578.0	0.674	206	206	0.0%	4.6%	0.0%	95.4%	-0.00712	0.05	0.03
201D	0.07093	1764.0	1578.0	0.898	207	207	0.0%	65.0%	0.0%	35.0%	-0.01844	0.11	0.08
201E	0.18315	1754.0	1533.0	1.245	178	178	0.0%	69.9%	0.0%	30.1%	-0.01936	0.12	0.08
202A	0.03778	1590.0	1537.2	0.409	129	129	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
202B	0.01794	1764.0	1536.0	0.364	627	322	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
202C	0.00765	1764.0	1529.0	0.192	1227	363	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.04
202D	0.06258	1740.0	1525.0	0.800	269	248	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
202E	0.10408	1757.0	1523.6	0.732	319	270	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
202F	0.01309	1678.0	1526.0	0.188	809	337	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
202G	0.01316	1676.0	1534.4	0.175	811	338	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
202H	0.17938	1759.0	1534.5	0.861	261	243	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
202I	0.01747	1556.0	1526.0	0.247	122	122	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
203A	0.27918	2159.0	1791.7	1.569	234	229	0.0%	83.7%	0.0%	16.3%	-0.02194	0.13	0.08
203B	0.04446	1853.0	1734.0	0.484	246	236	0.0%	10.8%	0.0%	89.2%	-0.00828	0.05	0.04
203C	0.10306	2020.0	1734.0	0.988	290	258	0.0%	57.8%	0.0%	42.2%	-0.01710	0.10	0.07
203D	0.10805	2012.0	1728.0	1.025	277	252	0.0%	65.5%	0.0%	34.5%	-0.01854	0.11	0.08
203E	0.09335	1806.0	1666.0	0.640	219	219	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
203F	0.33332	2171.0	1809.0	1.460	248	237	0.0%	100.0%	0.0%	0.0%	-0.02500	0.15	0.09
203G	0.24821	1972.0	1666.0	1.424	215	215	0.0%	63.1%	0.0%	36.9%	-0.01809	0.11	0.07
203H	0.20675	1774.0	1590.0	1.035	178	178	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
203I	0.17071	1764.0	1551.0	1.323	161	161	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
203J	0.03885	1710.0	1578.0	0.533	248	237	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
203K	0.16019	1654.0	1515.0	0.878	158	158	0.0%	3.4%	0.0%	96.6%	-0.00689	0.04	0.03
204A	0.10768	1834.0	1714.0	0.687	175	175	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
204B	0.12598	1749.0	1649.6	0.775	128	128	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
204C	0.07669	1676.0	1619.0	0.400	142	142	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
204D	0.04409	1630.0	1597.0	0.345	96	96	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
204E	0.07051	1620.0	1565.0	0.508	108	108	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03

Table S-7

Future Condition Subbasin Time of Concentration Parameters

[1] Subbasin ID	[2] Drainage Area (sm)	[3] Elevation Top	[4] Elevation Bottom	[5] Flow Path (miles)	[6] Slope (ft/mi)	[7] Adjust. Slope (ft/mi)	[8] Valley Area (%)	[9] Hillslope Area (%)	[10] Mountain Area (%)	[11] Urban Area %	[12] Weighted Kb Equation Parameters m	[13] Weighted Kb Equation Parameters b	[14] Kb
204F	0.07714	1593.0	1526.1	0.495	135	135	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
205A	0.11753	3985.0	2622.0	0.870	1567	378	0.0%	0.0%	100.0%	0.0%	-0.03000	0.20	0.14
205B	0.21124	2720.0	2622.0	0.759	129	129	0.0%	0.0%	100.0%	0.0%	-0.03000	0.20	0.14
205C	0.05877	2890.0	2438.0	0.618	731	331	0.0%	0.0%	100.0%	0.0%	-0.03000	0.20	0.15
205D	0.31907	3690.0	2480.0	1.020	1186	361	0.0%	0.0%	100.0%	0.0%	-0.03000	0.20	0.13
205E	0.21753	4025.0	2480.0	1.357	1138	358	0.0%	0.0%	100.0%	0.0%	-0.03000	0.20	0.14
205F	0.16126	2865.0	2340.0	0.786	668	326	0.0%	0.0%	100.0%	0.0%	-0.03000	0.20	0.14
205G	0.18549	2940.0	2183.0	0.924	819	338	0.0%	10.8%	89.2%	0.0%	-0.02946	0.19	0.13
205H	0.26054	3145.0	2183.0	1.464	657	325	0.0%	9.9%	90.1%	0.0%	-0.02951	0.20	0.13
205I	0.35388	3145.0	2139.0	1.487	676	326	1.3%	55.3%	43.4%	0.0%	-0.02702	0.17	0.11
205J	0.36947	2391.0	1967.0	1.633	260	243	24.6%	65.5%	9.9%	0.0%	-0.02273	0.14	0.08
205K	0.24538	2449.0	1967.0	1.772	272	249	2.8%	92.7%	4.4%	0.0%	-0.02490	0.15	0.10
205L	0.11764	2169.0	1922.0	0.701	352	284	20.7%	79.3%	0.0%	0.0%	-0.02267	0.14	0.09
205M	0.13853	2049.0	1851.9	0.839	235	230	18.0%	26.3%	0.0%	55.6%	-0.01254	0.08	0.05
205N	0.15606	2163.0	1851.9	1.183	263	245	1.1%	97.1%	0.0%	1.8%	-0.02454	0.15	0.10
206A	0.12778	2002.0	1821.0	0.631	287	256	13.7%	9.6%	0.0%	76.7%	-0.00908	0.06	0.04
206B	0.09522	1855.0	1775.8	0.570	139	139	7.5%	0.0%	0.0%	92.5%	-0.00681	0.04	0.03
206C	0.02378	1789.0	1730.0	0.427	138	138	7.8%	0.0%	0.0%	92.2%	-0.00684	0.04	0.04
206D	0.06165	1909.0	1778.0	0.531	247	236	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
206E	0.02274	1790.0	1730.0	0.343	175	175	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
206F	0.15713	1856.0	1644.0	0.975	217	217	2.0%	0.0%	0.0%	98.0%	-0.00640	0.04	0.03
206G	0.08946	1733.0	1608.0	0.950	132	132	10.3%	0.0%	0.0%	89.7%	-0.00703	0.04	0.03
206H	0.05895	1813.0	1718.5	0.515	183	183	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
206I	0.02083	1797.0	1714.0	0.232	357	286	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
206J	0.05990	1755.0	1647.5	0.502	214	214	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
206K	0.05577	1876.0	1702.0	0.615	283	255	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
206L	0.05951	1802.0	1672.0	0.546	238	231	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
206M	0.05958	1685.0	1608.0	0.465	166	166	2.9%	0.0%	0.0%	97.1%	-0.00647	0.04	0.03
206N	0.15176	1644.0	1552.0	0.767	120	120	16.2%	0.0%	0.0%	83.8%	-0.00746	0.05	0.03
207A	0.25609	3615.0	2237.0	1.356	1016	351	0.0%	14.8%	85.2%	0.0%	-0.02926	0.19	0.13

Table S-7

Future Condition Subbasin Time of Concentration Parameters

[1] Subbasin ID	[2] Drainage Area (sm)	[3] Elevation Top	[4] Elevation Bottom	[5] Flow Path (miles)	[6] Slope (ft/mi)	[7] Adjust. Slope (ft/mi)	[8] Valley Area (%)	[9] Hillslope Area (%)	[10] Mountain Area (%)	[11] Urban Area %	[12] Weighted Kb Equation Parameters m	[13] Weighted Kb Equation Parameters b	[14] Kb
207B	0.20823	3750.0	2237.0	1.312	1154	359	0.0%	7.4%	92.6%	0.0%	-0.02963	0.20	0.13
207C	0.17298	2454.0	2074.0	0.974	390	297	0.0%	60.9%	39.1%	0.0%	-0.02696	0.17	0.11
207D	0.19708	3800.0	2307.0	1.036	1440	373	0.0%	0.0%	58.0%	42.0%	-0.02002	0.13	0.09
207E	0.15651	2837.0	2074.0	1.366	559	315	0.0%	0.0%	37.3%	62.7%	-0.01510	0.10	0.07
207F	0.12613	2355.0	2029.0	0.794	411	296	0.0%	0.0%	68.8%	31.2%	-0.02259	0.15	0.11
207G	0.23634	2259.0	1968.0	1.467	198	198	0.0%	70.8%	23.4%	5.8%	-0.02508	0.16	0.10
207H	0.12447	3740.0	2291.0	1.044	1388	371	0.0%	0.0%	21.5%	78.5%	-0.01134	0.07	0.05
207I	0.07294	2619.0	2129.0	0.810	605	320	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
207J	0.09277	2161.0	1968.0	0.714	270	248	0.0%	0.0%	5.3%	94.7%	-0.00752	0.05	0.04
207K	0.12955	2253.0	1908.2	0.859	402	294	0.0%	0.0%	16.4%	83.6%	-0.01015	0.07	0.05
207L	0.08040	2073.0	1908.2	0.667	247	236	0.0%	8.2%	0.0%	91.8%	-0.00779	0.05	0.04
207M	0.11594	2087.0	1844.0	0.636	382	295	3.0%	19.5%	0.0%	77.5%	-0.01013	0.06	0.04
207N	0.04918	1939.0	1857.0	0.431	190	190	2.9%	0.0%	0.0%	97.1%	-0.00647	0.04	0.03
207O	0.13051	2020.0	1807.2	0.643	331	275	14.6%	12.8%	0.0%	72.6%	-0.00975	0.06	0.04
208A	0.13859	3234.0	2425.0	0.626	1292	366	0.0%	0.0%	0.9%	99.1%	-0.00647	0.04	0.03
208B	0.02690	2551.0	2225.0	0.491	663	325	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
208C	0.06644	3800.0	2639.0	0.639	1816	387	0.0%	0.0%	66.0%	34.0%	-0.02191	0.15	0.11
208D	0.07452	2756.0	2225.0	0.772	688	327	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
208E	0.06205	2390.0	2076.0	0.644	488	306	0.0%	0.0%	1.1%	98.9%	-0.00650	0.04	0.03
208F	0.06910	2296.0	2076.0	0.582	378	293	0.0%	0.0%	1.4%	98.6%	-0.00658	0.04	0.03
208G	0.12941	2253.0	1947.0	0.772	396	299	0.0%	0.0%	13.9%	86.1%	-0.00955	0.06	0.04
208H	0.04276	2094.0	1872.0	0.632	351	283	0.0%	19.5%	17.8%	62.7%	-0.01413	0.09	0.07
208I	0.11709	3088.0	2074.0	0.823	1231	363	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
208J	0.08107	3088.0	2074.0	0.974	1041	353	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
208K	0.04756	2265.0	2014.0	0.431	582	317	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
208L	0.05884	2517.0	2014.0	0.655	769	334	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
208M	0.15941	2509.0	1872.0	1.031	618	321	0.0%	0.0%	0.2%	99.8%	-0.00629	0.04	0.03
208N	0.04713	1899.0	1805.0	0.589	160	160	0.0%	12.7%	0.6%	86.7%	-0.00877	0.05	0.04
208O	0.22988	3056.0	1939.0	1.174	952	347	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
208P	0.05837	2122.0	1870.4	0.471	535	312	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03

Table S-7

Future Condition Subbasin Time of Concentration Parameters

[1] Subbasin ID	[2] Drainage Area (sm)	[3] Elevation Top	[4] Elevation Bottom	[5] Flow Path (miles)	[6] Slope (ft/mi)	[7] Adjust. Slope (ft/mi)	[8] Valley Area (%)	[9] Hillslope Area (%)	[10] Mountain Area (%)	[11] Urban Area %	[12] Weighted Kb Equation Parameters m	[13] Weighted Kb Equation Parameters b	[14] Kb
208Q	0.09426	2402.0	1870.4	0.823	646	324	0.0%	0.0%	9.0%	91.0%	-0.00840	0.05	0.04
208R	0.01047	2089.0	1926.0	0.238	686	327	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
208S	0.06825	1943.0	1805.0	0.568	243	234	0.0%	6.5%	0.0%	93.5%	-0.00747	0.05	0.03
208T	0.13175	2612.0	1947.0	0.787	845	340	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
208U	0.13368	2536.0	1947.0	0.507	1162	360	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
208V	0.02781	2130.0	1917.0	0.354	601	319	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
208W	0.05043	1991.0	1818.0	0.475	364	288	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
208X	0.07543	1870.0	1777.1	0.417	223	223	12.6%	19.4%	0.0%	68.0%	-0.01084	0.07	0.05
209A	0.36779	3770.0	2426.0	1.028	1308	367	0.0%	0.0%	57.3%	42.7%	-0.01985	0.13	0.08
209B	0.08313	3999.0	2321.0	0.716	2345	403	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
209C	0.06387	2951.0	2321.0	0.723	871	342	0.0%	0.0%	13.2%	86.8%	-0.00938	0.06	0.05
209D	0.24418	3065.0	2218.0	0.800	1059	354	0.0%	0.0%	9.1%	90.9%	-0.00841	0.05	0.04
209E	0.14899	3094.0	2218.0	1.018	861	341	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
209F	0.22574	2921.0	2034.0	1.191	745	332	0.0%	0.0%	55.3%	44.7%	-0.01938	0.13	0.09
209G	0.20380	2545.0	2034.0	1.050	487	306	0.0%	0.0%	0.5%	99.5%	-0.00637	0.04	0.03
209H	0.08348	2470.0	1994.0	0.542	878	343	0.0%	17.7%	26.9%	55.4%	-0.01596	0.10	0.07
209I	0.18233	2536.0	1883.5	0.691	945	347	0.0%	12.9%	2.4%	84.7%	-0.00923	0.06	0.04
210A	0.12274	1874.0	1722.0	0.631	241	233	0.8%	0.0%	0.0%	99.2%	-0.00631	0.04	0.03
210B	0.10672	2062.0	1805.6	0.930	276	251	0.0%	0.5%	0.0%	99.5%	-0.00634	0.04	0.03
210C	0.08171	1854.0	1728.0	0.637	198	198	5.8%	0.0%	0.0%	94.2%	-0.00669	0.04	0.03
210D	0.13967	2390.0	1836.0	0.832	666	325	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
210E	0.02753	1849.0	1798.0	0.339	151	151	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
210F	0.09263	2529.0	1872.0	0.668	983	349	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
210G	0.16152	2529.0	1798.0	0.969	755	333	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
210H	0.06974	2351.0	1875.0	0.565	842	340	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
210I	0.04910	1944.0	1770.0	0.634	275	250	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
210J	0.10328	1856.0	1728.0	0.684	187	187	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
210K	0.07706	1804.0	1716.0	0.425	207	207	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
210L	0.13741	2013.0	1787.0	0.820	276	251	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
210M	0.16239	1961.0	1716.0	1.022	240	232	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03

Table S-7

Future Condition Subbasin Time of Concentration Parameters

[1] Subbasin ID	[2] Drainage Area (sm)	[3] Elevation Top	[4] Elevation Bottom	[5] Flow Path (miles)	[6] Slope (ft/mi)	[7] Adjust. Slope (ft/mi)	[8] Valley Area (%)	[9] Hillslope Area (%)	[10] Mountain Area (%)	[11] Urban Area %	[12] Weighted Kb Equation Parameters m	[13] Weighted Kb Equation Parameters b	[14] Kb
210N	0.04852	1749.0	1693.9	0.309	178	178	0.3%	0.0%	0.0%	99.7%	-0.00627	0.04	0.03
211A	0.14294	1972.0	1751.0	0.820	269	248	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
211B	0.10855	1870.0	1708.7	0.618	261	244	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
211C	0.04277	1757.0	1683.0	0.479	154	154	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
211D	0.07054	1762.0	1683.0	0.686	115	115	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
211E	0.15557	1700.0	1628.0	0.609	118	118	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
211F	0.11280	1675.0	1572.0	0.770	134	134	3.4%	0.0%	0.0%	96.6%	-0.00650	0.04	0.03
211G	0.00759	1982.0	1897.0	0.448	190	190	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.04
211H	0.07345	1912.0	1728.0	0.501	368	289	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
211I	0.04077	1898.0	1717.0	0.626	289	257	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
211J	0.01480	1728.0	1686.6	0.249	166	166	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
211K	0.10197	1731.0	1672.0	0.376	157	157	16.4%	0.0%	0.0%	83.6%	-0.00748	0.05	0.03
211L	0.09575	1719.0	1627.0	0.508	181	181	14.4%	0.0%	0.0%	85.6%	-0.00733	0.05	0.03
211M	0.08133	1874.0	1707.0	0.541	308	266	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
211N	0.02038	1748.0	1684.0	0.261	245	235	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
211O	0.04119	1800.0	1693.4	0.371	288	257	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
211P	0.03347	1718.0	1659.0	0.307	192	192	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
211Q	0.02107	1964.0	1860.0	0.255	408	295	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
211R	0.08438	1981.0	1797.5	0.572	321	271	0.0%	0.1%	0.0%	99.9%	-0.00627	0.04	0.03
211S	0.05041	1875.0	1731.5	0.445	323	272	0.0%	42.6%	0.0%	57.4%	-0.01425	0.09	0.07
211T	0.06637	1813.0	1679.1	0.488	274	250	0.0%	1.9%	0.0%	98.1%	-0.00660	0.04	0.03
211U	0.02744	2023.0	1845.0	0.831	214	214	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
211V	0.00490	1847.0	1800.0	0.222	212	212	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.04
211W	0.02969	1713.0	1663.0	0.289	173	173	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
211X	0.21393	1675.0	1572.0	0.929	111	111	12.7%	0.0%	0.0%	87.3%	-0.00721	0.05	0.03
211Y	0.08928	1641.0	1552.0	0.606	147	147	5.2%	6.3%	0.0%	88.5%	-0.00782	0.05	0.04
211Z	0.08254	1592.0	1517.0	0.509	147	147	23.5%	0.0%	0.0%	76.5%	-0.00801	0.05	0.04
211AA	0.03399	1592.0	1551.0	0.480	85	85	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
211AB	0.03974	1721.0	1540.0	0.293	617	321	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
211AC	0.02745	1557.0	1532.0	0.306	82	82	0.0%	0.5%	0.0%	99.5%	-0.00635	0.04	0.03

Table S-7

Future Condition Subbasin Time of Concentration Parameters

[1] Subbasin ID	[2] Drainage Area (sm)	[3] Elevation Top	[4] Elevation Bottom	[5] Flow Path (miles)	[6] Slope (ft/mi)	[7] Adjust. Slope (ft/mi)	[8] Valley Area (%)	[9] Hillslope Area (%)	[10] Mountain Area (%)	[11] Urban Area %	[12] Weighted Kb Equation Parameters m	[13] Weighted Kb Equation Parameters b	[14] Kb
211AD	0.04132	1684.0	1517.0	0.489	341	280	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03
211AE	0.03443	1552.0	1504.0	0.313	153	153	15.2%	0.0%	0.0%	84.8%	-0.00739	0.05	0.04
211AF	0.05270	1666.0	1542.0	0.332	373	292	0.0%	0.0%	0.0%	100.0%	-0.00625	0.04	0.03

Note: The composite m and b values listed are based on the following:

	m	b
Urban:	-0.00625	0.04
Valley (desert rangeland):	-0.01375	0.08
Hillslope	-0.02500	0.15
Mountain	-0.03000	0.20

TABLE S-8a

Table S-8a

Time of concentration and Duration of Rainfall Excess
Future Condition 100-year, 6-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total	Time at			
Subbasin																			Excess	90% Excess	Tc	Tc	R
ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
201A	0.46	0.45	0.45	0.14	0.11	0.10	0.04	0.04	0.04	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.919	35	21	0.354	0.338
201B	0.45	0.44	0.44	0.13	0.10	0.09	0.04	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.773	30	18	0.292	0.291
201C	0.47	0.47	0.47	0.16	0.13	0.12	0.06	0.06	0.05	0.04	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.272	55	9	0.150	0.140
201D	0.46	0.45	0.45	0.14	0.11	0.10	0.04	0.04	0.04	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.945	35	18	0.304	0.409
201E	0.45	0.45	0.44	0.14	0.10	0.09	0.04	0.04	0.03	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.858	35	25	0.413	0.434
202A	0.46	0.46	0.46	0.15	0.12	0.11	0.05	0.05	0.04	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.189	65	8	0.138	0.129
202B	0.46	0.46	0.46	0.15	0.12	0.11	0.05	0.05	0.04	0.03	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.209	60	6	0.096	0.121
202C	0.47	0.46	0.46	0.16	0.12	0.12	0.05	0.05	0.05	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.328	90	5	0.083	0.101
202D	0.47	0.47	0.47	0.16	0.13	0.12	0.06	0.06	0.05	0.04	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.307	60	9	0.154	0.189
202E	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.04	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.321	60	9	0.142	0.120
202F	0.48	0.47	0.47	0.17	0.14	0.13	0.06	0.06	0.06	0.05	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.450	85	5	0.083	0.073
202G	0.48	0.47	0.47	0.17	0.14	0.13	0.06	0.06	0.06	0.05	0.05	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.443	75	5	0.083	0.069
202H	0.47	0.47	0.46	0.16	0.13	0.12	0.05	0.05	0.05	0.04	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.269	60	10	0.163	0.116
202I	0.49	0.49	0.49	0.18	0.15	0.15	0.07	0.07	0.07	0.07	0.07	0.06	0.02	0.02	0.02	0.02	0.02	0.02	2.917	90	6	0.104	0.099
203A	0.45	0.44	0.44	0.14	0.10	0.09	0.04	0.04	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.822	30	26	0.433	0.434
203B	0.47	0.47	0.47	0.16	0.13	0.12	0.06	0.05	0.05	0.04	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.252	55	9	0.142	0.140
203C	0.46	0.45	0.45	0.15	0.11	0.11	0.05	0.04	0.04	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	2.007	40	16	0.271	0.314
203D	0.46	0.45	0.45	0.14	0.11	0.10	0.04	0.04	0.04	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.920	35	19	0.308	0.363
203E	0.48	0.48	0.48	0.17	0.14	0.14	0.06	0.06	0.06	0.06	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.418	55	9	0.142	0.114
203F	0.44	0.44	0.43	0.13	0.09	0.08	0.03	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.705	25	27	0.450	0.386
203G	0.46	0.45	0.45	0.14	0.11	0.10	0.04	0.04	0.04	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.953	35	23	0.375	0.366
203H	0.47	0.46	0.46	0.16	0.13	0.12	0.05	0.05	0.05	0.04	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.250	55	12	0.196	0.153
203I	0.47	0.46	0.46	0.16	0.12	0.12	0.05	0.05	0.05	0.04	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.244	60	14	0.229	0.247
203J	0.49	0.49	0.48	0.18	0.15	0.15	0.07	0.07	0.07	0.06	0.06	0.06	0.01	0.01	0.01	0.01	0.01	0.01	2.817	90	8	0.125	0.142
203K	0.48	0.48	0.48	0.17	0.14	0.14	0.06	0.06	0.06	0.05	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.552	90	11	0.183	0.144
204A	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.04	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.292	55	10	0.158	0.126
204B	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.04	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.313	60	11	0.188	0.153
204C	0.49	0.49	0.49	0.18	0.15	0.15	0.07	0.07	0.07	0.07	0.07	0.06	0.02	0.02	0.02	0.02	0.02	0.02	2.852	90	8	0.129	0.079
204D	0.49	0.48	0.48	0.18	0.15	0.14	0.07	0.07	0.06	0.06	0.06	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.687	90	8	0.133	0.100

Table S-8a

Time of concentration and Duration of Rainfall Excess
Future Condition 100-year, 6-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total	Time at			
Subbasin																			Excess	90% Excess	Tc	Tc	R
ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
204E	0.48	0.48	0.47	0.17	0.14	0.13	0.06	0.06	0.06	0.05	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.516	90	10	0.158	0.126
204F	0.49	0.49	0.49	0.18	0.15	0.15	0.07	0.07	0.07	0.07	0.07	0.07	0.01	0.01	0.01	0.01	0.01	0.01	2.705	90	9	0.146	0.107
205A	0.45	0.44	0.44	0.13	0.09	0.08	0.04	0.04	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.096	90	21	0.350	0.350
205B	0.45	0.44	0.44	0.13	0.09	0.08	0.04	0.04	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.093	90	31	0.508	0.340
205C	0.45	0.44	0.44	0.13	0.09	0.08	0.04	0.04	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.088	90	19	0.308	0.343
205D	0.45	0.44	0.44	0.13	0.09	0.08	0.04	0.04	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.089	90	23	0.379	0.246
205E	0.45	0.44	0.44	0.13	0.09	0.08	0.04	0.04	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.093	90	29	0.488	0.508
205F	0.45	0.44	0.44	0.13	0.09	0.08	0.04	0.04	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.084	90	21	0.350	0.269
205G	0.45	0.44	0.44	0.13	0.09	0.07	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.018	85	22	0.367	0.298
205H	0.45	0.44	0.44	0.13	0.09	0.08	0.04	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.033	85	31	0.513	0.514
205I	0.44	0.44	0.43	0.13	0.09	0.08	0.03	0.03	0.03	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.846	40	28	0.458	0.386
205J	0.44	0.43	0.42	0.12	0.08	0.06	0.03	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.647	30	27	0.450	0.398
205K	0.44	0.44	0.43	0.13	0.09	0.08	0.03	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.721	30	33	0.546	0.665
205L	0.44	0.43	0.42	0.12	0.08	0.06	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.606	25	15	0.254	0.206
205M	0.46	0.46	0.46	0.15	0.12	0.11	0.05	0.05	0.04	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.121	50	13	0.213	0.178
205N	0.45	0.44	0.44	0.13	0.09	0.08	0.03	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.723	30	25	0.413	0.457
206A	0.47	0.47	0.46	0.16	0.13	0.12	0.05	0.05	0.05	0.04	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.308	75	10	0.158	0.107
206B	0.48	0.47	0.47	0.17	0.13	0.13	0.06	0.06	0.05	0.05	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.453	90	9	0.154	0.113
206C	0.46	0.45	0.45	0.15	0.11	0.11	0.04	0.04	0.04	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.141	60	10	0.158	0.204
206D	0.48	0.48	0.48	0.17	0.14	0.14	0.06	0.06	0.06	0.05	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.541	90	8	0.125	0.109
206E	0.46	0.45	0.45	0.15	0.11	0.11	0.04	0.04	0.04	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.111	60	7	0.113	0.120
206F	0.46	0.46	0.46	0.15	0.12	0.11	0.05	0.05	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.152	55	11	0.179	0.154
206G	0.47	0.47	0.46	0.16	0.13	0.12	0.05	0.05	0.05	0.04	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.283	60	12	0.204	0.241
206H	0.48	0.47	0.47	0.17	0.14	0.13	0.06	0.06	0.06	0.05	0.05	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.451	80	8	0.138	0.121
206I	0.48	0.47	0.47	0.17	0.14	0.13	0.06	0.06	0.06	0.05	0.05	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.433	75	5	0.083	0.066
206J	0.48	0.48	0.48	0.17	0.14	0.14	0.06	0.06	0.06	0.05	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.561	90	8	0.125	0.105
206K	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.04	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.309	55	8	0.133	0.139
206L	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.04	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.294	55	8	0.129	0.117
206M	0.48	0.47	0.47	0.17	0.14	0.13	0.06	0.06	0.06	0.05	0.05	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.535	90	8	0.133	0.107

Table S-8a

Time of concentration and Duration of Rainfall Excess
Future Condition 100-year, 6-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total Excess	Time at 90% Excess	Tc	Tc	R
Subbasin ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
206N	0.48	0.47	0.47	0.17	0.14	0.13	0.06	0.06	0.06	0.05	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.565	90	11	0.188	0.137
207A	0.45	0.44	0.44	0.13	0.09	0.08	0.04	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.021	75	28	0.467	0.440
207B	0.45	0.44	0.44	0.13	0.09	0.08	0.04	0.04	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.065	85	27	0.450	0.463
207C	0.45	0.44	0.44	0.13	0.09	0.08	0.03	0.03	0.03	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.859	40	21	0.354	0.311
207D	0.46	0.45	0.45	0.15	0.11	0.10	0.05	0.05	0.04	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.274	90	17	0.288	0.241
207E	0.46	0.46	0.46	0.15	0.12	0.11	0.05	0.05	0.04	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.349	90	19	0.308	0.370
207F	0.46	0.45	0.45	0.14	0.11	0.09	0.04	0.04	0.04	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.201	90	18	0.304	0.267
207G	0.45	0.44	0.44	0.13	0.10	0.08	0.04	0.03	0.03	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.827	35	31	0.521	0.555
207H	0.47	0.46	0.46	0.16	0.13	0.12	0.05	0.05	0.05	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.423	90	12	0.204	0.215
207I	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.501	90	9	0.142	0.159
207J	0.47	0.47	0.47	0.16	0.13	0.12	0.06	0.06	0.05	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.478	90	10	0.171	0.154
207K	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.04	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.400	85	12	0.196	0.172
207L	0.48	0.47	0.47	0.17	0.14	0.13	0.06	0.06	0.06	0.05	0.05	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.423	65	10	0.167	0.154
207M	0.47	0.47	0.46	0.16	0.13	0.12	0.06	0.05	0.05	0.04	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.242	55	9	0.150	0.107
207N	0.47	0.47	0.47	0.16	0.13	0.12	0.06	0.05	0.05	0.04	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.349	85	8	0.125	0.104
207O	0.47	0.46	0.46	0.15	0.12	0.11	0.05	0.05	0.05	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.170	55	10	0.158	0.107
208A	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.498	90	7	0.121	0.075
208B	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.505	90	7	0.113	0.146
208C	0.46	0.45	0.45	0.14	0.11	0.10	0.05	0.04	0.04	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.247	90	14	0.238	0.246
208D	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.503	90	8	0.138	0.146
208E	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.503	90	8	0.129	0.131
208F	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.502	90	8	0.125	0.109
208G	0.48	0.47	0.47	0.17	0.14	0.13	0.06	0.06	0.06	0.05	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.580	90	10	0.167	0.132
208H	0.47	0.47	0.47	0.16	0.13	0.12	0.06	0.06	0.05	0.04	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.345	80	12	0.204	0.265
208I	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.501	90	8	0.138	0.119
208J	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.503	90	9	0.154	0.190
208K	0.48	0.47	0.47	0.17	0.13	0.13	0.06	0.06	0.06	0.05	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.573	90	6	0.104	0.087
208L	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.523	90	8	0.125	0.132
208M	0.48	0.48	0.48	0.17	0.14	0.14	0.06	0.06	0.06	0.05	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.695	90	10	0.163	0.144

Table S-8a

Time of concentration and Duration of Rainfall Excess
Future Condition 100-year, 6-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total	Time at			
Subbasin																			Excess	90% Excess	Tc	Tc	R
ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
208N	0.49	0.49	0.49	0.18	0.15	0.15	0.07	0.07	0.07	0.07	0.06	0.06	0.01	0.01	0.01	0.01	0.01	0.01	2.818	90	11	0.175	0.200
208O	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.05	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.498	90	10	0.167	0.133
208P	0.49	0.48	0.48	0.18	0.15	0.14	0.07	0.07	0.07	0.06	0.06	0.06	0.01	0.01	0.01	0.01	0.01	0.01	2.757	90	7	0.108	0.087
208Q	0.48	0.48	0.48	0.17	0.14	0.14	0.06	0.06	0.06	0.05	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.624	90	10	0.167	0.166
208R	0.49	0.48	0.48	0.18	0.15	0.14	0.07	0.07	0.07	0.06	0.06	0.06	0.01	0.01	0.01	0.01	0.01	0.01	2.738	90	5	0.083	0.100
208S	0.49	0.49	0.49	0.18	0.15	0.15	0.07	0.07	0.07	0.07	0.07	0.07	0.02	0.02	0.02	0.02	0.02	0.02	2.881	90	8	0.129	0.112
208T	0.48	0.47	0.47	0.17	0.14	0.13	0.06	0.06	0.06	0.05	0.05	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.522	90	8	0.138	0.107
208U	0.48	0.47	0.47	0.17	0.14	0.13	0.06	0.06	0.06	0.05	0.05	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.523	90	7	0.108	0.057
208V	0.48	0.48	0.48	0.17	0.14	0.14	0.07	0.07	0.06	0.06	0.06	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.569	90	6	0.096	0.092
208W	0.48	0.48	0.48	0.17	0.14	0.14	0.07	0.07	0.06	0.06	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.564	90	7	0.113	0.099
208X	0.47	0.47	0.47	0.16	0.13	0.12	0.06	0.06	0.05	0.04	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.406	90	9	0.150	0.098
209A	0.46	0.45	0.45	0.15	0.11	0.10	0.05	0.05	0.04	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.270	90	16	0.263	0.152
209B	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.503	90	8	0.125	0.116
209C	0.47	0.47	0.47	0.16	0.13	0.12	0.06	0.05	0.05	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.455	90	11	0.175	0.198
209D	0.47	0.47	0.46	0.16	0.13	0.12	0.06	0.05	0.05	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.458	90	10	0.163	0.092
209E	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.500	90	10	0.158	0.144
209F	0.46	0.45	0.45	0.15	0.11	0.10	0.05	0.05	0.04	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.266	90	20	0.329	0.290
209G	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.497	90	10	0.167	0.130
209H	0.46	0.46	0.46	0.15	0.12	0.11	0.05	0.05	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.178	60	11	0.179	0.138
209I	0.47	0.46	0.46	0.16	0.13	0.12	0.05	0.05	0.05	0.04	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	2.184	50	9	0.150	0.088
210A	0.46	0.46	0.46	0.15	0.12	0.11	0.05	0.05	0.04	0.03	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	2.102	45	9	0.142	0.097
210B	0.48	0.47	0.47	0.17	0.14	0.13	0.06	0.06	0.06	0.05	0.05	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.474	80	10	0.167	0.171
210C	0.46	0.46	0.46	0.15	0.12	0.11	0.05	0.05	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.115	50	9	0.150	0.131
210D	0.48	0.47	0.47	0.17	0.13	0.13	0.06	0.06	0.06	0.05	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.407	70	9	0.146	0.116
210E	0.48	0.48	0.48	0.17	0.14	0.14	0.06	0.06	0.06	0.06	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	2.341	50	7	0.117	0.111
210F	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.499	90	8	0.125	0.103
210G	0.48	0.47	0.47	0.17	0.13	0.13	0.06	0.06	0.05	0.05	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.439	90	9	0.154	0.128
210H	0.47	0.47	0.47	0.16	0.13	0.13	0.06	0.06	0.05	0.05	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.294	55	7	0.117	0.098
210I	0.49	0.48	0.48	0.18	0.15	0.14	0.07	0.07	0.06	0.06	0.06	0.06	0.01	0.01	0.01	0.00	0.00	0.00	2.420	55	8	0.138	0.158

Table S-8a

Time of concentration and Duration of Rainfall Excess
Future Condition 100-year, 6-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total	Time at			
Subbasin																			Excess	90% Excess	Tc	Tc	R
ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
210J	0.48	0.47	0.47	0.17	0.14	0.13	0.06	0.06	0.06	0.05	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	2.301	50	9	0.154	0.125
210K	0.48	0.47	0.47	0.17	0.14	0.13	0.06	0.06	0.06	0.05	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	2.302	50	7	0.117	0.074
210L	0.46	0.46	0.46	0.15	0.12	0.11	0.05	0.05	0.04	0.03	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	2.098	45	10	0.158	0.127
210M	0.47	0.47	0.46	0.16	0.13	0.12	0.05	0.05	0.05	0.04	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	2.178	45	11	0.179	0.157
210N	0.45	0.44	0.44	0.13	0.10	0.09	0.03	0.03	0.03	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.924	45	7	0.108	0.069
211A	0.47	0.47	0.47	0.16	0.13	0.12	0.06	0.06	0.05	0.04	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.269	55	10	0.158	0.124
211AA	0.49	0.48	0.48	0.18	0.15	0.14	0.07	0.07	0.06	0.06	0.06	0.06	0.01	0.01	0.01	0.01	0.01	0.01	2.591	80	10	0.167	0.193
211AB	0.49	0.49	0.49	0.18	0.15	0.15	0.07	0.07	0.07	0.07	0.07	0.07	0.01	0.01	0.01	0.01	0.01	0.01	2.792	90	5	0.083	0.055
211AC	0.49	0.49	0.49	0.19	0.16	0.15	0.08	0.08	0.07	0.07	0.07	0.07	0.01	0.01	0.01	0.01	0.01	0.01	2.762	90	8	0.133	0.119
211AD	0.49	0.49	0.49	0.19	0.16	0.15	0.08	0.08	0.07	0.07	0.07	0.07	0.01	0.01	0.01	0.01	0.01	0.01	2.759	90	7	0.113	0.114
211AE	0.48	0.48	0.48	0.17	0.14	0.13	0.06	0.06	0.06	0.05	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.500	85	8	0.129	0.103
211AF	0.49	0.48	0.48	0.18	0.15	0.14	0.07	0.07	0.06	0.06	0.06	0.06	0.01	0.01	0.01	0.01	0.01	0.01	2.678	90	6	0.092	0.058
211B	0.47	0.47	0.46	0.16	0.13	0.12	0.05	0.05	0.05	0.04	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	2.228	50	8	0.138	0.099
211C	0.48	0.48	0.48	0.17	0.14	0.14	0.06	0.06	0.06	0.05	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.561	90	8	0.138	0.137
211D	0.46	0.45	0.45	0.15	0.11	0.11	0.04	0.04	0.04	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.233	90	11	0.183	0.189
211E	0.48	0.47	0.47	0.17	0.13	0.13	0.06	0.06	0.06	0.05	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.466	90	10	0.171	0.101
211F	0.48	0.48	0.48	0.17	0.14	0.14	0.06	0.06	0.06	0.05	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.702	90	11	0.183	0.158
211G	0.50	0.50	0.50	0.19	0.16	0.16	0.08	0.08	0.08	0.08	0.08	0.08	0.02	0.02	0.02	0.02	0.02	0.02	3.168	90	9	0.142	0.359
211H	0.47	0.47	0.47	0.16	0.13	0.12	0.06	0.06	0.05	0.04	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	2.233	50	7	0.117	0.087
211I	0.48	0.48	0.48	0.17	0.14	0.14	0.06	0.06	0.06	0.06	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.568	90	8	0.133	0.168
211J	0.48	0.48	0.48	0.17	0.14	0.14	0.06	0.06	0.06	0.05	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.523	85	6	0.096	0.099
211K	0.48	0.47	0.47	0.17	0.13	0.13	0.06	0.06	0.06	0.05	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.377	60	7	0.121	0.060
211L	0.47	0.46	0.46	0.16	0.12	0.12	0.05	0.05	0.05	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.362	90	8	0.138	0.091
211M	0.48	0.48	0.48	0.17	0.14	0.14	0.07	0.07	0.06	0.06	0.06	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.636	90	8	0.125	0.094
211N	0.49	0.48	0.48	0.18	0.15	0.14	0.07	0.07	0.07	0.06	0.06	0.06	0.01	0.01	0.01	0.01	0.01	0.01	2.725	90	5	0.088	0.078
211O	0.48	0.48	0.48	0.17	0.14	0.14	0.06	0.06	0.06	0.06	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.572	90	6	0.104	0.084
211P	0.49	0.49	0.49	0.18	0.15	0.15	0.07	0.07	0.07	0.07	0.07	0.07	0.01	0.01	0.01	0.01	0.01	0.01	2.707	90	6	0.100	0.077
211Q	0.48	0.47	0.47	0.17	0.13	0.13	0.06	0.06	0.05	0.05	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.370	60	5	0.083	0.071
211R	0.48	0.47	0.47	0.17	0.14	0.13	0.06	0.06	0.06	0.05	0.05	0.04	0.01	0.01	0.01	0.01	0.01	0.01	2.470	85	8	0.125	0.096

Table S-8a

Time of concentration and Duration of Rainfall Excess
Future Condition 100-year, 6-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total Excess	Time at 90% Excess	Tc	Tc	R
Subbasin ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
211S	0.47	0.47	0.46	0.16	0.13	0.12	0.06	0.05	0.05	0.04	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.291	60	11	0.175	0.154
211T	0.49	0.49	0.49	0.18	0.15	0.15	0.07	0.07	0.07	0.07	0.06	0.06	0.01	0.01	0.01	0.01	0.01	0.01	2.824	90	7	0.117	0.090
211U	0.49	0.49	0.49	0.18	0.15	0.15	0.07	0.07	0.07	0.07	0.07	0.06	0.02	0.02	0.02	0.02	0.02	0.02	2.849	90	10	0.163	0.330
211V	0.50	0.50	0.50	0.19	0.16	0.16	0.08	0.08	0.08	0.08	0.08	0.08	0.02	0.02	0.02	0.02	0.02	0.02	3.167	90	6	0.096	0.170
211W	0.49	0.49	0.49	0.19	0.16	0.15	0.08	0.08	0.07	0.07	0.07	0.07	0.02	0.02	0.02	0.02	0.02	0.02	2.951	90	6	0.100	0.079
211X	0.48	0.48	0.48	0.17	0.14	0.14	0.06	0.06	0.06	0.05	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.648	90	13	0.213	0.151
211Y	0.49	0.48	0.48	0.18	0.15	0.14	0.07	0.07	0.07	0.06	0.06	0.06	0.01	0.01	0.01	0.01	0.01	0.01	2.700	90	11	0.183	0.149
211Z	0.46	0.46	0.46	0.15	0.12	0.11	0.05	0.05	0.04	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.233	85	10	0.171	0.126

TABLE S-8b

Table S-8b

Time of Concentration and Duration of Rainfall Excess
Future Condition 100-year, 24-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total Excess	Time at 90% Excess	Tc	Tc	R
Subbasin ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
201A	0.26	0.26	0.26	0.26	0.26	0.25	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.636	30	24	0.400	0.387
201B	0.25	0.25	0.25	0.25	0.25	0.24	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.416	30	21	0.350	0.356
201C	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.152	90	11	0.183	0.175
201D	0.26	0.26	0.26	0.26	0.26	0.25	0.02	0.02	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.665	30	22	0.363	0.497
201E	0.26	0.25	0.25	0.25	0.25	0.25	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.578	30	27	0.450	0.478
202A	0.26	0.26	0.26	0.26	0.26	0.26	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.151	90	10	0.171	0.165
202B	0.26	0.26	0.26	0.26	0.26	0.26	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.163	90	7	0.121	0.156
202C	0.27	0.26	0.26	0.26	0.26	0.26	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.409	90	6	0.096	0.118
202D	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.244	90	12	0.192	0.240
202E	0.28	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.239	90	11	0.175	0.151
202F	0.28	0.28	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.517	90	5	0.083	0.073
202G	0.28	0.28	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.472	90	5	0.083	0.069
202H	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.195	90	12	0.200	0.146
202I	0.29	0.29	0.28	0.28	0.28	0.28	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	3.457	90	8	0.129	0.125
203A	0.26	0.25	0.25	0.25	0.25	0.25	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.505	30	28	0.467	0.471
203B	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.121	90	11	0.175	0.176
203C	0.26	0.26	0.26	0.26	0.26	0.26	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.789	50	20	0.329	0.390
203D	0.26	0.26	0.26	0.26	0.25	0.25	0.02	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.641	30	22	0.363	0.435
203E	0.28	0.28	0.28	0.28	0.28	0.28	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	2.340	90	11	0.175	0.145
203F	0.25	0.25	0.25	0.25	0.24	0.24	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.332	25	29	0.479	0.414
203G	0.26	0.26	0.26	0.26	0.26	0.26	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.687	30	25	0.421	0.416
203H	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.153	90	15	0.242	0.193
203I	0.27	0.27	0.26	0.26	0.26	0.26	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.206	90	17	0.283	0.313
203J	0.29	0.29	0.28	0.28	0.28	0.28	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	3.245	90	9	0.154	0.179
203K	0.28	0.28	0.28	0.28	0.28	0.28	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.716	90	14	0.225	0.181
204A	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.186	90	12	0.196	0.160
204B	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.231	90	14	0.229	0.192
204C	0.29	0.29	0.28	0.28	0.28	0.28	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	3.301	90	10	0.158	0.099
204D	0.28	0.28	0.28	0.28	0.28	0.28	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	2.964	90	10	0.167	0.128

Table S-8b

Time of Concentration and Duration of Rainfall Excess
Future Condition 100-year, 24-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total	Time at			
Subbasin																			Excess	90% Excess	Tc	Tc	R
ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
204E	0.28	0.28	0.28	0.28	0.28	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.623	90	12	0.196	0.160
204F	0.29	0.29	0.28	0.28	0.28	0.28	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	2.918	90	11	0.175	0.131
205A	0.25	0.25	0.25	0.25	0.24	0.24	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.207	90	24	0.400	0.406
205B	0.25	0.25	0.25	0.25	0.24	0.24	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.207	90	32	0.538	0.361
205C	0.25	0.25	0.24	0.24	0.24	0.24	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.200	90	22	0.367	0.416
205D	0.25	0.25	0.25	0.25	0.24	0.24	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.207	90	26	0.425	0.279
205E	0.25	0.25	0.25	0.25	0.24	0.24	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.207	90	31	0.517	0.541
205F	0.25	0.25	0.24	0.24	0.24	0.24	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.200	90	24	0.400	0.312
205G	0.25	0.25	0.24	0.24	0.24	0.24	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.087	90	25	0.417	0.343
205H	0.25	0.25	0.24	0.24	0.24	0.24	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.104	90	33	0.542	0.547
205I	0.25	0.25	0.24	0.24	0.24	0.24	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.677	65	29	0.488	0.414
205J	0.24	0.24	0.24	0.24	0.23	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.327	30	29	0.479	0.427
205K	0.25	0.25	0.25	0.24	0.24	0.24	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.364	25	35	0.579	0.710
205L	0.24	0.24	0.23	0.23	0.23	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.229	25	19	0.317	0.263
205M	0.27	0.26	0.26	0.26	0.26	0.26	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.019	90	16	0.263	0.225
205N	0.25	0.25	0.25	0.25	0.24	0.24	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.355	25	27	0.450	0.503
206A	0.27	0.27	0.27	0.27	0.27	0.26	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.338	90	12	0.196	0.135
206B	0.28	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.578	90	12	0.192	0.144
206C	0.26	0.26	0.26	0.25	0.25	0.25	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	2.094	90	12	0.196	0.258
206D	0.28	0.28	0.28	0.28	0.28	0.28	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.673	90	9	0.154	0.137
206E	0.26	0.26	0.26	0.25	0.25	0.25	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	2.021	90	9	0.142	0.155
206F	0.26	0.26	0.26	0.26	0.26	0.26	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.058	90	13	0.221	0.195
206G	0.27	0.27	0.27	0.27	0.27	0.26	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.257	90	15	0.254	0.307
206H	0.28	0.28	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.493	90	10	0.167	0.150
206I	0.28	0.28	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.452	90	6	0.096	0.077
206J	0.28	0.28	0.28	0.28	0.28	0.28	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.713	90	9	0.154	0.133
206K	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.210	90	10	0.167	0.178
206L	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.186	90	10	0.158	0.147
206M	0.28	0.28	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.716	90	10	0.163	0.133

Table S-8b

Time of Concentration and Duration of Rainfall Excess
Future Condition 100-year, 24-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total	Time at			
Subbasin																			Excess	90% Excess	Tc	Tc	R
ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
206N	0.28	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.845	90	14	0.233	0.174
207A	0.25	0.25	0.24	0.24	0.24	0.24	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.064	90	30	0.496	0.471
207B	0.25	0.25	0.25	0.25	0.24	0.24	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.140	90	29	0.483	0.502
207C	0.25	0.25	0.25	0.25	0.24	0.24	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.656	40	24	0.404	0.360
207D	0.26	0.26	0.26	0.26	0.25	0.25	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.435	90	21	0.346	0.296
207E	0.26	0.26	0.26	0.26	0.26	0.26	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.538	90	22	0.363	0.443
207F	0.26	0.25	0.25	0.25	0.25	0.25	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.332	90	22	0.363	0.325
207G	0.25	0.25	0.25	0.25	0.25	0.24	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.567	30	33	0.554	0.594
207H	0.27	0.27	0.27	0.26	0.26	0.26	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	2.627	90	15	0.250	0.270
207I	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.737	90	11	0.175	0.201
207J	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	2.698	90	13	0.208	0.192
207K	0.28	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.474	90	15	0.242	0.217
207L	0.28	0.28	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.428	90	12	0.204	0.193
207M	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.126	90	11	0.188	0.137
207N	0.27	0.27	0.27	0.27	0.27	0.26	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.396	90	9	0.150	0.128
207O	0.27	0.27	0.26	0.26	0.26	0.26	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.075	90	12	0.192	0.133
208A	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.734	90	9	0.150	0.096
208B	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.738	90	8	0.138	0.182
208C	0.26	0.26	0.26	0.25	0.25	0.25	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.393	90	18	0.296	0.314
208D	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.738	90	10	0.171	0.186
208E	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.738	90	10	0.158	0.164
208F	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.736	90	9	0.154	0.138
208G	0.28	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.878	90	12	0.204	0.165
208H	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.403	90	15	0.254	0.338
208I	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.738	90	10	0.171	0.151
208J	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.738	90	11	0.188	0.237
208K	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.866	90	8	0.129	0.110
208L	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.775	90	10	0.158	0.171
208M	0.28	0.28	0.28	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	3.095	90	12	0.196	0.177

Table S-8b

Time of Concentration and Duration of Rainfall Excess
Future Condition 100-year, 24-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total Excess	Time at 90% Excess	Tc	Tc	R
Subbasin ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
208N	0.29	0.29	0.28	0.28	0.28	0.28	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	3.216	90	13	0.213	0.248
208O	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.721	90	13	0.208	0.170
208P	0.29	0.29	0.28	0.28	0.28	0.28	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	3.109	90	8	0.133	0.109
208Q	0.28	0.28	0.28	0.28	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.921	90	12	0.204	0.209
208R	0.29	0.29	0.28	0.28	0.28	0.28	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	3.036	90	6	0.092	0.111
208S	0.29	0.29	0.29	0.29	0.29	0.28	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	3.341	90	10	0.158	0.141
208T	0.28	0.28	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.687	90	10	0.171	0.136
208U	0.28	0.28	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.679	90	8	0.133	0.072
208V	0.28	0.28	0.28	0.28	0.28	0.28	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	2.681	90	7	0.117	0.114
208W	0.28	0.28	0.28	0.28	0.28	0.28	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	2.692	90	8	0.138	0.124
208X	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.518	90	11	0.183	0.122
209A	0.26	0.26	0.26	0.26	0.25	0.25	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.438	90	20	0.325	0.192
209B	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.738	90	9	0.154	0.147
209C	0.27	0.27	0.27	0.27	0.26	0.26	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	2.668	90	13	0.213	0.245
209D	0.27	0.27	0.27	0.27	0.26	0.26	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	2.686	90	12	0.200	0.116
209E	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.738	90	12	0.196	0.182
209F	0.26	0.26	0.26	0.26	0.26	0.25	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.410	90	23	0.383	0.343
209G	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.736	90	12	0.204	0.163
209H	0.27	0.26	0.26	0.26	0.26	0.26	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.130	90	13	0.221	0.175
209I	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.996	90	11	0.183	0.110
210A	0.27	0.26	0.26	0.26	0.26	0.26	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.892	75	11	0.175	0.122
210B	0.28	0.28	0.28	0.28	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.527	90	12	0.204	0.214
210C	0.26	0.26	0.26	0.26	0.26	0.26	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.990	90	11	0.183	0.164
210D	0.28	0.28	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.419	90	11	0.179	0.145
210E	0.28	0.28	0.28	0.28	0.28	0.28	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.01	0.01	0.01	0.01	2.150	85	9	0.142	0.138
210F	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.728	90	10	0.158	0.134
210G	0.28	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.532	90	12	0.192	0.163
210H	0.28	0.28	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.139	90	9	0.146	0.126
210I	0.29	0.29	0.28	0.28	0.28	0.28	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	2.305	90	10	0.167	0.196

Table S-8b

Time of Concentration and Duration of Rainfall Excess
Future Condition 100-year, 24-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total	Time at			
Subbasin																			Excess	90% Excess	Tc	Tc	R
ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
210J	0.28	0.28	0.28	0.28	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.091	75	12	0.192	0.159
210K	0.28	0.28	0.28	0.28	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.091	75	9	0.146	0.095
210L	0.27	0.26	0.26	0.26	0.26	0.26	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.880	60	12	0.192	0.156
210M	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.937	55	13	0.221	0.198
210N	0.25	0.25	0.25	0.24	0.24	0.24	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.720	85	8	0.138	0.090
211A	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.138	90	12	0.192	0.153
211AA	0.29	0.28	0.28	0.28	0.28	0.28	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	2.698	90	12	0.200	0.237
211AB	0.29	0.29	0.29	0.29	0.29	0.29	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	3.110	90	6	0.104	0.071
211AC	0.29	0.29	0.29	0.29	0.29	0.29	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	3.051	90	10	0.163	0.148
211AD	0.29	0.29	0.29	0.29	0.29	0.29	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	3.036	90	8	0.138	0.142
211AE	0.28	0.28	0.28	0.28	0.28	0.28	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.574	90	10	0.158	0.129
211AF	0.28	0.28	0.28	0.28	0.28	0.28	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	2.935	90	7	0.113	0.073
211B	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.058	90	10	0.167	0.122
211C	0.28	0.28	0.28	0.28	0.28	0.28	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.712	90	10	0.167	0.169
211D	0.26	0.26	0.25	0.25	0.25	0.25	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.320	90	14	0.229	0.242
211E	0.28	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.598	90	13	0.208	0.126
211F	0.28	0.28	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	3.109	90	14	0.225	0.199
211G	0.30	0.30	0.29	0.29	0.29	0.29	0.05	0.05	0.05	0.05	0.05	0.05	0.03	0.03	0.03	0.03	0.03	0.03	3.932	90	11	0.175	0.454
211H	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.029	90	9	0.142	0.108
211I	0.28	0.28	0.28	0.28	0.28	0.28	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.726	90	10	0.163	0.210
211J	0.28	0.28	0.28	0.28	0.28	0.28	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.600	90	7	0.117	0.124
211K	0.28	0.28	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.371	90	9	0.150	0.076
211L	0.27	0.26	0.26	0.26	0.26	0.26	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.502	90	10	0.167	0.112
211M	0.28	0.28	0.28	0.28	0.28	0.28	0.04	0.04	0.04	0.04	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.862	90	9	0.150	0.115
211N	0.28	0.28	0.28	0.28	0.28	0.28	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	3.037	90	7	0.108	0.099
211O	0.28	0.28	0.28	0.28	0.28	0.28	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.734	90	8	0.125	0.103
211P	0.29	0.29	0.28	0.28	0.28	0.28	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	2.918	90	8	0.125	0.099
211Q	0.28	0.28	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.325	90	6	0.100	0.087
211R	0.28	0.28	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	2.532	90	9	0.154	0.122

Table S-8b

Time of Concentration and Duration of Rainfall Excess
Future Condition 100-year, 24-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total Excess	Time at 90% Excess	Tc	Tc	R
Subbasin ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
211S	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.03	0.03	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.276	90	13	0.213	0.190
211T	0.29	0.29	0.28	0.28	0.28	0.28	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	3.242	90	9	0.146	0.115
211U	0.29	0.29	0.28	0.28	0.28	0.28	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	3.289	90	12	0.200	0.415
211V	0.30	0.30	0.29	0.29	0.29	0.29	0.05	0.05	0.05	0.05	0.05	0.05	0.03	0.03	0.03	0.03	0.03	0.03	3.932	90	7	0.117	0.212
211W	0.29	0.29	0.29	0.29	0.29	0.29	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	3.495	90	8	0.125	0.101
211X	0.28	0.28	0.28	0.28	0.28	0.27	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.981	90	16	0.263	0.190
211Y	0.29	0.29	0.28	0.28	0.28	0.28	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	2.947	90	13	0.221	0.184
211Z	0.26	0.26	0.26	0.26	0.26	0.26	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.271	90	13	0.208	0.157

TABLE S-8c

Table S-8c

Time of Concentration and Duration of Rainfall Excess
Future Condition 10-year, 6-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total	Time at			
Subbasin																			Excess	90% Excess	Tc	Tc	R
ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
201A	0.28	0.28	0.27	0.06	0.04	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.028	25	28	0.471	0.464
201B	0.27	0.27	0.26	0.05	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.898	20	24	0.392	0.403
201C	0.30	0.30	0.29	0.09	0.07	0.06	0.03	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.332	55	11	0.179	0.171
201D	0.28	0.28	0.27	0.07	0.04	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.050	30	24	0.404	0.561
201E	0.28	0.27	0.27	0.06	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.976	25	35	0.575	0.628
202A	0.29	0.29	0.28	0.08	0.05	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.271	85	10	0.163	0.156
202B	0.29	0.29	0.28	0.08	0.05	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.283	80	7	0.117	0.150
202C	0.30	0.29	0.29	0.08	0.06	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.389	90	6	0.092	0.112
202D	0.30	0.30	0.29	0.09	0.07	0.06	0.03	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.362	65	11	0.183	0.229
202E	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.373	60	10	0.171	0.147
202F	0.31	0.30	0.30	0.10	0.07	0.07	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.482	90	5	0.083	0.073
202G	0.31	0.30	0.30	0.10	0.07	0.07	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.475	90	5	0.083	0.069
202H	0.30	0.29	0.29	0.09	0.06	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.332	65	12	0.192	0.140
202I	0.32	0.32	0.32	0.11	0.09	0.09	0.04	0.04	0.04	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	1.878	90	8	0.125	0.121
203A	0.28	0.27	0.26	0.06	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.943	20	37	0.613	0.637
203B	0.30	0.30	0.29	0.09	0.06	0.06	0.02	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.314	55	10	0.167	0.167
203C	0.29	0.28	0.28	0.07	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.104	35	21	0.350	0.417
203D	0.28	0.28	0.27	0.06	0.04	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.028	25	25	0.408	0.496
203E	0.31	0.31	0.31	0.10	0.08	0.08	0.03	0.03	0.03	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.454	55	10	0.167	0.137
203F	0.27	0.26	0.26	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.844	15	40	0.658	0.589
203G	0.28	0.28	0.27	0.07	0.04	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.058	30	30	0.504	0.508
203H	0.30	0.29	0.29	0.09	0.06	0.05	0.02	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.316	60	14	0.233	0.186
203I	0.29	0.29	0.29	0.08	0.06	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.313	80	17	0.279	0.308
203J	0.32	0.32	0.32	0.11	0.09	0.09	0.04	0.04	0.04	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	1.793	90	9	0.150	0.173
203K	0.31	0.31	0.30	0.10	0.08	0.07	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.569	90	13	0.217	0.173
204A	0.30	0.30	0.29	0.09	0.07	0.06	0.03	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.348	60	11	0.188	0.152
204B	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.367	60	13	0.221	0.184
204C	0.32	0.32	0.32	0.11	0.09	0.09	0.04	0.04	0.04	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	1.822	90	9	0.150	0.094
204D	0.32	0.31	0.31	0.11	0.09	0.08	0.04	0.04	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.682	90	10	0.158	0.121

Table S-8c

Time of Concentration and Duration of Rainfall Excess
Future Condition 10-year, 6-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total	Time at			
Subbasin																			Excess	90% Excess	Tc	Tc	R
ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
204E	0.31	0.31	0.30	0.10	0.08	0.07	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.537	90	11	0.188	0.152
204F	0.32	0.32	0.32	0.11	0.09	0.09	0.04	0.04	0.04	0.04	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.706	90	10	0.171	0.128
205A	0.27	0.27	0.26	0.05	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.221	90	28	0.471	0.486
205B	0.27	0.27	0.26	0.05	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.219	90	42	0.696	0.481
205C	0.27	0.27	0.26	0.05	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.217	90	25	0.417	0.479
205D	0.27	0.27	0.26	0.05	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.216	90	31	0.513	0.343
205E	0.27	0.27	0.26	0.05	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.218	90	40	0.671	0.723
205F	0.27	0.27	0.26	0.05	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.215	90	28	0.471	0.374
205G	0.27	0.26	0.25	0.04	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.160	90	30	0.500	0.420
205H	0.27	0.26	0.26	0.04	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.168	90	43	0.713	0.742
205I	0.27	0.26	0.25	0.04	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.985	50	40	0.658	0.578
205J	0.26	0.25	0.24	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.819	15	40	0.667	0.616
205K	0.27	0.26	0.26	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.858	15	49	0.817	1.040
205L	0.26	0.25	0.24	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.781	15	21	0.346	0.290
205M	0.29	0.28	0.28	0.07	0.05	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.199	60	16	0.258	0.221
205N	0.27	0.26	0.26	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.858	15	36	0.592	0.681
206A	0.30	0.29	0.29	0.08	0.06	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.362	90	11	0.188	0.129
206B	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.486	90	11	0.183	0.137
206C	0.29	0.28	0.28	0.07	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.231	85	12	0.192	0.252
206D	0.31	0.31	0.31	0.10	0.08	0.07	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.558	90	9	0.150	0.133
206E	0.29	0.28	0.28	0.07	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.208	70	8	0.138	0.150
206F	0.29	0.29	0.28	0.08	0.05	0.04	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.236	65	13	0.213	0.187
206G	0.30	0.29	0.29	0.09	0.06	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.342	80	15	0.246	0.296
206H	0.31	0.30	0.30	0.10	0.07	0.07	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.483	90	10	0.158	0.141
206I	0.31	0.30	0.30	0.10	0.07	0.07	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.467	90	6	0.092	0.074
206J	0.31	0.31	0.31	0.10	0.08	0.07	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.575	90	9	0.150	0.129
206K	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.362	60	10	0.158	0.168
206L	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.350	60	9	0.154	0.143
206M	0.31	0.30	0.30	0.10	0.07	0.07	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.555	90	10	0.158	0.129

Table S-8c

Time of Concentration and Duration of Rainfall Excess
Future Condition 10-year, 6-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total	Time at			
Subbasin																			Excess	90% Excess	Tc	Tc	R
ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
206N	0.31	0.30	0.30	0.10	0.07	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.581	90	14	0.225	0.167
207A	0.27	0.26	0.26	0.04	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.153	90	39	0.650	0.636
207B	0.27	0.27	0.26	0.05	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.190	90	37	0.621	0.662
207C	0.27	0.26	0.26	0.05	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.986	45	30	0.492	0.448
207D	0.29	0.28	0.28	0.07	0.05	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.353	90	22	0.371	0.319
207E	0.29	0.29	0.28	0.08	0.05	0.05	0.03	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.411	90	24	0.400	0.494
207F	0.28	0.28	0.27	0.06	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.297	90	24	0.400	0.362
207G	0.27	0.27	0.26	0.05	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.950	25	46	0.763	0.847
207H	0.30	0.29	0.29	0.08	0.06	0.05	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.467	90	15	0.242	0.260
207I	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.533	90	10	0.171	0.196
207J	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.513	90	12	0.200	0.184
207K	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.441	90	14	0.233	0.209
207L	0.31	0.30	0.30	0.10	0.07	0.07	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.458	80	12	0.196	0.184
207M	0.30	0.29	0.29	0.09	0.06	0.05	0.02	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.306	55	11	0.179	0.130
207N	0.30	0.30	0.29	0.09	0.06	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.400	90	9	0.146	0.124
207O	0.29	0.29	0.28	0.08	0.05	0.04	0.02	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.244	60	11	0.188	0.129
208A	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.531	90	9	0.142	0.090
208B	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.536	90	8	0.133	0.176
208C	0.29	0.28	0.27	0.06	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.331	90	18	0.300	0.319
208D	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.535	90	10	0.167	0.181
208E	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.535	90	9	0.154	0.159
208F	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.534	90	9	0.150	0.134
208G	0.31	0.30	0.30	0.10	0.07	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.596	90	12	0.196	0.158
208H	0.30	0.30	0.29	0.09	0.06	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.391	90	15	0.246	0.326
208I	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.534	90	10	0.167	0.147
208J	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.534	90	11	0.179	0.225
208K	0.31	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.593	90	8	0.125	0.106
208L	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.551	90	9	0.150	0.161
208M	0.31	0.31	0.31	0.10	0.08	0.07	0.04	0.04	0.04	0.04	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.695	90	12	0.192	0.173

Table S-8c

Time of Concentration and Duration of Rainfall Excess
Future Condition 10-year, 6-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total Excess	Time at 90% Excess	Tc	Tc	R
Subbasin ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
208N	0.32	0.32	0.32	0.11	0.09	0.09	0.04	0.04	0.04	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	1.792	90	12	0.204	0.237
208O	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.528	90	12	0.200	0.163
208P	0.32	0.31	0.31	0.11	0.09	0.08	0.04	0.04	0.04	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.741	90	8	0.129	0.106
208Q	0.31	0.31	0.30	0.10	0.08	0.07	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.630	90	12	0.196	0.199
208R	0.32	0.32	0.31	0.11	0.09	0.09	0.04	0.04	0.04	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.724	90	6	0.092	0.111
208S	0.32	0.32	0.32	0.12	0.09	0.09	0.05	0.04	0.04	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	1.845	90	9	0.154	0.136
208T	0.31	0.30	0.30	0.10	0.07	0.07	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.545	90	10	0.163	0.129
208U	0.31	0.30	0.30	0.10	0.08	0.07	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.545	90	8	0.129	0.070
208V	0.31	0.31	0.31	0.10	0.08	0.08	0.04	0.04	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.580	90	7	0.113	0.110
208W	0.31	0.31	0.31	0.10	0.08	0.08	0.04	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.577	90	8	0.133	0.120
208X	0.30	0.30	0.30	0.09	0.06	0.05	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.444	90	11	0.179	0.119
209A	0.29	0.28	0.28	0.07	0.05	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.350	90	21	0.342	0.203
209B	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.534	90	9	0.150	0.142
209C	0.30	0.30	0.29	0.09	0.06	0.05	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.494	90	13	0.208	0.240
209D	0.30	0.30	0.29	0.09	0.06	0.05	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.498	90	12	0.192	0.110
209E	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.533	90	11	0.188	0.173
209F	0.29	0.28	0.28	0.07	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.342	90	26	0.433	0.393
209G	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.531	90	12	0.196	0.156
209H	0.29	0.29	0.28	0.08	0.05	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.246	70	13	0.217	0.171
209I	0.30	0.29	0.29	0.08	0.06	0.05	0.02	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.257	45	11	0.179	0.108
210A	0.29	0.29	0.28	0.08	0.05	0.04	0.02	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.192	45	10	0.167	0.116
210B	0.31	0.30	0.30	0.10	0.08	0.07	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.501	90	12	0.196	0.205
210C	0.29	0.28	0.28	0.07	0.05	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.202	60	11	0.179	0.159
210D	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.446	85	10	0.171	0.138
210E	0.31	0.31	0.31	0.10	0.08	0.08	0.03	0.03	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.394	45	8	0.138	0.133
210F	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.531	90	9	0.150	0.127
210G	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.475	90	11	0.183	0.155
210H	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.348	50	8	0.138	0.118
210I	0.31	0.31	0.31	0.11	0.09	0.08	0.04	0.04	0.03	0.03	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.468	45	10	0.158	0.185

Table S-8c

Time of Concentration and Duration of Rainfall Excess
Future Condition 10-year, 6-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total	Time at			
Subbasin																			Excess	90% Excess	Tc	Tc	R
ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
210J	0.31	0.30	0.30	0.10	0.08	0.07	0.03	0.03	0.03	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.355	40	11	0.183	0.152
210K	0.31	0.30	0.30	0.10	0.08	0.07	0.03	0.03	0.03	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.355	40	9	0.142	0.092
210L	0.29	0.29	0.28	0.08	0.05	0.04	0.02	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.188	40	11	0.188	0.153
210M	0.30	0.29	0.29	0.09	0.06	0.06	0.02	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.252	40	13	0.213	0.190
210N	0.28	0.27	0.27	0.06	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.058	50	8	0.129	0.084
211A	0.30	0.30	0.29	0.09	0.07	0.06	0.03	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.329	55	11	0.188	0.149
211AA	0.32	0.31	0.31	0.11	0.09	0.08	0.04	0.04	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.601	90	12	0.196	0.231
211AB	0.32	0.32	0.32	0.12	0.10	0.09	0.04	0.04	0.04	0.04	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.774	90	6	0.100	0.068
211AC	0.32	0.32	0.32	0.12	0.10	0.09	0.05	0.05	0.04	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	1.752	90	9	0.154	0.140
211AD	0.32	0.32	0.32	0.12	0.10	0.09	0.05	0.05	0.04	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	1.750	90	8	0.133	0.137
211AE	0.31	0.31	0.30	0.10	0.08	0.07	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.522	90	9	0.154	0.125
211AF	0.32	0.31	0.31	0.11	0.09	0.08	0.04	0.04	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.674	90	7	0.108	0.070
211B	0.30	0.29	0.29	0.09	0.06	0.06	0.02	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.294	50	10	0.163	0.119
211C	0.31	0.31	0.31	0.10	0.08	0.07	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.575	90	10	0.163	0.165
211D	0.29	0.28	0.28	0.07	0.05	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.322	90	13	0.221	0.232
211E	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.498	90	12	0.200	0.120
211F	0.31	0.31	0.31	0.10	0.08	0.07	0.04	0.04	0.04	0.04	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.702	90	13	0.217	0.191
211G	0.33	0.33	0.33	0.13	0.11	0.10	0.05	0.05	0.05	0.05	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.088	90	10	0.167	0.430
211H	0.30	0.30	0.29	0.09	0.07	0.06	0.03	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.297	45	8	0.138	0.104
211I	0.31	0.31	0.31	0.10	0.08	0.07	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.581	90	10	0.158	0.204
211J	0.31	0.31	0.31	0.10	0.08	0.07	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.541	90	7	0.113	0.119
211K	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.419	80	9	0.146	0.073
211L	0.30	0.29	0.29	0.08	0.06	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.417	90	10	0.163	0.109
211M	0.31	0.31	0.31	0.10	0.08	0.08	0.04	0.04	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.639	90	9	0.146	0.112
211N	0.32	0.31	0.31	0.11	0.09	0.08	0.04	0.04	0.04	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.714	90	6	0.104	0.094
211O	0.31	0.31	0.31	0.10	0.08	0.07	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.585	90	7	0.121	0.099
211P	0.32	0.32	0.32	0.11	0.09	0.09	0.04	0.04	0.04	0.04	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.707	90	7	0.121	0.096
211Q	0.30	0.30	0.30	0.09	0.07	0.06	0.03	0.03	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.414	70	6	0.096	0.083
211R	0.31	0.30	0.30	0.10	0.08	0.07	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.499	90	9	0.150	0.118

Table S-8c

Time of Concentration and Duration of Rainfall Excess
Future Condition 10-year, 6-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total	Time at			
Subbasin																			Excess	90% Excess	Tc	Tc	R
ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
211S	0.30	0.29	0.29	0.09	0.06	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.347	80	13	0.208	0.186
211T	0.32	0.32	0.32	0.11	0.09	0.09	0.04	0.04	0.04	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	1.798	90	8	0.138	0.108
211U	0.32	0.32	0.32	0.11	0.09	0.09	0.04	0.04	0.04	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	1.819	90	12	0.192	0.396
211V	0.33	0.33	0.33	0.13	0.11	0.10	0.05	0.05	0.05	0.05	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	2.088	90	7	0.113	0.204
211W	0.32	0.32	0.32	0.12	0.10	0.09	0.05	0.05	0.04	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	1.905	90	7	0.121	0.097
211X	0.31	0.31	0.31	0.10	0.08	0.07	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.652	90	15	0.250	0.180
211Y	0.32	0.32	0.31	0.11	0.09	0.09	0.04	0.04	0.04	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.691	90	13	0.213	0.176
211Z	0.29	0.29	0.28	0.07	0.05	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.305	90	12	0.204	0.153

TABLE S-8d

Table S-8d

Time of Concentration and Duration of Rainfall Excess
Future Condition 10-year, 24-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total	Time at			
Subbasin																			Excess	90% Excess	Tc	Tc	R
ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
201A	0.16	0.16	0.16	0.16	0.16	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.902	30	29	0.483	0.478
201B	0.15	0.15	0.15	0.15	0.15	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.738	25	26	0.425	0.441
201C	0.18	0.18	0.18	0.18	0.17	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.286	90	13	0.217	0.211
201D	0.16	0.16	0.16	0.16	0.16	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.923	30	26	0.433	0.606
201E	0.16	0.16	0.15	0.15	0.15	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.866	30	35	0.579	0.633
202A	0.17	0.17	0.16	0.16	0.16	0.16	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.309	90	12	0.200	0.196
202B	0.17	0.17	0.17	0.16	0.16	0.16	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.315	90	9	0.142	0.186
202C	0.17	0.17	0.17	0.17	0.17	0.16	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.499	90	7	0.113	0.141
202D	0.18	0.18	0.18	0.17	0.17	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.358	90	14	0.225	0.287
202E	0.18	0.18	0.18	0.18	0.18	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.350	90	13	0.208	0.184
202F	0.18	0.18	0.18	0.18	0.18	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.559	90	6	0.096	0.085
202G	0.18	0.18	0.18	0.18	0.18	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.523	90	6	0.092	0.076
202H	0.18	0.17	0.17	0.17	0.17	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.325	90	14	0.233	0.174
202I	0.20	0.20	0.19	0.19	0.19	0.19	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	2.255	90	9	0.150	0.148
203A	0.16	0.16	0.15	0.15	0.15	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.805	25	37	0.613	0.637
203B	0.18	0.18	0.17	0.17	0.17	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.263	90	12	0.204	0.209
203C	0.17	0.16	0.16	0.16	0.16	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.018	30	24	0.396	0.478
203D	0.16	0.16	0.16	0.15	0.15	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.907	30	26	0.438	0.536
203E	0.19	0.19	0.19	0.19	0.19	0.18	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.409	90	12	0.204	0.171
203F	0.15	0.15	0.14	0.14	0.14	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.678	25	39	0.650	0.581
203G	0.16	0.16	0.16	0.16	0.16	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.938	30	31	0.508	0.513
203H	0.18	0.17	0.17	0.17	0.17	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.292	90	17	0.283	0.230
203I	0.17	0.17	0.17	0.17	0.17	0.16	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.340	90	20	0.333	0.375
203J	0.19	0.19	0.19	0.19	0.19	0.19	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.096	90	11	0.179	0.211
203K	0.19	0.18	0.18	0.18	0.18	0.18	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.705	90	16	0.267	0.218
204A	0.18	0.18	0.18	0.18	0.17	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.311	90	14	0.229	0.190
204B	0.18	0.18	0.18	0.18	0.18	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.344	90	16	0.271	0.231
204C	0.20	0.20	0.19	0.19	0.19	0.19	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.135	90	11	0.179	0.114
204D	0.19	0.19	0.19	0.19	0.19	0.19	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.887	90	12	0.192	0.150

Table S-8d

Time of Concentration and Duration of Rainfall Excess
Future Condition 10-year, 24-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total Excess	Time at 90% Excess	Tc	Tc	R
Subbasin ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
204E	0.19	0.18	0.18	0.18	0.18	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.635	90	14	0.225	0.186
204F	0.20	0.20	0.19	0.19	0.19	0.19	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.819	90	12	0.204	0.156
205A	0.15	0.15	0.15	0.14	0.14	0.13	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.299	90	30	0.492	0.510
205B	0.15	0.15	0.15	0.14	0.14	0.13	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.299	90	44	0.729	0.507
205C	0.15	0.15	0.15	0.14	0.14	0.13	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.291	90	27	0.446	0.517
205D	0.15	0.15	0.15	0.14	0.14	0.13	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.299	90	32	0.529	0.356
205E	0.15	0.15	0.15	0.14	0.14	0.13	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.299	90	42	0.700	0.758
205F	0.15	0.15	0.15	0.14	0.14	0.13	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.291	90	30	0.492	0.393
205G	0.15	0.15	0.14	0.14	0.14	0.12	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.207	90	31	0.517	0.436
205H	0.15	0.15	0.15	0.14	0.14	0.13	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.223	90	45	0.742	0.775
205I	0.15	0.15	0.14	0.14	0.14	0.13	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.930	30	40	0.667	0.586
205J	0.14	0.14	0.13	0.13	0.13	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.672	25	40	0.667	0.616
205K	0.15	0.15	0.14	0.14	0.14	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.702	25	49	0.808	1.028
205L	0.14	0.14	0.13	0.13	0.13	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.602	25	24	0.396	0.337
205M	0.17	0.17	0.16	0.16	0.16	0.16	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.189	90	19	0.313	0.273
205N	0.15	0.15	0.15	0.14	0.14	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.695	25	35	0.588	0.676
206A	0.18	0.17	0.17	0.17	0.17	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.428	90	14	0.229	0.161
206B	0.18	0.18	0.18	0.18	0.18	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.607	90	14	0.225	0.172
206C	0.16	0.16	0.16	0.16	0.16	0.15	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.265	90	14	0.238	0.320
206D	0.19	0.18	0.18	0.18	0.18	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.671	90	11	0.183	0.166
206E	0.16	0.16	0.16	0.16	0.16	0.15	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.216	90	10	0.171	0.191
206F	0.17	0.17	0.16	0.16	0.16	0.16	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.236	90	16	0.263	0.236
206G	0.18	0.17	0.17	0.17	0.17	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.370	90	18	0.300	0.369
206H	0.18	0.18	0.18	0.18	0.18	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.538	90	12	0.196	0.179
206I	0.18	0.18	0.18	0.18	0.18	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.508	90	7	0.113	0.092
206J	0.19	0.19	0.19	0.18	0.18	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.701	90	11	0.183	0.161
206K	0.18	0.18	0.18	0.18	0.18	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.329	90	12	0.196	0.213
206L	0.18	0.18	0.18	0.18	0.17	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.312	90	11	0.188	0.178
206M	0.18	0.18	0.18	0.18	0.18	0.18	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.709	90	12	0.192	0.160

Table S-8d

Time of Concentration and Duration of Rainfall Excess
Future Condition 10-year, 24-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total Excess	Time at 90% Excess	Tc	Tc	R
Subbasin ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
206N	0.18	0.18	0.18	0.18	0.18	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.809	90	16	0.271	0.206
207A	0.15	0.15	0.15	0.14	0.14	0.13	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.197	90	41	0.675	0.663
207B	0.15	0.15	0.15	0.14	0.14	0.13	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.253	90	39	0.646	0.692
207C	0.15	0.15	0.15	0.14	0.14	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.920	30	30	0.496	0.452
207D	0.17	0.16	0.16	0.16	0.16	0.15	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.492	90	25	0.413	0.359
207E	0.17	0.17	0.16	0.16	0.16	0.16	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.575	90	26	0.433	0.540
207F	0.16	0.16	0.16	0.15	0.15	0.14	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.408	90	26	0.438	0.400
207G	0.15	0.15	0.15	0.14	0.14	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.853	30	46	0.767	0.852
207H	0.17	0.17	0.17	0.17	0.17	0.16	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.650	90	18	0.296	0.325
207I	0.18	0.18	0.17	0.17	0.17	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.736	90	13	0.208	0.244
207J	0.18	0.18	0.17	0.17	0.17	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.707	90	15	0.246	0.231
207K	0.18	0.18	0.18	0.18	0.18	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.527	90	17	0.288	0.263
207L	0.18	0.18	0.18	0.18	0.18	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.488	90	14	0.238	0.228
207M	0.18	0.18	0.17	0.17	0.17	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.264	90	13	0.221	0.165
207N	0.18	0.17	0.17	0.17	0.17	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.479	90	11	0.179	0.156
207O	0.17	0.17	0.17	0.17	0.17	0.16	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.231	90	14	0.229	0.162
208A	0.18	0.18	0.17	0.17	0.17	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.734	90	11	0.175	0.113
208B	0.18	0.18	0.17	0.17	0.17	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.737	90	10	0.163	0.219
208C	0.16	0.16	0.16	0.16	0.15	0.15	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.457	90	21	0.354	0.383
208D	0.18	0.18	0.17	0.17	0.17	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.737	90	12	0.200	0.221
208E	0.18	0.18	0.17	0.17	0.17	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.737	90	11	0.188	0.198
208F	0.18	0.18	0.17	0.17	0.17	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.736	90	11	0.179	0.163
208G	0.18	0.18	0.18	0.18	0.18	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.835	90	14	0.238	0.196
208H	0.18	0.18	0.17	0.17	0.17	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.473	90	18	0.300	0.406
208I	0.18	0.18	0.17	0.17	0.17	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.737	90	12	0.200	0.180
208J	0.18	0.18	0.17	0.17	0.17	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.737	90	13	0.221	0.284
208K	0.18	0.18	0.18	0.18	0.18	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.830	90	9	0.150	0.130
208L	0.18	0.18	0.18	0.18	0.17	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.764	90	11	0.183	0.202
208M	0.19	0.18	0.18	0.18	0.18	0.18	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.996	90	14	0.229	0.210

Table S-8d

Time of Concentration and Duration of Rainfall Excess
Future Condition 10-year, 24-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total	Time at			
Subbasin																			Excess	90% Excess	Tc	Tc	R
ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
208N	0.20	0.19	0.19	0.19	0.19	0.19	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.071	90	15	0.246	0.291
208O	0.18	0.18	0.18	0.18	0.18	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.721	90	15	0.242	0.201
208P	0.19	0.19	0.19	0.19	0.19	0.19	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.994	90	9	0.154	0.128
208Q	0.19	0.18	0.18	0.18	0.18	0.18	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.861	90	14	0.238	0.247
208R	0.19	0.19	0.19	0.19	0.19	0.19	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.938	90	7	0.108	0.134
208S	0.20	0.20	0.20	0.19	0.19	0.19	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	2.164	90	11	0.183	0.165
208T	0.18	0.18	0.18	0.18	0.18	0.18	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.687	90	12	0.200	0.163
208U	0.19	0.18	0.18	0.18	0.18	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.679	90	10	0.158	0.087
208V	0.19	0.19	0.19	0.19	0.19	0.19	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.674	90	8	0.133	0.133
208W	0.19	0.19	0.19	0.19	0.19	0.18	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.685	90	10	0.163	0.149
208X	0.18	0.18	0.18	0.18	0.17	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.558	90	13	0.217	0.147
209A	0.17	0.16	0.16	0.16	0.16	0.15	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.494	90	23	0.388	0.234
209B	0.18	0.18	0.17	0.17	0.17	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.737	90	11	0.183	0.178
209C	0.18	0.17	0.17	0.17	0.17	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.684	90	15	0.254	0.299
209D	0.18	0.17	0.17	0.17	0.17	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.697	90	14	0.233	0.137
209E	0.18	0.18	0.17	0.17	0.17	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.737	90	14	0.229	0.217
209F	0.17	0.16	0.16	0.16	0.16	0.15	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.476	90	28	0.458	0.418
209G	0.18	0.18	0.17	0.17	0.17	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.736	90	15	0.242	0.197
209H	0.17	0.17	0.17	0.16	0.16	0.16	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.271	90	16	0.263	0.212
209I	0.18	0.17	0.17	0.17	0.17	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.168	45	13	0.221	0.136
210A	0.17	0.17	0.17	0.17	0.16	0.16	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.105	30	13	0.208	0.148
210B	0.19	0.18	0.18	0.18	0.18	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.563	90	14	0.238	0.253
210C	0.17	0.17	0.16	0.16	0.16	0.16	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.182	90	13	0.221	0.201
210D	0.18	0.18	0.18	0.18	0.18	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.483	90	13	0.208	0.172
210E	0.19	0.19	0.19	0.19	0.19	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.253	35	10	0.167	0.165
210F	0.18	0.18	0.18	0.18	0.17	0.17	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.729	90	11	0.183	0.158
210G	0.18	0.18	0.18	0.18	0.18	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.572	90	14	0.225	0.195
210H	0.18	0.18	0.18	0.18	0.18	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.276	90	10	0.171	0.150
210I	0.19	0.19	0.19	0.19	0.19	0.19	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	1.321	45	12	0.192	0.229

Table S-8d

Time of Concentration and Duration of Rainfall Excess
Future Condition 10-year, 24-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total Excess	Time at 90% Excess	Tc	Tc	R
Subbasin ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
210J	0.19	0.18	0.18	0.18	0.18	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.223	35	13	0.221	0.186
210K	0.19	0.18	0.18	0.18	0.18	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.223	35	10	0.171	0.113
210L	0.17	0.17	0.17	0.17	0.16	0.16	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.094	30	14	0.229	0.191
210M	0.18	0.18	0.17	0.17	0.17	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.125	30	16	0.258	0.236
210N	0.15	0.15	0.15	0.15	0.15	0.14	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.992	35	10	0.163	0.108
211A	0.18	0.18	0.18	0.18	0.17	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.275	90	14	0.225	0.183
211AA	0.19	0.19	0.19	0.19	0.19	0.19	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.677	90	14	0.233	0.281
211AB	0.20	0.20	0.20	0.20	0.20	0.19	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.977	90	7	0.121	0.083
211AC	0.20	0.20	0.20	0.20	0.20	0.20	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	1.880	90	11	0.188	0.174
211AD	0.20	0.20	0.20	0.20	0.20	0.20	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.883	90	10	0.163	0.171
211AE	0.19	0.19	0.19	0.18	0.18	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.595	90	11	0.183	0.152
211AF	0.19	0.19	0.19	0.19	0.19	0.19	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.865	90	8	0.133	0.088
211B	0.18	0.18	0.17	0.17	0.17	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.216	70	12	0.200	0.150
211C	0.19	0.19	0.19	0.18	0.18	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.700	90	12	0.196	0.203
211D	0.16	0.16	0.16	0.16	0.16	0.15	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.421	90	16	0.271	0.291
211E	0.18	0.18	0.18	0.18	0.18	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.624	90	15	0.246	0.151
211F	0.19	0.18	0.18	0.18	0.18	0.18	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.007	90	16	0.263	0.236
211G	0.21	0.21	0.20	0.20	0.20	0.20	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.602	90	12	0.200	0.527
211H	0.18	0.18	0.18	0.18	0.17	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.193	45	10	0.167	0.129
211I	0.19	0.19	0.19	0.18	0.18	0.18	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.711	90	12	0.192	0.252
211J	0.19	0.19	0.19	0.18	0.18	0.18	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.617	90	8	0.138	0.148
211K	0.18	0.18	0.18	0.18	0.18	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.442	90	11	0.175	0.090
211L	0.17	0.17	0.17	0.17	0.17	0.16	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.563	90	12	0.200	0.137
211M	0.19	0.19	0.19	0.19	0.19	0.18	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.812	90	11	0.175	0.137
211N	0.19	0.19	0.19	0.19	0.19	0.19	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.941	90	8	0.125	0.116
211O	0.19	0.19	0.19	0.18	0.18	0.18	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.717	90	9	0.146	0.122
211P	0.20	0.20	0.19	0.19	0.19	0.19	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.819	90	9	0.146	0.118
211Q	0.18	0.18	0.18	0.18	0.18	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.414	90	7	0.117	0.103
211R	0.19	0.18	0.18	0.18	0.18	0.18	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.567	90	11	0.183	0.147

Table S-8d

Time of Concentration and Duration of Rainfall Excess
Future Condition 10-year, 24-hour Storm

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
	Excess Rainfall Values (inches) By Decreasing Rank (time interval in minutes)																		Total Excess	Time at 90% Excess	Tc	Tc	R
Subbasin ID	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	(inches)	(minutes)	(min.)	(hours)	(hours)
211S	0.18	0.17	0.17	0.17	0.17	0.17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.377	90	15	0.254	0.232
211T	0.20	0.19	0.19	0.19	0.19	0.19	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.093	90	10	0.167	0.134
211U	0.20	0.19	0.19	0.19	0.19	0.19	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	2.127	90	14	0.229	0.483
211V	0.21	0.20	0.20	0.20	0.20	0.20	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	2.602	90	8	0.138	0.254
211W	0.20	0.20	0.20	0.20	0.20	0.19	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	2.279	90	9	0.146	0.120
211X	0.19	0.18	0.18	0.18	0.18	0.18	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.906	90	18	0.304	0.224
211Y	0.19	0.19	0.19	0.19	0.19	0.19	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.865	90	16	0.258	0.219
211Z	0.17	0.17	0.16	0.16	0.16	0.16	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	1.391	90	15	0.250	0.192

TABLE S-9

Table S-9

Summary of Future Condition Subbasin Parameters

[1] Subbasin ID	[2] Area (sm)	[3] Kb	[4] Slope (ft/mi)	[5] IA (in)	[6] DTHETA	[7] PSIF (in)	[8] XKSAT (in/hr)	[9] RTIMP (%)	[10] Time Area Curve	[11] Total Basin Area (sm)
201A	0.21655	0.07	208	0.13	0.35	5.70	0.19	7.94	HEC-1	
201B	0.08068	0.10	223	0.15	0.38	5.70	0.20	1.84	HEC-1	
201C	0.07857	0.03	206	0.09	0.26	5.70	0.18	23.84	Urban	
201D	0.07093	0.08	207	0.13	0.34	5.70	0.19	8.74	HEC-1	
201E	0.18315	0.08	178	0.13	0.34	5.60	0.23	8.39	HEC-1	0.62989
202A	0.03778	0.03	129	0.09	0.25	4.40	0.34	29.61	Urban	
202B	0.01794	0.03	322	0.09	0.25	4.55	0.31	29.03	Urban	
202C	0.00765	0.04	363	0.08	0.25	4.35	0.35	38.72	Urban	
202D	0.06258	0.03	248	0.09	0.25	5.60	0.20	28.04	Urban	
202E	0.10408	0.03	270	0.09	0.25	5.70	0.18	26.88	Urban	
202F	0.01309	0.03	337	0.08	0.25	5.60	0.20	38.05	Urban	
202G	0.01316	0.03	338	0.08	0.25	5.70	0.18	35.52	Urban	
202H	0.17938	0.03	243	0.09	0.25	5.20	0.22	26.85	Urban	
202I	0.01747	0.03	122	0.06	0.25	5.10	0.24	73.16	Urban	0.45312
203A	0.27918	0.08	229	0.14	0.37	5.70	0.20	4.62	HEC-1	
203B	0.04446	0.04	236	0.09	0.27	5.70	0.18	22.92	Urban	
203C	0.10306	0.07	258	0.12	0.33	5.70	0.20	13.59	HEC-1	
203D	0.10805	0.08	252	0.13	0.34	5.70	0.20	8.61	HEC-1	
203E	0.09335	0.03	219	0.09	0.19	6.60	0.13	25.00	Urban	
203F	0.33332	0.09	237	0.15	0.39	5.70	0.21	0.00	Natural	
203G	0.24821	0.07	215	0.13	0.34	6.00	0.18	9.21	HEC-1	
203H	0.20675	0.03	178	0.09	0.25	5.40	0.21	25.00	Urban	
203I	0.17071	0.03	161	0.09	0.25	4.80	0.27	29.11	Urban	
203J	0.03885	0.03	237	0.07	0.25	5.60	0.20	64.82	Urban	
203K	0.16019	0.03	158	0.08	0.25	5.60	0.19	44.98	Urban	1.78614
204A	0.10768	0.03	175	0.09	0.25	5.80	0.18	25.00	Urban	
204B	0.12598	0.03	128	0.09	0.25	5.80	0.18	26.66	Urban	
204C	0.07669	0.03	142	0.07	0.25	5.70	0.18	66.42	Urban	
204D	0.04409	0.03	96	0.07	0.25	5.70	0.18	53.85	Urban	
204E	0.07051	0.03	108	0.08	0.25	5.70	0.18	41.17	Urban	
204F	0.07714	0.03	135	0.08	0.15	7.00	0.11	45.00	Urban	0.50208
205A	0.11753	0.14	378	0.25	0.35	4.35	0.40	35.00	Natural	
205B	0.21124	0.14	129	0.25	0.35	4.35	0.40	35.00	Natural	
205C	0.05877	0.15	331	0.25	0.35	4.35	0.41	35.00	Natural	
205D	0.31907	0.13	361	0.25	0.35	4.35	0.40	35.00	Natural	
205E	0.21753	0.14	358	0.25	0.35	4.35	0.40	35.00	Natural	
205F	0.16126	0.14	326	0.25	0.35	4.35	0.41	35.00	Natural	
205G	0.18549	0.13	338	0.24	0.35	4.50	0.40	31.23	Natural	
205H	0.26054	0.13	325	0.24	0.35	4.50	0.39	31.55	Natural	

Table S-9

Summary of Future Condition Subbasin Parameters

[1] Subbasin ID	[2] Area (sm)	[3] Kb	[4] Slope (ft/mi)	[5] IA (in)	[6] DTHETA	[7] PSIF (in)	[8] XKSAT (in/hr)	[9] RTIMP (%)	[10] Time Area Curve	[11] Total Basin Area (sm)
205I	0.35388	0.11	326	0.20	0.37	5.20	0.28	15.18	Natural	
205J	0.36947	0.08	243	0.21	0.35	4.90	0.30	3.48	Natural	
205K	0.24538	0.10	249	0.16	0.38	5.60	0.22	1.54	Natural	
205L	0.11764	0.09	284	0.19	0.36	5.00	0.29	0.00	Natural	
205M	0.13853	0.05	230	0.15	0.31	5.40	0.22	22.35	Urban	
205N	0.15606	0.10	245	0.15	0.39	5.70	0.21	0.80	HEC-1	2.91240
206A	0.12778	0.04	256	0.12	0.28	5.30	0.23	33.34	Urban	
206B	0.09522	0.03	139	0.10	0.26	5.20	0.23	41.42	Urban	
206C	0.02378	0.04	138	0.11	0.26	4.35	0.36	28.55	Urban	
206D	0.06165	0.03	236	0.08	0.25	5.70	0.18	43.01	Urban	
206E	0.02274	0.03	175	0.09	0.25	4.30	0.36	25.75	Urban	
206F	0.15713	0.03	217	0.09	0.25	4.60	0.30	24.97	Urban	
206G	0.08946	0.03	132	0.11	0.26	5.20	0.23	29.86	Urban	
206H	0.05895	0.03	183	0.08	0.25	5.70	0.18	36.29	Urban	
206I	0.02083	0.03	286	0.08	0.25	5.70	0.18	34.78	Urban	
206J	0.05990	0.03	214	0.08	0.25	5.70	0.18	44.51	Urban	
206K	0.05577	0.03	255	0.09	0.25	5.70	0.18	25.80	Urban	
206L	0.05951	0.03	231	0.09	0.25	5.80	0.18	25.01	Urban	
206M	0.05958	0.03	166	0.08	0.25	5.20	0.23	46.18	Urban	
206N	0.15176	0.03	120	0.11	0.27	4.65	0.29	52.66	Urban	1.04406
207A	0.25609	0.13	351	0.24	0.35	4.55	0.37	29.81	Natural	
207B	0.20823	0.13	359	0.24	0.35	4.45	0.38	32.42	Natural	
207C	0.17298	0.11	297	0.19	0.37	5.30	0.26	13.69	Natural	
207D	0.19708	0.09	373	0.18	0.31	4.35	0.38	41.30	HEC-1	
207E	0.15651	0.07	315	0.15	0.29	4.35	0.38	44.41	Urban	
207F	0.12613	0.11	296	0.20	0.32	4.40	0.39	38.35	HEC-1	
207G	0.23634	0.10	198	0.17	0.37	5.60	0.23	9.10	HEC-1	
207H	0.12447	0.05	371	0.13	0.27	4.35	0.36	46.78	Urban	
207I	0.07294	0.03	320	0.09	0.25	4.40	0.35	50.00	Urban	
207J	0.09277	0.04	248	0.10	0.26	4.40	0.34	48.61	Urban	
207K	0.12955	0.05	294	0.11	0.27	5.40	0.21	37.19	Urban	
207L	0.08040	0.04	236	0.09	0.26	6.00	0.16	33.25	Urban	
207M	0.11594	0.04	295	0.11	0.28	6.00	0.17	23.09	Urban	
207N	0.04918	0.03	190	0.09	0.25	4.80	0.27	35.87	Urban	
207O	0.13051	0.04	275	0.13	0.29	5.60	0.21	23.47	Urban	2.14911
208A	0.13859	0.03	366	0.09	0.25	4.35	0.35	49.86	Urban	
208B	0.02690	0.03	325	0.09	0.25	4.35	0.35	50.00	Urban	
208C	0.06644	0.11	387	0.20	0.32	4.35	0.38	40.11	HEC-1	
208D	0.07452	0.03	327	0.09	0.25	4.35	0.35	50.00	Urban	

Table S-9

Summary of Future Condition Subbasin Parameters

[1] Subbasin ID	[2] Area (sm)	[3] Kb	[4] Slope (ft/mi)	[5] IA (in)	[6] DTHETA	[7] PSIF (in)	[8] XKSAT (in/hr)	[9] RTIMP (%)	[10] Time Area Curve	[11] Total Basin Area (sm)
208E	0.06205	0.03	306	0.09	0.25	4.35	0.35	50.00	Urban	
208F	0.06910	0.03	293	0.09	0.25	4.35	0.35	49.92	Urban	
208G	0.12941	0.04	299	0.11	0.26	4.60	0.31	54.19	Urban	
208H	0.04276	0.07	283	0.12	0.30	5.60	0.21	35.43	Urban	
208I	0.11709	0.03	363	0.09	0.25	4.35	0.35	50.00	Urban	
208J	0.08107	0.03	353	0.09	0.25	4.35	0.35	50.00	Urban	
208K	0.04756	0.03	317	0.09	0.25	4.35	0.35	54.38	Urban	
208L	0.05884	0.03	334	0.09	0.25	4.40	0.35	51.31	Urban	
208M	0.15941	0.03	321	0.09	0.25	4.40	0.34	62.04	Urban	
208N	0.04713	0.04	160	0.09	0.25	6.20	0.15	62.49	Urban	
208O	0.22988	0.03	347	0.09	0.25	4.60	0.31	48.49	Urban	
208P	0.05837	0.03	312	0.08	0.25	5.70	0.18	59.29	Urban	
208Q	0.09426	0.04	324	0.10	0.26	5.00	0.25	54.26	Urban	
208R	0.01047	0.03	327	0.08	0.23	6.20	0.15	55.16	Urban	
208S	0.06825	0.03	234	0.08	0.24	6.20	0.15	67.07	Urban	
208T	0.13175	0.03	340	0.09	0.25	5.20	0.22	44.80	Urban	
208U	0.13368	0.03	360	0.09	0.25	5.30	0.21	44.19	Urban	
208V	0.02781	0.03	319	0.09	0.21	6.40	0.15	41.15	Urban	
208W	0.05043	0.03	288	0.09	0.23	6.20	0.16	42.74	Urban	
208X	0.07543	0.05	223	0.13	0.29	5.60	0.21	39.42	Urban	2.00121
209A	0.36779	0.08	367	0.18	0.31	4.35	0.38	41.41	HEC-1	
209B	0.08313	0.03	403	0.09	0.25	4.35	0.35	50.00	Urban	
209C	0.06387	0.05	342	0.11	0.26	4.35	0.36	48.03	Urban	
209D	0.24418	0.04	354	0.11	0.26	4.35	0.36	48.63	Urban	
209E	0.14899	0.03	341	0.09	0.25	4.35	0.35	50.00	Urban	
209F	0.22574	0.09	332	0.18	0.31	4.50	0.36	40.21	HEC-1	
209G	0.20380	0.03	306	0.09	0.25	4.35	0.35	49.93	Urban	
209H	0.08348	0.07	343	0.15	0.31	5.60	0.22	26.57	Urban	
209I	0.18233	0.04	347	0.10	0.27	6.00	0.17	17.98	Urban	1.60331
210A	0.12274	0.03	233	0.09	0.25	5.00	0.24	16.65	Urban	
210B	0.10672	0.03	251	0.08	0.25	5.80	0.17	37.15	Urban	
210C	0.08171	0.03	198	0.11	0.26	4.80	0.28	22.29	Urban	
210D	0.13967	0.03	325	0.09	0.25	5.80	0.18	33.66	Urban	
210E	0.02753	0.03	151	0.09	0.17	6.80	0.12	15.00	Urban	
210F	0.09263	0.03	349	0.09	0.25	4.40	0.34	49.44	Urban	
210G	0.16152	0.03	333	0.09	0.25	5.30	0.22	39.22	Urban	
210H	0.06974	0.03	340	0.09	0.23	6.20	0.16	21.74	Urban	
210I	0.04910	0.03	250	0.09	0.15	7.60	0.09	15.00	Urban	
210J	0.10328	0.03	187	0.09	0.19	6.60	0.13	15.00	Urban	

Table S-9

Summary of Future Condition Subbasin Parameters

[1] Subbasin ID	[2] Area (sm)	[3] Kb	[4] Slope (ft/mi)	[5] IA (in)	[6] DTHETA	[7] PSIF (in)	[8] XKSAT (in/hr)	[9] RTIMP (%)	[10] Time Area Curve	[11] Total Basin Area (sm)
210K	0.07706	0.03	207	0.09	0.19	6.60	0.13	15.00	Urban	
210L	0.13741	0.03	251	0.09	0.25	5.20	0.23	15.90	Urban	
210M	0.16239	0.03	232	0.09	0.25	5.80	0.17	15.02	Urban	
210N	0.04852	0.03	178	0.09	0.25	4.10	0.40	16.38	Urban	1.38000
211A	0.14294	0.03	248	0.09	0.25	5.70	0.18	23.09	Urban	
211B	0.10855	0.03	244	0.09	0.25	5.80	0.18	20.22	Urban	
211C	0.04277	0.03	154	0.08	0.25	5.70	0.18	44.48	Urban	
211D	0.07054	0.03	115	0.08	0.25	3.85	0.46	37.42	Urban	
211E	0.15557	0.03	118	0.08	0.25	5.10	0.24	42.21	Urban	
211F	0.11280	0.03	134	0.08	0.25	4.30	0.36	62.81	Urban	
211G	0.00759	0.04	190	0.06	0.25	5.70	0.18	90.00	Urban	
211H	0.07345	0.03	289	0.09	0.25	6.00	0.16	17.93	Urban	
211I	0.04077	0.03	257	0.08	0.25	5.70	0.18	45.00	Urban	
211J	0.01480	0.03	166	0.08	0.23	6.20	0.16	39.19	Urban	
211K	0.10197	0.03	157	0.13	0.27	6.00	0.16	31.48	Urban	
211L	0.09575	0.03	181	0.11	0.26	4.35	0.36	42.40	Urban	
211M	0.08133	0.03	266	0.07	0.25	5.70	0.18	50.05	Urban	
211N	0.02038	0.03	235	0.07	0.25	5.70	0.18	56.58	Urban	
211O	0.04119	0.03	257	0.08	0.25	5.70	0.18	45.31	Urban	
211P	0.03347	0.03	192	0.08	0.15	7.00	0.11	45.00	Urban	
211Q	0.02107	0.03	295	0.08	0.25	5.70	0.18	30.04	Urban	
211R	0.08438	0.03	271	0.08	0.25	5.70	0.18	37.77	Urban	
211S	0.05041	0.07	272	0.11	0.31	5.70	0.19	30.06	Urban	
211T	0.06637	0.03	250	0.07	0.25	5.70	0.18	64.25	Urban	
211U	0.02744	0.03	214	0.07	0.25	5.70	0.18	65.99	Urban	
211V	0.00490	0.04	212	0.06	0.25	5.80	0.18	90.00	Urban	
211W	0.02969	0.03	173	0.06	0.25	5.70	0.18	73.65	Urban	
211X	0.21393	0.03	111	0.10	0.26	4.90	0.26	56.64	Urban	
211Y	0.08928	0.04	147	0.09	0.21	6.60	0.13	50.06	Urban	
211Z	0.08254	0.04	147	0.14	0.27	4.50	0.34	34.43	Urban	
211AA	0.03399	0.03	85	0.08	0.19	6.60	0.13	39.38	Urban	
211AB	0.03974	0.03	321	0.07	0.17	6.80	0.12	54.72	Urban	
211AC	0.02745	0.03	82	0.08	0.15	8.40	0.07	44.76	Urban	
211AD	0.04132	0.03	280	0.08	0.15	8.00	0.08	46.16	Urban	
211AE	0.03443	0.04	153	0.12	0.24	6.40	0.15	38.15	Urban	
211AF	0.05270	0.03	292	0.07	0.25	5.80	0.17	52.43	Urban	2.04349

Total Watershed Are **16.50481**
(excluding non-contributing area)

TABLE S-10

Table S-10

Summary of Clark Unit Hydrograph Parameters
100-year and 10-year Future Condition Tc and R values

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
	Tc				R			
Subbasin	100-year		10-year		100-year		10-year	
ID	6-hour (hours)	24-hour (hours)	6-hour (hours)	24-hour (hours)	6-hour (hours)	24-hour (hours)	6-hour (hours)	24-hour (hours)
201A	0.354	0.400	0.471	0.483	0.338	0.387	0.464	0.478
201B	0.292	0.350	0.392	0.425	0.291	0.356	0.403	0.441
201C	0.150	0.183	0.179	0.217	0.140	0.175	0.171	0.211
201D	0.304	0.363	0.404	0.433	0.409	0.497	0.561	0.606
201E	0.413	0.450	0.575	0.579	0.434	0.478	0.628	0.633
202A	0.138	0.171	0.163	0.200	0.129	0.165	0.156	0.196
202B	0.096	0.121	0.117	0.142	0.121	0.156	0.150	0.186
202C	0.083	0.096	0.092	0.113	0.101	0.118	0.112	0.141
202D	0.154	0.192	0.183	0.225	0.189	0.240	0.229	0.287
202E	0.142	0.175	0.171	0.208	0.120	0.151	0.147	0.184
202F	0.083	0.083	0.083	0.096	0.073	0.073	0.073	0.085
202G	0.083	0.083	0.083	0.092	0.069	0.069	0.069	0.076
202H	0.163	0.200	0.192	0.233	0.116	0.146	0.140	0.174
202I	0.104	0.129	0.125	0.150	0.099	0.125	0.121	0.148
203A	0.433	0.467	0.613	0.613	0.434	0.471	0.637	0.637
203B	0.142	0.175	0.167	0.204	0.140	0.176	0.167	0.209
203C	0.271	0.329	0.350	0.396	0.314	0.390	0.417	0.478
203D	0.308	0.363	0.408	0.438	0.363	0.435	0.496	0.536
203E	0.142	0.175	0.167	0.204	0.114	0.145	0.137	0.171
203F	0.450	0.479	0.658	0.650	0.386	0.414	0.589	0.581
203G	0.375	0.421	0.504	0.508	0.366	0.416	0.508	0.513
203H	0.196	0.242	0.233	0.283	0.153	0.193	0.186	0.230
203I	0.229	0.283	0.279	0.333	0.247	0.313	0.308	0.375
203J	0.125	0.154	0.150	0.179	0.142	0.179	0.173	0.211
203K	0.183	0.225	0.217	0.267	0.144	0.181	0.173	0.218
204A	0.158	0.196	0.188	0.229	0.126	0.160	0.152	0.190
204B	0.188	0.229	0.221	0.271	0.153	0.192	0.184	0.231
204C	0.129	0.158	0.150	0.179	0.079	0.099	0.094	0.114
204D	0.133	0.167	0.158	0.192	0.100	0.128	0.121	0.150
204E	0.158	0.196	0.188	0.225	0.126	0.160	0.152	0.186
204F	0.146	0.175	0.171	0.204	0.107	0.131	0.128	0.156
205A	0.350	0.400	0.471	0.492	0.350	0.406	0.486	0.510
205B	0.508	0.538	0.696	0.729	0.340	0.361	0.481	0.507
205C	0.308	0.367	0.417	0.446	0.343	0.416	0.479	0.517
205D	0.379	0.425	0.513	0.529	0.246	0.279	0.343	0.356
205E	0.488	0.517	0.671	0.700	0.508	0.541	0.723	0.758
205F	0.350	0.400	0.471	0.492	0.269	0.312	0.374	0.393
205G	0.367	0.417	0.500	0.517	0.298	0.343	0.420	0.436
205H	0.513	0.542	0.713	0.742	0.514	0.547	0.742	0.775
205I	0.458	0.488	0.658	0.667	0.386	0.414	0.578	0.586
205J	0.450	0.479	0.667	0.667	0.398	0.427	0.616	0.616
205K	0.546	0.579	0.817	0.808	0.665	0.710	1.040	1.028
205L	0.254	0.317	0.346	0.396	0.206	0.263	0.290	0.337

Table S-10

Summary of Clark Unit Hydrograph Parameters
100-year and 10-year Future Condition Tc and R values

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
	Tc				R			
Subbasin	100-year		10-year		100-year		10-year	
ID	6-hour (hours)	24-hour (hours)	6-hour (hours)	24-hour (hours)	6-hour (hours)	24-hour (hours)	6-hour (hours)	24-hour (hours)
205M	0.213	0.263	0.258	0.313	0.178	0.225	0.221	0.273
205N	0.413	0.450	0.592	0.588	0.457	0.503	0.681	0.676
206A	0.158	0.196	0.188	0.229	0.107	0.135	0.129	0.161
206B	0.154	0.192	0.183	0.225	0.113	0.144	0.137	0.172
206C	0.158	0.196	0.192	0.238	0.204	0.258	0.252	0.320
206D	0.125	0.154	0.150	0.183	0.109	0.137	0.133	0.166
206E	0.113	0.142	0.138	0.171	0.120	0.155	0.150	0.191
206F	0.179	0.221	0.213	0.263	0.154	0.195	0.187	0.236
206G	0.204	0.254	0.246	0.300	0.241	0.307	0.296	0.369
206H	0.138	0.167	0.158	0.196	0.121	0.150	0.141	0.179
206I	0.083	0.096	0.092	0.113	0.066	0.077	0.074	0.092
206K	0.125	0.154	0.150	0.183	0.105	0.133	0.129	0.161
206L	0.133	0.167	0.158	0.196	0.139	0.178	0.168	0.213
206J	0.129	0.158	0.154	0.188	0.117	0.147	0.143	0.178
206M	0.133	0.163	0.158	0.192	0.107	0.133	0.129	0.160
206N	0.188	0.233	0.225	0.271	0.137	0.174	0.167	0.206
207A	0.467	0.496	0.650	0.675	0.440	0.471	0.636	0.663
207B	0.450	0.483	0.621	0.646	0.463	0.502	0.662	0.692
207C	0.354	0.404	0.492	0.496	0.311	0.360	0.448	0.452
207D	0.288	0.346	0.371	0.413	0.241	0.296	0.319	0.359
207E	0.308	0.363	0.400	0.433	0.370	0.443	0.494	0.540
207F	0.304	0.363	0.400	0.438	0.267	0.325	0.362	0.400
207G	0.521	0.554	0.763	0.767	0.555	0.594	0.847	0.852
207H	0.204	0.250	0.242	0.296	0.215	0.270	0.260	0.325
207I	0.142	0.175	0.171	0.208	0.159	0.201	0.196	0.244
207J	0.171	0.208	0.200	0.246	0.154	0.192	0.184	0.231
207K	0.196	0.242	0.233	0.288	0.172	0.217	0.209	0.263
207L	0.167	0.204	0.196	0.238	0.154	0.193	0.184	0.228
207M	0.150	0.188	0.179	0.221	0.107	0.137	0.130	0.165
207O	0.125	0.150	0.146	0.179	0.104	0.128	0.124	0.156
207N	0.158	0.192	0.188	0.229	0.107	0.133	0.129	0.162
210A	0.121	0.150	0.142	0.175	0.075	0.096	0.090	0.113
208A	0.113	0.138	0.133	0.163	0.146	0.182	0.176	0.219
208B	0.238	0.296	0.300	0.354	0.246	0.314	0.319	0.383
208C	0.138	0.171	0.167	0.200	0.146	0.186	0.181	0.221
208D	0.129	0.158	0.154	0.188	0.131	0.164	0.159	0.198
208E	0.125	0.154	0.150	0.179	0.109	0.138	0.134	0.163
208F	0.167	0.204	0.196	0.238	0.132	0.165	0.158	0.196
208G	0.204	0.254	0.246	0.300	0.265	0.338	0.326	0.406
208H	0.138	0.171	0.167	0.200	0.119	0.151	0.147	0.180
208I	0.154	0.188	0.179	0.221	0.190	0.237	0.225	0.284
208J	0.104	0.129	0.125	0.150	0.087	0.110	0.106	0.130
208K	0.125	0.158	0.150	0.183	0.132	0.171	0.161	0.202

Table S-10

Summary of Clark Unit Hydrograph Parameters
100-year and 10-year Future Condition Tc and R values

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
	Tc				R			
Subbasin	100-year		10-year		100-year		10-year	
ID	6-hour (hours)	24-hour (hours)	6-hour (hours)	24-hour (hours)	6-hour (hours)	24-hour (hours)	6-hour (hours)	24-hour (hours)
208L	0.163	0.196	0.192	0.229	0.144	0.177	0.173	0.210
208M	0.175	0.213	0.204	0.246	0.200	0.248	0.237	0.291
208N	0.167	0.208	0.200	0.242	0.133	0.170	0.163	0.201
208O	0.108	0.133	0.129	0.154	0.087	0.109	0.106	0.128
208P	0.167	0.204	0.196	0.238	0.166	0.209	0.199	0.247
208Q	0.083	0.092	0.092	0.108	0.100	0.111	0.111	0.134
208R	0.129	0.158	0.154	0.183	0.112	0.141	0.136	0.165
208S	0.138	0.171	0.163	0.200	0.107	0.136	0.129	0.163
208T	0.108	0.133	0.129	0.158	0.057	0.072	0.070	0.087
208U	0.096	0.117	0.113	0.133	0.092	0.114	0.110	0.133
208V	0.113	0.138	0.133	0.163	0.099	0.124	0.120	0.149
208W	0.150	0.183	0.179	0.217	0.098	0.122	0.119	0.147
208X	0.263	0.325	0.342	0.388	0.152	0.192	0.203	0.234
210B	0.125	0.154	0.150	0.183	0.116	0.147	0.142	0.178
210C	0.175	0.213	0.208	0.254	0.198	0.245	0.240	0.299
210D	0.163	0.200	0.192	0.233	0.092	0.116	0.110	0.137
210E	0.158	0.196	0.188	0.229	0.144	0.182	0.173	0.217
210F	0.329	0.383	0.433	0.458	0.290	0.343	0.393	0.418
210G	0.167	0.204	0.196	0.242	0.130	0.163	0.156	0.197
210H	0.179	0.221	0.217	0.263	0.138	0.175	0.171	0.212
210I	0.150	0.183	0.179	0.221	0.088	0.110	0.108	0.136
210J	0.142	0.175	0.167	0.208	0.097	0.122	0.116	0.148
210K	0.167	0.204	0.196	0.238	0.171	0.214	0.205	0.253
209A	0.150	0.183	0.179	0.221	0.131	0.164	0.159	0.201
209C	0.146	0.179	0.171	0.208	0.116	0.145	0.138	0.172
209B	0.117	0.142	0.138	0.167	0.111	0.138	0.133	0.165
209D	0.125	0.158	0.150	0.183	0.103	0.134	0.127	0.158
209E	0.154	0.192	0.183	0.225	0.128	0.163	0.155	0.195
209F	0.117	0.146	0.138	0.171	0.098	0.126	0.118	0.150
209G	0.138	0.167	0.158	0.192	0.158	0.196	0.185	0.229
209H	0.154	0.192	0.183	0.221	0.125	0.159	0.152	0.186
209I	0.117	0.146	0.142	0.171	0.074	0.095	0.092	0.113
210L	0.158	0.192	0.188	0.229	0.127	0.156	0.153	0.191
210M	0.179	0.221	0.213	0.258	0.157	0.198	0.190	0.236
210N	0.108	0.138	0.129	0.163	0.069	0.090	0.084	0.108
211K	0.158	0.192	0.188	0.225	0.124	0.153	0.149	0.183
211G	0.167	0.200	0.196	0.233	0.193	0.237	0.231	0.281
211I	0.083	0.104	0.100	0.121	0.055	0.071	0.068	0.083
211H	0.133	0.163	0.154	0.188	0.119	0.148	0.140	0.174
211J	0.113	0.138	0.133	0.163	0.114	0.142	0.137	0.171
211M	0.129	0.158	0.154	0.183	0.103	0.129	0.125	0.152
211N	0.092	0.113	0.108	0.133	0.058	0.073	0.070	0.088
211O	0.138	0.167	0.163	0.200	0.099	0.122	0.119	0.150

Table S-10

Summary of Clark Unit Hydrograph Parameters
100-year and 10-year Future Condition Tc and R values

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
	Tc				R			
Subbasin ID	100-year		10-year		100-year		10-year	
	6-hour (hours)	24-hour (hours)	6-hour (hours)	24-hour (hours)	6-hour (hours)	24-hour (hours)	6-hour (hours)	24-hour (hours)
211P	0.138	0.167	0.163	0.196	0.137	0.169	0.165	0.203
211L	0.183	0.229	0.221	0.271	0.189	0.242	0.232	0.291
211Q	0.171	0.208	0.200	0.246	0.101	0.126	0.120	0.151
211R	0.183	0.225	0.217	0.263	0.158	0.199	0.191	0.236
211U	0.142	0.175	0.167	0.200	0.359	0.454	0.430	0.527
211S	0.117	0.142	0.138	0.167	0.087	0.108	0.104	0.129
211V	0.133	0.163	0.158	0.192	0.168	0.210	0.204	0.252
211T	0.096	0.117	0.113	0.138	0.099	0.124	0.119	0.148
211W	0.121	0.150	0.146	0.175	0.060	0.076	0.073	0.090
211X	0.138	0.167	0.163	0.200	0.091	0.112	0.109	0.137
211A	0.125	0.150	0.146	0.175	0.094	0.115	0.112	0.137
211B	0.088	0.108	0.104	0.125	0.078	0.099	0.094	0.116
211C	0.104	0.125	0.121	0.146	0.084	0.103	0.099	0.122
211D	0.100	0.125	0.121	0.146	0.077	0.099	0.096	0.118
211E	0.083	0.100	0.096	0.117	0.071	0.087	0.083	0.103
211F	0.125	0.154	0.150	0.183	0.096	0.122	0.118	0.147
211Y	0.175	0.213	0.208	0.254	0.154	0.190	0.186	0.232
211Z	0.117	0.146	0.138	0.167	0.090	0.115	0.108	0.134
211AA	0.163	0.200	0.192	0.229	0.330	0.415	0.396	0.483
211AB	0.096	0.117	0.113	0.138	0.170	0.212	0.204	0.254
211AC	0.100	0.125	0.121	0.146	0.079	0.101	0.097	0.120
211AD	0.213	0.263	0.250	0.304	0.151	0.190	0.180	0.224
211AE	0.183	0.221	0.213	0.258	0.149	0.184	0.176	0.219
211AF	0.171	0.208	0.204	0.250	0.126	0.157	0.153	0.192

TABLE R-1

Table R-1

Reach Route Physical Data

Reach Route Concentration Points		In		Length		Elevation (feet)		Slope
Top	Bottom	Sub-Basin	Cross Section Source	Feet	Miles	Top	Bottom	(ft/ft)
501	502	201C	200 Scale 2' CI Mapping	3000	0.5681	1639.0	1578.0	0.0203
502	503	201E	200 Scale 2' CI Mapping	2453	0.4646	1578.0	1533.0	0.0183
503	504	202A	200 Scale 2' CI Mapping	1151	0.2180	1548.5	1537.2	0.0098
508	507	202D	Plan Set #23 & 200 Scale Mapping	934	0.1770	1527.6	1525.0	0.0028
511	512	202I	200 Scale 2' CI Mapping	760	0.1440	1534.5	1526.0	0.0112
512	591	203K	Too Short to Route	586	0.1110	1532.0	1528.0	0.0068
513	514	203B	200 Scale 2' CI Mapping	2403	0.4550	1791.7	1734.0	0.0240
514	515	203D	Too Short to Route	347	0.0657	1734.0	1728.0	0.0173
515	517	203E	200 Scale 2' CI Mapping	3340	0.6326	1728.0	1666.0	0.0186
516	517	203G	200 Scale 2' CI Mapping	6720	1.2727	1809.0	1666.0	0.0213
517	518	203H	Escalante Wash Section 3.522	4367	0.8271	1666.0	1590.0	0.0174
518	519	203I	Escalante Wash Section 3.072	1796	0.3402	1590.0	1551.0	0.0217
519	591	203K	Escalante Wash Section 2.695	1274	0.2412	1551.0	1528.0	0.0181
520	591	203K	Hydrology Field Reconnaissance	2014	0.3815	1578.0	1528.0	0.0248
522	523	204B	200 Scale 2' CI Mapping	3275	0.6202	1714.0	1649.6	0.0197
523	524	204C	Caliente Wash Section 2.072	1732	0.3281	1649.6	1619.0	0.0177
523	548	206G	Plan Set #18 & 200 Scale Mapping	2680	0.5075	1658.6	1608.0	0.0189
524	525	204D	Caliente Wash Section 1.898	1045	0.1979	1619.0	1597.0	0.0211
525	526	204E	Caliente Wash Section 1.663	1520	0.2879	1597.0	1565.0	0.0211
526	527	204F	Caliente Wash Section 1.186	2129	0.4032	1565.0	1526.1	0.0183
528	530	205C	Hydrology Field Reconnaissance	2594	0.4914	2622.0	2438.0	0.0709
529	530	205E	Too Short to Route	557	0.1056	2480.0	2438.0	0.0753
530	531	205F	Hydrology Field Reconnaissance	2426	0.4594	2438.0	2340.0	0.0404
531	532	205G	Hydrology Field Reconnaissance	3391	0.6423	2340.0	2183.0	0.0463
532	533	205I	Hydrology Field Reconnaissance	1555	0.2945	2183.0	2139.0	0.0283
533	534	205J	Hydrology Field Reconnaissance	7145	1.3532	2139.0	1967.0	0.0241
534	535	205L	Hydrology Field Reconnaissance	2037	0.3858	1967.0	1922.0	0.0221
535	536	205M	Hesperus Wash Section 3.275	2975	0.5635	1922.0	1851.9	0.0236
536	537	206A	Hesperus Wash Section 2.729	1480	0.2802	1851.9	1821.0	0.0209
537	538	206B	Hesperus Wash Section 2.493	2155	0.4081	1821.0	1775.8	0.0210
538	540	206C	Hesperus Wash Section 1.990	2176	0.4122	1775.8	1730.0	0.0210
539	540	206E	200 Scale 2' CI Mapping	1872	0.3546	1778.0	1730.0	0.0256
540	541	206F	Balboa Wash Section 1.645	4207	0.7967	1730.0	1644.0	0.0204
541	548	206G	Balboa Wash Section 0.905	1138	0.2155	1644.0	1608.0	0.0316
542	543	206I	Oxford Wash Section 0.931	686	0.1298	1718.5	1714.0	0.0066
543	544	206K	Hydrology Field Reconnaissance & 200 Scale Mappin	597	0.1130	1718.5	1702.0	0.0277
543	547	206J	Oxford Wash Section 0.638	2395	0.4536	1714.0	1647.5	0.0278
544	545	206J	Hydrology Field Reconnaissance & 200 Scale Mappin	985	0.1865	1702.0	1679.0	0.0234
545	547	206J	Oxford Wash Section 0.542	1216	0.2303	1679.0	1647.5	0.0259
545	546	206J	Hydrology Field Reconnaissance & 200 Scale	428	0.0811	1679.0	1672.0	0.0164
546	547	206J	Plan Set #18 & 200 Scale Mapping	749	0.1419	1672.0	1647.5	0.0327
547	548	206M	Oxford Wash Section 0.235	2165	0.4101	1647.5	1608.0	0.0182

Table R-1

Reach Route Physical Data

Reach Route Concentration Points		In		Length		Elevation (feet)		Slope
Top	Bottom	Sub-Basin	Cross Section Source	Feet	Miles	Top	Bottom	(ft/ft)
548	549	206N	Balboa Wash Section 0.246	3258	0.6170	1608.0	1552.0	0.0172
549	626	211Z	Ashbrook Wash Section 1.855	2044	0.3870	1552.0	1517.0	0.0171
550	552	207C	Hydrology Field Reconnaissance	3413	0.6463	2237.0	2074.0	0.0478
551	552	207E	100 Scale 4' CI Mapping	4410	0.8352	2307.0	2074.0	0.0528
552	553	207F	Hydrology Field Reconnaissance	1336	0.2530	2074.0	2029.0	0.0337
553	556	207G	Ashbrook Wash Section 6.118	2393	0.4533	2029.0	1968.0	0.0255
554	555	207I	100 Scale 4' CI Mapping	2497	0.4729	2291.0	2129.0	0.0649
555	556	207J	200 Scale 2' CI Mapping	3353	0.6350	2129.0	1968.0	0.0480
556	557	207K	Ashbrook Wash Section 5.765	2298	0.4353	1968.0	1908.2	0.0260
557	558	207M	Ashbrook Wash Section 5.254	2652	0.5022	1908.2	1844.0	0.0242
558	560	207O	Ashbrook Wash Section 4.839	1986	0.3761	1844.0	1807.2	0.0185
559	560	207O	200 Scale 2' CI Mapping	2170	0.4109	1857.0	1807.2	0.0230
560	585	210A	Ashbrook Wash Section 4.311	3127	0.5923	1807.2	1722.0	0.0272
561	563	208B	100 Scale 4' CI Mapping	2335	0.4423	2425.0	2225.0	0.0856
562	563	208D	100 Scale 4' CI Mapping	3745	0.7092	2639.0	2225.0	0.1106
563	564	208E	Bristol Wash Section 2.667	2762	0.5230	2225.0	2076.0	0.0540
564	565	208G	Bristol Wash Section 2.236	3243	0.6141	2076.0	1947.0	0.0398
565	568	208H	Bristol Wash Section 1.853	2254	0.4269	1947.0	1872.0	0.0333
566	567	208K	Cholula Wash Section 0.766	1463	0.2770	2074.0	2014.0	0.0410
567	568	208M	Cholula Wash Section 0.129	3650	0.6912	2014.0	1872.0	0.0389
568	573	208N	Bristol Wash Section 1.340	2067	0.3916	1872.0	1805.0	0.0324
569	570	208P	Zapata Wash Section 0.493	1696	0.3212	1939.0	1870.4	0.0404
570	572	208S	Too Short to Route	277	0.0525	1870.4	1848.0	0.0809
571	572	208S	200 Scale 2' CI Mapping	1379	0.2611	1926.0	1848.0	0.0566
572	573	208S	Zapata Wash Section 0.142	1285	0.2433	1848.0	1805.0	0.0335
573	577	208X	Too Short to Route	443	0.0839	1805.0	1793.0	0.0271
574	575	208V	Montezuma Wash Section 0.587	823	0.1558	1947.0	1917.0	0.0365
575	576	208W	Montezuma Wash Section 0.307	2342	0.4435	1917.0	1818.0	0.0423
576	577	208X	Montezuma Wash Section 0.116	740	0.1402	1818.0	1793.0	0.0338
577	578	208X	Bristol Wash Section 1.099	1078	0.2042	1793.0	1777.1	0.0147
578	587	210C	Bristol Wash Section 0.697	1628	0.3083	1777.1	1746.0	0.0191
579	580	209B	100 Scale 4' CI Mapping	1751	0.3317	2426.0	2321.0	0.0600
580	581	209D	100 Scale 4' CI Mapping	2339	0.4430	2321.0	2218.0	0.0440
581	582	209F	100 Scale 4' CI Mapping	4012	0.7599	2218.0	2034.0	0.0459
582	583	209H	100 Scale 4' CI Mapping	1725	0.3267	2034.0	1994.0	0.0232
583	584	209I	Cloudburst Wash Section 1.664	3107	0.5884	1994.0	1883.5	0.0356
584	597	210L	Cloudburst Wash Section 1.032	3704	0.7015	1883.5	1787.0	0.0261
585	599	210N	Storage Route at Dam 4	1474	0.2791	1722.0	1693.9	0.0191
586	587	210C	200 Scale 2' CI Mapping	1905	0.3608	1805.6	1746.0	0.0313
587	595	210C	Bristol Wash Section 0.533	1039	0.1967	1746.0	1728.0	0.0173
588	590	210E	Longmont Left Branch Wash Section 0.128	1117	0.2116	1836.0	1798.0	0.0340
589	590	210G	Longmont Wash Section 0.813	1751	0.3316	1872.0	1798.0	0.0423

Table R-1

Reach Route Physical Data

Reach Route Concentration Points		In		Length		Elevation (feet)		Slope
Top	Bottom	Sub-Basin	Cross Section Source	Feet	Miles	Top	Bottom	(ft/ft)
590	593	210I	Too Short to Route	303	0.0574	1798.0	1790.0	0.0264
591	521	203K	Escalante Wash Section 2.614	915	0.1733	1528.0	1515.0	0.0142
592	593	210I	Longmont Right Branch Wash Section 0.583	2062	0.3906	1875.0	1790.0	0.0412
593	594	210I	Longmont Wash Section 0.413	988	0.1871	1790.0	1770.0	0.0202
594	595	210J	Longmont Wash Section 0.184	2093	0.3963	1770.0	1728.0	0.0201
595	596	210K	Bristol Wash Section 0.290	1095	0.2073	1728.0	1716.0	0.0110
596	599	210N	Storage Route at Dam 4	1271	0.2406	1716.0	1693.9	0.0174
597	598	210M	Cloudburst Wash Section 0.328	2822	0.5344	1787.0	1716.0	0.0252
598	599	210N	Storage Route at Dam 4	1051	0.1990	1716.0	1693.9	0.0210
599	608	211K	Ashbrook Wash Section 3.621	1476	0.2796	1693.9	1672.0	0.0148
600	601	211B	Tulip Wash Section 1.538	2406	0.4556	1751.0	1708.7	0.0176
601	602	211C	Tulip Wash Section 1.102	1765	0.3344	1708.7	1683.0	0.0146
602	603	211E	Lengend Wash Section 0.672	2610	0.4943	1683.0	1628.0	0.0211
603	622	211F	Lengend Wash Section 0.287	2745	0.5199	1628.0	1572.0	0.0204
604	606	211I	Plan Set #18 & 200 Scale Mapping	2784	0.5273	1897.0	1717.0	0.0647
605	606	211I	Too short to route	254	0.0480	1728.0	1717.0	0.0434
606	607	211J	200 Scale 2' CI Mapping	1061	0.2010	1717.0	1686.6	0.0286
607	608	211K	200 Scale 2' CI Mapping	1008	0.1909	1686.6	1672.0	0.0145
608	613	211L	Ashbrook Wash Section 3.421	1338	0.2534	1672.0	1645.0	0.0202
609	611	211N	Plan Set #34 & 200 Scale Mapping	470	0.0889	1693.4	1684.0	0.0200
610	611	211N	Sunflower Wash Section 0.216	1090	0.2065	1707.0	1684.0	0.0211
611	620	211W	Lag Route (storm drain)	635	0.1203	1684.0	1663.0	0.0331
611	612	211P	Plan Set #18 & 200 Scale Mapping	925	0.1753	1684.0	1659.0	0.0270
612	613	211L	Too Short to Route	291	0.0552	1659.0	1645.0	0.0480
613	621	211L	Ashbrook Wash Section 3.241	718	0.1359	1645.0	1627.0	0.0251
614	617	211R	Too Short to Route	887	0.1681	1844.8	1797.5	0.0533
614	615	211V	Hydrology Field Reconnaissance	1114	0.2110	1844.2	1800.0	0.0397
615	618	211S	Hydrology Field Reconnaissance	499	0.0946	1798.3	1731.5	0.1338
615	619	211T	Hydrology Field Reconnaissance	2444	0.4629	1799.7	1679.1	0.0493
616	617	211R	200 Scale 2' CI Mapping	1131	0.2142	1860.0	1797.5	0.0553
617	618	211S	Arrow Wash Section 0.836	1912	0.3621	1797.5	1731.5	0.0345
618	619	211T	Arrow Wash Section 0.441	1837	0.3479	1731.5	1679.1	0.0285
619	620	211W	Lag Route (storm drain)	737	0.1396	1679.1	1663.0	0.0218
620	621	211L	Arrow Wash Section 0.081	915	0.1732	1663.0	1627.0	0.0394
621	622	211X	Ashbrook Wash Section 2.785	3830	0.7254	1627.0	1572.0	0.0144
622	549	211Y	Ashbrook Wash Section 2.279	1697	0.3215	1572.0	1552.0	0.0118
623	624	211AC	Plan Set #19 & 200 Scale Mapping	701	0.1327	1540.0	1532.0	0.0114
624	626	211Z	Ashbrook Wash Section 1.727	637	0.1207	1532.0	1517.0	0.0235
625	626	211Z	Plan Set #19 & 200 Scale Mapping	1350	0.2557	1551.0	1517.0	0.0252
626	627	211AE	Ashbrook Wash Section 1.602	625	0.1183	1517.0	1504.0	0.0208

TABLE R-2a

Table R-2a
Reach Route Hydraulic Data for the 10-year, 6-hour Storm
Future Condition

Routing Reach	Reach						Manning's Equation				Computed Using HEC-1 Summary Data					NSTEPS from HEC-1 Input File
	Slope in ft/ft	Length in feet	Average n value	Discharge, in cfs			Channel Base Width in feet	Flow Top Width in feet	Flow Depth in feet	Channel Velocity in fps	Wave Celerity in fps	Velocity Range in fps		Travel Time in hours	NSTEPS Computed	
				Top	Bottom	Average						Min.	Max.			
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
501502	0.020	3000	0.045	233	228	231	30.0	61.0	1.2	4.4	5.6	3.0	4.7	0.1500	9	9
502503	0.018	2453	0.045	307	302	305	120.0	194.3	0.8	3.1	4.1	2.2	3.4	0.1667	10	10
503504	0.010	1151	0.045	0	0	0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0000	1	1
508507	0.003	934	0.027	116	108	112	14.0	58.4	2.3	2.5	3.1	1.6	2.9	0.0833	5	5
511512	0.011	760	0.045	245	244	245	20.0	47.6	1.8	4.1	6.3	2.5	9.5	0.0333	2	2
513514	0.024	2403	0.045	125	124	125	20.0	52.2	1.0	3.9	5.0	2.7	4.3	0.1333	8	8
515517	0.019	3340	0.045	220	217	219	20.0	56.0	1.4	4.3	5.6	3.0	4.7	0.1667	10	9
516517	0.021	6720	0.045	202	192	197	40.0	57.9	1.0	4.3	5.3	3.0	4.2	0.3500	21	21
517518	0.017	4367	0.035	424	418	421	16.6	46.1	2.2	6.7	9.1	4.8	7.8	0.1333	8	8
518519	0.022	1796	0.051	475	474	475	45.4	70.3	1.8	5.3	7.5	3.6	7.5	0.0667	4	4
519591	0.018	1274	0.050	576	574	575	68.8	80.5	2.0	4.8	7.1	3.2	8.0	0.0500	3	3
520591	0.025	2014	0.024	75	72	74	16.0	41.1	0.5	6.2	8.4	4.0	8.4	0.0667	4	4
522523	0.020	3275	0.050	196	178	187	15.0	63.3	1.4	3.7	5.5	3.0	4.6	0.1667	10	10
523524	0.018	1732	0.050	226	226	226	20.8	49.4	1.8	4.2	7.2	3.5	7.2	0.0667	4	4
523548	0.019	2680	0.045	0	0	0	40.0	0.0	0.0	0.0	0.0	1.1	1.5	0.3833	23	23
524525	0.021	1045	0.035	288	284	286	22.2	37.5	1.7	6.1	8.7	3.5	13.1	0.0333	2	2
525526	0.021	1520	0.035	369	362	366	19.8	33.1	2.1	7.1	12.7	5.1	19.0	0.0333	2	2
526527	0.018	2129	0.035	484	471	478	42.6	56.7	1.6	6.7	11.8	5.3	13.3	0.0500	3	3
528530	0.071	2594	0.043	247	246	247	10.0	19.6	2.0	9.5	14.4	6.5	16.3	0.0500	3	3
530531	0.040	2426	0.059	596	592	594	15.0	43.3	3.6	8.1	13.5	6.1	15.2	0.0500	3	3
531532	0.046	3391	0.065	669	663	666	18.0	36.8	3.0	8.5	11.3	5.6	10.6	0.0833	5	5
532533	0.028	1555	0.046	808	806	807	17.0	45.2	3.1	8.9	13.0	5.2	19.5	0.0333	2	2
533534	0.024	7145	0.046	907	892	900	87.0	107.3	2.0	6.2	9.2	5.1	7.5	0.2167	13	13
534535	0.022	2037	0.046	978	974	976	75.0	99.6	3.2	6.4	8.5	4.1	8.5	0.0667	4	4
535536	0.024	2975	0.050	972	968	970	15.6	66.4	3.4	7.2	9.9	4.9	9.3	0.0833	5	5
536537	0.021	1480	0.050	271	271	271	45.7	54.1	1.7	4.3	8.2	3.7	9.3	0.0500	3	3
537538	0.021	2155	0.050	273	273	273	5.2	46.6	2.3	4.9	9.0	4.3	9.0	0.0667	4	4
538540	0.021	2176	0.050	273	273	273	41.1	64.7	1.3	4.3	6.0	3.1	5.5	0.1000	6	6
539540	0.026	1872	0.050	124	117	121	10.0	43.8	1.3	3.9	6.2	3.1	5.9	0.0833	5	5

Table R-2a
Reach Route Hydraulic Data for the 10-year, 6-hour Storm
Future Condition

Routing Reach	Reach						Manning's Equation				Computed Using HEC-1 Summary Data					NSTEPS from HEC-1 Input File
	Slope in ft/ft	Length in feet	Average n value	Discharge, in cfs			Channel Base Width in feet	Flow Top Width in feet	Flow Depth in feet	Channel Velocity in fps	Wave Celerity in fps	Velocity Range in fps		Travel Time in hours	NSTEPS Computed	
				Top	Bottom	Average						Min.	Max.			
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
540541	0.020	4207	0.035	275	275	275	17.5	37.4	1.8	6.5	10.0	5.2	8.8	0.1167	7	7
541548	0.032	1138	0.045	357	355	356	7.8	80.9	1.8	5.4	9.5	3.8	14.3	0.0333	2	2
542543	0.007	686	0.040	114	110	112	26.8	33.0	1.8	2.9	5.7	2.3	8.6	0.0333	2	2
543544	0.028	597	0.040	0	0	0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0000	1	1
543547	0.028	2395	0.040	150	143	147	34.5	38.3	1.3	4.6	8.0	4.0	7.5	0.0833	5	5
544545	0.023	985	0.019	100	98	99	30.0	64.2	0.5	6.0	8.2	3.3	12.3	0.0333	2	2
545547	0.026	1216	0.040	49	47	48	26.7	29.6	0.7	2.8	5.1	2.4	5.1	0.0667	4	4
545546	0.016	428	0.020	49	48	49	30.0	67.2	0.4	4.0	7.1	2.1	10.7	0.0167	1	1
546547	0.033	749	0.020	157	156	157	16.0	39.7	0.8	9.2	12.5	3.7	18.8	0.0167	1	1
547548	0.018	2165	0.040	446	433	440	29.8	51.0	1.9	6.1	9.0	4.3	9.0	0.0667	4	4
548549	0.017	3258	0.080	646	641	644	66.1	85.2	2.5	3.8	6.0	3.3	5.1	0.1500	9	9
549626	0.017	2044	0.120	2118	2102	2110	13.5	197.7	6.5	3.6	4.9	2.5	4.3	0.1167	7	7
550552	0.053	4410	0.045	298	295	297	10.0	18.6	2.3	9.5	14.7	7.3	13.8	0.0833	5	5
551552	0.053	4410	0.045	213	209	211	10.0	17.2	1.9	8.4	12.3	6.3	11.1	0.1000	6	6
552553	0.034	1336	0.056	577	574	576	21.0	97.0	1.5	5.5	11.1	4.4	16.7	0.0333	2	2
553556	0.026	2393	0.048	634	630	632	7.5	38.2	3.5	8.2	13.3	6.0	15.0	0.0500	3	3
554555	0.065	2497	0.045	174	168	171	20.0	32.9	1.0	6.8	10.4	5.0	10.4	0.0667	4	4
555556	0.048	3353	0.050	269	260	265	35.0	51.9	1.6	6.0	7.0	3.7	6.0	0.1333	8	8
556557	0.026	2298	0.046	824	821	823	30.4	96.4	1.7	6.5	12.8	5.7	14.4	0.0500	3	3
557558	0.024	2652	0.045	886	883	885	72.0	89.3	2.7	6.6	11.0	5.3	11.1	0.0667	4	4
558560	0.019	1986	0.045	898	896	897	71.6	85.2	2.7	6.0	11.0	5.0	12.4	0.0500	3	3
559560	0.023	2170	0.045	95	89	92	10.0	37.8	1.1	3.8	6.0	3.1	5.4	0.1000	6	6
560585	0.027	3127	0.026	234	234	234	35.5	66.0	0.8	6.7	8.7	4.5	7.8	0.1000	6	6
561563	0.086	2335	0.045	295	289	292	18.0	24.6	1.5	9.9	19.5	7.8	29.3	0.0333	2	2
562563	0.111	3745	0.046	73	72	73	5.0	17.8	0.7	7.9	10.4	5.3	9.4	0.1000	6	6
563564	0.054	2762	0.080	492	476	484	4.5	22.0	3.8	8.0	11.5	5.5	11.5	0.0667	4	4
564565	0.040	3243	0.080	676	651	664	8.6	60.0	2.9	6.1	9.0	4.6	8.1	0.1000	6	6
565568	0.033	2254	0.058	779	765	772	17.9	48.4	2.8	7.8	12.5	5.6	14.1	0.0500	3	3
566567	0.041	1463	0.080	346	334	340	11.7	43.2	3.0	5.1	8.1	3.7	9.2	0.0500	3	3

Table R-2a
Reach Route Hydraulic Data for the 10-year, 6-hour Storm
Future Condition

Routing Reach	Reach						Manning's Equation				Computed Using HEC-1 Summary Data					NSTEPS from HEC-1 Input File
	Slope in ft/ft	Length in feet	Average n value	Discharge, in cfs			Channel Base Width in feet	Flow Top Width in feet	Flow Depth in feet	Channel Velocity in fps	Wave Celerity in fps	Velocity Range in fps		Travel Time in hours	NSTEPS Computed	
				Top	Bottom	Average						Min.	Max.			
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
567568	0.039	3650	0.057	517	497	507	16.4	50.2	2.0	6.9	8.7	4.6	7.6	0.1167	7	7
568573	0.032	2067	0.078	1231	1214	1223	8.7	61.6	4.9	7.3	11.5	5.2	13.0	0.0500	3	3
569570	0.040	1696	0.036	410	404	407	10.6	22.1	3.2	11.9	14.1	5.6	21.3	0.0333	2	2
571572	0.057	1379	0.020	22	21	22	32.0	41.5	0.2	5.1	11.5	4.6	17.3	0.0333	2	2
572573	0.034	1285	0.040	695	690	693	22.5	41.8	2.3	11.2	10.7	4.3	16.1	0.0333	2	2
574575	0.037	823	0.050	561	557	559	6.4	24.3	4.1	9.3	13.7	4.1	20.6	0.0167	1	1
575576	0.042	2342	0.053	616	601	609	0.5	29.0	3.4	10.4	19.5	7.8	29.3	0.0333	2	2
576577	0.034	740	0.053	697	694	696	0.1	27.2	4.1	10.4	12.3	3.7	18.5	0.0167	1	1
577578	0.015	1078	0.047	1864	1855	1860	24.1	86.3	4.9	8.0	9.0	3.6	13.5	0.0333	2	2
578587	0.019	1628	0.046	311	311	311	15.3	44.7	1.7	5.3	9.0	4.1	10.2	0.0500	3	3
579580	0.060	1751	0.047	491	488	490	5.0	24.4	2.4	12.2	14.6	5.8	21.9	0.0333	2	2
580581	0.044	2339	0.047	657	651	654	10.0	39.5	2.5	10.4	13.0	5.8	14.7	0.0500	3	3
581582	0.046	4012	0.048	1080	1059	1070	5.0	34.6	3.6	13.3	16.7	8.0	16.8	0.0667	4	4
582583	0.023	1725	0.057	1317	1303	1310	10.0	61.5	4.2	8.7	14.4	5.7	21.6	0.0333	2	2
583584	0.036	3107	0.070	1355	1332	1344	26.1	61.0	4.9	7.3	10.4	5.2	9.7	0.0833	5	4
584597	0.026	3704	0.050	341	341	341	64.7	92.6	1.4	4.4	6.2	3.4	5.2	0.1667	10	10
586587	0.031	1905	0.036	161	160	161	10.0	24.7	1.3	7.7	10.6	4.8	11.9	0.0500	3	3
587595	0.017	1039	0.046	378	378	378	20.0	38.0	2.2	6.2	8.7	3.5	13.0	0.0333	2	2
588590	0.034	1117	0.051	268	264	266	13.4	40.2	1.9	6.0	9.3	3.7	14.0	0.0333	2	2
589590	0.042	1751	0.050	183	177	180	12.7	19.2	2.2	6.4	14.6	5.8	21.9	0.0333	2	2
591521	0.014	915	0.050	590	589	590	75.9	89.6	2.1	4.4	5.1	2.3	5.7	0.0500	3	3
592593	0.041	2062	0.050	141	134	138	7.8	17.7	2.0	5.5	17.2	6.9	25.8	0.0333	2	2
593594	0.020	988	0.056	919	906	913	14.9	69.8	3.6	6.9	8.2	3.3	12.4	0.0333	2	2
594595	0.020	2093	0.050	968	926	947	5.9	120.5	4.6	5.4	7.0	3.5	6.6	0.0833	5	5
595596	0.011	1095	0.049	1023	1019	1021	32.4	112.4	4.4	5.2	6.1	2.7	6.9	0.0500	3	3
597598	0.025	2822	0.050	371	369	370	32.2	56.3	2.1	5.2	7.8	4.0	7.1	0.1000	6	6
599608	0.015	1476	0.045	751	751	751	15.2	65.4	3.5	6.0	8.2	3.7	9.2	0.0500	3	4
600601	0.018	2406	0.025	236	231	234	14.1	34.0	1.9	7.5	13.4	6.0	15.1	0.0500	3	3
601602	0.015	1765	0.040	396	388	392	23.8	34.2	2.8	6.0	9.8	4.4	11.1	0.0500	3	3

Table R-2a
Reach Route Hydraulic Data for the 10-year, 6-hour Storm
Future Condition

Routing Reach	Reach						Manning's Equation				Computed Using HEC-1 Summary Data					NSTEPS from HEC-1 Input File
	Slope in ft/ft	Length in feet	Average n value	Discharge, in cfs			Channel Base Width in feet	Flow Top Width in feet	Flow Depth in feet	Channel Velocity in fps	Wave Celerity in fps	Velocity Range in fps		Travel Time in hours	NSTEPS Computed	
				Top	Bottom	Average						Min.	Max.			
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
602603	0.021	2610	0.047	552	538	545	12.7	36.7	2.8	7.3	10.9	5.2	10.9	0.0667	4	4
603622	0.020	2745	0.045	742	728	735	50.6	65.0	2.7	6.3	9.2	4.6	8.6	0.0833	5	5
604606	0.065	2784	0.028	11	10	11	16.0	44.4	0.2	3.6	4.2	2.3	3.5	0.1833	11	11
606607	0.029	1061	0.055	178	175	177	10.0	25.4	2.0	5.3	8.9	3.5	13.3	0.0333	2	2
607608	0.015	1008	0.049	199	197	198	1.0	27.8	3.1	4.9	8.4	3.4	12.6	0.0333	2	2
608613	0.020	1338	0.046	748	748	748	26.2	78.1	2.3	6.2	7.4	3.3	8.4	0.0500	3	3
609611	0.020	470	0.050	53	52	53	10.0	14.8	1.2	3.8	7.8	2.3	11.8	0.0167	1	1
610611	0.021	1090	0.045	171	166	169	18.5	27.2	1.8	4.8	18.1	5.4	27.3	0.0167	1	1
611612	0.027	925	0.050	0	0	0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0000	1	1
613621	0.025	718	0.047	746	746	746	42.7	76.5	2.0	6.8	11.9	3.6	18.0	0.0167	1	1
614615	0.040	1114	0.020	25	24	25	32.0	41.3	0.2	4.7	6.2	2.8	7.0	0.0500	3	3
615618	0.134	499	0.019	21	21	21	14.0	13.8	0.4	10.4	8.3	2.5	12.5	0.0167	1	1
615619	0.049	2444	0.024	11	11	11	2.3	12.1	0.5	4.9	5.8	3.0	5.1	0.1167	7	8
616617	0.055	1131	0.060	46	44	45	5.0	20.8	1.1	3.7	9.4	3.8	14.2	0.0333	2	2
617618	0.035	1912	0.060	225	214	220	40.4	50.7	1.3	4.5	8.0	3.8	8.0	0.0667	4	4
618619	0.029	1837	0.060	294	283	289	8.0	27.9	3.3	5.2	6.1	3.1	5.8	0.0833	5	5
619620	0.029	800	0.027	175	175	175	40.0	95.8	0.7	5.4	13.3	4.0	20.1	0.0167	1	1
620621	0.039	915	0.050	321	321	321	10.1	23.5	2.9	6.8	15.2	4.6	22.9	0.0167	1	1
621622	0.014	3830	0.049	998	990	994	2.7	95.5	3.0	5.9	10.6	5.5	9.6	0.1000	6	6
622549	0.012	1697	0.125	1551	1541	1546	189.8	208.5	3.3	2.6	4.0	2.1	3.5	0.1167	7	7
623624	0.011	701	0.024	96	95	96	16.0	44.9	0.7	5.4	11.7	3.5	17.6	0.0167	1	1
624626	0.024	637	0.067	151	147	149	65.4	119.6	1.1	2.7	3.5	1.6	4.0	0.0500	3	3
625626	0.025	1350	0.020	56	54	55	34.0	54.7	0.5	5.1	7.5	3.4	8.5	0.0500	3	3
626627	0.021	625	0.061	2184	2183	2184	63.2	122.3	3.7	6.9	10.4	3.1	15.7	0.0167	1	2

TABLE R-2b

Table R-2b
Reach Route Hydraulic Data for the 10-year, 24-hour Storm
Future Condition

Routing Reach	Reach						Manning's Equation				Computed Using HEC-1 Summary Data					NSTEPS from HEC-1 Input File
	Slope in ft/ft	Length in feet	Average n value	Discharge, in cfs Top	Bottom	Average	Channel Base Width in feet	Flow Top Width in feet	Flow Depth in feet	Channel Velocity in fps	Wave Celerity in fps	Velocity Range in fps Min.	Max.	Travel Time in hours	NSTEPS Computed	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
501502	0.020	3000	0.045	160	158	159	30.0	55.8	1.0	3.9	5.6	3.0	4.7	0.1500	9	9
502503	0.018	2453	0.045	217	215	216	120.0	182.1	0.7	2.8	3.7	2.0	3.1	0.1833	11	11
503504	0.010	1151	0.045	0	0	0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0000	1	1
508507	0.003	934	0.031	40	38	39	14.0	27.0	1.7	2.0	2.6	1.3	2.3	0.1000	6	6
511512	0.011	760	0.045	176	175	176	20.0	43.4	1.6	3.7	6.3	2.5	9.5	0.0333	2	2
513514	0.024	2403	0.045	96	95	96	20.0	48.3	0.9	3.6	5.7	3.0	5.0	0.1167	7	7
515517	0.019	3340	0.045	171	169	170	20.0	52.0	1.3	4.0	4.6	2.6	3.8	0.2000	12	12
516517	0.021	6720	0.045	144	139	142	40.0	55.1	0.9	3.8	5.9	3.4	4.7	0.3167	19	19
517518	0.017	4367	0.035	384	379	382	16.6	44.7	2.1	6.5	9.1	4.8	7.8	0.1333	8	8
518519	0.022	1796	0.051	424	420	422	45.4	69.0	1.7	5.1	10.0	4.5	11.3	0.0500	3	3
519591	0.018	1274	0.050	512	510	511	68.8	79.8	1.9	4.6	10.6	4.2	16.0	0.0333	2	2
520591	0.025	2014	0.022	43	42	43	16.0	38.5	0.4	5.3	8.4	4.0	8.4	0.0667	4	4
522523	0.020	3275	0.050	109	105	107	15.0	52.8	1.1	3.2	5.0	2.7	4.1	0.1833	11	11
523524	0.018	1732	0.050	172	171	172	20.8	45.6	1.6	3.9	4.8	2.5	4.3	0.1000	6	6
523548	0.019	2680	0.045	0	0	0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0000	1	1
524525	0.021	1045	0.035	205	204	205	22.2	35.2	1.5	5.5	5.8	2.6	6.5	0.0500	3	3
525526	0.021	1520	0.035	247	245	246	19.8	30.7	1.8	6.2	8.4	3.8	9.5	0.0500	3	3
526527	0.018	2129	0.035	312	309	311	42.6	53.7	1.3	5.8	8.9	4.2	8.9	0.0667	4	4
528530	0.071	2594	0.043	160	159	160	10.0	17.7	1.6	8.1	14.4	6.5	16.3	0.0500	3	3
530531	0.040	2426	0.059	449	446	448	15.0	32.7	3.2	7.6	10.1	4.8	10.1	0.0667	4	4
531532	0.046	3391	0.065	528	524	526	18.0	34.2	2.7	7.8	11.3	5.6	10.6	0.0833	5	5
532533	0.028	1555	0.046	703	701	702	17.0	43.5	3.0	8.5	13.0	5.2	19.5	0.0333	2	2
533534	0.024	7145	0.046	847	831	839	87.0	106.6	1.9	6.0	9.2	5.1	7.5	0.2167	13	13
534535	0.022	2037	0.046	997	991	994	75.0	100.2	3.2	6.4	8.5	4.1	8.5	0.0667	4	4
535536	0.024	2975	0.050	1007	1000	1004	15.6	67.1	3.5	7.2	9.9	4.9	9.3	0.0833	5	5
536537	0.021	1480	0.050	272	272	272	45.7	54.1	1.7	4.3	6.2	3.0	6.2	0.0667	4	4
537538	0.021	2155	0.050	275	275	275	5.2	46.8	2.3	4.9	9.0	4.3	9.0	0.0667	4	4
538540	0.021	2176	0.050	278	278	278	41.1	64.9	1.3	4.4	6.0	3.1	5.5	0.1000	6	6
539540	0.026	1872	0.050	69	67	68	10.0	36.5	1.0	3.3	5.2	2.7	4.7	0.1000	6	6

Table R-2b
Reach Route Hydraulic Data for the 10-year, 24-hour Storm
Future Condition

Routing Reach	Reach						Manning's Equation				Computed Using HEC-1 Summary Data					NSTEPS from HEC-1 Input File
	Slope in ft/ft	Length in feet	Average n value	Discharge, in cfs Top	Bottom	Average	Channel Base Width in feet	Flow Top Width in feet	Flow Depth in feet	Channel Velocity in fps	Wave Celerity in fps	Velocity Range in fps Min.	Max.	Travel Time in hours	NSTEPS Computed	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
540541	0.020	4207	0.035	285	282	284	17.5	37.7	1.8	6.6	10.0	5.2	8.8	0.1167	7	7
541548	0.032	1138	0.045	366	364	365	7.8	81.7	1.8	5.4	4.7	2.3	4.8	0.0667	4	4
542543	0.007	686	0.040	63	62	63	26.8	31.2	1.4	2.3	5.7	2.3	8.6	0.0333	2	2
543544	0.028	597	0.040	0	0	0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0000	1	1
543547	0.028	2395	0.040	85	83	84	34.5	37.4	1.1	3.8	10.0	4.8	10.0	0.0667	4	4
544545	0.023	985	0.019	55	55	55	30.0	63.2	0.4	4.9	8.2	3.3	12.3	0.0333	2	2
545547	0.026	1216	0.040	27	27	27	26.7	28.8	0.6	2.3	6.8	3.0	7.6	0.0500	3	3
545546	0.016	428	0.020	27	27	27	30.0	66.1	0.3	3.3	7.1	2.1	10.7	0.0167	1	1
546547	0.033	749	0.020	88	88	88	16.0	39.0	0.6	7.5	12.5	3.7	18.8	0.0167	1	1
547548	0.018	2165	0.040	261	256	259	29.8	45.9	1.5	5.1	9.0	4.3	9.0	0.0667	4	4
548549	0.017	3258	0.080	685	676	681	66.1	85.9	2.6	3.9	5.4	3.0	4.5	0.1667	10	10
549626	0.017	2044	0.120	2432	2406	2419	13.5	200.1	6.8	3.8	4.9	2.5	4.3	0.1167	7	7
550552	0.053	4410	0.045	197	195	196	10.0	17.0	1.9	8.2	12.3	6.3	11.1	0.1000	6	6
551552	0.053	4410	0.045	132	131	132	10.0	15.7	1.5	7.1	12.3	6.3	11.1	0.1000	6	6
552553	0.034	1336	0.056	451	451	451	21.0	95.4	1.4	5.1	7.4	3.3	8.4	0.0500	3	4
553556	0.026	2393	0.048	513	511	512	7.5	33.9	3.2	7.9	10.0	4.8	10.0	0.0667	4	4
554555	0.065	2497	0.045	100	99	100	20.0	29.8	0.8	5.7	10.4	5.0	10.4	0.0667	4	4
555556	0.048	3353	0.050	161	158	160	35.0	45.6	1.4	5.2	7.0	3.7	6.0	0.1333	8	8
556557	0.026	2298	0.046	735	732	734	30.4	95.9	1.6	6.2	9.6	4.6	9.6	0.0667	4	4
557558	0.024	2652	0.045	803	800	802	72.0	88.4	2.6	6.3	8.8	4.4	8.3	0.0833	5	5
558560	0.019	1986	0.045	817	815	816	71.6	84.5	2.6	5.8	11.0	5.0	12.4	0.0500	3	3
559560	0.023	2170	0.045	51	50	51	10.0	31.3	0.9	3.2	5.2	2.7	4.5	0.1167	7	7
560585	0.027	3127	0.026	226	226	226	35.5	65.7	0.8	6.6	8.7	4.5	7.8	0.1000	6	6
561563	0.086	2335	0.045	152	151	152	18.0	22.6	1.0	7.8	19.5	7.8	29.3	0.0333	2	2
562563	0.111	3745	0.046	43	43	43	5.0	16.9	0.6	6.6	12.5	6.2	11.7	0.0833	5	5
563564	0.054	2762	0.080	275	270	273	4.5	19.1	2.9	6.7	9.2	4.6	8.7	0.0833	5	5
564565	0.040	3243	0.080	391	382	387	8.6	57.5	2.3	5.2	7.7	4.0	6.8	0.1167	7	7
565568	0.033	2254	0.059	481	477	479	17.9	46.1	2.2	6.5	12.5	5.6	14.1	0.0500	3	3
566567	0.041	1463	0.080	192	189	191	11.7	35.3	2.4	4.4	6.1	2.9	6.1	0.0667	4	4

Table R-2b
Reach Route Hydraulic Data for the 10-year, 24-hour Storm
Future Condition

Routing Reach	Reach						Manning's Equation				Computed Using HEC-1 Summary Data					NSTEPS from HEC-1 Input File
	Slope in ft/ft	Length in feet	Average n value	Discharge, in cfs			Channel Base Width in feet	Flow Top Width in feet	Flow Depth in feet	Channel Velocity in fps	Wave Celerity in fps	Velocity Range in fps		Travel Time in hours	NSTEPS Computed	
				Top	Bottom	Average						Min.	Max.			
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
567568	0.039	3650	0.058	294	288	291	16.4	47.1	1.5	5.6	10.1	5.2	9.1	0.1000	6	6
568573	0.032	2067	0.077	913	904	909	8.7	58.2	4.4	6.6	8.6	4.1	8.6	0.0667	4	4
569570	0.040	1696	0.035	229	227	228	10.6	18.6	2.6	9.8	28.2	8.5	42.5	0.0167	1	1
571572	0.057	1379	0.020	12	12	12	32.0	39.4	0.1	4.3	11.5	4.6	17.3	0.0333	2	2
572573	0.034	1285	0.037	397	394	396	22.5	35.5	1.7	9.4	21.4	6.4	32.2	0.0167	1	1
574575	0.037	823	0.050	298	297	298	6.4	20.1	3.1	7.5	13.7	4.1	20.6	0.0167	1	1
575576	0.042	2342	0.051	330	327	329	0.5	26.1	2.7	8.5	13.0	5.8	14.7	0.0500	3	3
576577	0.034	740	0.052	382	381	382	0.1	24.5	3.2	8.6	0.0	0.0	0.0	0.0000	1	1
577578	0.015	1078	0.047	1654	1646	1650	24.1	85.1	4.7	7.7	9.0	3.6	13.5	0.0333	2	2
578587	0.019	1628	0.046	302	302	302	15.3	44.5	1.6	5.3	6.8	3.2	6.8	0.0667	4	4
579580	0.060	1751	0.047	290	289	290	5.0	21.6	1.8	10.4	14.6	5.8	21.9	0.0333	2	2
580581	0.044	2339	0.047	410	406	408	10.0	34.5	2.0	9.1	13.0	5.8	14.7	0.0500	3	3
581582	0.046	4012	0.048	773	760	767	5.0	31.3	3.1	12.2	16.7	8.0	16.8	0.0667	4	4
582583	0.023	1725	0.057	1068	1060	1064	10.0	56.6	3.8	8.3	9.6	4.3	10.8	0.0500	3	3
583584	0.036	3107	0.070	1122	1108	1115	26.1	58.1	4.6	6.9	10.4	5.2	9.7	0.0833	5	5
584597	0.026	3704	0.050	333	333	333	64.7	92.4	1.4	4.4	6.2	3.4	5.2	0.1667	10	10
586587	0.031	1905	0.035	103	101	102	10.0	21.2	1.1	6.6	10.6	4.8	11.9	0.0500	3	3
587595	0.017	1039	0.045	358	358	358	20.0	37.0	2.2	6.1	8.7	3.5	13.0	0.0333	2	2
588590	0.034	1117	0.050	149	147	148	13.4	37.1	1.6	4.9	9.3	3.7	14.0	0.0333	2	2
589590	0.042	1751	0.050	98	97	98	12.7	17.4	1.7	5.1	9.7	4.4	11.0	0.0500	3	3
591521	0.014	915	0.050	535	534	535	75.9	88.8	2.0	4.3	5.1	2.3	5.7	0.0500	3	3
592593	0.041	2062	0.050	76	75	76	7.8	15.3	1.6	4.5	11.5	5.1	12.9	0.0500	3	3
593594	0.020	988	0.056	509	506	508	14.9	64.9	2.9	6.0	8.2	3.3	12.4	0.0333	2	2
594595	0.020	2093	0.050	556	547	552	5.9	89.5	4.0	4.9	5.8	3.0	5.2	0.1000	6	6
595596	0.011	1095	0.049	1029	1025	1027	32.4	113.0	4.5	5.2	6.1	2.7	6.9	0.0500	3	3
597598	0.025	2822	0.050	340	340	340	32.2	55.2	2.0	5.1	6.7	3.5	5.9	0.1167	7	7
599608	0.015	1476	0.045	770	770	770	15.2	65.8	3.5	6.1	8.2	3.7	9.2	0.0500	3	3
600601	0.018	2406	0.025	143	140	142	14.1	28.6	1.6	6.5	10.0	4.8	10.1	0.0667	4	4
601602	0.015	1765	0.040	245	241	243	23.8	31.9	2.3	5.0	9.8	4.4	11.1	0.0500	3	3

Table R-2b
Reach Route Hydraulic Data for the 10-year, 24-hour Storm
Future Condition

Routing Reach	Reach						Manning's Equation				Computed Using HEC-1 Summary Data					NSTEPS from HEC-1 Input File
	Slope in ft/ft	Length in feet	Average n value	Discharge, in cfs			Channel Base Width in feet	Flow Top Width in feet	Flow Depth in feet	Channel Velocity in fps	Wave Celerity in fps	Velocity Range in fps		Travel Time in hours	NSTEPS Computed	
				Top	Bottom	Average						Min.	Max.			
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
602603	0.021	2610	0.047	338	333	336	12.7	33.9	2.2	6.2	10.9	5.2	10.9	0.0667	4	4
603622	0.020	2745	0.045	473	465	469	50.6	61.5	2.2	5.4	9.2	4.6	8.6	0.0833	5	5
604606	0.065	2784	0.028	7	7	7	16.0	41.9	0.2	3.3	4.2	2.3	3.5	0.1833	11	11
606607	0.029	1061	0.055	125	124	125	10.0	23.0	1.7	4.7	5.9	2.6	6.6	0.0500	3	3
607608	0.015	1008	0.050	140	139	140	1.0	23.0	2.8	4.4	8.4	3.4	12.6	0.0333	2	2
608613	0.020	1338	0.047	772	772	772	26.2	78.3	2.3	6.3	11.2	4.5	16.8	0.0333	2	2
609611	0.020	470	0.050	39	39	39	10.0	14.1	1.0	3.4	7.8	2.3	11.8	0.0167	1	1
610611	0.021	1090	0.045	94	94	94	18.5	24.9	1.4	3.9	9.1	3.6	13.7	0.0333	2	2
611612	0.027	925	0.050	0	0	0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0000	1	1
613621	0.025	718	0.047	772	772	772	42.7	76.7	2.1	6.9	11.9	3.6	18.0	0.0167	1	1
614615	0.040	1114	0.021	15	15	15	32.0	30.9	0.1	4.3	6.2	2.8	7.0	0.0500	3	3
615618	0.134	499	0.018	13	13	13	14.0	11.2	0.4	9.3	8.3	2.5	12.5	0.0167	1	1
615619	0.049	2444	0.024	6	6	6	2.3	9.9	0.4	4.2	5.8	3.0	5.1	0.1167	7	7
616617	0.055	1131	0.060	24	24	24	5.0	17.2	0.8	3.1	9.4	3.8	14.2	0.0333	2	2
617618	0.035	1912	0.060	124	122	123	40.4	48.1	1.0	3.7	8.0	3.8	8.0	0.0667	4	4
618619	0.029	1837	0.060	165	158	162	8.0	23.5	2.6	4.3	5.1	2.6	4.6	0.1000	6	6
619620	0.029	800	0.027	157	157	157	40.0	93.1	0.7	5.3	13.3	4.0	20.1	0.0167	1	1
620621	0.039	915	0.050	273	273	273	10.1	22.5	2.7	6.4	7.6	3.0	11.5	0.0333	2	2
621622	0.014	3830	0.049	1073	1051	1062	2.7	97.1	3.1	6.0	8.0	4.2	6.9	0.1333	8	8
622549	0.012	1697	0.125	1731	1708	1720	189.8	209.1	3.5	2.7	4.0	2.1	3.5	0.1167	7	7
623624	0.011	701	0.022	51	51	51	16.0	39.7	0.6	4.6	0.0	0.0	0.0	0.0000	1	1
624626	0.024	637	0.065	83	82	83	65.4	94.2	0.9	2.4	5.3	2.1	8.0	0.0333	2	2
625626	0.025	1350	0.019	34	33	34	34.0	44.9	0.4	4.6	5.6	2.7	5.6	0.0667	4	4
626627	0.021	625	0.061	2481	2477	2479	63.2	123.5	3.9	7.2	10.4	3.1	15.7	0.0167	1	1

TABLE R-2c

Table R-2c
Reach Route Hydraulic Data for the 100-year, 6-hour Storm
Future Condition

Routing Reach	Reach						Manning's Equation				Computed Using HEC-1 Summary Data					NSTEPS from HEC-1 Input File
	Slope in ft/ft	Length in feet	Average n value	Discharge, in cfs			Channel Base Width in feet	Flow Top Width in feet	Flow Depth in feet	Channel Velocity in fps	Wave Celerity in fps	Velocity Range in fps		Travel Time in hours	NSTEPS Computed	
				Top	Bottom	Average						Min.	Max.			
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
501502	0.020	3000	0.045	524	511	518	30.0	76.3	1.9	5.6	8.3	4.3	7.5	0.1000	6	6
502503	0.018	2453	0.045	699	687	693	120.0	232.0	1.2	3.9	5.8	3.1	5.1	0.1167	7	7
503504	0.010	1151	0.045	0	0	0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0000	1	1
508507	0.003	934	0.026	232	224	228	14.0	83.8	2.8	3.0	3.9	1.9	3.9	0.0667	4	4
511512	0.011	760	0.050	482	472	477	20.0	96.3	2.5	4.8	4.2	1.9	4.8	0.0500	3	3
513514	0.024	2403	0.045	380	366	373	20.0	73.0	1.6	5.2	5.7	3.0	5.0	0.1167	7	7
515517	0.019	3340	0.045	599	590	595	20.0	71.8	2.3	5.8	9.3	4.8	8.4	0.1000	6	6
516517	0.021	6720	0.045	524	495	510	40.0	69.6	1.7	5.8	8.0	4.5	6.5	0.2333	14	14
517518	0.017	4367	0.045	1181	1163	1172	16.6	109.6	3.3	8.6	10.4	5.4	9.1	0.1167	7	7
518519	0.022	1796	0.052	1199	1192	1196	45.4	83.7	2.8	7.1	15.0	6.0	22.5	0.0333	2	2
519591	0.018	1274	0.050	1257	1254	1256	68.8	86.8	2.9	6.4	10.6	4.2	16.0	0.0333	2	2
520591	0.025	2014	0.025	123	119	121	16.0	44.6	0.6	7.3	16.8	6.7	25.2	0.0333	2	2
522523	0.020	3275	0.050	334	309	322	15.0	76.3	1.8	4.3	6.1	3.3	5.1	0.1500	9	9
523524	0.018	1732	0.057	502	484	493	20.8	77.0	2.5	5.2	5.8	2.9	5.4	0.0833	5	5
523548	0.019	2680	0.025	68	60	64	40.0	77.2	0.4	3.8	4.1	2.2	3.4	0.1833	11	11
524525	0.021	1045	0.035	555	550	553	22.2	43.4	2.4	7.7	8.7	3.5	13.1	0.0333	2	2
525526	0.021	1520	0.035	596	586	591	19.8	36.8	2.7	8.4	25.3	7.6	38.1	0.0167	1	2
526527	0.018	2129	0.035	798	776	787	42.6	61.3	2.1	8.0	11.8	5.3	13.3	0.0500	3	2
528530	0.071	2594	0.043	548	545	547	10.0	23.9	2.8	12.4	14.4	6.5	16.3	0.0500	3	3
530531	0.040	2426	0.059	1340	1326	1333	15.0	49.4	4.9	10.0	13.5	6.1	15.2	0.0500	3	3
531532	0.046	3391	0.064	1504	1490	1497	18.0	48.4	4.4	11.0	14.1	6.8	14.2	0.0667	4	4
532533	0.028	1555	0.048	1854	1850	1852	17.0	54.7	4.5	11.5	13.0	5.2	19.5	0.0333	2	2
533534	0.024	7145	0.047	2132	2100	2116	87.0	126.1	2.9	8.4	11.9	6.5	9.9	0.1667	10	10
534535	0.022	2037	0.047	2427	2417	2422	75.0	143.0	4.4	8.1	11.3	5.1	12.8	0.0500	3	3
535536	0.024	2975	0.066	2441	2419	2430	15.6	229.2	4.9	7.7	6.2	3.3	5.3	0.1333	8	8
536537	0.021	1480	0.050	326	326	326	45.7	55.0	1.8	4.6	8.2	3.7	9.3	0.0500	3	3
537538	0.021	2155	0.050	346	343	345	5.2	48.2	2.5	5.3	9.0	4.3	9.0	0.0667	4	4
538540	0.021	2176	0.050	442	441	442	41.1	71.6	1.7	5.1	5.2	2.7	4.5	0.1167	7	7
539540	0.026	1872	0.050	205	196	201	10.0	51.9	1.6	4.5	6.2	3.1	5.9	0.0833	5	5

Table R-2c
Reach Route Hydraulic Data for the 100-year, 6-hour Storm
Future Condition

Routing Reach	Reach						Manning's Equation				Computed Using HEC-1 Summary Data					NSTEPS from HEC-1 Input File
	Slope in ft/ft	Length in feet	Average n value	Discharge, in cfs			Channel Base Width in feet	Flow Top Width in feet	Flow Depth in feet	Channel Velocity in fps	Wave Celerity in fps	Velocity Range in fps		Travel Time in hours	NSTEPS Computed	
				Top	Bottom	Average						Min.	Max.			
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
540541	0.020	4207	0.049	560	553	557	17.5	81.4	2.4	7.8	5.8	3.2	4.8	0.2000	12	12
541548	0.032	1138	0.045	658	657	658	7.8	86.4	2.2	6.7	6.3	2.8	7.1	0.0500	3	3
542543	0.007	686	0.040	188	184	186	26.8	35.0	2.2	3.5	11.4	3.4	17.2	0.0167	1	1
543544	0.028	597	0.040	0	0	0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0000	1	1
543547	0.028	2395	0.040	252	241	247	34.5	39.6	1.7	5.6	8.0	4.0	7.5	0.0833	5	5
544545	0.023	985	0.019	171	167	169	30.0	65.5	0.6	7.2	16.4	4.9	24.7	0.0167	1	1
545547	0.026	1216	0.040	84	81	83	26.7	30.6	1.0	3.5	6.8	3.0	7.6	0.0500	3	3
545546	0.016	428	0.020	84	83	84	30.0	68.9	0.5	4.8	7.1	2.1	10.7	0.0167	1	1
546547	0.033	749	0.021	271	269	270	16.0	40.7	1.0	11.1	0.0	0.0	0.0	0.0000	1	1
547548	0.018	2165	0.047	758	732	745	29.8	69.7	2.5	7.2	12.0	5.4	13.6	0.0500	3	3
548549	0.017	3258	0.080	1172	1160	1166	66.1	92.8	3.4	4.7	6.0	3.3	5.1	0.1500	9	9
549626	0.017	2044	0.120	3524	3504	3514	13.5	207.6	7.7	4.3	5.7	2.9	5.1	0.1000	6	6
550552	0.053	4410	0.045	687	675	681	10.0	22.7	3.4	12.6	18.4	8.8	18.4	0.0667	4	4
551552	0.053	4410	0.045	424	416	420	10.0	20.1	2.7	10.7	14.7	7.3	13.8	0.0833	5	5
552553	0.034	1336	0.056	1312	1308	1310	21.0	104.6	2.3	7.4	11.1	4.4	16.7	0.0333	2	2
553556	0.026	2393	0.049	1440	1432	1436	7.5	46.1	4.9	10.7	20.0	8.0	30.0	0.0333	2	2
554555	0.065	2497	0.045	312	303	308	20.0	37.4	1.4	8.3	13.9	6.2	15.6	0.0500	3	3
555556	0.048	3353	0.050	489	475	482	35.0	60.4	2.1	7.3	11.2	5.6	10.5	0.0833	5	5
556557	0.026	2298	0.047	1906	1899	1903	30.4	101.0	2.6	8.8	12.8	5.7	14.4	0.0500	3	3
557558	0.024	2652	0.045	2067	2055	2061	72.0	99.1	3.7	8.8	14.7	6.6	16.6	0.0500	3	3
558560	0.019	1986	0.045	2110	2104	2107	71.6	93.4	4.0	8.2	11.0	5.0	12.4	0.0500	3	3
559560	0.023	2170	0.045	160	151	156	10.0	44.8	1.4	4.4	7.2	3.6	6.8	0.0833	5	5
560585	0.027	3127	0.026	294	294	294	35.5	67.0	0.9	7.3	10.4	5.2	9.8	0.0833	5	5
561563	0.086	2335	0.045	480	468	474	18.0	26.6	1.9	11.7	38.8	11.7	58.5	0.0167	1	1
562563	0.111	3745	0.046	144	141	143	5.0	19.4	1.0	9.9	15.6	7.5	15.6	0.0667	4	4
563564	0.054	2762	0.080	864	833	849	4.5	29.4	5.0	9.6	15.3	6.9	17.3	0.0500	3	3
564565	0.040	3243	0.080	1195	1151	1173	8.6	63.4	3.7	7.3	10.8	5.4	10.2	0.0833	5	5
565568	0.033	2254	0.057	1398	1371	1385	17.9	52.2	3.7	9.6	18.8	7.5	28.2	0.0333	2	2
566567	0.041	1463	0.080	590	572	581	11.7	52.3	3.7	5.9	12.2	4.9	18.3	0.0333	2	2

Table R-2c
Reach Route Hydraulic Data for the 100-year, 6-hour Storm
Future Condition

Routing Reach	Reach						Manning's Equation				Computed Using HEC-1 Summary Data					NSTEPS from HEC-1 Input File
	Slope in ft/ft	Length in feet	Average n value	Discharge, in cfs Top	Bottom	Average	Channel Base Width in feet	Flow Top Width in feet	Flow Depth in feet	Channel Velocity in fps	Wave Celerity in fps	Velocity Range in fps Min.	Max.	Travel Time in hours	NSTEPS Computed	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
567568	0.039	3650	0.057	892	855	874	16.4	54.4	2.6	8.3	12.2	6.1	11.4	0.0833	5	5
568573	0.032	2067	0.079	2210	2187	2199	8.7	68.2	6.2	8.8	11.5	5.2	13.0	0.0500	3	3
569570	0.040	1696	0.038	703	693	698	10.6	25.0	3.8	14.2	28.2	8.5	42.5	0.0167	1	1
571572	0.057	1379	0.020	35	33	34	32.0	44.2	0.2	5.9	11.5	4.6	17.3	0.0333	2	2
572573	0.034	1285	0.041	1187	1172	1180	22.5	46.8	2.9	13.0	21.4	6.4	32.2	0.0167	1	1
574575	0.037	823	0.050	911	906	909	6.4	28.3	5.0	10.9	0.0	0.0	0.0	0.0000	1	1
575576	0.042	2342	0.054	1002	985	994	0.5	32.1	4.2	12.2	19.5	7.8	29.3	0.0333	2	2
576577	0.034	740	0.055	1146	1143	1145	0.1	30.3	5.0	12.2	12.3	3.7	18.5	0.0167	1	1
577578	0.015	1078	0.047	3345	3329	3337	24.1	93.9	6.1	9.8	17.9	5.4	27.0	0.0167	1	1
578587	0.019	1628	0.047	1078	1073	1076	15.3	58.5	3.2	7.9	9.0	4.1	10.2	0.0500	3	3
579580	0.060	1751	0.048	951	942	947	5.0	29.0	3.3	14.7	29.1	8.7	43.9	0.0167	1	1
580581	0.044	2339	0.048	1285	1267	1276	10.0	48.8	3.4	12.3	19.5	7.8	29.3	0.0333	2	2
581582	0.046	4012	0.048	2031	1981	2006	5.0	42.5	4.9	15.5	22.3	10.0	25.1	0.0500	3	3
582583	0.023	1725	0.057	2498	2472	2485	10.0	78.7	5.6	9.9	14.4	5.7	21.6	0.0333	2	2
583584	0.036	3107	0.069	2567	2536	2552	26.1	73.6	6.4	9.0	10.4	5.2	9.7	0.0833	5	5
584597	0.026	3704	0.050	925	903	914	64.7	108.8	2.1	6.1	7.7	4.1	6.6	0.1333	8	8
586587	0.031	1905	0.036	246	245	246	10.0	28.5	1.6	8.7	10.6	4.8	11.9	0.0500	3	3
587595	0.017	1039	0.047	1112	1105	1109	20.0	47.3	3.3	8.1	17.3	5.2	26.0	0.0167	1	1
588590	0.034	1117	0.051	448	437	443	13.4	43.7	2.4	7.1	18.6	5.6	28.0	0.0167	1	1
589590	0.042	1751	0.050	306	299	303	12.7	21.2	2.7	7.7	14.6	5.8	21.9	0.0333	2	2
591521	0.014	915	0.050	1321	1319	1320	75.9	98.1	3.1	5.9	7.6	3.0	11.5	0.0333	2	2
592593	0.041	2062	0.050	234	226	230	7.8	20.2	2.6	6.6	11.5	5.1	12.9	0.0500	3	3
593594	0.020	988	0.056	1545	1532	1539	14.9	74.8	4.4	8.1	8.2	3.3	12.4	0.0333	2	2
594595	0.020	2093	0.050	1636	1595	1616	5.9	136.9	5.2	6.4	11.6	5.2	13.1	0.0500	3	3
595596	0.011	1095	0.049	1603	1595	1599	32.4	213.2	5.5	4.7	4.6	2.2	4.6	0.0667	4	4
597598	0.025	2822	0.050	900	883	892	32.2	71.5	3.0	6.8	9.4	4.7	8.8	0.0833	5	5
599608	0.015	1476	0.044	1631	1630	1631	15.2	82.4	4.7	7.6	12.3	4.9	18.5	0.0333	2	2
600601	0.018	2406	0.025	373	366	370	14.1	39.6	2.3	8.5	13.4	6.0	15.1	0.0500	3	3
601602	0.015	1765	0.040	663	651	657	23.8	37.5	3.5	7.2	9.8	4.4	11.1	0.0500	3	3

Table R-2c
Reach Route Hydraulic Data for the 100-year, 6-hour Storm
Future Condition

Routing Reach	Reach						Manning's Equation				Computed Using HEC-1 Summary Data					NSTEPS from HEC-1 Input File
	Slope in ft/ft	Length in feet	Average n value	Discharge, in cfs			Channel Base Width in feet	Flow Top Width in feet	Flow Depth in feet	Channel Velocity in fps	Wave Celerity in fps	Velocity Range in fps		Travel Time in hours	NSTEPS Computed	
				Top	Bottom	Average						Min.	Max.			
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
602603	0.021	2610	0.048	950	923	937	12.7	40.7	3.6	8.8	14.5	6.5	16.4	0.0500	3	3
603622	0.020	2745	0.045	1313	1284	1299	50.6	70.8	3.5	7.7	11.4	5.5	11.5	0.0667	4	4
604606	0.065	2784	0.027	18	17	18	16.0	49.3	0.3	4.1	4.2	2.3	3.5	0.1833	11	11
606607	0.029	1061	0.055	256	253	255	10.0	28.1	2.4	5.9	8.9	3.5	13.3	0.0333	2	2
607608	0.015	1008	0.045	295	290	293	1.0	38.0	3.5	5.5	8.4	3.4	12.6	0.0333	2	2
608613	0.020	1338	0.049	1642	1641	1642	26.2	85.4	3.2	8.2	11.2	4.5	16.8	0.0333	2	2
609611	0.020	470	0.050	69	69	69	10.0	15.5	1.4	4.2	3.9	1.6	5.9	0.0333	2	2
610611	0.021	1090	0.045	278	272	275	18.5	29.7	2.3	5.7	9.1	3.6	13.7	0.0333	2	2
611612	0.027	925	0.020	32	27	30	18.0	41.9	0.4	4.8	3.9	1.8	3.9	0.0667	4	4
613621	0.025	718	0.050	1639	1632	1636	42.7	82.4	2.9	9.0	0.0	0.0	0.0	0.0000	1	1
614615	0.040	1114	0.020	43	43	43	32.0	52.7	0.2	5.4	6.2	2.8	7.0	0.0500	3	3
615618	0.134	499	0.022	36	36	36	14.0	19.2	0.5	11.4	8.3	2.5	12.5	0.0167	1	1
615619	0.049	2444	0.024	19	19	19	2.3	14.3	0.6	5.6	6.8	3.5	6.1	0.1000	6	6
616617	0.055	1131	0.060	74	72	73	5.0	24.2	1.3	4.3	9.4	3.8	14.2	0.0333	2	2
617618	0.035	1912	0.060	372	359	366	40.4	53.7	1.7	5.4	10.6	4.8	12.0	0.0500	3	3
618619	0.029	1837	0.060	518	507	513	8.0	33.3	4.2	6.3	10.2	4.6	11.5	0.0500	3	3
619620	0.029	800	0.027	194	194	194	40.0	96.5	0.7	5.7	13.3	4.0	20.1	0.0167	1	1
620621	0.039	915	0.050	741	723	732	10.1	29.4	4.2	9.1	15.2	4.6	22.9	0.0167	1	1
621622	0.014	3830	0.051	1866	1865	1866	2.7	104.8	3.9	7.3	10.6	5.5	9.6	0.1000	6	6
622549	0.012	1697	0.125	2429	2409	2419	189.8	211.5	4.1	3.1	5.7	2.8	5.3	0.0833	5	5
623624	0.011	701	0.025	149	148	149	16.0	50.2	0.9	6.1	11.7	3.5	17.6	0.0167	1	1
624626	0.024	637	0.069	238	231	235	65.4	145.0	1.3	3.0	5.3	2.1	8.0	0.0333	2	2
625626	0.025	1350	0.020	96	92	94	34.0	68.1	0.6	5.8	11.3	4.5	16.9	0.0333	2	2
626627	0.021	625	0.061	3692	3689	3691	63.2	127.8	4.7	8.3	10.4	3.1	15.7	0.0167	1	1

TABLE R-2d

Table R-2d
Reach Route Hydraulic Data for the 100-year, 24-hour Storm
Future Condition

Routing Reach	Reach						Manning's Equation				Computed Using HEC-1 Summary Data					NSTEPS from HEC-1 Input File
	Slope in ft/ft	Length in feet	Average n value	Discharge, in cfs			Channel Base Width in feet	Flow Top Width in feet	Flow Depth in feet	Channel Velocity in fps	Wave Celerity in fps	Velocity Range in fps		Travel Time in hours	NSTEPS Computed	
				Top	Bottom	Average						Min.	Max.			
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
501502	0.020	3000	0.045	332	327	330	30.0	67.0	1.5	4.9	7.1	3.7	6.3	0.1167	7	7
502503	0.018	2453	0.045	458	453	456	120.0	210.6	1.0	3.5	5.1	2.7	4.4	0.1333	8	8
503504	0.010	1151	0.045	0	0	0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0000	1	1
508507	0.003	934	0.027	111	108	110	14.0	57.3	2.3	2.5	3.9	1.9	3.9	0.0667	4	4
511512	0.011	760	0.045	259	258	259	20.0	48.4	1.9	4.2	4.2	1.9	4.8	0.0500	3	3
513514	0.024	2403	0.045	237	234	236	20.0	63.2	1.3	4.6	6.7	3.4	6.0	0.1000	6	7
515517	0.019	3340	0.045	402	400	401	20.0	67.5	1.9	5.1	6.2	3.3	5.2	0.1500	9	9
516517	0.021	6720	0.045	345	333	339	40.0	63.8	1.4	5.1	8.0	4.5	6.5	0.2333	14	14
517518	0.017	4367	0.041	938	931	935	16.6	81.8	3.1	8.4	9.1	4.8	7.8	0.1333	8	8
518519	0.022	1796	0.052	996	992	994	45.4	80.5	2.6	6.7	7.5	3.6	7.5	0.0667	4	4
519591	0.018	1274	0.050	1063	1060	1062	68.8	85.2	2.7	6.1	10.6	4.2	16.0	0.0333	2	2
520591	0.025	2014	0.023	70	70	70	16.0	40.8	0.5	6.1	11.2	5.0	12.6	0.0500	3	3
522523	0.020	3275	0.050	187	181	184	15.0	63.0	1.4	3.7	6.1	3.3	5.1	0.1500	9	9
523524	0.018	1732	0.050	262	259	261	20.8	52.1	1.9	4.4	5.8	2.9	5.4	0.0833	5	5
523548	0.019	2680	0.026	18	15	17	40.0	47.9	0.2	2.7	3.0	1.7	2.4	0.2500	15	15
524525	0.021	1045	0.035	329	325	327	22.2	38.6	1.9	6.4	17.4	5.2	26.2	0.0167	1	1
525526	0.021	1520	0.035	399	395	397	19.8	33.7	2.2	7.3	12.7	5.1	19.0	0.0333	2	2
526527	0.018	2129	0.035	512	505	509	42.6	57.3	1.7	6.9	11.8	5.3	13.3	0.0500	3	3
528530	0.071	2594	0.043	361	360	361	10.0	21.4	2.3	10.7	14.4	6.5	16.3	0.0500	3	3
530531	0.040	2426	0.059	1005	996	1001	15.0	47.0	4.4	9.2	13.5	6.1	15.2	0.0500	3	3
531532	0.046	3391	0.064	1172	1162	1167	18.0	44.3	3.9	10.2	14.1	6.8	14.2	0.0667	4	4
532533	0.028	1555	0.048	1578	1575	1577	17.0	53.4	4.2	11.0	13.0	5.2	19.5	0.0333	2	2
533534	0.024	7145	0.047	1920	1889	1905	87.0	121.9	2.8	8.1	11.9	6.5	9.9	0.1667	10	10
534535	0.022	2037	0.047	2310	2300	2305	75.0	139.9	4.4	8.0	8.5	4.1	8.5	0.0667	4	4
535536	0.024	2975	0.065	2346	2320	2333	15.6	225.8	4.8	7.7	6.2	3.3	5.3	0.1333	8	8
536537	0.021	1480	0.050	321	321	321	45.7	54.9	1.8	4.5	8.2	3.7	9.3	0.0500	3	3
537538	0.021	2155	0.050	358	351	355	5.2	48.4	2.5	5.4	12.0	5.4	13.5	0.0500	3	3
538540	0.021	2176	0.050	456	448	452	41.1	72.0	1.7	5.1	6.0	3.1	5.5	0.1000	6	6
539540	0.026	1872	0.050	114	111	113	10.0	42.7	1.2	3.8	7.8	3.7	7.8	0.0667	4	4

Table R-2d
Reach Route Hydraulic Data for the 100-year, 24-hour Storm
Future Condition

Routing Reach	Reach						Manning's Equation				Computed Using HEC-1 Summary Data					NSTEPS from HEC-1 Input File
	Slope in ft/ft	Length in feet	Average n value	Discharge, in cfs			Channel Base Width in feet	Flow Top Width in feet	Flow Depth in feet	Channel Velocity in fps	Wave Celerity in fps	Velocity Range in fps		Travel Time in hours	NSTEPS Computed	
				Top	Bottom	Average						Min.	Max.			
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
540541	0.020	4207	0.049	561	548	555	17.5	81.4	2.4	7.8	5.8	3.2	4.8	0.2000	12	12
541548	0.032	1138	0.045	633	632	633	7.8	86.3	2.2	6.6	9.5	3.8	14.3	0.0333	2	2
542543	0.007	686	0.040	106	105	106	26.8	32.8	1.7	2.8	5.7	2.3	8.6	0.0333	2	2
543544	0.028	597	0.040	0	0	0	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0000	1	1
543547	0.028	2395	0.040	143	140	142	34.5	38.3	1.3	4.5	10.0	4.8	10.0	0.0667	4	4
544545	0.023	985	0.019	96	95	96	30.0	64.1	0.5	5.9	8.2	3.3	12.3	0.0333	2	2
545547	0.026	1216	0.040	48	47	48	26.7	29.6	0.7	2.8	6.8	3.0	7.6	0.0500	3	3
545546	0.016	428	0.020	48	47	48	30.0	67.2	0.4	4.0	7.1	2.1	10.7	0.0167	1	1
546547	0.033	749	0.020	152	152	152	16.0	39.7	0.8	9.1	12.5	3.7	18.8	0.0167	1	1
547548	0.018	2165	0.040	443	436	440	29.8	51.0	1.9	6.1	12.0	5.4	13.6	0.0500	3	3
548549	0.017	3258	0.080	1241	1216	1229	66.1	93.6	3.5	4.7	6.0	3.3	5.1	0.1500	9	9
549626	0.017	2044	0.120	4013	3968	3991	13.5	210.6	8.0	4.4	6.8	3.4	6.4	0.0833	5	5
550552	0.053	4410	0.045	455	450	453	10.0	20.5	2.8	11.0	18.4	8.8	18.4	0.0667	4	4
551552	0.053	4410	0.045	255	252	254	10.0	17.9	2.1	9.0	14.7	7.3	13.8	0.0833	5	5
552553	0.034	1336	0.056	1001	998	1000	21.0	101.5	2.0	6.7	11.1	4.4	16.7	0.0333	2	2
553556	0.026	2393	0.048	1127	1121	1124	7.5	44.2	4.4	9.9	20.0	8.0	30.0	0.0333	2	2
554555	0.065	2497	0.045	181	178	180	20.0	33.1	1.1	6.9	13.9	6.2	15.6	0.0500	3	3
555556	0.048	3353	0.050	289	282	286	35.0	52.8	1.7	6.2	8.0	4.2	7.0	0.1167	7	7
556557	0.026	2298	0.047	1626	1619	1623	30.4	99.9	2.4	8.3	12.8	5.7	14.4	0.0500	3	3
557558	0.024	2652	0.045	1780	1770	1775	72.0	97.0	3.5	8.4	14.7	6.6	16.6	0.0500	3	3
558560	0.019	1986	0.045	1821	1813	1817	71.6	91.7	3.7	7.8	16.6	6.6	24.9	0.0333	2	2
559560	0.023	2170	0.045	87	85	86	10.0	36.8	1.1	3.7	9.0	4.3	9.1	0.0667	4	4
560585	0.027	3127	0.026	283	283	283	35.5	66.9	0.9	7.2	8.7	4.5	7.8	0.1000	6	6
561563	0.086	2335	0.045	253	251	252	18.0	24.1	1.4	9.4	19.5	7.8	29.3	0.0333	2	2
562563	0.111	3745	0.046	85	83	84	5.0	18.1	0.8	8.3	12.5	6.2	11.7	0.0833	5	5
563564	0.054	2762	0.080	491	483	487	4.5	22.0	3.8	8.0	15.3	6.9	17.3	0.0500	3	3
564565	0.040	3243	0.080	696	681	689	8.6	60.2	2.9	6.1	10.8	5.4	10.2	0.0833	5	5
565568	0.033	2254	0.058	870	862	866	17.9	49.1	2.9	8.1	12.5	5.6	14.1	0.0500	3	3
566567	0.041	1463	0.080	330	326	328	11.7	42.7	3.0	5.1	8.1	3.7	9.2	0.0500	3	3

Table R-2d
Reach Route Hydraulic Data for the 100-year, 24-hour Storm
Future Condition

Routing Reach	Reach						Manning's Equation				Computed Using HEC-1 Summary Data					NSTEPS from HEC-1 Input File
	Slope in ft/ft	Length in feet	Average n value	Discharge, in cfs			Channel Base Width in feet	Flow Top Width in feet	Flow Depth in feet	Channel Velocity in fps	Wave Celerity in fps	Velocity Range in fps		Travel Time in hours	NSTEPS Computed	
				Top	Bottom	Average						Min.	Max.			
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
567568	0.039	3650	0.057	508	497	503	16.4	50.2	2.0	6.8	12.2	6.1	11.4	0.0833	5	5
568573	0.032	2067	0.078	1638	1622	1630	8.7	65.2	5.5	8.0	11.5	5.2	13.0	0.0500	3	3
569570	0.040	1696	0.036	392	389	391	10.6	21.9	3.2	11.7	28.2	8.5	42.5	0.0167	1	1
571572	0.057	1379	0.020	19	19	19	32.0	41.0	0.2	4.9	22.9	6.9	34.6	0.0167	1	1
572573	0.034	1285	0.039	671	667	669	22.5	41.4	2.2	11.0	21.4	6.4	32.2	0.0167	1	1
574575	0.037	823	0.050	489	488	489	6.4	23.3	3.8	8.9	13.7	4.1	20.6	0.0167	1	1
575576	0.042	2342	0.052	541	537	539	0.5	28.4	3.2	10.0	39.0	11.7	58.7	0.0167	1	1
576577	0.034	740	0.053	628	628	628	0.1	26.7	3.9	10.1	12.3	3.7	18.5	0.0167	1	1
577578	0.015	1078	0.047	2969	2951	2960	24.1	92.1	5.9	9.4	17.9	5.4	27.0	0.0167	1	1
578587	0.019	1628	0.047	460	459	460	15.3	48.2	2.1	6.1	9.0	4.1	10.2	0.0500	3	3
579580	0.060	1751	0.047	549	546	548	5.0	25.0	2.5	12.6	29.1	8.7	43.9	0.0167	1	1
580581	0.044	2339	0.048	771	765	768	10.0	41.5	2.7	10.8	13.0	5.8	14.7	0.0500	3	3
581582	0.046	4012	0.048	1409	1389	1399	5.0	37.7	4.1	14.2	22.3	10.0	25.1	0.0500	3	3
582583	0.023	1725	0.057	1968	1950	1959	10.0	71.8	5.1	9.5	14.4	5.7	21.6	0.0333	2	2
583584	0.036	3107	0.070	2065	2039	2052	26.1	68.6	5.9	8.4	12.9	6.2	13.0	0.0667	4	4
584597	0.026	3704	0.050	393	392	393	64.7	94.6	1.5	4.6	6.2	3.4	5.2	0.1667	10	10
586587	0.031	1905	0.036	168	167	168	10.0	25.0	1.4	7.8	10.6	4.8	11.9	0.0500	3	3
587595	0.017	1039	0.046	477	476	477	20.0	42.4	2.5	6.7	8.7	3.5	13.0	0.0333	2	2
588590	0.034	1117	0.051	250	248	249	13.4	39.7	1.9	5.8	9.3	3.7	14.0	0.0333	2	2
589590	0.042	1751	0.050	165	164	165	12.7	18.9	2.1	6.2	14.6	5.8	21.9	0.0333	2	2
591521	0.014	915	0.050	1119	1115	1117	75.9	96.0	2.8	5.6	15.2	4.6	22.9	0.0167	1	1
592593	0.041	2062	0.050	127	126	127	7.8	17.3	2.0	5.4	17.2	6.9	25.8	0.0333	2	2
593594	0.020	988	0.056	866	859	863	14.9	69.3	3.5	6.8	16.4	4.9	24.8	0.0167	1	1
594595	0.020	2093	0.050	944	929	937	5.9	120.0	4.6	5.4	7.0	3.5	6.6	0.0833	5	5
595596	0.011	1095	0.049	1629	1619	1624	32.4	213.6	5.5	4.8	4.6	2.2	4.6	0.0667	4	4
597598	0.025	2822	0.050	483	473	478	32.2	60.1	2.3	5.6	7.8	4.0	7.1	0.1000	6	6
599608	0.015	1476	0.045	1143	1143	1143	15.2	75.0	4.1	6.8	12.3	4.9	18.5	0.0333	2	2
600601	0.018	2406	0.025	241	238	240	14.1	34.1	1.9	7.5	13.4	6.0	15.1	0.0500	3	3
601602	0.015	1765	0.040	419	415	417	23.8	34.6	2.9	6.1	9.8	4.4	11.1	0.0500	3	3

Table R-2d
Reach Route Hydraulic Data for the 100-year, 24-hour Storm
Future Condition

Routing Reach	Reach						Manning's Equation				Computed Using HEC-1 Summary Data					NSTEPS from HEC-1 Input File
	Slope in ft/ft	Length in feet	Average n value	Discharge, in cfs			Channel Base Width in feet	Flow Top Width in feet	Flow Depth in feet	Channel Velocity in fps	Wave Celerity in fps	Velocity Range in fps		Travel Time in hours	NSTEPS Computed	
				Top	Bottom	Average						Min.	Max.			
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]
602603	0.021	2610	0.048	589	581	585	12.7	37.2	2.9	7.5	14.5	6.5	16.4	0.0500	3	3
603622	0.020	2745	0.045	833	816	825	50.6	66.1	2.8	6.6	11.4	5.5	11.5	0.0667	4	4
604606	0.065	2784	0.028	11	11	11	16.0	45.6	0.2	3.7	4.2	2.3	3.5	0.1833	11	11
606607	0.029	1061	0.055	184	182	183	10.0	25.6	2.0	5.3	8.9	3.5	13.3	0.0333	2	2
607608	0.015	1008	0.048	207	206	207	1.0	29.0	3.2	5.0	8.4	3.4	12.6	0.0333	2	2
608613	0.020	1338	0.048	1161	1161	1161	26.2	81.7	2.8	7.3	11.2	4.5	16.8	0.0333	2	2
609611	0.020	470	0.050	56	56	56	10.0	14.9	1.2	3.9	3.9	1.6	5.9	0.0333	2	2
610611	0.021	1090	0.045	152	152	152	18.5	26.8	1.7	4.6	9.1	3.6	13.7	0.0333	2	2
611612	0.027	925	0.050	0	0	0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0000	1	1
613621	0.025	718	0.049	1162	1162	1162	42.7	79.5	2.5	8.0	11.9	3.6	18.0	0.0167	1	1
614615	0.040	1114	0.020	26	26	26	32.0	42.8	0.2	4.8	9.3	3.7	14.0	0.0333	2	2
615618	0.134	499	0.020	22	22	22	14.0	14.4	0.4	10.5	0.0	0.0	0.0	0.0000	1	1
615619	0.049	2444	0.024	12	11	12	2.3	12.3	0.5	5.0	6.8	3.5	6.1	0.1000	6	6
616617	0.055	1131	0.060	39	39	39	5.0	19.9	1.0	3.5	18.8	5.6	28.3	0.0167	1	1
617618	0.035	1912	0.060	204	200	202	40.4	50.3	1.2	4.4	10.6	4.8	12.0	0.0500	3	3
618619	0.029	1837	0.060	302	299	301	8.0	28.3	3.4	5.3	7.7	3.7	7.7	0.0667	4	4
619620	0.029	800	0.027	185	185	185	40.0	96.1	0.7	5.5	13.3	4.0	20.1	0.0167	1	1
620621	0.039	915	0.050	355	354	355	10.1	24.1	3.0	7.0	7.6	3.0	11.5	0.0333	2	2
621622	0.014	3830	0.050	1484	1458	1471	2.7	102.4	3.5	6.7	10.6	5.5	9.6	0.1000	6	6
622549	0.012	1697	0.125	2697	2662	2680	189.8	212.3	4.4	3.3	5.7	2.8	5.3	0.0833	5	5
623624	0.011	701	0.023	79	79	79	16.0	43.2	0.7	5.1	0.0	0.0	0.0	0.0000	1	1
624626	0.024	637	0.067	130	129	130	65.4	113.2	1.1	2.6	5.3	2.1	8.0	0.0333	2	2
625626	0.025	1350	0.020	57	56	57	34.0	55.9	0.5	5.2	7.5	3.4	8.5	0.0500	3	3
626627	0.021	625	0.061	4117	4113	4115	63.2	129.2	5.0	8.7	10.4	3.1	15.7	0.0167	1	1

TABLE F-1

Table F-3

Future Condition
10-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
571572	21	4.05	0.01	2100
C572	695	4.05	0.39	1782
572573	690	4.08	0.39	1769
208S	142	4.03	0.07	2029
C573R	821	4.07	0.46	1785
C573	1573	4.18	1.58	996
208T	262	4.03	0.13	2015
208U	303	4.02	0.13	2331
C574	561	4.02	0.27	2078
574575	557	4.03	0.27	2063
208V	60	4.02	0.03	2000
C575	616	4.03	0.29	2124
575576	601	4.07	0.29	2072
208W	104	4.02	0.05	2080
C576	697	4.05	0.34	2050
576577	694	4.07	0.34	2041
C577	1864	4.13	1.92	971
577578	1855	4.17	1.92	966
208X	147	4.03	0.08	1838
C578I	1899	4.15	2.00	950
C578O	311	5.05	2.00	156
578587	311	5.10	2.00	156
210B	179	4.05	0.11	1627
C586O	161	4.12	0.11	1464
586587	160	4.17	0.11	1455
C587	378	4.27	2.11	179
587595	378	4.30	2.11	179
210C	139	4.05	0.08	1738
C595L	427	4.20	2.19	195
210D	268	4.03	0.14	1914
588590	264	4.07	0.14	1886
210E	56	4.03	0.03	1867
C590L	316	4.05	0.17	1859
210F	183	4.03	0.09	2033
589590	177	4.07	0.09	1967
210G	297	4.05	0.16	1856
C590R	471	4.05	0.25	1884
C590	787	4.05	0.42	1874
210H	141	4.03	0.07	2014
592593	134	4.07	0.07	1914
C593	919	4.05	0.49	1876
593594	906	4.08	0.49	1849
210I	89	4.05	0.05	1780
C594	968	4.08	0.54	1793
594595	926	4.17	0.54	1715

Future Condition
10-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharg in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C584O	341	4.95	1.60	213
C585	235	5.88	2.27	104
C586O	161	4.12	0.11	1464
C587	378	4.27	2.11	179
C590	787	4.05	0.42	1874
C590L	316	4.05	0.17	1859
C590R	471	4.05	0.25	1884
C591	590	4.33	1.83	322
C593	919	4.05	0.49	1876
C594	968	4.08	0.54	1793
C595	1023	4.17	2.83	361
C595L	427	4.20	2.19	195
C595R	1003	4.15	0.64	1567
C596	1068	4.22	2.91	367
C597	371	4.28	1.74	213
C598	468	4.28	1.90	246
C599I	1549	4.27	7.13	217
C599O	751	6.87	7.13	105
C600O	236	4.10	0.14	1686
C601	396	4.07	0.25	1584
C602	552	4.10	0.37	1492
C602L	455	4.10	0.30	1517
C603	742	4.12	0.52	1427
C605O	103	4.10	0.07	1471
C606	178	4.07	0.12	1483
C606R	77	4.05	0.05	1540
C607	199	4.08	0.14	1421
C608	748	6.92	7.37	101
C608L	749	6.93	7.24	103
C609O	53	4.12	0.04	1325
C611I	255	4.05	0.14	1821
C611O	133	4.23	0.14	950
C611R	208	4.03	0.10	2080
C612	75	4.02	0.17	441
C613	746	6.97	7.55	99
C615	32	4.08	0.03	1067
C617	225	4.03	0.13	1731
C617L	215	4.03	0.10	2150
C618	294	4.13	0.19	1547
C618I	291	4.08	0.18	1617
C618O	273	4.13	0.18	1517
C619I	349	4.20	0.25	1396
C619L	338	4.20	0.26	1300
C619O	175	4.40	0.25	700
C620	321	4.27	0.42	764

Table F-3

Future Condition
10-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
210J	193	4.05	0.10	1930
C595R	1003	4.15	0.64	1567
C595	1023	4.17	2.83	361
595596	1019	4.22	2.83	360
210K	166	4.02	0.08	2075
C596	1068	4.22	2.91	367
209A	491	4.15	0.37	1327
579580	488	4.18	0.37	1319
209C	96	4.07	0.06	1600
C580R	563	4.17	0.43	1309
209B	158	4.03	0.08	1975
C580	657	4.13	0.51	1288
580581	651	4.18	0.51	1276
209D	481	4.03	0.24	2004
C581R	911	4.08	0.76	1199
209E	260	4.05	0.15	1733
C581	1080	4.07	0.91	1187
581582	1059	4.13	0.91	1164
209F	213	4.25	0.23	926
C582R	1151	4.15	1.13	1019
209G	368	4.05	0.20	1840
C582	1317	4.13	1.34	983
582583	1303	4.17	1.34	972
209H	135	4.07	0.08	1688
C583	1355	4.17	1.42	954
583584	1332	4.25	1.42	938
209I	359	4.03	0.18	1994
C584I	1399	4.23	1.60	874
C584O	341	4.95	1.60	213
584597	341	5.12	1.60	213
210L	237	4.05	0.14	1693
C597	371	4.28	1.74	213
597598	369	4.38	1.74	212
210M	263	4.07	0.16	1644
C598	468	4.28	1.90	246
210N	95	4.02	0.05	1900
C599I	1549	4.27	7.13	217
C599O	751	6.87	7.13	105
599608	751	6.92	7.13	105
211K	225	4.02	0.10	2250
C608L	749	6.93	7.24	103
211G	11	4.07	0.01	1100
604606	10	4.25	0.01	1000
211I	71	4.05	0.04	1775
C606R	77	4.05	0.05	1540

Future Condition
10-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharg in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C620R	201	4.03	0.28	718
C621	998	4.33	7.93	126
C621L	793	4.10	7.64	104
C622	1551	4.23	8.78	177
C622L	829	4.17	0.63	1316
C622R	1125	4.25	8.14	138
C624	151	4.02	0.07	2157
C626	2184	4.45	13.28	164
C626C	2121	4.47	13.14	161
C626R	231	4.05	0.11	2100
C627	2193	4.47	13.32	165
CLEAR	1057	4.25	3.58	295
CLEAR	720	4.27	3.07	235
D503L	230	4.90	0.63	365
D503R	0	0.02	0.63	0
D504L	21	4.27	0.67	31
D504R	4	4.25	0.67	6
D505L	14	4.03	0.69	20
D505R	16	4.03	0.69	23
D506L	0	0.02	0.69	0
D506R	30	4.02	0.69	43
D508L	116	4.07	0.10	1160
D508R	71	4.07	0.10	710
D512L	31	4.67	0.20	155
D512R	4	4.67	0.20	20
D523L	226	4.33	0.23	983
D523R	0	4.33	0.23	0
D543L	0	0.02	0.08	0
D543R	150	4.03	0.08	1875
D545L	49	4.07	0.14	350
D545R	49	4.07	0.14	350
D611L	0	0.02	0.14	0
D611R	133	4.23	0.14	950
D614L	10	4.07	0.03	333
D614R	25	4.07	0.03	833
D615L	21	4.08	0.03	700
D615R	11	4.08	0.03	367
D619L	0	0.02	0.25	0
D619R	175	4.40	0.25	700
501502	228	4.42	0.30	760
502503	302	4.52	0.45	671
503504	0	0.02	0.63	0
508507	108	4.15	0.10	1080
511512	244	4.17	0.18	1356
513514	124	4.78	0.28	443

Table F-3

Future Condition
10-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
211H	150	4.02	0.07	2143
C605O	103	4.10	0.07	1471
C606	178	4.07	0.12	1483
606607	175	4.10	0.12	1458
211J	31	4.02	0.01	3100
C607	199	4.08	0.14	1421
607608	197	4.12	0.14	1407
C608	748	6.92	7.37	101
608613	748	6.97	7.37	101
211M	171	4.03	0.08	2138
610611	166	4.05	0.08	2075
211N	45	4.02	0.02	2250
C611R	208	4.03	0.10	2080
211O	89	4.02	0.04	2225
C609O	53	4.12	0.04	1325
609611	52	4.13	0.04	1300
C611I	255	4.05	0.14	1821
C611O	133	4.23	0.14	950
D611R	133	4.23	0.14	950
D611L	0	0.02	0.14	0
611612	0	0.02	0.14	0
211P	75	4.02	0.03	2500
C612	75	4.02	0.17	441
C613	746	6.97	7.55	99
613621	746	6.98	7.55	99
211L	189	4.03	0.10	1890
C621L	793	4.10	7.64	104
211Q	46	4.02	0.02	2300
616617	44	4.05	0.02	2200
211R	171	4.03	0.08	2138
C617L	215	4.03	0.10	2150
211U	35	4.07	0.03	1167
D614R	25	4.07	0.03	833
D614L	10	4.07	0.03	333
C617	225	4.03	0.13	1731
617618	214	4.10	0.13	1646
211S	82	4.07	0.05	1640
C618I	291	4.08	0.18	1617
C618O	273	4.13	0.18	1517
BB614R	25	4.07	0.03	833
614615	24	4.12	0.03	800
211V	10	4.03	0.01	1000
C615	32	4.08	0.03	1067
D615R	11	4.08	0.03	367
D615L	21	4.08	0.03	700

Future Condition
10-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharg in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
515517	217	4.35	0.53	409
516517	192	4.80	0.33	582
517518	418	4.90	1.21	345
518519	474	4.40	1.41	336
519591	574	4.35	1.59	361
520591	72	4.10	0.04	1800
522523	178	4.22	0.11	1618
523524	226	4.40	0.23	983
523548	0	4.72	0.23	0
524525	284	4.08	0.31	916
525526	362	4.10	0.35	1034
526527	471	4.13	0.43	1095
528530	246	4.48	0.33	745
530531	592	4.47	0.93	637
531532	663	4.53	1.09	608
532533	806	4.55	1.53	527
533534	892	4.77	1.89	472
534535	974	4.83	2.50	390
535536	968	4.92	2.62	369
536537	271	6.25	2.91	93
537538	273	6.12	3.04	90
538540	273	6.25	3.14	87
539540	117	4.12	0.06	1950
540541	275	6.35	3.24	85
541548	355	4.33	3.40	104
542543	110	4.07	0.06	1833
543544	0	0.02	0.08	0
543547	143	4.12	0.08	1788
544545	98	4.07	0.14	700
545546	48	4.08	0.14	343
545547	47	4.13	0.14	336
546547	156	4.07	0.20	780
547548	433	4.13	0.26	1665
548549	641	4.38	4.04	159
549626	2102	4.47	13.06	161
550552	295	4.53	0.46	641
551552	209	4.30	0.20	1045
552553	574	4.47	0.99	580
553556	630	4.50	1.12	563
554555	168	4.15	0.12	1400
555556	260	4.23	0.20	1300
556557	821	4.50	1.64	501
557558	883	4.50	1.85	477
558560	896	4.53	1.97	455
559560	89	4.13	0.05	1780

Table F-3

Future Condition
10-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
615618	21	4.10	0.03	700
C618	294	4.13	0.19	1547
618619	283	4.22	0.19	1489
211T	145	4.02	0.07	2071
C619L	338	4.20	0.26	1300
BB615R	11	4.08	0.03	367
615619	11	4.20	0.03	367
C619I	349	4.20	0.25	1396
C619O	175	4.40	0.25	700
D619L	0	0.02	0.25	0
D619R	175	4.40	0.25	700
619620	175	4.42	0.25	700
BB619L	0	0.02	0.25	0
619620	0	0.02	0.25	0
211W	69	4.02	0.03	2300
C620R	201	4.03	0.28	718
BB611R	133	4.23	0.14	950
611620	133	4.25	0.14	950
C620	321	4.27	0.42	764
620621	321	4.28	0.42	764
C621	998	4.33	7.93	126
621622	990	4.43	7.93	125
211X	372	4.07	0.21	1771
C622R	1125	4.25	8.14	138
211A	260	4.05	0.14	1857
C600O	236	4.10	0.14	1686
600601	231	4.15	0.14	1650
211B	213	4.03	0.11	1936
C601	396	4.07	0.25	1584
601602	388	4.12	0.25	1552
211C	80	4.05	0.04	2000
C602L	455	4.10	0.30	1517
211D	100	4.07	0.07	1429
C602	552	4.10	0.37	1492
602603	538	4.17	0.37	1454
211E	306	4.05	0.16	1913
C603	742	4.12	0.52	1427
603622	728	4.20	0.52	1400
211F	196	4.07	0.11	1782
C622L	829	4.17	0.63	1316
C622	1551	4.23	8.78	177
622549	1541	4.35	8.78	176
211Y	164	4.07	0.09	1822
C549R	1594	4.35	8.87	180
C549	2118	4.35	13.06	162

Future Condition
10-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharg in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
560585	234	5.90	2.15	109
561563	289	4.05	0.14	2064
562563	72	4.25	0.07	1029
563564	476	4.12	0.31	1535
564565	651	4.18	0.44	1480
565568	765	4.22	0.57	1342
566567	334	4.10	0.20	1670
567568	497	4.17	0.31	1603
568573	1214	4.23	1.07	1135
569570	404	4.08	0.23	1757
571572	21	4.05	0.01	2100
572573	690	4.08	0.39	1769
574575	557	4.03	0.27	2063
575576	601	4.07	0.29	2072
576577	694	4.07	0.34	2041
577578	1855	4.17	1.92	966
578587	311	5.10	2.00	156
579580	488	4.18	0.37	1319
580581	651	4.18	0.51	1276
581582	1059	4.13	0.91	1164
582583	1303	4.17	1.34	972
583584	1332	4.25	1.42	938
584597	341	5.12	1.60	213
586587	160	4.17	0.11	1455
587595	378	4.30	2.11	179
588590	264	4.07	0.14	1886
589590	177	4.07	0.09	1967
591521	589	4.38	1.83	322
592593	134	4.07	0.07	1914
593594	906	4.08	0.49	1849
594595	926	4.17	0.54	1715
595596	1019	4.22	2.83	360
597598	369	4.38	1.74	212
599608	751	6.92	7.13	105
600601	231	4.15	0.14	1650
601602	388	4.12	0.25	1552
602603	538	4.17	0.37	1454
603622	728	4.20	0.52	1400
604606	10	4.25	0.01	1000
606607	175	4.10	0.12	1458
607608	197	4.12	0.14	1407
608613	748	6.97	7.37	101
609611	52	4.13	0.04	1300
610611	166	4.05	0.08	2075
611612	0	0.02	0.14	0

Table F-3

Future Condition
10-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
549626	2102	4.47	13.06	161
211Z	141	4.05	0.08	1763
C626C	2121	4.47	13.14	161
211AA	56	4.07	0.03	1867
625626	54	4.12	0.03	1800
211AB	96	4.00	0.04	2400
623624	95	4.02	0.04	2375
211AC	56	4.03	0.03	1867
C624	151	4.02	0.07	2157
624626	147	4.07	0.07	2100
211AD	86	4.03	0.04	2150
C626R	231	4.05	0.11	2100
C626	2184	4.45	13.28	164
626627	2183	4.47	13.28	164
211AE	69	4.03	0.03	2300
C627	2193	4.47	13.32	165
211AF	123	4.00	0.05	2460

Future Condition
10-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharg in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
611620	133	4.25	0.14	950
613621	746	6.98	7.55	99
614615	24	4.12	0.03	800
615618	21	4.10	0.03	700
615619	11	4.20	0.03	367
616617	44	4.05	0.02	2200
617618	214	4.10	0.13	1646
618619	283	4.22	0.19	1489
619620	175	4.42	0.25	700
619620	0	0.02	0.25	0
620621	321	4.28	0.42	764
621622	990	4.43	7.93	125
622549	1541	4.35	8.78	176
623624	95	4.02	0.04	2375
624626	147	4.07	0.07	2100
625626	54	4.12	0.03	1800
626627	2183	4.47	13.28	164

Table F-1

Future Condition
100-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
201A	376	4.18	0.22	1709
201B	151	4.15	0.08	1888
C501	524	4.18	0.30	1747
501502	511	4.28	0.30	1703
201C	238	4.03	0.08	2975
C502R	592	4.25	0.38	1558
201D	115	4.17	0.07	1643
C502	699	4.25	0.45	1553
502503	687	4.37	0.45	1527
201E	263	4.25	0.18	1461
C503I	891	4.35	0.63	1414
C503O	344	4.87	0.63	546
D503L	344	4.87	0.63	546
D503R	0	0.02	0.63	0
503504	0	0.02	0.63	0
202A	115	4.03	0.04	2875
C504I	105	4.03	0.67	157
C504O	64	4.13	0.67	96
D504L	23	4.08	0.67	34
D504R	41	4.13	0.67	61
202B	56	4.02	0.02	2800
C505I	72	4.10	0.69	104
D505L	16	4.05	0.69	23
D505R	56	4.10	0.69	81
202C	26	4.02	0.01	2600
C506	74	4.05	0.69	107
D506L	0	0.02	0.69	0
D506R	74	4.05	0.69	107
202D	171	4.03	0.06	2850
202E	328	4.03	0.10	3280
C508O	327	4.03	0.10	3270
D508R	95	4.03	0.10	950
D508L	232	4.03	0.10	2320
508507	224	4.10	0.10	2240
C507I	392	4.07	0.86	456
C507O	392	4.07	0.86	456
202F	46	4.00	0.01	4600
202G	46	4.00	0.01	4600
202H	561	4.03	0.18	3117
C511O	482	4.08	0.18	2678
511512	472	4.13	0.18	2622
202I	59	4.02	0.02	2950
C512I	504	4.12	0.20	2520
C512O	276	4.33	0.20	1380
D512R	131	4.33	0.20	655

Future Condition
100-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
201A	376	4.18	0.22	1709
201B	151	4.15	0.08	1888
201C	238	4.03	0.08	2975
201D	115	4.17	0.07	1643
201E	263	4.25	0.18	1461
202A	115	4.03	0.04	2875
202B	56	4.02	0.02	2800
202C	26	4.02	0.01	2600
202D	171	4.03	0.06	2850
202E	328	4.03	0.10	3280
202F	46	4.00	0.01	4600
202G	46	4.00	0.01	4600
202H	561	4.03	0.18	3117
202I	59	4.02	0.02	2950
203A	397	4.27	0.28	1418
203B	133	4.03	0.04	3325
203C	197	4.13	0.10	1970
203D	184	4.17	0.11	1673
203E	302	4.02	0.09	3356
203F	524	4.28	0.33	1588
203G	412	4.22	0.25	1648
203H	592	4.05	0.21	2819
203I	397	4.07	0.17	2335
203J	123	4.03	0.04	3075
203K	482	4.05	0.16	3013
204A	334	4.03	0.11	3036
204B	365	4.05	0.13	2808
204C	275	4.02	0.08	3438
204D	149	4.02	0.04	3725
204E	224	4.03	0.07	3200
204F	260	4.02	0.08	3250
205A	210	4.22	0.12	1750
205B	362	4.32	0.21	1724
205C	107	4.20	0.06	1783
205D	665	4.23	0.32	2078
205E	301	4.33	0.22	1368
205F	325	4.22	0.16	2031
205G	349	4.23	0.19	1837
205H	350	4.35	0.26	1346
205I	559	4.30	0.35	1597
205J	551	4.28	0.37	1489
205K	266	4.38	0.25	1064
205L	263	4.15	0.12	2192
205M	366	4.07	0.14	2614
205N	211	4.25	0.16	1319

Table F-1

Future Condition
100-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
D512L	145	4.33	0.20	725
203A	397	4.27	0.28	1418
C513O	380	4.33	0.28	1357
513514	366	4.45	0.28	1307
203B	133	4.03	0.04	3325
C514R	381	4.43	0.32	1191
203C	197	4.13	0.10	1970
C514	486	4.42	0.43	1130
203D	184	4.17	0.11	1673
C515	599	4.40	0.53	1130
515517	590	4.50	0.53	1113
203E	302	4.02	0.09	3356
C517R	597	4.48	0.63	948
203F	524	4.28	0.33	1588
516517	495	4.52	0.33	1500
203G	412	4.22	0.25	1648
C517L	720	4.50	0.58	1241
C517	1181	4.50	1.21	976
517518	1163	4.62	1.21	961
203H	592	4.05	0.21	2819
C518	1199	4.60	1.41	850
518519	1192	4.63	1.41	845
203I	397	4.07	0.17	2335
C519	1257	4.62	1.59	791
519591	1254	4.65	1.59	789
203J	123	4.03	0.04	3075
520591	119	4.07	0.04	2975
BB512R	131	4.33	0.20	655
C591	1321	4.35	1.83	722
591521	1319	4.38	1.83	721
203K	482	4.05	0.16	3013
C521	1453	4.32	1.99	730
CLEAR	1610	4.32	3.07	524
204A	334	4.03	0.11	3036
522523	309	4.18	0.11	2809
204B	365	4.05	0.13	2808
C523I	586	4.08	0.23	2548
C523O	570	4.15	0.23	2478
D523R	68	4.15	0.23	296
D523L	502	4.15	0.23	2183
523524	484	4.23	0.23	2104
204C	275	4.02	0.08	3438
C524	555	4.22	0.31	1790
524525	550	4.25	0.31	1774
204D	149	4.02	0.04	3725

Future Condition
100-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
206A	408	4.03	0.13	3138
206B	304	4.03	0.09	3378
206C	61	4.05	0.02	3050
206D	205	4.02	0.06	3417
206E	71	4.02	0.02	3550
206F	441	4.05	0.16	2756
206G	213	4.07	0.09	2367
206H	188	4.03	0.06	3133
206I	75	4.00	0.02	3750
206J	200	4.02	0.06	3333
206K	171	4.03	0.06	2850
206L	191	4.02	0.06	3183
206M	198	4.02	0.06	3300
206N	459	4.05	0.15	3060
207A	382	4.30	0.26	1469
207B	306	4.30	0.21	1457
207C	321	4.22	0.17	1888
207D	424	4.13	0.20	2120
207E	286	4.12	0.16	1788
207F	253	4.15	0.13	1946
207G	277	4.33	0.24	1154
207H	312	4.07	0.12	2600
207I	213	4.03	0.07	3043
207J	270	4.05	0.09	3000
207K	362	4.05	0.13	2785
207L	236	4.03	0.08	2950
207M	372	4.03	0.12	3100
207N	160	4.02	0.05	3200
207O	413	4.03	0.13	3177
208A	480	4.02	0.14	3429
208B	82	4.02	0.03	2733
208C	144	4.10	0.07	2057
208D	225	4.03	0.08	2813
208E	192	4.03	0.06	3200
208F	224	4.02	0.07	3200
208G	398	4.03	0.13	3062
208H	99	4.07	0.04	2475
208I	370	4.03	0.12	3083
208J	221	4.05	0.08	2763
208K	165	4.02	0.05	3300
208L	183	4.02	0.06	3050
208M	484	4.03	0.16	3025
208N	131	4.05	0.05	2620
208O	703	4.03	0.23	3057
208P	204	4.02	0.06	3400

Table F-1

Future Condition
100-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C525	596	4.05	0.35	1703
525526	586	4.07	0.35	1674
204E	224	4.03	0.07	3200
C526	798	4.05	0.43	1856
526527	776	4.10	0.43	1805
204F	260	4.02	0.08	3250
C527	987	4.07	0.50	1974
CLEAR	2109	4.30	3.58	589
205A	210	4.22	0.12	1750
205B	362	4.32	0.21	1724
C528	548	4.28	0.33	1661
528530	545	4.33	0.33	1652
205C	107	4.20	0.06	1783
C530R	629	4.32	0.39	1613
205D	665	4.23	0.32	2078
205E	301	4.33	0.22	1368
C529	917	4.25	0.54	1698
C530	1340	4.27	0.93	1441
530531	1326	4.32	0.93	1426
205F	325	4.22	0.16	2031
C531	1504	4.30	1.09	1380
531532	1490	4.37	1.09	1367
205G	349	4.23	0.19	1837
C532L	1661	4.35	1.27	1308
205H	350	4.35	0.26	1346
C532	1854	4.35	1.53	1212
532533	1850	4.38	1.53	1209
205I	559	4.30	0.35	1597
C533	2132	4.37	1.89	1128
533534	2100	4.53	1.89	1111
205J	551	4.28	0.37	1489
C534R	2306	4.52	2.25	1025
205K	266	4.38	0.25	1064
C534	2427	4.53	2.50	971
534535	2417	4.58	2.50	967
205L	263	4.15	0.12	2192
C535	2441	4.57	2.62	932
535536	2419	4.70	2.62	923
205M	366	4.07	0.14	2614
C536R	2427	4.68	2.76	879
205N	211	4.25	0.16	1319
C536I	2496	4.68	2.91	858
C536O	326	6.08	2.91	112
536537	326	6.13	2.91	112
206A	408	4.03	0.13	3138

Future Condition
100-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
208Q	273	4.05	0.09	3033
208R	35	4.02	0.01	3500
208S	229	4.02	0.07	3271
208T	433	4.02	0.13	3331
208U	483	4.00	0.13	3715
208V	97	4.02	0.03	3233
208W	170	4.02	0.05	3400
208X	247	4.02	0.08	3088
209A	951	4.10	0.37	2570
209B	266	4.02	0.08	3325
209C	170	4.05	0.06	2833
209D	802	4.02	0.24	3342
209E	445	4.03	0.15	2967
209F	439	4.17	0.23	1909
209G	625	4.03	0.20	3125
209H	242	4.03	0.08	3025
209I	604	4.02	0.18	3356
210A	397	4.02	0.12	3308
210B	307	4.05	0.11	2791
210C	245	4.03	0.08	3063
210D	448	4.03	0.14	3200
210E	93	4.02	0.03	3100
210F	306	4.02	0.09	3400
210G	504	4.03	0.16	3150
210H	234	4.02	0.07	3343
210I	149	4.03	0.05	2980
210J	324	4.03	0.10	3240
210K	270	4.02	0.08	3375
210L	413	4.03	0.14	2950
210M	462	4.05	0.16	2888
210N	162	4.00	0.05	3240
211A	444	4.03	0.14	3171
211AA	96	4.05	0.03	3200
211AB	149	4.00	0.04	3725
211AC	90	4.02	0.03	3000
211AD	139	4.02	0.04	3475
211AE	114	4.02	0.03	3800
211AF	194	4.00	0.05	3880
211B	357	4.02	0.11	3245
211C	134	4.03	0.04	3350
211D	184	4.05	0.07	2629
211E	509	4.03	0.16	3181
211F	332	4.05	0.11	3018
211G	18	4.05	0.01	1800
211H	247	4.02	0.07	3529

Table F-1

Future Condition
100-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C537	346	4.27	3.04	114
537538	343	4.33	3.04	113
206B	304	4.03	0.09	3378
C538I	473	4.08	3.14	151
C538O	442	4.23	3.14	141
538540	441	4.35	3.14	140
206C	61	4.05	0.02	3050
C540R	464	4.32	3.16	147
206D	205	4.02	0.06	3417
539540	196	4.10	0.06	3267
206E	71	4.02	0.02	3550
C540L	254	4.05	0.09	2822
C540	560	4.27	3.24	173
540541	553	4.47	3.24	171
206F	441	4.05	0.16	2756
C541	658	4.28	3.40	194
541548	657	4.33	3.40	193
206G	213	4.07	0.09	2367
BB523R	68	4.15	0.23	296
523548	60	4.33	0.23	261
C548L	747	4.30	3.72	201
206H	188	4.03	0.06	3133
542543	184	4.05	0.06	3067
206I	75	4.00	0.02	3750
C543	252	4.02	0.08	3150
D543R	252	4.02	0.08	3150
D543L	0	0.02	0.08	0
543544	0	0.02	0.08	0
206K	171	4.03	0.06	2850
C544	171	4.03	0.14	1221
544545	167	4.05	0.14	1193
D545R	84	4.05	0.14	600
D545L	84	4.05	0.14	600
545546	83	4.07	0.14	593
206L	191	4.02	0.06	3183
C546	271	4.03	0.20	1355
546547	269	4.03	0.20	1345
BB543R	252	4.02	0.08	3150
543547	241	4.10	0.08	3013
BB545R	84	4.05	0.14	600
545547	81	4.10	0.14	579
206J	200	4.02	0.06	3333
C547	758	4.05	0.26	2915
547548	732	4.10	0.26	2815
206M	198	4.02	0.06	3300

Future Condition
100-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
211I	121	4.03	0.04	3025
211J	51	4.02	0.01	5100
211K	363	4.00	0.10	3630
211L	317	4.02	0.10	3170
211M	278	4.02	0.08	3475
211N	72	4.00	0.02	3600
211O	143	4.02	0.04	3575
211P	119	4.00	0.03	3967
211Q	74	4.00	0.02	3700
211R	283	4.02	0.08	3538
211S	144	4.05	0.05	2880
211T	231	4.02	0.07	3300
211U	61	4.05	0.03	2033
211V	16	4.02	0.01	1600
211W	108	4.00	0.03	3600
211X	629	4.05	0.21	2995
211Y	271	4.05	0.09	3011
211Z	249	4.03	0.08	3113
BB512R	131	4.33	0.20	655
BB523R	68	4.15	0.23	296
BB543R	252	4.02	0.08	3150
BB545R	84	4.05	0.14	600
BB611R	169	4.20	0.14	1207
BB614R	43	4.05	0.03	1433
BB615R	19	4.07	0.03	633
BB619L	402	4.18	0.25	1608
C501	524	4.18	0.30	1747
C502	699	4.25	0.45	1553
C502R	592	4.25	0.38	1558
C503I	891	4.35	0.63	1414
C503O	344	4.87	0.63	546
C504I	105	4.03	0.67	157
C504O	64	4.13	0.67	96
C505I	72	4.10	0.69	104
C506	74	4.05	0.69	107
C507I	392	4.07	0.86	456
C507O	392	4.07	0.86	456
C508O	327	4.03	0.10	3270
C511O	482	4.08	0.18	2678
C512I	504	4.12	0.20	2520
C512O	276	4.33	0.20	1380
C513O	380	4.33	0.28	1357
C514	486	4.42	0.43	1130
C514R	381	4.43	0.32	1191
C515	599	4.40	0.53	1130

Table F-1

Future Condition
100-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C548R	883	4.08	0.32	2759
C548	1172	4.10	4.04	290
548549	1160	4.25	4.04	287
206N	459	4.05	0.15	3060
C549L	1331	4.23	4.19	318
207A	382	4.30	0.26	1469
207B	306	4.30	0.21	1457
C550	687	4.30	0.46	1493
550552	675	4.37	0.46	1467
207C	321	4.22	0.17	1888
C552L	878	4.35	0.64	1372
207D	424	4.13	0.20	2120
551552	416	4.22	0.20	2080
207E	286	4.12	0.16	1788
C552R	679	4.18	0.35	1940
C552	1312	4.28	0.99	1325
552553	1308	4.32	0.99	1321
207F	253	4.15	0.13	1946
C553	1440	4.30	1.12	1286
553556	1432	4.33	1.12	1279
207G	277	4.33	0.24	1154
C556L	1601	4.35	1.35	1186
207H	312	4.07	0.12	2600
554555	303	4.12	0.12	2525
207I	213	4.03	0.07	3043
C555	489	4.07	0.20	2445
555556	475	4.15	0.20	2375
207J	270	4.05	0.09	3000
C556R	682	4.10	0.29	2352
C556	1906	4.30	1.64	1162
556557	1899	4.35	1.64	1158
207K	362	4.05	0.13	2785
C557R	2002	4.33	1.77	1131
207L	236	4.03	0.08	2950
C557	2067	4.32	1.85	1117
557558	2055	4.37	1.85	1111
207M	372	4.03	0.12	3100
C558	2110	4.35	1.97	1071
558560	2104	4.40	1.97	1068
207O	413	4.03	0.13	3177
C560R	2157	4.38	2.10	1027
207N	160	4.02	0.05	3200
559560	151	4.10	0.05	3020
C560I	2201	4.37	2.15	1024
C560O	294	5.77	2.15	137

Future Condition
100-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C517	1181	4.50	1.21	976
C517L	720	4.50	0.58	1241
C517R	597	4.48	0.63	948
C518	1199	4.60	1.41	850
C519	1257	4.62	1.59	791
C521	1453	4.32	1.99	730
C523I	586	4.08	0.23	2548
C523O	570	4.15	0.23	2478
C524	555	4.22	0.31	1790
C525	596	4.05	0.35	1703
C526	798	4.05	0.43	1856
C527	987	4.07	0.50	1974
C528	548	4.28	0.33	1661
C529	917	4.25	0.54	1698
C530	1340	4.27	0.93	1441
C530R	629	4.32	0.39	1613
C531	1504	4.30	1.09	1380
C532	1854	4.35	1.53	1212
C532L	1661	4.35	1.27	1308
C533	2132	4.37	1.89	1128
C534	2427	4.53	2.50	971
C534R	2306	4.52	2.25	1025
C535	2441	4.57	2.62	932
C536I	2496	4.68	2.91	858
C536O	326	6.08	2.91	112
C536R	2427	4.68	2.76	879
C537	346	4.27	3.04	114
C538I	473	4.08	3.14	151
C538O	442	4.23	3.14	141
C540	560	4.27	3.24	173
C540L	254	4.05	0.09	2822
C540R	464	4.32	3.16	147
C541	658	4.28	3.40	194
C543	252	4.02	0.08	3150
C544	171	4.03	0.14	1221
C546	271	4.03	0.20	1355
C547	758	4.05	0.26	2915
C548	1172	4.10	4.04	290
C548L	747	4.30	3.72	201
C548R	883	4.08	0.32	2759
C549	3524	4.23	13.06	270
C549L	1331	4.23	4.19	318
C549R	2508	4.23	8.87	283
C550	687	4.30	0.46	1493
C552	1312	4.28	0.99	1325

Table F-1

Future Condition
100-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
560585	294	5.85	2.15	137
210A	397	4.02	0.12	3308
C585	360	4.03	2.27	159
208A	480	4.02	0.14	3429
561563	468	4.03	0.14	3343
208B	82	4.02	0.03	2733
C563R	549	4.03	0.17	3229
208C	144	4.10	0.07	2057
562563	141	4.17	0.07	2014
208D	225	4.03	0.08	2813
C563L	319	4.05	0.14	2279
C563	864	4.03	0.31	2787
563564	833	4.08	0.31	2687
208E	192	4.03	0.06	3200
C564R	994	4.07	0.37	2686
208F	224	4.02	0.07	3200
C564	1195	4.05	0.44	2716
564565	1151	4.13	0.44	2616
208G	398	4.03	0.13	3062
C565	1398	4.12	0.57	2453
565568	1371	4.15	0.57	2405
208H	99	4.07	0.04	2475
C568L	1429	4.15	0.61	2343
208I	370	4.03	0.12	3083
208J	221	4.05	0.08	2763
C566	590	4.03	0.20	2950
566567	572	4.07	0.20	2860
208K	165	4.02	0.05	3300
C567L	713	4.05	0.25	2852
208L	183	4.02	0.06	3050
C567	892	4.03	0.31	2877
567568	855	4.12	0.31	2758
208M	484	4.03	0.16	3025
C568R	1263	4.08	0.46	2746
C568	2210	4.12	1.07	2065
568573	2187	4.17	1.07	2044
208N	131	4.05	0.05	2620
C573L	2245	4.17	1.12	2004
208O	703	4.03	0.23	3057
569570	693	4.05	0.23	3013
208P	204	4.02	0.06	3400
C570R	882	4.03	0.29	3041
208Q	273	4.05	0.09	3033
C570	1154	4.03	0.38	3037
208R	35	4.02	0.01	3500

Future Condition
100-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C552L	878	4.35	0.64	1372
C552R	679	4.18	0.35	1940
C553	1440	4.30	1.12	1286
C555	489	4.07	0.20	2445
C556	1906	4.30	1.64	1162
C556L	1601	4.35	1.35	1186
C556R	682	4.10	0.29	2352
C557	2067	4.32	1.85	1117
C557R	2002	4.33	1.77	1131
C558	2110	4.35	1.97	1071
C560I	2201	4.37	2.15	1024
C560O	294	5.77	2.15	137
C560R	2157	4.38	2.10	1027
C563	864	4.03	0.31	2787
C563L	319	4.05	0.14	2279
C563R	549	4.03	0.17	3229
C564	1195	4.05	0.44	2716
C564R	994	4.07	0.37	2686
C565	1398	4.12	0.57	2453
C566	590	4.03	0.20	2950
C567	892	4.03	0.31	2877
C567L	713	4.05	0.25	2852
C568	2210	4.12	1.07	2065
C568L	1429	4.15	0.61	2343
C568R	1263	4.08	0.46	2746
C570	1154	4.03	0.38	3037
C570R	882	4.03	0.29	3041
C572	1187	4.03	0.39	3044
C573	2843	4.12	1.58	1799
C573L	2245	4.17	1.12	2004
C573R	1391	4.05	0.46	3024
C574	911	4.02	0.27	3374
C575	1002	4.02	0.29	3455
C576	1146	4.03	0.34	3371
C577	3345	4.10	1.92	1742
C578I	3404	4.10	2.00	1702
C578O	1078	4.67	2.00	539
C580	1285	4.08	0.51	2520
C580R	1090	4.10	0.43	2535
C581	2031	4.05	0.91	2232
C581R	1747	4.07	0.76	2299
C582	2498	4.10	1.34	1864
C582R	2209	4.12	1.13	1955
C583	2567	4.12	1.42	1808
C584I	2656	4.18	1.60	1660

Table F-1

Future Condition
100-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
571572	33	4.05	0.01	3300
C572	1187	4.03	0.39	3044
572573	1172	4.05	0.39	3005
208S	229	4.02	0.07	3271
C573R	1391	4.05	0.46	3024
C573	2843	4.12	1.58	1799
208T	433	4.02	0.13	3331
208U	483	4.00	0.13	3715
C574	911	4.02	0.27	3374
574575	906	4.02	0.27	3356
208V	97	4.02	0.03	3233
C575	1002	4.02	0.29	3455
575576	985	4.05	0.29	3397
208W	170	4.02	0.05	3400
C576	1146	4.03	0.34	3371
576577	1143	4.05	0.34	3362
C577	3345	4.10	1.92	1742
577578	3329	4.12	1.92	1734
208X	247	4.02	0.08	3088
C578I	3404	4.10	2.00	1702
C578O	1078	4.67	2.00	539
578587	1073	4.72	2.00	537
210B	307	4.05	0.11	2791
C586O	246	4.12	0.11	2236
586587	245	4.17	0.11	2227
C587	1112	4.72	2.11	527
587595	1105	4.73	2.11	524
210C	245	4.03	0.08	3063
C595L	1110	4.73	2.19	507
210D	448	4.03	0.14	3200
588590	437	4.05	0.14	3121
210E	93	4.02	0.03	3100
C590L	524	4.03	0.17	3082
210F	306	4.02	0.09	3400
589590	299	4.05	0.09	3322
210G	504	4.03	0.16	3150
C590R	800	4.03	0.25	3200
C590	1323	4.03	0.42	3150
210H	234	4.02	0.07	3343
592593	226	4.07	0.07	3229
C593	1545	4.03	0.49	3153
593594	1532	4.07	0.49	3127
210I	149	4.03	0.05	2980
C594	1636	4.05	0.54	3030
594595	1595	4.10	0.54	2954

Future Condition
100-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C584O	925	4.65	1.60	578
C585	360	4.03	2.27	159
C586O	246	4.12	0.11	2236
C587	1112	4.72	2.11	527
C590	1323	4.03	0.42	3150
C590L	524	4.03	0.17	3082
C590R	800	4.03	0.25	3200
C591	1321	4.35	1.83	722
C593	1545	4.03	0.49	3153
C594	1636	4.05	0.54	3030
C595	1603	4.12	2.83	566
C595L	1110	4.73	2.19	507
C595R	1764	4.10	0.64	2756
C596	1679	4.17	2.91	577
C597	900	4.80	1.74	517
C598	884	4.88	1.90	465
C599I	2474	4.17	7.13	347
C599O	1631	5.00	7.13	229
C600O	373	4.10	0.14	2664
C601	663	4.03	0.25	2652
C602	950	4.07	0.37	2568
C602L	769	4.07	0.30	2563
C603	1313	4.07	0.52	2525
C605O	129	4.12	0.07	1843
C606	256	4.05	0.12	2133
C606R	131	4.03	0.05	2620
C607	295	4.05	0.14	2107
C608	1642	5.02	7.37	223
C608L	1629	5.03	7.24	225
C609O	69	4.12	0.04	1725
C611I	402	4.03	0.14	2871
C611O	201	4.20	0.14	1436
C611R	338	4.03	0.10	3380
C612	119	4.00	0.17	700
C613	1639	5.05	7.55	217
C615	55	4.07	0.03	1833
C617	372	4.02	0.13	2862
C617L	355	4.02	0.10	3550
C618	518	4.08	0.19	2726
C618I	499	4.07	0.18	2772
C618O	482	4.08	0.18	2678
C619I	655	4.10	0.25	2620
C619L	637	4.08	0.26	2450
C619O	596	4.18	0.25	2384
C620	741	4.22	0.42	1764

Table F-1

Future Condition
100-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
210J	324	4.03	0.10	3240
C595R	1764	4.10	0.64	2756
C595	1603	4.12	2.83	566
595596	1595	4.18	2.83	564
210K	270	4.02	0.08	3375
C596	1679	4.17	2.91	577
209A	951	4.10	0.37	2570
579580	942	4.12	0.37	2546
209C	170	4.05	0.06	2833
C580R	1090	4.10	0.43	2535
209B	266	4.02	0.08	3325
C580	1285	4.08	0.51	2520
580581	1267	4.12	0.51	2484
209D	802	4.02	0.24	3342
C581R	1747	4.07	0.76	2299
209E	445	4.03	0.15	2967
C581	2031	4.05	0.91	2232
581582	1981	4.10	0.91	2177
209F	439	4.17	0.23	1909
C582R	2209	4.12	1.13	1955
209G	625	4.03	0.20	3125
C582	2498	4.10	1.34	1864
582583	2472	4.13	1.34	1845
209H	242	4.03	0.08	3025
C583	2567	4.12	1.42	1808
583584	2536	4.20	1.42	1786
209I	604	4.02	0.18	3356
C584I	2656	4.18	1.60	1660
C584O	925	4.65	1.60	578
584597	903	4.78	1.60	564
210L	413	4.03	0.14	2950
C597	900	4.80	1.74	517
597598	883	4.88	1.74	507
210M	462	4.05	0.16	2888
C598	884	4.88	1.90	465
210N	162	4.00	0.05	3240
C599I	2474	4.17	7.13	347
C599O	1631	5.00	7.13	229
599608	1630	5.03	7.13	229
211K	363	4.00	0.10	3630
C608L	1629	5.03	7.24	225
211G	18	4.05	0.01	1800
604606	17	4.23	0.01	1700
211I	121	4.03	0.04	3025
C606R	131	4.03	0.05	2620

Future Condition
100-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C620R	573	4.22	0.28	2046
C621	1866	5.00	7.93	235
C621L	1633	5.05	7.64	214
C622	2429	4.15	8.78	277
C622L	1474	4.12	0.63	2340
C622R	1877	5.10	8.14	231
C624	238	4.02	0.07	3400
C626	3692	4.32	13.28	278
C626C	3561	4.33	13.14	271
C626R	367	4.03	0.11	3336
C627	3714	4.33	13.32	279
CLEAR	2109	4.30	3.58	589
CLEAR	1610	4.32	3.07	524
D503L	344	4.87	0.63	546
D503R	0	0.02	0.63	0
D504L	23	4.08	0.67	34
D504R	41	4.13	0.67	61
D505L	16	4.05	0.69	23
D505R	56	4.10	0.69	81
D506L	0	0.02	0.69	0
D506R	74	4.05	0.69	107
D508L	232	4.03	0.10	2320
D508R	95	4.03	0.10	950
D512L	145	4.33	0.20	725
D512R	131	4.33	0.20	655
D523L	502	4.15	0.23	2183
D523R	68	4.15	0.23	296
D543L	0	0.02	0.08	0
D543R	252	4.02	0.08	3150
D545L	84	4.05	0.14	600
D545R	84	4.05	0.14	600
D611L	32	4.20	0.14	229
D611R	169	4.20	0.14	1207
D614L	18	4.05	0.03	600
D614R	43	4.05	0.03	1433
D615L	36	4.07	0.03	1200
D615R	19	4.07	0.03	633
D619L	402	4.18	0.25	1608
D619R	194	4.18	0.25	776
501502	511	4.28	0.30	1703
502503	687	4.37	0.45	1527
503504	0	0.02	0.63	0
508507	224	4.10	0.10	2240
511512	472	4.13	0.18	2622
513514	366	4.45	0.28	1307

Table F-1

Future Condition
100-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
211H	247	4.02	0.07	3529
C605O	129	4.12	0.07	1843
C606	256	4.05	0.12	2133
606607	253	4.08	0.12	2108
211J	51	4.02	0.01	5100
C607	295	4.05	0.14	2107
607608	290	4.08	0.14	2071
C608	1642	5.02	7.37	223
608613	1641	5.05	7.37	223
211M	278	4.02	0.08	3475
610611	272	4.05	0.08	3400
211N	72	4.00	0.02	3600
C611R	338	4.03	0.10	3380
211O	143	4.02	0.04	3575
C609O	69	4.12	0.04	1725
609611	69	4.15	0.04	1725
C611I	402	4.03	0.14	2871
C611O	201	4.20	0.14	1436
D611R	169	4.20	0.14	1207
D611L	32	4.20	0.14	229
611612	27	4.27	0.14	193
211P	119	4.00	0.03	3967
C612	119	4.00	0.17	700
C613	1639	5.05	7.55	217
613621	1632	5.05	7.55	216
211L	317	4.02	0.10	3170
C621L	1633	5.05	7.64	214
211Q	74	4.00	0.02	3700
616617	72	4.03	0.02	3600
211R	283	4.02	0.08	3538
C617L	355	4.02	0.10	3550
211U	61	4.05	0.03	2033
D614R	43	4.05	0.03	1433
D614L	18	4.05	0.03	600
C617	372	4.02	0.13	2862
617618	359	4.07	0.13	2762
211S	144	4.05	0.05	2880
C618I	499	4.07	0.18	2772
C618O	482	4.08	0.18	2678
BB614R	43	4.05	0.03	1433
614615	43	4.10	0.03	1433
211V	16	4.02	0.01	1600
C615	55	4.07	0.03	1833
D615R	19	4.07	0.03	633
D615L	36	4.07	0.03	1200

Future Condition
100-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
515517	590	4.50	0.53	1113
516517	495	4.52	0.33	1500
517518	1163	4.62	1.21	961
518519	1192	4.63	1.41	845
519591	1254	4.65	1.59	789
520591	119	4.07	0.04	2975
522523	309	4.18	0.11	2809
523524	484	4.23	0.23	2104
523548	60	4.33	0.23	261
524525	550	4.25	0.31	1774
525526	586	4.07	0.35	1674
526527	776	4.10	0.43	1805
528530	545	4.33	0.33	1652
530531	1326	4.32	0.93	1426
531532	1490	4.37	1.09	1367
532533	1850	4.38	1.53	1209
533534	2100	4.53	1.89	1111
534535	2417	4.58	2.50	967
535536	2419	4.70	2.62	923
536537	326	6.13	2.91	112
537538	343	4.33	3.04	113
538540	441	4.35	3.14	140
539540	196	4.10	0.06	3267
540541	553	4.47	3.24	171
541548	657	4.33	3.40	193
542543	184	4.05	0.06	3067
543544	0	0.02	0.08	0
543547	241	4.10	0.08	3013
544545	167	4.05	0.14	1193
545546	83	4.07	0.14	593
545547	81	4.10	0.14	579
546547	269	4.03	0.20	1345
547548	732	4.10	0.26	2815
548549	1160	4.25	4.04	287
549626	3504	4.33	13.06	268
550552	675	4.37	0.46	1467
551552	416	4.22	0.20	2080
552553	1308	4.32	0.99	1321
553556	1432	4.33	1.12	1279
554555	303	4.12	0.12	2525
555556	475	4.15	0.20	2375
556557	1899	4.35	1.64	1158
557558	2055	4.37	1.85	1111
558560	2104	4.40	1.97	1068
559560	151	4.10	0.05	3020

Table F-1

Future Condition
100-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
615618	36	4.08	0.03	1200
C618	518	4.08	0.19	2726
618619	507	4.13	0.19	2668
211T	231	4.02	0.07	3300
C619L	637	4.08	0.26	2450
BB615R	19	4.07	0.03	633
615619	19	4.17	0.03	633
C619I	655	4.10	0.25	2620
C619O	596	4.18	0.25	2384
D619L	402	4.18	0.25	1608
D619R	194	4.18	0.25	776
619620	194	4.20	0.25	776
BB619L	402	4.18	0.25	1608
619620	353	4.22	0.25	1412
211W	108	4.00	0.03	3600
C620R	573	4.22	0.28	2046
BB611R	169	4.20	0.14	1207
611620	169	4.22	0.14	1207
C620	741	4.22	0.42	1764
620621	723	4.23	0.42	1721
C621	1866	5.00	7.93	235
621622	1865	5.10	7.93	235
211X	629	4.05	0.21	2995
C622R	1877	5.10	8.14	231
211A	444	4.03	0.14	3171
C600O	373	4.10	0.14	2664
600601	366	4.15	0.14	2614
211B	357	4.02	0.11	3245
C601	663	4.03	0.25	2652
601602	651	4.08	0.25	2604
211C	134	4.03	0.04	3350
C602L	769	4.07	0.30	2563
211D	184	4.05	0.07	2629
C602	950	4.07	0.37	2568
602603	923	4.12	0.37	2495
211E	509	4.03	0.16	3181
C603	1313	4.07	0.52	2525
603622	1284	4.13	0.52	2469
211F	332	4.05	0.11	3018
C622L	1474	4.12	0.63	2340
C622	2429	4.15	8.78	277
622549	2409	4.23	8.78	274
211Y	271	4.05	0.09	3011
C549R	2508	4.23	8.87	283
C549	3524	4.23	13.06	270

Future Condition
100-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
560585	294	5.85	2.15	137
561563	468	4.03	0.14	3343
562563	141	4.17	0.07	2014
563564	833	4.08	0.31	2687
564565	1151	4.13	0.44	2616
565568	1371	4.15	0.57	2405
566567	572	4.07	0.20	2860
567568	855	4.12	0.31	2758
568573	2187	4.17	1.07	2044
569570	693	4.05	0.23	3013
571572	33	4.05	0.01	3300
572573	1172	4.05	0.39	3005
574575	906	4.02	0.27	3356
575576	985	4.05	0.29	3397
576577	1143	4.05	0.34	3362
577578	3329	4.12	1.92	1734
578587	1073	4.72	2.00	537
579580	942	4.12	0.37	2546
580581	1267	4.12	0.51	2484
581582	1981	4.10	0.91	2177
582583	2472	4.13	1.34	1845
583584	2536	4.20	1.42	1786
584597	903	4.78	1.60	564
586587	245	4.17	0.11	2227
587595	1105	4.73	2.11	524
588590	437	4.05	0.14	3121
589590	299	4.05	0.09	3322
591521	1319	4.38	1.83	721
592593	226	4.07	0.07	3229
593594	1532	4.07	0.49	3127
594595	1595	4.10	0.54	2954
595596	1595	4.18	2.83	564
597598	883	4.88	1.74	507
599608	1630	5.03	7.13	229
600601	366	4.15	0.14	2614
601602	651	4.08	0.25	2604
602603	923	4.12	0.37	2495
603622	1284	4.13	0.52	2469
604606	17	4.23	0.01	1700
606607	253	4.08	0.12	2108
607608	290	4.08	0.14	2071
608613	1641	5.05	7.37	223
609611	69	4.15	0.04	1725
610611	272	4.05	0.08	3400
611612	27	4.27	0.14	193

Table F-1

Future Condition
100-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
549626	3504	4.33	13.06	268
211Z	249	4.03	0.08	3113
C626C	3561	4.33	13.14	271
211AA	96	4.05	0.03	3200
625626	92	4.08	0.03	3067
211AB	149	4.00	0.04	3725
623624	148	4.02	0.04	3700
211AC	90	4.02	0.03	3000
C624	238	4.02	0.07	3400
624626	231	4.05	0.07	3300
211AD	139	4.02	0.04	3475
C626R	367	4.03	0.11	3336
C626	3692	4.32	13.28	278
626627	3689	4.33	13.28	278
211AE	114	4.02	0.03	3800
C627	3714	4.33	13.32	279
211AF	194	4.00	0.05	3880

Future Condition
100-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
611620	169	4.22	0.14	1207
613621	1632	5.05	7.55	216
614615	43	4.10	0.03	1433
615618	36	4.08	0.03	1200
615619	19	4.17	0.03	633
616617	72	4.03	0.02	3600
617618	359	4.07	0.13	2762
618619	507	4.13	0.19	2668
619620	194	4.20	0.25	776
619620	353	4.22	0.25	1412
620621	723	4.23	0.42	1721
621622	1865	5.10	7.93	235
622549	2409	4.23	8.78	274
623624	148	4.02	0.04	3700
624626	231	4.05	0.07	3300
625626	92	4.08	0.03	3067
626627	3689	4.33	13.28	278

TABLE F-2

Table F-2

Future Condition
100-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
201A	241	12.17	0.22	1095
201B	92	12.13	0.08	1150
C501	332	12.17	0.30	1107
501502	327	12.28	0.30	1090
201C	134	12.02	0.08	1675
C502R	388	12.20	0.38	1021
201D	71	12.17	0.07	1014
C502	458	12.20	0.45	1018
502503	453	12.33	0.45	1007
201E	175	12.22	0.18	972
C503I	616	12.30	0.63	978
C503O	298	12.83	0.63	473
D503L	298	12.83	0.63	473
D503R	0	0.02	0.63	0
503504	0	0.02	0.63	0
202A	63	12.02	0.04	1575
C504I	62	12.02	0.67	93
C504O	34	12.18	0.67	51
D504L	22	12.08	0.67	33
D504R	12	12.18	0.67	18
202B	31	12.02	0.02	1550
C505I	35	12.03	0.69	51
D505L	14	12.03	0.69	20
D505R	21	12.03	0.69	30
202C	14	12.00	0.01	1400
C506	34	12.03	0.69	49
D506L	0	0.02	0.69	0
D506R	34	12.03	0.69	49
202D	99	12.03	0.06	1650
202E	183	12.02	0.10	1830
C508O	182	12.03	0.10	1820
D508R	71	12.03	0.10	710
D508L	111	12.03	0.10	1110
508507	108	12.10	0.10	1080
C507I	234	12.05	0.86	272
C507O	234	12.05	0.86	272
202F	24	12.00	0.01	2400
202G	25	12.00	0.01	2500
202H	310	12.02	0.18	1722
C511O	259	12.10	0.18	1439
511512	258	12.15	0.18	1433
202I	33	12.00	0.02	1650
C512I	279	12.10	0.20	1395
C512O	190	12.38	0.20	950
D512R	80	12.38	0.20	400

Future Condition
100-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
201A	241	12.17	0.22	823
201B	92	12.13	0.08	950
201C	134	12.02	0.08	847
201D	71	12.17	0.07	840
201E	175	12.22	0.18	1538
202A	63	12.02	0.04	789
202B	31	12.02	0.02	843
202C	14	12.00	0.01	791
202D	99	12.03	0.06	787
202E	183	12.02	0.10	744
202F	24	12.00	0.01	763
202G	25	12.00	0.01	441
202H	310	12.02	0.18	441
202I	33	12.00	0.02	0
203A	267	12.22	0.28	0
203B	75	12.02	0.04	1450
203C	119	12.13	0.10	85
203D	115	12.17	0.11	46
203E	170	12.02	0.09	33
203F	345	12.28	0.33	13
203G	267	12.18	0.25	1450
203H	337	12.03	0.21	43
203I	233	12.08	0.17	20
203J	70	12.02	0.04	23
203K	276	12.03	0.16	1400
204A	187	12.02	0.11	43
204B	209	12.03	0.13	0
204C	149	12.00	0.08	43
204D	82	12.02	0.04	1467
204E	126	12.02	0.07	1700
204F	147	12.02	0.08	1690
205A	130	12.23	0.12	700
205B	237	12.30	0.21	990
205C	65	12.22	0.06	970
205D	405	12.22	0.32	238
205E	203	12.32	0.22	238
205F	197	12.22	0.16	2400
205G	214	12.23	0.19	2500
205H	237	12.33	0.26	1672
205I	367	12.28	0.35	1394
205J	361	12.28	0.37	1394
205K	183	12.37	0.25	1550
205L	147	12.17	0.12	1365
205M	210	12.05	0.14	920
205N	141	12.22	0.16	385

Table F-2

Future Condition
100-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
D512L	110	12.38	0.20	550
203A	267	12.22	0.28	954
C513O	237	12.38	0.28	846
513514	234	12.48	0.28	836
203B	75	12.02	0.04	1875
C514R	249	12.48	0.32	778
203C	119	12.13	0.10	1190
C514	319	12.43	0.43	742
203D	115	12.17	0.11	1045
C515	402	12.35	0.53	758
515517	400	12.50	0.53	755
203E	170	12.02	0.09	1889
C517R	433	12.45	0.63	687
203F	345	12.28	0.33	1045
516517	333	12.52	0.33	1009
203G	267	12.18	0.25	1068
C517L	508	12.45	0.58	876
C517	938	12.45	1.21	775
517518	931	12.58	1.21	769
203H	337	12.03	0.21	1605
C518	996	12.55	1.41	706
518519	992	12.62	1.41	704
203I	233	12.08	0.17	1371
C519	1063	12.60	1.59	669
519591	1060	12.63	1.59	667
203J	70	12.02	0.04	1750
520591	70	12.07	0.04	1750
BB512R	80	12.38	0.20	400
C591	1119	12.28	1.83	611
591521	1115	12.30	1.83	609
203K	276	12.03	0.16	1725
C521	1241	12.25	1.99	624
CLEAR	1464	12.23	3.07	477
204A	187	12.02	0.11	1700
522523	181	12.17	0.11	1645
204B	209	12.03	0.13	1608
C523I	370	12.07	0.23	1609
C523O	280	12.25	0.23	1217
D523R	18	12.25	0.23	78
D523L	262	12.25	0.23	1139
523524	259	12.33	0.23	1126
204C	149	12.00	0.08	1863
C524	329	12.07	0.31	1061
524525	325	12.08	0.31	1048
204D	82	12.02	0.04	2050

Future Condition
100-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
206A	224	12.02	0.13	535
206B	169	12.02	0.09	679
206C	35	12.05	0.02	614
206D	114	12.02	0.06	611
206E	38	12.02	0.02	1750
206F	247	12.03	0.16	563
206G	125	12.07	0.09	970
206H	106	12.02	0.06	542
206I	40	12.00	0.02	864
206J	111	12.02	0.06	560
206K	96	12.02	0.06	557
206L	106	12.02	0.06	1767
206M	109	12.02	0.06	544
206N	260	12.03	0.15	748
207A	254	12.30	0.26	727
207B	202	12.30	0.21	832
207C	197	12.22	0.17	643
207D	255	12.12	0.20	566
207E	178	12.12	0.16	563
207F	153	12.13	0.13	1524
207G	190	12.28	0.24	509
207H	181	12.07	0.12	508
207I	120	12.03	0.07	1265
207J	154	12.03	0.09	545
207K	209	12.05	0.13	543
207L	136	12.03	0.08	1625
207M	205	12.02	0.12	1600
207N	87	12.02	0.05	385
207O	227	12.02	0.13	522
208A	253	12.00	0.14	521
208B	46	12.02	0.03	1569
208C	85	12.10	0.07	546
208D	126	12.02	0.08	425
208E	107	12.02	0.06	1573
208F	122	12.02	0.07	1518
208G	224	12.03	0.13	1454
208H	59	12.07	0.04	1457
208I	204	12.02	0.12	1061
208J	128	12.03	0.08	35
208K	88	12.00	0.05	1030
208L	101	12.02	0.06	1026
208M	276	12.03	0.16	1813
208N	78	12.05	0.05	971
208O	392	12.03	0.23	968
208P	111	12.00	0.06	1975

Table F-2

Future Condition
100-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C525	399	12.07	0.35	1140
525526	395	12.10	0.35	1129
204E	126	12.02	0.07	1800
C526	512	12.07	0.43	1191
526527	505	12.12	0.43	1174
204F	147	12.02	0.08	1838
C527	627	12.07	0.50	1254
CLEAR	2017	12.13	3.58	563
205A	130	12.23	0.12	1083
205B	237	12.30	0.21	1129
C528	361	12.27	0.33	1094
528530	360	12.32	0.33	1091
205C	65	12.22	0.06	1083
C530R	417	12.30	0.39	1069
205D	405	12.22	0.32	1266
205E	203	12.32	0.22	923
C529	596	12.25	0.54	1104
C530	1005	12.27	0.93	1081
530531	996	12.32	0.93	1071
205F	197	12.22	0.16	1231
C531	1172	12.30	1.09	1075
531532	1162	12.37	1.09	1066
205G	214	12.23	0.19	1126
C532L	1344	12.33	1.27	1058
205H	237	12.33	0.26	912
C532	1578	12.33	1.53	1031
532533	1575	12.37	1.53	1029
205I	367	12.28	0.35	1049
C533	1920	12.33	1.89	1016
533534	1889	12.50	1.89	999
205J	361	12.28	0.37	976
C534R	2142	12.48	2.25	952
205K	183	12.37	0.25	732
C534	2310	12.47	2.50	924
534535	2300	12.53	2.50	920
205L	147	12.17	0.12	1225
C535	2346	12.52	2.62	895
535536	2320	12.65	2.62	885
205M	210	12.05	0.14	1500
C536R	2354	12.65	2.76	853
205N	141	12.22	0.16	881
C536I	2430	12.63	2.91	835
C536O	321	14.07	2.91	110
536537	321	14.12	2.91	110
206A	224	12.02	0.13	1723

Future Condition
100-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
208Q	158	12.03	0.09	1063
208R	19	12.00	0.01	1054
208S	129	12.02	0.07	1671
208T	239	12.02	0.13	1112
208U	252	12.00	0.13	1100
208V	53	12.00	0.03	1738
208W	93	12.00	0.05	1174
208X	135	12.02	0.08	510
209A	549	12.08	0.37	900
209B	146	12.02	0.08	895
209C	98	12.05	0.06	861
209D	432	12.02	0.24	858
209E	250	12.03	0.15	917
209F	273	12.15	0.23	844
209G	348	12.02	0.20	1078
209H	136	12.03	0.08	705
209I	326	12.02	0.18	893
210A	213	12.02	0.12	862
210B	178	12.03	0.11	857
210C	135	12.02	0.08	1069
210D	250	12.02	0.14	866
210E	52	12.02	0.03	861
210F	165	12.02	0.09	926
210G	282	12.02	0.16	861
210H	127	12.02	0.07	681
210I	86	12.03	0.05	826
210J	183	12.02	0.10	825
210K	145	12.00	0.08	794
210L	230	12.02	0.14	811
210M	264	12.03	0.16	799
210N	81	12.00	0.05	665
211A	249	12.02	0.14	768
211AA	57	12.03	0.03	500
211AB	79	12.00	0.04	740
211AC	51	12.02	0.03	737
211AD	78	12.02	0.04	1042
211AE	63	12.02	0.03	718
211AF	102	12.00	0.05	713
211B	195	12.02	0.11	1300
211C	77	12.02	0.04	689
211D	103	12.05	0.07	644
211E	281	12.02	0.16	677
211F	190	12.03	0.11	109
211G	11	12.05	0.01	109
211H	133	12.00	0.07	1646

Table F-2

Future Condition
100-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C537	358	12.07	3.04	118
537538	351	12.12	3.04	115
206B	169	12.02	0.09	1878
C538I	499	12.07	3.14	159
C538O	456	12.15	3.14	145
538540	448	12.25	3.14	143
206C	35	12.05	0.02	1750
C540R	468	12.25	3.16	148
206D	114	12.02	0.06	1900
539540	111	12.08	0.06	1850
206E	38	12.02	0.02	1900
C540L	147	12.03	0.09	1633
C540	561	12.20	3.24	173
540541	548	12.40	3.24	169
206F	247	12.03	0.16	1544
C541	633	12.22	3.40	186
541548	632	12.25	3.40	186
206G	125	12.07	0.09	1389
BB523R	18	12.25	0.23	78
523548	15	12.50	0.23	65
C548L	726	12.12	3.72	195
206H	106	12.02	0.06	1767
542543	105	12.05	0.06	1750
206I	40	12.00	0.02	2000
C543	143	12.02	0.08	1788
D543R	143	12.02	0.08	1788
D543L	0	0.02	0.08	0
543544	0	0.02	0.08	0
206K	96	12.02	0.06	1600
C544	96	12.02	0.14	686
544545	95	12.05	0.14	679
D545R	48	12.05	0.14	343
D545L	48	12.05	0.14	343
545546	47	12.07	0.14	336
206L	106	12.02	0.06	1767
C546	152	12.02	0.20	760
546547	152	12.03	0.20	760
BB543R	143	12.02	0.08	1788
543547	140	12.08	0.08	1750
BB545R	48	12.05	0.14	343
545547	47	12.10	0.14	336
206J	111	12.02	0.06	1850
C547	443	12.03	0.26	1704
547548	436	12.08	0.26	1677
206M	109	12.02	0.06	1817

Future Condition
100-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
211I	70	12.03	0.04	106
211J	28	12.00	0.01	106
211K	191	12.00	0.10	1756
211L	169	12.02	0.10	146
211M	152	12.00	0.08	130
211N	39	12.00	0.02	128
211O	78	12.00	0.04	1650
211P	65	12.00	0.03	133
211Q	39	12.00	0.02	1783
211R	155	12.02	0.08	1750
211S	83	12.03	0.05	1750
211T	127	12.00	0.07	1522
211U	37	12.07	0.03	157
211V	9	12.02	0.01	154
211W	59	12.00	0.03	1388
211X	362	12.05	0.21	179
211Y	158	12.03	0.09	178
211Z	137	12.02	0.08	1200
BB512R	80	12.38	0.20	35
BB523R	18	12.25	0.23	22
BB543R	143	12.02	0.08	183
BB545R	48	12.05	0.14	1650
BB611R	143	12.20	0.14	1633
BB614R	26	12.07	0.03	1950
BB615R	12	12.07	0.03	1675
BB619L	0	0.02	0.25	1675
C501	332	12.17	0.30	0
C502	458	12.20	0.45	0
C502R	388	12.20	0.38	1467
C503I	616	12.30	0.63	629
C503O	298	12.83	0.63	621
C504I	62	12.02	0.67	307
C504O	34	12.18	0.67	307
C505I	35	12.03	0.69	307
C506	34	12.03	0.69	1650
C507I	234	12.05	0.86	700
C507O	234	12.05	0.86	700
C508O	182	12.03	0.10	1675
C511O	259	12.10	0.18	1650
C512I	279	12.10	0.20	307
C512O	190	12.38	0.20	307
C513O	237	12.38	0.28	1733
C514	319	12.43	0.43	1585
C514R	249	12.48	0.32	1558
C515	402	12.35	0.53	1717

Table F-2

Future Condition
100-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C548R	535	12.05	0.32	1672
C548	1241	12.08	4.04	307
548549	1216	12.23	4.04	301
206N	260	12.03	0.15	1733
C549L	1370	12.20	4.19	327
207A	254	12.30	0.26	977
207B	202	12.30	0.21	962
C550	455	12.30	0.46	989
550552	450	12.37	0.46	978
207C	197	12.22	0.17	1159
C552L	617	12.32	0.64	964
207D	255	12.12	0.20	1275
551552	252	12.20	0.20	1260
207E	178	12.12	0.16	1113
C552R	420	12.17	0.35	1200
C552	1001	12.27	0.99	1011
552553	998	12.30	0.99	1008
207F	153	12.13	0.13	1177
C553	1127	12.28	1.12	1006
553556	1121	12.32	1.12	1001
207G	190	12.28	0.24	792
C556L	1309	12.32	1.35	970
207H	181	12.07	0.12	1508
554555	178	12.12	0.12	1483
207I	120	12.03	0.07	1714
C555	289	12.07	0.20	1445
555556	282	12.18	0.20	1410
207J	154	12.03	0.09	1711
C556R	404	12.08	0.29	1393
C556	1626	12.27	1.64	991
556557	1619	12.32	1.64	987
207K	209	12.05	0.13	1608
C557R	1720	12.30	1.77	972
207L	136	12.03	0.08	1700
C557	1780	12.28	1.85	962
557558	1770	12.33	1.85	957
207M	205	12.02	0.12	1708
C558	1821	12.33	1.97	924
558560	1813	12.37	1.97	920
207O	227	12.02	0.13	1746
C560R	1857	12.37	2.10	884
207N	87	12.02	0.05	1740
559560	85	12.08	0.05	1700
C560I	1892	12.35	2.15	880
C560O	283	13.78	2.15	132

Future Condition
100-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C517	938	12.45	1.21	1553
C517L	508	12.45	0.58	282
C517R	433	12.45	0.63	278
C518	996	12.55	1.41	1587
C519	1063	12.60	1.59	305
C521	1241	12.25	1.99	742
C523I	370	12.07	0.23	719
C523O	280	12.25	0.23	746
C524	329	12.07	0.31	739
C525	399	12.07	0.35	941
C526	512	12.07	0.43	731
C527	627	12.07	0.50	1090
C528	361	12.27	0.33	1080
C529	596	12.25	0.54	938
C530	1005	12.27	0.93	1020
C530R	417	12.30	0.39	783
C531	1172	12.30	1.09	781
C532	1578	12.33	1.53	1023
C532L	1344	12.33	1.27	784
C533	1920	12.33	1.89	781
C534	2310	12.47	2.50	546
C534R	2142	12.48	2.25	742
C535	2346	12.52	2.62	1333
C536I	2430	12.63	2.91	1317
C536O	321	14.07	2.91	1557
C536R	2354	12.65	2.76	1285
C537	358	12.07	3.04	1260
C538I	499	12.07	3.14	1578
C538O	456	12.15	3.14	1252
C540	561	12.20	3.24	757
C540L	147	12.03	0.09	755
C540R	468	12.25	3.16	1446
C541	633	12.22	3.40	745
C543	143	12.02	0.08	1575
C544	96	12.02	0.14	738
C546	152	12.02	0.20	737
C547	443	12.03	0.26	1592
C548	1241	12.08	4.04	716
C548L	726	12.12	3.72	715
C548R	535	12.05	0.32	1623
C549	4013	12.20	13.06	691
C549L	1370	12.20	4.19	1640
C549R	2760	12.20	8.87	1600
C550	455	12.30	0.46	688
C552	1001	12.27	0.99	129

Table F-2

Future Condition
100-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
560585	283	13.88	2.15	132
210A	213	12.02	0.12	1775
C585	339	12.03	2.27	149
208A	253	12.00	0.14	1807
561563	251	12.03	0.14	1793
208B	46	12.02	0.03	1533
C563R	297	12.02	0.17	1747
208C	85	12.10	0.07	1214
562563	83	12.18	0.07	1186
208D	126	12.02	0.08	1575
C563L	197	12.05	0.14	1407
C563	491	12.03	0.31	1584
563564	483	12.08	0.31	1558
208E	107	12.02	0.06	1783
C564R	579	12.07	0.37	1565
208F	122	12.02	0.07	1743
C564	696	12.05	0.44	1582
564565	681	12.13	0.44	1548
208G	224	12.03	0.13	1723
C565	870	12.08	0.57	1526
565568	862	12.13	0.57	1512
208H	59	12.07	0.04	1475
C568L	916	12.13	0.61	1502
208I	204	12.02	0.12	1700
208J	128	12.03	0.08	1600
C566	330	12.02	0.20	1650
566567	326	12.07	0.20	1630
208K	88	12.00	0.05	1760
C567L	408	12.03	0.25	1632
208L	101	12.02	0.06	1683
C567	508	12.03	0.31	1639
567568	497	12.12	0.31	1603
208M	276	12.03	0.16	1725
C568R	752	12.07	0.46	1635
C568	1638	12.10	1.07	1531
568573	1622	12.15	1.07	1516
208N	78	12.05	0.05	1560
C573L	1687	12.15	1.12	1506
208O	392	12.03	0.23	1704
569570	389	12.05	0.23	1691
208P	111	12.00	0.06	1850
C570R	496	12.03	0.29	1710
208Q	158	12.03	0.09	1756
C570	652	12.03	0.38	1716
208R	19	12.00	0.01	1900

Future Condition
100-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C552L	617	12.32	0.64	129
C552R	420	12.17	0.35	1692
C553	1127	12.28	1.12	140
C555	289	12.07	0.20	1757
C556	1626	12.27	1.64	1743
C556L	1309	12.32	1.35	1400
C556R	404	12.08	0.29	1682
C557	1780	12.28	1.85	1057
C557R	1720	12.30	1.77	1043
C558	1821	12.33	1.97	1438
C560I	1892	12.35	2.15	1243
C560O	283	13.78	2.15	1474
C560R	1857	12.37	2.10	1445
C563	491	12.03	0.31	1650
C563L	197	12.05	0.14	1451
C563R	297	12.02	0.17	1657
C564	696	12.05	0.44	1464
C564R	579	12.07	0.37	1439
C565	870	12.08	0.57	1569
C566	330	12.02	0.20	1411
C567	508	12.03	0.31	1400
C567L	408	12.03	0.25	1275
C568	1638	12.10	1.07	1385
C568L	916	12.13	0.61	1583
C568R	752	12.07	0.46	1425
C570	652	12.03	0.38	1510
C570R	496	12.03	0.29	1495
C572	671	12.03	0.39	1700
C573	2380	12.10	1.58	1500
C573L	1687	12.15	1.12	1567
C573R	792	12.03	0.46	1506
C574	489	12.00	0.27	1477
C575	541	12.02	0.29	1581
C576	628	12.02	0.34	1500
C577	2969	12.08	1.92	1407
C578I	3058	12.10	2.00	1396
C578O	460	12.93	2.00	1380
C580	771	12.05	0.51	1386
C580R	639	12.08	0.43	1630
C581	1409	12.05	0.91	1617
C581R	1164	12.05	0.76	1783
C582	1968	12.08	1.34	1641
C582R	1654	12.10	1.13	1611
C583	2065	12.12	1.42	1629
C584I	2209	12.15	1.60	1900

Table F-2

Future Condition
100-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
571572	19	12.02	0.01	1900
C572	671	12.03	0.39	1721
572573	667	12.05	0.39	1710
208S	129	12.02	0.07	1843
C573R	792	12.03	0.46	1722
C573	2380	12.10	1.58	1506
208T	239	12.02	0.13	1838
208U	252	12.00	0.13	1938
C574	489	12.00	0.27	1811
574575	488	12.02	0.27	1807
208V	53	12.00	0.03	1767
C575	541	12.02	0.29	1866
575576	537	12.03	0.29	1852
208W	93	12.00	0.05	1860
C576	628	12.02	0.34	1847
576577	628	12.03	0.34	1847
C577	2969	12.08	1.92	1546
577578	2951	12.10	1.92	1537
208X	135	12.02	0.08	1688
C578I	3058	12.10	2.00	1529
C578O	460	12.93	2.00	230
578587	459	12.98	2.00	230
210B	178	12.03	0.11	1618
C586O	168	12.08	0.11	1527
586587	167	12.13	0.11	1518
C587	477	12.97	2.11	226
587595	476	13.00	2.11	226
210C	135	12.02	0.08	1688
C595L	553	12.08	2.19	253
210D	250	12.02	0.14	1786
588590	248	12.05	0.14	1771
210E	52	12.02	0.03	1733
C590L	299	12.03	0.17	1759
210F	165	12.02	0.09	1833
589590	164	12.05	0.09	1822
210G	282	12.02	0.16	1763
C590R	444	12.03	0.25	1776
C590	741	12.03	0.42	1764
210H	127	12.02	0.07	1814
592593	126	12.05	0.07	1800
C593	866	12.03	0.49	1767
593594	859	12.05	0.49	1753
210I	86	12.03	0.05	1720
C594	944	12.05	0.54	1748
594595	929	12.13	0.54	1720

Future Condition
100-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C584O	393	12.90	1.60	1800
C585	339	12.03	2.27	1636
C586O	168	12.08	0.11	1626
C587	477	12.97	2.11	1686
C590	741	12.03	0.42	1630
C590L	299	12.03	0.17	1385
C590R	444	12.03	0.25	1738
C591	1119	12.28	1.83	1923
C593	866	12.03	0.49	1756
C594	944	12.05	0.54	1748
C595	1629	12.08	2.83	1700
C595L	553	12.08	2.19	1803
C595R	1082	12.08	0.64	1783
C596	1696	12.13	2.91	1800
C597	483	12.07	1.74	1776
C598	691	12.10	1.90	1774
C599I	2655	12.10	7.13	1428
C599O	1143	13.05	7.13	1420
C600O	241	12.07	0.14	1613
C601	419	12.03	0.25	1415
C602	589	12.07	0.37	213
C602L	487	12.07	0.30	212
C603	833	12.07	0.52	1464
C605O	107	12.08	0.07	1382
C606	184	12.05	0.12	1382
C606R	78	12.03	0.05	209
C607	207	12.05	0.14	209
C608	1161	12.95	7.37	1550
C608L	1147	13.05	7.24	240
C609O	56	12.08	0.04	1671
C611I	242	12.02	0.14	1664
C611O	143	12.20	0.14	1633
C611R	190	12.02	0.10	1647
C612	64	12.00	0.17	1744
C613	1162	12.98	7.55	1722
C615	34	12.07	0.03	1694
C617	204	12.02	0.13	1696
C617L	193	12.02	0.10	1671
C618	302	12.07	0.19	1729
C618I	282	12.05	0.18	1714
C618O	280	12.07	0.18	1676
C619I	408	12.07	0.25	1667
C619L	399	12.07	0.26	1580
C619O	185	12.40	0.25	1654
C620	355	12.05	0.42	1626

Table F-2

Future Condition
100-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
210J	183	12.02	0.10	1830
C595R	1082	12.08	0.64	1691
C595	1629	12.08	2.83	576
595596	1619	12.15	2.83	572
210K	145	12.00	0.08	1813
C596	1696	12.13	2.91	583
209A	549	12.08	0.37	1484
579580	546	12.10	0.37	1476
209C	98	12.05	0.06	1633
C580R	639	12.08	0.43	1486
209B	146	12.02	0.08	1825
C580	771	12.05	0.51	1512
580581	765	12.10	0.51	1500
209D	432	12.02	0.24	1800
C581R	1164	12.05	0.76	1532
209E	250	12.03	0.15	1667
C581	1409	12.05	0.91	1548
581582	1389	12.10	0.91	1526
209F	273	12.15	0.23	1187
C582R	1654	12.10	1.13	1464
209G	348	12.02	0.20	1740
C582	1968	12.08	1.34	1469
582583	1950	12.12	1.34	1455
209H	136	12.03	0.08	1700
C583	2065	12.12	1.42	1454
583584	2039	12.18	1.42	1436
209I	326	12.02	0.18	1811
C584I	2209	12.15	1.60	1381
C584O	393	12.90	1.60	246
584597	392	13.07	1.60	245
210L	230	12.02	0.14	1643
C597	483	12.07	1.74	278
597598	473	12.17	1.74	272
210M	264	12.03	0.16	1650
C598	691	12.10	1.90	364
210N	81	12.00	0.05	1620
C599I	2655	12.10	7.13	372
C599O	1143	13.05	7.13	160
599608	1143	13.08	7.13	160
211K	191	12.00	0.10	1910
C608L	1147	13.05	7.24	158
211G	11	12.05	0.01	1100
604606	11	12.23	0.01	1100
211I	70	12.03	0.04	1750
C606R	78	12.03	0.05	1560

Future Condition
100-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C620R	223	12.03	0.28	1690
C621	1484	12.05	7.93	1595
C621L	1169	13.00	7.64	545
C622	2697	12.12	8.78	540
C622L	979	12.12	0.63	1763
C622R	1761	12.12	8.14	546
C624	130	12.00	0.07	1297
C626	4117	12.27	13.28	1289
C626C	4012	12.28	13.14	1517
C626R	207	12.02	0.11	1293
C627	4130	12.28	13.32	1713
CLEAR	2017	12.13	3.58	1312
CLEAR	1464	12.23	3.07	1306
D503L	298	12.83	0.63	1738
D503R	0	0.02	0.63	1362
D504L	22	12.08	0.67	1527
D504R	12	12.18	0.67	1385
D505L	14	12.03	0.69	1363
D505R	21	12.03	0.69	1022
D506L	0	0.02	0.69	1294
D506R	34	12.03	0.69	1610
D508L	111	12.03	0.10	1307
D508R	71	12.03	0.10	1298
D512L	110	12.38	0.20	1538
D512R	80	12.38	0.20	1301
D523L	262	12.25	0.23	1284
D523R	18	12.25	0.23	1750
D543L	0	0.02	0.08	1243
D543R	143	12.02	0.08	227
D545L	48	12.05	0.14	226
D545R	48	12.05	0.14	1507
D611L	0	0.02	0.14	264
D611R	143	12.20	0.14	261
D614L	11	12.07	0.03	1569
D614R	26	12.07	0.03	341
D615L	22	12.07	0.03	1600
D615R	12	12.07	0.03	351
D619L	0	0.02	0.25	158
D619R	185	12.40	0.25	158
501502	327	12.28	0.30	1880
502503	453	12.33	0.45	156
503504	0	0.02	0.63	1000
508507	108	12.10	0.10	1000
511512	258	12.15	0.18	1575
513514	234	12.48	0.28	1420

Table F-2

Future Condition
100-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
211H	133	12.00	0.07	1900
C605O	107	12.08	0.07	1529
C606	184	12.05	0.12	1533
606607	182	12.08	0.12	1517
211J	28	12.00	0.01	2800
C607	207	12.05	0.14	1479
607608	206	12.08	0.14	1471
C608	1161	12.95	7.37	158
608613	1161	12.98	7.37	158
211M	152	12.00	0.08	1900
610611	152	12.03	0.08	1900
211N	39	12.00	0.02	1950
C611R	190	12.02	0.10	1900
211O	78	12.00	0.04	1950
C609O	56	12.08	0.04	1400
609611	56	12.12	0.04	1400
C611I	242	12.02	0.14	1729
C611O	143	12.20	0.14	1021
D611R	143	12.20	0.14	1021
D611L	0	0.02	0.14	0
611612	0	0.02	0.14	0
211P	65	12.00	0.03	2167
C612	64	12.00	0.17	376
C613	1162	12.98	7.55	154
613621	1162	13.00	7.55	154
211L	169	12.02	0.10	1690
C621L	1169	13.00	7.64	153
211Q	39	12.00	0.02	1950
616617	39	12.02	0.02	1950
211R	155	12.02	0.08	1938
C617L	193	12.02	0.10	1930
211U	37	12.07	0.03	1233
D614R	26	12.07	0.03	867
D614L	11	12.07	0.03	367
C617	204	12.02	0.13	1569
617618	200	12.07	0.13	1538
211S	83	12.03	0.05	1660
C618I	282	12.05	0.18	1567
C618O	280	12.07	0.18	1556
BB614R	26	12.07	0.03	867
614615	26	12.10	0.03	867
211V	9	12.02	0.01	900
C615	34	12.07	0.03	1133
D615R	12	12.07	0.03	400
D615L	22	12.07	0.03	733

Future Condition
100-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
515517	400	12.50	0.53	1843
516517	333	12.52	0.33	1486
517518	931	12.58	1.21	1442
518519	992	12.62	1.41	1442
519591	1060	12.63	1.59	2700
520591	70	12.07	0.04	1393
522523	181	12.17	0.11	1386
523524	259	12.33	0.23	155
523548	15	12.50	0.23	155
524525	325	12.08	0.31	1825
525526	395	12.10	0.35	1825
526527	505	12.12	0.43	1900
528530	360	12.32	0.33	1820
530531	996	12.32	0.93	1875
531532	1162	12.37	1.09	1350
532533	1575	12.37	1.53	1350
533534	1889	12.50	1.89	1664
534535	2300	12.53	2.50	1007
535536	2320	12.65	2.62	1007
536537	321	14.12	2.91	0
537538	351	12.12	3.04	0
538540	448	12.25	3.14	2100
539540	111	12.08	0.06	371
540541	548	12.40	3.24	152
541548	632	12.25	3.40	152
542543	105	12.05	0.06	1620
543544	0	0.02	0.08	151
543547	140	12.08	0.08	1950
544545	95	12.05	0.14	1900
545546	47	12.07	0.14	1838
545547	47	12.10	0.14	1850
546547	152	12.03	0.20	1067
547548	436	12.08	0.26	733
548549	1216	12.23	4.04	300
549626	3968	12.28	13.06	1492
550552	450	12.37	0.46	1469
551552	252	12.20	0.20	1520
552553	998	12.30	0.99	1472
553556	1121	12.32	1.12	1461
554555	178	12.12	0.12	733
555556	282	12.18	0.20	733
556557	1619	12.32	1.64	ERR
557558	1770	12.33	1.85	967
558560	1813	12.37	1.97	333
559560	85	12.08	0.05	667

Table F-2

Future Condition
100-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
615618	22	12.07	0.03	733
C618	302	12.07	0.19	1589
618619	299	12.13	0.19	1574
211T	127	12.00	0.07	1814
C619L	399	12.07	0.26	1535
BB615R	12	12.07	0.03	400
615619	11	12.17	0.03	367
C619I	408	12.07	0.25	1632
C619O	185	12.40	0.25	740
D619L	0	0.02	0.25	0
D619R	185	12.40	0.25	740
619620	185	12.42	0.25	740
BB619L	0	0.02	0.25	0
619620	0	0.02	0.25	0
211W	59	12.00	0.03	1967
C620R	223	12.03	0.28	796
BB611R	143	12.20	0.14	1021
611620	143	12.22	0.14	1021
C620	355	12.05	0.42	845
620621	354	12.08	0.42	843
C621	1484	12.05	7.93	187
621622	1458	12.15	7.93	184
211X	362	12.05	0.21	1724
C622R	1761	12.12	8.14	216
211A	249	12.02	0.14	1779
C600O	241	12.07	0.14	1721
600601	238	12.12	0.14	1700
211B	195	12.02	0.11	1773
C601	419	12.03	0.25	1676
601602	415	12.08	0.25	1660
211C	77	12.02	0.04	1925
C602L	487	12.07	0.30	1623
211D	103	12.05	0.07	1471
C602	589	12.07	0.37	1592
602603	581	12.12	0.37	1570
211E	281	12.02	0.16	1756
C603	833	12.07	0.52	1602
603622	816	12.13	0.52	1569
211F	190	12.03	0.11	1727
C622L	979	12.12	0.63	1554
C622	2697	12.12	8.78	307
622549	2662	12.20	8.78	303
211Y	158	12.03	0.09	1756
C549R	2760	12.20	8.87	311
C549	4013	12.20	13.06	307

Future Condition
100-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
560585	283	13.88	2.15	667
561563	251	12.03	0.14	1484
562563	83	12.18	0.07	1463
563564	483	12.08	0.31	1743
564565	681	12.13	0.44	1404
565568	862	12.13	0.57	333
566567	326	12.07	0.20	300
567568	497	12.12	0.31	1496
568573	1622	12.15	1.07	732
569570	389	12.05	0.23	0
571572	19	12.02	0.01	732
572573	667	12.05	0.39	732
574575	488	12.02	0.27	0
575576	537	12.03	0.29	0
576577	628	12.03	0.34	1933
577578	2951	12.10	1.92	771
578587	459	12.98	2.00	1007
579580	546	12.10	0.37	1007
580581	765	12.10	0.51	821
581582	1389	12.10	0.91	819
582583	1950	12.12	1.34	181
583584	2039	12.18	1.42	178
584597	392	13.07	1.60	1562
586587	167	12.13	0.11	208
587595	476	13.00	2.11	1657
588590	248	12.05	0.14	1593
589590	164	12.05	0.09	1571
591521	1115	12.30	1.83	1682
592593	126	12.05	0.07	1556
593594	859	12.05	0.49	1540
594595	929	12.13	0.54	1750
595596	1619	12.15	2.83	1500
597598	473	12.17	1.74	1300
599608	1143	13.08	7.13	1459
600601	238	12.12	0.14	1441
601602	415	12.08	0.25	1656
602603	581	12.12	0.37	1473
603622	816	12.13	0.52	1452
604606	11	12.23	0.01	1573
606607	182	12.08	0.12	1435
607608	206	12.08	0.14	292
608613	1161	12.98	7.37	288
609611	56	12.12	0.04	1633
610611	152	12.03	0.08	296
611612	0	0.02	0.14	290

Table F-2

Future Condition
100-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
549626	3968	12.28	13.06	304
211Z	137	12.02	0.08	1713
C626C	4012	12.28	13.14	305
211AA	57	12.03	0.03	1900
625626	56	12.08	0.03	1867
211AB	79	12.00	0.04	1975
623624	79	12.00	0.04	1975
211AC	51	12.02	0.03	1700
C624	130	12.00	0.07	1857
624626	129	12.03	0.07	1843
211AD	78	12.02	0.04	1950
C626R	207	12.02	0.11	1882
C626	4117	12.27	13.28	310
626627	4113	12.28	13.28	310
211AE	63	12.02	0.03	2100
C627	4130	12.28	13.32	310
211AF	102	12.00	0.05	2040

Future Condition
100-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
611620	143	12.22	0.14	287
613621	1162	13.00	7.55	1613
614615	26	12.10	0.03	289
615618	22	12.07	0.03	1667
615619	11	12.17	0.03	1667
616617	39	12.02	0.02	1975
617618	200	12.07	0.13	1950
618619	299	12.13	0.19	1600
619620	185	12.42	0.25	1800
619620	0	0.02	0.25	1786
620621	354	12.08	0.42	1850
621622	1458	12.15	7.93	1800
622549	2662	12.20	8.78	294
623624	79	12.00	0.04	294
624626	129	12.03	0.07	2033
625626	56	12.08	0.03	294
626627	4113	12.28	13.28	2020

TABLE F-3

Table F-3

Future Condition
10-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
201A	169	4.28	0.22	768
201B	66	4.23	0.08	825
C501	233	4.27	0.30	777
501502	228	4.42	0.30	760
201C	138	4.05	0.08	1725
C502R	260	4.37	0.38	684
201D	51	4.25	0.07	729
C502	307	4.35	0.45	682
502503	302	4.52	0.45	671
201E	108	4.38	0.18	600
C503I	386	4.48	0.63	613
C503O	230	4.90	0.63	365
D503L	230	4.90	0.63	365
D503R	0	0.02	0.63	0
503504	0	0.02	0.63	0
202A	66	4.03	0.04	1650
C504I	60	4.03	0.67	90
C504O	24	4.25	0.67	36
D504L	21	4.27	0.67	31
D504R	4	4.25	0.67	6
202B	32	4.03	0.02	1600
C505I	29	4.03	0.69	42
D505L	14	4.03	0.69	20
D505R	16	4.03	0.69	23
202C	16	4.02	0.01	1600
C506	30	4.02	0.69	43
D506L	0	0.02	0.69	0
D506R	30	4.02	0.69	43
202D	97	4.05	0.06	1617
202E	193	4.03	0.10	1930
C508O	187	4.07	0.10	1870
D508R	71	4.07	0.10	710
D508L	116	4.07	0.10	1160
508507	108	4.15	0.10	1080
C507I	170	4.12	0.86	198
C507O	170	4.12	0.86	198
202F	29	4.00	0.01	2900
202G	30	4.00	0.01	3000
202H	328	4.05	0.18	1822
C511O	245	4.13	0.18	1361
511512	244	4.17	0.18	1356
202I	37	4.02	0.02	1850
C512I	263	4.13	0.20	1315
C512O	35	4.67	0.20	175
D512R	4	4.67	0.20	20

Future Condition
10-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharg in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
201A	169	4.28	0.22	768
201B	66	4.23	0.08	825
201C	138	4.05	0.08	1725
201D	51	4.25	0.07	729
201E	108	4.38	0.18	600
202A	66	4.03	0.04	1650
202B	32	4.03	0.02	1600
202C	16	4.02	0.01	1600
202D	97	4.05	0.06	1617
202E	193	4.03	0.10	1930
202F	29	4.00	0.01	2900
202G	30	4.00	0.01	3000
202H	328	4.05	0.18	1822
202I	37	4.02	0.02	1850
203A	159	4.42	0.28	568
203B	77	4.05	0.04	1925
203C	94	4.20	0.10	940
203D	83	4.25	0.11	755
203E	184	4.03	0.09	2044
203F	202	4.45	0.33	612
203G	183	4.32	0.25	732
203H	337	4.07	0.21	1605
203I	212	4.10	0.17	1247
203J	75	4.03	0.04	1875
203K	285	4.07	0.16	1781
204A	196	4.05	0.11	1782
204B	211	4.07	0.13	1623
204C	173	4.02	0.08	2163
204D	92	4.03	0.04	2300
204E	134	4.05	0.07	1914
204F	161	4.03	0.08	2013
205A	97	4.32	0.12	808
205B	164	4.47	0.21	781
205C	50	4.28	0.06	833
205D	315	4.33	0.32	984
205E	133	4.48	0.22	605
205F	153	4.30	0.16	956
205G	160	4.33	0.19	842
205H	151	4.50	0.26	581
205I	226	4.45	0.35	646
205J	204	4.47	0.37	551
205K	95	4.60	0.25	380
205L	117	4.22	0.12	975
205M	197	4.08	0.14	1407
205N	80	4.40	0.16	500

Table F-3

Future Condition
10-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
D512L	31	4.67	0.20	155
203A	159	4.42	0.28	568
C513O	125	4.65	0.28	446
513514	124	4.78	0.28	443
203B	77	4.05	0.04	1925
C514R	127	4.77	0.32	397
203C	94	4.20	0.10	940
C514	161	4.65	0.43	374
203D	83	4.25	0.11	755
C515	220	4.18	0.53	415
515517	217	4.35	0.53	409
203E	184	4.03	0.09	2044
C517R	266	4.27	0.63	422
203F	202	4.45	0.33	612
516517	192	4.80	0.33	582
203G	183	4.32	0.25	732
C517L	274	4.77	0.58	472
C517	424	4.77	1.21	350
517518	418	4.90	1.21	345
203H	337	4.07	0.21	1605
C518	475	4.33	1.41	337
518519	474	4.40	1.41	336
203I	212	4.10	0.17	1247
C519	576	4.30	1.59	362
519591	574	4.35	1.59	361
203J	75	4.03	0.04	1875
520591	72	4.10	0.04	1800
BB512R	4	4.67	0.20	20
C591	590	4.33	1.83	322
591521	589	4.38	1.83	322
203K	285	4.07	0.16	1781
C521	692	4.27	1.99	348
CLEAR	720	4.27	3.07	235
204A	196	4.05	0.11	1782
522523	178	4.22	0.11	1618
204B	211	4.07	0.13	1623
C523I	322	4.15	0.23	1400
C523O	227	4.33	0.23	987
D523R	0	4.33	0.23	0
D523L	226	4.33	0.23	983
523524	226	4.40	0.23	983
204C	173	4.02	0.08	2163
C524	288	4.05	0.31	929
524525	284	4.08	0.31	916
204D	92	4.03	0.04	2300

Future Condition
10-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharg in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
206A	240	4.05	0.13	1846
206B	181	4.05	0.09	2011
206C	33	4.07	0.02	1650
206D	124	4.03	0.06	2067
206E	40	4.03	0.02	2000
206F	247	4.07	0.16	1544
206G	116	4.08	0.09	1289
206H	114	4.03	0.06	1900
206I	47	4.00	0.02	2350
206J	121	4.03	0.06	2017
206K	100	4.03	0.06	1667
206L	113	4.03	0.06	1883
206M	119	4.03	0.06	1983
206N	269	4.07	0.15	1793
207A	165	4.45	0.26	635
207B	134	4.43	0.21	638
207C	138	4.33	0.17	812
207D	213	4.20	0.20	1065
207E	140	4.17	0.16	875
207F	122	4.23	0.13	938
207G	104	4.55	0.24	433
207H	174	4.08	0.12	1450
207I	123	4.05	0.07	1757
207J	157	4.05	0.09	1744
207K	206	4.07	0.13	1585
207L	139	4.05	0.08	1738
207M	219	4.03	0.12	1825
207N	95	4.03	0.05	1900
207O	240	4.05	0.13	1846
208A	295	4.02	0.14	2107
208B	48	4.03	0.03	1600
208C	73	4.15	0.07	1043
208D	130	4.05	0.08	1625
208E	113	4.03	0.06	1883
208F	133	4.03	0.07	1900
208G	236	4.05	0.13	1815
208H	54	4.08	0.04	1350
208I	218	4.03	0.12	1817
208J	128	4.05	0.08	1600
208K	101	4.02	0.05	2020
208L	108	4.03	0.06	1800
208M	289	4.05	0.16	1806
208N	79	4.07	0.05	1580
208O	410	4.05	0.23	1783
208P	127	4.02	0.06	2117

Table F-3

Future Condition
10-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C525	369	4.07	0.35	1054
525526	362	4.10	0.35	1034
204E	134	4.05	0.07	1914
C526	484	4.08	0.43	1126
526527	471	4.13	0.43	1095
204F	161	4.03	0.08	2013
C527	589	4.12	0.50	1178
CLEAR	1057	4.25	3.58	295
205A	97	4.32	0.12	808
205B	164	4.47	0.21	781
C528	247	4.43	0.33	748
528530	246	4.48	0.33	745
205C	50	4.28	0.06	833
C530R	284	4.47	0.39	728
205D	315	4.33	0.32	984
205E	133	4.48	0.22	605
C529	418	4.37	0.54	774
C530	596	4.42	0.93	641
530531	592	4.47	0.93	637
205F	153	4.30	0.16	956
C531	669	4.45	1.09	614
531532	663	4.53	1.09	608
205G	160	4.33	0.19	842
C532L	735	4.52	1.27	579
205H	151	4.50	0.26	581
C532	808	4.52	1.53	528
532533	806	4.55	1.53	527
205I	226	4.45	0.35	646
C533	907	4.55	1.89	480
533534	892	4.77	1.89	472
205J	204	4.47	0.37	551
C534R	946	4.75	2.25	420
205K	95	4.60	0.25	380
C534	978	4.77	2.50	391
534535	974	4.83	2.50	390
205L	117	4.22	0.12	975
C535	972	4.83	2.62	371
535536	968	4.92	2.62	369
205M	197	4.08	0.14	1407
C536R	967	4.92	2.76	350
205N	80	4.40	0.16	500
C536I	983	4.92	2.91	338
C536O	271	6.20	2.91	93
536537	271	6.25	2.91	93
206A	240	4.05	0.13	1846

Future Condition
10-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharg in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
208Q	161	4.05	0.09	1789
208R	22	4.02	0.01	2200
208S	142	4.03	0.07	2029
208T	262	4.03	0.13	2015
208U	303	4.02	0.13	2331
208V	60	4.02	0.03	2000
208W	104	4.02	0.05	2080
208X	147	4.03	0.08	1838
209A	491	4.15	0.37	1327
209B	158	4.03	0.08	1975
209C	96	4.07	0.06	1600
209D	481	4.03	0.24	2004
209E	260	4.05	0.15	1733
209F	213	4.25	0.23	926
209G	368	4.05	0.20	1840
209H	135	4.07	0.08	1688
209I	359	4.03	0.18	1994
210A	234	4.03	0.12	1950
210B	179	4.05	0.11	1627
210C	139	4.05	0.08	1738
210D	268	4.03	0.14	1914
210E	56	4.03	0.03	1867
210F	183	4.03	0.09	2033
210G	297	4.05	0.16	1856
210H	141	4.03	0.07	2014
210I	89	4.05	0.05	1780
210J	193	4.05	0.10	1930
210K	166	4.02	0.08	2075
210L	237	4.05	0.14	1693
210M	263	4.07	0.16	1644
210N	95	4.02	0.05	1900
211A	260	4.05	0.14	1857
211AA	56	4.07	0.03	1867
211AB	96	4.00	0.04	2400
211AC	56	4.03	0.03	1867
211AD	86	4.03	0.04	2150
211AE	69	4.03	0.03	2300
211AF	123	4.00	0.05	2460
211B	213	4.03	0.11	1936
211C	80	4.05	0.04	2000
211D	100	4.07	0.07	1429
211E	306	4.05	0.16	1913
211F	196	4.07	0.11	1782
211G	11	4.07	0.01	1100
211H	150	4.02	0.07	2143

Table F-3

Future Condition
10-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C537	273	6.05	3.04	90
537538	273	6.12	3.04	90
206B	181	4.05	0.09	2011
C538I	275	6.05	3.14	88
C538O	273	6.15	3.14	87
538540	273	6.25	3.14	87
206C	33	4.07	0.02	1650
C540R	274	6.25	3.16	87
206D	124	4.03	0.06	2067
539540	117	4.12	0.06	1950
206E	40	4.03	0.02	2000
C540L	147	4.10	0.09	1633
C540	275	6.23	3.24	85
540541	275	6.35	3.24	85
206F	247	4.07	0.16	1544
C541	357	4.30	3.40	105
541548	355	4.33	3.40	104
206G	116	4.08	0.09	1289
BB523R	0	4.33	0.23	0
523548	0	4.72	0.23	0
C548L	406	4.32	3.72	109
206H	114	4.03	0.06	1900
542543	110	4.07	0.06	1833
206I	47	4.00	0.02	2350
C543	150	4.03	0.08	1875
D543R	150	4.03	0.08	1875
D543L	0	0.02	0.08	0
543544	0	0.02	0.08	0
206K	100	4.03	0.06	1667
C544	100	4.03	0.14	714
544545	98	4.07	0.14	700
D545R	49	4.07	0.14	350
D545L	49	4.07	0.14	350
545546	48	4.08	0.14	343
206L	113	4.03	0.06	1883
C546	157	4.05	0.20	785
546547	156	4.07	0.20	780
BB543R	150	4.03	0.08	1875
543547	143	4.12	0.08	1788
BB545R	49	4.07	0.14	350
545547	47	4.13	0.14	336
206J	121	4.03	0.06	2017
C547	446	4.07	0.26	1715
547548	433	4.13	0.26	1665
206M	119	4.03	0.06	1983

Future Condition
10-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharg in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
211I	71	4.05	0.04	1775
211J	31	4.02	0.01	3100
211K	225	4.02	0.10	2250
211L	189	4.03	0.10	1890
211M	171	4.03	0.08	2138
211N	45	4.02	0.02	2250
211O	89	4.02	0.04	2225
211P	75	4.02	0.03	2500
211Q	46	4.02	0.02	2300
211R	171	4.03	0.08	2138
211S	82	4.07	0.05	1640
211T	145	4.02	0.07	2071
211U	35	4.07	0.03	1167
211V	10	4.03	0.01	1000
211W	69	4.02	0.03	2300
211X	372	4.07	0.21	1771
211Y	164	4.07	0.09	1822
211Z	141	4.05	0.08	1763
BB512R	4	4.67	0.20	20
BB523R	0	4.33	0.23	0
BB543R	150	4.03	0.08	1875
BB545R	49	4.07	0.14	350
BB611R	133	4.23	0.14	950
BB614R	25	4.07	0.03	833
BB615R	11	4.08	0.03	367
BB619L	0	0.02	0.25	0
C501	233	4.27	0.30	777
C502	307	4.35	0.45	682
C502R	260	4.37	0.38	684
C503I	386	4.48	0.63	613
C503O	230	4.90	0.63	365
C504I	60	4.03	0.67	90
C504O	24	4.25	0.67	36
C505I	29	4.03	0.69	42
C506	30	4.02	0.69	43
C507I	170	4.12	0.86	198
C507O	170	4.12	0.86	198
C508O	187	4.07	0.10	1870
C511O	245	4.13	0.18	1361
C512I	263	4.13	0.20	1315
C512O	35	4.67	0.20	175
C513O	125	4.65	0.28	446
C514	161	4.65	0.43	374
C514R	127	4.77	0.32	397
C515	220	4.18	0.53	415

Table F-3

Future Condition
10-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C548R	518	4.12	0.32	1619
C548	646	4.23	4.04	160
548549	641	4.38	4.04	159
206N	269	4.07	0.15	1793
C549L	730	4.32	4.19	174
207A	165	4.45	0.26	635
207B	134	4.43	0.21	638
C550	298	4.45	0.46	648
550552	295	4.53	0.46	641
207C	138	4.33	0.17	812
C552L	378	4.50	0.64	591
207D	213	4.20	0.20	1065
551552	209	4.30	0.20	1045
207E	140	4.17	0.16	875
C552R	338	4.27	0.35	966
C552	577	4.43	0.99	583
552553	574	4.47	0.99	580
207F	122	4.23	0.13	938
C553	634	4.45	1.12	566
553556	630	4.50	1.12	563
207G	104	4.55	0.24	433
C556L	687	4.52	1.35	509
207H	174	4.08	0.12	1450
554555	168	4.15	0.12	1400
207I	123	4.05	0.07	1757
C555	269	4.10	0.20	1345
555556	260	4.23	0.20	1300
207J	157	4.05	0.09	1744
C556R	356	4.18	0.29	1228
C556	824	4.45	1.64	502
556557	821	4.50	1.64	501
207K	206	4.07	0.13	1585
C557R	860	4.47	1.77	486
207L	139	4.05	0.08	1738
C557	886	4.43	1.85	479
557558	883	4.50	1.85	477
207M	219	4.03	0.12	1825
C558	898	4.48	1.97	456
558560	896	4.53	1.97	455
207O	240	4.05	0.13	1846
C560R	908	4.50	2.10	432
207N	95	4.03	0.05	1900
559560	89	4.13	0.05	1780
C560I	928	4.48	2.15	432
C560O	234	5.80	2.15	109

Future Condition
10-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharg in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C517	424	4.77	1.21	350
C517L	274	4.77	0.58	472
C517R	266	4.27	0.63	422
C518	475	4.33	1.41	337
C519	576	4.30	1.59	362
C521	692	4.27	1.99	348
C523I	322	4.15	0.23	1400
C523O	227	4.33	0.23	987
C524	288	4.05	0.31	929
C525	369	4.07	0.35	1054
C526	484	4.08	0.43	1126
C527	589	4.12	0.50	1178
C528	247	4.43	0.33	748
C529	418	4.37	0.54	774
C530	596	4.42	0.93	641
C530R	284	4.47	0.39	728
C531	669	4.45	1.09	614
C532	808	4.52	1.53	528
C532L	735	4.52	1.27	579
C533	907	4.55	1.89	480
C534	978	4.77	2.50	391
C534R	946	4.75	2.25	420
C535	972	4.83	2.62	371
C536I	983	4.92	2.91	338
C536O	271	6.20	2.91	93
C536R	967	4.92	2.76	350
C537	273	6.05	3.04	90
C538I	275	6.05	3.14	88
C538O	273	6.15	3.14	87
C540	275	6.23	3.24	85
C540L	147	4.10	0.09	1633
C540R	274	6.25	3.16	87
C541	357	4.30	3.40	105
C543	150	4.03	0.08	1875
C544	100	4.03	0.14	714
C546	157	4.05	0.20	785
C547	446	4.07	0.26	1715
C548	646	4.23	4.04	160
C548L	406	4.32	3.72	109
C548R	518	4.12	0.32	1619
C549	2118	4.35	13.06	162
C549L	730	4.32	4.19	174
C549R	1594	4.35	8.87	180
C550	298	4.45	0.46	648
C552	577	4.43	0.99	583

Table F-3

Future Condition
10-year, 6-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
560585	234	5.90	2.15	109
210A	234	4.03	0.12	1950
C585	235	5.88	2.27	104
208A	295	4.02	0.14	2107
561563	289	4.05	0.14	2064
208B	48	4.03	0.03	1600
C563R	336	4.05	0.17	1976
208C	73	4.15	0.07	1043
562563	72	4.25	0.07	1029
208D	130	4.05	0.08	1625
C563L	165	4.10	0.14	1179
C563	492	4.05	0.31	1587
563564	476	4.12	0.31	1535
208E	113	4.03	0.06	1883
C564R	565	4.10	0.37	1527
208F	133	4.03	0.07	1900
C564	676	4.08	0.44	1536
564565	651	4.18	0.44	1480
208G	236	4.05	0.13	1815
C565	779	4.17	0.57	1367
565568	765	4.22	0.57	1342
208H	54	4.08	0.04	1350
C568L	793	4.22	0.61	1300
208I	218	4.03	0.12	1817
208J	128	4.05	0.08	1600
C566	346	4.05	0.20	1730
566567	334	4.10	0.20	1670
208K	101	4.02	0.05	2020
C567L	413	4.07	0.25	1652
208L	108	4.03	0.06	1800
C567	517	4.05	0.31	1668
567568	497	4.17	0.31	1603
208M	289	4.05	0.16	1806
C568R	720	4.12	0.46	1565
C568	1231	4.18	1.07	1150
568573	1214	4.23	1.07	1135
208N	79	4.07	0.05	1580
C573L	1246	4.23	1.12	1113
208O	410	4.05	0.23	1783
569570	404	4.08	0.23	1757
208P	127	4.02	0.06	2117
C570R	514	4.05	0.29	1772
208Q	161	4.05	0.09	1789
C570	674	4.05	0.38	1774
208R	22	4.02	0.01	2200

Future Condition
10-year, 6-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharg in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C552L	378	4.50	0.64	591
C552R	338	4.27	0.35	966
C553	634	4.45	1.12	566
C555	269	4.10	0.20	1345
C556	824	4.45	1.64	502
C556L	687	4.52	1.35	509
C556R	356	4.18	0.29	1228
C557	886	4.43	1.85	479
C557R	860	4.47	1.77	486
C558	898	4.48	1.97	456
C560I	928	4.48	2.15	432
C560O	234	5.80	2.15	109
C560R	908	4.50	2.10	432
C563	492	4.05	0.31	1587
C563L	165	4.10	0.14	1179
C563R	336	4.05	0.17	1976
C564	676	4.08	0.44	1536
C564R	565	4.10	0.37	1527
C565	779	4.17	0.57	1367
C566	346	4.05	0.20	1730
C567	517	4.05	0.31	1668
C567L	413	4.07	0.25	1652
C568	1231	4.18	1.07	1150
C568L	793	4.22	0.61	1300
C568R	720	4.12	0.46	1565
C570	674	4.05	0.38	1774
C570R	514	4.05	0.29	1772
C572	695	4.05	0.39	1782
C573	1573	4.18	1.58	996
C573L	1246	4.23	1.12	1113
C573R	821	4.07	0.46	1785
C574	561	4.02	0.27	2078
C575	616	4.03	0.29	2124
C576	697	4.05	0.34	2050
C577	1864	4.13	1.92	971
C578I	1899	4.15	2.00	950
C578O	311	5.05	2.00	156
C580	657	4.13	0.51	1288
C580R	563	4.17	0.43	1309
C581	1080	4.07	0.91	1187
C581R	911	4.08	0.76	1199
C582	1317	4.13	1.34	983
C582R	1151	4.15	1.13	1019
C583	1355	4.17	1.42	954
C584I	1399	4.23	1.60	874

TABLE F-4

Table F-4

Future Condition
10-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
201A	118	12.23	0.22	536
201B	43	12.20	0.08	538
C501	160	12.22	0.30	533
501502	158	12.37	0.30	527
201C	77	12.03	0.08	963
C502R	184	12.32	0.38	484
201D	35	12.22	0.07	500
C502	217	12.30	0.45	482
502503	215	12.48	0.45	478
201E	78	12.32	0.18	433
C503I	286	12.43	0.63	454
C503O	196	12.82	0.63	311
D503L	196	12.82	0.63	311
D503R	0	0.02	0.63	0
503504	0	0.02	0.63	0
202A	35	12.03	0.04	875
C504I	35	12.03	0.67	52
C504O	18	12.23	0.67	27
D504L	18	12.23	0.67	27
D504R	0	0.02	0.67	0
202B	17	12.02	0.02	850
C505I	17	12.02	0.69	25
D505L	13	12.02	0.69	19
D505R	4	12.02	0.69	6
202C	8	12.02	0.01	800
C506	12	12.02	0.69	17
D506L	0	0.02	0.69	0
D506R	12	12.02	0.69	17
202D	56	12.05	0.06	933
202E	107	12.03	0.10	1070
C508O	104	12.07	0.10	1040
D508R	64	12.07	0.10	640
D508L	40	12.07	0.10	400
508507	38	12.17	0.10	380
C507I	96	12.08	0.86	112
C507O	96	12.08	0.86	112
202F	15	12.00	0.01	1500
202G	15	12.00	0.01	1500
202H	180	12.03	0.18	1000
C511O	176	12.07	0.18	978
511512	175	12.10	0.18	972
202I	21	12.02	0.02	1050
C512I	191	12.08	0.20	955
C512O	11	13.12	0.20	55
D512R	0	0.02	0.20	0

Future Condition
10-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
201A	118	12.23	0.22	536
201B	43	12.20	0.08	538
201C	77	12.03	0.08	963
201D	35	12.22	0.07	500
201E	78	12.32	0.18	433
202A	35	12.03	0.04	875
202B	17	12.02	0.02	850
202C	8	12.02	0.01	800
202D	56	12.05	0.06	933
202E	107	12.03	0.10	1070
202F	15	12.00	0.01	1500
202G	15	12.00	0.01	1500
202H	180	12.03	0.18	1000
202I	21	12.02	0.02	1050
203A	116	12.33	0.28	414
203B	43	12.03	0.04	1075
203C	60	12.18	0.10	600
203D	56	12.22	0.11	509
203E	103	12.03	0.09	1144
203F	144	12.42	0.33	436
203G	131	12.25	0.25	524
203H	191	12.07	0.21	910
203I	126	12.10	0.17	741
203J	43	12.03	0.04	1075
203K	163	12.05	0.16	1019
204A	109	12.03	0.11	991
204B	120	12.05	0.13	923
204C	95	12.02	0.08	1188
204D	51	12.02	0.04	1275
204E	76	12.03	0.07	1086
204F	92	12.02	0.08	1150
205A	62	12.30	0.12	517
205B	105	12.45	0.21	500
205C	31	12.28	0.06	517
205D	195	12.30	0.32	609
205E	88	12.47	0.22	400
205F	94	12.28	0.16	588
205G	100	12.32	0.19	526
205H	100	12.50	0.26	385
205I	154	12.42	0.35	440
205J	140	12.43	0.37	378
205K	71	12.55	0.25	284
205L	65	12.22	0.12	542
205M	113	12.08	0.14	807
205N	59	12.33	0.16	369

Table F-4

Future Condition
10-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
D512L	11	13.12	0.20	55
203A	116	12.33	0.28	414
C513O	96	12.58	0.28	343
513514	95	12.70	0.28	339
203B	43	12.03	0.04	1075
C514R	100	12.67	0.32	313
203C	60	12.18	0.10	600
C514	131	12.53	0.43	305
203D	56	12.22	0.11	509
C515	171	12.45	0.53	323
515517	169	12.65	0.53	319
203E	103	12.03	0.09	1144
C517R	197	12.12	0.63	313
203F	144	12.42	0.33	436
516517	139	12.73	0.33	421
203G	131	12.25	0.25	524
C517L	207	12.68	0.58	357
C517	384	12.67	1.21	317
517518	379	12.80	1.21	313
203H	191	12.07	0.21	910
C518	424	12.27	1.41	301
518519	420	12.32	1.41	298
203I	126	12.10	0.17	741
C519	512	12.28	1.59	322
519591	510	12.32	1.59	321
203J	43	12.03	0.04	1075
520591	42	12.10	0.04	1050
BB512R	0	0.02	0.20	0
C591	535	12.28	1.83	292
591521	534	12.33	1.83	292
203K	163	12.05	0.16	1019
C521	622	12.25	1.99	313
CLEAR	702	12.22	3.07	229
204A	109	12.03	0.11	991
522523	105	12.22	0.11	955
204B	120	12.05	0.13	923
C523I	207	12.10	0.23	900
C523O	172	12.27	0.23	748
D523R	0	0.02	0.23	0
D523L	172	12.27	0.23	748
523524	171	12.37	0.23	743
204C	95	12.02	0.08	1188
C524	205	12.08	0.31	661
524525	204	12.13	0.31	658
204D	51	12.02	0.04	1275

Future Condition
10-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
206A	130	12.03	0.13	1000
206B	100	12.03	0.09	1111
206C	18	12.07	0.02	900
206D	69	12.02	0.06	1150
206E	21	12.03	0.02	1050
206F	136	12.05	0.16	850
206G	68	12.08	0.09	756
206H	63	12.03	0.06	1050
206I	24	12.00	0.02	1200
206J	67	12.02	0.06	1117
206K	56	12.03	0.06	933
206L	62	12.03	0.06	1033
206M	66	12.02	0.06	1100
206N	153	12.05	0.15	1020
207A	109	12.43	0.26	419
207B	89	12.42	0.21	424
207C	92	12.30	0.17	541
207D	132	12.17	0.20	660
207E	92	12.15	0.16	575
207F	77	12.20	0.13	592
207G	76	12.47	0.24	317
207H	100	12.08	0.12	833
207I	69	12.05	0.07	986
207J	88	12.05	0.09	978
207K	119	12.07	0.13	915
207L	80	12.05	0.08	1000
207M	119	12.03	0.12	992
207N	51	12.02	0.05	1020
207O	129	12.03	0.13	992
208A	152	12.02	0.14	1086
208B	27	12.03	0.03	900
208C	43	12.15	0.07	614
208D	73	12.03	0.08	913
208E	62	12.03	0.06	1033
208F	72	12.02	0.07	1029
208G	132	12.03	0.13	1015
208H	32	12.10	0.04	800
208I	120	12.03	0.12	1000
208J	73	12.05	0.08	913
208K	53	12.02	0.05	1060
208L	60	12.03	0.06	1000
208M	165	12.05	0.16	1031
208N	47	12.07	0.05	940
208O	229	12.05	0.23	996
208P	70	12.02	0.06	1167

Table F-4

Future Condition
10-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C525	247	12.08	0.35	706
525526	245	12.13	0.35	700
204E	76	12.03	0.07	1086
C526	312	12.10	0.43	726
526527	309	12.17	0.43	719
204F	92	12.02	0.08	1150
C527	378	12.10	0.50	756
CLEAR	1058	12.18	3.58	296
205A	62	12.30	0.12	517
205B	105	12.45	0.21	500
C528	160	12.40	0.33	485
528530	159	12.45	0.33	482
205C	31	12.28	0.06	517
C530R	184	12.43	0.39	472
205D	195	12.30	0.32	609
205E	88	12.47	0.22	400
C529	272	12.33	0.54	504
C530	449	12.37	0.93	483
530531	446	12.43	0.93	480
205F	94	12.28	0.16	588
C531	528	12.40	1.09	484
531532	524	12.48	1.09	481
205G	100	12.32	0.19	526
C532L	606	12.47	1.27	477
205H	100	12.50	0.26	385
C532	703	12.47	1.53	459
532533	701	12.50	1.53	458
205I	154	12.42	0.35	440
C533	847	12.48	1.89	448
533534	831	12.70	1.89	440
205J	140	12.43	0.37	378
C534R	932	12.68	2.25	414
205K	71	12.55	0.25	284
C534	997	12.68	2.50	399
534535	991	12.75	2.50	396
205L	65	12.22	0.12	542
C535	1007	12.75	2.62	384
535536	1000	12.83	2.62	382
205M	113	12.08	0.14	807
C536R	1014	12.83	2.76	367
205N	59	12.33	0.16	369
C536I	1046	12.83	2.91	359
C536O	272	14.13	2.91	93
536537	272	14.20	2.91	93
206A	130	12.03	0.13	1000

Future Condition
10-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
208Q	93	12.05	0.09	1033
208R	12	12.00	0.01	1200
208S	81	12.02	0.07	1157
208T	143	12.03	0.13	1100
208U	156	12.00	0.13	1200
208V	33	12.02	0.03	1100
208W	57	12.02	0.05	1140
208X	80	12.02	0.08	1000
209A	290	12.12	0.37	784
209B	86	12.03	0.08	1075
209C	55	12.07	0.06	917
209D	254	12.02	0.24	1058
209E	145	12.05	0.15	967
209F	140	12.22	0.23	609
209G	202	12.05	0.20	1010
209H	75	12.05	0.08	938
209I	190	12.02	0.18	1056
210A	122	12.02	0.12	1017
210B	104	12.05	0.11	945
210C	74	12.03	0.08	925
210D	149	12.03	0.14	1064
210E	32	12.02	0.03	1067
210F	98	12.02	0.09	1089
210G	165	12.03	0.16	1031
210H	76	12.02	0.07	1086
210I	52	12.03	0.05	1040
210J	109	12.03	0.10	1090
210K	89	12.02	0.08	1113
210L	129	12.03	0.14	921
210M	150	12.05	0.16	938
210N	45	12.02	0.05	900
211A	145	12.03	0.14	1036
211AA	34	12.05	0.03	1133
211AB	51	12.00	0.04	1275
211AC	32	12.03	0.03	1067
211AD	49	12.02	0.04	1225
211AE	38	12.02	0.03	1267
211AF	65	12.00	0.05	1300
211B	114	12.02	0.11	1036
211C	46	12.03	0.04	1150
211D	55	12.07	0.07	786
211E	167	12.03	0.16	1044
211F	113	12.05	0.11	1027
211G	7	12.07	0.01	700
211H	80	12.02	0.07	1143

Table F-4

Future Condition
10-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C537	275	14.13	3.04	90
537538	275	14.20	3.04	90
206B	100	12.03	0.09	1111
C538I	278	14.15	3.14	89
C538O	278	14.28	3.14	89
538540	278	14.38	3.14	89
206C	18	12.07	0.02	900
C540R	278	14.37	3.16	88
206D	69	12.02	0.06	1150
539540	67	12.12	0.06	1117
206E	21	12.03	0.02	1050
C540L	85	12.07	0.09	944
C540	285	12.17	3.24	88
540541	282	12.28	3.24	87
206F	136	12.05	0.16	850
C541	366	12.20	3.40	108
541548	364	12.27	3.40	107
206G	68	12.08	0.09	756
BB523R	0	0.02	0.23	0
523548	0	0.02	0.23	0
C548L	417	12.25	3.72	112
206H	63	12.03	0.06	1050
542543	62	12.07	0.06	1033
206I	24	12.00	0.02	1200
C543	85	12.03	0.08	1063
D543R	85	12.03	0.08	1063
D543L	0	0.02	0.08	0
543544	0	0.02	0.08	0
206K	56	12.03	0.06	933
C544	55	12.03	0.14	393
544545	55	12.07	0.14	393
D545R	27	12.07	0.14	193
D545L	27	12.07	0.14	193
545546	27	12.08	0.14	193
206L	62	12.03	0.06	1033
C546	88	12.03	0.20	440
546547	88	12.05	0.20	440
BB543R	85	12.03	0.08	1063
543547	83	12.10	0.08	1038
BB545R	27	12.07	0.14	193
545547	27	12.12	0.14	193
206J	67	12.02	0.06	1117
C547	261	12.05	0.26	1004
547548	256	12.12	0.26	985
206M	66	12.02	0.06	1100

Future Condition
10-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
211I	41	12.03	0.04	1025
211J	17	12.02	0.01	1700
211K	117	12.00	0.10	1170
211L	98	12.02	0.10	980
211M	94	12.02	0.08	1175
211N	24	12.00	0.02	1200
211O	48	12.02	0.04	1200
211P	41	12.00	0.03	1367
211Q	24	12.00	0.02	1200
211R	94	12.02	0.08	1175
211S	47	12.05	0.05	940
211T	80	12.02	0.07	1143
211U	22	12.08	0.03	733
211V	6	12.03	0.01	600
211W	38	12.00	0.03	1267
211X	215	12.07	0.21	1024
211Y	96	12.05	0.09	1067
211Z	76	12.05	0.08	950
BB512R	0	0.02	0.20	0
BB523R	0	0.02	0.23	0
BB543R	85	12.03	0.08	1063
BB545R	27	12.07	0.14	193
BB611R	111	12.18	0.14	793
BB614R	15	12.08	0.03	500
BB615R	6	12.10	0.03	200
BB619L	0	0.02	0.25	0
C501	160	12.22	0.30	533
C502	217	12.30	0.45	482
C502R	184	12.32	0.38	484
C503I	286	12.43	0.63	454
C503O	196	12.82	0.63	311
C504I	35	12.03	0.67	52
C504O	18	12.23	0.67	27
C505I	17	12.02	0.69	25
C506	12	12.02	0.69	17
C507I	96	12.08	0.86	112
C507O	96	12.08	0.86	112
C508O	104	12.07	0.10	1040
C511O	176	12.07	0.18	978
C512I	191	12.08	0.20	955
C512O	11	13.12	0.20	55
C513O	96	12.58	0.28	343
C514	131	12.53	0.43	305
C514R	100	12.67	0.32	313
C515	171	12.45	0.53	323

Table F-4

Future Condition
10-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C548R	312	12.08	0.32	975
C548	685	12.15	4.04	170
548549	676	12.32	4.04	167
206N	153	12.05	0.15	1020
C549L	753	12.28	4.19	180
207A	109	12.43	0.26	419
207B	89	12.42	0.21	424
C550	197	12.43	0.46	428
550552	195	12.53	0.46	424
207C	92	12.30	0.17	541
C552L	263	12.47	0.64	411
207D	132	12.17	0.20	660
551552	131	12.27	0.20	655
207E	92	12.15	0.16	575
C552R	217	12.23	0.35	620
C552	451	12.35	0.99	456
552553	451	12.40	0.99	456
207F	77	12.20	0.13	592
C553	513	12.38	1.12	458
553556	511	12.45	1.12	456
207G	76	12.47	0.24	317
C556L	586	12.45	1.35	434
207H	100	12.08	0.12	833
554555	99	12.15	0.12	825
207I	69	12.05	0.07	986
C555	161	12.08	0.20	805
555556	158	12.22	0.20	790
207J	88	12.05	0.09	978
C556R	225	12.15	0.29	776
C556	735	12.38	1.64	448
556557	732	12.45	1.64	446
207K	119	12.07	0.13	915
C557R	778	12.43	1.77	440
207L	80	12.05	0.08	1000
C557	803	12.42	1.85	434
557558	800	12.50	1.85	432
207M	119	12.03	0.12	992
C558	817	12.48	1.97	415
558560	815	12.53	1.97	414
207O	129	12.03	0.13	992
C560R	831	12.52	2.10	396
207N	51	12.02	0.05	1020
559560	50	12.13	0.05	1000
C560I	845	12.50	2.15	393
C560O	226	13.78	2.15	105

Future Condition
10-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C517	384	12.67	1.21	317
C517L	207	12.68	0.58	357
C517R	197	12.12	0.63	313
C518	424	12.27	1.41	301
C519	512	12.28	1.59	322
C521	622	12.25	1.99	313
C523I	207	12.10	0.23	900
C523O	172	12.27	0.23	748
C524	205	12.08	0.31	661
C525	247	12.08	0.35	706
C526	312	12.10	0.43	726
C527	378	12.10	0.50	756
C528	160	12.40	0.33	485
C529	272	12.33	0.54	504
C530	449	12.37	0.93	483
C530R	184	12.43	0.39	472
C531	528	12.40	1.09	484
C532	703	12.47	1.53	459
C532L	606	12.47	1.27	477
C533	847	12.48	1.89	448
C534	997	12.68	2.50	399
C534R	932	12.68	2.25	414
C535	1007	12.75	2.62	384
C536I	1046	12.83	2.91	359
C536O	272	14.13	2.91	93
C536R	1014	12.83	2.76	367
C537	275	14.13	3.04	90
C538I	278	14.15	3.14	89
C538O	278	14.28	3.14	89
C540	285	12.17	3.24	88
C540L	85	12.07	0.09	944
C540R	278	14.37	3.16	88
C541	366	12.20	3.40	108
C543	85	12.03	0.08	1063
C544	55	12.03	0.14	393
C546	88	12.03	0.20	440
C547	261	12.05	0.26	1004
C548	685	12.15	4.04	170
C548L	417	12.25	3.72	112
C548R	312	12.08	0.32	975
C549	2432	12.28	13.06	186
C549L	753	12.28	4.19	180
C549R	1757	12.28	8.87	198
C550	197	12.43	0.46	428
C552	451	12.35	0.99	456

Table F-4

Future Condition
10-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
560585	226	13.88	2.15	105
210A	122	12.02	0.12	1017
C585	228	13.83	2.27	100
208A	152	12.02	0.14	1086
561563	151	12.05	0.14	1079
208B	27	12.03	0.03	900
C563R	177	12.03	0.17	1041
208C	43	12.15	0.07	614
562563	43	12.23	0.07	614
208D	73	12.03	0.08	913
C563L	101	12.12	0.14	721
C563	275	12.05	0.31	887
563564	270	12.13	0.31	871
208E	62	12.03	0.06	1033
C564R	324	12.08	0.37	876
208F	72	12.02	0.07	1029
C564	391	12.07	0.44	889
564565	382	12.18	0.44	868
208G	132	12.03	0.13	1015
C565	481	12.15	0.57	844
565568	477	12.20	0.57	837
208H	32	12.10	0.04	800
C568L	504	12.20	0.61	826
208I	120	12.03	0.12	1000
208J	73	12.05	0.08	913
C566	192	12.03	0.20	960
566567	189	12.10	0.20	945
208K	53	12.02	0.05	1060
C567L	235	12.05	0.25	940
208L	60	12.03	0.06	1000
C567	294	12.05	0.31	948
567568	288	12.15	0.31	929
208M	165	12.05	0.16	1031
C568R	435	12.10	0.46	946
C568	913	12.15	1.07	853
568573	904	12.22	1.07	845
208N	47	12.07	0.05	940
C573L	939	12.22	1.12	838
208O	229	12.05	0.23	996
569570	227	12.07	0.23	987
208P	70	12.02	0.06	1167
C570R	293	12.05	0.29	1010
208Q	93	12.05	0.09	1033
C570	385	12.05	0.38	1013
208R	12	12.00	0.01	1200

Future Condition
10-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C552L	263	12.47	0.64	411
C552R	217	12.23	0.35	620
C553	513	12.38	1.12	458
C555	161	12.08	0.20	805
C556	735	12.38	1.64	448
C556L	586	12.45	1.35	434
C556R	225	12.15	0.29	776
C557	803	12.42	1.85	434
C557R	778	12.43	1.77	440
C558	817	12.48	1.97	415
C560I	845	12.50	2.15	393
C560O	226	13.78	2.15	105
C560R	831	12.52	2.10	396
C563	275	12.05	0.31	887
C563L	101	12.12	0.14	721
C563R	177	12.03	0.17	1041
C564	391	12.07	0.44	889
C564R	324	12.08	0.37	876
C565	481	12.15	0.57	844
C566	192	12.03	0.20	960
C567	294	12.05	0.31	948
C567L	235	12.05	0.25	940
C568	913	12.15	1.07	853
C568L	504	12.20	0.61	826
C568R	435	12.10	0.46	946
C570	385	12.05	0.38	1013
C570R	293	12.05	0.29	1010
C572	397	12.05	0.39	1018
C573	1313	12.15	1.58	831
C573L	939	12.22	1.12	838
C573R	472	12.05	0.46	1026
C574	298	12.02	0.27	1104
C575	330	12.02	0.29	1138
C576	382	12.05	0.34	1124
C577	1654	12.12	1.92	861
C578I	1701	12.15	2.00	851
C578O	302	13.00	2.00	151
C580	410	12.08	0.51	804
C580R	338	12.13	0.43	786
C581	773	12.07	0.91	849
C581R	632	12.08	0.76	832
C582	1068	12.12	1.34	797
C582R	894	12.13	1.13	791
C583	1122	12.15	1.42	790
C584I	1191	12.20	1.60	744

Table F-4

Future Condition
10-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
571572	12	12.03	0.01	1200
C572	397	12.05	0.39	1018
572573	394	12.07	0.39	1010
208S	81	12.02	0.07	1157
C573R	472	12.05	0.46	1026
C573	1313	12.15	1.58	831
208T	143	12.03	0.13	1100
208U	156	12.00	0.13	1200
C574	298	12.02	0.27	1104
574575	297	12.03	0.27	1100
208V	33	12.02	0.03	1100
C575	330	12.02	0.29	1138
575576	327	12.07	0.29	1128
208W	57	12.02	0.05	1140
C576	382	12.05	0.34	1124
576577	381	12.05	0.34	1121
C577	1654	12.12	1.92	861
577578	1646	12.15	1.92	857
208X	80	12.02	0.08	1000
C578I	1701	12.15	2.00	851
C578O	302	13.00	2.00	151
578587	302	13.07	2.00	151
210B	104	12.05	0.11	945
C586O	103	12.08	0.11	936
586587	101	12.13	0.11	918
C587	358	12.20	2.11	170
587595	358	12.23	2.11	170
210C	74	12.03	0.08	925
C595L	405	12.17	2.19	185
210D	149	12.03	0.14	1064
588590	147	12.07	0.14	1050
210E	32	12.02	0.03	1067
C590L	177	12.05	0.17	1041
210F	98	12.02	0.09	1089
589590	97	12.07	0.09	1078
210G	165	12.03	0.16	1031
C590R	261	12.05	0.25	1044
C590	437	12.05	0.42	1040
210H	76	12.02	0.07	1086
592593	75	12.07	0.07	1071
C593	509	12.05	0.49	1039
593594	506	12.08	0.49	1033
210I	52	12.03	0.05	1040
C594	556	12.07	0.54	1030
594595	547	12.17	0.54	1013

Future Condition
10-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C584O	333	12.88	1.60	208
C585	228	13.83	2.27	100
C586O	103	12.08	0.11	936
C587	358	12.20	2.11	170
C590	437	12.05	0.42	1040
C590L	177	12.05	0.17	1041
C590R	261	12.05	0.25	1044
C591	535	12.28	1.83	292
C593	509	12.05	0.49	1039
C594	556	12.07	0.54	1030
C595	1029	12.13	2.83	364
C595L	405	12.17	2.19	185
C595R	631	12.13	0.64	986
C596	1066	12.15	2.91	366
C597	340	12.60	1.74	195
C598	403	12.20	1.90	212
C599I	1640	12.13	7.13	230
C599O	770	15.08	7.13	108
C600O	143	12.07	0.14	1021
C601	245	12.05	0.25	980
C602	338	12.08	0.37	914
C602L	283	12.08	0.30	943
C603	473	12.10	0.52	910
C605O	80	12.02	0.07	1143
C606	125	12.02	0.12	1042
C606R	46	12.05	0.05	920
C607	140	12.05	0.14	1000
C608	772	15.13	7.37	105
C608L	771	15.13	7.24	106
C609O	39	12.08	0.04	975
C611I	154	12.03	0.14	1100
C611O	111	12.18	0.14	793
C611R	117	12.03	0.10	1170
C612	41	12.00	0.17	241
C613	772	15.17	7.55	102
C615	19	12.10	0.03	633
C617	124	12.02	0.13	954
C617L	117	12.02	0.10	1170
C618	165	12.15	0.19	868
C618I	167	12.07	0.18	928
C618O	151	12.15	0.18	839
C619I	195	12.23	0.25	780
C619L	189	12.23	0.26	727
C619O	157	12.35	0.25	628
C620	273	12.30	0.42	650

Table F-4

Future Condition
10-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
210J	109	12.03	0.10	1090
C595R	631	12.13	0.64	986
C595	1029	12.13	2.83	364
595596	1025	12.18	2.83	362
210K	89	12.02	0.08	1113
C596	1066	12.15	2.91	366
209A	290	12.12	0.37	784
579580	289	12.15	0.37	781
209C	55	12.07	0.06	917
C580R	338	12.13	0.43	786
209B	86	12.03	0.08	1075
C580	410	12.08	0.51	804
580581	406	12.13	0.51	796
209D	254	12.02	0.24	1058
C581R	632	12.08	0.76	832
209E	145	12.05	0.15	967
C581	773	12.07	0.91	849
581582	760	12.13	0.91	835
209F	140	12.22	0.23	609
C582R	894	12.13	1.13	791
209G	202	12.05	0.20	1010
C582	1068	12.12	1.34	797
582583	1060	12.17	1.34	791
209H	75	12.05	0.08	938
C583	1122	12.15	1.42	790
583584	1108	12.23	1.42	780
209I	190	12.02	0.18	1056
C584I	1191	12.20	1.60	744
C584O	333	12.88	1.60	208
584597	333	13.05	1.60	208
210L	129	12.03	0.14	921
C597	340	12.60	1.74	195
597598	340	12.72	1.74	195
210M	150	12.05	0.16	938
C598	403	12.20	1.90	212
210N	45	12.02	0.05	900
C599I	1640	12.13	7.13	230
C599O	770	15.08	7.13	108
599608	770	15.13	7.13	108
211K	117	12.00	0.10	1170
C608L	771	15.13	7.24	106
211G	7	12.07	0.01	700
604606	7	12.25	0.01	700
211I	41	12.03	0.04	1025
C606R	46	12.05	0.05	920

Future Condition
10-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
C620R	166	12.33	0.28	593
C621	1073	12.08	7.93	135
C621L	850	12.08	7.64	111
C622	1731	12.18	8.78	197
C622L	558	12.15	0.63	886
C622R	1208	12.20	8.14	148
C624	83	12.02	0.07	1186
C626	2481	12.38	13.28	187
C626C	2427	12.38	13.14	185
C626R	131	12.03	0.11	1191
C627	2484	12.40	13.32	186
CLEAR	1058	12.18	3.58	296
CLEAR	702	12.22	3.07	229
D503L	196	12.82	0.63	311
D503R	0	0.02	0.63	0
D504L	18	12.23	0.67	27
D504R	0	0.02	0.67	0
D505L	13	12.02	0.69	19
D505R	4	12.02	0.69	6
D506L	0	0.02	0.69	0
D506R	12	12.02	0.69	17
D508L	40	12.07	0.10	400
D508R	64	12.07	0.10	640
D512L	11	13.12	0.20	55
D512R	0	0.02	0.20	0
D523L	172	12.27	0.23	748
D523R	0	0.02	0.23	0
D543L	0	0.02	0.08	0
D543R	85	12.03	0.08	1063
D545L	27	12.07	0.14	193
D545R	27	12.07	0.14	193
D611L	0	0.02	0.14	0
D611R	111	12.18	0.14	793
D614L	7	12.08	0.03	233
D614R	15	12.08	0.03	500
D615L	13	12.10	0.03	433
D615R	6	12.10	0.03	200
D619L	0	0.02	0.25	0
D619R	157	12.35	0.25	628
501502	158	12.37	0.30	527
502503	215	12.48	0.45	478
503504	0	0.02	0.63	0
508507	38	12.17	0.10	380
511512	175	12.10	0.18	972
513514	95	12.70	0.28	339

Table F-4

Future Condition
10-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
211H	80	12.02	0.07	1143
C605O	80	12.02	0.07	1143
C606	125	12.02	0.12	1042
606607	124	12.07	0.12	1033
211J	17	12.02	0.01	1700
C607	140	12.05	0.14	1000
607608	139	12.08	0.14	993
C608	772	15.13	7.37	105
608613	772	15.17	7.37	105
211M	94	12.02	0.08	1175
610611	94	12.05	0.08	1175
211N	24	12.00	0.02	1200
C611R	117	12.03	0.10	1170
211O	48	12.02	0.04	1200
C609O	39	12.08	0.04	975
609611	39	12.10	0.04	975
C611I	154	12.03	0.14	1100
C611O	111	12.18	0.14	793
D611R	111	12.18	0.14	793
D611L	0	0.02	0.14	0
611612	0	0.02	0.14	0
211P	41	12.00	0.03	1367
C612	41	12.00	0.17	241
C613	772	15.17	7.55	102
613621	772	15.18	7.55	102
211L	98	12.02	0.10	980
C621L	850	12.08	7.64	111
211Q	24	12.00	0.02	1200
616617	24	12.03	0.02	1200
211R	94	12.02	0.08	1175
C617L	117	12.02	0.10	1170
211U	22	12.08	0.03	733
D614R	15	12.08	0.03	500
D614L	7	12.08	0.03	233
C617	124	12.02	0.13	954
617618	122	12.08	0.13	938
211S	47	12.05	0.05	940
C618I	167	12.07	0.18	928
C618O	151	12.15	0.18	839
BB614R	15	12.08	0.03	500
614615	15	12.13	0.03	500
211V	6	12.03	0.01	600
C615	19	12.10	0.03	633
D615R	6	12.10	0.03	200
D615L	13	12.10	0.03	433

Future Condition
10-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
515517	169	12.65	0.53	319
516517	139	12.73	0.33	421
517518	379	12.80	1.21	313
518519	420	12.32	1.41	298
519591	510	12.32	1.59	321
520591	42	12.10	0.04	1050
522523	105	12.22	0.11	955
523524	171	12.37	0.23	743
523548	0	0.02	0.23	0
524525	204	12.13	0.31	658
525526	245	12.13	0.35	700
526527	309	12.17	0.43	719
528530	159	12.45	0.33	482
530531	446	12.43	0.93	480
531532	524	12.48	1.09	481
532533	701	12.50	1.53	458
533534	831	12.70	1.89	440
534535	991	12.75	2.50	396
535536	1000	12.83	2.62	382
536537	272	14.20	2.91	93
537538	275	14.20	3.04	90
538540	278	14.38	3.14	89
539540	67	12.12	0.06	1117
540541	282	12.28	3.24	87
541548	364	12.27	3.40	107
542543	62	12.07	0.06	1033
543544	0	0.02	0.08	0
543547	83	12.10	0.08	1038
544545	55	12.07	0.14	393
545546	27	12.08	0.14	193
545547	27	12.12	0.14	193
546547	88	12.05	0.20	440
547548	256	12.12	0.26	985
548549	676	12.32	4.04	167
549626	2406	12.40	13.06	184
550552	195	12.53	0.46	424
551552	131	12.27	0.20	655
552553	451	12.40	0.99	456
553556	511	12.45	1.12	456
554555	99	12.15	0.12	825
555556	158	12.22	0.20	790
556557	732	12.45	1.64	446
557558	800	12.50	1.85	432
558560	815	12.53	1.97	414
559560	50	12.13	0.05	1000

Table F-4

Future Condition
10-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
615618	13	12.12	0.03	433
C618	165	12.15	0.19	868
618619	158	12.25	0.19	832
211T	80	12.02	0.07	1143
C619L	189	12.23	0.26	727
BB615R	6	12.10	0.03	200
615619	6	12.22	0.03	200
C619I	195	12.23	0.25	780
C619O	157	12.35	0.25	628
D619L	0	0.02	0.25	0
D619R	157	12.35	0.25	628
619620	157	12.37	0.25	628
BB619L	0	0.02	0.25	0
619620	0	0.02	0.25	0
211W	38	12.00	0.03	1267
C620R	166	12.33	0.28	593
BB611R	111	12.18	0.14	793
611620	111	12.20	0.14	793
C620	273	12.30	0.42	650
620621	273	12.33	0.42	650
C621	1073	12.08	7.93	135
621622	1051	12.22	7.93	133
211X	215	12.07	0.21	1024
C622R	1208	12.20	8.14	148
211A	145	12.03	0.14	1036
C600O	143	12.07	0.14	1021
600601	140	12.13	0.14	1000
211B	114	12.02	0.11	1036
C601	245	12.05	0.25	980
601602	241	12.10	0.25	964
211C	46	12.03	0.04	1150
C602L	283	12.08	0.30	943
211D	55	12.07	0.07	786
C602	338	12.08	0.37	914
602603	333	12.15	0.37	900
211E	167	12.03	0.16	1044
C603	473	12.10	0.52	910
603622	465	12.18	0.52	894
211F	113	12.05	0.11	1027
C622L	558	12.15	0.63	886
C622	1731	12.18	8.78	197
622549	1708	12.30	8.78	195
211Y	96	12.05	0.09	1067
C549R	1757	12.28	8.87	198
C549	2432	12.28	13.06	186

Future Condition
10-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
560585	226	13.88	2.15	105
561563	151	12.05	0.14	1079
562563	43	12.23	0.07	614
563564	270	12.13	0.31	871
564565	382	12.18	0.44	868
565568	477	12.20	0.57	837
566567	189	12.10	0.20	945
567568	288	12.15	0.31	929
568573	904	12.22	1.07	845
569570	227	12.07	0.23	987
571572	12	12.03	0.01	1200
572573	394	12.07	0.39	1010
574575	297	12.03	0.27	1100
575576	327	12.07	0.29	1128
576577	381	12.05	0.34	1121
577578	1646	12.15	1.92	857
578587	302	13.07	2.00	151
579580	289	12.15	0.37	781
580581	406	12.13	0.51	796
581582	760	12.13	0.91	835
582583	1060	12.17	1.34	791
583584	1108	12.23	1.42	780
584597	333	13.05	1.60	208
586587	101	12.13	0.11	918
587595	358	12.23	2.11	170
588590	147	12.07	0.14	1050
589590	97	12.07	0.09	1078
591521	534	12.33	1.83	292
592593	75	12.07	0.07	1071
593594	506	12.08	0.49	1033
594595	547	12.17	0.54	1013
595596	1025	12.18	2.83	362
597598	340	12.72	1.74	195
599608	770	15.13	7.13	108
600601	140	12.13	0.14	1000
601602	241	12.10	0.25	964
602603	333	12.15	0.37	900
603622	465	12.18	0.52	894
604606	7	12.25	0.01	700
606607	124	12.07	0.12	1033
607608	139	12.08	0.14	993
608613	772	15.17	7.37	105
609611	39	12.10	0.04	975
610611	94	12.05	0.08	1175
611612	0	0.02	0.14	0

Table F-4

Future Condition
10-year, 24-hour Results
In HEC-1 Run Order

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
549626	2406	12.40	13.06	184
211Z	76	12.05	0.08	950
C626C	2427	12.38	13.14	185
211AA	34	12.05	0.03	1133
625626	33	12.12	0.03	1100
211AB	51	12.00	0.04	1275
623624	51	12.00	0.04	1275
211AC	32	12.03	0.03	1067
C624	83	12.02	0.07	1186
624626	82	12.05	0.07	1171
211AD	49	12.02	0.04	1225
C626R	131	12.03	0.11	1191
C626	2481	12.38	13.28	187
626627	2477	12.40	13.28	187
211AE	38	12.02	0.03	1267
C627	2484	12.40	13.32	186
211AF	65	12.00	0.05	1300

Future Condition
10-year, 24-hour Results
In Numerical Order by Type

HEC-1 ID	Peak Discharge in cfs	Time to Peak in hours	Drainage Area, in sq miles	Unit Discharge in cfs/sm
611620	111	12.20	0.14	793
613621	772	15.18	7.55	102
614615	15	12.13	0.03	500
615618	13	12.12	0.03	433
615619	6	12.22	0.03	200
616617	24	12.03	0.02	1200
617618	122	12.08	0.13	938
618619	158	12.25	0.19	832
619620	157	12.37	0.25	628
619620	0	0.02	0.25	0
620621	273	12.33	0.42	650
621622	1051	12.22	7.93	133
622549	1708	12.30	8.78	195
623624	51	12.00	0.04	1275
624626	82	12.05	0.07	1171
625626	33	12.12	0.03	1100
626627	2477	12.40	13.28	187

TABLE F-5

Table F-5

Future Condition
100-year Peak Discharges
In Numerical Order by Type

HEC-1	Discharge, in cfs		
ID	6-hr	24-hr	Control
201A	376	241	6-hour controls
201B	151	92	6-hour controls
201C	238	134	6-hour controls
201D	115	71	6-hour controls
201E	263	175	6-hour controls
202A	115	63	6-hour controls
202B	56	31	6-hour controls
202C	26	14	6-hour controls
202D	171	99	6-hour controls
202E	328	183	6-hour controls
202F	46	24	6-hour controls
202G	46	25	6-hour controls
202H	561	310	6-hour controls
202I	59	33	6-hour controls
203A	397	267	6-hour controls
203B	133	75	6-hour controls
203C	197	119	6-hour controls
203D	184	115	6-hour controls
203E	302	170	6-hour controls
203F	524	345	6-hour controls
203G	412	267	6-hour controls
203H	592	337	6-hour controls
203I	397	233	6-hour controls
203J	123	70	6-hour controls
203K	482	276	6-hour controls
204A	334	187	6-hour controls
204B	365	209	6-hour controls
204C	275	149	6-hour controls
204D	149	82	6-hour controls
204E	224	126	6-hour controls
204F	260	147	6-hour controls
205A	210	130	6-hour controls
205B	362	237	6-hour controls
205C	107	65	6-hour controls
205D	665	405	6-hour controls
205E	301	203	6-hour controls
205F	325	197	6-hour controls
205G	349	214	6-hour controls
205H	350	237	6-hour controls
205I	559	367	6-hour controls
205J	551	361	6-hour controls
205K	266	183	6-hour controls
205L	263	147	6-hour controls
205M	366	210	6-hour controls
205N	211	141	6-hour controls
206A	408	224	6-hour controls
206B	304	169	6-hour controls

Table F-5

Future Condition
100-year Peak Discharges
In Numerical Order by Type

HEC-1 ID	Discharge, in cfs 6-hr	24-hr	Control
206C	61	35	6-hour controls
206D	205	114	6-hour controls
206E	71	38	6-hour controls
206F	441	247	6-hour controls
206G	213	125	6-hour controls
206H	188	106	6-hour controls
206I	75	40	6-hour controls
206J	200	111	6-hour controls
206K	171	96	6-hour controls
206L	191	106	6-hour controls
206M	198	109	6-hour controls
206N	459	260	6-hour controls
207A	382	254	6-hour controls
207B	306	202	6-hour controls
207C	321	197	6-hour controls
207D	424	255	6-hour controls
207E	286	178	6-hour controls
207F	253	153	6-hour controls
207G	277	190	6-hour controls
207H	312	181	6-hour controls
207I	213	120	6-hour controls
207J	270	154	6-hour controls
207K	362	209	6-hour controls
207L	236	136	6-hour controls
207M	372	205	6-hour controls
207N	160	87	6-hour controls
207O	413	227	6-hour controls
208A	480	253	6-hour controls
208B	82	46	6-hour controls
208C	144	85	6-hour controls
208D	225	126	6-hour controls
208E	192	107	6-hour controls
208F	224	122	6-hour controls
208G	398	224	6-hour controls
208H	99	59	6-hour controls
208I	370	204	6-hour controls
208J	221	128	6-hour controls
208K	165	88	6-hour controls
208L	183	101	6-hour controls
208M	484	276	6-hour controls
208N	131	78	6-hour controls
208O	703	392	6-hour controls
208P	204	111	6-hour controls
208Q	273	158	6-hour controls
208R	35	19	6-hour controls
208S	229	129	6-hour controls
208T	433	239	6-hour controls

Table F-5

Future Condition
100-year Peak Discharges
In Numerical Order by Type

HEC-1	Discharge, in cfs		
ID	6-hr	24-hr	Control
208U	483	252	6-hour controls
208V	97	53	6-hour controls
208W	170	93	6-hour controls
208X	247	135	6-hour controls
209A	951	549	6-hour controls
209B	266	146	6-hour controls
209C	170	98	6-hour controls
209D	802	432	6-hour controls
209E	445	250	6-hour controls
209F	439	273	6-hour controls
209G	625	348	6-hour controls
209H	242	136	6-hour controls
209I	604	326	6-hour controls
210A	397	213	6-hour controls
210B	307	178	6-hour controls
210C	245	135	6-hour controls
210D	448	250	6-hour controls
210E	93	52	6-hour controls
210F	306	165	6-hour controls
210G	504	282	6-hour controls
210H	234	127	6-hour controls
210I	149	86	6-hour controls
210J	324	183	6-hour controls
210K	270	145	6-hour controls
210L	413	230	6-hour controls
210M	462	264	6-hour controls
210N	162	81	6-hour controls
211A	444	249	6-hour controls
211AA	96	57	6-hour controls
211AB	149	79	6-hour controls
211AC	90	51	6-hour controls
211AD	139	78	6-hour controls
211AE	114	63	6-hour controls
211AF	194	102	6-hour controls
211B	357	195	6-hour controls
211C	134	77	6-hour controls
211D	184	103	6-hour controls
211E	509	281	6-hour controls
211F	332	190	6-hour controls
211G	18	11	6-hour controls
211H	247	133	6-hour controls
211I	121	70	6-hour controls
211J	51	28	6-hour controls
211K	363	191	6-hour controls
211L	317	169	6-hour controls
211M	278	152	6-hour controls
211N	72	39	6-hour controls

Table F-5

Future Condition
100-year Peak Discharges
In Numerical Order by Type

HEC-1 ID	Discharge, in cfs 6-hr	24-hr	Control
211O	143	78	6-hour controls
211P	119	65	6-hour controls
211Q	74	39	6-hour controls
211R	283	155	6-hour controls
211S	144	83	6-hour controls
211T	231	127	6-hour controls
211U	61	37	6-hour controls
211V	16	9	6-hour controls
211W	108	59	6-hour controls
211X	629	362	6-hour controls
211Y	271	158	6-hour controls
211Z	249	137	6-hour controls
BB512R	131	80	6-hour controls
BB523R	68	18	6-hour controls
BB543R	252	143	6-hour controls
BB545R	84	48	6-hour controls
BB611R	169	143	6-hour controls
BB614R	43	26	6-hour controls
BB615R	19	12	6-hour controls
BB619L	402	0	6-hour controls
C501	524	332	6-hour controls
C502	699	458	6-hour controls
C502R	592	388	6-hour controls
C503I	891	616	6-hour controls
C503O	344	298	6-hour controls
C504I	105	62	6-hour controls
C504O	64	34	6-hour controls
C505I	72	35	6-hour controls
C506	74	34	6-hour controls
C507I	392	234	6-hour controls
C507O	392	234	6-hour controls
C508O	327	182	6-hour controls
C511O	482	259	6-hour controls
C512I	504	279	6-hour controls
C512O	276	190	6-hour controls
C513O	380	237	6-hour controls
C514	486	319	6-hour controls
C514R	381	249	6-hour controls
C515	599	402	6-hour controls
C517	1181	938	6-hour controls
C517L	720	508	6-hour controls
C517R	597	433	6-hour controls
C518	1199	996	6-hour controls
C519	1257	1063	6-hour controls
C521	1453	1241	6-hour controls
C523I	586	370	6-hour controls
C523O	570	280	6-hour controls

Table F-5

Future Condition
100-year Peak Discharges
In Numerical Order by Type

HEC-1	Discharge, in cfs		
ID	6-hr	24-hr	Control
C524	555	329	6-hour controls
C525	596	399	6-hour controls
C526	798	512	6-hour controls
C527	987	627	6-hour controls
C528	548	361	6-hour controls
C529	917	596	6-hour controls
C530	1340	1005	6-hour controls
C530R	629	417	6-hour controls
C531	1504	1172	6-hour controls
C532	1854	1578	6-hour controls
C532L	1661	1344	6-hour controls
C533	2132	1920	6-hour controls
C534	2427	2310	6-hour controls
C534R	2306	2142	6-hour controls
C535	2441	2346	6-hour controls
C536I	2496	2430	6-hour controls
C536O	326	321	6-hour controls
C536R	2427	2354	6-hour controls
C537	346	358	24-hour control
C538I	473	499	24-hour control
C538O	442	456	24-hour control
C540	560	561	24-hour control
C540L	254	147	6-hour controls
C540R	464	468	24-hour control
C541	658	633	6-hour controls
C543	252	143	6-hour controls
C544	171	96	6-hour controls
C546	271	152	6-hour controls
C547	758	443	6-hour controls
C548	1172	1241	24-hour control
C548L	747	726	6-hour controls
C548R	883	535	6-hour controls
C549	3524	4013	24-hour control
C549L	1331	1370	24-hour control
C549R	2508	2760	24-hour control
C550	687	455	6-hour controls
C552	1312	1001	6-hour controls
C552L	878	617	6-hour controls
C552R	679	420	6-hour controls
C553	1440	1127	6-hour controls
C555	489	289	6-hour controls
C556	1906	1626	6-hour controls
C556L	1601	1309	6-hour controls
C556R	682	404	6-hour controls
C557	2067	1780	6-hour controls
C557R	2002	1720	6-hour controls
C558	2110	1821	6-hour controls

Table F-5

Future Condition
100-year Peak Discharges
In Numerical Order by Type

HEC-1	Discharge, in cfs		
ID	6-hr	24-hr	Control
C560I	2201	1892	6-hour controls
C560O	294	283	6-hour controls
C560R	2157	1857	6-hour controls
C563	864	491	6-hour controls
C563L	319	197	6-hour controls
C563R	549	297	6-hour controls
C564	1195	696	6-hour controls
C564R	994	579	6-hour controls
C565	1398	870	6-hour controls
C566	590	330	6-hour controls
C567	892	508	6-hour controls
C567L	713	408	6-hour controls
C568	2210	1638	6-hour controls
C568L	1429	916	6-hour controls
C568R	1263	752	6-hour controls
C570	1154	652	6-hour controls
C570R	882	496	6-hour controls
C572	1187	671	6-hour controls
C573	2843	2380	6-hour controls
C573L	2245	1687	6-hour controls
C573R	1391	792	6-hour controls
C574	911	489	6-hour controls
C575	1002	541	6-hour controls
C576	1146	628	6-hour controls
C577	3345	2969	6-hour controls
C578I	3404	3058	6-hour controls
C578O	1078	460	6-hour controls
C580	1285	771	6-hour controls
C580R	1090	639	6-hour controls
C581	2031	1409	6-hour controls
C581R	1747	1164	6-hour controls
C582	2498	1968	6-hour controls
C582R	2209	1654	6-hour controls
C583	2567	2065	6-hour controls
C584I	2656	2209	6-hour controls
C584O	925	393	6-hour controls
C585	360	339	6-hour controls
C586O	246	168	6-hour controls
C587	1112	477	6-hour controls
C590	1323	741	6-hour controls
C590L	524	299	6-hour controls
C590R	800	444	6-hour controls
C591	1321	1119	6-hour controls
C593	1545	866	6-hour controls
C594	1636	944	6-hour controls
C595	1603	1629	24-hour control
C595L	1110	553	6-hour controls

Table F-5

Future Condition
100-year Peak Discharges
In Numerical Order by Type

HEC-1	Discharge, in cfs		
ID	6-hr	24-hr	Control
C595R	1764	1082	6-hour controls
C596	1679	1696	24-hour control
C597	900	483	6-hour controls
C598	884	691	6-hour controls
C599I	2474	2655	24-hour control
C599O	1631	1143	6-hour controls
C600O	373	241	6-hour controls
C601	663	419	6-hour controls
C602	950	589	6-hour controls
C602L	769	487	6-hour controls
C603	1313	833	6-hour controls
C605O	129	107	6-hour controls
C606	256	184	6-hour controls
C606R	131	78	6-hour controls
C607	295	207	6-hour controls
C608	1642	1161	6-hour controls
C608L	1629	1147	6-hour controls
C609O	69	56	6-hour controls
C611I	402	242	6-hour controls
C611O	201	143	6-hour controls
C611R	338	190	6-hour controls
C612	119	64	6-hour controls
C613	1639	1162	6-hour controls
C615	55	34	6-hour controls
C617	372	204	6-hour controls
C617L	355	193	6-hour controls
C618	518	302	6-hour controls
C618I	499	282	6-hour controls
C618O	482	280	6-hour controls
C619I	655	408	6-hour controls
C619L	637	399	6-hour controls
C619O	596	185	6-hour controls
C620	741	355	6-hour controls
C620R	573	223	6-hour controls
C621	1866	1484	6-hour controls
C621L	1633	1169	6-hour controls
C622	2429	2697	24-hour control
C622L	1474	979	6-hour controls
C622R	1877	1761	6-hour controls
C624	238	130	6-hour controls
C626	3692	4117	24-hour control
C626C	3561	4012	24-hour control
C626R	367	207	6-hour controls
C627	3714	4130	24-hour control
CLEAR	2109	2017	6-hour controls
CLEAR	1610	1464	6-hour controls
D503L	344	298	6-hour controls

Table F-5

Future Condition
100-year Peak Discharges
In Numerical Order by Type

HEC-1	Discharge, in cfs		
ID	6-hr	24-hr	Control
D503R	0	0	6-hour controls
D504L	23	22	6-hour controls
D504R	41	12	6-hour controls
D505L	16	14	6-hour controls
D505R	56	21	6-hour controls
D506L	0	0	6-hour controls
D506R	74	34	6-hour controls
D508L	232	111	6-hour controls
D508R	95	71	6-hour controls
D512L	145	110	6-hour controls
D512R	131	80	6-hour controls
D523L	502	262	6-hour controls
D523R	68	18	6-hour controls
D543L	0	0	6-hour controls
D543R	252	143	6-hour controls
D545L	84	48	6-hour controls
D545R	84	48	6-hour controls
D611L	32	0	6-hour controls
D611R	169	143	6-hour controls
D614L	18	11	6-hour controls
D614R	43	26	6-hour controls
D615L	36	22	6-hour controls
D615R	19	12	6-hour controls
D619L	402	0	6-hour controls
D619R	194	185	6-hour controls
501502	511	327	6-hour controls
502503	687	453	6-hour controls
503504	0	0	6-hour controls
508507	224	108	6-hour controls
511512	472	258	6-hour controls
513514	366	234	6-hour controls
515517	590	400	6-hour controls
516517	495	333	6-hour controls
517518	1163	931	6-hour controls
518519	1192	992	6-hour controls
519591	1254	1060	6-hour controls
520591	119	70	6-hour controls
522523	309	181	6-hour controls
523524	484	259	6-hour controls
523548	60	15	6-hour controls
524525	550	325	6-hour controls
525526	586	395	6-hour controls
526527	776	505	6-hour controls
528530	545	360	6-hour controls
530531	1326	996	6-hour controls
531532	1490	1162	6-hour controls
532533	1850	1575	6-hour controls

Table F-5

Future Condition
100-year Peak Discharges
In Numerical Order by Type

HEC-1 ID	Discharge, in cfs 6-hr	24-hr	Control
533534	2100	1889	6-hour controls
534535	2417	2300	6-hour controls
535536	2419	2320	6-hour controls
536537	326	321	6-hour controls
537538	343	351	24-hour control
538540	441	448	24-hour control
539540	196	111	6-hour controls
540541	553	548	6-hour controls
541548	657	632	6-hour controls
542543	184	105	6-hour controls
543544	0	0	6-hour controls
543547	241	140	6-hour controls
544545	167	95	6-hour controls
545546	83	47	6-hour controls
545547	81	47	6-hour controls
546547	269	152	6-hour controls
547548	732	436	6-hour controls
548549	1160	1216	24-hour control
549626	3504	3968	24-hour control
550552	675	450	6-hour controls
551552	416	252	6-hour controls
552553	1308	998	6-hour controls
553556	1432	1121	6-hour controls
554555	303	178	6-hour controls
555556	475	282	6-hour controls
556557	1899	1619	6-hour controls
557558	2055	1770	6-hour controls
558560	2104	1813	6-hour controls
559560	151	85	6-hour controls
560585	294	283	6-hour controls
561563	468	251	6-hour controls
562563	141	83	6-hour controls
563564	833	483	6-hour controls
564565	1151	681	6-hour controls
565568	1371	862	6-hour controls
566567	572	326	6-hour controls
567568	855	497	6-hour controls
568573	2187	1622	6-hour controls
569570	693	389	6-hour controls
571572	33	19	6-hour controls
572573	1172	667	6-hour controls
574575	906	488	6-hour controls
575576	985	537	6-hour controls
576577	1143	628	6-hour controls
577578	3329	2951	6-hour controls
578587	1073	459	6-hour controls
579580	942	546	6-hour controls

Table F-5

Future Condition
100-year Peak Discharges
In Numerical Order by Type

HEC-1	Discharge, in cfs		
ID	6-hr	24-hr	Control
580581	1267	765	6-hour controls
581582	1981	1389	6-hour controls
582583	2472	1950	6-hour controls
583584	2536	2039	6-hour controls
584597	903	392	6-hour controls
586587	245	167	6-hour controls
587595	1105	476	6-hour controls
588590	437	248	6-hour controls
589590	299	164	6-hour controls
591521	1319	1115	6-hour controls
592593	226	126	6-hour controls
593594	1532	859	6-hour controls
594595	1595	929	6-hour controls
595596	1595	1619	24-hour control
597598	883	473	6-hour controls
599608	1630	1143	6-hour controls
600601	366	238	6-hour controls
601602	651	415	6-hour controls
602603	923	581	6-hour controls
603622	1284	816	6-hour controls
604606	17	11	6-hour controls
606607	253	182	6-hour controls
607608	290	206	6-hour controls
608613	1641	1161	6-hour controls
609611	69	56	6-hour controls
610611	272	152	6-hour controls
611612	27	0	6-hour controls
611620	169	143	6-hour controls
613621	1632	1162	6-hour controls
614615	43	26	6-hour controls
615618	36	22	6-hour controls
615619	19	11	6-hour controls
616617	72	39	6-hour controls
617618	359	200	6-hour controls
618619	507	299	6-hour controls
619620	194	185	6-hour controls
619620	353	0	6-hour controls
620621	723	354	6-hour controls
621622	1865	1458	6-hour controls
622549	2409	2662	24-hour control
623624	148	79	6-hour controls
624626	231	129	6-hour controls
625626	92	56	6-hour controls
626627	3689	4113	24-hour control

TABLE F-6

Table F-6

Future Condition
10-year Peak Discharges
In Numerical Order by Type

HEC-1	Discharge, in cfs		
ID	6-hr	24-hr	Control
201A	169	118	6-hour controls
201B	66	43	6-hour controls
201C	138	77	6-hour controls
201D	51	35	6-hour controls
201E	108	78	6-hour controls
202A	66	35	6-hour controls
202B	32	17	6-hour controls
202C	16	8	6-hour controls
202D	97	56	6-hour controls
202E	193	107	6-hour controls
202F	29	15	6-hour controls
202G	30	15	6-hour controls
202H	328	180	6-hour controls
202I	37	21	6-hour controls
203A	159	116	6-hour controls
203B	77	43	6-hour controls
203C	94	60	6-hour controls
203D	83	56	6-hour controls
203E	184	103	6-hour controls
203F	202	144	6-hour controls
203G	183	131	6-hour controls
203H	337	191	6-hour controls
203I	212	126	6-hour controls
203J	75	43	6-hour controls
203K	285	163	6-hour controls
204A	196	109	6-hour controls
204B	211	120	6-hour controls
204C	173	95	6-hour controls
204D	92	51	6-hour controls
204E	134	76	6-hour controls
204F	161	92	6-hour controls
205A	97	62	6-hour controls
205B	164	105	6-hour controls
205C	50	31	6-hour controls
205D	315	195	6-hour controls
205E	133	88	6-hour controls
205F	153	94	6-hour controls
205G	160	100	6-hour controls
205H	151	100	6-hour controls
205I	226	154	6-hour controls
205J	204	140	6-hour controls
205K	95	71	6-hour controls
205L	117	65	6-hour controls
205M	197	113	6-hour controls
205N	80	59	6-hour controls
206A	240	130	6-hour controls
206B	181	100	6-hour controls

Table F-6

Future Condition
10-year Peak Discharges
In Numerical Order by Type

HEC-1	Discharge, in cfs		
ID	6-hr	24-hr	Control
206C	33	18	6-hour controls
206D	124	69	6-hour controls
206E	40	21	6-hour controls
206F	247	136	6-hour controls
206G	116	68	6-hour controls
206H	114	63	6-hour controls
206I	47	24	6-hour controls
206J	121	67	6-hour controls
206K	100	56	6-hour controls
206L	113	62	6-hour controls
206M	119	66	6-hour controls
206N	269	153	6-hour controls
207A	165	109	6-hour controls
207B	134	89	6-hour controls
207C	138	92	6-hour controls
207D	213	132	6-hour controls
207E	140	92	6-hour controls
207F	122	77	6-hour controls
207G	104	76	6-hour controls
207H	174	100	6-hour controls
207I	123	69	6-hour controls
207J	157	88	6-hour controls
207K	206	119	6-hour controls
207L	139	80	6-hour controls
207M	219	119	6-hour controls
207N	95	51	6-hour controls
207O	240	129	6-hour controls
208A	295	152	6-hour controls
208B	48	27	6-hour controls
208C	73	43	6-hour controls
208D	130	73	6-hour controls
208E	113	62	6-hour controls
208F	133	72	6-hour controls
208G	236	132	6-hour controls
208H	54	32	6-hour controls
208I	218	120	6-hour controls
208J	128	73	6-hour controls
208K	101	53	6-hour controls
208L	108	60	6-hour controls
208M	289	165	6-hour controls
208N	79	47	6-hour controls
208O	410	229	6-hour controls
208P	127	70	6-hour controls
208Q	161	93	6-hour controls
208R	22	12	6-hour controls
208S	142	81	6-hour controls
208T	262	143	6-hour controls

Table F-6

Future Condition
10-year Peak Discharges
In Numerical Order by Type

HEC-1	Discharge, in cfs		
ID	6-hr	24-hr	Control
208U	303	156	6-hour controls
208V	60	33	6-hour controls
208W	104	57	6-hour controls
208X	147	80	6-hour controls
209A	491	290	6-hour controls
209B	158	86	6-hour controls
209C	96	55	6-hour controls
209D	481	254	6-hour controls
209E	260	145	6-hour controls
209F	213	140	6-hour controls
209G	368	202	6-hour controls
209H	135	75	6-hour controls
209I	359	190	6-hour controls
210A	234	122	6-hour controls
210B	179	104	6-hour controls
210C	139	74	6-hour controls
210D	268	149	6-hour controls
210E	56	32	6-hour controls
210F	183	98	6-hour controls
210G	297	165	6-hour controls
210H	141	76	6-hour controls
210I	89	52	6-hour controls
210J	193	109	6-hour controls
210K	166	89	6-hour controls
210L	237	129	6-hour controls
210M	263	150	6-hour controls
210N	95	45	6-hour controls
211A	260	145	6-hour controls
211AA	56	34	6-hour controls
211AB	96	51	6-hour controls
211AC	56	32	6-hour controls
211AD	86	49	6-hour controls
211AE	69	38	6-hour controls
211AF	123	65	6-hour controls
211B	213	114	6-hour controls
211C	80	46	6-hour controls
211D	100	55	6-hour controls
211E	306	167	6-hour controls
211F	196	113	6-hour controls
211G	11	7	6-hour controls
211H	150	80	6-hour controls
211I	71	41	6-hour controls
211J	31	17	6-hour controls
211K	225	117	6-hour controls
211L	189	98	6-hour controls
211M	171	94	6-hour controls
211N	45	24	6-hour controls

Table F-6

Future Condition
10-year Peak Discharges
In Numerical Order by Type

HEC-1	Discharge, in cfs		
ID	6-hr	24-hr	Control
211O	89	48	6-hour controls
211P	75	41	6-hour controls
211Q	46	24	6-hour controls
211R	171	94	6-hour controls
211S	82	47	6-hour controls
211T	145	80	6-hour controls
211U	35	22	6-hour controls
211V	10	6	6-hour controls
211W	69	38	6-hour controls
211X	372	215	6-hour controls
211Y	164	96	6-hour controls
211Z	141	76	6-hour controls
BB512R	4	0	6-hour controls
BB523R	0	0	6-hour controls
BB543R	150	85	6-hour controls
BB545R	49	27	6-hour controls
BB611R	133	111	6-hour controls
BB614R	25	15	6-hour controls
BB615R	11	6	6-hour controls
BB619L	0	0	6-hour controls
C501	233	160	6-hour controls
C502	307	217	6-hour controls
C502R	260	184	6-hour controls
C503I	386	286	6-hour controls
C503O	230	196	6-hour controls
C504I	60	35	6-hour controls
C504O	24	18	6-hour controls
C505I	29	17	6-hour controls
C506	30	12	6-hour controls
C507I	170	96	6-hour controls
C507O	170	96	6-hour controls
C508O	187	104	6-hour controls
C511O	245	176	6-hour controls
C512I	263	191	6-hour controls
C512O	35	11	6-hour controls
C513O	125	96	6-hour controls
C514	161	131	6-hour controls
C514R	127	100	6-hour controls
C515	220	171	6-hour controls
C517	424	384	6-hour controls
C517L	274	207	6-hour controls
C517R	266	197	6-hour controls
C518	475	424	6-hour controls
C519	576	512	6-hour controls
C521	692	622	6-hour controls
C523I	322	207	6-hour controls
C523O	227	172	6-hour controls

Table F-6

Future Condition
10-year Peak Discharges
In Numerical Order by Type

HEC-1	Discharge, in cfs		
ID	6-hr	24-hr	Control
C524	288	205	6-hour controls
C525	369	247	6-hour controls
C526	484	312	6-hour controls
C527	589	378	6-hour controls
C528	247	160	6-hour controls
C529	418	272	6-hour controls
C530	596	449	6-hour controls
C530R	284	184	6-hour controls
C531	669	528	6-hour controls
C532	808	703	6-hour controls
C532L	735	606	6-hour controls
C533	907	847	6-hour controls
C534	978	997	24-hour control
C534R	946	932	6-hour controls
C535	972	1007	24-hour control
C536I	983	1046	24-hour control
C536O	271	272	24-hour control
C536R	967	1014	24-hour control
C537	273	275	24-hour control
C538I	275	278	24-hour control
C538O	273	278	24-hour control
C540	275	285	24-hour control
C540L	147	85	6-hour controls
C540R	274	278	24-hour control
C541	357	366	24-hour control
C543	150	85	6-hour controls
C544	100	55	6-hour controls
C546	157	88	6-hour controls
C547	446	261	6-hour controls
C548	646	685	24-hour control
C548L	406	417	24-hour control
C548R	518	312	6-hour controls
C549	2118	2432	24-hour control
C549L	730	753	24-hour control
C549R	1594	1757	24-hour control
C550	298	197	6-hour controls
C552	577	451	6-hour controls
C552L	378	263	6-hour controls
C552R	338	217	6-hour controls
C553	634	513	6-hour controls
C555	269	161	6-hour controls
C556	824	735	6-hour controls
C556L	687	586	6-hour controls
C556R	356	225	6-hour controls
C557	886	803	6-hour controls
C557R	860	778	6-hour controls
C558	898	817	6-hour controls

Table F-6

Future Condition
10-year Peak Discharges
In Numerical Order by Type

HEC-1	Discharge, in cfs		
ID	6-hr	24-hr	Control
C560I	928	845	6-hour controls
C560O	234	226	6-hour controls
C560R	908	831	6-hour controls
C563	492	275	6-hour controls
C563L	165	101	6-hour controls
C563R	336	177	6-hour controls
C564	676	391	6-hour controls
C564R	565	324	6-hour controls
C565	779	481	6-hour controls
C566	346	192	6-hour controls
C567	517	294	6-hour controls
C567L	413	235	6-hour controls
C568	1231	913	6-hour controls
C568L	793	504	6-hour controls
C568R	720	435	6-hour controls
C570	674	385	6-hour controls
C570R	514	293	6-hour controls
C572	695	397	6-hour controls
C573	1573	1313	6-hour controls
C573L	1246	939	6-hour controls
C573R	821	472	6-hour controls
C574	561	298	6-hour controls
C575	616	330	6-hour controls
C576	697	382	6-hour controls
C577	1864	1654	6-hour controls
C578I	1899	1701	6-hour controls
C578O	311	302	6-hour controls
C580	657	410	6-hour controls
C580R	563	338	6-hour controls
C581	1080	773	6-hour controls
C581R	911	632	6-hour controls
C582	1317	1068	6-hour controls
C582R	1151	894	6-hour controls
C583	1355	1122	6-hour controls
C584I	1399	1191	6-hour controls
C584O	341	333	6-hour controls
C585	235	228	6-hour controls
C586O	161	103	6-hour controls
C587	378	358	6-hour controls
C590	787	437	6-hour controls
C590L	316	177	6-hour controls
C590R	471	261	6-hour controls
C591	590	535	6-hour controls
C593	919	509	6-hour controls
C594	968	556	6-hour controls
C595	1023	1029	24-hour control
C595L	427	405	6-hour controls

Table F-6

Future Condition
10-year Peak Discharges
In Numerical Order by Type

HEC-1	Discharge, in cfs		
ID	6-hr	24-hr	Control
C595R	1003	631	6-hour controls
C596	1068	1066	6-hour controls
C597	371	340	6-hour controls
C598	468	403	6-hour controls
C599I	1549	1640	24-hour control
C599O	751	770	24-hour control
C600O	236	143	6-hour controls
C601	396	245	6-hour controls
C602	552	338	6-hour controls
C602L	455	283	6-hour controls
C603	742	473	6-hour controls
C605O	103	80	6-hour controls
C606	178	125	6-hour controls
C606R	77	46	6-hour controls
C607	199	140	6-hour controls
C608	748	772	24-hour control
C608L	749	771	24-hour control
C609O	53	39	6-hour controls
C611I	255	154	6-hour controls
C611O	133	111	6-hour controls
C611R	208	117	6-hour controls
C612	75	41	6-hour controls
C613	746	772	24-hour control
C615	32	19	6-hour controls
C617	225	124	6-hour controls
C617L	215	117	6-hour controls
C618	294	165	6-hour controls
C618I	291	167	6-hour controls
C618O	273	151	6-hour controls
C619I	349	195	6-hour controls
C619L	338	189	6-hour controls
C619O	175	157	6-hour controls
C620	321	273	6-hour controls
C620R	201	166	6-hour controls
C621	998	1073	24-hour control
C621L	793	850	24-hour control
C622	1551	1731	24-hour control
C622L	829	558	6-hour controls
C622R	1125	1208	24-hour control
C624	151	83	6-hour controls
C626	2184	2481	24-hour control
C626C	2121	2427	24-hour control
C626R	231	131	6-hour controls
C627	2193	2484	24-hour control
CLEAR	1057	1058	24-hour control
CLEAR	720	702	6-hour controls
D503L	230	196	6-hour controls

Table F-6

Future Condition
10-year Peak Discharges
In Numerical Order by Type

HEC-1	Discharge, in cfs		
ID	6-hr	24-hr	Control
D503R	0	0	6-hour controls
D504L	21	18	6-hour controls
D504R	4	0	6-hour controls
D505L	14	13	6-hour controls
D505R	16	4	6-hour controls
D506L	0	0	6-hour controls
D506R	30	12	6-hour controls
D508L	116	40	6-hour controls
D508R	71	64	6-hour controls
D512L	31	11	6-hour controls
D512R	4	0	6-hour controls
D523L	226	172	6-hour controls
D523R	0	0	6-hour controls
D543L	0	0	6-hour controls
D543R	150	85	6-hour controls
D545L	49	27	6-hour controls
D545R	49	27	6-hour controls
D611L	0	0	6-hour controls
D611R	133	111	6-hour controls
D614L	10	7	6-hour controls
D614R	25	15	6-hour controls
D615L	21	13	6-hour controls
D615R	11	6	6-hour controls
D619L	0	0	6-hour controls
D619R	175	157	6-hour controls
501502	228	158	6-hour controls
502503	302	215	6-hour controls
503504	0	0	6-hour controls
508507	108	38	6-hour controls
511512	244	175	6-hour controls
513514	124	95	6-hour controls
515517	217	169	6-hour controls
516517	192	139	6-hour controls
517518	418	379	6-hour controls
518519	474	420	6-hour controls
519591	574	510	6-hour controls
520591	72	42	6-hour controls
522523	178	105	6-hour controls
523524	226	171	6-hour controls
523548	0	0	6-hour controls
524525	284	204	6-hour controls
525526	362	245	6-hour controls
526527	471	309	6-hour controls
528530	246	159	6-hour controls
530531	592	446	6-hour controls
531532	663	524	6-hour controls
532533	806	701	6-hour controls

Table F-6

Future Condition
10-year Peak Discharges
In Numerical Order by Type

HEC-1	Discharge, in cfs		
ID	6-hr	24-hr	Control
533534	892	831	6-hour controls
534535	974	991	24-hour control
535536	968	1000	24-hour control
536537	271	272	24-hour control
537538	273	275	24-hour control
538540	273	278	24-hour control
539540	117	67	6-hour controls
540541	275	282	24-hour control
541548	355	364	24-hour control
542543	110	62	6-hour controls
543544	0	0	6-hour controls
543547	143	83	6-hour controls
544545	98	55	6-hour controls
545546	48	27	6-hour controls
545547	47	27	6-hour controls
546547	156	88	6-hour controls
547548	433	256	6-hour controls
548549	641	676	24-hour control
549626	2102	2406	24-hour control
550552	295	195	6-hour controls
551552	209	131	6-hour controls
552553	574	451	6-hour controls
553556	630	511	6-hour controls
554555	168	99	6-hour controls
555556	260	158	6-hour controls
556557	821	732	6-hour controls
557558	883	800	6-hour controls
558560	896	815	6-hour controls
559560	89	50	6-hour controls
560585	234	226	6-hour controls
561563	289	151	6-hour controls
562563	72	43	6-hour controls
563564	476	270	6-hour controls
564565	651	382	6-hour controls
565568	765	477	6-hour controls
566567	334	189	6-hour controls
567568	497	288	6-hour controls
568573	1214	904	6-hour controls
569570	404	227	6-hour controls
571572	21	12	6-hour controls
572573	690	394	6-hour controls
574575	557	297	6-hour controls
575576	601	327	6-hour controls
576577	694	381	6-hour controls
577578	1855	1646	6-hour controls
578587	311	302	6-hour controls
579580	488	289	6-hour controls

Table F-6

Future Condition
10-year Peak Discharges
In Numerical Order by Type

HEC-1	Discharge, in cfs		
ID	6-hr	24-hr	Control
580581	651	406	6-hour controls
581582	1059	760	6-hour controls
582583	1303	1060	6-hour controls
583584	1332	1108	6-hour controls
584597	341	333	6-hour controls
586587	160	101	6-hour controls
587595	378	358	6-hour controls
588590	264	147	6-hour controls
589590	177	97	6-hour controls
591521	589	534	6-hour controls
592593	134	75	6-hour controls
593594	906	506	6-hour controls
594595	926	547	6-hour controls
595596	1019	1025	24-hour control
597598	369	340	6-hour controls
599608	751	770	24-hour control
600601	231	140	6-hour controls
601602	388	241	6-hour controls
602603	538	333	6-hour controls
603622	728	465	6-hour controls
604606	10	7	6-hour controls
606607	175	124	6-hour controls
607608	197	139	6-hour controls
608613	748	772	24-hour control
609611	52	39	6-hour controls
610611	166	94	6-hour controls
611612	0	0	6-hour controls
611620	133	111	6-hour controls
613621	746	772	24-hour control
614615	24	15	6-hour controls
615618	21	13	6-hour controls
615619	11	6	6-hour controls
616617	44	24	6-hour controls
617618	214	122	6-hour controls
618619	283	158	6-hour controls
619620	175	157	6-hour controls
619620	0	0	6-hour controls
620621	321	273	6-hour controls
621622	990	1051	24-hour control
622549	1541	1708	24-hour control
623624	95	51	6-hour controls
624626	147	82	6-hour controls
625626	54	33	6-hour controls
626627	2183	2477	24-hour control

TABLE F-7

Table F-7

Summary of 10-year and 100-year, 6-hour and 24-hour Runoff Volumes

HEC-1 ID	Drainage Area sm	10-year, 6-hour		10-year, 24-hour		100-year, 6-hour		100-year, 24-hour	
		Excess inches	Volume acre-feet	Excess inches	Volume acre-feet	Excess inches	Volume acre-feet	Excess inches	Volume acre-feet
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
201A	0.22	1.03	12.0	0.88	10.4	1.91	22.4	1.61	18.9
201B	0.08	0.89	3.8	0.73	3.1	1.76	7.5	1.40	6.0
201C	0.08	1.33	5.7	1.27	5.4	2.26	9.6	2.13	9.1
201D	0.07	1.05	3.9	0.91	3.4	1.93	7.2	1.64	6.1
201E	0.18	0.97	9.3	0.85	8.2	1.85	17.7	1.55	14.9
202A	0.04	1.27	2.7	1.30	2.8	2.18	4.6	2.13	4.5
202B	0.02	1.28	1.4	1.31	1.4	2.20	2.3	2.15	2.3
202C	0.01	1.39	0.7	1.49	0.8	2.32	1.2	2.40	1.3
202D	0.06	1.36	4.3	1.34	4.3	2.29	7.3	2.22	7.1
202E	0.10	1.37	7.3	1.33	7.1	2.31	12.3	2.21	11.8
202F	0.01	1.48	0.8	1.55	0.8	2.44	1.3	2.51	1.3
202G	0.01	1.47	0.8	1.52	0.8	2.43	1.3	2.46	1.3
202H	0.18	1.33	12.7	1.30	12.5	2.26	21.6	2.16	20.8
202I	0.02	1.87	2.0	2.24	2.4	2.90	3.1	3.43	3.7
203A	0.28	0.94	14.0	0.79	11.7	1.81	27.1	1.48	22.0
203B	0.04	1.31	2.8	1.25	2.7	2.24	4.8	2.10	4.5
203C	0.10	1.10	5.9	1.00	5.3	2.00	10.6	1.76	9.4
203D	0.11	1.02	6.0	0.89	5.2	1.91	11.2	1.62	9.5
203E	0.09	1.45	6.9	1.39	6.7	2.40	11.5	2.31	11.1
203F	0.33	0.84	14.8	0.66	11.6	1.70	29.9	1.30	22.9
203G	0.25	1.06	14.1	0.92	12.2	1.94	25.9	1.66	22.1
203H	0.21	1.31	14.7	1.27	14.2	2.24	25.1	2.12	23.7
203I	0.17	1.31	11.8	1.32	11.9	2.23	20.2	2.17	19.7
203J	0.04	1.78	3.8	2.08	4.4	2.80	6.0	3.22	6.9
203K	0.16	1.56	13.3	1.68	14.3	2.54	21.6	2.68	22.9
204A	0.11	1.34	7.9	1.29	7.6	2.28	13.4	2.16	12.7
204B	0.13	1.36	9.4	1.32	9.2	2.30	15.9	2.20	15.3
204C	0.08	1.81	7.7	2.11	9.0	2.84	12.1	3.26	13.9
204D	0.04	1.67	3.6	1.87	4.0	2.67	5.7	2.94	6.3
204E	0.07	1.53	5.7	1.62	6.0	2.50	9.3	2.59	9.7
204F	0.08	1.70	7.2	1.80	7.7	2.69	11.5	2.87	12.3
205A	0.12	1.21	7.8	1.28	8.2	2.08	13.3	2.18	13.9
205B	0.21	1.21	13.6	1.27	14.3	2.08	23.3	2.17	24.3
205C	0.06	1.21	3.9	1.27	4.1	2.08	6.6	2.18	7.0
205D	0.32	1.21	20.7	1.27	21.7	2.08	35.5	2.17	37.0
205E	0.22	1.21	14.2	1.27	14.9	2.08	24.4	2.17	25.5
205F	0.16	1.21	10.3	1.27	10.8	2.07	17.7	2.17	18.5
205G	0.19	1.15	11.7	1.18	12.0	2.01	20.3	2.05	20.8
205H	0.26	1.16	16.1	1.20	16.6	2.02	28.0	2.07	28.7
205I	0.35	0.98	18.2	0.91	16.9	1.84	34.3	1.65	30.7
205J	0.37	0.81	16.0	0.65	12.9	1.64	32.4	1.30	25.7
205K	0.25	0.85	11.3	0.68	9.1	1.71	22.8	1.34	17.8
205L	0.12	0.77	4.9	0.59	3.8	1.60	10.2	1.21	7.7
205M	0.14	1.19	8.9	1.17	8.7	2.11	15.7	1.99	14.9
205N	0.16	0.85	7.3	0.68	5.8	1.71	14.6	1.33	11.4
206A	0.13	1.36	9.4	1.41	9.8	2.29	15.9	2.31	16.0
206B	0.09	1.48	7.1	1.59	7.6	2.44	11.7	2.55	12.2

Table F-7

Summary of 10-year and 100-year, 6-hour and 24-hour Runoff Volumes

HEC-1 ID	Drainage Area sm	10-year, 6-hour Excess inches	10-year, 6-hour Volume acre-feet	10-year, 24-hour Excess inches	10-year, 24-hour Volume acre-feet	100-year, 6-hour Excess inches	100-year, 6-hour Volume acre-feet	100-year, 24-hour Excess inches	100-year, 24-hour Volume acre-feet
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
206C	0.02	1.23	1.3	1.26	1.3	2.13	2.3	2.08	2.2
206D	0.06	1.55	5.0	1.65	5.3	2.53	8.1	2.64	8.5
206E	0.02	1.20	1.3	1.21	1.3	2.10	2.2	2.01	2.1
206F	0.16	1.23	10.5	1.22	10.4	2.14	18.2	2.03	17.3
206G	0.09	1.34	6.4	1.35	6.5	2.27	10.9	2.23	10.7
206H	0.06	1.48	4.7	1.52	4.9	2.44	7.8	2.47	7.9
206I	0.02	1.46	1.6	1.50	1.6	2.42	2.6	2.43	2.6
206J	0.06	1.57	5.0	1.68	5.4	2.55	8.1	2.68	8.6
206K	0.06	1.36	4.3	1.31	4.2	2.30	7.3	2.19	7.0
206L	0.06	1.34	4.3	1.30	4.1	2.28	7.3	2.16	6.9
206M	0.06	1.55	5.0	1.69	5.4	2.52	8.1	2.69	8.6
206N	0.15	1.57	12.6	1.78	14.2	2.55	20.4	2.81	22.4
207A	0.26	1.14	15.9	1.17	16.3	2.01	27.9	2.03	28.1
207B	0.21	1.18	13.2	1.23	13.8	2.05	23.0	2.11	23.6
207C	0.17	0.98	8.8	0.90	8.2	1.85	16.7	1.63	14.8
207D	0.20	1.34	14.3	1.47	15.6	2.26	24.1	2.40	25.6
207E	0.16	1.40	11.9	1.55	13.2	2.33	19.9	2.50	21.4
207F	0.13	1.28	8.9	1.39	9.6	2.19	15.2	2.30	15.9
207G	0.24	0.94	12.1	0.83	10.7	1.82	23.2	1.54	19.7
207H	0.12	1.46	9.3	1.63	10.4	2.41	15.4	2.59	16.6
207I	0.07	1.53	5.7	1.71	6.4	2.49	9.3	2.71	10.1
207J	0.09	1.50	7.2	1.68	8.1	2.46	11.8	2.67	12.8
207K	0.13	1.43	9.9	1.50	10.4	2.39	16.5	2.44	16.9
207L	0.08	1.45	6.2	1.47	6.3	2.41	10.3	2.40	10.2
207M	0.12	1.30	8.3	1.25	8.0	2.23	14.3	2.10	13.4
207N	0.05	1.39	3.7	1.46	3.9	2.34	6.2	2.37	6.3
207O	0.13	1.24	8.6	1.21	8.4	2.16	15.0	2.05	14.2
208A	0.14	1.52	11.4	1.71	12.8	2.48	18.5	2.70	20.1
208B	0.03	1.53	2.4	1.72	2.8	2.49	4.0	2.72	4.3
208C	0.07	1.32	4.9	1.44	5.4	2.23	8.3	2.37	8.8
208D	0.08	1.53	6.5	1.72	7.3	2.49	10.6	2.71	11.5
208E	0.06	1.53	4.9	1.72	5.5	2.49	8.0	2.71	8.7
208F	0.07	1.53	5.7	1.71	6.4	2.49	9.3	2.71	10.1
208G	0.13	1.59	11.0	1.81	12.5	2.56	17.8	2.84	19.7
208H	0.04	1.38	3.0	1.46	3.1	2.33	5.0	2.38	5.1
208I	0.12	1.53	9.8	1.71	11.0	2.49	15.9	2.70	17.3
208J	0.08	1.53	6.5	1.72	7.3	2.49	10.6	2.71	11.5
208K	0.05	1.59	4.2	1.81	4.8	2.56	6.8	2.84	7.6
208L	0.06	1.54	4.9	1.74	5.6	2.51	8.0	2.75	8.8
208M	0.16	1.69	14.4	1.97	16.8	2.68	22.8	3.05	26.0
208N	0.05	1.78	4.8	2.05	5.5	2.80	7.5	3.18	8.5
208O	0.23	1.52	18.6	1.69	20.7	2.48	30.4	2.68	32.9
208P	0.06	1.73	5.5	1.97	6.3	2.74	8.8	3.08	9.8
208Q	0.09	1.62	7.8	1.84	8.8	2.61	12.5	2.89	13.8
208R	0.01	1.72	0.9	1.93	1.0	2.73	1.5	3.02	1.6
208S	0.07	1.84	6.9	2.14	8.0	2.86	10.7	3.30	12.3
208T	0.13	1.54	10.7	1.66	11.5	2.51	17.4	2.65	18.4

Table F-7

Summary of 10-year and 100-year, 6-hour and 24-hour Runoff Volumes

HEC-1 ID	Drainage Area sm	10-year, 6-hour		10-year, 24-hour		100-year, 6-hour		100-year, 24-hour	
		Excess inches	Volume acre-feet	Excess inches	Volume acre-feet	Excess inches	Volume acre-feet	Excess inches	Volume acre-feet
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
208U	0.13	1.54	10.7	1.66	11.5	2.51	17.4	2.64	18.3
208V	0.03	1.57	2.5	1.66	2.7	2.56	4.1	2.66	4.3
208W	0.05	1.57	4.2	1.67	4.4	2.55	6.8	2.66	7.1
208X	0.08	1.44	6.1	1.54	6.6	2.39	10.2	2.49	10.6
209A	0.37	1.34	26.5	1.46	28.9	2.26	44.6	2.40	47.3
209B	0.08	1.53	6.5	1.72	7.3	2.49	10.6	2.71	11.5
209C	0.06	1.49	4.8	1.66	5.3	2.44	7.8	2.64	8.4
209D	0.24	1.49	19.1	1.67	21.3	2.44	31.3	2.65	33.9
209E	0.15	1.52	12.2	1.71	13.7	2.48	19.9	2.70	21.6
209F	0.23	1.33	16.3	1.45	17.8	2.25	27.6	2.37	29.1
209G	0.20	1.52	16.2	1.71	18.2	2.48	26.5	2.69	28.7
209H	0.08	1.24	5.3	1.25	5.4	2.16	9.2	2.10	9.0
209I	0.18	1.25	12.0	1.15	11.0	2.17	20.8	1.97	18.9
210A	0.12	1.19	7.6	1.09	7.0	2.09	13.4	1.87	11.9
210B	0.11	1.49	8.8	1.54	9.0	2.46	14.4	2.49	14.6
210C	0.08	1.20	5.1	1.17	5.0	2.10	9.0	1.97	8.4
210D	0.14	1.44	10.7	1.46	10.9	2.39	17.9	2.39	17.8
210E	0.03	1.39	2.2	1.24	2.0	2.33	3.7	2.12	3.4
210F	0.09	1.52	7.3	1.71	8.2	2.48	11.9	2.69	12.9
210G	0.16	1.47	12.5	1.55	13.2	2.42	20.7	2.50	21.3
210H	0.07	1.34	5.0	1.26	4.7	2.28	8.5	2.11	7.9
210I	0.05	1.46	3.9	1.31	3.5	2.41	6.4	2.25	6.0
210J	0.10	1.35	7.2	1.21	6.4	2.29	12.2	2.06	11.0
210K	0.08	1.35	5.8	1.21	5.1	2.29	9.8	2.06	8.8
210L	0.14	1.18	8.8	1.08	8.0	2.09	15.6	1.85	13.8
210M	0.16	1.25	10.6	1.11	9.4	2.17	18.5	1.91	16.3
210N	0.05	1.05	2.8	0.98	2.6	1.91	5.1	1.70	4.5
211A	0.14	1.32	9.9	1.26	9.4	2.26	16.8	2.11	15.7
211AA	0.03	1.59	2.5	1.66	2.7	2.58	4.1	2.67	4.3
211AB	0.04	1.77	3.8	1.96	4.2	2.78	5.9	3.08	6.6
211AC	0.03	1.74	2.8	1.86	3.0	2.75	4.4	3.00	4.8
211AD	0.04	1.74	3.7	1.86	4.0	2.74	5.9	2.98	6.4
211AE	0.03	1.51	2.4	1.58	2.5	2.49	4.0	2.55	4.1
211AF	0.05	1.67	4.4	1.85	4.9	2.66	7.1	2.91	7.7
211B	0.11	1.29	7.6	1.20	7.0	2.21	13.0	2.03	11.9
211C	0.04	1.57	3.3	1.68	3.6	2.55	5.4	2.69	5.7
211D	0.07	1.31	4.9	1.40	5.2	2.22	8.3	2.29	8.6
211E	0.16	1.49	12.7	1.60	13.6	2.45	20.9	2.56	21.9
211F	0.11	1.69	9.9	1.98	11.6	2.68	15.7	3.07	18.0
211G	0.01	2.08	1.1	2.59	1.4	3.15	1.7	3.92	2.1
211H	0.07	1.29	4.8	1.18	4.4	2.22	8.3	2.00	7.5
211I	0.04	1.57	3.4	1.69	3.6	2.55	5.4	2.70	5.8
211J	0.01	1.54	0.8	1.61	0.9	2.51	1.3	2.58	1.4
211K	0.10	1.41	7.5	1.42	7.6	2.36	12.6	2.34	12.5
211L	0.10	1.41	7.5	1.54	8.2	2.35	12.5	2.47	13.2
211M	0.08	1.63	7.0	1.79	7.6	2.62	11.2	2.83	12.1
211N	0.02	1.71	1.8	1.93	2.1	2.71	2.9	3.02	3.2

Table F-7

Summary of 10-year and 100-year, 6-hour and 24-hour Runoff Volumes

HEC-1 ID	Drainage Area sm	10-year, 6-hour		10-year, 24-hour		100-year, 6-hour		100-year, 24-hour	
		Excess inches	Volume acre-feet	Excess inches	Volume acre-feet	Excess inches	Volume acre-feet	Excess inches	Volume acre-feet
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
211O	0.04	1.58	3.4	1.70	3.6	2.56	5.5	2.71	5.8
211P	0.03	1.70	2.7	1.80	2.9	2.69	4.3	2.88	4.6
211Q	0.02	1.41	1.5	1.40	1.5	2.36	2.5	2.31	2.5
211R	0.08	1.49	6.4	1.55	6.6	2.46	10.5	2.50	10.7
211S	0.05	1.34	3.6	1.36	3.6	2.28	6.1	2.25	6.0
211T	0.07	1.79	6.7	2.07	7.7	2.81	10.5	3.21	12.0
211U	0.03	1.81	2.9	2.11	3.4	2.83	4.5	3.26	5.2
211V	0.01	2.08	1.1	2.60	1.4	3.16	1.7	3.92	2.1
211W	0.03	1.90	3.0	2.26	3.6	2.94	4.7	3.47	5.5
211X	0.21	1.64	18.4	1.88	21.0	2.63	29.5	2.94	32.9
211Y	0.09	1.68	8.1	1.84	8.8	2.68	12.9	2.91	14.0
211Z	0.08	1.30	5.5	1.37	5.9	2.22	9.5	2.24	9.6
BB512R	0.20	0.01	0.1	0.00	0.0	0.41	4.4	0.23	2.5
BB523R	0.23	0.00	0.0	0.00	0.0	0.12	1.4	0.03	0.3
BB543R	0.08	1.47	6.3	1.51	6.4	2.43	10.4	2.45	10.5
BB545R	0.14	0.28	2.1	0.27	2.0	0.47	3.5	0.45	3.4
BB611R	0.14	1.57	11.7	1.72	12.9	2.52	18.8	2.76	20.6
BB614R	0.03	1.18	1.9	1.30	2.1	1.90	3.0	2.07	3.3
BB615R	0.03	0.35	0.6	0.25	0.4	0.63	1.0	0.47	0.8
BB619L	0.25	0.00	0.0	0.00	0.0	0.43	5.7	0.00	0.0
C501	0.30	0.99	15.8	0.84	13.4	1.87	29.9	1.55	24.7
C502	0.45	1.05	25.3	0.92	22.1	1.94	46.6	1.66	39.8
C502R	0.38	1.06	21.4	0.93	18.7	1.95	39.4	1.66	33.7
C503I	0.63	1.00	33.7	0.90	30.1	1.88	63.2	1.62	54.5
C503O	0.63	1.02	34.2	0.91	30.6	1.90	63.7	1.64	55.0
C504I	0.67	0.07	2.5	0.07	2.6	0.12	4.3	0.12	4.3
C504O	0.67	0.07	2.5	0.07	2.6	0.12	4.3	0.12	4.3
C505I	0.69	0.04	1.3	0.03	1.3	0.09	3.2	0.07	2.4
C506	0.69	0.02	0.9	0.02	0.7	0.07	2.7	0.05	1.7
C507I	0.86	0.16	7.3	0.14	6.2	0.34	15.6	0.28	12.8
C507O	0.86	0.16	7.3	0.14	6.2	0.34	15.6	0.28	12.8
C508O	0.10	1.37	7.3	1.33	7.1	2.31	12.3	2.21	11.8
C511O	0.18	1.33	12.7	1.30	12.5	2.26	21.6	2.16	20.8
C512I	0.20	1.37	14.6	1.38	14.7	2.31	24.6	2.27	24.2
C512O	0.20	0.39	4.1	0.40	4.2	1.32	14.1	1.28	13.7
C513O	0.28	0.92	13.7	0.76	11.4	1.79	26.7	1.45	21.7
C514	0.43	1.00	22.9	0.87	19.9	1.88	43.2	1.59	36.4
C514R	0.32	0.97	16.5	0.83	14.1	1.85	31.6	1.54	26.2
C515	0.53	1.00	28.1	0.87	24.6	1.88	53.0	1.59	44.9
C517	1.21	0.90	57.9	0.86	55.2	1.76	113.7	1.57	101.4
C517L	0.58	0.91	28.2	0.77	23.7	1.78	55.0	1.45	44.8
C517R	0.63	1.04	35.0	0.94	31.7	1.93	64.9	1.69	56.9
C518	1.41	0.93	69.6	0.91	68.7	1.80	135.1	1.65	123.9
C519	1.59	0.94	79.9	0.96	81.0	1.82	153.9	1.70	144.2
C521	1.99	0.88	93.5	0.93	99.1	1.70	180.5	1.65	175.3
C523I	0.23	1.35	16.6	1.31	16.0	2.29	28.1	2.17	26.7
C523O	0.23	1.35	16.6	1.31	16.0	2.29	28.1	2.17	26.7

Table F-7

Summary of 10-year and 100-year, 6-hour and 24-hour Runoff Volumes

HEC-1 ID	Drainage Area sm	10-year, 6-hour		10-year, 24-hour		100-year, 6-hour		100-year, 24-hour	
		Excess inches	Volume acre-feet	Excess inches	Volume acre-feet	Excess inches	Volume acre-feet	Excess inches	Volume acre-feet
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C524	0.31	1.46	24.2	1.50	24.8	2.33	38.5	2.42	40.0
C525	0.35	1.49	27.8	1.54	28.8	2.37	44.3	2.48	46.3
C526	0.43	1.49	34.3	1.55	35.6	2.39	54.8	2.50	57.2
C527	0.50	1.52	40.6	1.59	42.3	2.43	64.9	2.55	67.9
C528	0.33	1.21	21.3	1.27	22.4	2.08	36.6	2.17	38.2
C529	0.54	1.20	34.6	1.27	36.5	2.07	59.5	2.16	62.3
C530	0.93	1.13	55.8	1.26	62.6	1.99	98.8	2.16	107.1
C530R	0.39	1.21	25.2	1.27	26.4	2.08	43.2	2.17	45.0
C531	1.09	1.10	64.2	1.26	73.3	1.97	114.3	2.16	125.4
C532	1.53	1.04	84.9	1.24	100.9	1.90	155.0	2.12	173.2
C532L	1.27	1.07	72.7	1.25	84.5	1.93	131.0	2.14	144.9
C533	1.89	0.97	97.8	1.17	118.0	1.83	184.0	2.03	204.6
C534	2.50	0.85	113.1	1.04	139.1	1.69	225.1	1.85	246.7
C534R	2.25	0.89	106.3	1.08	130.1	1.73	207.6	1.91	229.0
C535	2.62	0.83	115.4	1.02	142.8	1.66	232.5	1.82	254.3
C536I	2.91	0.81	125.9	1.01	156.4	1.65	255.5	1.80	279.2
C536O	2.91	0.81	125.9	1.01	156.4	1.65	255.5	1.80	279.0
C536R	2.76	0.83	122.2	1.03	151.3	1.67	245.5	1.83	268.9
C537	3.04	0.82	133.3	1.02	166.0	1.66	268.7	1.82	294.8
C538I	3.14	0.83	139.7	1.04	174.2	1.67	279.7	1.84	308.0
C538O	3.14	0.83	139.7	1.04	174.2	1.67	279.7	1.84	308.0
C540	3.24	0.84	145.7	1.05	182.0	1.68	290.3	1.86	320.7
C540L	0.09	1.46	7.0	1.53	7.3	2.41	11.6	2.47	11.8
C540R	3.16	0.83	140.6	1.04	175.4	1.67	281.5	1.84	310.3
C541	3.40	0.85	153.6	1.06	192.0	1.68	304.8	1.86	337.6
C543	0.08	1.47	6.3	1.51	6.4	2.43	10.4	2.45	10.5
C544	0.14	0.56	4.2	0.54	4.0	0.94	7.0	0.90	6.7
C546	0.20	0.60	6.4	0.58	6.2	1.02	10.9	0.97	10.3
C547	0.26	1.41	19.6	1.43	19.8	2.35	32.6	2.33	32.3
C548	4.04	0.82	176.9	1.04	223.2	1.61	346.7	1.81	388.9
C548L	3.72	0.79	157.1	1.00	198.4	1.57	312.3	1.76	348.4
C548R	0.32	1.44	24.5	1.47	25.1	2.38	40.6	2.39	40.9
C549	13.06	0.97	674.2	1.27	886.0	1.77	1232.2	2.11	1467.6
C549L	4.19	0.84	187.3	1.06	237.3	1.63	363.8	1.84	411.0
C549R	8.87	1.13	533.6	1.43	677.4	1.98	938.1	2.33	1101.3
C550	0.46	1.16	28.5	1.19	29.3	2.03	49.7	2.06	50.5
C552	0.99	1.12	58.9	1.25	65.7	1.99	105.2	2.11	111.5
C552L	0.64	1.08	36.7	1.11	37.9	1.94	66.2	1.94	66.1
C552R	0.35	1.37	25.5	1.50	28.0	2.29	42.7	2.44	45.5
C553	1.12	1.11	66.4	1.26	75.1	1.99	118.7	2.13	127.2
C555	0.20	1.48	15.8	1.65	17.6	2.43	26.0	2.63	28.0
C556	1.64	1.08	94.6	1.26	110.5	1.96	171.3	2.13	186.0
C556L	1.35	1.04	74.9	1.18	85.1	1.91	137.4	2.02	145.6
C556R	0.29	1.49	23.0	1.66	25.7	2.44	37.7	2.63	40.7
C557	1.85	1.10	108.2	1.29	126.9	1.98	195.2	2.16	212.7
C557R	1.77	1.09	103.0	1.28	120.7	1.97	186.0	2.15	202.7
C558	1.97	1.09	114.9	1.28	134.7	1.98	207.7	2.15	226.0

Table F-7

Summary of 10-year and 100-year, 6-hour and 24-hour Runoff Volumes

HEC-1 ID	Drainage Area sm	10-year, 6-hour		10-year, 24-hour		100-year, 6-hour		100-year, 24-hour	
		Excess inches	Volume acre-feet	Excess inches	Volume acre-feet	Excess inches	Volume acre-feet	Excess inches	Volume acre-feet
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C560I	2.15	1.09	124.9	1.28	146.8	1.97	226.1	2.15	246.2
C560O	2.15	1.09	124.9	1.28	146.8	1.97	226.1	2.15	246.2
C560R	2.10	1.09	121.7	1.28	143.0	1.97	220.6	2.14	240.0
C563	0.31	1.48	24.4	1.65	27.2	2.42	40.1	2.62	43.3
C563L	0.14	1.43	10.7	1.58	11.8	2.36	17.7	2.54	19.0
C563R	0.17	1.52	13.8	1.71	15.5	2.48	22.5	2.70	24.4
C564	0.44	1.49	35.0	1.66	39.0	2.44	57.2	2.64	61.9
C564R	0.37	1.49	29.3	1.65	32.6	2.43	48.0	2.63	51.9
C565	0.57	1.50	45.6	1.69	51.4	2.45	74.6	2.68	81.4
C566	0.20	1.52	16.3	1.71	18.2	2.48	26.5	2.70	28.8
C567	0.31	1.54	25.4	1.73	28.5	2.50	41.3	2.72	45.0
C567L	0.25	1.53	20.5	1.73	23.0	2.50	33.3	2.72	36.3
C568	1.07	1.48	84.3	1.72	98.4	2.42	138.3	2.72	155.4
C568L	0.61	1.49	48.3	1.67	54.4	2.44	79.2	2.66	86.4
C568R	0.46	1.59	38.9	1.80	44.2	2.55	62.7	2.83	69.4
C570	0.38	1.58	31.9	1.76	35.7	2.55	51.6	2.78	56.3
C570R	0.29	1.56	24.2	1.74	27.0	2.53	39.2	2.75	42.6
C572	0.39	1.58	32.8	1.77	36.7	2.55	53.1	2.79	57.9
C573	1.58	1.48	124.8	1.76	148.0	2.43	204.7	2.77	233.3
C573L	1.12	1.49	88.8	1.74	103.7	2.43	145.3	2.74	163.7
C573R	0.46	1.62	39.6	1.82	44.6	2.60	63.7	2.86	70.1
C574	0.27	1.54	22.1	1.65	23.8	2.50	36.0	2.64	38.0
C575	0.29	1.54	23.8	1.65	25.6	2.51	38.8	2.64	40.8
C576	0.34	1.54	28.0	1.65	29.9	2.51	45.5	2.64	47.9
C577	1.92	1.46	149.7	1.73	177.6	2.41	246.7	2.74	280.7
C578I	2.00	1.45	155.0	1.73	184.0	2.40	255.9	2.73	291.2
C578O	2.00	1.45	155.0	1.73	184.0	2.40	255.9	2.73	291.2
C580	0.51	1.38	37.6	1.52	41.5	2.31	62.9	2.47	67.2
C580R	0.43	1.36	31.2	1.49	34.2	2.28	52.4	2.43	55.7
C581	0.91	1.38	67.1	1.59	77.0	2.31	112.0	2.55	123.5
C581R	0.76	1.38	55.9	1.57	63.5	2.31	93.5	2.52	102.1
C582	1.34	1.34	95.8	1.58	112.6	2.26	161.4	2.53	180.9
C582R	1.13	1.34	80.6	1.56	93.8	2.26	136.0	2.51	151.1
C583	1.42	1.32	100.2	1.56	117.8	2.24	169.6	2.50	189.6
C584I	1.60	1.29	110.3	1.51	128.6	2.21	188.2	2.44	208.2
C584O	1.60	1.29	110.3	1.51	128.6	2.21	188.2	2.44	208.2
C585	2.27	1.08	130.6	1.27	153.6	1.96	237.4	2.13	257.9
C586O	0.11	1.49	8.8	1.54	9.0	2.46	14.4	2.49	14.6
C587	2.11	1.45	162.7	1.72	193.0	2.39	269.1	2.72	305.6
C590	0.42	1.46	32.7	1.53	34.2	2.41	54.1	2.47	55.3
C590L	0.17	1.43	13.0	1.42	12.9	2.38	21.6	2.34	21.2
C590R	0.25	1.49	19.8	1.60	21.3	2.44	32.6	2.56	34.2
C591	1.83	0.84	81.9	0.87	85.0	1.65	160.8	1.57	152.7
C593	0.49	1.44	37.7	1.49	38.8	2.39	62.5	2.41	63.1
C594	0.54	1.44	41.4	1.47	42.2	2.39	68.7	2.40	69.0
C595	2.83	1.38	208.3	1.63	245.7	2.32	349.9	2.60	392.7
C595L	2.19	1.43	166.7	1.69	197.7	2.37	276.8	2.69	313.7

Table F-7

Summary of 10-year and 100-year, 6-hour and 24-hour Runoff Volumes

HEC-1 ID	Drainage Area sm	10-year, 6-hour		10-year, 24-hour		100-year, 6-hour		100-year, 24-hour	
		Excess inches	Volume acre-feet	Excess inches	Volume acre-feet	Excess inches	Volume acre-feet	Excess inches	Volume acre-feet
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
C595R	0.64	1.41	48.1	1.42	48.6	2.35	80.3	2.34	79.8
C596	2.91	1.37	212.9	1.62	250.8	2.31	358.4	2.59	401.5
C597	1.74	1.27	117.4	1.47	136.6	2.18	201.8	2.39	222.0
C598	1.90	1.24	126.1	1.44	145.8	2.15	218.2	2.35	237.9
C599I	7.13	1.12	427.4	1.42	540.7	1.98	754.4	2.32	882.6
C599O	7.13	1.12	427.0	1.42	540.7	1.98	754.4	2.32	882.2
C600O	0.14	1.32	9.9	1.26	9.4	2.26	16.8	2.11	15.7
C601	0.25	1.31	17.4	1.23	16.4	2.24	29.8	2.07	27.6
C602	0.37	1.34	26.4	1.31	25.9	2.26	44.7	2.18	43.0
C602L	0.30	1.34	21.5	1.29	20.7	2.28	36.4	2.16	34.5
C603	0.52	1.38	38.2	1.39	38.6	2.31	64.1	2.29	63.4
C605O	0.07	1.24	4.6	1.13	4.2	2.17	8.1	1.95	7.3
C606	0.12	1.40	9.0	1.41	9.0	2.36	15.1	2.32	14.9
C606R	0.05	1.65	4.4	1.84	4.9	2.65	7.1	2.89	7.7
C607	0.14	1.42	10.6	1.43	10.6	2.37	17.7	2.35	17.5
C608	7.37	1.12	440.6	1.42	557.4	1.98	778.7	2.32	909.9
C608L	7.24	1.12	433.2	1.42	548.3	1.98	765.7	2.32	895.1
C609O	0.04	1.58	3.4	1.70	3.6	2.56	5.5	2.71	5.8
C611I	0.14	1.62	12.1	1.78	13.3	2.61	19.5	2.81	21.0
C611O	0.14	1.57	11.7	1.72	12.9	2.56	19.1	2.76	20.6
C611R	0.10	1.64	8.8	1.81	9.7	2.63	14.0	2.86	15.3
C612	0.17	0.32	2.9	0.34	3.1	0.54	4.9	0.54	4.9
C613	7.55	1.10	442.5	1.39	560.1	1.94	782.8	2.27	914.1
C615	0.03	1.40	2.2	1.60	2.6	2.24	3.6	2.51	4.0
C617	0.13	1.30	9.0	1.37	9.5	2.13	14.7	2.20	15.2
C617L	0.10	1.47	7.9	1.52	8.1	2.43	13.0	2.46	13.1
C618	0.19	1.42	14.4	1.48	15.0	2.32	23.5	2.35	23.8
C618I	0.18	1.31	12.6	1.36	13.1	2.16	20.8	2.21	21.2
C618O	0.18	1.31	12.5	1.33	12.7	2.16	20.7	2.12	20.3
C619I	0.25	1.59	21.2	1.70	22.6	2.57	34.3	2.68	35.7
C619L	0.26	1.51	20.9	1.63	22.5	2.44	33.8	2.56	35.5
C619O	0.25	1.58	21.1	1.69	22.6	2.57	34.3	2.68	35.7
C620	0.42	1.61	36.0	1.74	39.1	2.59	58.0	2.77	61.9
C620R	0.28	1.62	24.1	1.75	26.1	2.61	38.9	2.76	41.2
C621	7.93	1.13	477.1	1.43	603.9	1.99	840.4	2.33	983.7
C621L	7.64	1.10	447.4	1.39	566.8	1.94	790.9	2.27	924.9
C622	8.78	1.13	527.7	1.43	669.6	1.98	928.6	2.33	1089.2
C622L	0.63	1.42	47.5	1.49	50.2	2.36	79.2	2.42	81.4
C622R	8.14	1.13	491.4	1.44	623.0	1.99	864.4	2.34	1013.7
C624	0.07	1.76	6.6	1.91	7.1	2.76	10.3	3.04	11.3
C626	13.28	0.97	687.7	1.28	903.0	1.77	1255.0	2.11	1495.2
C626C	13.14	0.97	677.7	1.27	890.7	1.77	1238.3	2.11	1475.9
C626R	0.11	1.75	10.3	1.89	11.1	2.75	16.1	3.01	17.7
C627	13.32	0.97	690.5	1.28	905.8	1.77	1258.8	2.11	1499.7
CLEAR	3.58	0.70	133.3	0.80	153.5	1.35	258.3	1.41	270.0
CLEAR	3.07	0.60	98.4	0.68	111.0	1.22	199.4	1.23	201.7
D503L	0.63	1.02	34.2	0.91	30.6	1.90	63.7	1.64	55.0

Table F-7

Summary of 10-year and 100-year, 6-hour and 24-hour Runoff Volumes

HEC-1 ID	Drainage Area sm	10-year, 6-hour		10-year, 24-hour		100-year, 6-hour		100-year, 24-hour	
		Excess inches	Volume acre-feet	Excess inches	Volume acre-feet	Excess inches	Volume acre-feet	Excess inches	Volume acre-feet
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
D503R	0.63	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0
D504L	0.67	0.07	2.4	0.07	2.6	0.09	3.2	0.11	3.9
D504R	0.67	0.00	0.1	0.00	0.0	0.03	1.1	0.01	0.4
D505L	0.69	0.03	1.0	0.03	1.1	0.04	1.4	0.05	1.7
D505R	0.69	0.01	0.3	0.00	0.1	0.05	1.7	0.02	0.7
D506L	0.69	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0
D506R	0.69	0.02	0.9	0.02	0.7	0.07	2.7	0.05	1.7
D508L	0.10	0.46	2.5	0.20	1.1	1.11	5.9	0.68	3.6
D508R	0.10	0.91	4.8	1.13	6.0	1.19	6.4	1.53	8.2
D512L	0.20	0.37	4.0	0.40	4.2	0.91	9.7	1.05	11.2
D512R	0.20	0.01	0.1	0.00	0.0	0.41	4.4	0.23	2.5
D523L	0.23	1.35	16.6	1.31	16.0	2.17	26.6	2.15	26.3
D523R	0.23	0.00	0.0	0.00	0.0	0.12	1.4	0.03	0.3
D543L	0.08	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0
D543R	0.08	1.47	6.3	1.51	6.4	2.43	10.4	2.45	10.5
D545L	0.14	0.28	2.1	0.27	2.0	0.47	3.5	0.45	3.4
D545R	0.14	0.28	2.1	0.27	2.0	0.47	3.5	0.45	3.4
D611L	0.14	0.00	0.0	0.00	0.0	0.04	0.3	0.00	0.0
D611R	0.14	1.57	11.7	1.72	12.9	2.52	18.8	2.76	20.6
D614L	0.03	0.63	1.0	0.81	1.3	0.93	1.5	1.19	1.9
D614R	0.03	1.18	1.9	1.30	2.1	1.90	3.0	2.07	3.3
D615L	0.03	1.05	1.7	1.34	2.1	1.60	2.6	2.04	3.3
D615R	0.03	0.35	0.6	0.25	0.4	0.63	1.0	0.47	0.8
D619L	0.25	0.00	0.0	0.00	0.0	0.43	5.7	0.00	0.0
D619R	0.25	1.58	21.1	1.69	22.6	2.14	28.6	2.68	35.7
501502	0.30	0.99	15.8	0.84	13.4	1.87	29.9	1.55	24.7
502503	0.45	1.05	25.3	0.92	22.1	1.94	46.6	1.66	39.8
503504	0.63	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0
508507	0.10	0.46	2.5	0.20	1.1	1.11	5.9	0.68	3.6
511512	0.18	1.33	12.7	1.30	12.5	2.26	21.6	2.16	20.8
513514	0.28	0.92	13.7	0.76	11.4	1.79	26.7	1.45	21.7
515517	0.53	1.00	28.1	0.87	24.6	1.88	53.0	1.59	44.9
516517	0.33	0.84	14.8	0.66	11.6	1.70	29.9	1.30	22.9
517518	1.21	0.90	57.9	0.86	55.2	1.76	113.7	1.57	101.4
518519	1.41	0.93	69.6	0.91	68.7	1.80	135.1	1.65	123.9
519591	1.59	0.94	79.9	0.96	81.0	1.82	153.9	1.70	144.2
520591	0.04	1.78	3.8	2.08	4.4	2.80	6.0	3.22	6.9
522523	0.11	1.34	7.9	1.29	7.6	2.28	13.4	2.16	12.7
523524	0.23	1.35	16.6	1.31	16.0	2.17	26.6	2.15	26.3
523548	0.23	0.00	0.0	0.00	0.0	0.12	1.4	0.03	0.3
524525	0.31	1.46	24.2	1.50	24.8	2.33	38.5	2.42	40.0
525526	0.35	1.49	27.8	1.54	28.8	2.37	44.3	2.48	46.3
526527	0.43	1.49	34.3	1.55	35.6	2.39	54.8	2.50	57.2
528530	0.33	1.21	21.3	1.27	22.4	2.08	36.6	2.17	38.2
530531	0.93	1.13	55.8	1.26	62.6	1.99	98.8	2.16	107.1
531532	1.09	1.10	64.2	1.26	73.3	1.97	114.3	2.16	125.4
532533	1.53	1.04	84.9	1.24	100.9	1.90	155.0	2.12	173.2

Table F-7

Summary of 10-year and 100-year, 6-hour and 24-hour Runoff Volumes

HEC-1 ID	Drainage Area sm	10-year, 6-hour		10-year, 24-hour		100-year, 6-hour		100-year, 24-hour	
		Excess inches	Volume acre-feet	Excess inches	Volume acre-feet	Excess inches	Volume acre-feet	Excess inches	Volume acre-feet
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
533534	1.89	0.97	97.8	1.17	118.0	1.83	184.0	2.03	204.6
534535	2.50	0.85	113.1	1.04	139.1	1.69	225.1	1.85	246.7
535536	2.62	0.83	115.4	1.02	142.8	1.66	232.5	1.82	254.3
536537	2.91	0.81	125.9	1.01	156.4	1.65	255.5	1.80	279.0
537538	3.04	0.82	133.3	1.02	166.0	1.66	268.7	1.82	294.8
538540	3.14	0.83	139.7	1.04	174.2	1.67	279.7	1.84	308.0
539540	0.06	1.55	5.0	1.65	5.3	2.53	8.1	2.64	8.5
540541	3.24	0.84	145.7	1.05	182.0	1.68	290.1	1.86	320.7
541548	3.40	0.85	153.6	1.06	192.0	1.68	304.8	1.86	337.6
542543	0.06	1.48	4.7	1.52	4.9	2.44	7.8	2.47	7.9
543544	0.08	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0
543547	0.08	1.47	6.3	1.51	6.4	2.43	10.4	2.45	10.5
544545	0.14	0.56	4.2	0.54	4.0	0.94	7.0	0.90	6.7
545546	0.14	0.28	2.1	0.27	2.0	0.47	3.5	0.45	3.4
545547	0.14	0.28	2.1	0.27	2.0	0.47	3.5	0.45	3.4
546547	0.20	0.60	6.4	0.58	6.2	1.02	10.9	0.97	10.3
547548	0.26	1.41	19.6	1.43	19.8	2.35	32.6	2.33	32.3
548549	4.04	0.82	176.9	1.04	223.2	1.61	346.5	1.80	388.7
549626	13.06	0.97	674.2	1.27	885.3	1.77	1231.5	2.11	1466.9
550552	0.46	1.16	28.5	1.19	29.3	2.03	49.7	2.06	50.5
551552	0.20	1.34	14.3	1.47	15.6	2.26	24.1	2.40	25.6
552553	0.99	1.12	58.9	1.25	65.7	1.99	105.2	2.11	111.5
553556	1.12	1.11	66.4	1.26	75.1	1.99	118.7	2.13	127.2
554555	0.12	1.46	9.3	1.63	10.4	2.41	15.4	2.59	16.6
555556	0.20	1.48	15.8	1.65	17.6	2.43	26.0	2.63	28.0
556557	1.64	1.08	94.6	1.26	110.5	1.96	171.3	2.13	186.0
557558	1.85	1.10	108.2	1.29	126.9	1.98	195.2	2.16	212.7
558560	1.97	1.09	114.9	1.28	134.7	1.98	207.7	2.15	226.0
559560	0.05	1.39	3.7	1.46	3.9	2.34	6.2	2.37	6.3
560585	2.15	1.09	124.9	1.28	146.8	1.97	226.1	2.15	246.2
561563	0.14	1.52	11.4	1.71	12.8	2.48	18.5	2.70	20.1
562563	0.07	1.32	4.9	1.44	5.4	2.23	8.3	2.37	8.8
563564	0.31	1.48	24.4	1.65	27.2	2.42	40.1	2.62	43.3
564565	0.44	1.49	35.0	1.66	39.0	2.44	57.2	2.64	61.9
565568	0.57	1.50	45.6	1.69	51.4	2.45	74.6	2.68	81.4
566567	0.20	1.52	16.3	1.71	18.2	2.48	26.5	2.70	28.8
567568	0.31	1.54	25.4	1.73	28.5	2.50	41.3	2.72	45.0
568573	1.07	1.48	84.3	1.72	98.4	2.42	138.3	2.72	155.4
569570	0.23	1.52	18.6	1.69	20.7	2.48	30.4	2.68	32.9
571572	0.01	1.72	0.9	1.93	1.0	2.73	1.5	3.02	1.6
572573	0.39	1.58	32.8	1.77	36.7	2.55	53.1	2.79	57.9
574575	0.27	1.54	22.1	1.65	23.8	2.50	36.0	2.64	38.0
575576	0.29	1.54	23.8	1.65	25.6	2.51	38.8	2.64	40.8
576577	0.34	1.54	28.0	1.65	29.9	2.51	45.5	2.64	47.9
577578	1.92	1.46	149.7	1.73	177.6	2.41	246.7	2.74	280.7
578587	2.00	1.45	155.0	1.73	184.0	2.40	255.9	2.73	291.2
579580	0.37	1.34	26.5	1.46	28.9	2.26	44.6	2.40	47.3

Table F-7

Summary of 10-year and 100-year, 6-hour and 24-hour Runoff Volumes

HEC-1 ID	Drainage Area sm	10-year, 6-hour		10-year, 24-hour		100-year, 6-hour		100-year, 24-hour	
		Excess inches	Volume acre-feet	Excess inches	Volume acre-feet	Excess inches	Volume acre-feet	Excess inches	Volume acre-feet
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
580581	0.51	1.38	37.6	1.52	41.5	2.31	62.9	2.47	67.2
581582	0.91	1.38	67.1	1.59	77.0	2.31	112.0	2.55	123.5
582583	1.34	1.34	95.8	1.58	112.6	2.26	161.4	2.53	180.9
583584	1.42	1.32	100.2	1.56	117.8	2.24	169.6	2.50	189.6
584597	1.60	1.29	110.3	1.51	128.6	2.21	188.2	2.44	208.2
586587	0.11	1.49	8.8	1.54	9.0	2.46	14.4	2.49	14.6
587595	2.11	1.45	162.7	1.72	193.0	2.39	269.1	2.72	305.6
588590	0.14	1.44	10.7	1.46	10.9	2.39	17.9	2.39	17.8
589590	0.09	1.52	7.3	1.71	8.2	2.48	11.9	2.69	12.9
591521	1.83	0.84	81.9	0.87	85.0	1.65	160.8	1.57	152.7
592593	0.07	1.34	5.0	1.26	4.7	2.28	8.5	2.11	7.9
593594	0.49	1.44	37.7	1.49	38.8	2.39	62.5	2.41	63.1
594595	0.54	1.44	41.4	1.47	42.2	2.39	68.7	2.40	69.0
595596	2.83	1.38	208.3	1.63	245.7	2.32	349.9	2.60	392.7
597598	1.74	1.27	117.4	1.47	136.6	2.18	201.8	2.39	222.0
599608	7.13	1.12	427.0	1.42	540.7	1.98	754.4	2.32	882.2
600601	0.14	1.32	9.9	1.26	9.4	2.26	16.8	2.11	15.7
601602	0.25	1.31	17.4	1.23	16.4	2.24	29.8	2.07	27.6
602603	0.37	1.34	26.4	1.31	25.9	2.26	44.7	2.18	43.0
603622	0.52	1.38	38.2	1.39	38.6	2.31	64.1	2.29	63.4
604606	0.01	2.08	1.1	2.59	1.4	3.15	1.7	3.92	2.1
606607	0.12	1.40	9.0	1.41	9.0	2.36	15.1	2.32	14.9
607608	0.14	1.42	10.6	1.43	10.6	2.37	17.7	2.35	17.5
608613	7.37	1.12	440.6	1.42	557.4	1.98	778.7	2.32	909.9
609611	0.04	1.58	3.4	1.70	3.6	2.56	5.5	2.71	5.8
610611	0.08	1.63	7.0	1.79	7.6	2.62	11.2	2.83	12.1
611612	0.14	0.00	0.0	0.00	0.0	0.04	0.3	0.00	0.0
611620	0.14	1.57	11.7	1.72	12.9	2.52	18.8	2.76	20.6
613621	7.55	1.10	442.5	1.39	560.1	1.94	782.0	2.27	914.1
614615	0.03	1.18	1.9	1.30	2.1	1.90	3.0	2.07	3.3
615618	0.03	1.05	1.7	1.34	2.1	1.60	2.6	2.04	3.3
615619	0.03	0.35	0.6	0.25	0.4	0.63	1.0	0.47	0.8
616617	0.02	1.41	1.5	1.40	1.5	2.36	2.5	2.31	2.5
617618	0.13	1.30	9.0	1.37	9.5	2.13	14.7	2.20	15.2
618619	0.19	1.41	14.3	1.48	15.0	2.32	23.5	2.35	23.8
619620	0.25	1.58	21.1	1.69	22.5	2.14	28.5	2.68	35.7
619620	0.25	0.00	0.0	0.00	0.0	0.43	5.7	0.00	0.0
620621	0.42	1.61	36.0	1.74	39.0	2.59	57.9	2.76	61.9
621622	7.93	1.13	476.6	1.43	603.5	1.99	839.9	2.33	983.3
622549	8.78	1.13	527.3	1.43	669.2	1.98	927.6	2.33	1088.7
623624	0.04	1.77	3.8	1.96	4.2	2.78	5.9	3.08	6.6
624626	0.07	1.76	6.6	1.91	7.1	2.76	10.3	3.04	11.3
625626	0.03	1.59	2.5	1.66	2.7	2.58	4.1	2.67	4.3
626627	13.28	0.97	687.7	1.27	902.3	1.77	1255.0	2.11	1495.2

APPENDIX D

100-year, 6-hour Storm HEC-1 Output, Future Condition

```
1*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             MAY  1991                 *
*          VERSION 4.0.1E               *
*                                       *
*  RUN DATE  10/31/94  TIME  13:18:13   *
*                                       *
*****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 551-1748              *
*                                       *
*****************************************
```

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

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

```
1                                   HEC-1 INPUT                                                    PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   Fountain Hills North Floodplain Delineation Study
  2           ID        FCD 92-04        by GVSCE                          File:  FU100-6.IH1
  3           ID    Future Condition Model                                  Date:    07-19-94   dtp
  4           ID     100-Year 6-Hour Storm, Clark Unit Hydrograph     Revised:    10-31-94   dtp
              *
  5           IT       1                    1080
  6           IO       5
  7           IN      15
              *DIAGRAM
              *
  8           JD    3.30     0.01
  9           PC   0.000    0.008    0.016    0.025    0.033    0.041    0.050    0.058    0.066    0.074
 10           PC   0.087    0.099    0.118    0.138    0.216    0.377    0.834    0.911    0.931    0.950
 11           PC   0.962    0.972    0.983    0.991    1.000
 12           JD    3.28     0.50
 13           JD    3.23     2.80
 14           PC   0.000    0.009    0.016    0.025    0.034    0.042    0.051    0.059    0.067    0.076
 15           PC   0.087    0.100    0.120    0.163    0.252    0.451    0.694    0.837    0.900    0.938
 16           PC   0.950    0.963    0.975    0.988    1.000
 17           JD    3.04     16.0
 18           PC   0.000    0.015    0.020    0.030    0.048    0.063    0.076    0.090    0.105    0.119
 19           PC   0.135    0.152    0.175    0.222    0.304    0.472    0.670    0.796    0.868    0.912
 20           PC   0.946    0.960    0.973    0.987    1.000
 21           JD    2.67     90.0
 22           PC   0.000    0.021    0.035    0.051    0.071    0.087    0.105    0.125    0.143    0.160
 23           PC   0.179    0.201    0.232    0.281    0.364    0.500    0.658    0.773    0.841    0.888
 24           PC   0.927    0.945    0.964    0.982    1.000
 25           JD    1.88    500.0
 26           PC   0.000    0.024    0.043    0.059    0.078    0.098    0.119    0.141    0.162    0.186
 27           PC   0.212    0.239    0.271    0.321    0.408    0.515    0.627    0.735    0.814    0.864
 28           PC   0.907    0.930    0.954    0.977    1.000
              *

 29           KK    201A
 30           KM   Sub-Basin   201A
 31           KM
 32           KM      The Clark Unit Hydrograph is used for this basin.
 33           KM          The HEC-1 time-area relation is used for this basin.
 34           KM
 35           KM      Time of Concentration for this sub-basin is based on the following:
 36           KM          6-Hour Rainfall, Pattern No.  1.00
 37           KM          An rainfall areal reduction factor of 0.997
 38           KM
 39           KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 40           KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 41           KM   .46 .45 .45 .14 .11 .10 .04 .04 .04 .02 .01 .01 .00 .00 .00 .00 .00 .00
 42           KM
 43           KM          L=   1.269 miles, S=  208 feet/mile, Kb= .07
 44           KM
 45           BA   0.217
 46           LG    0.13     0.35     5.70     0.19     7.94
 47           UC   0.354    0.338
              *
1                                   HEC-1 INPUT                                                    PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 48           KK    201B
 49           KM   Sub-Basin   201B
 50           KM
 51           KM      The Clark Unit Hydrograph is used for this basin.
 52           KM          The HEC-1 time-area relation is used for this basin.
 53           KM
 54           KM      Time of Concentration for this sub-basin is based on the following:
 55           KM          6-Hour Rainfall, Pattern No.  1.00
```

```
 56          KM          An rainfall areal reduction factor of 0.999
 57          KM
 58          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 59          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 60          KM   .45 .44 .44 .13 .10 .09 .04 .03 .03 .00 .00 .00 .00 .00 .00 .00 .00 .00
 61          KM
 62          KM          L=   0.680 miles, S=  223 feet/mile, Kb= .10
 63          KM
 64          BA   0.081
 65          LG    0.15    0.38    5.70    0.20    1.84
 66          UC   0.292   0.291
             *

 67          KK    C501
 68          KM      Hydrograph combine 201A + 201B at C501
 69          HC       2
             *

 70          KK  501502
 71          KM      Normal depth channel route from C501 to C502
 72          KM      Source:  200 Scale Mapping
 73          RS       6    FLOW      -1
 74          RC   0.055   0.045   0.055  3000.0  0.0203
 75          RX  1000.0  1010.0  1025.0  1045.0  1075.0  1105.0  1125.0  1155.0
 76          RY  1624.0  1622.0  1620.0  1618.0  1618.0  1620.0  1622.0  1624.0
             *

 77          KK    201C
 78          KM   Sub-Basin   201C
 79          KM
 80          KM      The Clark Unit Hydrograph is used for this basin.
 81          KM          The Urban time-area relation is used for this basin.
 82          KM
 83          KM      Time of Concentration for this sub-basin is based on the following:
 84          KM          6-Hour Rainfall, Pattern No.  1.00
 85          KM          An rainfall areal reduction factor of 0.999
 86          KM
 87          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 88          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 89          KM   .47 .47 .47 .16 .13 .12 .06 .06 .05 .04 .04 .03 .01 .01 .01 .01 .01 .01
 90          KM
 91          KM          L=   0.674 miles, S=  206 feet/mile, Kb= .03
 92          KM
 93          BA   0.079
 94          LG    0.09    0.26    5.70    0.18   23.84
 95          UC   0.150   0.140
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 96          UA       0       5      16      30      65      77      84      90      94      97
 97          UA     100
             *

 98          KK   C502R
 99          KM      Hydrograph combine 501502 + 201C at C502 right branch
100          HC       2
             *

101          KK    201D
102          KM   Sub-Basin   201D
103          KM
104          KM      The Clark Unit Hydrograph is used for this basin.
105          KM          The HEC-1 time-area relation is used for this basin.
106          KM
107          KM      Time of Concentration for this sub-basin is based on the following:
108          KM          6-Hour Rainfall, Pattern No.  1.00
109          KM          An rainfall areal reduction factor of 0.999
110          KM
111          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
112          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
113          KM   .46 .45 .45 .14 .11 .10 .04 .04 .04 .02 .01 .01 .00 .00 .00 .00 .00 .00
114          KM
115          KM          L=   0.898 miles, S=  207 feet/mile, Kb= .08
116          KM
117          BA   0.071
118          LG    0.13    0.34    5.70    0.19    8.74
119          UC   0.304   0.409
             *

120          KK    C502
121          KM      Hydrograph combine 502R + 201D at C502
122          HC       2
             *

123          KK  502503
124          KM      Normal depth channel route from C502 to C503
125          KM      Source:  200 Scale Mapping
126          RS       7    FLOW      -1
127          RC   0.050   0.045   0.050  2453.0  0.0183
128          RX  1000.0  1010.0  1025.0  1095.0  1215.0  1295.0  1305.0  1325.0
129          RY  1554.0  1553.0  1552.0  1550.0  1549.8  1551.0  1552.0  1554.0
             *

130          KK    201E
131          KM   Sub-Basin   201E
132          KM
133          KM      The Clark Unit Hydrograph is used for this basin.
134          KM          The HEC-1 time-area relation is used for this basin.
135          KM
136          KM      Time of Concentration for this sub-basin is based on the following:
137          KM          6-Hour Rainfall, Pattern No.  1.00
138          KM          An rainfall areal reduction factor of 0.998
139          KM
```

```
1                 140   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
                                                HEC-1 INPUT                                                    PAGE  4
                LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
                  141   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
                  142   KM   .45 .45 .44 .14 .10 .09 .04 .04 .03 .01 .01 .01 .00 .00 .00 .00 .00 .00
                  143   KM
                  144   KM          L=   1.245 miles, S=  178 feet/mile, Kb= .08
                  145   KM
                  146   BA   0.183
                  147   LG    0.13    0.34    5.60    0.23    8.39
                  148   UC   0.413   0.434
                        *

                  149   KK   C503I
                  150   KM      Hydrograph combine 502503 + 201E at C503I
                  151   HC       2
                        *

                  152   KK   C503O
                  153   KM      Reservoir route at C503.
                  154   RS       1    ELEV  1535.1
                  155   SV    0.00    0.67    2.87    7.16   13.82   22.77   34.37   38.00   41.80   32.20
                  156   SV   44.70   46.10   47.80   49.11   50.90   52.80   54.60   56.40
                  157   SE  1525.1  1538.0  1540.0  1542.0  1544.0  1546.0  1548.0  1548.5  1549.0  1549.2
                  158   SE  1549.4  1549.6  1549.8  1550.0  1550.2  1550.4  1550.6  1550.8
                  159   SQ       0      50     133     210     273     325     367     377     407     441
                  160   SQ     481     545     612     715     818     971    1115    1268
                        *

                  161   KK   D503R
                  162   KM      Hydrograph diversion at C503.  Main flow continues in the right branch.
                  163   KM      Diverted flow is in the left branch.
                  164   DT   D503L
                  165   DI       0      50     133     210     273     325     367     377     407     441
                  166   DI     481     545     612     715     818     971    1115    1268
                  167   DQ       0      50     133     210     273     325     367     377     386     391
                  168   DQ     394     398     402     405     408     412     415     418
                        *

                  169   KK  503504
                  170   KM      Normal depth channel route from C503 to C504
                  171   KM      Source:  200 Scale Mapping
                  172   RS       1    FLOW      -1
                  173   RC   0.050   0.040   0.050  1151.0  0.0098
                  174   RX   940.0  1060.0  1100.0  1140.0  1190.0  1210.0  1230.0  1242.0
                  175   RY  1552.0  1548.0  1547.0  1546.2  1546.2  1548.0  1549.0  1552.0
                        *
                        * *
                        * *  End Basin 201.  Start Basin 202
                        * *
                        *

                  176   KK    202A
                  177   KM   Sub-Basin    202A
                  178   KM
                  179   KM      The Clark Unit Hydrograph is used for this basin.
                  180   KM          The Urban time-area relation is used for this basin.
                  181   KM
1
                                                HEC-1 INPUT                                                    PAGE  5
                LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
                  182   KM      Time of Concentration for this sub-basin is based on the following:
                  183   KM          6-Hour Rainfall, Pattern No.  1.00
                  184   KM          An rainfall areal reduction factor of 1.000
                  185   KM
                  186   KM      EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
                  187   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
                  188   KM   .46 .46 .46 .15 .12 .11 .05 .05 .04 .03 .03 .03 .01 .01 .01 .01 .01 .01
                  189   KM
                  190   KM          L=   0.409 miles, S=  129 feet/mile, Kb= .03
                  191   KM
                  192   BA   0.038
                  193   LG    0.09    0.25    4.40    0.34   29.61
                  194   UC   0.138   0.129
                  195   UA       0       5      16      30      65      77      84      90      94      97
                  196   UA     100
                        *

                  197   KK   C504I
                  198   KM      Hydrograph combine D503R + 202A at C504I
                  199   HC       2
                        *

                  200   KK   C504O
                  201   KM      Reservoir route at C504.
                  202   RS       1    ELEV  1538.1
                  203   SV    0.00    0.17    0.90    1.00    1.10    1.30    1.60    1.80    2.00    2.30
                  204   SV    2.50    2.70    3.00    3.10
                  205   SE  1538.1  1540.0  1541.66 1541.80 1542.0  1542.2  1542.4  1542.6  1542.8  1543.0
                  206   SE  1543.2  1543.4  1543.6  1543.7
                  207   SQ       0      11      20      22      24      30      41      60      85     121
                  208   SQ     171     240     322     396
                        *

                  209   KK   D504R
                  210   KM      Hydrograph diversion at C504.  Main flow continues in the right branch.
                  211   KM      Diverted flow is in the left branch.
                  212   DT   D504L
                  213   DI       0      11      20      22      24      30      41      60      85     121
                  214   DI     171     240     322     396
                  215   DQ       0      11      20      20      21      22      22      23      23      24
```

```
 216        DQ      24      25      26      26
            *

 217        KK    202B
 218        KM   Sub-Basin   202B
 219        KM
 220        KM      The Clark Unit Hydrograph is used for this basin.
 221        KM          The Urban time-area relation is used for this basin.
 222        KM
 223        KM      Time of Concentration for this sub-basin is based on the following:
 224        KM          6-Hour Rainfall, Pattern No.  1.00
 225        KM          An rainfall areal reduction factor of 1.000
 226        KM
 227        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 228        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1                                          HEC-1 INPUT                                                    PAGE  6

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 229        KM   .46 .46 .46 .15 .12 .11 .05 .05 .04 .03 .03 .02 .01 .01 .01 .01 .01 .01
 230        KM
 231        KM          L=   0.364 miles, S=  322 feet/mile, Kb= .03
 232        KM
 233        BA   0.018
 234        LG    0.09    0.25    4.55    0.31   29.03
 235        UC   0.096   0.121
 236        UA       0       5      16      30      65      77      84      90      94      97
 237        UA     100
            *

 238        KK   C505I
 239        KM      Hydrograph combine D504R + 202B at C505I
 240        HC       2
            *

 241        KK   D505R
 242        KM      Hydrograph diversion at C505.  Main flow continues in the right branch.
 243        KM      Diverted flow is in the left branch.
 244        DT   D505L
 245        DI       0       3       7       9      11      14      15      17      23      31
 246        DI      44      55      75      95     123     134
 247        DQ       0       3       7       9      11      12      12      13      14      14
 248        DQ      15      15      16      16      16      17
            *

 249        KK    202C
 250        KM   Sub-Basin   202C
 251        KM
 252        KM      The Clark Unit Hydrograph is used for this basin.
 253        KM          The Urban time-area relation is used for this basin.
 254        KM
 255        KM      Time of Concentration for this sub-basin is based on the following:
 256        KM          6-Hour Rainfall, Pattern No.  1.00
 257        KM          An rainfall areal reduction factor of 1.000
 258        KM
 259        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 260        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 261        KM   .47 .46 .46 .16 .12 .12 .05 .05 .05 .03 .03 .03 .01 .01 .01 .01 .01 .01
 262        KM
 263        KM          L=   0.192 miles, S=  363 feet/mile, Kb= .04
 264        KM
 265        BA   0.008
 266        LG    0.08    0.25    4.35    0.35   38.72
 267        UC   0.083   0.101
 268        UA       0       5      16      30      65      77      84      90      94      97
 269        UA     100
            *

 270        KK    C506
 271        KM      Hydrograph combine C505R + 202C at C506
 272        HC       2
            *
1                                          HEC-1 INPUT                                                    PAGE  7

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 273        KK   D506R
 274        KM      Hydrograph diversion at C506.  Main flow continues in the right branch.
 275        KM      Diverted flow is in the left branch.
 276        DT   D506L
 277        DI       0       3      13      37      77     100     151     206     276     355
 278        DI     437     532     698     809     928    1104
 279        DQ       0       0       0       0       0       0       4      12      28      52
 280        DQ      85     128     183     249     328     421
            *

 281        KK    202D
 282        KM   Sub-Basin   202D
 283        KM
 284        KM      The Clark Unit Hydrograph is used for this basin.
 285        KM          The Urban time-area relation is used for this basin.
 286        KM
 287        KM      Time of Concentration for this sub-basin is based on the following:
 288        KM          6-Hour Rainfall, Pattern No.  1.00
 289        KM          An rainfall areal reduction factor of 0.999
 290        KM
 291        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 292        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 293        KM   .47 .47 .47 .16 .13 .12 .06 .06 .05 .04 .04 .03 .01 .01 .01 .01 .01 .01
 294        KM
 295        KM          L=   0.800 miles, S=  248 feet/mile, Kb= .03
 296        KM
 297        BA   0.063
```

```
298          LG    0.09    0.25    5.60    0.20   28.04
299          UC   0.154   0.189
300          UA       0       5      16      30      65      77      84      90      94      97
301          UA     100
             *

302          KK    202E
303          KM   Sub-Basin   202E
304          KM
305          KM      The Clark Unit Hydrograph is used for this basin.
306          KM          The Urban time-area relation is used for this basin.
307          KM
308          KM      Time of Concentration for this sub-basin is based on the following:
309          KM          6-Hour Rainfall, Pattern No.  1.00
310          KM          An rainfall areal reduction factor of 0.999
311          KM
312          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
313          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
314          KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .04 .04 .03 .01 .01 .01 .01 .01 .01
315          KM
316          KM          L=   0.732 miles, S=  270 feet/mile, Kb= .03
317          KM
318          BA   0.104
319          LG    0.09    0.25    5.70    0.18   26.88
320          UC   0.142   0.120
321          UA       0       5      16      30      65      77      84      90      94      97
322          UA     100
             *
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

323          KK   C508O
324          KM      Reservoir route at C508.
325          RS       1    ELEV  1524.2
326          SV    0.00    0.05    0.09    0.13    0.17    0.21    0.25    0.28    0.36    0.46
327          SV    0.55    0.64    0.72    0.81    0.90    1.00    1.02    1.09    1.17
328          SE  1524.1  1525.0  1525.5  1526.0  1526.5  1527.0  1527.6  1528.0  1528.2  1528.4
329          SE  1528.6  1528.8  1529.0  1529.2  1529.4  1529.6 1529.64  1529.8  1530.0
330          SQ       0       6       9      16      22      28      38      51      58      70
331          SQ      84     100     122     149     183     216     227     274     353
             *

332          KK   D508L
333          KM      Hydrograph diversion at C508.  Main flow continues in the left branch.
334          KM      Diverted flow is in the right branch.
335          DT   D508R
336          DI       0       6       9      16      22      28      38      51      58      70
337          DI      84     100     122     149     183     216     227     274     353
338          DQ       0       6       9      16      22      28      38      47      52      56
339          DQ      60      63      66      68      71      73      73      78     103
             *

340          KK  508507
341          KM      Normal depth channel route from C508 to C507
342          KM      Source:  200 Scale Mapping
343          RS       4    FLOW      -1
344          RC   0.020   0.035   0.055   934.0  0.0028
345          RX   893.0  1014.0  1022.0  1026.0  1040.0  1050.0  1060.0  1066.0
346          RY  1532.0  1529.4  1528.6  1527.6  1529.0  1530.2  1531.3  1532.0
             *

347          KK   C507I
348          KM      Hydrograph combine D506R + 202D + D508L at C507I
349          HC       3
             *

350          KK   C507O
351          KM      Reservoir route at C507
352          RS       1    ELEV  1525.2
353          SV    0.00    0.28    0.46    0.65    0.85    1.03    1.38    1.40    1.44    1.48
354          SV    1.52    1.55    1.59    1.64    1.67    1.70    1.75    1.77
355          SE  1525.2  1526.0  1526.5  1527.0  1527.5  1528.0  1529.0  1529.0  1529.1  1529.2
356          SE  1529.3  1529.4  1529.5  1529.6  1529.7  1529.8  1529.9  1530.0
357          SQ       0       2       5       9      13      15      18      20      36      69
358          SQ     118     185     272     378     506     652     816     997
             *

359          KK    202F
360          KM   Sub-Basin   202F
361          KM
362          KM      The Clark Unit Hydrograph is used for this basin.
363          KM          The Urban time-area relation is used for this basin.
364          KM
365          KM      Time of Concentration for this sub-basin is based on the following:
366          KM          6-Hour Rainfall, Pattern No.  1.00
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

367          KM          An rainfall areal reduction factor of 1.000
368          KM
369          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
370          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
371          KM   .48 .47 .47 .17 .14 .13 .06 .06 .06 .05 .04 .04 .01 .01 .01 .01 .01 .01
372          KM
373          KM          L=   0.188 miles, S=  337 feet/mile, Kb= .03
374          KM
375          BA   0.013
376          LG    0.08    0.25    5.60    0.20   38.05
377          UC   0.083   0.073
378          UA       0       5      16      30      65      77      84      90      94      97
379          UA     100
```

```
                *
380             KK   202G
381             KM   Sub-Basin   202G
382             KM
383             KM      The Clark Unit Hydrograph is used for this basin.
384             KM          The Urban time-area relation is used for this basin.
385             KM
386             KM      Time of Concentration for this sub-basin is based on the following:
387             KM          6-Hour Rainfall, Pattern No.  1.00
388             KM          An rainfall areal reduction factor of 1.000
389             KM
390             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
391             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
392             KM   .48 .47 .47 .17 .14 .13 .06 .06 .06 .05 .05 .04 .01 .01 .01 .01 .01 .01
393             KM
394             KM          L=   0.175 miles, S=  338 feet/mile, Kb= .03
395             KM
396             BA   0.013
397             LG    0.08    0.25    5.70    0.18   35.52
398             UC   0.083   0.069
399             UA       0       5      16      30      65      77      84      90      94      97
400             UA     100
                *

401             KK   202H
402             KM   Sub-Basin   202H
403             KM
404             KM      The Clark Unit Hydrograph is used for this basin.
405             KM          The Urban time-area relation is used for this basin.
406             KM
407             KM      Time of Concentration for this sub-basin is based on the following:
408             KM          6-Hour Rainfall, Pattern No.  1.00
409             KM          An rainfall areal reduction factor of 0.998
410             KM
411             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
412             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
413             KM   .47 .47 .46 .16 .13 .12 .05 .05 .05 .04 .04 .03 .01 .01 .01 .01 .01 .01
414             KM
415             KM          L=   0.861 miles, S=  243 feet/mile, Kb= .03
416             KM
417             BA   0.179
```



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LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

418             LG    0.09    0.25    5.20    0.22   26.85
419             UC   0.163   0.116
420             UA       0       5      16      30      65      77      84      90      94      97
421             UA     100
                *

422             KK   C5110
423             KM      Reservoir route at C511.
424             RS       1    ELEV  1535.2
425             SV    0.00    0.40    0.70    1.19    3.10    3.20    3.55    4.00    4.50    4.90
426             SV    5.40    5.80    6.30    6.80    7.20    7.70    8.13
427             SE  1535.2  1537.0  1538.0  1540.0  1541.6  1541.8  1542.0  1542.2  1542.4  1542.6
428             SE  1542.8  1543.0  1543.2  1543.4  1543.6  1543.8  1544.0
429             SQ       0      42      88     200     274     286     325     393     491     622
430             SQ     790    1000    1241    1518    1835    2189    2580
                *

431             KK  511512
432             KM      Normal depth channel route from C511 to C512
433             KM      Source:  200 Scale Mapping
434             RS       3    FLOW      -1
435             RC   0.055   0.045   0.055   760.0  0.0112
436             RX  1000.0  1060.0  1070.0  1090.0  1110.0  1120.0  1180.0  1220.0
437             RY  1536.0  1534.2  1534.0  1532.0  1532.0  1534.0  1535.0  1536.0
                *

438             KK   202I
439             KM   Sub-Basin   202I
440             KM
441             KM      The Clark Unit Hydrograph is used for this basin.
442             KM          The Urban time-area relation is used for this basin.
443             KM
444             KM      Time of Concentration for this sub-basin is based on the following:
445             KM          6-Hour Rainfall, Pattern No.  1.00
446             KM          An rainfall areal reduction factor of 1.000
447             KM
448             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
449             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
450             KM   .49 .49 .49 .18 .15 .15 .07 .07 .07 .07 .07 .06 .02 .02 .02 .02 .02 .02
451             KM
452             KM          L=   0.247 miles, S=  122 feet/mile, Kb= .03
453             KM
454             BA   0.017
455             LG    0.06    0.25    5.10    0.24   73.16
456             UC   0.104   0.099
457             UA       0       5      16      30      65      77      84      90      94      97
458             UA     100
                *

459             KK   C512I
460             KM      Hydrograph combine 511512 + 202I at C512
461             KM      Inflow to reservoir route at C512
462             KM      This is the inflow to the Stock Tank at the end of Bahia Drive
463             HC       2
                *
```



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LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
464     KK   C512O
465     KM      Reservoir route at C512 (Stock Tank).
466     RS       1    ELEV  1517.0
467     SV    0.00    0.03    0.29    0.75    1.38    2.39    4.17    7.43   10.30   12.20
468     SV   12.70   13.36   14.10   15.10   16.20   17.00   17.90
469     SE  1517.0  1518.0  1520.0  1522.0  1524.0  1526.0  1528.0  1530.0  1531.0  1531.6
470     SE  1531.8  1532.0  1532.2  1532.4  1532.6  1532.8  1533.0
471     SQ       0       0       0       0       0       0       0       0       0       15
472     SQ      35      65     137     244     376     541     725
        *

473     KK   D512L
474     KM      Hydrograph diversion at C512.
475     KM      Main flow continues in the left branch (weir).
476     KM      Diverted flow enters Bahia Drive (channel) and continues to C591.
477     KM      Diverted flow is in the right branch.
478     DT   D512R
479     DI       0      15      35      65     137     244     376     541     725
480     DQ       0       0       4      10      49     112     190     289     395
        *
        * *
        * *  Note:  512591 too short to route
        * *
        *
        * *
        * *  End Basin 202.  Start Basin 203.
        * *
        *

481     KK    203A
482     KM   Sub-Basin   203A
483     KM
484     KM      The Clark Unit Hydrograph is used for this basin.
485     KM          The HEC-1 time-area relation is used for this basin.
486     KM
487     KM      Time of Concentration for this sub-basin is based on the following:
488     KM          6-Hour Rainfall, Pattern No.  1.00
489     KM          An rainfall areal reduction factor of 0.996
490     KM
491     KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
492     KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
493     KM   .45 .44 .44 .14 .10 .09 .04 .04 .03 .01 .00 .00 .00 .00 .00 .00 .00 .00
494     KM
495     KM          L=   1.569 miles, S=  229 feet/mile, Kb= .08
496     KM
497     BA   0.279
498     LG    0.14    0.37    5.70    0.20    4.62
499     UC   0.433   0.434
        *
1                                        HEC-1 INPUT                                          PAGE 12
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

500     KK   C513O
501     KM      Reservoir route at C513.
502     RS       1    ELEV  1789.0
503     SV    0.00    0.35    0.97    2.05    3.54    5.54    8.17
504     SE  1789.0  1794.0  1796.0  1798.0  1800.0  1802.0  1804.0
505     SQ       0       0      20      70     135     315    1995
        *

506     KK  513514
507     KM      Normal depth channel route from C513 to C514
508     KM      Source:  200 Scale Mapping
509     RS       7    FLOW      -1
510     RC   0.050   0.045   0.050  2403.0  0.0240
511     RX  1000.0  1010.0  1035.0  1080.0  1100.0  1120.0  1135.0  1145.0
512     RY  1780.0  1778.0  1770.0  1768.0  1768.0  1770.0  1778.0  1780.0
        *

513     KK    203B
514     KM   Sub-Basin   203B
515     KM
516     KM      The Clark Unit Hydrograph is used for this basin.
517     KM          The Urban time-area relation is used for this basin.
518     KM
519     KM      Time of Concentration for this sub-basin is based on the following:
520     KM          6-Hour Rainfall, Pattern No.  1.00
521     KM          An rainfall areal reduction factor of 0.999
522     KM
523     KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
524     KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
525     KM   .47 .47 .47 .16 .13 .12 .06 .05 .05 .04 .04 .03 .01 .01 .01 .01 .01 .01
526     KM
527     KM          L=   0.484 miles, S=  236 feet/mile, Kb= .04
528     KM
529     BA   0.044
530     LG    0.09    0.27    5.70    0.18   22.92
531     UC   0.142   0.140
532     UA       0       5      16      30      65      77      84      90      94      97
533     UA     100
        *

534     KK   C514R
535     KM      Hydrograph combine 513514 + 203B at C514 right channel
536     HC       2
        *

537     KK    203C
538     KM   Sub-Basin   203C
539     KM
540     KM      The Clark Unit Hydrograph is used for this basin.
```

```
 541          KM          The HEC-1 time-area relation is used for this basin.
 542          KM
 543          KM      Time of Concentration for this sub-basin is based on the following:
 544          KM          6-Hour Rainfall, Pattern No.  1.00
 545          KM          An rainfall areal reduction factor of 0.999
1                                        HEC-1 INPUT                                                    PAGE 13

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 546          KM
 547          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 548          KM      5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 549          KM    .46 .45 .45 .15 .11 .11 .05 .04 .04 .02 .01 .01 .00 .00 .00 .00 .00 .00
 550          KM
 551          KM          L=   0.988 miles, S=  258 feet/mile, Kb= .07
 552          KM
 553          BA   0.103
 554          LG    0.12    0.33    5.70    0.20   13.59
 555          UC   0.271   0.314
              *

 556          KK    C514
 557          KM      Hydrograph combine C514R + 203C at C514
 558          HC       2
              *
              * *
              * * Note: 514515 too short to route
              * *
              *

 559          KK    203D
 560          KM   Sub-Basin   203D
 561          KM
 562          KM      The Clark Unit Hydrograph is used for this basin.
 563          KM          The HEC-1 time-area relation is used for this basin.
 564          KM
 565          KM      Time of Concentration for this sub-basin is based on the following:
 566          KM          6-Hour Rainfall, Pattern No.  1.00
 567          KM          An rainfall areal reduction factor of 0.999
 568          KM
 569          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 570          KM      5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 571          KM    .46 .45 .45 .14 .11 .10 .04 .04 .04 .01 .01 .01 .00 .00 .00 .00 .00 .00
 572          KM
 573          KM          L=   1.025 miles, S=  252 feet/mile, Kb= .08
 574          KM
 575          BA   0.108
 576          LG    0.13    0.34    5.70    0.20    8.61
 577          UC   0.308   0.363
              *

 578          KK    C515
 579          KM      Hydrograph combine C514 + 203D at C515
 580          HC       2
              *

 581          KK  515517
 582          KM      Normal depth channel route from C515 to C517
 583          KM      Source:  200 Scale Mapping
 584          RS       6    FLOW     -1
 585          RC   0.050   0.045   0.060  3340.0  0.0186
 586          RX  1000.0  1020.0  1045.0  1065.0  1085.0  1125.0  1135.0  1145.0
 587          RY  1708.0  1704.0  1702.0  1698.0  1698.0  1700.0  1705.0  1710.0
              *
1                                        HEC-1 INPUT                                                    PAGE 14

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 588          KK    203E
 589          KM   Sub-Basin   203E
 590          KM
 591          KM      The Clark Unit Hydrograph is used for this basin.
 592          KM          The Urban time-area relation is used for this basin.
 593          KM
 594          KM      Time of Concentration for this sub-basin is based on the following:
 595          KM          6-Hour Rainfall, Pattern No.  1.00
 596          KM          An rainfall areal reduction factor of 0.999
 597          KM
 598          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 599          KM      5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 600          KM    .48 .48 .48 .17 .14 .14 .06 .06 .06 .06 .05 .05 .01 .01 .01 .01 .01 .01
 601          KM
 602          KM          L=   0.640 miles, S=  219 feet/mile, Kb= .03
 603          KM
 604          BA   0.093
 605          LG    0.09    0.19    6.60    0.13   25.00
 606          UC   0.142   0.114
 607          UA      0       5      16      30      65      77      84      90      94      97
 608          UA    100
              *

 609          KK   C517R
 610          KM      Hydrograph combine 515517 + 203E at C517 right branch
 611          HC       2
              *

 612          KK    203F
 613          KM   Sub-Basin   203F
 614          KM
 615          KM      The Clark Unit Hydrograph is used for this basin.
 616          KM          The Natural time-area relation is used for this basin.
 617          KM
 618          KM      Time of Concentration for this sub-basin is based on the following:
```

```
619   KM          6-Hour Rainfall, Pattern No.  1.00
620   KM          An rainfall areal reduction factor of 0.996
621   KM
622   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
623   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
624   KM   .44 .44 .43 .13 .09 .08 .03 .03 .03 .00 .00 .00 .00 .00 .00 .00 .00 .00
625   KM
626   KM          L=   1.460 miles, S=  237 feet/mile, Kb= .09
627   KM
628   BA   0.333
629   LG    0.15    0.39    5.70    0.21    0.00
630   UC   0.450   0.386
631   UA      0       3       5       8      12      20      43      75      90      96
632   UA    100
      *
```

1

HEC-1 INPUT

PAGE 15

```
LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

633   KK  516517
634   KM      Normal depth channel route from C516 to C517
635   KM      Source:  200 Scale Mapping
636   RS      14    FLOW      -1
637   RC   0.065   0.045   0.055  6720.0  0.0213
638   RX  1000.0  1015.0  1020.0  1040.0  1080.0  1095.0  1100.0  1125.0
639   RY  1724.0  1718.0  1716.0  1714.0  1714.0  1716.0  1718.0  1724.0
      *

640   KK    203G
641   KM   Sub-Basin   203G
642   KM
643   KM      The Clark Unit Hydrograph is used for this basin.
644   KM          The HEC-1 time-area relation is used for this basin.
645   KM
646   KM      Time of Concentration for this sub-basin is based on the following:
647   KM          6-Hour Rainfall, Pattern No.  1.00
648   KM          An rainfall areal reduction factor of 0.997
649   KM
650   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
651   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
652   KM   .46 .45 .45 .14 .11 .10 .04 .04 .04 .02 .01 .01 .00 .00 .00 .00 .00 .00
653   KM
654   KM          L=   1.424 miles, S=  215 feet/mile, Kb= .07
655   KM
656   BA   0.248
657   LG    0.13    0.34    6.00    0.18    9.21
658   UC   0.375   0.366
      *

659   KK   C517L
660   KM      Hydrograph combine 516517 + 203G at C517 left branch
661   HC       2
      *

662   KK    C517
663   KM      Hydrograph combine C517R + C517L at C517
664   HC       2
      *

665   KK  517518
666   KM      Normal depth channel route from C517 to C518
667   KM      Source:  HEC-2 Cross Section: ES 3.522
668   RS       7    FLOW      -1
669   RC   0.055   0.035   0.060  4367.0  0.0174
670   RX  9808.1  9845.6  9957.0  9990.4 10007.0 10015.9 10076.5 10176.0
671   RY  1628.2  1618.6  1617.5  1614.8  1614.7  1619.7  1622.9  1631.3
      *
```

1

HEC-1 INPUT

PAGE 16

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LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

672   KK    203H
673   KM   Sub-Basin   203H
674   KM
675   KM      The Clark Unit Hydrograph is used for this basin.
676   KM          The Urban time-area relation is used for this basin.
677   KM
678   KM      Time of Concentration for this sub-basin is based on the following:
679   KM          6-Hour Rainfall, Pattern No.  1.00
680   KM          An rainfall areal reduction factor of 0.997
681   KM
682   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
683   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
684   KM   .47 .46 .46 .16 .13 .12 .05 .05 .05 .04 .03 .03 .01 .01 .01 .01 .01 .01
685   KM
686   KM          L=   1.035 miles, S=  178 feet/mile, Kb= .03
687   KM
688   BA   0.207
689   LG    0.09    0.25    5.40    0.21   25.00
690   UC   0.196   0.153
691   UA      0       5      16      30      65      77      84      90      94      97
692   UA    100
      *

693   KK    C518
694   KM      Hydrograph combine 517518 + 203H at C518
695   HC       2
      *

696   KK  518519
697   KM      Normal depth channel route from C518 to C519
698   KM      Source:  HEC-2 Cross Section: ES 3.072
```

```
699          RS       2    FLOW      -1
700          RC   0.090   0.050   0.085  1796.0  0.0217
701          RX  9851.4  9884.7  9955.8  9983.5 10028.9 10036.3 10057.6 10087.9
702          RY  1586.3  1569.6  1568.4  1565.8  1565.4  1566.0  1575.0  1589.3
             *

703          KK    203I
704          KM   Sub-Basin   203I
705          KM
706          KM      The Clark Unit Hydrograph is used for this basin.
707          KM          The Urban time-area relation is used for this basin.
708          KM
709          KM      Time of Concentration for this sub-basin is based on the following:
710          KM          6-Hour Rainfall, Pattern No.  1.00
711          KM          An rainfall areal reduction factor of 0.998
712          KM
713          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
714          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
715          KM   .47 .46 .46 .16 .12 .12 .05 .05 .05 .04 .03 .03 .01 .01 .01 .01 .01 .01
716          KM
717          KM          L=   1.323 miles, S=  161 feet/mile, Kb= .03
718          KM
719          BA   0.171
```

1 HEC-1 INPUT PAGE 17

```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

720          LG    0.09    0.25    4.80    0.27   29.11
721          UC   0.229   0.247
722          UA       0       5      16      30      65      77      84      90      94      97
723          UA     100
             *

724          KK    C519
725          KM      Hydrograph combine 518519 + 203I at C519
726          HC       2
             *

727          KK  519591
728          KM      Normal depth channel route from C519 to C591
729          KM      Source:  HEC-2 Cross Section: ES 2.695
730          RS       2    FLOW      -1
731          RC   0.090   0.050   0.085  1274.0  0.0181
732          RX  9851.3  9905.0  9927.9  9949.0 10017.8 10053.7 10096.8 10135.1
733          RY  1540.3  1537.0  1536.5  1529.2  1528.6  1537.7  1539.6  1540.1
             *

734          KK    203J
735          KM   Sub-Basin   203J
736          KM
737          KM      The Clark Unit Hydrograph is used for this basin.
738          KM          The Urban time-area relation is used for this basin.
739          KM
740          KM      Time of Concentration for this sub-basin is based on the following:
741          KM          6-Hour Rainfall, Pattern No.  1.00
742          KM          An rainfall areal reduction factor of 0.999
743          KM
744          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
745          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
746          KM   .49 .49 .48 .18 .15 .15 .07 .07 .07 .06 .06 .06 .01 .01 .01 .01 .01 .01
747          KM
748          KM          L=   0.533 miles, S=  237 feet/mile, Kb= .03
749          KM
750          BA   0.039
751          LG    0.07    0.25    5.60    0.20   64.82
752          UC   0.125   0.142
753          UA       0       5      16      30      65      77      84      90      94      97
754          UA     100
             *

755          KK  520591
756          KM      Normal depth channel route from C520 to C591
757          KM      Source:  Hydrology Field Reconnaissance
758          RS       2    FLOW      -1
759          RC   0.050   0.018   0.040  2014.0  0.0248
760          RX  1000.0  1030.0  1041.2  1057.2  1073.2  1074.4  1086.4  1116.0
761          RY  1570.0  1566.0  1564.8  1565.2  1564.9  1565.3  1565.9  1568.0
             *
```

1 HEC-1 INPUT PAGE 18

```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

762          KK  BB512R
763          KM      Retrieve previously diverted hydrograph at C512 in the right branch.
764          DR   D512R
             *

765          KK    C591
766          KM      Hydrograph combine 519591 + 520591 + D512R at C591
767          HC       3    1.83
             *

768          KK  591521
769          KM      Normal depth channel route from C591 to C521
770          KM      Source:  HEC-2 Cross Section: ES 2.614
771          RS       2    FLOW      -1
772          RC   0.090   0.050   0.085   915.0  0.0142
773          RX  9827.7  9921.5  9950.2  9970.7 10046.6 10078.1 10120.0 10177.5
774          RY  1531.1  1524.8  1524.4  1520.8  1520.0  1530.3  1531.1  1532.3
             *

775          KK    203K
776          KM   Sub-Basin   203K
```

```
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          6-Hour Rainfall, Pattern No.  1.00
KM          An rainfall areal reduction factor of 0.998
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .48 .48 .48 .17 .14 .14 .06 .06 .06 .05 .05 .05 .01 .01 .01 .01 .01 .01
KM
KM          L=   0.878 miles, S=  158 feet/mile, Kb= .03
KM
BA   0.160
LG    0.08    0.25    5.60    0.19   44.98
UC   0.183   0.144
UA      0       5      16      30      65      77      84      90      94      97
UA    100
*

KK    C521
KM      Hydrograph combine 591521 + 203K at C521
HC       2
*
* *
* * C521 is the total flow in Escalante Wash at the Study boundary
* *
* * End Basin 203.  Start Basin 204
* *
*
```

1 HEC-1 INPUT PAGE 19

```
LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK   CLEAR
KM      Clear hydrographs from stack
HC       5
*

KK    204A
KM   Sub-Basin   204A
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          6-Hour Rainfall, Pattern No.  1.00
KM          An rainfall areal reduction factor of 0.999
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .04 .04 .03 .01 .01 .01 .01 .01 .01
KM
KM          L=   0.687 miles, S=  175 feet/mile, Kb= .03
KM
BA   0.108
LG    0.09    0.25    5.80    0.18   25.00
UC   0.158   0.126
UA      0       5      16      30      65      77      84      90      94      97
UA    100
*

KK  522523
KM      Normal depth channel route from C522 to C523
KM      Source:  200 Scale Mapping
RS       9    FLOW      -1
RC   0.060   0.050   0.060  3275.0  0.0197
RX  1000.0  1020.0  1035.0  1065.0  1080.0  1120.0  1160.0  1185.0
RY  1678.0  1676.0  1674.0  1672.0  1672.0  1674.0  1676.0  1678.0
*

KK    204B
KM   Sub-Basin   204B
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          6-Hour Rainfall, Pattern No.  1.00
KM          An rainfall areal reduction factor of 0.998
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .04 .04 .03 .01 .01 .01 .01 .01 .01
KM
KM          L=   0.775 miles, S=  128 feet/mile, Kb= .03
KM
BA   0.126
```

1 HEC-1 INPUT PAGE 20

```
LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

LG    0.09    0.25    5.80    0.18   26.66
UC   0.188   0.153
UA      0       5      16      30      65      77      84      90      94      97
UA    100
*

KK   C523I
KM      Hydrograph combine 522523 + 204B at C523I
HC       2
*
```

```
854          KK   C5230
855          KM      Reservoir route at C523.
856          RS       1    ELEV  1650.3
857          SV    0.00    0.01    0.12    0.71    2.23    2.50    2.80    3.10    3.20    3.40
858          SV    3.70    4.00    4.30    4.60    4.90    5.20    5.50
859          SE  1650.3  1652.0  1654.0  1656.0  1658.0  1658.2  1658.4  1658.6  1658.7  1658.8
860          SE  1659.0  1659.2  1659.4  1659.6  1659.8  1660.0  1660.2
861          SQ       0      22      78     144     209     214     220     224     226     232
862          SQ     239     249     288     384     529     726     960
             *

863          KK   D523L
864          KM      Hydrograph diversion at C523.  Main flow continues in the left branch.
865          KM      Diverted flow is in the right branch.
866          DT   D523R
867          DI       0      22      78     144     209     214     220     224     226     232
868          DI     239     249     288     384     529     726     960
869          DQ       0       0       0       0       0       0       0       0       0       3
870          DQ       5      10      20      37      61      96     139
             *

871          KK  523524
872          KM      Normal depth channel route from C523 to C524
873          KM      Source:  HEC-2 Cross Section: CA 2.072
874          KM      This is flow in Fountain Hills Blvd. which is routed to C548
875          RS       5    FLOW      -1
876          RC   0.080   0.050   0.075  1732.0  0.0177
877          RX  9827.8  9925.9  9978.5 10000.0 10020.8 10041.9 10110.6 10151.9
878          RY  1639.8  1635.7  1634.3  1629.9  1630.2  1631.8  1633.5  1636.7
             *

879          KK    204C
880          KM   Sub-Basin   204C
881          KM
882          KM      The Clark Unit Hydrograph is used for this basin.
883          KM          The Urban time-area relation is used for this basin.
884          KM
885          KM      Time of Concentration for this sub-basin is based on the following:
886          KM          6-Hour Rainfall, Pattern No.  1.00
887          KM          An rainfall areal reduction factor of 0.999
888          KM
889          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
890          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
891          KM   .49 .49 .49 .18 .15 .15 .07 .07 .07 .07 .07 .06 .02 .02 .02 .02 .02 .02
```

1

HEC-1 INPUT

PAGE 21

```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
892          KM
893          KM          L=   0.400 miles, S=  142 feet/mile, Kb= .03
894          KM
895          BA   0.077
896          LG    0.07    0.25    5.70    0.18   66.42
897          UC   0.129   0.079
898          UA       0       5      16      30      65      77      84      90      94      97
899          UA     100
             *

900          KK    C524
901          KM      Hydrograph combine 523524 + 204C at C524
902          HC       2
             *

903          KK  524525
904          KM      Normal depth channel route from C524 to C525
905          KM      Source:  HEC-2 Cross Section: CA 1.898
906          RS       2    FLOW      -1
907          RC   0.050   0.035   0.060  1045.0  0.0211
908          RX  9823.1  9873.0  9960.0  9986.1 10008.3 10049.7 10070.0 10078.4
909          RY  1617.9  1616.7  1616.3  1609.2  1609.0  1616.4  1616.8  1617.3
             *

910          KK    204D
911          KM   Sub-Basin   204D
912          KM
913          KM      The Clark Unit Hydrograph is used for this basin.
914          KM          The Urban time-area relation is used for this basin.
915          KM
916          KM      Time of Concentration for this sub-basin is based on the following:
917          KM          6-Hour Rainfall, Pattern No.  1.00
918          KM          An rainfall areal reduction factor of 0.999
919          KM
920          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
921          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
922          KM   .49 .48 .48 .18 .15 .14 .07 .07 .06 .06 .06 .05 .01 .01 .01 .01 .01 .01
923          KM
924          KM          L=   0.345 miles, S=   96 feet/mile, Kb= .03
925          KM
926          BA   0.044
927          LG    0.07    0.25    5.70    0.18   53.85
928          UC   0.133   0.100
929          UA       0       5      16      30      65      77      84      90      94      97
930          UA     100
             *

931          KK    C525
932          KM      Hydrograph combine 524525 + 204D at C525
933          HC       2
             *
```

1

HEC-1 INPUT

PAGE 22

```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
934          KK  525526
935          KM      Normal depth channel route from C525 to C526
936          KM      Source:  HEC-2 Cross Section: CA 1.663
937          RS       2    FLOW      -1
938          RC   0.050   0.035   0.060  1520.0  0.0211
939          RX  9915.0  9940.0  9968.0  9992.6 10012.4 10032.0 10049.6 10106.9
940          RY  1592.8  1592.3  1591.8  1585.0  1584.8  1591.3  1592.1  1592.5
             *

941          KK    204E
942          KM   Sub-Basin   204E
943          KM
944          KM      The Clark Unit Hydrograph is used for this basin.
945          KM          The Urban time-area relation is used for this basin.
946          KM
947          KM      Time of Concentration for this sub-basin is based on the following:
948          KM          6-Hour Rainfall, Pattern No.  1.00
949          KM          An rainfall areal reduction factor of 0.999
950          KM
951          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
952          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
953          KM   .48 .48 .47 .17 .14 .13 .06 .06 .06 .05 .05 .05 .01 .01 .01 .01 .01 .01
954          KM
955          KM          L=   0.508 miles, S=  108 feet/mile, Kb= .03
956          KM
957          BA   0.071
958          LG    0.08    0.25    5.70    0.18   41.17
959          UC   0.158   0.126
960          UA      0       5      16      30      65      77      84      90      94      97
961          UA    100
             *

962          KK    C526
963          KM      Hydrograph combine 525526 + 204E at C526
964          HC       2
             *

965          KK  526527
966          KM      Normal depth channel route from C526 to C527
967          KM      Source:  HEC-2 Cross Section: CA 1.186
968          RS       2    FLOW      -1
969          RC   0.050   0.035   0.060  2129.0  0.0183
970          RX  9867.7  9898.1  9967.2  9981.2 10023.8 10035.6 10080.6 10145.3
971          RY  1545.6  1544.4  1539.5  1536.9  1536.7  1539.6  1541.1  1542.3
             *

972          KK    204F
973          KM   Sub-Basin   204F
974          KM
975          KM      The Clark Unit Hydrograph is used for this basin.
976          KM          The Urban time-area relation is used for this basin.
977          KM
978          KM      Time of Concentration for this sub-basin is based on the following:
979          KM          6-Hour Rainfall, Pattern No.  1.00
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

980          KM          An rainfall areal reduction factor of 0.999
981          KM
982          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
983          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
984          KM   .49 .49 .49 .18 .15 .15 .07 .07 .07 .07 .07 .07 .01 .01 .01 .01 .01 .01
985          KM
986          KM          L=   0.495 miles, S=  135 feet/mile, Kb= .03
987          KM
988          BA   0.077
989          LG    0.08    0.15    7.00    0.11   45.00
990          UC   0.146   0.107
991          UA      0       5      16      30      65      77      84      90      94      97
992          UA    100
             *

993          KK    C527
994          KM      Hydrograph combine 526527 + 204F at C527
995          HC       2
             *
             * *
             * * C527 is the total flow in Caliente Wash at the Study boundary
             * *
             * * End Basin 204.  Start Basin 205
             * *
             *

996          KK   CLEAR
997          KM      Clear hydrographs from stack
998          HC       2
             *

999          KK    205A
1000         KM   Sub-Basin   205A
1001         KM
1002         KM      The Clark Unit Hydrograph is used for this basin.
1003         KM          The Natural time-area relation is used for this basin.
1004         KM
1005         KM      Time of Concentration for this sub-basin is based on the following:
1006         KM          6-Hour Rainfall, Pattern No.  1.00
1007         KM          An rainfall areal reduction factor of 0.998
1008         KM
1009         KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1010         KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1011         KM   .45 .44 .44 .13 .09 .08 .04 .04 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
1012         KM
```

```
1013        KM          L=   0.870 miles, S=  378 feet/mile, Kb= .14
1014        KM
1015        BA   0.118
1016        LG    0.25    0.35    4.35    0.40   35.00
1017        UC   0.350   0.350
1018        UA      0       3       5       8      12      20      43      75      90      96
1019        UA    100
            *
1                                          HEC-1 INPUT                                                    PAGE 24

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1020        KK    205B
1021        KM   Sub-Basin   205B
1022        KM
1023        KM      The Clark Unit Hydrograph is used for this basin.
1024        KM          The Natural time-area relation is used for this basin.
1025        KM
1026        KM      Time of Concentration for this sub-basin is based on the following:
1027        KM          6-Hour Rainfall, Pattern No.  1.00
1028        KM          An rainfall areal reduction factor of 0.997
1029        KM
1030        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1031        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1032        KM   .45 .44 .44 .13 .09 .08 .04 .04 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
1033        KM
1034        KM          L=   0.759 miles, S=  129 feet/mile, Kb= .14
1035        KM
1036        BA   0.211
1037        LG    0.25    0.35    4.35    0.40   35.00
1038        UC   0.508   0.340
1039        UA      0       3       5       8      12      20      43      75      90      96
1040        UA    100
            *

1041        KK    C528
1042        KM      Hydrograph combine 205A + 205B at C528
1043        HC       2
            *

1044        KK  528530
1045        KM      Normal depth channel route from C528 to C530
1046        KM      Source:  Hydrology Field Reconnaissance
1047        RS       3    FLOW      -1
1048        RC   0.060   0.043   0.060  2594.0  0.0709
1049        RX  1000.0  1018.0  1031.0  1042.0  1052.0  1066.0  1093.0  1107.0
1050        RY    96.3    92.2    89.9    85.9    85.7    91.5    91.2    96.3
            *

1051        KK    205C
1052        KM   Sub-Basin   205C
1053        KM
1054        KM      The Clark Unit Hydrograph is used for this basin.
1055        KM          The Natural time-area relation is used for this basin.
1056        KM
1057        KM      Time of Concentration for this sub-basin is based on the following:
1058        KM          6-Hour Rainfall, Pattern No.  1.00
1059        KM          An rainfall areal reduction factor of 0.999
1060        KM
1061        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1062        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1063        KM   .45 .44 .44 .13 .09 .08 .04 .04 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
1064        KM
1065        KM          L=   0.618 miles, S=  331 feet/mile, Kb= .15
1066        KM
1067        BA   0.059
1                                          HEC-1 INPUT                                                    PAGE 25

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1068        LG    0.25    0.35    4.35    0.41   35.00
1069        UC   0.308   0.343
1070        UA      0       3       5       8      12      20      43      75      90      96
1071        UA    100
            *

1072        KK   C530R
1073        KM      Hydrograph combine 528530 + 205C at C530 right branch
1074        HC       2
            *

1075        KK    205D
1076        KM   Sub-Basin   205D
1077        KM
1078        KM      The Clark Unit Hydrograph is used for this basin.
1079        KM          The Natural time-area relation is used for this basin.
1080        KM
1081        KM      Time of Concentration for this sub-basin is based on the following:
1082        KM          6-Hour Rainfall, Pattern No.  1.00
1083        KM          An rainfall areal reduction factor of 0.996
1084        KM
1085        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1086        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1087        KM   .45 .44 .44 .13 .09 .08 .04 .04 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
1088        KM
1089        KM          L=   1.020 miles, S=  361 feet/mile, Kb= .13
1090        KM
1091        BA   0.319
1092        LG    0.25    0.35    4.35    0.40   35.00
1093        UC   0.379   0.246
1094        UA      0       3       5       8      12      20      43      75      90      96
1095        UA    100
            *
```

```
1096        KK    205E
1097        KM   Sub-Basin   205E
1098        KM
1099        KM      The Clark Unit Hydrograph is used for this basin.
1100        KM          The Natural time-area relation is used for this basin.
1101        KM
1102        KM      Time of Concentration for this sub-basin is based on the following:
1103        KM          6-Hour Rainfall, Pattern No.  1.00
1104        KM          An rainfall areal reduction factor of 0.997
1105        KM
1106        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1107        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1108        KM   .45 .44 .44 .13 .09 .08 .04 .04 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
1109        KM
1110        KM          L=   1.357 miles, S=  358 feet/mile, Kb= .14
1111        KM
1112        BA   0.218
1113        LG    0.25    0.35    4.35    0.40   35.00
1114        UC   0.488   0.508
1115        UA       0       3       5       8      12      20      43      75      90      96
1116        UA     100
            *
1                                          HEC-1 INPUT                                          PAGE 26

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1117        KK    C529
1118        KM      Hydrograph combine 205D + 205E at C529
1119        HC       2
            *
            * *
            * * NOTE:  529530 too short to route
            * *
            *

1120        KK    C530
1121        KM      Hydrograph combine C529 + C530R at C530
1122        HC       2
            *

1123        KK  530531
1124        KM      Normal depth channel route from C530 to C531
1125        KM      Source:  Hydrology Field Reconnaissance
1126        RS       3    FLOW      -1
1127        RC   0.060   0.059   0.060  2426.0  0.0404
1128        RX  1000.0  1035.0  1050.0  1060.0  1075.0  1081.0  1088.0  1094.0
1129        RY    95.9    86.5    86.2    83.1    84.0    90.2    95.6    99.3
            *

1130        KK    205F
1131        KM   Sub-Basin   205F
1132        KM
1133        KM      The Clark Unit Hydrograph is used for this basin.
1134        KM          The Natural time-area relation is used for this basin.
1135        KM
1136        KM      Time of Concentration for this sub-basin is based on the following:
1137        KM          6-Hour Rainfall, Pattern No.  1.00
1138        KM          An rainfall areal reduction factor of 0.998
1139        KM
1140        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1141        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1142        KM   .45 .44 .44 .13 .09 .08 .04 .04 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
1143        KM
1144        KM          L=   0.786 miles, S=  326 feet/mile, Kb= .14
1145        KM
1146        BA   0.161
1147        LG    0.25    0.35    4.35    0.41   35.00
1148        UC   0.350   0.269
1149        UA       0       3       5       8      12      20      43      75      90      96
1150        UA     100
            *

1151        KK    C531
1152        KM      Hydrograph combine 530531 + 205F at C531
1153        HC       2
            *
1                                          HEC-1 INPUT                                          PAGE 27

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1154        KK  531532
1155        KM      Normal depth channel route from C531 to C532
1156        KM      Source:  Hydrology Field Reconnaissance
1157        RS       4    FLOW      -1
1158        RC   0.060   0.065   0.060  3391.0  0.0463
1159        RX  1000.0  1012.0  1022.0  1032.0  1050.0  1056.0  1068.0  1092.0
1160        RY    98.8    93.8    89.1    86.4    86.5    89.1    91.0    97.6
            *

1161        KK    205G
1162        KM   Sub-Basin   205G
1163        KM
1164        KM      The Clark Unit Hydrograph is used for this basin.
1165        KM          The Natural time-area relation is used for this basin.
1166        KM
1167        KM      Time of Concentration for this sub-basin is based on the following:
1168        KM          6-Hour Rainfall, Pattern No.  1.00
1169        KM          An rainfall areal reduction factor of 0.998
1170        KM
1171        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1172        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
```

```
1173        KM   .45 .44 .44 .13 .09 .07 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
1174        KM
1175        KM          L=   0.924 miles, S=  338 feet/mile, Kb= .13
1176        KM
1177        BA   0.185
1178        LG    0.24    0.35    4.50    0.40   31.23
1179        UC   0.367   0.298
1180        UA       0       3       5       8      12      20      43      75      90      96
1181        UA     100
            *

1182        KK   C532L
1183        KM      Hydrograph combine 531532 + 205G at C532 left branch
1184        HC       2
            *

1185        KK    205H
1186        KM   Sub-Basin   205H
1187        KM
1188        KM      The Clark Unit Hydrograph is used for this basin.
1189        KM          The Natural time-area relation is used for this basin.
1190        KM
1191        KM      Time of Concentration for this sub-basin is based on the following:
1192        KM          6-Hour Rainfall, Pattern No.  1.00
1193        KM          An rainfall areal reduction factor of 0.997
1194        KM
1195        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1196        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1197        KM   .45 .44 .44 .13 .09 .08 .04 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
1198        KM
1199        KM          L=   1.464 miles, S=  325 feet/mile, Kb= .13
1200        KM
1201        BA   0.261
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1202        LG    0.24    0.35    4.50    0.39   31.55
1203        UC   0.513   0.514
1204        UA       0       3       5       8      12      20      43      75      90      96
1205        UA     100
            *

1206        KK    C532
1207        KM      Hydrograph combine C532L + 205H at C532
1208        HC       2
            *

1209        KK  532533
1210        KM      Normal depth channel route from C532 to C533
1211        KM      Source:  Hydrology Field Reconnaissance
1212        RS       2    FLOW      -1
1213        RC   0.060   0.045   0.060  1555.0  0.0283
1214        RX  1000.0  1020.0  1030.0  1048.0  1065.0  1077.0  1092.0  1119.0
1215        RY    98.0    89.4    88.1    85.6    85.9    92.2    93.8    97.0
            *

1216        KK    205I
1217        KM   Sub-Basin   205I
1218        KM
1219        KM      The Clark Unit Hydrograph is used for this basin.
1220        KM          The Natural time-area relation is used for this basin.
1221        KM
1222        KM      Time of Concentration for this sub-basin is based on the following:
1223        KM          6-Hour Rainfall, Pattern No.  1.00
1224        KM          An rainfall areal reduction factor of 0.995
1225        KM
1226        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1227        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1228        KM   .44 .44 .43 .13 .09 .08 .03 .03 .03 .01 .01 .01 .00 .00 .00 .00 .00 .00
1229        KM
1230        KM          L=   1.487 miles, S=  326 feet/mile, Kb= .11
1231        KM
1232        BA   0.354
1233        LG    0.20    0.37    5.20    0.28   15.18
1234        UC   0.458   0.386
1235        UA       0       3       5       8      12      20      43      75      90      96
1236        UA     100
            *

1237        KK    C533
1238        KM      Hydrograph combine 532533 + 205I at C533
1239        HC       2
            *

1240        KK  533534
1241        KM      Normal depth channel route from C533 to C534
1242        KM      Source:  Hydrology Field Reconnaissance
1243        RS      10    FLOW      -1
1244        RC   0.060   0.046   0.060  7145.0  0.0241
1245        RX  1000.0  1010.0  1060.0  1073.0  1160.0  1181.0  1223.0  1237.0
1246        RY    97.8    93.7    94.7    90.8    89.9    92.4    94.0    96.8
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1247        KK    205J
1248        KM   Sub-Basin   205J
1249        KM
1250        KM      The Clark Unit Hydrograph is used for this basin.
1251        KM          The Natural time-area relation is used for this basin.
1252        KM
```

```
1253        KM      Time of Concentration for this sub-basin is based on the following:
1254        KM          6-Hour Rainfall, Pattern No.  1.00
1255        KM          An rainfall areal reduction factor of 0.995
1256        KM
1257        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1258        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1259        KM   .44 .43 .42 .12 .08 .06 .03 .02 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00
1260        KM
1261        KM          L=   1.633 miles, S=  243 feet/mile, Kb= .08
1262        KM
1263        BA   0.369
1264        LG    0.21    0.35    4.90    0.30    3.48
1265        UC   0.450   0.398
1266        UA       0       3       5       8      12      20      43      75      90      96
1267        UA     100
            *

1268        KK   C534R
1269        KM      Hydrograph combine 533534 + 205J at C534 right branch
1270        HC       2
            *

1271        KK    205K
1272        KM   Sub-Basin   205K
1273        KM
1274        KM      The Clark Unit Hydrograph is used for this basin.
1275        KM          The Natural time-area relation is used for this basin.
1276        KM
1277        KM      Time of Concentration for this sub-basin is based on the following:
1278        KM          6-Hour Rainfall, Pattern No.  1.00
1279        KM          An rainfall areal reduction factor of 0.997
1280        KM
1281        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1282        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1283        KM   .44 .44 .43 .13 .09 .08 .03 .03 .03 .00 .00 .00 .00 .00 .00 .00 .00 .00
1284        KM
1285        KM          L=   1.772 miles, S=  249 feet/mile, Kb= .10
1286        KM
1287        BA   0.245
1288        LG    0.16    0.38    5.60    0.22    1.54
1289        UC   0.546   0.665
1290        UA       0       3       5       8      12      20      43      75      90      96
1291        UA     100
            *
1                                          HEC-1 INPUT                                          PAGE 30

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1292        KK    C534
1293        KM      Hydrograph combine C534R + 205K at C534
1294        HC       2
            *

1295        KK  534535
1296        KM      Normal depth channel route from C534 to C535
1297        KM      Source:  Hydrology Field Reconnaissance
1298        RS       3    FLOW      -1
1299        RC   0.065   0.046   0.065  2037.0  0.0221
1300        RX  1000.0  1010.0  1016.0  1075.0  1150.0  1162.0  1174.0  1182.0
1301        RY    97.1    93.4    91.6    89.6    86.9    90.8    92.2    92.3
            *

1302        KK    205L
1303        KM   Sub-Basin   205L
1304        KM
1305        KM      The Clark Unit Hydrograph is used for this basin.
1306        KM          The Natural time-area relation is used for this basin.
1307        KM
1308        KM      Time of Concentration for this sub-basin is based on the following:
1309        KM          6-Hour Rainfall, Pattern No.  1.00
1310        KM          An rainfall areal reduction factor of 0.998
1311        KM
1312        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1313        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1314        KM   .44 .43 .42 .12 .08 .06 .02 .02 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00
1315        KM
1316        KM          L=   0.701 miles, S=  284 feet/mile, Kb= .09
1317        KM
1318        BA   0.118
1319        LG    0.19    0.36    5.00    0.29    0.00
1320        UC   0.254   0.206
1321        UA       0       3       5       8      12      20      43      75      90      96
1322        UA     100
            *

1323        KK    C535
1324        KM      Hydrograph combine 534535 + 205L at C535
1325        HC       2
            *

1326        KK  535536
1327        KM      Normal depth channel route from C535 to C536
1328        KM      Source:  HEC-2 Cross Section: HE 3.275
1329        RS       8    FLOW      -1
1330        RC   0.075   0.050   0.075  2975.0  0.0236
1331        RX  9852.8  9871.5  9957.7 10000.0 10015.6 10052.4 10142.4 10183.6
1332        RY  1911.6  1904.3  1906.9  1900.8  1900.8  1905.4  1905.2  1912.6
            *
1                                          HEC-1 INPUT                                          PAGE 31

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
1333        KK    205M
1334        KM   Sub-Basin   205M
1335        KM
1336        KM      The Clark Unit Hydrograph is used for this basin.
1337        KM          The Urban time-area relation is used for this basin.
1338        KM
1339        KM      Time of Concentration for this sub-basin is based on the following:
1340        KM          6-Hour Rainfall, Pattern No.  1.00
1341        KM          An rainfall areal reduction factor of 0.998
1342        KM
1343        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1344        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1345        KM   .46 .46 .46 .15 .12 .11 .05 .05 .04 .02 .02 .02 .01 .01 .01 .01 .01 .01
1346        KM
1347        KM          L=   0.839 miles, S=  230 feet/mile, Kb= .05
1348        KM
1349        BA   0.139
1350        LG    0.15    0.31    5.40    0.22   22.35
1351        UC   0.213   0.178
1352        UA       0       5      16      30      65      77      84      90      94      97
1353        UA     100
            *

1354        KK   C536R
1355        KM      Hydrograph combine 535536 + 205M at C536 right branch
1356        HC       2
            *

1357        KK    205N
1358        KM   Sub-Basin   205N
1359        KM
1360        KM      The Clark Unit Hydrograph is used for this basin.
1361        KM          The HEC-1 time-area relation is used for this basin.
1362        KM
1363        KM      Time of Concentration for this sub-basin is based on the following:
1364        KM          6-Hour Rainfall, Pattern No.  1.00
1365        KM          An rainfall areal reduction factor of 0.998
1366        KM
1367        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1368        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1369        KM   .45 .44 .44 .13 .09 .08 .03 .03 .03 .00 .00 .00 .00 .00 .00 .00 .00 .00
1370        KM
1371        KM          L=   1.183 miles, S=  245 feet/mile, Kb= .10
1372        KM
1373        BA   0.156
1374        LG    0.15    0.39    5.70    0.21    0.80
1375        UC   0.413   0.457
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1376        KK   C536I
1377        KM      Hydrograph combine C536R + 205N at C536I
1378        HC       2
            *
            * *
            * * C536I is the total flow in Hesperus Wash upstream of Dam 36
            * *
            *

1379        KK   C536O
1380        KM      Reservoir route at C536 (Dam 36).
1381        RS       1    ELEV  1852.1
1382        SV    0.00   14.41   35.94   67.64  108.61  158.07  218.14  276.00  280.00  289.00
1383        SV  298.02  308.00  317.00  327.00  337.00  346.95  358.00  374.00
1384        SE  1852.1  1866.0  1870.0  1874.0  1878.0  1882.0  1886.0  1889.0  1889.2  1889.6
1385        SE  1890.0  1890.4  1890.8  1891.2  1891.6  1892.0  1892.4  1893.0
1386        SQ       0     108     168     211     245     276     301     320     338     347
1387        SQ     356     459     679     995    1408    1905    2477    3119    3826    5009
1388        SE  1852.1  1858.0  1862.0  1866.0  1870.0  1874.0  1878.0  1882.0  1886.0  1889.0
1389        SE  1889.2  1889.6  1890.0  1890.4  1890.8  1891.2  1891.6  1892.0  1892.4  1893.0
1390        RL                   0.17
            *
            * *
            * * End Basin 205.  Start Basin 206
            * *
            *

1391        KK  536537
1392        KM      Normal depth channel route from C536 to C537
1393        KM      Source:  HEC-2 Cross Section: HE 2.729
1394        RS       3    FLOW      -1
1395        RC   0.075   0.050   0.075  1480.0  0.0209
1396        RX  9900.0  9912.0  9947.3  9979.3 10025.0 10044.5 10051.0 10060.0
1397        RY  1846.5  1845.4  1843.1  1834.3  1833.6  1840.5  1843.3  1843.5
            *

1398        KK    206A
1399        KM   Sub-Basin   206A
1400        KM
1401        KM      The Clark Unit Hydrograph is used for this basin.
1402        KM          The Urban time-area relation is used for this basin.
1403        KM
1404        KM      Time of Concentration for this sub-basin is based on the following:
1405        KM          6-Hour Rainfall, Pattern No.  1.00
1406        KM          An rainfall areal reduction factor of 0.998
1407        KM
1408        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1409        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1410        KM   .47 .47 .46 .16 .13 .12 .05 .05 .05 .04 .03 .03 .01 .01 .01 .01 .01 .01
1411        KM
1412        KM          L=   0.631 miles, S=  256 feet/mile, Kb= .04
```

```
1413          KM
1414          BA   0.128
1415          LG    0.12    0.28    5.30    0.23   33.34
1             HEC-1 INPUT                                                                                    PAGE 33

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1416          UC   0.158   0.107
1417          UA       0       5      16      30      65      77      84      90      94      97
1418          UA     100
              *

1419          KK    C537
1420          KM      Hydrograph combine 536537 + 206A at C537
1421          HC       2
              *

1422          KK  537538
1423          KM      Normal depth channel route from C537 to C538
1424          KM      Source:  HEC-2 Cross Section: HE 2.493
1425          RS       4    FLOW      -1
1426          RC   0.075   0.050   0.075  2155.0  0.0210
1427          RX  9946.0  9957.6  9984.8  9994.8 10000.0 10036.5 10070.1 10107.3
1428          RY  1817.0  1815.2  1807.4  1803.2  1803.2  1805.5  1814.3  1815.4
              *

1429          KK    206B
1430          KM   Sub-Basin   206B
1431          KM
1432          KM      The Clark Unit Hydrograph is used for this basin.
1433          KM          The Urban time-area relation is used for this basin.
1434          KM
1435          KM      Time of Concentration for this sub-basin is based on the following:
1436          KM          6-Hour Rainfall, Pattern No.  1.00
1437          KM          An rainfall areal reduction factor of 0.999
1438          KM
1439          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1440          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1441          KM   .48 .47 .47 .17 .13 .13 .06 .06 .05 .05 .04 .04 .01 .01 .01 .01 .01 .01
1442          KM
1443          KM          L=   0.570 miles, S=  139 feet/mile, Kb= .03
1444          KM
1445          BA   0.095
1446          LG    0.10    0.26    5.20    0.23   41.42
1447          UC   0.154   0.113
1448          UA       0       5      16      30      65      77      84      90      94      97
1449          UA     100
              *

1450          KK   C538I
1451          KM      Hydrograph combine 537538 + 206B at C538I
1452          HC       2
              *

1453          KK   C538O
1454          KM      Reservoir route at C538.
1455          RS       1    ELEV  1778.2
1456          SV    0.00    0.10    0.57    1.69    2.60    2.70    2.90    3.00    3.20    3.38
1457          SV    3.60    3.90    4.10    4.30    4.60    5.10    5.60    6.10    7.10    8.10
1458          SE  1778.2  1782.0  1784.0  1786.0  1787.1  1787.2  1787.4  1787.6  1787.8  1788.0
1459          SE  1788.2  1788.4  1788.6  1788.8  1789.0  1789.4  1789.8  1790.2  1790.8  1791.4
1460          SQ       0      82     133     185     207     208     212     218     226     235
1             HEC-1 INPUT                                                                                    PAGE 34

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1461          SQ     249     265     286     310     338     400     482     611     942    1439
              *

1462          KK  538540
1463          KM      Normal depth channel route from C538 to C540
1464          KM      Source:  HEC-2 Cross Section: HE 1.990
1465          RS       7    FLOW      -1
1466          RC   0.075   0.050   0.075  2176.0  0.0210
1467          RX  9907.7  9931.8  9978.4 10000.0 10041.1 10056.9 10143.7 10164.9
1468          RY  1767.5  1754.9  1755.2  1753.2  1753.1  1755.1  1757.3  1769.4
              *

1469          KK    206C
1470          KM   Sub-Basin   206C
1471          KM
1472          KM      The Clark Unit Hydrograph is used for this basin.
1473          KM          The Urban time-area relation is used for this basin.
1474          KM
1475          KM      Time of Concentration for this sub-basin is based on the following:
1476          KM          6-Hour Rainfall, Pattern No.  1.00
1477          KM          An rainfall areal reduction factor of 1.000
1478          KM
1479          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1480          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1481          KM   .46 .45 .45 .15 .11 .11 .04 .04 .04 .02 .02 .02 .01 .01 .01 .01 .01 .01
1482          KM
1483          KM          L=   0.427 miles, S=  138 feet/mile, Kb= .04
1484          KM
1485          BA   0.024
1486          LG    0.11    0.26    4.35    0.36   28.55
1487          UC   0.158   0.204
1488          UA       0       5      16      30      65      77      84      90      94      97
1489          UA     100
              *

1490          KK   C540R
1491          KM      Hydrograph combine 538540 + 206C at C540 right branch
1492          HC       2
```

```
                 *
1493             KK    206D
1494             KM   Sub-Basin   206D
1495             KM
1496             KM      The Clark Unit Hydrograph is used for this basin.
1497             KM          The Urban time-area relation is used for this basin.
1498             KM
1499             KM      Time of Concentration for this sub-basin is based on the following:
1500             KM          6-Hour Rainfall, Pattern No.  1.00
1501             KM          An rainfall areal reduction factor of 0.999
1502             KM
1503             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1504             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1505             KM   .48 .48 .48 .17 .14 .14 .06 .06 .06 .05 .05 .05 .01 .01 .01 .01 .01 .01
1506             KM
1507             KM          L=   0.531 miles, S=  236 feet/mile, Kb= .03
1                                              HEC-1 INPUT                                          PAGE 35

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1508             KM
1509             BA   0.062
1510             LG    0.08    0.25    5.70    0.18   43.01
1511             UC   0.125   0.109
1512             UA       0       5      16      30      65      77      84      90      94      97
1513             UA     100
                 *

1514             KK  539540
1515             KM      Normal depth channel route from C539 to C540
1516             KM      Source:  200 Scale Mapping
1517             RS       5    FLOW      -1
1518             RC   0.060   0.050   0.055  1872.0  0.0256
1519             RX  1000.0  1007.0  1016.0  1036.0  1046.0  1080.0  1150.0  1210.0
1520             RY  1750.0  1748.0  1746.0  1744.0  1744.0  1746.0  1748.0  1750.0
                 *

1521             KK    206E
1522             KM   Sub-Basin   206E
1523             KM
1524             KM      The Clark Unit Hydrograph is used for this basin.
1525             KM          The Urban time-area relation is used for this basin.
1526             KM
1527             KM      Time of Concentration for this sub-basin is based on the following:
1528             KM          6-Hour Rainfall, Pattern No.  1.00
1529             KM          An rainfall areal reduction factor of 1.000
1530             KM
1531             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1532             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1533             KM   .46 .45 .45 .15 .11 .11 .04 .04 .04 .02 .02 .02 .01 .01 .01 .01 .01 .01
1534             KM
1535             KM          L=   0.343 miles, S=  175 feet/mile, Kb= .03
1536             KM
1537             BA   0.023
1538             LG    0.09    0.25    4.30    0.36   25.75
1539             UC   0.113   0.120
1540             UA       0       5      16      30      65      77      84      90      94      97
1541             UA     100
                 *

1542             KK   C540L
1543             KM      Hydrograph combine 539540 + 206E at C540 left branch
1544             HC       2
                 *

1545             KK    C540
1546             KM      Hydrograph combine C540R + C540L at C540
1547             HC       2
                 *
                 * *
                 * * C540 is the end of Hesperus Wash and the start of Balboa Wash
                 * *
                 *
1                                              HEC-1 INPUT                                          PAGE 36

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1548             KK  540541
1549             KM      Normal depth channel route from C540 to C541
1550             KM      Source:  HEC-2 Cross Section: BA 1.645
1551             RS      12    FLOW      -1
1552             RC   0.065   0.035   0.065  4207.0  0.0204
1553             RX  9960.8  9968.0  9975.1  9975.7  9993.2 10018.2 10297.5 10343.9
1554             RY  1725.2  1721.8  1718.4  1716.2  1716.4  1718.4  1719.8  1730.5
                 *

1555             KK    206F
1556             KM   Sub-Basin   206F
1557             KM
1558             KM      The Clark Unit Hydrograph is used for this basin.
1559             KM          The Urban time-area relation is used for this basin.
1560             KM
1561             KM      Time of Concentration for this sub-basin is based on the following:
1562             KM          6-Hour Rainfall, Pattern No.  1.00
1563             KM          An rainfall areal reduction factor of 0.998
1564             KM
1565             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1566             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1567             KM   .46 .46 .46 .15 .12 .11 .05 .05 .04 .03 .02 .02 .01 .01 .01 .01 .01 .01
1568             KM
1569             KM          L=   0.975 miles, S=  217 feet/mile, Kb= .03
1570             KM
```

```
1571        BA   0.157
1572        LG    0.09    0.25    4.60    0.30   24.97
1573        UC   0.179   0.154
1574        UA       0       5      16      30      65      77      84      90      94      97
1575        UA     100
            *

1576        KK    C541
1577        KM      Hydrograph combine 540541 + 206F at C541
1578        HC       2
            *

1579        KK  541548
1580        KM      Normal depth channel route from C541 to C548
1581        KM      Source:  HEC-2 Cross Section: BA 0.905
1582        RS       3    FLOW      -1
1583        RC   0.060   0.045   0.060  1138.0  0.0316
1584        RX  9761.7  9936.7  9955.2  9986.9  9994.7 10039.2 10065.3 10066.0
1585        RY  1647.4  1644.1  1638.1  1637.3  1636.2  1637.5  1652.9  1653.0
            *

1586        KK    206G
1587        KM   Sub-Basin   206G
1588        KM
1589        KM      The Clark Unit Hydrograph is used for this basin.
1590        KM          The Urban time-area relation is used for this basin.
1591        KM
1592        KM      Time of Concentration for this sub-basin is based on the following:
1593        KM          6-Hour Rainfall, Pattern No.  1.00
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1594        KM          An rainfall areal reduction factor of 0.999
1595        KM
1596        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1597        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1598        KM   .47 .47 .46 .16 .13 .12 .05 .05 .05 .04 .03 .03 .01 .01 .01 .01 .01 .01
1599        KM
1600        KM          L=   0.950 miles, S=  132 feet/mile, Kb= .03
1601        KM
1602        BA   0.089
1603        LG    0.11    0.26    5.20    0.23   29.86
1604        UC   0.204   0.241
1605        UA       0       5      16      30      65      77      84      90      94      97
1606        UA     100
            *

1607        KK  BB523R
1608        KM      Retrieve previously diverted hydrograph at C523 in the right branch.
1609        DR   D523R
            *

1610        KK  523548
1611        KM      Normal depth channel route from C523 to C548
1612        KM      Source:  200 Scale Mapping
1613        RS      11    FLOW      -1
1614        RC   0.040   0.018   0.040  2680.0  0.0189
1615        RX  1000.0  1040.0  1090.0  1130.0  1170.0  1171.2  1181.2  1196.2
1616        RY  1646.0  1645.0  1643.8  1644.7  1644.0  1644.4  1646.0  1648.0
            *

1617        KK   C548L
1618        KM      Hydrograph combine 541548 + 206G + BB523R at C548 left branch
1619        HC       3    3.72
            *
            * *
            * * C548L is the total flow in Balboa Wash above confluence with Oxford Wash
            * *
            *

1620        KK    206H
1621        KM   Sub-Basin   206H
1622        KM
1623        KM      The Clark Unit Hydrograph is used for this basin.
1624        KM          The Urban time-area relation is used for this basin.
1625        KM
1626        KM      Time of Concentration for this sub-basin is based on the following:
1627        KM          6-Hour Rainfall, Pattern No.  1.00
1628        KM          An rainfall areal reduction factor of 0.999
1629        KM
1630        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1631        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1632        KM   .48 .47 .47 .17 .14 .13 .06 .06 .06 .05 .05 .04 .01 .01 .01 .01 .01 .01
1633        KM
1634        KM          L=   0.515 miles, S=  183 feet/mile, Kb= .03
1635        KM
1636        BA   0.059
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1637        LG    0.08    0.25    5.70    0.18   36.29
1638        UC   0.138   0.121
1639        UA       0       5      16      30      65      77      84      90      94      97
1640        UA     100
            *

1641        KK  542543
1642        KM      Normal depth channel route from C542 to C543
1643        KM      Source:  HEC-2 Cross Section: OX 0.931
1644        RS       1    FLOW      -1
1645        RC   0.075   0.040   0.050   686.0  0.0066
1646        RX  9846.9  9881.6  9967.5  9983.2 10010.0 10025.0 10033.8 10039.6
```

```
1647    RY  1732.3  1723.5  1724.1  1717.8  1717.0  1724.0  1728.2  1730.7
        *

1648    KK    206I
1649    KM   Sub-Basin   206I
1650    KM
1651    KM      The Clark Unit Hydrograph is used for this basin.
1652    KM          The Urban time-area relation is used for this basin.
1653    KM
1654    KM      Time of Concentration for this sub-basin is based on the following:
1655    KM          6-Hour Rainfall, Pattern No.  1.00
1656    KM          An rainfall areal reduction factor of 1.000
1657    KM
1658    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1659    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1660    KM   .48 .47 .47 .17 .14 .13 .06 .06 .06 .05 .05 .04 .01 .01 .01 .01 .01 .01
1661    KM
1662    KM          L=   0.232 miles, S=  286 feet/mile, Kb= .03
1663    KM
1664    BA   0.021
1665    LG    0.08    0.25    5.70    0.18   34.78
1666    UC   0.083   0.066
1667    UA       0       5      16      30      65      77      84      90      94      97
1668    UA     100
        *

1669    KK    C543
1670    KM      Hydrograph combine 542543 + 206I at C543
1671    HC       2
        *

1672    KK   D543L
1673    KM      Hydrograph diversion at C543.  Main flow continues in the left branch.
1674    KM      Diverted flow is in the right branch.
1675    DT   D543R
1676    DI       0      38      45      50      65      85      97     122     141     162
1677    DI     194     350     395     432     475     522     570     612
1678    DQ       0      38      45      50      65      85      97     122     141     162
1679    DQ     194     350     395     425     460     500     540     575
        *
```



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LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1680    KK  543544
1681    KM      Normal depth channel route from C543 to C544
1682    KM      Source:  200 Scale Mapping & Hydrology Field Reconnaissance
1683    RS       1    FLOW     -1
1684    RC   0.040   0.018   0.040   597.0  0.0277
1685    RX  1000.0  1020.0  1045.0  1075.0  1105.0  1106.2  1146.2  1266.2
1686    RY  1720.0  1718.0  1712.0  1712.3  1712.0  1712.4  1714.0  1720.0
        *

1687    KK    206K
1688    KM   Sub-Basin   206K
1689    KM
1690    KM      The Clark Unit Hydrograph is used for this basin.
1691    KM          The Urban time-area relation is used for this basin.
1692    KM
1693    KM      Time of Concentration for this sub-basin is based on the following:
1694    KM          6-Hour Rainfall, Pattern No.  1.00
1695    KM          An rainfall areal reduction factor of 0.999
1696    KM
1697    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1698    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1699    KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .04 .04 .03 .01 .01 .01 .01 .01 .01
1700    KM
1701    KM          L=   0.615 miles, S=  255 feet/mile, Kb= .03
1702    KM
1703    BA   0.056
1704    LG    0.09    0.25    5.70    0.18   25.80
1705    UC   0.133   0.139
1706    UA       0       5      16      30      65      77      84      90      94      97
1707    UA     100
        *

1708    KK    C544
1709    KM      Hydrograph combine 543544 + 206K at C544
1710    HC       2
        *

1711    KK  544545
1712    KM      Normal depth channel route from C544 to C545
1713    KM      Source:  200 Scale Mapping & Hydrology Field Reconnaissance
1714    RS       1    FLOW     -1
1715    RC   0.040   0.018   0.040   985.0  0.0234
1716    RX  1000.0  1008.0  1018.0  1048.0  1078.0  1079.2  1089.2  1109.2
1717    RY  1690.0  1688.0  1686.0  1686.3  1686.0  1686.4  1688.0  1689.0
        *

1718    KK   D545L
1719    KM      Hydrograph diversion at C545.  Main flow continues in the left branch.
1720    KM      Diverted flow is in the right branch.
1721    DT   D545R
1722    DI       0      50     100     200     400     800    1600    3200    5000
1723    DQ       0      25      50     100     200     400     800    1600    2500
        *
```



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LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1724    KK  545546
```

```
KM      Normal depth channel route from C545 to C546
KM      Source:  200 Scale Mapping & Hydrology Field Reconnaissance
RS       1    FLOW      -1
RC   0.040   0.018   0.040   428.0  0.0164
RX  1000.0  1020.0  1050.0  1080.0  1110.0  1111.2  1121.2  1151.2
RY  1680.0  1678.0  1676.0  1676.3  1676.0  1676.4  1678.0  1678.5
*

KK    206L
KM   Sub-Basin   206L
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          6-Hour Rainfall, Pattern No.  1.00
KM          An rainfall areal reduction factor of 0.999
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .04 .04 .03 .01 .01 .01 .01 .01 .01
KM
KM          L=   0.546 miles, S=  231 feet/mile, Kb= .03
KM
BA   0.060
LG    0.09    0.25    5.80    0.18   25.01
UC   0.129   0.117
UA       0       5      16      30      65      77      84      90      94      97
UA     100
*

KK    C546
KM      Hydrograph combine 545546 + 206L at C546
HC       2
*

KK  546547
KM      Normal depth channel route from C546 to C547
KM      Source:  200 Scale Mapping
RS       1    FLOW      -1
RC   0.040   0.018   0.040   749.0  0.0327
RX  1000.0  1005.0  1011.0  1013.0  1029.0  1047.0  1052.0  1057.0
RY  1666.0  1664.0  1662.0  1661.9  1662.4  1662.0  1664.0  1666.0
*

KK  BB543R
KM      Retrieve previously diverted hydrograph at C543 in the right branch.
DR   D543R
*
```



```
LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK  543547
KM      Normal depth channel route from C543 to C547
KM      Source:  HEC-2 Cross Section: OX 0.638
RS       5    FLOW      -1
RC   0.075   0.040   0.050  2395.0  0.0278
RX  9720.9  9769.0  9970.7  9985.5 10020.0 10038.1 10097.0 10102.0
RY  1690.4  1681.2  1683.1  1676.2  1677.0  1687.1  1687.8  1690.0
*

KK  BB545R
KM      Retrieve previously diverted hydrograph at C545 in the right branch.
DR   D545R
*

KK  545547
KM      Normal depth channel route from C545 to C547
KM      Source:  HEC-2 Cross Section: OX 0.542
RS       3    FLOW      -1
RC   0.075   0.040   0.050  1216.0  0.0259
RX  9668.2  9778.4  9957.9  9986.0 10012.7 10043.6 10067.6 10163.4
RY  1674.1  1674.1  1673.3  1662.1  1662.2  1680.4  1680.9  1681.1
*

KK    206J
KM   Sub-Basin   206J
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          6-Hour Rainfall, Pattern No.  1.00
KM          An rainfall areal reduction factor of 0.999
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .48 .48 .48 .17 .14 .14 .06 .06 .06 .05 .05 .05 .01 .01 .01 .01 .01 .01
KM
KM          L=   0.502 miles, S=  214 feet/mile, Kb= .03
KM
BA   0.060
LG    0.08    0.25    5.70    0.18   44.51
UC   0.125   0.105
UA       0       5      16      30      65      77      84      90      94      97
UA     100
*

KK    C547
KM      Hydrograph combine 546547 + 543547 + 545547 + 206J at C547
HC       4    0.26
*
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 1806         KK  547548
 1807         KM      Normal depth channel route from C547 to C548
 1808         KM      Source:  HEC-2 Cross Section: OX 0.235
 1809         RS       3    FLOW      -1
 1810         RC   0.075   0.040   0.050  2165.0  0.0182
 1811         RX  9910.0  9911.4  9968.5  9987.6 10017.4 10032.3 10077.4 10080.0
 1812         RY  1639.0  1638.9  1637.9  1635.7  1635.8  1641.7  1642.9  1643.0
              *

 1813         KK    206M
 1814         KM   Sub-Basin   206M
 1815         KM
 1816         KM      The Clark Unit Hydrograph is used for this basin.
 1817         KM          The Urban time-area relation is used for this basin.
 1818         KM
 1819         KM      Time of Concentration for this sub-basin is based on the following:
 1820         KM          6-Hour Rainfall, Pattern No.  1.00
 1821         KM          An rainfall areal reduction factor of 0.999
 1822         KM
 1823         KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 1824         KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 1825         KM   .48 .47 .47 .17 .14 .13 .06 .06 .06 .05 .05 .04 .01 .01 .01 .01 .01 .01
 1826         KM
 1827         KM          L=   0.465 miles, S=  166 feet/mile, Kb= .03
 1828         KM
 1829         BA   0.060
 1830         LG    0.08    0.25    5.20    0.23   46.18
 1831         UC   0.133   0.107
 1832         UA       0       5      16      30      65      77      84      90      94      97
 1833         UA     100
              *

 1834         KK   C548R
 1835         KM      Hydrograph combine 547548 + 206M at C548 right branch
 1836         HC       2
              *
              * *
              * * C548R is the total flow in Oxford Wash above confluence with Balboa Wash
              * *
              *

 1837         KK    C548
 1838         KM      Hydrograph combine C548L + C548R at C548
 1839         HC       2
              *
              * *
              * * C548 is the total flow in Balboa Wash below the confluence of Balboa Wash
              * * and Oxford Wash
              * *
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 1840         KK  548549
 1841         KM      Normal depth channel route from C548 to C549
 1842         KM      Source:  HEC-2 Cross Section: BA0.246
 1843         RS       9    FLOW      -1
 1844         RC   0.070   0.080   0.070  3258.0  0.0172
 1845         RX  9889.1  9912.5  9940.2  9960.0 10026.1 10046.8 10067.8 10079.3
 1846         RY  1586.2  1585.7  1577.5  1573.6  1573.2  1579.5  1585.7  1586.2
              *

 1847         KK    206N
 1848         KM   Sub-Basin   206N
 1849         KM
 1850         KM      The Clark Unit Hydrograph is used for this basin.
 1851         KM          The Urban time-area relation is used for this basin.
 1852         KM
 1853         KM      Time of Concentration for this sub-basin is based on the following:
 1854         KM          6-Hour Rainfall, Pattern No.  1.00
 1855         KM          An rainfall areal reduction factor of 0.998
 1856         KM
 1857         KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 1858         KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 1859         KM   .48 .47 .47 .17 .14 .13 .06 .06 .06 .05 .05 .05 .01 .01 .01 .01 .01 .01
 1860         KM
 1861         KM          L=   0.767 miles, S=  120 feet/mile, Kb= .03
 1862         KM
 1863         BA   0.152
 1864         LG    0.11    0.27    4.65    0.29   52.66
 1865         UC   0.188   0.137
 1866         UA       0       5      16      30      65      77      84      90      94      97
 1867         UA     100
              *

 1868         KK   C549L
 1869         KM      Hydrograph combine 548549 + 206N at C549 left branch
 1870         HC       2
              *
              * *
              * * C549L is the total flow in Balboa Wash above confluence with Ashbrook Wash
              * *
              * * End Basin 206.  Start Basin 207
              * *
              *

 1871         KK    207A
```

```
1872        KM   Sub-Basin   207A
1873        KM
1874        KM      The Clark Unit Hydrograph is used for this basin.
1875        KM          The Natural time-area relation is used for this basin.
1876        KM
1877        KM      Time of Concentration for this sub-basin is based on the following:
1878        KM          6-Hour Rainfall, Pattern No.  1.00
1879        KM          An rainfall areal reduction factor of 0.997
1880        KM
1881        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1882        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1883        KM   .45 .44 .44 .13 .09 .08 .04 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
1884        KM
1885        KM          L=   1.356 miles, S=  351 feet/mile, Kb= .13
1886        KM
1887        BA   0.256
1888        LG    0.24    0.35    4.55    0.37   29.81
1889        UC   0.467   0.440
1890        UA       0       3       5       8      12      20      43      75      90      96
1891        UA     100
            *

1892        KK    207B
1893        KM   Sub-Basin   207B
1894        KM
1895        KM      The Clark Unit Hydrograph is used for this basin.
1896        KM          The Natural time-area relation is used for this basin.
1897        KM
1898        KM      Time of Concentration for this sub-basin is based on the following:
1899        KM          6-Hour Rainfall, Pattern No.  1.00
1900        KM          An rainfall areal reduction factor of 0.997
1901        KM
1902        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1903        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1904        KM   .45 .44 .44 .13 .09 .08 .04 .04 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
1905        KM
1906        KM          L=   1.312 miles, S=  359 feet/mile, Kb= .13
1907        KM
1908        BA   0.208
1909        LG    0.24    0.35    4.45    0.38   32.42
1910        UC   0.450   0.463
1911        UA       0       3       5       8      12      20      43      75      90      96
1912        UA     100
            *

1913        KK    C550
1914        KM      Hydrograph combine 207A + 207B at C550
1915        HC       2
            *

1916        KK  550552
1917        KM      Normal depth channel route from C550 to C552
1918        KM      Source:  Hydrology Field Reconnaissance
1919        RS       4    FLOW      -1
1920        RC   0.050   0.045   0.050  4410.0  0.0528
1921        RX  1000.0  1005.0  1018.0  1028.0  1038.0  1043.0  1048.0  1055.0
1922        RY  2188.0  2184.0  2180.0  2176.0  2176.0  2180.0  2184.0  2188.0
            *

1923        KK    207C
1924        KM   Sub-Basin   207C
1925        KM
1926        KM      The Clark Unit Hydrograph is used for this basin.
1927        KM          The Natural time-area relation is used for this basin.
1928        KM
```



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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1929        KM      Time of Concentration for this sub-basin is based on the following:
1930        KM          6-Hour Rainfall, Pattern No.  1.00
1931        KM          An rainfall areal reduction factor of 0.998
1932        KM
1933        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1934        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1935        KM   .45 .44 .44 .13 .09 .08 .03 .03 .03 .01 .01 .01 .00 .00 .00 .00 .00 .00
1936        KM
1937        KM          L=   0.974 miles, S=  297 feet/mile, Kb= .11
1938        KM
1939        BA   0.173
1940        LG    0.19    0.37    5.30    0.26   13.69
1941        UC   0.354   0.311
1942        UA       0       3       5       8      12      20      43      75      90      96
1943        UA     100
            *

1944        KK   C552L
1945        KM      Hydrograph combine 550552 + 207C at C552 left branch
1946        HC       2
            *

1947        KK    207D
1948        KM   Sub-Basin   207D
1949        KM
1950        KM      The Clark Unit Hydrograph is used for this basin.
1951        KM          The HEC-1 time-area relation is used for this basin.
1952        KM
1953        KM      Time of Concentration for this sub-basin is based on the following:
1954        KM          6-Hour Rainfall, Pattern No.  1.00
1955        KM          An rainfall areal reduction factor of 0.997
```

```
1956    KM
1957    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1958    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1959    KM   .46 .45 .45 .15 .11 .10 .05 .05 .04 .04 .04 .04 .01 .01 .01 .01 .01 .01
1960    KM
1961    KM          L=   1.036 miles, S=  373 feet/mile, Kb= .09
1962    KM
1963    BA   0.197
1964    LG    0.18     0.31     4.35     0.38    41.30
1965    UC   0.288    0.241
        *

1966    KK  551552
1967    KM      Normal depth channel route from C551 to C552
1968    KM      Source:  100 Scale 4' CI Mapping
1969    RS       5    FLOW      -1
1970    RC   0.050    0.045    0.050  4410.0  0.0528
1971    RX  1000.0  1005.0  1018.0  1028.0  1038.0  1043.0  1048.0  1055.0
1972    RY  2188.0  2184.0  2180.0  2176.0  2176.0  2180.0  2184.0  2188.0
        *
```



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LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1973    KK    207E
1974    KM   Sub-Basin   207E
1975    KM
1976    KM      The Clark Unit Hydrograph is used for this basin.
1977    KM          The Urban time-area relation is used for this basin.
1978    KM
1979    KM      Time of Concentration for this sub-basin is based on the following:
1980    KM          6-Hour Rainfall, Pattern No.  1.00
1981    KM          An rainfall areal reduction factor of 0.998
1982    KM
1983    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1984    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1985    KM   .46 .46 .46 .15 .12 .11 .05 .05 .04 .04 .04 .04 .01 .01 .01 .01 .01 .01
1986    KM
1987    KM          L=   1.366 miles, S=  315 feet/mile, Kb= .07
1988    KM
1989    BA   0.157
1990    LG    0.15     0.29     4.35     0.38    44.41
1991    UC   0.308    0.370
1992    UA       0        5       16       30       65       77       84       90       94       97
1993    UA     100
        *

1994    KK   C552R
1995    KM      Hydrograph combine 551552 + 207E at C552 right branch
1996    HC       2
        *

1997    KK    C552
1998    KM      Hydrograph combine C552L + C552R at C552
1999    HC       2
        *

2000    KK  552553
2001    KM      Normal depth channel route from C552 to C553
2002    KM      Source:  Hydrology Field Reconnaissance
2003    RS       2    FLOW      -1
2004    RC   0.060    0.050    0.060  1336.0  0.0337
2005    RX   993.0  1010.0  1055.0  1061.0  1082.0  1096.0  1105.0  1127.0
2006    RY    98.0     94.3     94.4     94.0     94.3     94.5     96.2     98.0
        *

2007    KK    207F
2008    KM   Sub-Basin   207F
2009    KM
2010    KM      The Clark Unit Hydrograph is used for this basin.
2011    KM          The HEC-1 time-area relation is used for this basin.
2012    KM
2013    KM      Time of Concentration for this sub-basin is based on the following:
2014    KM          6-Hour Rainfall, Pattern No.  1.00
2015    KM          An rainfall areal reduction factor of 0.998
2016    KM
2017    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2018    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
```



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LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2019    KM   .46 .45 .45 .14 .11 .09 .04 .04 .04 .03 .03 .03 .01 .01 .01 .01 .01 .01
2020    KM
2021    KM          L=   0.794 miles, S=  296 feet/mile, Kb= .11
2022    KM
2023    BA   0.126
2024    LG    0.20     0.32     4.40     0.39    38.35
2025    UC   0.304    0.267
        *

2026    KK    C553
2027    KM      Hydrograph combine 552553 + 207F at C553
2028    HC       2
        *

2029    KK  553556
2030    KM      Normal depth channel route from C553 to C556
2031    KM      Source:  HEC-2 Cross Section: AS 6.118
2032    RS       2    FLOW      -1
2033    RC   0.055    0.045    0.060  2393.0  0.0255
2034    RX  9904.4  9945.9  9974.0  9987.4  9994.9 10008.6 10027.0 10045.3
2035    RY  2004.2  2003.9  1991.7  1990.4  1987.9  1988.2  1997.5  2006.7
```

```
*

KK    207G
KM   Sub-Basin   207G
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The HEC-1 time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          6-Hour Rainfall, Pattern No.  1.00
KM          An rainfall areal reduction factor of 0.997
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .45 .44 .44 .13 .10 .08 .04 .03 .03 .01 .01 .01 .00 .00 .00 .00 .00 .00
KM
KM          L=   1.467 miles, S=  198 feet/mile, Kb= .10
KM
BA   0.236
LG    0.17    0.37    5.60    0.23    9.10
UC   0.521   0.555
*

KK   C556L
KM      Hydrograph combine 553556 + 207G at C556 left branch
HC       2
*

KK    207H
KM   Sub-Basin   207H
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
```

1

HEC-1 INPUT

PAGE 48

```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KM      Time of Concentration for this sub-basin is based on the following:
KM          6-Hour Rainfall, Pattern No.  1.00
KM          An rainfall areal reduction factor of 0.998
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .47 .46 .46 .16 .13 .12 .05 .05 .05 .04 .04 .04 .01 .01 .01 .01 .01 .01
KM
KM          L=   1.044 miles, S=  371 feet/mile, Kb= .05
KM
BA   0.124
LG    0.13    0.27    4.35    0.36   46.78
UC   0.204   0.215
UA       0       5      16      30      65      77      84      90      94      97
UA     100
*

KK  554555
KM      Normal depth channel route from C554 to C555
KM      Source:  100 Scale 4' CI Mapping
RS       3    FLOW      -1
RC   0.050   0.045   0.050  2497.0  0.0649
RX  1000.0  1025.0  1080.0  1100.0  1120.0  1130.0  1140.0  1155.0
RY  2192.0  2188.0  2186.0  2184.0  2184.0  2188.0  2192.0  2194.0
*

KK    207I
KM   Sub-Basin   207I
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          6-Hour Rainfall, Pattern No.  1.00
KM          An rainfall areal reduction factor of 0.999
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .04 .04 .04 .01 .01 .01 .01 .01 .01
KM
KM          L=   0.810 miles, S=  320 feet/mile, Kb= .03
KM
BA   0.073
LG    0.09    0.25    4.40    0.35   50.00
UC   0.142   0.159
UA       0       5      16      30      65      77      84      90      94      97
UA     100
*

KK    C555
KM      Hydrograph combine 554555 + 207I at C555
HC       2
*
```

1

HEC-1 INPUT

PAGE 49

```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK  555556
KM      Normal depth channel route from C555 to C556
KM      Source:  200 Scale Mapping
RS       5    FLOW      -1
RC   0.050   0.050   0.055  3353.0  0.0480
RX  1000.0  1050.0  1090.0  1095.0  1130.0  1150.0  1160.0  1185.0
RY  2020.0  2016.5  2006.0  2004.0  2005.0  2006.0  2010.0  2020.0
*
```

```
2117        KK    207J
2118        KM   Sub-Basin   207J
2119        KM
2120        KM      The Clark Unit Hydrograph is used for this basin.
2121        KM          The Urban time-area relation is used for this basin.
2122        KM
2123        KM      Time of Concentration for this sub-basin is based on the following:
2124        KM          6-Hour Rainfall, Pattern No.  1.00
2125        KM          An rainfall areal reduction factor of 0.999
2126        KM
2127        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2128        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2129        KM   .47 .47 .47 .16 .13 .12 .06 .06 .05 .04 .04 .04 .01 .01 .01 .01 .01 .01
2130        KM
2131        KM          L=   0.714 miles, S=  248 feet/mile, Kb= .04
2132        KM
2133        BA   0.093
2134        LG    0.10    0.26    4.40    0.34   48.61
2135        UC   0.171   0.154
2136        UA      0       5      16      30      65      77      84      90      94      97
2137        UA    100
            *

2138        KK   C556R
2139        KM      Hydrograph combine 555556 + 207J at C556 right branch
2140        HC       2
            *

2141        KK    C556
2142        KM      Hydrograph combine C556L + C556R at C556
2143        HC       2
            *

2144        KK  556557
2145        KM      Normal depth channel route from C556 to C557
2146        KM      Source:  HEC-2 Cross Section: AS 5.765
2147        RS       3    FLOW     -1
2148        RC   0.055   0.045   0.060  2298.0  0.0260
2149        RX  9957.1  9995.6 10000.0 10010.0 10040.4 10084.4 10104.2 10180.7
2150        RY  1949.3  1935.9  1935.8  1936.7  1936.7  1938.2  1947.1  1949.9
            *
```

1

HEC-1 INPUT

PAGE 50

```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2151        KK    207K
2152        KM   Sub-Basin   207K
2153        KM
2154        KM      The Clark Unit Hydrograph is used for this basin.
2155        KM          The Urban time-area relation is used for this basin.
2156        KM
2157        KM      Time of Concentration for this sub-basin is based on the following:
2158        KM          6-Hour Rainfall, Pattern No.  1.00
2159        KM          An rainfall areal reduction factor of 0.998
2160        KM
2161        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2162        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2163        KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .04 .04 .03 .01 .01 .01 .01 .01 .01
2164        KM
2165        KM          L=   0.859 miles, S=  294 feet/mile, Kb= .05
2166        KM
2167        BA   0.130
2168        LG    0.11    0.27    5.40    0.21   37.19
2169        UC   0.196   0.172
2170        UA      0       5      16      30      65      77      84      90      94      97
2171        UA    100
            *

2172        KK   C557R
2173        KM      Hydrograph combine 556557 + 207K at C557
2174        HC       2
            *

2175        KK    207L
2176        KM   Sub-Basin   207L
2177        KM
2178        KM      The Clark Unit Hydrograph is used for this basin.
2179        KM          The Urban time-area relation is used for this basin.
2180        KM
2181        KM      Time of Concentration for this sub-basin is based on the following:
2182        KM          6-Hour Rainfall, Pattern No.  1.00
2183        KM          An rainfall areal reduction factor of 0.999
2184        KM
2185        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2186        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2187        KM   .48 .47 .47 .17 .14 .13 .06 .06 .06 .05 .05 .04 .01 .01 .01 .01 .01 .01
2188        KM
2189        KM          L=   0.667 miles, S=  236 feet/mile, Kb= .04
2190        KM
2191        BA   0.080
2192        LG    0.09    0.26    6.00    0.16   33.25
2193        UC   0.167   0.154
2194        UA      0       5      16      30      65      77      84      90      94      97
2195        UA    100
            *
```

1

HEC-1 INPUT

PAGE 51

```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2196        KK    C557
2197        KM      Hydrograph combine C557R + 207L at C557
```

```
2198        HC       2
            *
            * *
            * * C557 is the total flow in Ashbrook Wash downstream of Golden Eagle Blvd.
            * * at fire station
            * *
            *

2199        KK  557558
2200        KM      Normal depth channel route from C557 to C558
2201        KM      Source:  HEC-2 Cross Section: AS 5.254
2202        RS       3    FLOW      -1
2203        RC   0.055   0.045   0.060  2652.0  0.0242
2204        RX  9662.0  9965.0  9967.0 10000.0 10072.0 10095.0 10122.0 10175.0
2205        RY  1890.0  1885.9  1884.0  1878.0  1880.0  1886.0  1888.0  1890.0
            *

2206        KK    207M
2207        KM   Sub-Basin   207M
2208        KM
2209        KM      The Clark Unit Hydrograph is used for this basin.
2210        KM          The Urban time-area relation is used for this basin.
2211        KM
2212        KM      Time of Concentration for this sub-basin is based on the following:
2213        KM          6-Hour Rainfall, Pattern No.  1.00
2214        KM          An rainfall areal reduction factor of 0.998
2215        KM
2216        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2217        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2218        KM   .47 .47 .46 .16 .13 .12 .06 .05 .05 .04 .03 .03 .01 .01 .01 .01 .01 .01
2219        KM
2220        KM          L=   0.636 miles, S=  295 feet/mile, Kb= .04
2221        KM
2222        BA   0.116
2223        LG    0.11    0.28    6.00    0.17   23.09
2224        UC   0.150   0.107
2225        UA       0       5      16      30      65      77      84      90      94      97
2226        UA     100
            *

2227        KK    C558
2228        KM      Hydrograph combine 557558 + 207M at C558
2229        HC       2
            *

2230        KK  558560
2231        KM      Normal depth channel route from C558 to C560
2232        KM      Source:  HEC-2 Cross Section: AS 4.839
2233        RS       3    FLOW      -1
2234        RC   0.055   0.045   0.060  1986.0  0.0185
2235        RX  9777.0  9897.0  9933.1  9970.6 10042.2 10063.4 10121.6 10204.9
2236        RY  1840.3  1837.3  1836.3  1824.3  1822.7  1828.5  1827.7  1842.7
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2237        KK    2070
2238        KM   Sub-Basin   2070
2239        KM
2240        KM      The Clark Unit Hydrograph is used for this basin.
2241        KM          The Urban time-area relation is used for this basin.
2242        KM
2243        KM      Time of Concentration for this sub-basin is based on the following:
2244        KM          6-Hour Rainfall, Pattern No.  1.00
2245        KM          An rainfall areal reduction factor of 0.998
2246        KM
2247        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2248        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2249        KM   .47 .46 .46 .15 .12 .11 .05 .05 .05 .03 .02 .02 .01 .01 .01 .01 .01 .01
2250        KM
2251        KM          L=   0.643 miles, S=  275 feet/mile, Kb= .04
2252        KM
2253        BA   0.131
2254        LG    0.13    0.29    5.60    0.21   23.47
2255        UC   0.158   0.107
2256        UA       0       5      16      30      65      77      84      90      94      97
2257        UA     100
            *

2258        KK   C560R
2259        KM      Hydrograph combine 558560 + 2070 at C560 right branch
2260        HC       2
            *

2261        KK    207N
2262        KM   Sub-Basin   207N
2263        KM
2264        KM      The Clark Unit Hydrograph is used for this basin.
2265        KM          The Urban time-area relation is used for this basin.
2266        KM
2267        KM      Time of Concentration for this sub-basin is based on the following:
2268        KM          6-Hour Rainfall, Pattern No.  1.00
2269        KM          An rainfall areal reduction factor of 0.999
2270        KM
2271        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2272        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2273        KM   .47 .47 .47 .16 .13 .12 .06 .05 .05 .04 .04 .03 .01 .01 .01 .01 .01 .01
2274        KM
2275        KM          L=   0.431 miles, S=  190 feet/mile, Kb= .03
2276        KM
2277        BA   0.049
2278        LG    0.09    0.25    4.80    0.27   35.87
```

```
2279          UC   0.125   0.104
2280          UA       0       5      16      30      65      77      84      90      94      97
2281          UA     100
              *
1                                          HEC-1 INPUT                                                PAGE 53

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2282          KK  559560
2283          KM      Normal depth channel route from C559 to C560
2284          KM      Source:  200 Scale Mapping
2285          RS       5    FLOW      -1
2286          RC   0.050   0.045   0.050  2170.0  0.0230
2287          RX  1000.0  1050.0  1080.0  1100.0  1110.0  1140.0  1170.0  1205.0
2288          RY  1854.0  1852.0  1850.0  1848.0  1848.0  1850.0  1852.0  1854.0
              *

2289          KK   C560I
2290          KM      Hydrograph combine C560R + 559560 at C560I
2291          HC       2
              *
              * *
              * * C560I is the total flow in Ashbrook Wash upstream of Dam 6
              * *
              *

2292          KK   C560O
2293          KM      Reservoir route at C560 (Dam 6).
2294          RS       1    ELEV  1808.8
2295          SV    0.00    1.71   14.81   34.65   60.43   93.47  135.64  183.00  186.00  191.44
2296          SV  197.00  205.00  212.00  219.00  226.40  234.00  242.00  246.00  250.00  254.00
2297          SE  1808.8  1812.0  1816.0  1820.0  1824.0  1828.0  1832.0  1835.4  1835.6  1836.0
2298          SE  1836.4  1836.8  1837.2  1837.6  1838.0  1838.4  1838.8  1839.0  1839.2  1839.4
2299          SQ       0      57     136     184     224     257     285     303     319     440
2300          SQ     691    1055    1500    2018    2600    3243    3944    4315    4699    5097
2301          RL                    0.40
              *
              * *
              * * End Basin 207.  Start Basin 210 temporarily
              * *
              *

2302          KK  560585
2303          KM      Normal depth channel route from C560 to C585
2304          KM      Source:  HEC-2 Cross Section: AS4.311
2305          RS       5    FLOW      -1
2306          RC   0.050   0.025   0.050  3127.0  0.0272
2307          RX  9850.4  9950.4  9974.4 10000.0 10035.5 10059.8 10080.4 10104.4
2308          RY  1772.0  1771.7  1765.3  1765.3  1765.9  1768.5  1773.3  1773.7
              *

2309          KK    210A
2310          KM   Sub-Basin   210A
2311          KM
2312          KM      The Clark Unit Hydrograph is used for this basin.
2313          KM          The Urban time-area relation is used for this basin.
2314          KM
2315          KM      Time of Concentration for this sub-basin is based on the following:
2316          KM          6-Hour Rainfall, Pattern No.  1.00
2317          KM          An rainfall areal reduction factor of 0.998
2318          KM
2319          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1                                          HEC-1 INPUT                                                PAGE 54

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2320          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2321          KM   .46 .46 .46 .15 .12 .11 .05 .05 .04 .03 .03 .02 .00 .00 .00 .00 .00 .00
2322          KM
2323          KM          L=   0.631 miles, S=  233 feet/mile, Kb= .03
2324          KM
2325          BA   0.123
2326          LG    0.09    0.25    5.00    0.24   16.65
2327          UC   0.142   0.097
2328          UA       0       5      16      30      65      77      84      90      94      97
2329          UA     100
              *

2330          KK    C585
2331          KM      Hydrograph combine 560585 + 210A at C585
2332          HC       2
              *
              * *
              * * C585 is the total flow in Ashbrook Wash at Golden Eagle Blvd. just
              * * upstream of DAM 4
              * *
              * * Temporarily stop Basin 210.  Start Basin 208
              * *
              * * Start Bristol Wash
              * *
              *

2333          KK    208A
2334          KM   Sub-Basin   208A
2335          KM
2336          KM      The Clark Unit Hydrograph is used for this basin.
2337          KM          The Urban time-area relation is used for this basin.
2338          KM
2339          KM      Time of Concentration for this sub-basin is based on the following:
2340          KM          6-Hour Rainfall, Pattern No.  1.00
2341          KM          An rainfall areal reduction factor of 0.998
2342          KM
2343          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
```

```
2344    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2345    KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .04 .04 .04 .01 .01 .01 .01 .01 .01
2346    KM
2347    KM          L=   0.626 miles, S=  366 feet/mile, Kb= .03
2348    KM
2349    BA   0.139
2350    LG    0.09    0.25    4.35    0.35   49.86
2351    UC   0.121   0.075
2352    UA       0       5      16      30      65      77      84      90      94      97
2353    UA     100
        *

2354    KK  561563
2355    KM      Normal depth channel route from C561 to C563
2356    KM      Source:  100 Scale 4' CI Mapping
2357    RS       1    FLOW      -1
2358    RC   0.050   0.045   0.050  2335.0  0.0856
2359    RX  1000.0  1004.0  1009.0  1019.0  1037.0  1045.0  1060.0  1075.0
1                                     HEC-1 INPUT                                                              PAGE 55
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2360    RY  2280.0  2276.0  2272.0  2268.0  2268.0  2272.0  2274.0  2276.0
        *

2361    KK    208B
2362    KM   Sub-Basin   208B
2363    KM
2364    KM      The Clark Unit Hydrograph is used for this basin.
2365    KM          The Urban time-area relation is used for this basin.
2366    KM
2367    KM      Time of Concentration for this sub-basin is based on the following:
2368    KM          6-Hour Rainfall, Pattern No.  1.00
2369    KM          An rainfall areal reduction factor of 1.000
2370    KM
2371    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2372    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2373    KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .04 .04 .04 .01 .01 .01 .01 .01 .01
2374    KM
2375    KM          L=   0.491 miles, S=  325 feet/mile, Kb= .03
2376    KM
2377    BA   0.027
2378    LG    0.09    0.25    4.35    0.35   50.00
2379    UC   0.113   0.146
2380    UA       0       5      16      30      65      77      84      90      94      97
2381    UA     100
        *

2382    KK   C563R
2383    KM     Hydrograph combine 561563 + 206B at C563 right branch
2384    HC       2
        *

2385    KK    208C
2386    KM   Sub-Basin   208C
2387    KM
2388    KM      The Clark Unit Hydrograph is used for this basin.
2389    KM          The HEC-1 time-area relation is used for this basin.
2390    KM
2391    KM      Time of Concentration for this sub-basin is based on the following:
2392    KM          6-Hour Rainfall, Pattern No.  1.00
2393    KM          An rainfall areal reduction factor of 0.999
2394    KM
2395    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2396    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2397    KM   .46 .45 .45 .14 .11 .10 .05 .04 .04 .03 .03 .03 .01 .01 .01 .01 .01 .01
2398    KM
2399    KM          L=   0.639 miles, S=  387 feet/mile, Kb= .11
2400    KM
2401    BA   0.066
2402    LG    0.20    0.32    4.35    0.38   40.11
2403    UC   0.238   0.246
        *
1                                     HEC-1 INPUT                                                              PAGE 56
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2404    KK  562563
2405    KM      Normal depth channel route from C562 to C563
2406    KM      Source:  100 Scale 4' CI Mapping
2407    RS       4    FLOW      -1
2408    RC   0.050   0.045   0.050  3745.0  0.1106
2409    RX  1000.0  1007.0  1012.0  1017.0  1022.0  1027.0  1044.0  1064.0
2410    RY  2420.0  2416.0  2412.0  2411.8  2411.8  2412.0  2416.0  2420.0
        *

2411    KK    208D
2412    KM   Sub-Basin   208D
2413    KM
2414    KM      The Clark Unit Hydrograph is used for this basin.
2415    KM          The Urban time-area relation is used for this basin.
2416    KM
2417    KM      Time of Concentration for this sub-basin is based on the following:
2418    KM          6-Hour Rainfall, Pattern No.  1.00
2419    KM          An rainfall areal reduction factor of 0.999
2420    KM
2421    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2422    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2423    KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .04 .04 .04 .01 .01 .01 .01 .01 .01
2424    KM
2425    KM          L=   0.772 miles, S=  327 feet/mile, Kb= .03
2426    KM
2427    BA   0.075
```

```
2428        LG    0.09    0.25    4.35    0.35   50.00
2429        UC   0.138   0.146
2430        UA       0       5      16      30      65      77      84      90      94      97
2431        UA     100
            *

2432        KK   C563L
2433        KM      Hydrograph combine 562563 + 208D at C563 left branch
2434        HC       2
            *

2435        KK    C563
2436        KM      Hydrograph combine C563R + C563L at C563
2437        HC       2
            *

2438        KK  563564
2439        KM      Normal depth channel route from C563 to C564
2440        KM      Source:  HEC-2 Cross Section: BR 2.667
2441        RS       3    FLOW      -1
2442        RC   0.080   0.080   0.080  2762.0  0.0540
2443        RX  9947.0  9980.4  9986.4  9995.5 10000.0 10005.8 10021.9 10037.2
2444        RY  2103.4  2089.5  2089.2  2084.5  2084.4  2084.3  2098.5  2100.6
            *
```

1 HEC-1 INPUT PAGE 57

```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2445        KK    208E
2446        KM   Sub-Basin   208E
2447        KM
2448        KM      The Clark Unit Hydrograph is used for this basin.
2449        KM          The Urban time-area relation is used for this basin.
2450        KM
2451        KM      Time of Concentration for this sub-basin is based on the following:
2452        KM          6-Hour Rainfall, Pattern No.  1.00
2453        KM          An rainfall areal reduction factor of 0.999
2454        KM
2455        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2456        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2457        KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .04 .04 .04 .01 .01 .01 .01 .01 .01
2458        KM
2459        KM          L=   0.644 miles, S=  306 feet/mile, Kb= .03
2460        KM
2461        BA   0.062
2462        LG    0.09    0.25    4.35    0.35   50.00
2463        UC   0.129   0.131
2464        UA       0       5      16      30      65      77      84      90      94      97
2465        UA     100
            *

2466        KK   C564R
2467        KM      Hydrograph combine 563564 + 208E at C564 right branch
2468        HC       2
            *

2469        KK    208F
2470        KM   Sub-Basin   208F
2471        KM
2472        KM      The Clark Unit Hydrograph is used for this basin.
2473        KM          The Urban time-area relation is used for this basin.
2474        KM
2475        KM      Time of Concentration for this sub-basin is based on the following:
2476        KM          6-Hour Rainfall, Pattern No.  1.00
2477        KM          An rainfall areal reduction factor of 0.999
2478        KM
2479        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2480        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2481        KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .04 .04 .04 .01 .01 .01 .01 .01 .01
2482        KM
2483        KM          L=   0.582 miles, S=  293 feet/mile, Kb= .03
2484        KM
2485        BA   0.069
2486        LG    0.09    0.25    4.35    0.35   49.92
2487        UC   0.125   0.109
2488        UA       0       5      16      30      65      77      84      90      94      97
2489        UA     100
            *
```

1 HEC-1 INPUT PAGE 58

```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2490        KK    C564
2491        KM      Hydrograph combine C564R + 208F at C564
2492        HC       2
            *

2493        KK  564565
2494        KM      Normal depth channel route from C564 to C565
2495        KM      Source:  HEC-2 Cross Section: BR 2.236
2496        RS       5    FLOW      -1
2497        RC   0.080   0.080   0.080  3243.0  0.0398
2498        RX  9937.7  9965.8  9985.5 10000.0 10008.6 10016.4 10037.5 10054.4
2499        RY  1998.7  1998.1  1988.9  1988.8  1989.0  1990.4  1990.6  1999.1
            *

2500        KK    208G
2501        KM   Sub-Basin   208G
2502        KM
2503        KM      The Clark Unit Hydrograph is used for this basin.
2504        KM          The Urban time-area relation is used for this basin.
2505        KM
```

```
2506    KM      Time of Concentration for this sub-basin is based on the following:
2507    KM          6-Hour Rainfall, Pattern No.  1.00
2508    KM          An rainfall areal reduction factor of 0.998
2509    KM
2510    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2511    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2512    KM   .48 .47 .47 .17 .14 .13 .06 .06 .06 .05 .05 .05 .01 .01 .01 .01 .01 .01
2513    KM
2514    KM          L=   0.772 miles, S=  299 feet/mile, Kb= .04
2515    KM
2516    BA   0.129
2517    LG    0.11    0.26    4.60    0.31   54.19
2518    UC   0.167   0.132
2519    UA       0       5      16      30      65      77      84      90      94      97
2520    UA     100
        *

2521    KK    C565
2522    KM      Hydrograph combine 564565 + 208G at C565
2523    HC       2
        *

2524    KK  565568
2525    KM      Normal depth channel route from C565 to C568
2526    KM      Source:  HEC-2 Cross Section: BR 1.853
2527    RS       2    FLOW      -1
2528    RC   0.050   0.060   0.045  2254.0  0.0333
2529    RX  9966.2  9975.6  9985.0 10000.0 10017.9 10027.6 10040.1 10052.5
2530    RY  1929.1  1924.5  1919.8  1918.3  1918.4  1919.6  1925.2  1930.8
        *
```

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HEC-1 INPUT

PAGE 59

```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2531    KK    208H
2532    KM   Sub-Basin   208H
2533    KM
2534    KM      The Clark Unit Hydrograph is used for this basin.
2535    KM          The Urban time-area relation is used for this basin.
2536    KM
2537    KM      Time of Concentration for this sub-basin is based on the following:
2538    KM          6-Hour Rainfall, Pattern No.  1.00
2539    KM          An rainfall areal reduction factor of 0.999
2540    KM
2541    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2542    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2543    KM   .47 .47 .47 .16 .13 .12 .06 .06 .05 .04 .03 .03 .01 .01 .01 .01 .01 .01
2544    KM
2545    KM          L=   0.632 miles, S=  283 feet/mile, Kb= .07
2546    KM
2547    BA   0.043
2548    LG    0.12    0.30    5.60    0.21   35.43
2549    UC   0.204   0.265
2550    UA       0       5      16      30      65      77      84      90      94      97
2551    UA     100
        *

2552    KK   C568L
2553    KM      Hydrograph combine 565568 + 208H at C568 left branch
2554    HC       2
        *
        * *
        * * Start Cholula Wash
        * *
        *

2555    KK    208I
2556    KM   Sub-Basin   208I
2557    KM
2558    KM      The Clark Unit Hydrograph is used for this basin.
2559    KM          The Urban time-area relation is used for this basin.
2560    KM
2561    KM      Time of Concentration for this sub-basin is based on the following:
2562    KM          6-Hour Rainfall, Pattern No.  1.00
2563    KM          An rainfall areal reduction factor of 0.998
2564    KM
2565    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2566    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2567    KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .04 .04 .04 .01 .01 .01 .01 .01 .01
2568    KM
2569    KM          L=   0.823 miles, S=  363 feet/mile, Kb= .03
2570    KM
2571    BA   0.117
2572    LG    0.09    0.25    4.35    0.35   50.00
2573    UC   0.138   0.119
2574    UA       0       5      16      30      65      77      84      90      94      97
2575    UA     100
        *
```

1

HEC-1 INPUT

PAGE 60

```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2576    KK    208J
2577    KM   Sub-Basin   208J
2578    KM
2579    KM      The Clark Unit Hydrograph is used for this basin.
2580    KM          The Urban time-area relation is used for this basin.
2581    KM
2582    KM      Time of Concentration for this sub-basin is based on the following:
2583    KM          6-Hour Rainfall, Pattern No.  1.00
2584    KM          An rainfall areal reduction factor of 0.999
2585    KM
```

```
2586   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2587   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2588   KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .04 .04 .04 .01 .01 .01 .01 .01 .01
2589   KM
2590   KM          L=   0.974 miles, S=  353 feet/mile, Kb= .03
2591   KM
2592   BA   0.081
2593   LG    0.09    0.25    4.35    0.35   50.00
2594   UC   0.154   0.190
2595   UA      0       5      16      30      65      77      84      90      94      97
2596   UA    100
       *

2597   KK    C566
2598   KM      Hydrograph combine 208I + 208J at C566
2599   HC       2
       *

2600   KK  566567
2601   KM      Normal depth channel route from C566 to C567
2602   KM      Source:  HEC-2 Cross Section: CH 0.766
2603   RS       2    FLOW      -1
2604   RC   0.080   0.080   0.080  1463.0  0.0410
2605   RX  9925.3  9949.0  9965.7  9988.3 10000.0 10016.2 10029.5 10042.7
2606   RY  2047.9  2043.7  2035.3  2033.3  2031.4  2033.0  2040.1  2047.2
       *

2607   KK    208K
2608   KM   Sub-Basin   208K
2609   KM
2610   KM      The Clark Unit Hydrograph is used for this basin.
2611   KM          The Urban time-area relation is used for this basin.
2612   KM
2613   KM      Time of Concentration for this sub-basin is based on the following:
2614   KM          6-Hour Rainfall, Pattern No.  1.00
2615   KM          An rainfall areal reduction factor of 0.999
2616   KM
2617   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2618   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2619   KM   .48 .47 .47 .17 .13 .13 .06 .06 .06 .05 .05 .05 .01 .01 .01 .01 .01 .01
2620   KM
2621   KM          L=   0.431 miles, S=  317 feet/mile, Kb= .03
2622   KM
2623   BA   0.048
```



```
LINE   ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2624   LG    0.09    0.25    4.35    0.35   54.38
2625   UC   0.104   0.087
2626   UA      0       5      16      30      65      77      84      90      94      97
2627   UA    100
       *

2628   KK   C567L
2629   KM     Hydrograph combine 566567 + 208K at C567 left branch
2630   HC       2
       *

2631   KK    208L
2632   KM   Sub-Basin   208L
2633   KM
2634   KM      The Clark Unit Hydrograph is used for this basin.
2635   KM          The Urban time-area relation is used for this basin.
2636   KM
2637   KM      Time of Concentration for this sub-basin is based on the following:
2638   KM          6-Hour Rainfall, Pattern No.  1.00
2639   KM          An rainfall areal reduction factor of 0.999
2640   KM
2641   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2642   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2643   KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .04 .04 .04 .01 .01 .01 .01 .01 .01
2644   KM
2645   KM          L=   0.655 miles, S=  334 feet/mile, Kb= .03
2646   KM
2647   BA   0.059
2648   LG    0.09    0.25    4.40    0.35   51.31
2649   UC   0.125   0.132
2650   UA      0       5      16      30      65      77      84      90      94      97
2651   UA    100
       *

2652   KK    C567
2653   KM     Hydrograph combine C567L + 208L at C567
2654   HC       2
       *

2655   KK  567568
2656   KM      Normal depth channel route from C567 to C568
2657   KM      Source:  HEC-2 Cross Section: CH 0.129
2658   RS       5    FLOW      -1
2659   RC   0.050   0.060   0.045  3650.0  0.0389
2660   RX  9945.7  9958.4  9989.8 10000.0 10016.4 10028.3 10045.4 10059.8
2661   RY  1912.1  1905.9  1899.0  1899.3  1898.9  1899.5  1907.1  1911.9
       *

2662   KK    208M
2663   KM   Sub-Basin   208M
2664   KM
2665   KM      The Clark Unit Hydrograph is used for this basin.
2666   KM          The Urban time-area relation is used for this basin.
2667   KM
2668   KM      Time of Concentration for this sub-basin is based on the following:
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2669          KM          6-Hour Rainfall, Pattern No.  1.00
2670          KM          An rainfall areal reduction factor of 0.998
2671          KM
2672          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2673          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2674          KM   .48 .48 .48 .17 .14 .14 .06 .06 .06 .05 .05 .05 .01 .01 .01 .01 .01 .01
2675          KM
2676          KM          L=   1.031 miles, S=  321 feet/mile, Kb= .03
2677          KM
2678          BA   0.159
2679          LG    0.09    0.25    4.40    0.34   62.04
2680          UC   0.163   0.144
2681          UA       0       5      16      30      65      77      84      90      94      97
2682          UA     100
              *

2683          KK   C568R
2684          KM      Hydrograph combine 567568 + 208M at C568 right branch
2685          HC       2
              *

2686          KK    C568
2687          KM      Hydrograph combine C568L + C568R at C568
2688          HC       2
              *

2689          KK  568573
2690          KM      Normal depth channel route from C568 to C573
2691          KM      Source:  HEC-2 Cross Section: BR 1.340
2692          RS       3    FLOW      -1
2693          RC   0.098   0.075   0.075  2067.0  0.0324
2694          RX  9921.8  9954.1  9968.9  9991.3 10000.0 10006.9 10025.2 10050.4
2695          RY  1843.8  1840.4  1835.1  1834.7  1832.7  1833.3  1838.1  1854.0
              *

2696          KK    208N
2697          KM   Sub-Basin   208N
2698          KM
2699          KM      The Clark Unit Hydrograph is used for this basin.
2700          KM          The Urban time-area relation is used for this basin.
2701          KM
2702          KM      Time of Concentration for this sub-basin is based on the following:
2703          KM          6-Hour Rainfall, Pattern No.  1.00
2704          KM          An rainfall areal reduction factor of 0.999
2705          KM
2706          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2707          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2708          KM   .49 .49 .49 .18 .15 .15 .07 .07 .07 .07 .06 .06 .01 .01 .01 .01 .01 .01
2709          KM
2710          KM          L=   0.589 miles, S=  160 feet/mile, Kb= .04
2711          KM
2712          BA   0.047
2713          LG    0.09    0.25    6.20    0.15   62.49
2714          UC   0.175   0.200
2715          UA       0       5      16      30      65      77      84      90      94      97
```



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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2716          UA     100
              *

2717          KK   C573L
2718          KM      Hydrograph combine 568573 + 208N at C573 left branch
2719          HC       2
              *
              * *
              * * C573L is the total flow in Bristol Wash upstream of the confluence with
              * * Zapata Wash
              * *
              * * Start Zapata Wash
              * *
              *

2720          KK    208O
2721          KM   Sub-Basin   208O
2722          KM
2723          KM      The Clark Unit Hydrograph is used for this basin.
2724          KM          The Urban time-area relation is used for this basin.
2725          KM
2726          KM      Time of Concentration for this sub-basin is based on the following:
2727          KM          6-Hour Rainfall, Pattern No.  1.00
2728          KM          An rainfall areal reduction factor of 0.997
2729          KM
2730          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2731          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2732          KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .05 .04 .04 .01 .01 .01 .01 .01 .01
2733          KM
2734          KM          L=   1.174 miles, S=  347 feet/mile, Kb= .03
2735          KM
2736          BA   0.230
2737          LG    0.09    0.25    4.60    0.31   48.49
2738          UC   0.167   0.133
2739          UA       0       5      16      30      65      77      84      90      94      97
2740          UA     100
              *

2741          KK  569570
2742          KM      Normal depth channel route from C569 to C570
2743          KM      Source:  HEC-2 Cross Section: ZA 0.493
2744          RS       1    FLOW      -1
2745          RC   0.050   0.035   0.055  1696.0  0.0404
```

```
2746        RX  9965.3  9985.5  9998.4 10000.0 10010.6 10019.1 10038.5 10038.5
2747        RY  1919.3  1912.3  1908.1  1907.8  1905.2  1908.1  1920.1  1920.1
            *

2748        KK    208P
2749        KM   Sub-Basin   208P
2750        KM
2751        KM      The Clark Unit Hydrograph is used for this basin.
2752        KM          The Urban time-area relation is used for this basin.
2753        KM
2754        KM      Time of Concentration for this sub-basin is based on the following:
2755        KM          6-Hour Rainfall, Pattern No.  1.00
1                                   HEC-1 INPUT                                          PAGE 64
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2756        KM          An rainfall areal reduction factor of 0.999
2757        KM
2758        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2759        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2760        KM   .49 .48 .48 .18 .15 .14 .07 .07 .07 .06 .06 .06 .01 .01 .01 .01 .01 .01
2761        KM
2762        KM          L=   0.471 miles, S=  312 feet/mile, Kb= .03
2763        KM
2764        BA   0.058
2765        LG    0.08    0.25    5.70    0.18   59.29
2766        UC   0.108   0.087
2767        UA       0       5      16      30      65      77      84      90      94      97
2768        UA     100
            *

2769        KK   C570R
2770        KM      Hydrograph combine 569570 + 208P at C570 right branch
2771        HC       2
            *

2772        KK    208Q
2773        KM   Sub-Basin   208Q
2774        KM
2775        KM      The Clark Unit Hydrograph is used for this basin.
2776        KM          The Urban time-area relation is used for this basin.
2777        KM
2778        KM      Time of Concentration for this sub-basin is based on the following:
2779        KM          6-Hour Rainfall, Pattern No.  1.00
2780        KM          An rainfall areal reduction factor of 0.999
2781        KM
2782        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2783        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2784        KM   .48 .48 .48 .17 .14 .14 .06 .06 .06 .05 .05 .05 .01 .01 .01 .01 .01 .01
2785        KM
2786        KM          L=   0.823 miles, S=  324 feet/mile, Kb= .04
2787        KM
2788        BA   0.094
2789        LG    0.10    0.26    5.00    0.25   54.26
2790        UC   0.167   0.166
2791        UA       0       5      16      30      65      77      84      90      94      97
2792        UA     100
            *

2793        KK    C570
2794        KM      Hydrograph combine C570R + 208Q at C570
2795        HC       2
            *
            * *
            * * NOTE: 570572 is too short to route
            * *
            *
1                                   HEC-1 INPUT                                          PAGE 65
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2796        KK    208R
2797        KM   Sub-Basin   208R
2798        KM
2799        KM      The Clark Unit Hydrograph is used for this basin.
2800        KM          The Urban time-area relation is used for this basin.
2801        KM
2802        KM      Time of Concentration for this sub-basin is based on the following:
2803        KM          6-Hour Rainfall, Pattern No.  1.00
2804        KM          An rainfall areal reduction factor of 1.000
2805        KM
2806        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2807        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2808        KM   .49 .48 .48 .18 .15 .14 .07 .07 .07 .06 .06 .06 .01 .01 .01 .01 .01 .01
2809        KM
2810        KM          L=   0.238 miles, S=  327 feet/mile, Kb= .03
2811        KM
2812        BA   0.010
2813        LG    0.08    0.23    6.20    0.15   55.16
2814        UC   0.083   0.100
2815        UA       0       5      16      30      65      77      84      90      94      97
2816        UA     100
            *

2817        KK  571572
2818        KM      Normal depth channel route from C571 to C572
2819        KM      Source:  200 Scale Mapping
2820        RS       2    FLOW      -1
2821        RC   0.040   0.020   0.055  1379.0  0.0566
2822        RX  1000.0  1020.0  1040.0  1090.0  1122.0  1125.0  1135.0  1140.0
2823        RY  1894.0  1893.0  1892.0  1891.0  1891.0  1892.0  1894.0  1896.0
            *
```

```
2824        KK    C572
2825        KM      Hydrograph combine C570 + 571572 at C572
2826        HC       2
            *

2827        KK  572573
2828        KM      Normal depth channel route from C572 to C573
2829        KM      Source:  HEC-2 Cross Section: ZA 0.142
2830        RS       1    FLOW      -1
2831        RC   0.050   0.035   0.055  1285.0  0.0335
2832        RX  9961.8  9976.8  9982.5  9987.0 10009.5 10014.3 10022.1 10029.3
2833        RY  1840.3  1832.1  1831.2  1829.5  1829.2  1830.6  1831.2  1835.6
            *

2834        KK    208S
2835        KM   Sub-Basin   208S
2836        KM
2837        KM      The Clark Unit Hydrograph is used for this basin.
2838        KM          The Urban time-area relation is used for this basin.
2839        KM
2840        KM      Time of Concentration for this sub-basin is based on the following:
2841        KM          6-Hour Rainfall, Pattern No.  1.00
1                                   HEC-1 INPUT                                          PAGE 66
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2842        KM          An rainfall areal reduction factor of 0.999
2843        KM
2844        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2845        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2846        KM   .49 .49 .49 .18 .15 .15 .07 .07 .07 .07 .07 .07 .02 .02 .02 .02 .02 .02
2847        KM
2848        KM          L=   0.568 miles, S=  234 feet/mile, Kb= .03
2849        KM
2850        BA   0.068
2851        LG    0.08    0.24    6.20    0.15   67.07
2852        UC   0.129   0.112
2853        UA       0       5      16      30      65      77      84      90      94      97
2854        UA     100
            *

2855        KK   C573R
2856        KM      Hydrograph combine 572573 + 208S at C573 right branch
2857        HC       2
            *

2858        KK    C573
2859        KM      Hydrograph combine C573L + C573R at C573
2860        HC       2
            *
            * *
            * * NOTE: 573577 is too short to route
            * *
            * * C573 is the total flow in Bristol Wash upstream of the confluence
            * * with Montezuna Wash
            * *
            * * Start Montezuna Wash
            * *
            *

2861        KK    208T
2862        KM   Sub-Basin   208T
2863        KM
2864        KM      The Clark Unit Hydrograph is used for this basin.
2865        KM          The Urban time-area relation is used for this basin.
2866        KM
2867        KM      Time of Concentration for this sub-basin is based on the following:
2868        KM          6-Hour Rainfall, Pattern No.  1.00
2869        KM          An rainfall areal reduction factor of 0.998
2870        KM
2871        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2872        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2873        KM   .48 .47 .47 .17 .14 .13 .06 .06 .06 .05 .05 .04 .01 .01 .01 .01 .01 .01
2874        KM
2875        KM          L=   0.787 miles, S=  340 feet/mile, Kb= .03
2876        KM
2877        BA   0.132
2878        LG    0.09    0.25    5.20    0.22   44.80
2879        UC   0.138   0.107
2880        UA       0       5      16      30      65      77      84      90      94      97
2881        UA     100
            *
1                                   HEC-1 INPUT                                          PAGE 67
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2882        KK    208U
2883        KM   Sub-Basin   208U
2884        KM
2885        KM      The Clark Unit Hydrograph is used for this basin.
2886        KM          The Urban time-area relation is used for this basin.
2887        KM
2888        KM      Time of Concentration for this sub-basin is based on the following:
2889        KM          6-Hour Rainfall, Pattern No.  1.00
2890        KM          An rainfall areal reduction factor of 0.998
2891        KM
2892        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2893        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2894        KM   .48 .47 .47 .17 .14 .13 .06 .06 .06 .05 .05 .04 .01 .01 .01 .01 .01 .01
2895        KM
2896        KM          L=   0.507 miles, S=  360 feet/mile, Kb= .03
2897        KM
2898        BA   0.134
```

```
2899          LG    0.09    0.25    5.30    0.21   44.19
2900          UC   0.108   0.057
2901          UA       0       5      16      30      65      77      84      90      94      97
2902          UA     100
              *

2903          KK    C574
2904          KM      Hydrograph combine 208T + 208U at C574
2905          HC       2
              *

2906          KK  574575
2907          KM      Normal depth channel route from C574 to C575
2908          KM      Source:  HEC-2 Cross Section: MO 0.587
2909          RS       1    FLOW      -1
2910          RC   0.070   0.050   0.055   823.0  0.0365
2911          RX  9945.0  9970.6  9986.7  9995.9 10002.3 10019.0 10036.7 10055.5
2912          RY  1932.6  1928.5  1922.9  1917.8  1917.7  1924.0  1931.1  1934.1
              *

2913          KK    208V
2914          KM   Sub-Basin   208V
2915          KM
2916          KM      The Clark Unit Hydrograph is used for this basin.
2917          KM          The Urban time-area relation is used for this basin.
2918          KM
2919          KM      Time of Concentration for this sub-basin is based on the following:
2920          KM          6-Hour Rainfall, Pattern No.  1.00
2921          KM          An rainfall areal reduction factor of 1.000
2922          KM
2923          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2924          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2925          KM   .48 .48 .48 .17 .14 .14 .07 .07 .06 .06 .06 .05 .01 .01 .01 .01 .01 .01
2926          KM
2927          KM          L=   0.354 miles, S=  319 feet/mile, Kb= .03
2928          KM
2929          BA   0.028
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2930          LG    0.09    0.21    6.40    0.15   41.15
2931          UC   0.096   0.092
2932          UA       0       5      16      30      65      77      84      90      94      97
2933          UA     100
              *

2934          KK    C575
2935          KM      Hydrograph combine 574575 + 208V at C575
2936          HC       2
              *

2937          KK  575576
2938          KM      Normal depth channel route from C575 to C576
2939          KM      Source:  HEC-2 Cross Section: MO 0.307
2940          RS       2    FLOW      -1
2941          RC   0.070   0.050   0.055  2342.0  0.0423
2942          RX  9973.7  9974.0  9986.7 10000.0 10000.5 10009.7 10026.7 10037.3
2943          RY  1861.6  1861.5  1855.0  1853.0  1853.1  1854.8  1863.0  1867.1
              *

2944          KK    208W
2945          KM   Sub-Basin   208W
2946          KM
2947          KM      The Clark Unit Hydrograph is used for this basin.
2948          KM          The Urban time-area relation is used for this basin.
2949          KM
2950          KM      Time of Concentration for this sub-basin is based on the following:
2951          KM          6-Hour Rainfall, Pattern No.  1.00
2952          KM          An rainfall areal reduction factor of 0.999
2953          KM
2954          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2955          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2956          KM   .48 .48 .48 .17 .14 .14 .07 .07 .06 .06 .05 .05 .01 .01 .01 .01 .01 .01
2957          KM
2958          KM          L=   0.475 miles, S=  288 feet/mile, Kb= .03
2959          KM
2960          BA   0.050
2961          LG    0.09    0.23    6.20    0.16   42.74
2962          UC   0.113   0.099
2963          UA       0       5      16      30      65      77      84      90      94      97
2964          UA     100
              *

2965          KK    C576
2966          KM      Hydrograph combine 575576 + 208W at C576
2967          HC       2
              *

2968          KK  576577
2969          KM      Normal depth channel route from C576 to C577
2970          KM      Source:  HEC-2 Cross Section: MO 0.116
2971          RS       1    FLOW      -1
2972          RC   0.070   0.050   0.055   740.0  0.0338
2973          RX  9915.1  9960.0  9985.5 10000.0 10000.1 10007.0 10023.3 10023.4
2974          RY  1826.5  1826.4  1814.5  1812.3  1812.3  1814.8  1830.3  1830.4
              *
              * *
              * * 576577 is the total flow in Montezuna Wash just upstream of the confluence
              * * with Bristol Wash
              * *
              *
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2975          KK    C577
2976          KM      Hydrograph combine C577L + 576577 at C570
2977          HC       2
              *
              * *
              * * C577 is the total flow in Bristol Wash downstream of the confluence
              * * with Montezuma Wash
              * *
              *

2978          KK  577578
2979          KM      Normal depth channel route from C577 to C578
2980          KM      Source:  HEC-2 Cross Section: BR 1.099
2981          RS       1    FLOW      -1
2982          RC  0.055   0.045   0.055  1078.0  0.0147
2983          RX  9865.3  9956.6  9991.1 10010.2 10034.3 10063.4 10139.7 10201.7
2984          RY  1821.8  1810.8  1793.2  1792.5  1795.5  1796.1  1813.8  1822.8
              *

2985          KK    208X
2986          KM   Sub-Basin   208X
2987          KM
2988          KM      The Clark Unit Hydrograph is used for this basin.
2989          KM          The Urban time-area relation is used for this basin.
2990          KM
2991          KM      Time of Concentration for this sub-basin is based on the following:
2992          KM          6-Hour Rainfall, Pattern No.  1.00
2993          KM          An rainfall areal reduction factor of 0.999
2994          KM
2995          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2996          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2997          KM   .47 .47 .47 .16 .13 .12 .06 .06 .05 .04 .04 .03 .01 .01 .01 .01 .01 .01
2998          KM
2999          KM          L=   0.417 miles, S=  223 feet/mile, Kb= .05
3000          KM
3001          BA   0.075
3002          LG    0.13    0.29    5.60    0.21   39.42
3003          UC   0.150   0.098
3004          UA       0       5      16      30      65      77      84      90      94      97
3005          UA     100
              *

3006          KK   C578I
3007          KM      Hydrograph combine 577578 + 208X at C578I
3008          HC       2
              *
              * *
              * * C578I is the total flow in Bristol Wash upstream of Dam 11
              * *
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3009          KK   C578O
3010          KM      Reservoir route at C578 (Dam 11).
3011          RS       1    ELEV  1779.2
3012          SV    0.00   16.38   31.30   53.65   84.39  126.17  138.00  143.00  147.00  154.47
3013          SV  161.00  167.00  174.00  181.00  187.43  194.00  202.00  205.00
3014          SE  1779.2  1794.0  1798.0  1802.0  1806.0  1810.0  1810.8  1811.2  1811.6  1812.0
3015          SE  1812.4  1812.8  1813.2  1813.6  1814.0  1814.4  1814.8  1815.0
3016          SQ       0     131     181     221     254     283     305     325     328     366
3017          SQ     522     812    1194    1651    2176    2763    3406    4104    4855    5250
3018          SE  1779.2  1786.0  1790.0  1794.0  1798.0  1802.0  1806.0  1810.0  1810.8  1811.2
3019          SE  1811.6  1812.0  1812.4  1812.8  1813.2  1813.6  1814.0  1814.4  1814.8  1815.0
3020          RL                    0.97
              *
              * *
              * * End Basin 208.  Rejoin Basin 210
              * *
              *

3021          KK  578587
3022          KM      Normal depth channel route from C578 to C587
3023          KM      Source:  HEC-2 Cross Section: BR 0.697
3024          RS       3    FLOW      -1
3025          RC  0.055   0.045   0.055  1628.0  0.0191
3026          RX  9926.4  9949.5  9960.1  9984.7 10000.0 10014.1 10031.5 10049.4
3027          RY  1763.0  1762.6  1761.8  1757.0  1757.1  1756.9  1761.4  1768.1
              *

3028          KK    210B
3029          KM   Sub-Basin   210B
3030          KM
3031          KM      The Clark Unit Hydrograph is used for this basin.
3032          KM          The Urban time-area relation is used for this basin.
3033          KM
3034          KM      Time of Concentration for this sub-basin is based on the following:
3035          KM          6-Hour Rainfall, Pattern No.  1.00
3036          KM          An rainfall areal reduction factor of 0.999
3037          KM
3038          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3039          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3040          KM   .48 .47 .47 .17 .14 .13 .06 .06 .06 .05 .05 .04 .01 .01 .01 .01 .01 .01
3041          KM
3042          KM          L=   0.930 miles, S=  251 feet/mile, Kb= .03
3043          KM
3044          BA   0.107
3045          LG    0.08    0.25    5.80    0.17   37.15
3046          UC   0.167   0.171
```

```
3047        UA      0       5      16      30      65      77      84      90      94      97
3048        UA    100
            *
1                                          HEC-1 INPUT                                                    PAGE 71

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3049        KK   C586O
3050        KM      Reservoir route at C586.
3051        RS       1    ELEV  1804.4
3052        SV    0.00    0.05    0.36    1.09    2.45    4.45    7.00    9.50    9.60   10.00
3053        SV   10.34   10.70   11.20   11.60   12.10   12.50
3054        SE  1804.4  1806.0  1808.0  1810.0  1812.0  1814.0  1816.0 1817.55  1817.6  1817.8
3055        SE  1818.0  1818.2  1818.4  1818.6  1818.8  1819.0
3056        SQ       0      37     130     219     284     322     353     375     377     393
3057        SQ     432     492     574     680     808     959
            *

3058        KK  586587
3059        KM      Normal depth channel route from C586 to C587
3060        KM      Source:  200 Scale Mapping
3061        RS       3    FLOW     -1
3062        RC   0.040   0.035   0.040  1905.0  0.0313
3063        RX  1000.0  1020.0  1050.0  1055.0  1065.0  1070.0  1130.0  1150.0
3064        RY  1782.0  1780.0  1772.0  1771.0  1771.0  1772.0  1778.0  1782.0
            *

3065        KK    C587
3066        KM      Hydrograph combine 578587 + 586587 at C578
3067        HC       2
            *

3068        KK  587595
3069        KM      Normal depth channel route from C587 to C595
3070        KM      Source:  HEC-2 Cross Section: BR 0.533
3071        RS       1    FLOW     -1
3072        RC   0.055   0.045   0.055  1039.0  0.0173
3073        RX  9977.2  9980.4  9983.6  9989.9 10009.9 10020.3 10028.8 10037.3
3074        RY  1745.2  1744.0  1742.8  1740.3  1740.3  1742.4  1743.0  1743.6
            *

3075        KK    210C
3076        KM   Sub-Basin   210C
3077        KM
3078        KM      The Clark Unit Hydrograph is used for this basin.
3079        KM          The Urban time-area relation is used for this basin.
3080        KM
3081        KM      Time of Concentration for this sub-basin is based on the following:
3082        KM          6-Hour Rainfall, Pattern No.  1.00
3083        KM          An rainfall areal reduction factor of 0.999
3084        KM
3085        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3086        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3087        KM   .46 .46 .46 .15 .12 .11 .05 .05 .04 .03 .02 .02 .01 .01 .01 .01 .01 .01
3088        KM
3089        KM          L=   0.637 miles, S=  198 feet/mile, Kb= .03
3090        KM
3091        BA   0.082
3092        LG    0.11    0.26    4.80    0.28   22.29
3093        UC   0.150   0.131
3094        UA      0       5      16      30      65      77      84      90      94      97
1                                          HEC-1 INPUT                                                    PAGE 72

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3095        UA    100
            *

3096        KK   C595L
3097        KM      Hydrograph combine 587595 + 210C at C595 left branch
3098        HC       2
            *
            * *
            * * C595L is the total flow in Bristol Wash upstream of the confluence
            * * with Longmont Wash
            * *
            * * Start Longmont Wash Left Branch
            * *
            *

3099        KK    210D
3100        KM   Sub-Basin   210D
3101        KM
3102        KM      The Clark Unit Hydrograph is used for this basin.
3103        KM          The Urban time-area relation is used for this basin.
3104        KM
3105        KM      Time of Concentration for this sub-basin is based on the following:
3106        KM          6-Hour Rainfall, Pattern No.  1.00
3107        KM          An rainfall areal reduction factor of 0.998
3108        KM
3109        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3110        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3111        KM   .48 .47 .47 .17 .13 .13 .06 .06 .06 .05 .04 .04 .01 .01 .01 .01 .01 .01
3112        KM
3113        KM          L=   0.832 miles, S=  325 feet/mile, Kb= .03
3114        KM
3115        BA   0.140
3116        LG    0.09    0.25    5.80    0.18   33.66
3117        UC   0.146   0.116
3118        UA      0       5      16      30      65      77      84      90      94      97
3119        UA    100
            *
```

```
3120        KK  588590
3121        KM      Normal depth channel route from C588 to C590
3122        KM      Source:  HEC-2 Cross Section: LO-LB1 0.128
3123        RS        1    FLOW      -1
3124        RC   0.065   0.050   0.060  1117.0  0.0340
3125        RX  9931.7  9960.6  9984.9 10005.7 10019.1 10033.8 10151.6 10172.9
3126        RY  1839.3  1833.5  1825.9  1824.7  1825.9  1828.8  1832.9  1838.0
            *

3127        KK    210E
3128        KM   Sub-Basin   210E
3129        KM
3130        KM      The Clark Unit Hydrograph is used for this basin.
3131        KM          The Urban time-area relation is used for this basin.
3132        KM
3133        KM      Time of Concentration for this sub-basin is based on the following:
3134        KM          6-Hour Rainfall, Pattern No.  1.00
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3135        KM          An rainfall areal reduction factor of 1.000
3136        KM
3137        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3138        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3139        KM   .48 .48 .48 .17 .14 .14 .06 .06 .06 .06 .05 .05 .00 .00 .00 .00 .00 .00
3140        KM
3141        KM          L=   0.339 miles, S=  151 feet/mile, Kb= .03
3142        KM
3143        BA   0.028
3144        LG    0.09    0.17    6.80    0.12   15.00
3145        UC   0.117   0.111
3146        UA       0       5      16      30      65      77      84      90      94      97
3147        UA     100
            *

3148        KK   C590L
3149        KM      Hydrograph combine 588590 + 210E at C590 left branch
3150        HC       2
            *
            * *
            * * C590L is the total flow in Longmont Wash Left Branch upstream of the
            * * confluence with Longmont Wash
            * *
            * * Start Longmont Wash
            * *
            *

3151        KK    210F
3152        KM   Sub-Basin   210F
3153        KM
3154        KM      The Clark Unit Hydrograph is used for this basin.
3155        KM          The Urban time-area relation is used for this basin.
3156        KM
3157        KM      Time of Concentration for this sub-basin is based on the following:
3158        KM          6-Hour Rainfall, Pattern No.  1.00
3159        KM          An rainfall areal reduction factor of 0.999
3160        KM
3161        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3162        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3163        KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .04 .04 .04 .01 .01 .01 .01 .01 .01
3164        KM
3165        KM          L=   0.668 miles, S=  349 feet/mile, Kb= .03
3166        KM
3167        BA   0.093
3168        LG    0.09    0.25    4.40    0.34   49.44
3169        UC   0.125   0.103
3170        UA       0       5      16      30      65      77      84      90      94      97
3171        UA     100
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3172        KK  589590
3173        KM      Normal depth channel route from C589 to C590
3174        KM      Source:  HEC-2 Cross Section: LO 0.813
3175        RS        2    FLOW      -1
3176        RC   0.065   0.050   0.060  1751.0  0.0423
3177        RX  9957.0  9963.5  9984.5  9996.1 10008.8 10017.4 10040.1 10060.8
3178        RY  1843.8  1842.9  1837.0  1831.2  1830.6  1836.1  1838.3  1842.1
            *

3179        KK    210G
3180        KM   Sub-Basin   210G
3181        KM
3182        KM      The Clark Unit Hydrograph is used for this basin.
3183        KM          The Urban time-area relation is used for this basin.
3184        KM
3185        KM      Time of Concentration for this sub-basin is based on the following:
3186        KM          6-Hour Rainfall, Pattern No.  1.00
3187        KM          An rainfall areal reduction factor of 0.998
3188        KM
3189        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3190        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3191        KM   .48 .47 .47 .17 .13 .13 .06 .06 .05 .05 .04 .04 .01 .01 .01 .01 .01 .01
3192        KM
3193        KM          L=   0.969 miles, S=  333 feet/mile, Kb= .03
3194        KM
3195        BA   0.162
3196        LG    0.09    0.25    5.30    0.22   39.22
3197        UC   0.154   0.128
3198        UA       0       5      16      30      65      77      84      90      94      97
```

```
3199          UA     100
              *

3200          KK   C590R
3201          KM      Hydrograph combine 589590 + 210G at C590 right branch
3202          HC       2
              *
              * * NOTE: 590593 is too short to route
              * *
              * * C590R is the total flow in Longmont Wash upstream of the confluence
              * * with Longmont Wash Left Branch
              * *
              *

3203          KK    C590
3204          KM      Hydrograph combine C590L + C590R at C590
3205          HC       2
              *
              * * C590 is the total flow in Longmont Wash upstream of the confluence
              * * Longmont Wash Right Branch
              * *
              * * Start Longmont Wash Right Branch
              * *
              *
1                                          HEC-1 INPUT                                                    PAGE 75
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3206          KK    210H
3207          KM   Sub-Basin   210H
3208          KM
3209          KM      The Clark Unit Hydrograph is used for this basin.
3210          KM          The Urban time-area relation is used for this basin.
3211          KM
3212          KM      Time of Concentration for this sub-basin is based on the following:
3213          KM          6-Hour Rainfall, Pattern No.  1.00
3214          KM          An rainfall areal reduction factor of 0.999
3215          KM
3216          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3217          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3218          KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .05 .04 .04 .01 .01 .01 .01 .01 .01
3219          KM
3220          KM          L=   0.565 miles, S=  340 feet/mile, Kb= .03
3221          KM
3222          BA   0.070
3223          LG    0.09    0.23    6.20    0.16   21.74
3224          UC   0.117   0.098
3225          UA       0       5      16      30      65      77      84      90      94      97
3226          UA     100
              *

3227          KK  592593
3228          KM      Normal depth channel route from C592 to C593
3229          KM      Source:  HEC-2 Cross Section: LO-RB1 0.027
3230          RS       3    FLOW      -1
3231          RC   0.065   0.050   0.060  2062.0  0.0412
3232          RX  9920.6  9964.0  9984.7  9996.1 10003.9 10025.4 10041.1 10057.9
3233          RY  1820.0  1804.5  1801.2  1797.3  1797.3  1808.5  1818.3  1820.1
              *
              * *
              * * 592593 is the total flow in Longmont Wash Right Branch upstream
              * * of the confluence with Longmont Wash
              * *
              *

3234          KK    C593
3235          KM      Hydrograph combine C590 + C593R at C593
3236          HC       2
              *
              * *
              * * C593 is the total flow in Longmont Wash below the confluence with
              * * Longmont Wash Right Branch
              * *
              *

3237          KK  593594
3238          KM      Normal depth channel route from C593 to C594
3239          KM      Source:  HEC-2 Cross Section: LO0.413
3240          RS       2    FLOW      -1
3241          RC   0.065   0.050   0.060   988.0  0.0202
3242          RX  9937.2  9958.5  9981.7  9992.8 10007.7 10024.4 10041.9 10067.8
3243          RY  1783.6  1773.5  1773.9  1771.3  1771.2  1774.5  1778.7  1788.7
              *
1                                          HEC-1 INPUT                                                    PAGE 76
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3244          KK    210I
3245          KM   Sub-Basin   210I
3246          KM
3247          KM      The Clark Unit Hydrograph is used for this basin.
3248          KM          The Urban time-area relation is used for this basin.
3249          KM
3250          KM      Time of Concentration for this sub-basin is based on the following:
3251          KM          6-Hour Rainfall, Pattern No.  1.00
3252          KM          An rainfall areal reduction factor of 0.999
3253          KM
3254          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3255          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3256          KM   .49 .48 .48 .18 .15 .14 .07 .07 .06 .06 .06 .06 .01 .01 .01 .00 .00 .00
3257          KM
3258          KM          L=   0.634 miles, S=  250 feet/mile, Kb= .03
```

```
3259        KM
3260        BA   0.049
3261        LG    0.09    0.15    7.60    0.09   15.00
3262        UC   0.138   0.158
3263        UA       0       5      16      30      65      77      84      90      94      97
3264        UA     100
            *

3265        KK    C594
3266        KM      Hydrograph combine 593594 + 210I at C594
3267        HC       2
            *

3268        KK  594595
3269        KM      Normal depth channel route from C594 to C595
3270        KM      Source:  HEC-2 Cross Section: LO 0.184
3271        RS       3    FLOW      -1
3272        RC   0.065   0.050   0.060  2093.0  0.0201
3273        RX  9814.0  9836.5  9878.5  9988.2  9994.1 10010.9 10030.4 10030.5
3274        RY  1769.3  1766.6  1752.8  1750.6  1747.9  1749.2  1770.5  1770.6
            *

3275        KK    210J
3276        KM   Sub-Basin   210J
3277        KM
3278        KM      The Clark Unit Hydrograph is used for this basin.
3279        KM          The Urban time-area relation is used for this basin.
3280        KM
3281        KM      Time of Concentration for this sub-basin is based on the following:
3282        KM          6-Hour Rainfall, Pattern No.  1.00
3283        KM          An rainfall areal reduction factor of 0.999
3284        KM
3285        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3286        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3287        KM   .48 .47 .47 .17 .14 .13 .06 .06 .06 .05 .05 .05 .00 .00 .00 .00 .00 .00
3288        KM
3289        KM          L=   0.684 miles, S=  187 feet/mile, Kb= .03
3290        KM
3291        BA   0.103
1                                          HEC-1 INPUT                                          PAGE 77
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
3292        LG    0.09    0.19    6.60    0.13   15.00
3293        UC   0.154   0.125
3294        UA       0       5      16      30      65      77      84      90      94      97
3295        UA     100
            *

3296        KK   C595R
3297        KM      Hydrograph combine 594595 + 210J at C595
3298        HC       2
            *
            * *
            * * C595R is the total flow in Longmont Wash upstream of the confluence
            * * with Bristol Wash
            * *
            *

3299        KK    C595
3300        KM      Hydrograph combine C595L + C595R at C595
3301        HC       2
            *
            * *
            * * C595 is the total flow in Bristol Wash just downstream of the
            * * confluence with Longmont Wash
            * *
            *

3302        KK  595596
3303        KM      Normal depth channel route from C595 to C596
3304        KM      Source:  HEC-2 Cross Section: BR0.290
3305        RS       4    FLOW      -1
3306        RC   0.055   0.045   0.055  1095.0  0.0110
3307        RX  9886.8  9904.8  9948.0 10000.0 10032.4 10081.5 10107.3 10130.4
3308        RY  1727.2  1724.1  1725.9  1720.2  1725.6  1725.3  1721.3  1731.4
            *

3309        KK    210K
3310        KM   Sub-Basin   210K
3311        KM
3312        KM      The Clark Unit Hydrograph is used for this basin.
3313        KM          The Urban time-area relation is used for this basin.
3314        KM
3315        KM      Time of Concentration for this sub-basin is based on the following:
3316        KM          6-Hour Rainfall, Pattern No.  1.00
3317        KM          An rainfall areal reduction factor of 0.999
3318        KM
3319        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3320        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3321        KM   .48 .47 .47 .17 .14 .13 .06 .06 .06 .05 .05 .05 .00 .00 .00 .00 .00 .00
3322        KM
3323        KM          L=   0.425 miles, S=  207 feet/mile, Kb= .03
3324        KM
3325        BA   0.077
3326        LG    0.09    0.19    6.60    0.13   15.00
3327        UC   0.117   0.074
3328        UA       0       5      16      30      65      77      84      90      94      97
1                                          HEC-1 INPUT                                          PAGE 78
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
3329        UA     100
            *
```

```
3330        KK    C596
3331        KM      Hydrograph combine 595596 + 210K at C596
3332        HC       2
            *
            * *
            * * C596 is the total flow in Bristol Wash at Golden Eagle Blvd.
            * * upstream of DAM 4
            * *
            * * Leave Basin 210 temporarily and move to Basin 209
            * *
            * * Start Cloudburst Wash
            *

3333        KK    209A
3334        KM   Sub-Basin   209A
3335        KM
3336        KM      The Clark Unit Hydrograph is used for this basin.
3337        KM          The HEC-1 time-area relation is used for this basin.
3338        KM
3339        KM      Time of Concentration for this sub-basin is based on the following:
3340        KM          6-Hour Rainfall, Pattern No.  1.00
3341        KM          An rainfall areal reduction factor of 0.995
3342        KM
3343        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3344        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3345        KM   .46 .45 .45 .15 .11 .10 .05 .05 .04 .04 .04 .04 .01 .01 .01 .01 .01 .01
3346        KM
3347        KM          L=   1.028 miles, S=  367 feet/mile, Kb= .08
3348        KM
3349        BA   0.368
3350        LG    0.18    0.31    4.35    0.38   41.41
3351        UC   0.263   0.152
            *

3352        KK  579580
3353        KM      Normal depth channel route from C579 to C580
3354        KM      Source:  100 Scale 4' CI Mapping
3355        RS       1     FLOW      -1
3356        RC   0.050   0.045   0.050  1751.0  0.0600
3357        RX  1000.0  1010.0  1025.0  1030.0  1035.0  1040.0  1045.0  1048.0
3358        RY  2336.0  2332.0  2328.0  2327.5  2327.5  2328.0  2332.0  2336.0
            *

3359        KK    209C
3360        KM   Sub-Basin   209C
3361        KM
3362        KM      The Clark Unit Hydrograph is used for this basin.
3363        KM          The Urban time-area relation is used for this basin.
3364        KM
3365        KM      Time of Concentration for this sub-basin is based on the following:
3366        KM          6-Hour Rainfall, Pattern No.  1.00
3367        KM          An rainfall areal reduction factor of 0.999
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3368        KM
3369        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3370        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3371        KM   .47 .47 .47 .16 .13 .12 .06 .05 .05 .04 .04 .04 .01 .01 .01 .01 .01 .01
3372        KM
3373        KM          L=   0.723 miles, S=  342 feet/mile, Kb= .05
3374        KM
3375        BA   0.064
3376        LG    0.11    0.26    4.35    0.36   48.03
3377        UC   0.175   0.198
3378        UA       0       5      16      30      65      77      84      90      94      97
3379        UA     100
            *

3380        KK   C580R
3381        KM      Hydrograph combine 579580 + 209C at C580 right branch
3382        HC       2
            *

3383        KK    209B
3384        KM   Sub-Basin   209B
3385        KM
3386        KM      The Clark Unit Hydrograph is used for this basin.
3387        KM          The Urban time-area relation is used for this basin.
3388        KM
3389        KM      Time of Concentration for this sub-basin is based on the following:
3390        KM          6-Hour Rainfall, Pattern No.  1.00
3391        KM          An rainfall areal reduction factor of 0.999
3392        KM
3393        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3394        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3395        KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .04 .04 .04 .01 .01 .01 .01 .01 .01
3396        KM
3397        KM          L=   0.716 miles, S=  403 feet/mile, Kb= .03
3398        KM
3399        BA   0.083
3400        LG    0.09    0.25    4.35    0.35   50.00
3401        UC   0.125   0.116
3402        UA       0       5      16      30      65      77      84      90      94      97
3403        UA     100
            *

3404        KK    C580
3405        KM      Hydrograph combine 580R + 209B at C580
3406        HC       2
            *
```

```
3407        KK  580581
3408        KM      Normal depth channel route from C580 to C581
3409        KM      Source:  100 Scale 4' CI Mapping
3410        RS       2    FLOW      -1
3411        RC   0.050   0.045   0.050  2339.0  0.0440
3412        RX  1000.0  1010.0  1025.0  1030.0  1040.0  1045.0  1070.0  1075.0
3413        RY  2452.0  2448.0  2444.0  2443.5  2444.0  2448.0  2452.0
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3414        KK    209D
3415        KM   Sub-Basin   209D
3416        KM
3417        KM      The Clark Unit Hydrograph is used for this basin.
3418        KM          The Urban time-area relation is used for this basin.
3419        KM
3420        KM      Time of Concentration for this sub-basin is based on the following:
3421        KM          6-Hour Rainfall, Pattern No.  1.00
3422        KM          An rainfall areal reduction factor of 0.997
3423        KM
3424        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3425        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3426        KM   .47 .47 .46 .16 .13 .12 .06 .05 .05 .04 .04 .04 .01 .01 .01 .01 .01 .01
3427        KM
3428        KM          L=   0.800 miles, S=  354 feet/mile, Kb= .04
3429        KM
3430        BA   0.244
3431        LG    0.11    0.26    4.35    0.36   48.63
3432        UC   0.163   0.092
3433        UA       0       5      16      30      65      77      84      90      94      97
3434        UA     100
            *

3435        KK   C581R
3436        KM      Hydrograph combine 580581 + 209D at C581 right branch
3437        HC       2
            *

3438        KK    209E
3439        KM   Sub-Basin   209E
3440        KM
3441        KM      The Clark Unit Hydrograph is used for this basin.
3442        KM          The Urban time-area relation is used for this basin.
3443        KM
3444        KM      Time of Concentration for this sub-basin is based on the following:
3445        KM          6-Hour Rainfall, Pattern No.  1.00
3446        KM          An rainfall areal reduction factor of 0.998
3447        KM
3448        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3449        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3450        KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .04 .04 .04 .01 .01 .01 .01 .01 .01
3451        KM
3452        KM          L=   1.018 miles, S=  341 feet/mile, Kb= .03
3453        KM
3454        BA   0.149
3455        LG    0.09    0.25    4.35    0.35   50.00
3456        UC   0.158   0.144
3457        UA       0       5      16      30      65      77      84      90      94      97
3458        UA     100
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3459        KK    C581
3460        KM      Hydrograph combine 581R + 209E at C581
3461        HC       2
            *

3462        KK  581582
3463        KM      Normal depth channel route from C581 to C582
3464        KM      Source:  100 Scale 4' CI Mapping
3465        RS       3    FLOW      -1
3466        RC   0.050   0.045   0.050  4012.0  0.0459
3467        RX  1000.0  1010.0  1025.0  1030.0  1035.0  1040.0  1050.0  1065.0
3468        RY  2100.0  2096.0  2092.0  2091.5  2091.5  2092.0  2096.0  2100.0
            *

3469        KK    209F
3470        KM   Sub-Basin   209F
3471        KM
3472        KM      The Clark Unit Hydrograph is used for this basin.
3473        KM          The HEC-1 time-area relation is used for this basin.
3474        KM
3475        KM      Time of Concentration for this sub-basin is based on the following:
3476        KM          6-Hour Rainfall, Pattern No.  1.00
3477        KM          An rainfall areal reduction factor of 0.997
3478        KM
3479        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3480        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3481        KM   .46 .45 .45 .15 .11 .10 .05 .05 .04 .03 .03 .03 .01 .01 .01 .01 .01 .01
3482        KM
3483        KM          L=   1.191 miles, S=  332 feet/mile, Kb= .09
3484        KM
3485        BA   0.226
3486        LG    0.18    0.31    4.50    0.36   40.21
3487        UC   0.329   0.290
            *

3488        KK   C582R
```

```
3489          KM      Hydrograph combine 581582 + 209F at C582 right branch
3490          HC       2
              *

3491          KK    209G
3492          KM   Sub-Basin   209G
3493          KM
3494          KM      The Clark Unit Hydrograph is used for this basin.
3495          KM          The Urban time-area relation is used for this basin.
3496          KM
3497          KM      Time of Concentration for this sub-basin is based on the following:
3498          KM          6-Hour Rainfall, Pattern No.  1.00
3499          KM          An rainfall areal reduction factor of 0.997
3500          KM
3501          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3502          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3503          KM   .47 .47 .47 .16 .13 .13 .06 .06 .05 .04 .04 .04 .01 .01 .01 .01 .01 .01
3504          KM
```

1 HEC-1 INPUT PAGE 82

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3505          KM          L=   1.050 miles, S=  306 feet/mile, Kb= .03
3506          KM
3507          BA   0.204
3508          LG    0.09    0.25    4.35    0.35   49.93
3509          UC   0.167   0.130
3510          UA       0       5      16      30      65      77      84      90      94      97
3511          UA     100
              *

3512          KK    C582
3513          KM      Hydrograph combine C582R + 209G at C582
3514          HC       2
              *

3515          KK  582583
3516          KM      Normal depth channel route from C582 to C583
3517          KM      Source:  100 Scale 4' CI Mapping.
3518          RS       2    FLOW      -1
3519          RC   0.060   0.050   0.060  1725.0  0.0232
3520          RX   960.0  1020.0  1035.0  1040.0  1050.0  1055.0  1065.0  1073.0
3521          RY  2024.0  2018.0  2016.0  2015.5  2015.5  2016.0  2020.0  2024.0
              *

3522          KK    209H
3523          KM   Sub-Basin   209H
3524          KM
3525          KM      The Clark Unit Hydrograph is used for this basin.
3526          KM          The Urban time-area relation is used for this basin.
3527          KM
3528          KM      Time of Concentration for this sub-basin is based on the following:
3529          KM          6-Hour Rainfall, Pattern No.  1.00
3530          KM          An rainfall areal reduction factor of 0.999
3531          KM
3532          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3533          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3534          KM   .46 .46 .46 .15 .12 .11 .05 .05 .04 .03 .02 .02 .01 .01 .01 .01 .01 .01
3535          KM
3536          KM          L=   0.542 miles, S=  343 feet/mile, Kb= .07
3537          KM
3538          BA   0.083
3539          LG    0.15    0.31    5.60    0.22   26.57
3540          UC   0.179   0.138
3541          UA       0       5      16      30      65      77      84      90      94      97
3542          UA     100
              *

3543          KK    C583
3544          KM      Hydrograph combine 582583 + 209H at C583
3545          HC       2
              *
```

1 HEC-1 INPUT PAGE 83

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3546          KK  583584
3547          KM      Normal depth channel route from C583 to C584
3548          KM      Source:  HEC-2 Cross Section: CL 1.664
3549          RS       5    FLOW      -1
3550          RC   0.055   0.070   0.055  3107.0  0.0356
3551          RX  9859.8  9910.3  9933.5  9995.6 10021.7 10051.0 10083.0 10127.8
3552          RY  1948.3  1944.2  1943.7  1930.9  1932.4  1941.6  1937.3  1945.2
              *

3553          KK    209I
3554          KM   Sub-Basin   209I
3555          KM
3556          KM      The Clark Unit Hydrograph is used for this basin.
3557          KM          The Urban time-area relation is used for this basin.
3558          KM
3559          KM      Time of Concentration for this sub-basin is based on the following:
3560          KM          6-Hour Rainfall, Pattern No.  1.00
3561          KM          An rainfall areal reduction factor of 0.998
3562          KM
3563          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3564          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3565          KM   .47 .46 .46 .16 .13 .12 .05 .05 .05 .04 .03 .02 .00 .00 .00 .00 .00 .00
3566          KM
3567          KM          L=   0.691 miles, S=  347 feet/mile, Kb= .04
3568          KM
3569          BA   0.182
3570          LG    0.10    0.27    6.00    0.17   17.98
```

```
3571          UC   0.150   0.088
3572          UA       0       5      16      30      65      77      84      90      94      97
3573          UA     100
              *

3574          KK   C584I
3575          KM      Hydrograph combine 583584 + 209I at C584I
3576          HC       2
              *
              * *
              * * C584I is the total flow in Cloudburst Wash upstream of Dam 7
              * *
              *

3577          KK   C584O
3578          KM      Reservoir route at C584 (Dam 7).
3579          RS       1    ELEV  1884.8
3580          SV    0.00   14.55   37.17   57.52   86.65   94.00   97.00  101.00  104.90  109.00
3581          SV  113.00  118.00  122.00  126.25  131.00  133.00  136.00  139.00
3582          SE  1884.8  1908.0  1916.0  1920.0  1924.0  1924.8  1925.2  1925.6  1926.0  1926.4
3583          SE  1926.8  1927.2  1927.6  1928.0  1928.4  1928.6  1928.8  1929.0
3584          SQ       0     135     223     285     326     341     355     358     385     493
3585          SQ     704    1007    1394    1852    2374    2956    3596    3937    4292    4661
3586          SE  1884.8  1892.0  1900.0  1908.0  1916.0  1920.0  1924.0  1924.8  1925.2  1925.6
3587          SE  1926.0  1926.4  1926.8  1927.2  1927.6  1928.0  1928.4  1928.6  1928.8  1929.0
3588          RL                    0.15
              *
              * *
              * * End Basin 209.  Rejoin Basin 210
              * *
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3589          KK  584597
3590          KM      Normal depth channel route from C584 to C597
3591          KM      Source:  HEC-2 Cross Section: CL 1.032
3592          RS       8    FLOW      -1
3593          RC   0.065   0.050   0.065  3704.0  0.0261
3594          RX  9902.1  9923.0  9938.7  9984.6 10049.3 10056.0 10091.7 10120.0
3595          RY  1839.1  1830.1  1826.6  1824.1  1824.9  1826.7  1828.5  1838.8
              *

3596          KK    210L
3597          KM   Sub-Basin   210L
3598          KM
3599          KM      The Clark Unit Hydrograph is used for this basin.
3600          KM          The Urban time-area relation is used for this basin.
3601          KM
3602          KM      Time of Concentration for this sub-basin is based on the following:
3603          KM          6-Hour Rainfall, Pattern No.  1.00
3604          KM          An rainfall areal reduction factor of 0.998
3605          KM
3606          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3607          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3608          KM   .46 .46 .46 .15 .12 .11 .05 .05 .04 .03 .03 .02 .00 .00 .00 .00 .00 .00
3609          KM
3610          KM          L=   0.820 miles, S=  251 feet/mile, Kb= .03
3611          KM
3612          BA   0.137
3613          LG    0.09    0.25    5.20    0.23   15.90
3614          UC   0.158   0.127
3615          UA       0       5      16      30      65      77      84      90      94      97
3616          UA     100
              *

3617          KK    C597
3618          KM      Hydrograph combine 584597 + 210L at C597
3619          HC       2
              *

3620          KK  597598
3621          KM      Normal depth channel route from C597 to C598
3622          KM      Source:  HEC-2 Cross Section: CL 0.328
3623          RS       5    FLOW      -1
3624          RC   0.065   0.050   0.065  2822.0  0.0252
3625          RX  9961.0  9961.9  9969.1  9986.3 10018.5 10082.6 10155.2 10278.8
3626          RY  1740.2  1740.2  1738.1  1731.6  1732.3  1737.1  1740.0  1740.8
              *

3627          KK    210M
3628          KM   Sub-Basin   210M
3629          KM
3630          KM      The Clark Unit Hydrograph is used for this basin.
3631          KM          The Urban time-area relation is used for this basin.
3632          KM
3633          KM      Time of Concentration for this sub-basin is based on the following:
3634          KM          6-Hour Rainfall, Pattern No.  1.00
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3635          KM          An rainfall areal reduction factor of 0.998
3636          KM
3637          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3638          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3639          KM   .47 .47 .46 .16 .13 .12 .05 .05 .05 .04 .04 .03 .00 .00 .00 .00 .00 .00
3640          KM
3641          KM          L=   1.022 miles, S=  232 feet/mile, Kb= .03
3642          KM
3643          BA   0.162
3644          LG    0.09    0.25    5.80    0.17   15.02
```

```
3645        UC   0.179   0.157
3646        UA       0       5      16      30      65      77      84      90      94      97
3647        UA     100
            *

3648        KK    C598
3649        KM      Hydrograph combine 597598 + 210M at C598
3650        HC       2
            *
            * *
            * * C598 is the total flow in Cloudburst Wash at Golden Eagle Blvd.
            * * upstream of DAM 4
            * *
            *

3651        KK    210N
3652        KM   Sub-Basin   210N
3653        KM
3654        KM      The Clark Unit Hydrograph is used for this basin.
3655        KM          The Urban time-area relation is used for this basin.
3656        KM
3657        KM      Time of Concentration for this sub-basin is based on the following:
3658        KM          6-Hour Rainfall, Pattern No.  1.00
3659        KM          An rainfall areal reduction factor of 0.999
3660        KM
3661        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3662        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3663        KM   .45 .44 .44 .13 .10 .09 .03 .03 .03 .01 .01 .01 .00 .00 .00 .00 .00 .00
3664        KM
3665        KM          L=   0.309 miles, S=  178 feet/mile, Kb= .03
3666        KM
3667        BA   0.049
3668        LG    0.09    0.25    4.10    0.40   16.38
3669        UC   0.108   0.069
3670        UA       0       5      16      30      65      77      84      90      94      97
3671        UA     100
            *

3672        KK   C599I
3673        KM      Hydrograph combine C585 + C596 + C598 + 210N at C599I
3674        HC       4
            *
            * *
            * * C599I is the total flow in Ashbrook Wash upstream of DAM 4
            * *
            *
            *
```

1 HEC-1 INPUT PAGE 86

```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3675        KK   C599O
3676        KM      Reservoir route at C599 (Dam 4).
3677        RS       1    ELEV  1694.7
3678        SV    0.00   16.85   31.66   52.71   80.85   95.00   98.00  102.00  105.00  109.00
3679        SV  113.00  116.14  120.00  124.00  128.00  136.00  139.00  144.00  148.00  152.00
3680        SE  1694.7  1708.0  1710.0  1712.0  1714.0  1714.8  1715.0  1715.2  1715.4  1715.6
3681        SE  1715.8  1716.0  1716.2  1716.4  1716.6  1717.0  1717.2  1717.4  1717.6  1717.8
3682        SQ       0      38     214     312     384     443     497     543     587     628
3683        SQ     642     754     957    1262    1665    2182    2483    2811    3164    3540
3684        SE  1694.7  1696.0  1700.0  1702.0  1704.0  1706.0  1708.0  1710.0  1712.0  1714.0
3685        SE  1714.8  1715.4  1715.8  1716.2  1716.6  1717.0  1717.2  1717.4  1717.6  1717.8
3686        RL                    0.97
            *
            * * End Basin 210.  Start Basin 211
            * *
            *

3687        KK  599608
3688        KM      Normal depth channel route from C599 to C608
3689        KM      Source:  HEC-2 Cross Section: AS 3.621
3690        RS       2    FLOW      -1
3691        RC   0.055   0.045   0.025  1476.0  0.0148
3692        RX  9675.4  9726.8  9929.0  9990.7 10005.9 10033.3 10061.9 10082.2
3693        RY  1691.3  1687.2  1685.5  1678.6  1678.1  1682.1  1689.8  1691.8
            *

3694        KK    211K
3695        KM   Sub-Basin   211K
3696        KM
3697        KM      The Clark Unit Hydrograph is used for this basin.
3698        KM          The Urban time-area relation is used for this basin.
3699        KM
3700        KM      Time of Concentration for this sub-basin is based on the following:
3701        KM          6-Hour Rainfall, Pattern No.  1.00
3702        KM          An rainfall areal reduction factor of 0.999
3703        KM
3704        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3705        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3706        KM   .48 .47 .47 .17 .13 .13 .06 .06 .06 .05 .04 .03 .01 .01 .01 .01 .01 .01
3707        KM
3708        KM          L=   0.376 miles, S=  157 feet/mile, Kb= .03
3709        KM
3710        BA   0.102
3711        LG    0.13    0.27    6.00    0.16   31.48
3712        UC   0.121   0.060
3713        UA       0       5      16      30      65      77      84      90      94      97
3714        UA     100
            *
```

1 HEC-1 INPUT PAGE 87

```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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```
3715          KK   C608L
3716          KM      Hydrograph combine 599608 + 211K at C608 left branch
3717          HC       2
              *

3718          KK    211G
3719          KM   Sub-Basin   211G
3720          KM
3721          KM      The Clark Unit Hydrograph is used for this basin.
3722          KM          The Urban time-area relation is used for this basin.
3723          KM
3724          KM      Time of Concentration for this sub-basin is based on the following:
3725          KM          6-Hour Rainfall, Pattern No.  1.00
3726          KM          An rainfall areal reduction factor of 1.000
3727          KM
3728          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3729          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3730          KM   .50 .50 .50 .19 .16 .16 .08 .08 .08 .08 .08 .08 .02 .02 .02 .02 .02 .02
3731          KM
3732          KM          L=   0.448 miles, S=  190 feet/mile, Kb= .04
3733          KM
3734          BA   0.008
3735          LG    0.06    0.25    5.70    0.18   90.00
3736          UC   0.142   0.359
3737          UA       0       5      16      30      65      77      84      90      94      97
3738          UA     100
              *

3739          KK  604606
3740          KM      Normal depth channel route from C604 to C606
3741          KM      Source:  200 Scale Mapping
3742          RS      11    FLOW     -1
3743          RC   0.040   0.018   0.040  2784.0  0.0647
3744          RX  1000.0  1040.0  1060.0  1076.0  1092.0  1093.2  1098.2  1113.2
3745          RY  1814.0  1811.0  1810.8  1811.1  1810.8  1811.2  1812.0  1816.0
              *

3746          KK    211I
3747          KM   Sub-Basin   211I
3748          KM
3749          KM      The Clark Unit Hydrograph is used for this basin.
3750          KM          The Urban time-area relation is used for this basin.
3751          KM
3752          KM      Time of Concentration for this sub-basin is based on the following:
3753          KM          6-Hour Rainfall, Pattern No.  1.00
3754          KM          An rainfall areal reduction factor of 0.999
3755          KM
3756          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3757          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3758          KM   .48 .48 .48 .17 .14 .14 .06 .06 .06 .06 .05 .05 .01 .01 .01 .01 .01 .01
3759          KM
3760          KM          L=   0.626 miles, S=  257 feet/mile, Kb= .03
3761          KM
3762          BA   0.041
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3763          LG    0.08    0.25    5.70    0.18   45.00
3764          UC   0.133   0.168
3765          UA       0       5      16      30      65      77      84      90      94      97
3766          UA     100
              *

3767          KK   C606R
3768          KM      Hydrograph combine 604606 + 211I at C606 right branch
3769          HC       2
              *

3770          KK    211H
3771          KM   Sub-Basin   211H
3772          KM
3773          KM      The Clark Unit Hydrograph is used for this basin.
3774          KM          The Urban time-area relation is used for this basin.
3775          KM
3776          KM      Time of Concentration for this sub-basin is based on the following:
3777          KM          6-Hour Rainfall, Pattern No.  1.00
3778          KM          An rainfall areal reduction factor of 0.999
3779          KM
3780          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3781          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3782          KM   .47 .47 .47 .16 .13 .12 .06 .06 .05 .04 .04 .03 .00 .00 .00 .00 .00 .00
3783          KM
3784          KM          L=   0.501 miles, S=  289 feet/mile, Kb= .03
3785          KM
3786          BA   0.073
3787          LG    0.09    0.25    6.00    0.16   17.93
3788          UC   0.117   0.087
3789          UA       0       5      16      30      65      77      84      90      94      97
3790          UA     100
              *

3791          KK   C605O
3792          KM      Reservoir route at C605.
3793          RS       1    ELEV  1722.5
3794          SV    0.00    0.20    0.20    0.20    0.20    0.30    0.30    0.30    0.40    0.60
3795          SV    0.70    0.90    1.00    1.20    1.40    1.60    1.90    2.80    3.40    4.10
3796          SE  1722.5  1726.8  1727.0  1727.2  1727.4  1727.6  1727.8  1728.0  1728.2  1728.4
3797          SE  1728.6  1728.8  1729.0  1729.2  1729.4  1729.6  1730.0  1730.4  1730.7  1731.0
3798          SQ       0       0       5      10      20      43      63      73      78      85
3799          SQ      91      96     101     105     109     113     122     130     136     200
              *
```

```
3800          KK    C606
3801          KM      Hydrograph combine C606R + C605O at C606
3802          HC       2
              *
1                                          HEC-1 INPUT                                                    PAGE 89

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3803          KK  606607
3804          KM      Normal depth channel route from C606 to C607
3805          KM      Source:  200 Scale Mapping
3806          RS       2    FLOW      -1
3807          RC   0.020   0.055   0.035  1061.0  0.0286
3808          RX  1000.0  1032.0  1082.0  1095.0  1105.0  1117.0  1123.0  1153.0
3809          RY  1704.3  1704.0  1703.5  1700.0  1700.0  1703.0  1704.0  1706.0
              *

3810          KK    211J
3811          KM   Sub-Basin   211J
3812          KM
3813          KM      The Clark Unit Hydrograph is used for this basin.
3814          KM          The Urban time-area relation is used for this basin.
3815          KM
3816          KM      Time of Concentration for this sub-basin is based on the following:
3817          KM          6-Hour Rainfall, Pattern No.  1.00
3818          KM          An rainfall areal reduction factor of 1.000
3819          KM
3820          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3821          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3822          KM   .48 .48 .48 .17 .14 .14 .06 .06 .06 .05 .05 .05 .01 .01 .01 .01 .01 .01
3823          KM
3824          KM          L=   0.249 miles, S=  166 feet/mile, Kb= .03
3825          KM
3826          BA   0.015
3827          LG    0.08    0.23    6.20    0.16   39.19
3828          UC   0.096   0.099
3829          UA       0       5      16      30      65      77      84      90      94      97
3830          UA     100
              *

3831          KK    C607
3832          KM      Hydrograph combine 606607 + 211J at C607
3833          HC       2
              *

3834          KK  607608
3835          KM      Normal depth channel route from C607 to C608
3836          KM      Source:  200 Scale Mapping
3837          RS       2    FLOW      -1
3838          RC   0.040   0.050   0.035  1008.0  0.0145
3839          RX  1000.0  1060.0  1070.0  1082.0  1083.0  1095.0  1115.0  1133.0
3840          RY  1688.0  1686.0  1684.0  1681.0  1681.0  1684.0  1685.0  1685.4
              *

3841          KK    C608
3842          KM      Hydrograph combine C608L + 607608 at C608
3843          HC       2
              *
1                                          HEC-1 INPUT                                                    PAGE 90

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3844          KK  608613
3845          KM      Normal depth channel route from C608 to C613
3846          KM      Source:  HEC-2 Cross Section: AS 3.421
3847          RS       2    FLOW      -1
3848          RC   0.100   0.045   0.100  1338.0  0.0202
3849          RX  9885.0  9887.9  9957.3  9986.7 10012.9 10054.7 10086.3 10122.2
3850          RY  1670.2  1670.1  1668.0  1660.0  1659.9  1661.6  1669.9  1670.8
              *
              * *
              * * Move to the top of Sunflower Wash
              * *
              *

3851          KK    211M
3852          KM   Sub-Basin   211M
3853          KM
3854          KM      The Clark Unit Hydrograph is used for this basin.
3855          KM          The Urban time-area relation is used for this basin.
3856          KM
3857          KM      Time of Concentration for this sub-basin is based on the following:
3858          KM          6-Hour Rainfall, Pattern No.  1.00
3859          KM          An rainfall areal reduction factor of 0.999
3860          KM
3861          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3862          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3863          KM   .48 .48 .48 .17 .14 .14 .07 .07 .06 .06 .06 .05 .01 .01 .01 .01 .01 .01
3864          KM
3865          KM          L=   0.541 miles, S=  266 feet/mile, Kb= .03
3866          KM
3867          BA   0.081
3868          LG    0.07    0.25    5.70    0.18   50.05
3869          UC   0.125   0.094
3870          UA       0       5      16      30      65      77      84      90      94      97
3871          UA     100
              *

3872          KK  610611
3873          KM      Normal depth channel route from C610 to 1611
3874          KM      Source:  HEC-2 Cross Section: SU 0.216
3875          RS       2    FLOW      -1
```

```
3876          RC   0.050   0.045   0.050  1090.0  0.0211
3877          RX  9911.9  9948.1  9973.6  9988.6 10007.1 10027.0 10049.8 10143.7
3878          RY  1699.3  1691.7  1686.3  1680.1  1679.7  1686.6  1687.3  1698.6
              *

3879          KK    211N
3880          KM   Sub-Basin   211N
3881          KM
3882          KM      The Clark Unit Hydrograph is used for this basin.
3883          KM          The Urban time-area relation is used for this basin.
3884          KM
3885          KM      Time of Concentration for this sub-basin is based on the following:
3886          KM          6-Hour Rainfall, Pattern No.  1.00
3887          KM          An rainfall areal reduction factor of 1.000
1                                        HEC-1 INPUT                                                    PAGE 91

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3888          KM
3889          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3890          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3891          KM   .49 .48 .48 .18 .15 .14 .07 .07 .07 .06 .06 .06 .01 .01 .01 .01 .01 .01
3892          KM
3893          KM          L=   0.261 miles, S=  235 feet/mile, Kb= .03
3894          KM
3895          BA   0.020
3896          LG    0.07    0.25    5.70    0.18   56.58
3897          UC   0.088   0.078
3898          UA       0       5      16      30      65      77      84      90      94      97
3899          UA     100
              *

3900          KK   C611R
3901          KM      Hydrograph combine 610611 + 211N at C611 right branch
3902          HC       2
              *

3903          KK    211O
3904          KM   Sub-Basin   211O
3905          KM
3906          KM      The Clark Unit Hydrograph is used for this basin.
3907          KM          The Urban time-area relation is used for this basin.
3908          KM
3909          KM      Time of Concentration for this sub-basin is based on the following:
3910          KM          6-Hour Rainfall, Pattern No.  1.00
3911          KM          An rainfall areal reduction factor of 0.999
3912          KM
3913          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3914          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3915          KM   .48 .48 .48 .17 .14 .14 .06 .06 .06 .06 .05 .05 .01 .01 .01 .01 .01 .01
3916          KM
3917          KM          L=   0.371 miles, S=  257 feet/mile, Kb= .03
3918          KM
3919          BA   0.041
3920          LG    0.08    0.25    5.70    0.18   45.31
3921          UC   0.104   0.084
3922          UA       0       5      16      30      65      77      84      90      94      97
3923          UA     100
              *

3924          KK   C609O
3925          KM      Reservoir route at C609.
3926          RS       1    ELEV  1694.0
3927          SV    0.00    0.10    0.21    0.50    0.86    1.40    1.93    2.60    3.10    3.20
3928          SV    3.39    3.60    3.80    4.00    4.10    4.30    4.50    4.70    4.90    5.10
3929          SE  1694.0  1695.0  1696.0  1697.0  1698.0  1699.0  1700.0  1701.0  1701.6  1701.8
3930          SE  1702.0  1702.2  1702.4  1702.6  1702.8  1703.0  1703.2  1703.4  1703.6  1703.8
3931          SQ       0       6      16      33      48      59      68      75      79      85
3932          SQ     108     149     209     289     390     512     658     829    1025    1247
              *
1                                        HEC-1 INPUT                                                    PAGE 92

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3933          KK  609611
3934          KM      Normal depth channel route from C609 to C611
3935          KM      Source:  200 Scale Mapping
3936          RS       2    FLOW      -1
3937          RC   0.035   0.050   0.035   470.0  0.0200
3938          RX  1000.0  1025.0  1050.0  1054.0  1064.0  1068.0  1088.0  1103.0
3939          RY  1690.0  1688.0  1684.0  1682.0  1682.0  1684.0  1688.0  1690.0
              *

3940          KK   C611I
3941          KM      Hydrograph combine 609611 + C611R at C611I
3942          HC       2
              *

3943          KK   C611O
3944          KM      Reservoir route at C611.
3945          RS       1    ELEV  1668.4
3946          SV    0.00    0.41    1.10    2.49    4.34    6.64    6.72    6.81    6.89    6.97
3947          SV    7.06    7.14    7.22    7.31    7.39    7.47    7.56    7.64    7.72    7.81
3948          SE  1674.0  1676.0  1678.0  1680.0  1682.0  1684.0  1684.2  1684.4  1684.6  1684.8
3949          SE  1685.0  1685.2  1685.4  1685.6  1685.8  1686.0  1686.2  1686.4  1686.6  1686.8
3950          SQ       0       0      86     117     141     162     164     170     181     199
3951          SQ     225     262     313     378     460     558     673     807     958    1118
              *

3952          KK   D611L
3953          KM      Hydrograph diversion at C611.  Main flow continues in the left branch.
3954          KM      Diverted flow is in the right branch.
3955          DT   D611R
```

```
3956    DI      0      0     86    117    141    162    164    170    181    199
3957    DI    225    262    313    378    460    558    673    807    958   1118
3958    DQ      0      0     86    117    141    162    164    165    167    169
3959    DQ    171    173    175    176    178    180    182    183    185    187
        *

3960    KK  611612
3961    KM     Normal depth channel route from C611 to C612
3962    KM     Source:  200 Scale Mapping
3963    RS      4    FLOW     -1
3964    RC  0.040  0.018  0.040  925.0  0.0270
3965    RX  1000.0  1020.0  1023.0  1041.0  1059.0  1060.2  1071.2  1136.2
3966    RY  1666.0  1664.0  1663.5  1663.9  1663.5  1663.9  1664.0  1666.0
        *

3967    KK   211P
3968    KM  Sub-Basin   211P
3969    KM
3970    KM     The Clark Unit Hydrograph is used for this basin.
3971    KM         The Urban time-area relation is used for this basin.
3972    KM
3973    KM     Time of Concentration for this sub-basin is based on the following:
3974    KM         6-Hour Rainfall, Pattern No.  1.00
3975    KM         An rainfall areal reduction factor of 1.000
3976    KM
```



```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3977    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3978    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3979    KM   .49 .49 .49 .18 .15 .15 .07 .07 .07 .07 .07 .07 .01 .01 .01 .01 .01 .01
3980    KM
3981    KM         L=   0.307 miles, S=  192 feet/mile, Kb= .03
3982    KM
3983    BA   0.033
3984    LG    0.08    0.15    7.00    0.11   45.00
3985    UC   0.100   0.077
3986    UA      0       5      16      30      65      77      84      90      94      97
3987    UA    100
        *

3988    KK    C612
3989    KM      Hydrograph combine 611612 + 211P at C612
3990    HC       2
        *
        * *
        * * NOTE: 612613 is too short to route
        * *
        *

3991    KK    C613
3992    KM      Hydrograph combine 608613 + C612 at C613
3993    HC       2
        *

3994    KK  613621
3995    KM     Normal depth channel route from C613 to C621
3996    KM     Source:  HEC-2 Cross Section: AS 3.241
3997    RS      1    FLOW     -1
3998    RC  0.100   0.045   0.100   718.0  0.0251
3999    RX  9695.4  9884.0  9985.0  9991.1 10033.8 10062.8 10097.5 10165.1
4000    RY  1655.5  1647.5  1645.8  1641.1  1640.6  1642.1  1648.7  1654.3
        *

4001    KK   211L
4002    KM  Sub-Basin   211L
4003    KM
4004    KM     The Clark Unit Hydrograph is used for this basin.
4005    KM         The Urban time-area relation is used for this basin.
4006    KM
4007    KM     Time of Concentration for this sub-basin is based on the following:
4008    KM         6-Hour Rainfall, Pattern No.  1.00
4009    KM         An rainfall areal reduction factor of 0.999
4010    KM
4011    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4012    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4013    KM   .47 .46 .46 .16 .12 .12 .05 .05 .05 .04 .04 .04 .01 .01 .01 .01 .01 .01
4014    KM
4015    KM         L=   0.508 miles, S=  181 feet/mile, Kb= .03
4016    KM
4017    BA   0.096
4018    LG    0.11    0.26    4.35    0.36   42.40
4019    UC   0.138   0.091
```



```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4020    UA      0       5      16      30      65      77      84      90      94      97
4021    UA    100
        *

4022    KK   C621L
4023    KM     Hydrograph combine 613621 + 211L at C621 left branch
4024    HC       2
        *
        * *
        * * Move to the top of Arrow Wash
        * *
        *

4025    KK   211Q
4026    KM  Sub-Basin   211Q
4027    KM
```

```
4028    KM      The Clark Unit Hydrograph is used for this basin.
4029    KM          The Urban time-area relation is used for this basin.
4030    KM
4031    KM      Time of Concentration for this sub-basin is based on the following:
4032    KM          6-Hour Rainfall, Pattern No.  1.00
4033    KM          An rainfall areal reduction factor of 1.000
4034    KM
4035    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4036    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4037    KM   .48 .47 .47 .17 .13 .13 .06 .06 .05 .05 .04 .04 .01 .01 .01 .01 .01 .01
4038    KM
4039    KM          L=   0.255 miles, S=  295 feet/mile, Kb= .03
4040    KM
4041    BA   0.021
4042    LG    0.08    0.25    5.70    0.18   30.04
4043    UC   0.083   0.071
4044    UA       0       5      16      30      65      77      84      90      94      97
4045    UA     100
        *

4046    KK  616617
4047    KM      Normal depth channel route from C616 to C617
4048    KM      Source:  200 Scale Mapping
4049    RS       2    FLOW     -1
4050    RC   0.070   0.060   0.070  1131.0  0.0553
4051    RX  1000.0  1008.0  1015.0  1045.0  1050.0  1080.0  1100.0  1110.0
4052    RY  1834.0  1832.0  1830.0  1826.0  1826.0  1830.0  1834.0  1836.0
        *

4053    KK    211R
4054    KM   Sub-Basin   211R
4055    KM
4056    KM      The Clark Unit Hydrograph is used for this basin.
4057    KM          The Urban time-area relation is used for this basin.
4058    KM
4059    KM      Time of Concentration for this sub-basin is based on the following:
4060    KM          6-Hour Rainfall, Pattern No.  1.00
4061    KM          An rainfall areal reduction factor of 0.999
4062    KM
```



```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4063    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4064    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4065    KM   .48 .47 .47 .17 .14 .13 .06 .06 .06 .05 .05 .04 .01 .01 .01 .01 .01 .01
4066    KM
4067    KM          L=   0.572 miles, S=  271 feet/mile, Kb= .03
4068    KM
4069    BA   0.084
4070    LG    0.08    0.25    5.70    0.18   37.77
4071    UC   0.125   0.096
4072    UA       0       5      16      30      65      77      84      90      94      97
4073    UA     100
        *

4074    KK   C617L
4075    KM      Hydrograph combine 616617 + 211R at C617 left branch
4076    HC       2
        *

4077    KK    211U
4078    KM   Sub-Basin   211U
4079    KM
4080    KM      The Clark Unit Hydrograph is used for this basin.
4081    KM          The Urban time-area relation is used for this basin.
4082    KM
4083    KM      Time of Concentration for this sub-basin is based on the following:
4084    KM          6-Hour Rainfall, Pattern No.  1.00
4085    KM          An rainfall areal reduction factor of 1.000
4086    KM
4087    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4088    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4089    KM   .49 .49 .49 .18 .15 .15 .07 .07 .07 .07 .07 .06 .02 .02 .02 .02 .02 .02
4090    KM
4091    KM          L=   0.831 miles, S=  214 feet/mile, Kb= .03
4092    KM
4093    BA   0.027
4094    LG    0.07    0.25    5.70    0.18   65.99
4095    UC   0.163   0.330
4096    UA       0       5      16      30      65      77      84      90      94      97
4097    UA     100
        *

4098    KK   D614L
4099    KM      Hydrograph diversion at C614.  Main flow continues in the left branch.
4100    KM      Diverted flow is in the right branch.
4101    DT   D614R
4102    DI       0     4.3     8.5    20.0    49.0    85.5
4103    DQ       0     2.5     5.0    13.5    35.0    60.0
        *

4104    KK    C617
4105    KM      Hydrograph combine C617L + D614L at C617
4106    HC       2
        *
```



```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4107    KK  617618
4108    KM      Normal depth channel route from C617 to C618
4109    KM      Source:  HEC-2 Cross Section: AR 0.836
```

```
4110    RS       3    FLOW      -1
4111    RC   0.070   0.060   0.070  1912.0  0.0345
4112    RX  9983.3  9987.2  9989.2  9991.1 10031.5 10053.5 10070.6 10097.7
4113    RY  1766.5  1762.3  1760.2  1758.1  1757.8  1760.8  1764.2  1770.6
        *

4114    KK    211S
4115    KM   Sub-Basin   211S
4116    KM
4117    KM      The Clark Unit Hydrograph is used for this basin.
4118    KM          The Urban time-area relation is used for this basin.
4119    KM
4120    KM      Time of Concentration for this sub-basin is based on the following:
4121    KM          6-Hour Rainfall, Pattern No.  1.00
4122    KM          An rainfall areal reduction factor of 0.999
4123    KM
4124    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4125    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4126    KM   .47 .47 .46 .16 .13 .12 .06 .05 .05 .04 .03 .03 .01 .01 .01 .01 .01 .01
4127    KM
4128    KM          L=   0.445 miles, S=  272 feet/mile, Kb= .07
4129    KM
4130    BA   0.050
4131    LG    0.11    0.31    5.70    0.19   30.06
4132    UC   0.175   0.154
4133    UA       0       5      16      30      65      77      84      90      94      97
4134    UA     100
        *

4135    KK   C618I
4136    KM      Hydrograph combine 617618 + 211S at C618I
4137    HC       2
        *

4138    KK   C618O
4139    KM      Reservoir route at C618.
4140    RS       1    ELEV  1730.6
4141    SV    0.00    0.06    0.24    0.50    0.75    1.20    1.66    2.30    2.94    3.20
4142    SV    3.30    3.40    3.60    3.80    3.90    4.10    4.30    4.50    4.65     5.0
4143    SE  1730.6  1736.0  1738.0  1739.0  1740.0  1741.0  1742.0  1743.0  1744.0  1744.3
4144    SE  1744.4  1744.6  1744.8  1745.0  1745.2  1745.4  1745.6  1745.8  1746.0  1746.2
4145    SQ       0     2.6     3.0     3.1     3.2     3.3     3.5     3.6     3.7     3.7
4146    SQ     3.8       8      21      48      88     143     212     295     390     499
        *

4147    KK  BB614R
4148    KM      Retrieve previously diverted hydrograph at C614 in the right branch.
4149    DR   D614R
        *
```



```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4150    KK  614615
4151    KM      Normal depth channel route from C614 to C615
4152    KM      Source:  Hydrology Field Reconnaissance
4153    RS       3    FLOW      -1
4154    RC   0.040   0.018   0.040  1114.0  0.0397
4155    RX  1000.0  1020.0  1025.0  1059.0  1091.0  1093.0  1098.0  1103.0
4156    RY  1828.0  1822.0  1821.5  1822.2  1821.8  1822.0  1824.0  1826.0
        *

4157    KK    211V
4158    KM   Sub-Basin   211V
4159    KM
4160    KM      The Clark Unit Hydrograph is used for this basin.
4161    KM          The Urban time-area relation is used for this basin.
4162    KM
4163    KM      Time of Concentration for this sub-basin is based on the following:
4164    KM          6-Hour Rainfall, Pattern No.  1.00
4165    KM          An rainfall areal reduction factor of 1.000
4166    KM
4167    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4168    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4169    KM   .50 .50 .50 .19 .16 .16 .08 .08 .08 .08 .08 .08 .02 .02 .02 .02 .02 .02
4170    KM
4171    KM          L=   0.222 miles, S=  212 feet/mile, Kb= .04
4172    KM
4173    BA   0.005
4174    LG    0.06    0.25    5.80    0.18   90.00
4175    UC   0.096   0.170
4176    UA       0       5      16      30      65      77      84      90      94      97
4177    UA     100
        *

4178    KK    C615
4179    KM      Hydrograph combine 614615 + 211V at C615
4180    HC       2    0.03
        *

4181    KK   D615L
4182    KM      Hydrograph diversion at C615.  Main flow continues in the left branch.
4183    KM      Diverted flow is in the right branch.
4184    DT   D615R
4185    DI       0     1.3     2.5     5.3     8.6    14.2    23.0    36.8    55.5    77.5
4186    DQ       0       0       0     1.3     2.6     4.2     7.0    12.8    19.5    29.5
        *

4187    KK  615618
4188    KM      Normal depth channel route from C615 to C618
4189    KM      Source:  Hydrology Field Reconnaissance
4190    RS       1    FLOW      -1
4191    RC   0.040   0.018   0.040   499.0  0.1338
```

```
4192          RX  1000.0  1008.0  1009.2  1013.2  1027.2  1028.4  1036.4  1045.4
4193          RY  1800.4  1799.6  1799.2  1798.8  1798.3  1798.7  1798.9  1800.4
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4194          KK    C618
4195          KM      Hydrograph combine C618O + 615618 at C618
4196          HC       2    0.19
              *

4197          KK  618619
4198          KM      Normal depth channel route from C618 to C619
4199          KM      Source:  HEC-2 Cross Section: AR 0.441
4200          RS       3    FLOW      -1
4201          RC   0.070   0.060   0.070  1837.0  0.0285
4202          RX  9870.6  9928.6  9957.1  9996.9 10004.9 10022.1 10062.0 10116.4
4203          RY  1709.2  1700.9  1698.8  1690.0  1689.8  1699.6  1700.3  1711.3
              *

4204          KK    211T
4205          KM   Sub-Basin   211T
4206          KM
4207          KM      The Clark Unit Hydrograph is used for this basin.
4208          KM          The Urban time-area relation is used for this basin.
4209          KM
4210          KM      Time of Concentration for this sub-basin is based on the following:
4211          KM          6-Hour Rainfall, Pattern No.  1.00
4212          KM          An rainfall areal reduction factor of 0.999
4213          KM
4214          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4215          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4216          KM   .49 .49 .49 .18 .15 .15 .07 .07 .07 .07 .06 .06 .01 .01 .01 .01 .01 .01
4217          KM
4218          KM          L=   0.488 miles, S=  250 feet/mile, Kb= .03
4219          KM
4220          BA   0.066
4221          LG    0.07    0.25    5.70    0.18   64.25
4222          UC   0.117   0.090
4223          UA       0       5      16      30      65      77      84      90      94      97
4224          UA     100
              *

4225          KK   C619L
4226          KM      Hydrograph combine 618619 + 211T at C619 left branch
4227          HC       2
              *

4228          KK  BB615R
4229          KM      Retrieve previously diverted hydrograph at C615 in the right branch.
4230          DR   D615R
              *

4231          KK  615619
4232          KM      Normal depth channel route from C615 to C619
4233          KM      Source:  Hydrology Field Reconnaissance
4234          RS       6    FLOW      -1
4235          RC   0.045   0.024   0.025  2444.0  0.0493
4236          RX  1000.0  1009.3  1018.5  1037.0  1039.3  1053.0  1065.0  1065.0
4237          RY  1727.2  1726.5  1725.8  1724.4  1724.6  1725.8  1725.9  1725.9
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4238          KK   C619I
4239          KM      Hydrograph combine C619L + 615619 at C619I
4240          HC       2    0.25
              *

4241          KK   C619O
4242          KM      Reservoir route at C619.
4243          RS       1    ELEV  1675.6
4244          SV    0.00    1.72    2.98    4.70    7.00    7.08    7.17    7.26    7.34    7.43
4245          SV    7.51    7.60    7.69    7.77    7.86
4246          SE  1675.6  1686.0  1688.0  1690.0  1692.0  1692.2  1692.4  1692.6  1692.8  1693.0
4247          SE  1693.2  1693.4  1693.6  1693.8  1694.0
4248          SQ       0       4      25      72     128     155     163     172     178     187
4249          SQ     195     213     238     273     318     374     441     518     606     706
4250          SE  1675.6  1676.0  1678.0  1680.0  1682.0  1684.0  1686.0  1688.0  1690.0  1692.0
4251          SE  1692.2  1692.4  1692.6  1692.8  1693.0  1693.2  1693.4  1693.6  1693.8  1694.0
              *

4252          KK   D619R
4253          KM      Hydrograph diversion at C619.  Main flow continues in the right branch.
4254          KM      Diverted flow is in the left branch.
4255          DT   D619L
4256          DI       0       4      25      72     128     155     163     172     178     187
4257          DI     195     213     238     273     318     374     441     518     606     706
4258          DQ       0       0       0       0       0       0       0       0       0       0
4259          DQ       8      24      49      83     128     182     249     326     412     512
              *

4260          KK  619620
4261          KM                Lag route through Palisades Plaza storm drain
4262          RT       0                1
              *

4263          KK  BB619L
4264          KM      Retrieve previously diverted hydrograph at C619 in the left branch.
4265          DR   D619L
```

```
                 *

4266             KK  619620
4267             KM   Normal depth channel route from C619 to C620 in Fountain Hills Blvd.
4268             KM   Source:  200 Scale Mapping. Similiar to 523548
4269             RS       1    FLOW      -1
4270             RC   0.040   0.024   0.040   800.0  0.0288
4271             RX   918.0   940.0   960.0  1000.0  1040.0  1040.1  1044.1  1088.1
4272             RY  1648.0  1645.8  1643.8  1644.7  1644.0  1644.5  1644.5  1648.0
                 *

4273             KK    211W
4274             KM   Sub-Basin   211W
4275             KM
4276             KM      The Clark Unit Hydrograph is used for this basin.
4277             KM          The Urban time-area relation is used for this basin.
4278             KM
4279             KM      Time of Concentration for this sub-basin is based on the following:
1                                          HEC-1 INPUT                                          PAGE100

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4280             KM          6-Hour Rainfall, Pattern No.  1.00
4281             KM          An rainfall areal reduction factor of 1.000
4282             KM
4283             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4284             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4285             KM   .49 .49 .49 .19 .16 .15 .08 .08 .07 .07 .07 .07 .02 .02 .02 .02 .02 .02
4286             KM
4287             KM          L=   0.289 miles, S=  173 feet/mile, Kb= .03
4288             KM
4289             BA   0.030
4290             LG    0.06    0.25    5.70    0.18   73.65
4291             UC   0.100   0.079
4292             UA       0       5      16      30      65      77      84      90      94      97
4293             UA     100
                 *

4294             KK   C620R
4295             KM      Hydrograph combine 619620 + R619L + 211W at C620 right branch
4296             HC       3    0.28
                 *

4297             KK  BB611R
4298             KM      Retrieve previously diverted hydrograph at C611 in the right branch.
4299             DR   D611R
                 *

4300             KK  611620
4301             KM                 Lag route through Palisades Plaza storm drain
4302             RT       0                 1
                 *

4303             KK    C620
4304             KM      Hydrograph combine 611620 + C620R at C620
4305             HC       2    0.42
                 *

4306             KK  620621
4307             KM      Normal depth channel route from C620 to C621
4308             KM      Source:  HEC-2 Cross Section: AR 0.081
4309             RS       1    FLOW      -1
4310             RC   0.050   0.050   0.050   915.0  0.0394
4311             RX  9790.0  9790.1  9972.2  9994.8 10004.9 10029.7 10048.6 10125.0
4312             RY  1657.9  1657.5  1656.4  1646.8  1646.8  1657.8  1657.0  1657.9
                 *

4313             KK    C621
4314             KM      Hydrograph combine C621L + 620621 at C621
4315             HC       2    7.93
                 *
1                                          HEC-1 INPUT                                          PAGE101

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4316             KK  621622
4317             KM      Normal depth channel route from C621 to C622
4318             KM      Source:  HEC-2 Cross Section: AS 2.785
4319             RS       6    FLOW      -1
4320             RC   0.100   0.045   0.100  3830.0  0.0144
4321             RX  9827.3  9922.9  9951.0 10000.0 10002.7 10044.7 10071.6 10076.8
4322             RY  1615.2  1611.0  1604.1  1600.8  1601.5  1601.6  1611.0  1613.9
                 *

4323             KK    211X
4324             KM   Sub-Basin   211X
4325             KM
4326             KM      The Clark Unit Hydrograph is used for this basin.
4327             KM          The Urban time-area relation is used for this basin.
4328             KM
4329             KM      Time of Concentration for this sub-basin is based on the following:
4330             KM          6-Hour Rainfall, Pattern No.  1.00
4331             KM          An rainfall areal reduction factor of 0.997
4332             KM
4333             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4334             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4335             KM   .48 .48 .48 .17 .14 .14 .06 .06 .06 .05 .05 .05 .01 .01 .01 .01 .01 .01
4336             KM
4337             KM          L=   0.929 miles, S=  111 feet/mile, Kb= .03
4338             KM
4339             BA   0.214
4340             LG    0.10    0.26    4.90    0.26   56.64
4341             UC   0.213   0.151
```

```
4342        UA       0       5      16      30      65      77      84      90      94      97
4343        UA     100
            *

4344        KK   C622R
4345        KM      Hydrograph combine 621622 + 211X at C622 right branch
4346        HC       2
            *
            * *
            * * Move to the top of Tulip Wash
            * *
            *

4347        KK    211A
4348        KM   Sub-Basin   211A
4349        KM
4350        KM      The Clark Unit Hydrograph is used for this basin.
4351        KM          The Urban time-area relation is used for this basin.
4352        KM
4353        KM      Time of Concentration for this sub-basin is based on the following:
4354        KM          6-Hour Rainfall, Pattern No.  1.00
4355        KM          An rainfall areal reduction factor of 0.998
4356        KM
4357        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4358        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4359        KM   .47 .47 .47 .16 .13 .12 .06 .06 .05 .04 .04 .03 .01 .01 .01 .01 .01 .01
1                                          HEC-1 INPUT                                          PAGE102

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4360        KM
4361        KM          L=   0.820 miles, S=  248 feet/mile, Kb= .03
4362        KM
4363        BA   0.143
4364        LG    0.09    0.25    5.70    0.18   23.09
4365        UC   0.158   0.124
4366        UA       0       5      16      30      65      77      84      90      94      97
4367        UA     100
            *

4368        KK   C6000
4369        KM      Reservoir route at C600.
4370        RS       1    ELEV  1754.0
4371        SV    0.00    0.14    0.62    1.52    2.95    5.06    7.98   11.80   16.61   22.67
4372        SV   30.07   38.71   40.50   40.60   41.60   42.70   43.70   44.60   45.70
4373        SE  1754.0  1756.0  1758.0  1760.0  1762.0  1764.0  1766.0  1768.0  1770.0  1772.0
4374        SE  1774.0  1776.0 1776.36  1776.4  1776.6  1776.8  1777.0  1777.2  1777.4
4375        SQ       0      55     183     320     427     513     570     620     665     709
4376        SQ     750     789     795     795     812     849     906     984    1084
            *

4377        KK  600601
4378        KM      Normal depth channel route from C600 to C601
4379        KM      Source:  HEC-2 Cross Section: TU 1.538
4380        RS       3    FLOW      -1
4381        RC   0.040   0.025   0.040  2406.0  0.0176
4382        RX  9945.6  9959.4  9968.3  9985.9 10000.0 10017.2 10038.7 10058.8
4383        RY  1734.5  1732.3  1727.9  1726.2  1725.0  1727.7  1735.2  1736.0
            *

4384        KK    211B
4385        KM   Sub-Basin   211B
4386        KM
4387        KM      The Clark Unit Hydrograph is used for this basin.
4388        KM          The Urban time-area relation is used for this basin.
4389        KM
4390        KM      Time of Concentration for this sub-basin is based on the following:
4391        KM          6-Hour Rainfall, Pattern No.  1.00
4392        KM          An rainfall areal reduction factor of 0.999
4393        KM
4394        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4395        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4396        KM   .47 .47 .46 .16 .13 .12 .05 .05 .05 .04 .04 .03 .00 .00 .00 .00 .00 .00
4397        KM
4398        KM          L=   0.618 miles, S=  244 feet/mile, Kb= .03
4399        KM
4400        BA   0.109
4401        LG    0.09    0.25    5.80    0.18   20.22
4402        UC   0.138   0.099
4403        UA       0       5      16      30      65      77      84      90      94      97
4404        UA     100
            *
1                                          HEC-1 INPUT                                          PAGE103

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4405        KK    C601
4406        KM      Hydrograph combine 600601 + 211B at C601
4407        HC       2
            *

4408        KK  601602
4409        KM      Normal depth channel route from C601 to C602
4410        KM      Source:  HEC-2 Cross Section: TU 1.102
4411        RS       3    FLOW      -1
4412        RC   0.065   0.040   0.055  1765.0  0.0146
4413        RX  9916.9  9959.1  9965.8  9980.2 10004.0 10019.5 10047.3 10094.1
4414        RY  1699.9  1699.8  1696.4  1689.8  1688.9  1695.7  1698.2  1698.4
            *

4415        KK    211C
4416        KM   Sub-Basin   211C
4417        KM
```

```
4418          KM      The Clark Unit Hydrograph is used for this basin.
4419          KM          The Urban time-area relation is used for this basin.
4420          KM
4421          KM      Time of Concentration for this sub-basin is based on the following:
4422          KM          6-Hour Rainfall, Pattern No.  1.00
4423          KM          An rainfall areal reduction factor of 0.999
4424          KM
4425          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4426          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4427          KM   .48 .48 .48 .17 .14 .14 .06 .06 .06 .05 .05 .05 .01 .01 .01 .01 .01 .01
4428          KM
4429          KM          L=   0.479 miles, S=  154 feet/mile, Kb= .03
4430          KM
4431          BA   0.043
4432          LG    0.08    0.25    5.70    0.18   44.48
4433          UC   0.138   0.137
4434          UA      0       5      16      30      65      77      84      90      94      97
4435          UA    100
              *

4436          KK   C602L
4437          KM     Hydrograph combine 601602 + 211C at C602 left branch
4438          HC       2
              *

4439          KK    211D
4440          KM   Sub-Basin   211D
4441          KM
4442          KM      The Clark Unit Hydrograph is used for this basin.
4443          KM          The Urban time-area relation is used for this basin.
4444          KM
4445          KM      Time of Concentration for this sub-basin is based on the following:
4446          KM          6-Hour Rainfall, Pattern No.  1.00
4447          KM          An rainfall areal reduction factor of 0.999
4448          KM
4449          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4450          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4451          KM   .46 .45 .45 .15 .11 .11 .04 .04 .04 .03 .03 .03 .01 .01 .01 .01 .01 .01
4452          KM
4453          KM          L=   0.686 miles, S=  115 feet/mile, Kb= .03
4454          KM
4455          BA   0.071
4456          LG    0.08    0.25    3.85    0.46   37.42
4457          UC   0.183   0.189
4458          UA      0       5      16      30      65      77      84      90      94      97
4459          UA    100
              *

4460          KK    C602
4461          KM     Hydrograph combine C602L + 211D at C602
4462          HC       2
              *

4463          KK  602603
4464          KM      Normal depth channel route from C602 to C603
4465          KM      Source:  HEC-2 Cross Section: LE 0.672
4466          RS       3    FLOW      -1
4467          RC   0.060   0.045   0.060  2610.0  0.0211
4468          RX  9891.9  9963.9  9986.5 10000.0 10012.7 10023.8 10085.0 10176.4
4469          RY  1653.5  1653.5  1644.4  1644.1  1645.0  1649.8  1651.7  1656.7
              *

4470          KK    211E
4471          KM   Sub-Basin   211E
4472          KM
4473          KM      The Clark Unit Hydrograph is used for this basin.
4474          KM          The Urban time-area relation is used for this basin.
4475          KM
4476          KM      Time of Concentration for this sub-basin is based on the following:
4477          KM          6-Hour Rainfall, Pattern No.  1.00
4478          KM          An rainfall areal reduction factor of 0.998
4479          KM
4480          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4481          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4482          KM   .48 .47 .47 .17 .13 .13 .06 .06 .06 .05 .04 .04 .01 .01 .01 .01 .01 .01
4483          KM
4484          KM          L=   0.609 miles, S=  118 feet/mile, Kb= .03
4485          KM
4486          BA   0.156
4487          LG    0.08    0.25    5.10    0.24   42.21
4488          UC   0.171   0.101
4489          UA      0       5      16      30      65      77      84      90      94      97
4490          UA    100
              *

4491          KK    C603
4492          KM     Hydrograph combine 602603 + 211E at C603
4493          HC       2
              *
```



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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4494          KK  603622
4495          KM      Normal depth channel route from C603 to C622
4496          KM      Source:  HEC-2 Cross Section: LE 0.287
4497          RS       4    FLOW      -1
4498          RC   0.060   0.045   0.060  2745.0  0.0204
4499          RX  9883.0  9929.7  9967.3  9991.6 10042.2 10073.6 10177.6 10194.5
```

```
4500   RY  1619.4  1618.7  1611.8  1602.1  1603.3  1609.4  1610.5  1610.6
       *

4501   KK    211F
4502   KM   Sub-Basin   211F
4503   KM
4504   KM      The Clark Unit Hydrograph is used for this basin.
4505   KM          The Urban time-area relation is used for this basin.
4506   KM
4507   KM      Time of Concentration for this sub-basin is based on the following:
4508   KM          6-Hour Rainfall, Pattern No.  1.00
4509   KM          An rainfall areal reduction factor of 0.999
4510   KM
4511   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4512   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4513   KM   .48 .48 .48 .17 .14 .14 .06 .06 .06 .05 .05 .05 .01 .01 .01 .01 .01 .01
4514   KM
4515   KM          L=   0.770 miles, S=  134 feet/mile, Kb= .03
4516   KM
4517   BA   0.113
4518   LG    0.08    0.25    4.30    0.36   62.81
4519   UC   0.183   0.158
4520   UA       0       5      16      30      65      77      84      90      94      97
4521   UA     100
       *

4522   KK   C622L
4523   KM      Hydrograph combine 603622 + 211F at C622 left branch
4524   HC       2
       *

4525   KK    C622
4526   KM      Hydrograph combine C622R + C622L at C622
4527   HC       2
       *

4528   KK  622549
4529   KM      Normal depth channel route from C622 to C549
4530   KM      Source:  HEC-2 Cross Section: AS 2.279
4531   RS       5    FLOW      -1
4532   RC   0.113   0.125   0.120  1697.0  0.0118
4533   RX  9847.1  9851.0  9857.5  9862.8 10052.6 10062.8 10075.6 10084.6
4534   RY  1573.5  1571.3  1567.2  1564.6  1565.1  1566.7  1573.7  1573.9
       *
```



```
LINE   ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4535   KK    211Y
4536   KM   Sub-Basin   211Y
4537   KM
4538   KM      The Clark Unit Hydrograph is used for this basin.
4539   KM          The Urban time-area relation is used for this basin.
4540   KM
4541   KM      Time of Concentration for this sub-basin is based on the following:
4542   KM          6-Hour Rainfall, Pattern No.  1.00
4543   KM          An rainfall areal reduction factor of 0.999
4544   KM
4545   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4546   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4547   KM   .49 .48 .48 .18 .15 .14 .07 .07 .07 .06 .06 .06 .01 .01 .01 .01 .01 .01
4548   KM
4549   KM          L=   0.606 miles, S=  147 feet/mile, Kb= .04
4550   KM
4551   BA   0.089
4552   LG    0.09    0.21    6.60    0.13   50.06
4553   UC   0.183   0.149
4554   UA       0       5      16      30      65      77      84      90      94      97
4555   UA     100
       *

4556   KK   C549R
4557   KM      Hydrograph combine 622549 + 211Y at C549 right branch
4558   HC       2
       *

4559   KK    C549
4560   KM      Hydrograph combine C549L + C549R at C549
4561   HC       2
       *

4562   KK  549626
4563   KM      Normal depth channel route from C549 to C626
4564   KM      Source:  HEC-2 Cross Section: AS 1.855
4565   RS       6    FLOW      -1
4566   RC   0.113   0.125   0.120  2044.0  0.0171
4567   RX  9943.2  9963.0  9985.6  9994.1 10007.6 10029.2 10150.5 10171.3
4568   RY  1539.3  1534.5  1531.2  1528.3  1528.2  1531.7  1532.5  1537.4
       *

4569   KK    211Z
4570   KM   Sub-Basin   211Z
4571   KM
4572   KM      The Clark Unit Hydrograph is used for this basin.
4573   KM          The Urban time-area relation is used for this basin.
4574   KM
4575   KM      Time of Concentration for this sub-basin is based on the following:
4576   KM          6-Hour Rainfall, Pattern No.  1.00
4577   KM          An rainfall areal reduction factor of 0.999
4578   KM
4579   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4580   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4581          KM   .46 .46 .46 .15 .12 .11 .05 .05 .04 .03 .03 .03 .01 .01 .01 .01 .01 .01
4582          KM
4583          KM          L=   0.509 miles, S=  147 feet/mile, Kb= .04
4584          KM
4585          BA   0.083
4586          LG    0.14    0.27    4.50    0.34   34.43
4587          UC   0.171   0.126
4588          UA       0       5      16      30      65      77      84      90      94      97
4589          UA     100
              *

4590          KK   C626C
4591          KM      Hydrograph combine 549626 + 211Z at C626 main branch
4592          HC       2
              *

4593          KK   211AA
4594          KM   Sub-Basin  211AA
4595          KM
4596          KM      The Clark Unit Hydrograph is used for this basin.
4597          KM          The Urban time-area relation is used for this basin.
4598          KM
4599          KM      Time of Concentration for this sub-basin is based on the following:
4600          KM          6-Hour Rainfall, Pattern No.  1.00
4601          KM          An rainfall areal reduction factor of 1.000
4602          KM
4603          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4604          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4605          KM   .49 .48 .48 .18 .15 .14 .07 .07 .06 .06 .06 .06 .01 .01 .01 .01 .01 .01
4606          KM
4607          KM          L=   0.480 miles, S=   85 feet/mile, Kb= .03
4608          KM
4609          BA   0.034
4610          LG    0.08    0.19    6.60    0.13   39.38
4611          UC   0.167   0.193
4612          UA       0       5      16      30      65      77      84      90      94      97
4613          UA     100
              *

4614          KK  625626
4615          KM      Normal depth channel route from C625 to C626
4616          KM      Source:  200 Scale Mapping
4617          RS       2    FLOW      -1
4618          RC   0.040   0.018   0.040  1350.0  0.0252
4619          RX  1000.0  1020.0  1021.2  1055.2  1089.2  1090.4  1100.4  1105.4
4620          RY  1527.0  1526.0  1525.6  1526.3  1525.6  1526.0  1528.0  1530.0
              *

4621          KK   211AB
4622          KM   Sub-Basin  211AB
4623          KM
4624          KM      The Clark Unit Hydrograph is used for this basin.
4625          KM          The Urban time-area relation is used for this basin.
4626          KM
4627          KM      Time of Concentration for this sub-basin is based on the following:
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4628          KM          6-Hour Rainfall, Pattern No.  1.00
4629          KM          An rainfall areal reduction factor of 0.999
4630          KM
4631          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4632          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4633          KM   .49 .49 .49 .18 .15 .15 .07 .07 .07 .07 .07 .07 .01 .01 .01 .01 .01 .01
4634          KM
4635          KM          L=   0.293 miles, S=  321 feet/mile, Kb= .03
4636          KM
4637          BA   0.040
4638          LG    0.07    0.17    6.80    0.12   54.72
4639          UC   0.083   0.055
4640          UA       0       5      16      30      65      77      84      90      94      97
4641          UA     100
              *

4642          KK  623624
4643          KM      Normal depth channel route from C623 to C624
4644          KM      Source:  200 Scale Mapping
4645          RS       1    FLOW      -1
4646          RC   0.040   0.018   0.040   701.0  0.0114
4647          RX  1000.0  1010.0  1011.2  1027.2  1043.2  1044.4  1059.4  1074.4
4648          RY  1534.0  1532.0  1531.6  1531.9  1531.6  1532.0  1532.5  1533.0
              *

4649          KK   211AC
4650          KM   Sub-Basin  211AC
4651          KM
4652          KM      The Clark Unit Hydrograph is used for this basin.
4653          KM          The Urban time-area relation is used for this basin.
4654          KM
4655          KM      Time of Concentration for this sub-basin is based on the following:
4656          KM          6-Hour Rainfall, Pattern No.  1.00
4657          KM          An rainfall areal reduction factor of 1.000
4658          KM
4659          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4660          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4661          KM   .49 .49 .49 .19 .16 .15 .08 .08 .07 .07 .07 .07 .01 .01 .01 .01 .01 .01
4662          KM
4663          KM          L=   0.306 miles, S=   82 feet/mile, Kb= .03
4664          KM
4665          BA   0.027
4666          LG    0.08    0.15    8.40    0.07   44.76
```

```
4667          UC   0.133   0.119
4668          UA       0       5      16      30      65      77      84      90      94      97
4669          UA     100
              *

4670          KK    C624
4671          KM      Hydrograph combine 623624 + 211AC at C624
4672          HC       2
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4673          KK  624626
4674          KM      Normal depth channel route from C624 to C626
4675          KM      Source:  HEC-2 Cross Section: AS 1.727
4676          RS       2    FLOW      -1
4677          RC   0.080   0.060   0.080   637.0  0.0235
4678          RX  9872.9  9881.0  9893.9  9902.2  9967.6  9976.4 10076.1 10084.3
4679          RY  1526.3  1524.6  1521.7  1520.0  1520.7  1521.6  1520.7  1526.2
              *

4680          KK   211AD
4681          KM   Sub-Basin  211AD
4682          KM
4683          KM      The Clark Unit Hydrograph is used for this basin.
4684          KM          The Urban time-area relation is used for this basin.
4685          KM
4686          KM      Time of Concentration for this sub-basin is based on the following:
4687          KM          6-Hour Rainfall, Pattern No.  1.00
4688          KM          An rainfall areal reduction factor of 0.999
4689          KM
4690          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4691          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4692          KM   .49 .49 .49 .19 .16 .15 .08 .08 .07 .07 .07 .07 .01 .01 .01 .01 .01 .01
4693          KM
4694          KM          L=   0.489 miles, S=  280 feet/mile, Kb= .03
4695          KM
4696          BA   0.041
4697          LG    0.08    0.15    8.00    0.08   46.16
4698          UC   0.113   0.114
4699          UA       0       5      16      30      65      77      84      90      94      97
4700          UA     100
              *

4701          KK   C626R
4702          KM      Hydrograph combine 624626 + 211AD at C626 right branch
4703          HC       2
              *

4704          KK    C626
4705          KM      Hydrograph combine C626C + 625626 at C626R
4706          HC       3
              *

4707          KK  626627
4708          KM      Normal depth channel route from C626 to C627
4709          KM      Source:  HEC-2 Cross Section: AS 1.602
4710          RS       1    FLOW      -1
4711          RC   0.080   0.060   0.080   625.0  0.0208
4712          RX  9889.8  9941.2  9963.0 10011.6 10074.8 10083.9 10191.7 10210.4
4713          RY  1517.6  1516.9  1508.1  1506.6  1508.6  1511.7  1513.1  1518.8
              *
```



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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4714          KK   211AE
4715          KM   Sub-Basin  211AE
4716          KM
4717          KM      The Clark Unit Hydrograph is used for this basin.
4718          KM          The Urban time-area relation is used for this basin.
4719          KM
4720          KM      Time of Concentration for this sub-basin is based on the following:
4721          KM          6-Hour Rainfall, Pattern No.  1.00
4722          KM          An rainfall areal reduction factor of 1.000
4723          KM
4724          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4725          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4726          KM   .48 .48 .48 .17 .14 .13 .06 .06 .06 .05 .05 .05 .01 .01 .01 .01 .01 .01
4727          KM
4728          KM          L=   0.313 miles, S=  153 feet/mile, Kb= .04
4729          KM
4730          BA   0.034
4731          LG    0.12    0.24    6.40    0.15   38.15
4732          UC   0.129   0.103
4733          UA       0       5      16      30      65      77      84      90      94      97
4734          UA     100
              *

4735          KK    C627
4736          KM      Hydrograph combine 626627 + 211AE at C627
4737          HC       2
              *
              * *
              * * C627 is the total flow in Ashbrook Wash at the Study boundary
              * *
              *

4738          KK   211AF
4739          KM   Sub-Basin  211AF
4740          KM
```

```
4741          KM      The Clark Unit Hydrograph is used for this basin.
4742          KM          The Urban time-area relation is used for this basin.
4743          KM
4744          KM      Time of Concentration for this sub-basin is based on the following:
4745          KM          6-Hour Rainfall, Pattern No.  1.00
4746          KM          An rainfall areal reduction factor of 0.999
4747          KM
4748          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4749          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4750          KM   .49 .48 .48 .18 .15 .14 .07 .07 .06 .06 .06 .06 .01 .01 .01 .01 .01 .01
4751          KM
4752          KM          L=   0.332 miles, S=  292 feet/mile, Kb= .03
4753          KM
4754          BA   0.053
4755          LG    0.07    0.25    5.80    0.17   52.43
4756          UC   0.092   0.058
4757          UA       0       5      16      30      65      77      84      90      94      97
4758          UA     100
              *
              * *
              * * End Basin 211.
              * *
              *
1                                                HEC-1 INPUT                                          PAGE111

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          4759          ZZ
1
              SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

 NO.       (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

  29         201A
                .
                .
  48            .        201B
                .           .
                .           .
  67         C501............
                V
                V
  70       501502
                .
                .
  77            .        201C
                .           .
                .           .
  98        C502R...........
                .
                .
 101            .        201D
                .           .
                .           .
 120         C502............
                V
                V
 123       502503
                .
                .
 130            .        201E
                .           .
                .           .
 149        C503I...........
                V
                V
 152        C503O
                .
                .
 164            .-------->   D503L
 161        D503R
                V
                V
 169       503504
                .
                .
 176            .        202A
                .           .
                .           .
 197        C504I...........
                V
                V
 200        C504O
                .
                .
 212            .-------->   D504L
 209        D504R
                .
                .
 217            .        202B
                .           .
                .           .
 238        C505I...........
                .
                .
 244            .-------->   D505L
 241        D505R
                .
                .
 249            .        202C
                .           .
                .           .
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270        C506............
              .
              .
276           .-------> D506L
273       D506R
              .
              .
281           .        202D
              .          .
              .          .
302           .          .        202E
              .          .          V
              .          .          V
323           .          .       C508O
              .          .          .
              .          .          .
335           .          .          .-------> D508R
332           .          .       D508L
              .          .          V
              .          .          V
340           .          .      508507
              .          .          .
              .          .          .
347       C507I.......................
              V
              V
350       C507O
              .
              .
359           .        202F
              .          .
              .          .
380           .          .        202G
              .          .          .
              .          .          .
401           .          .          .       202H
              .          .          .         V
              .          .          .         V
422           .          .          .      C511O
              .          .          .         V
              .          .          .         V
431           .          .          .     511512
              .          .          .          .
              .          .          .          .
438           .          .          .          .        202I
              .          .          .          .          .
              .          .          .          .          .
459           .          .          .      C512I............
              .          .          .         V
              .          .          .         V
464           .          .          .      C512O
              .          .          .          .
              .          .          .          .
478           .          .          .          .-------> D512R
473           .          .          .      D512L
              .          .          .          .
              .          .          .          .
481           .          .          .          .        203A
              .          .          .          .          V
              .          .          .          .          V
500           .          .          .          .      C513O
              .          .          .          .          V
              .          .          .          .          V
506           .          .          .          .     513514
              .          .          .          .          .
              .          .          .          .          .
513           .          .          .          .          .        203B
              .          .          .          .          .          .
              .          .          .          .          .          .
534           .          .          .          .      C514R............
              .          .          .          .          .
              .          .          .          .          .
537           .          .          .          .          .        203C
              .          .          .          .          .          .
              .          .          .          .          .          .
556           .          .          .          .       C514............
              .          .          .          .          .
              .          .          .          .          .
559           .          .          .          .          .        203D
              .          .          .          .          .          .
              .          .          .          .          .          .
578           .          .          .          .       C515............
              .          .          .          .          V
              .          .          .          .          V
581           .          .          .          .     515517
              .          .          .          .          .
              .          .          .          .          .
588           .          .          .          .          .        203E
              .          .          .          .          .          .
              .          .          .          .          .          .
609           .          .          .          .      C517R............
              .          .          .          .          .
              .          .          .          .          .
612           .          .          .          .          .        203F
              .          .          .          .          .          V
              .          .          .          .          .          V
633           .          .          .          .          .     516517
              .          .          .          .          .          .
              .          .          .          .          .          .
640           .          .          .          .          .          .        203G
              .          .          .          .          .          .          .
              .          .          .          .          .          .          .
659           .          .          .          .          .      C517L............
              .          .          .          .          .          .
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662                                  C517............
                                        V
                                        V
665                                517518
                                        .
                                        .
672                                     .       203H
                                        .          .
                                        .          .
693                                  C518............
                                        V
                                        V
696                                518519
                                        .
                                        .
703                                     .       203I
                                        .          .
                                        .          .
724                                  C519............
                                        V
                                        V
727                                519591
                                        .
                                        .
734                                     .       203J
                                        .          V
                                        .          V
755                                     .     520591
                                        .          .
                                        .          .
764                                     .          .        .<-------   D512R
762                                     .          .    BB512R
                                        .          .        .
                                        .          .        .
765                                  C591.......................
                                        V
                                        V
768                                591521
                                        .
                                        .
775                                     .       203K
                                        .          .
                                        .          .
796                                  C521............
                                        .
                                        .
799                                     .
CLEAR.............................................
802                  204A
                        V
                        V
823                522523
                        .
                        .
830                     .       204B
                        .          .
                        .          .
851                 C523I............
                        V
                        V
854                 C523O
                        .
                        .
866                     .-------->   D523R
863                 D523L
                        V
                        V
871                523524
                        .
                        .
879                     .       204C
                        .          .
                        .          .
900                  C524............
                        V
                        V
903                524525
                        .
                        .
910                     .       204D
                        .          .
                        .          .
931                  C525............
                        V
                        V
934                525526
                        .
                        .
941                     .       204E
                        .          .
                        .          .
962                  C526............
                        V
                        V
965                526527
                        .
                        .
972                     .       204F
                        .          .
                        .          .
993                  C527............
                        .
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 996        CLEAR............
                 .
                 .
 999             .       205A
                 .          .
                 .          .
1020             .          .        205B
                 .          .          .
                 .          .          .
1041             .       C528............
                 .          V
                 .          V
1044             .     528530
                 .          .
                 .          .
1051             .          .        205C
                 .          .          .
                 .          .          .
1072             .      C530R...........
                 .          .
                 .          .
1075             .          .        205D
                 .          .          .
                 .          .          .
1096             .          .          .        205E
                 .          .          .          .
                 .          .          .          .
1117             .          .        C529............
                 .          .          .
                 .          .          .
1120             .       C530............
                 .          V
                 .          V
1123             .     530531
                 .          .
                 .          .
1130             .          .        205F
                 .          .          .
                 .          .          .
1151             .       C531............
                 .          V
                 .          V
1154             .     531532
                 .          .
                 .          .
1161             .          .        205G
                 .          .          .
                 .          .          .
1182             .      C532L...........
                 .          .
                 .          .
1185             .          .        205H
                 .          .          .
                 .          .          .
1206             .       C532............
                 .          V
                 .          V
1209             .     532533
                 .          .
                 .          .
1216             .          .        205I
                 .          .          .
                 .          .          .
1237             .       C533............
                 .          V
                 .          V
1240             .     533534
                 .          .
                 .          .
1247             .          .        205J
                 .          .          .
                 .          .          .
1268             .      C534R...........
                 .          .
                 .          .
1271             .          .        205K
                 .          .          .
                 .          .          .
1292             .       C534............
                 .          V
                 .          V
1295             .     534535
                 .          .
                 .          .
1302             .          .        205L
                 .          .          .
                 .          .          .
1323             .       C535............
                 .          V
                 .          V
1326             .     535536
                 .          .
                 .          .
1333             .          .        205M
                 .          .          .
                 .          .          .
1354             .      C536R...........
                 .          .
                 .          .
1357             .          .        205N
                 .          .          .
                 .          .          .
1376             .      C536I...........
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                 .          V
                 .          V
1379             .      C536O
                 .          V
                 .          V
1391             .     536537
                 .          .
                 .          .
1398             .          .        206A
                 .          .          .
                 .          .          .
1419             .      C537............
                 .          V
                 .          V
1422             .     537538
                 .          .
                 .          .
1429             .          .        206B
                 .          .          .
                 .          .          .
1450             .     C538I............
                 .          V
                 .          V
1453             .     C538O
                 .          V
                 .          V
1462             .     538540
                 .          .
                 .          .
1469             .          .        206C
                 .          .          .
                 .          .          .
1490             .     C540R............
                 .          .
                 .          .
1493             .          .        206D
                 .          .          V
                 .          .          V
1514             .          .     539540
                 .          .          .
                 .          .          .
1521             .          .          .        206E
                 .          .          .          .
                 .          .          .          .
1542             .          .     C540L............
                 .          .          .
                 .          .          .
1545             .     C540............
                 .          V
                 .          V
1548             .     540541
                 .          .
                 .          .
1555             .          .        206F
                 .          .          .
                 .          .          .
1576             .     C541............
                 .          V
                 .          V
1579             .     541548
                 .          .
                 .          .
1586             .          .        206G
                 .          .          .
                 .          .          .
1609             .          .          .          .<-------   D523R
1607             .          .          .     BB523R
                 .          .          .          V
                 .          .          .          V
1610             .          .          .     523548
                 .          .          .          .
                 .          .          .          .
1617             .     C548L........................
                 .          .
                 .          .
1620             .          .        206H
                 .          .          V
                 .          .          V
1641             .          .     542543
                 .          .          .
                 .          .          .
1648             .          .          .        206I
                 .          .          .          .
                 .          .          .          .
1669             .          .     C543............
                 .          .          .
                 .          .          .
1675             .          .          .-------->   D543R
1672             .          .     D543L
                 .          .          V
                 .          .          V
1680             .          .     543544
                 .          .          .
                 .          .          .
1687             .          .          .        206K
                 .          .          .          .
                 .          .          .          .
1708             .          .     C544............
                 .          .          V
                 .          .          V
1711             .          .     544545
                 .          .          .
                 .          .          .
1721             .          .          .-------->   D545R
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1718          .          .      D545L
              .          .         V
              .          .         V
1724          .          .    545546
              .          .         .
              .          .         .
1731          .          .         .       206L
              .          .         .          .
              .          .         .          .
1752          .          .      C546............
              .          .         V
              .          .         V
1755          .          .    546547
              .          .         .
              .          .         .
1764          .          .         ..<-------   D543R
1762          .          .         .     BB543R
              .          .         .          V
              .          .         .          V
1765          .          .         .     543547
              .          .         .          .
              .          .         .          .
1774          .          .         .          .         .<-------   D545R
1772          .          .         .          .     BB545R
              .          .         .          .          V
              .          .         .          .          V
1775          .          .         .          .     545547
              .          .         .          .          .
              .          .         .          .          .
1782          .          .         .          .          .       206J
              .          .         .          .          .          .
              .          .         .          .          .          .
1803          .          .      C547.................................
              .          .         V
              .          .         V
1806          .          .    547548
              .          .         .
              .          .         .
1813          .          .         .       206M
              .          .         .          .
              .          .         .          .
1834          .          .    C548R............
              .          .         .
              .          .         .
1837          .       C548............
              .          V
              .          V
1840          .     548549
              .          .
              .          .
1847          .          .      206N
              .          .         .
              .          .         .
1868          .     C549L............
              .          .
              .          .
1871          .          .      207A
              .          .         .
              .          .         .
1892          .          .         .       207B
              .          .         .          .
              .          .         .          .
1913          .          .    C550............
              .          .         V
              .          .         V
1916          .          .    550552
              .          .         .
              .          .         .
1923          .          .         .       207C
              .          .         .          .
              .          .         .          .
1944          .          .    C552L............
              .          .         .
              .          .         .
1947          .          .         .       207D
              .          .         .          V
              .          .         .          V
1966          .          .         .     551552
              .          .         .          .
              .          .         .          .
1973          .          .         .          .       207E
              .          .         .          .          .
              .          .         .          .          .
1994          .          .         .     C552R............
              .          .         .          .
              .          .         .          .
1997          .          .    C552............
              .          .         V
              .          .         V
2000          .          .    552553
              .          .         .
              .          .         .
2007          .          .         .       207F
              .          .         .          .
              .          .         .          .
2026          .          .    C553............
              .          .         V
              .          .         V
2029          .          .    553556
              .          .         .
              .          .         .
2036          .          .         .       207G
              .          .         .          .
              .          .         .          .
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2055          .           .       C556L............
              .           .           .
              .           .           .
2058          .           .           .       207H
              .           .           .          V
              .           .           .          V
2079          .           .           .     554555
              .           .           .          .
              .           .           .          .
2086          .           .           .          .       207I
              .           .           .          .          .
              .           .           .          .          .
2107          .           .           .       C555............
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              .           .           .          V
2110          .           .           .     555556
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2117          .           .           .          .       207J
              .           .           .          .          .
              .           .           .          .          .
2138          .           .           .      C556R............
              .           .           .          .
              .           .           .          .
2141          .           .       C556............
              .           .           V
              .           .           V
2144          .           .     556557
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              .           .           .
2151          .           .           .       207K
              .           .           .          .
              .           .           .          .
2172          .           .       C557R............
              .           .           .
              .           .           .
2175          .           .           .       207L
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              .           .           .          .
2196          .           .       C557............
              .           .           V
              .           .           V
2199          .           .     557558
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              .           .           .
2206          .           .           .       207M
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              .           .           .          .
2227          .           .       C558............
              .           .           V
              .           .           V
2230          .           .     558560
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2237          .           .           .       207O
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              .           .           .          .
2258          .           .       C560R............
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              .           .           .
2261          .           .           .       207N
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              .           .           .          V
2282          .           .           .     559560
              .           .           .          .
              .           .           .          .
2289          .           .       C560I............
              .           .           V
              .           .           V
2292          .           .       C560O
              .           .           V
              .           .           V
2302          .           .     560585
              .           .           .
              .           .           .
2309          .           .           .       210A
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              .           .           .          .
2330          .           .       C585............
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2333          .           .           .       208A
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              .           .           .          V
2354          .           .           .     561563
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2361          .           .           .          .       208B
              .           .           .          .          .
              .           .           .          .          .
2382          .           .           .      C563R............
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              .           .           .          .
2385          .           .           .          .       208C
              .           .           .          .          V
              .           .           .          .          V
2404          .           .           .          .     562563
              .           .           .          .          .
              .           .           .          .          .
2411          .           .           .          .          .       208D
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2432          .           .           .          .      C563L............
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2435                    C563............
                           V
                           V
2438                 563564
                           .
2445                       .        208E
                           .          .
                           .          .
2466                 C564R.............
                           .
2469                       .        208F
                           .          .
                           .          .
2490                 C564.............
                           V
                           V
2493                 564565
                           .
2500                       .        208G
                           .          .
                           .          .
2521                 C565.............
                           V
                           V
2524                 565568
                           .
2531                       .        208H
                           .          .
                           .          .
2552                 C568L............
                           .
2555                       .        208I
                           .          .
2576                       .          .        208J
                           .          .          .
2597                       .        C566............
                           .          V
                           .          V
2600                       .      566567
                           .          .
2607                       .          .        208K
                           .          .          .
2628                       .      C567L............
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2631                       .          .        208L
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2652                       .        C567............
                           .          V
                           .          V
2655                       .      567568
                           .          .
2662                       .          .        208M
                           .          .          .
2683                       .      C568R............
                           .          .
                           .          .
2686                 C568............
                           V
                           V
2689                 568573
                           .
2696                       .        208N
                           .          .
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2717                 C573L............
                           .
2720                       .        208O
                           .          V
                           .          V
2741                       .      569570
                           .          .
2748                       .          .        208P
                           .          .          .
2769                       .      C570R............
                           .          .
2772                       .          .        208Q
                           .          .          .
2793                       .        C570............
                           .          .
2796                       .          .        208R
                           .          .          V
                           .          .          V
2817                       .          .      571572
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2824                C572............
                       V
                       V
2827             572573
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2834                   .          208S
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                       .             .
2855                C573R...........
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2858          C573............
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                       .
2861                208T
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2882                   .          208U
                       .             .
                       .             .
2903                C574............
                       V
                       V
2906             574575
                       .
                       .
2913                   .          208V
                       .             .
                       .             .
2934                C575............
                       V
                       V
2937             575576
                       .
                       .
2944                   .          208W
                       .             .
                       .             .
2965                C576............
                       V
                       V
2968             576577
                       .
                       .
2975          C577............
                  V
                  V
2978          577578
                       .
                       .
2985                208X
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                       .
3006          C578I...........
                  V
                  V
3009          C578O
                  V
                  V
3021          578587
                       .
                       .
3028                210B
                       V
                       V
3049             C586O
                       V
                       V
3058             586587
                       .
                       .
3065          C587............
                  V
                  V
3068          587595
                       .
                       .
3075                210C
                       .
                       .
3096          C595L...........
                       .
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3099                210D
                       V
                       V
3120             588590
                       .
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3127                   .          210E
                       .             .
                       .             .
3148             C590L...........
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3151                   .          210F
                       .             V
                       .             V
3172                   .        589590
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3203   .         .         .         .         .         C590.....
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3206   .         .         .         .         .         .         210H
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3227   .         .         .         .         .         .         V
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3234   .         .         .         .         .         .         .
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3237   .         .         .         .         .         V
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       .         .         .         .         .         593594
3244   .         .         .         .         .         .
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3265   .         .         .         .         .         .         .
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3268   .         .         .         .         .         V
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3275   .         .         .         .         .         .
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3296   .         .         .         .         .         .         .
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3302   .         .         .         V
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3359   .         .         .         .         .         .
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3380   .         .         .         .         .         .         .
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3383   .         .         .         .         .         .
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3404   .         .         .         .         .         .         .
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3407   .         .         .         .         .         V
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3414   .         .         .         .         .         .
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3435   .         .         .         .         .         .         .
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3438   .         .         .         .         .         .
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3459   .         .         .         .         .         .         .
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3462   .         .         .         .         .         V
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3469   .         .         .         .         .         .
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3488   .         .         .         .         .         .         .
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3491   .         .         .         .         .         .
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3512   .         .         .         .         .         .         .
       .         .         .         .         .         C582.....
3515   .         .         .         .         .         V
       .         .         .         .         .         V
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3522   .         .         .         .         .         .
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3543   .         .         .         .         .         .         .
       .         .         .         .         .         C583.....
       .         .         .         .         .         V
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3546                                   V
                                   583584
3553                                                          209I
3574                                C584I............
                                       V
3577                                C584O
                                       V
3589                                584597
3596                                                          210L
3617                                 C597............
                                       V
3620                                597598
3627                                                          210M
3648                                 C598............
3651                                                          210N
3672                          C599I...................................
                                  V
3675                          C599O
                                  V
3687                          599608
3694                                 211K
3715                          C608L............
3718                                 211G
                                       V
3739                                604606
3746                                                          211I
3767                                C606R............
3770                                                          211H
                                       V
3791                                C605O
3800                                C606............
                                       V
3803                                606607
3810                                                          211J
3831                                C607............
                                       V
3834                                607608
3841                          C608............
                                  V
3844                          608613
3851                                 211M
                                       V
3872                                610611
3879                                                          211N
3900                                C611R............
3903                                                          211O
                                       V
3924                                C609O
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3933             .         .         .         .    609611
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3940             .         .         .    C611I............
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3943             .         .         .    C611O
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3955             .         .         .         .-------> D611R
3952             .         .         .    D611L
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3960             .         .         .   611612
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3967             .         .         .         .      211P
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3988             .         .         .     C612............
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3991             .         .     C613............
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3994             .         .   613621
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                 .         .         .         .
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4022             .         .   C621L............
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4025             .         .         .     211Q
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4046             .         .         .   616617
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4053             .         .         .         .      211R
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4074             .         .         .     C617L............
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4077             .         .         .         .      211U
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4101             .         .         .         .         .-------> D614R
4098             .         .         .         .    D614L
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4104             .         .         .     C617............
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4107             .         .         .   617618
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4114             .         .         .         .      211S
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4135             .         .         .    C618I............
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                 .         .         .         V
4138             .         .         .    C618O
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4149             .         .         .         .         .<------- D614R
4147             .         .         .         .    BB614R
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4150             .         .         .         .   614615
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4157             .         .         .         .         .      211V
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4178             .         .         .         .      C615............
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4184             .         .         .         .         .-------> D615R
4181             .         .         .         .    D615L
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4187             .         .         .         .   615618
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4194             .         .         .     C618............
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4197             .         .         .   618619
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4204             .         .         .         .      211T
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4225             .         .         .     C619L............
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4230             .         .         .         .         .<------- D615R
4228             .         .         .         .    BB615R
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4231             .         .         .         .    615619
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4238             .         .         .    C619I............
                 .         .         .         V
                 .         .         .         V
4241             .         .         .    C619O
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                 .         .         .         .
4255             .         .         .         .-------> D619L
4252             .         .         .    D619R
                 .         .         .         V
                 .         .         .         V
4260             .         .         .   619620
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4265             .         .         .         .         .<-------  D619L
4263             .         .         .         .    BB619L
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4266             .         .         .         .   619620
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4273             .         .         .         .         .       211W
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4294             .         .         .    C620R........................
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4299             .         .         .         .         .<-------  D611R
4297             .         .         .         .    BB611R
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4300             .         .         .         .   611620
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4303             .         .         .     C620............
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4306             .         .         .   620621
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4313             .         .      C621............
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4316             .         .    621622
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4323             .         .         .     211X
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4344             .         .    C622R............
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4347             .         .         .     211A
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4368             .         .         .   C600O
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4405             .         .         .     C601............
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4436             .         .         .    C602L............
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4470             .         .         .         .       211E
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4491             .         .         .     C603............
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4494             .         .         .   603622
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4501             .         .         .         .       211F
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4522             .         .         .    C622L............
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4528          .          .     622549
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4535          .          .          .       211Y
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4556          .          .     C549R............
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4559          .       C549............
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4562          .     549626
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4569          .          .       211Z
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4590          .     C626C............
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4593          .          .     211AA
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4614          .          .     625626
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4621          .          .          .     211AB
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4649          .          .          .          .       211AC
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4670          .          .          .      C624............
              .          .          .        V
              .          .          .        V
4673          .          .          .    624626
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4680          .          .          .          .       211AD
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4701          .          .          .     C626R............
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4704          .       C626........................
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4707          .     626627
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4714          .          .     211AE
              .          .          .
              .          .          .
4735          .       C627............
              .          .
              .          .
4738          .          .     211AF
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(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1****************************************
*                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*              MAY   1991              *
*           VERSION 4.0.1E             *
*                                      *
*  RUN DATE  10/31/94  TIME  13:18:13  *
*                                      *
****************************************
```

```
*************************************
*                                   *
*    U.S. ARMY CORPS OF ENGINEERS   *
*    HYDROLOGIC ENGINEERING CENTER  *
*          609 SECOND STREET        *
*       DAVIS, CALIFORNIA 95616     *
*           (916) 551-1748          *
*                                   *
*************************************
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                    Fountain Hills North Floodplain Delineation Study
                        FCD 92-04        by GVSCE                          File:  FU100-6.IH1
                     Future Condition Model                                 Date:    07-19-94   dtp
                      100-Year 6-Hour Storm, Clark Unit Hydrograph       Revised:   10-31-94   dtp

  6 IO          OUTPUT CONTROL VARIABLES
                      IPRNT          5  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE

    IT          HYDROGRAPH TIME DATA
                       NMIN          1  MINUTES IN COMPUTATION INTERVAL
                      IDATE      1   0  STARTING DATE
                      ITIME       0000  STARTING TIME
                         NQ       1080  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE      1   0  ENDING DATE
                     NDTIME       1759  ENDING TIME
                      ICENT         19  CENTURY MARK

                 COMPUTATION INTERVAL    0.02 HOURS
                      TOTAL TIME BASE   17.98 HOURS

          ENGLISH UNITS
              DRAINAGE AREA         SQUARE MILES
```

```
PRECIPITATION DEPTH    INCHES
LENGTH, ELEVATION      FEET
FLOW                   CUBIC FEET PER SECOND
STORAGE VOLUME         ACRE-FEET
SURFACE AREA           ACRES
TEMPERATURE            DEGREES FAHRENHEIT

8 JD    INDEX STORM NO. 1
            STRM        3.30  PRECIPITATION DEPTH
            TRDA        0.01  TRANSPOSITION DRAINAGE AREA

9 PI    PRECIPITATION PATTERN
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01
          0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01
          0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01
          0.03    0.03    0.03    0.03    0.03    0.03    0.03    0.03    0.03    0.03
          0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01
          0.01    0.01    0.01    0.01    0.01    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00

12 JD   INDEX STORM NO. 2
            STRM        3.28  PRECIPITATION DEPTH
            TRDA        0.50  TRANSPOSITION DRAINAGE AREA

0 PI    PRECIPITATION PATTERN
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01
          0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01
          0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01
          0.03    0.03    0.03    0.03    0.03    0.03    0.03    0.03    0.03    0.03
          0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01
          0.01    0.01    0.01    0.01    0.01    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00

13 JD   INDEX STORM NO. 3
            STRM        3.23  PRECIPITATION DEPTH
            TRDA        2.80  TRANSPOSITION DRAINAGE AREA

14 PI   PRECIPITATION PATTERN
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
          0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
```

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

17 JD INDEX STORM NO. 4

STRM 3.08 PRECIPITATION DEPTH
TRDA 16.00 TRANSPOSITION DRAINAGE AREA

18 PI PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

21 JD INDEX STORM NO. 5

STRM 2.67 PRECIPITATION DEPTH
TRDA 90.00 TRANSPOSITION DRAINAGE AREA

22 PI PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
25 JD         INDEX STORM NO. 6
                STRM        1.88  PRECIPITATION DEPTH
                TRDA      500.00  TRANSPOSITION DRAINAGE AREA

26 PI         PRECIPITATION PATTERN
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO
WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO
WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO
1
                                    RUNOFF SUMMARY
                                FLOW IN CUBIC FEET PER SECOND
                              TIME IN HOURS,  AREA IN SQUARE MILES

                                                PEAK    TIME OF    AVERAGE FLOW FOR MAXIMUM PERIOD    BASIN    MAXIMUM    TIME OF
+       OPERATION          STATION              FLOW     PEAK      6-HOUR     24-HOUR     72-HOUR    AREA     STAGE    MAX STAGE
+       HYDROGRAPH AT
                             201A               376.     4.18        44.        15.         15.       0.22
+       HYDROGRAPH AT
                             201B               151.     4.15        15.         5.          5.       0.08
+       2 COMBINED AT
                             C501               524.     4.18        60.        20.         20.       0.30
+       ROUTED TO
                            501502              511.     4.28        60.        20.         20.       0.30
+       HYDROGRAPH AT
                             201C               238.     4.03        19.         6.          6.       0.08
+       2 COMBINED AT
                             C502R              592.     4.25        79.        26.         26.       0.38
+       HYDROGRAPH AT
                             201D               115.     4.17        15.         5.          5.       0.07
+       2 COMBINED AT
                             C502               699.     4.25        93.        31.         31.       0.45
+       ROUTED TO
                            502503              687.     4.37        93.        31.         31.       0.45
+       HYDROGRAPH AT
                             201E               263.     4.25        36.        12.         12.       0.18
+       2 COMBINED AT
                             C503I              891.     4.35       127.        43.         43.       0.63
+       ROUTED TO
                             C503O             344.     4.87       127.        43.         43.       0.63
+       DIVERSION TO
                             D503L             344.     4.87       127.        43.         43.       0.63
+       HYDROGRAPH AT
                             D503R               0.     0.02         0.         0.          0.       0.63
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+	ROUTED TO 503504	0.	0.02	0.	0.	0.	0.63
+	HYDROGRAPH AT 202A	115.	4.03	9.	3.	3.	0.04
+	2 COMBINED AT C504I	105.	4.03	9.	3.	3.	0.67
+	ROUTED TO C504O	64.	4.13	9.	3.	3.	0.67
+	DIVERSION TO D504L	23.	4.08	6.	2.	2.	0.67
+	HYDROGRAPH AT D504R	41.	4.13	2.	1.	1.	0.67
+	HYDROGRAPH AT 202B	56.	4.02	4.	1.	1.	0.02
+	2 COMBINED AT C505I	72.	4.10	6.	2.	2.	0.69
+	DIVERSION TO D505L	16.	4.05	3.	1.	1.	0.69
+	HYDROGRAPH AT D505R	56.	4.10	4.	1.	1.	0.69
+	HYDROGRAPH AT 202C	26.	4.02	2.	1.	1.	0.01
+	2 COMBINED AT C506	74.	4.05	5.	2.	2.	0.69
+	DIVERSION TO D506L	0.	0.02	0.	0.	0.	0.69
+	HYDROGRAPH AT D506R	74.	4.05	5.	2.	2.	0.69
+	HYDROGRAPH AT 202D	171.	4.03	16.	5.	5.	0.06
+	HYDROGRAPH AT 202E	328.	4.03	26.	9.	9.	0.10
+	ROUTED TO C508O	327.	4.03	26.	9.	9.	0.10
+	DIVERSION TO D508R	95.	4.03	13.	4.	4.	0.10
+	HYDROGRAPH AT D508L	232.	4.03	12.	4.	4.	0.10
+	ROUTED TO 508507	224.	4.10	12.	4.	4.	0.10
+	3 COMBINED AT C507I	392.	4.07	31.	11.	11.	0.86
+	ROUTED TO C507O	392.	4.07	31.	11.	11.	0.86
+	HYDROGRAPH AT 202F	46.	4.00	3.	1.	1.	0.01
+	HYDROGRAPH AT 202G	46.	4.00	3.	1.	1.	0.01
+	HYDROGRAPH AT 202H	561.	4.03	43.	14.	14.	0.18
+	ROUTED TO C511O	482.	4.08	43.	14.	14.	0.18
+	ROUTED TO 511512	472.	4.13	43.	14.	14.	0.18
+	HYDROGRAPH AT 202I	59.	4.02	5.	2.	2.	0.02
+	2 COMBINED AT C512I	504.	4.12	49.	16.	16.	0.20
+	ROUTED TO C512O	276.	4.33	28.	9.	9.	0.20
+	DIVERSION TO D512R	131.	4.33	9.	3.	3.	0.20
+	HYDROGRAPH AT D512L	145.	4.33	19.	6.	6.	0.20
+	HYDROGRAPH AT 203A	397.	4.27	54.	18.	18.	0.28
+	ROUTED TO C513O	380.	4.33	54.	18.	18.	0.28
+	ROUTED TO 513514	366.	4.45	54.	18.	18.	0.28

+	HYDROGRAPH AT	203B	133.	4.03	11.	4.	4.	0.04
+	2 COMBINED AT	C514R	381.	4.43	64.	21.	21.	0.32
+	HYDROGRAPH AT	203C	197.	4.13	22.	7.	7.	0.10
+	2 COMBINED AT	C514	486.	4.42	86.	29.	29.	0.43
+	HYDROGRAPH AT	203D	184.	4.17	22.	7.	7.	0.11
+	2 COMBINED AT	C515	599.	4.40	107.	36.	36.	0.53
+	ROUTED TO	515517	590.	4.50	107.	36.	36.	0.53
+	HYDROGRAPH AT	203E	302.	4.02	24.	8.	8.	0.09
+	2 COMBINED AT	C517R	597.	4.48	129.	43.	43.	0.63
+	HYDROGRAPH AT	203F	524.	4.28	61.	20.	20.	0.33
+	ROUTED TO	516517	495.	4.52	61.	20.	20.	0.33
+	HYDROGRAPH AT	203G	412.	4.22	52.	17.	17.	0.25
+	2 COMBINED AT	C517L	720.	4.50	111.	37.	37.	0.58
+	2 COMBINED AT	C517	1181.	4.50	228.	76.	76.	1.21
+	ROUTED TO	517518	1163.	4.62	228.	76.	76.	1.21
+	HYDROGRAPH AT	203H	592.	4.05	50.	17.	17.	0.21
+	2 COMBINED AT	C518	1199.	4.60	271.	91.	91.	1.41
+	ROUTED TO	518519	1192.	4.63	271.	91.	91.	1.41
+	HYDROGRAPH AT	203I	397.	4.07	41.	14.	14.	0.17
+	2 COMBINED AT	C519	1257.	4.62	307.	103.	103.	1.59
+	ROUTED TO	519591	1254.	4.65	307.	103.	103.	1.59
+	HYDROGRAPH AT	203J	123.	4.03	12.	4.	4.	0.04
+	ROUTED TO	520591	119.	4.07	12.	4.	4.	0.04
+	HYDROGRAPH AT	BB512R	131.	4.33	9.	3.	3.	0.20
+	3 COMBINED AT	C591	1321.	4.35	321.	108.	108.	1.83
+	ROUTED TO	591521	1319.	4.38	321.	108.	108.	1.83
+	HYDROGRAPH AT	203K	482.	4.05	44.	15.	15.	0.16
+	2 COMBINED AT	C521	1453.	4.32	360.	121.	121.	1.99
+	5 COMBINED AT	CLEAR	1610.	4.32	396.	134.	134.	3.07
+	HYDROGRAPH AT	204A	334.	4.03	26.	9.	9.	0.11
+	ROUTED TO	522523	309.	4.18	26.	9.	9.	0.11
+	HYDROGRAPH AT	204B	365.	4.05	31.	10.	10.	0.13
+	2 COMBINED AT	C523I	586.	4.08	57.	19.	19.	0.23
+	ROUTED TO	C523O	570.	4.15	57.	19.	19.	0.23
+	DIVERSION TO	D523R	68.	4.15	3.	1.	1.	0.23

+	HYDROGRAPH AT	D523L	502.	4.15	54.	18.	18.	0.23
+	ROUTED TO	523524	484.	4.23	54.	18.	18.	0.23
+	HYDROGRAPH AT	204C	275.	4.02	23.	8.	8.	0.08
+	2 COMBINED AT	C524	555.	4.22	78.	26.	26.	0.31
+	ROUTED TO	524525	550.	4.25	78.	26.	26.	0.31
+	HYDROGRAPH AT	204D	149.	4.02	13.	4.	4.	0.04
+	2 COMBINED AT	C525	596.	4.05	90.	30.	30.	0.35
+	ROUTED TO	525526	586.	4.07	90.	30.	30.	0.35
+	HYDROGRAPH AT	204E	224.	4.03	19.	6.	6.	0.07
+	2 COMBINED AT	C526	798.	4.05	109.	37.	37.	0.43
+	ROUTED TO	526527	776.	4.10	109.	37.	37.	0.43
+	HYDROGRAPH AT	204F	260.	4.02	22.	7.	7.	0.08
+	2 COMBINED AT	C527	987.	4.07	131.	44.	44.	0.50
+	2 COMBINED AT	CLEAR	2109.	4.30	512.	174.	174.	3.58
+	HYDROGRAPH AT	205A	210.	4.22	26.	9.	9.	0.12
+	HYDROGRAPH AT	205B	362.	4.32	47.	16.	16.	0.21
+	2 COMBINED AT	C528	548.	4.28	73.	25.	25.	0.33
+	ROUTED TO	528530	545.	4.33	73.	25.	25.	0.33
+	HYDROGRAPH AT	205C	107.	4.20	13.	4.	4.	0.06
+	2 COMBINED AT	C530R	629.	4.32	86.	29.	29.	0.39
+	HYDROGRAPH AT	205D	665.	4.23	71.	24.	24.	0.32
+	HYDROGRAPH AT	205E	301.	4.33	48.	16.	16.	0.22
+	2 COMBINED AT	C529	917.	4.25	119.	40.	40.	0.54
+	2 COMBINED AT	C530	1340.	4.27	197.	66.	66.	0.93
+	ROUTED TO	530531	1326.	4.32	197.	66.	66.	0.93
+	HYDROGRAPH AT	205F	325.	4.22	36.	12.	12.	0.16
+	2 COMBINED AT	C531	1504.	4.30	228.	77.	77.	1.09
+	ROUTED TO	531532	1490.	4.37	228.	77.	77.	1.09
+	HYDROGRAPH AT	205G	349.	4.23	40.	13.	13.	0.19
+	2 COMBINED AT	C532L	1661.	4.35	262.	88.	88.	1.27
+	HYDROGRAPH AT	205H	350.	4.35	56.	19.	19.	0.26
+	2 COMBINED AT	C532	1854.	4.35	310.	104.	104.	1.53
+	ROUTED TO	532533	1850.	4.38	310.	104.	104.	1.53
+	HYDROGRAPH AT	205I	559.	4.30	70.	23.	23.	0.35
+	2 COMBINED AT	C533	2132.	4.37	367.	123.	123.	1.89

+	ROUTED TO	533534	2100.	4.53	367.	123.	123.	1.89
+	HYDROGRAPH AT	205J	551.	4.28	65.	22.	22.	0.37
+	2 COMBINED AT	C534R	2306.	4.52	416.	140.	140.	2.25
+	HYDROGRAPH AT	205K	266.	4.38	45.	15.	15.	0.25
+	2 COMBINED AT	C534	2427.	4.53	450.	151.	151.	2.50
+	ROUTED TO	534535	2417.	4.58	450.	151.	151.	2.50
+	HYDROGRAPH AT	205L	263.	4.15	20.	7.	7.	0.12
+	2 COMBINED AT	C535	2441.	4.57	464.	156.	156.	2.62
+	ROUTED TO	535536	2419.	4.70	464.	156.	156.	2.62
+	HYDROGRAPH AT	205M	366.	4.07	31.	11.	11.	0.14
+	2 COMBINED AT	C536R	2427.	4.68	490.	165.	165.	2.76
+	HYDROGRAPH AT	205N	211.	4.25	29.	10.	10.	0.16
+	2 COMBINED AT	C536I	2496.	4.68	511.	172.	172.	2.91
+	ROUTED TO	C536O	326.	6.08	312.	172.	172.	2.91
+	ROUTED TO	536537	326.	6.13	312.	172.	172.	2.91
+	HYDROGRAPH AT	206A	408.	4.03	32.	11.	11.	0.13
+	2 COMBINED AT	C537	346.	4.27	317.	181.	181.	3.04
+	ROUTED TO	537538	343.	4.33	317.	181.	181.	3.04
+	HYDROGRAPH AT	206B	304.	4.03	25.	8.	8.	0.09
+	2 COMBINED AT	C538I	473.	4.08	330.	188.	188.	3.14
+	ROUTED TO	C538O	442.	4.23	327.	188.	188.	3.14
+	ROUTED TO	538540	441.	4.35	327.	188.	188.	3.14
+	HYDROGRAPH AT	206C	61.	4.05	5.	2.	2.	0.02
+	2 COMBINED AT	C540R	464.	4.32	329.	189.	189.	3.16
+	HYDROGRAPH AT	206D	205.	4.02	17.	6.	6.	0.06
+	ROUTED TO	539540	196.	4.10	17.	6.	6.	0.06
+	HYDROGRAPH AT	206E	71.	4.02	5.	2.	2.	0.02
+	2 COMBINED AT	C540L	254.	4.05	22.	7.	7.	0.09
+	2 COMBINED AT	C540	560.	4.27	342.	196.	196.	3.24
+	ROUTED TO	540541	553.	4.47	342.	196.	196.	3.24
+	HYDROGRAPH AT	206F	441.	4.05	36.	12.	12.	0.16
+	2 COMBINED AT	C541	658.	4.28	362.	205.	205.	3.40
+	ROUTED TO	541548	657.	4.33	362.	205.	205.	3.40
+	HYDROGRAPH AT	206G	213.	4.07	22.	7.	7.	0.09
+	HYDROGRAPH AT	BB523R	68.	4.15	3.	1.	1.	0.23

+	ROUTED TO 523548	60.	4.33	3.	1.	1.	0.23
+	3 COMBINED AT C548L	747.	4.30	377.	210.	210.	3.72
+	HYDROGRAPH AT 206H	188.	4.03	15.	5.	5.	0.06
+	ROUTED TO 542543	184.	4.05	15.	5.	5.	0.06
+	HYDROGRAPH AT 206I	75.	4.00	5.	2.	2.	0.02
+	2 COMBINED AT C543	252.	4.02	21.	7.	7.	0.08
+	DIVERSION TO D543R	252.	4.02	21.	7.	7.	0.08
+	HYDROGRAPH AT D543L	0.	0.02	0.	0.	0.	0.08
+	ROUTED TO 543544	0.	0.02	0.	0.	0.	0.08
+	HYDROGRAPH AT 206K	171.	4.03	14.	5.	5.	0.06
+	2 COMBINED AT C544	171.	4.03	14.	5.	5.	0.14
+	ROUTED TO 544545	167.	4.05	14.	5.	5.	0.14
+	DIVERSION TO D545R	84.	4.05	7.	2.	2.	0.14
+	HYDROGRAPH AT D545L	84.	4.05	7.	2.	2.	0.14
+	ROUTED TO 545546	83.	4.07	7.	2.	2.	0.14
+	HYDROGRAPH AT 206L	191.	4.02	15.	5.	5.	0.06
+	2 COMBINED AT C546	271.	4.03	22.	7.	7.	0.20
+	ROUTED TO 546547	269.	4.03	22.	7.	7.	0.20
+	HYDROGRAPH AT BB543R	252.	4.02	21.	7.	7.	0.08
+	ROUTED TO 543547	241.	4.10	21.	7.	7.	0.08
+	HYDROGRAPH AT BB545R	84.	4.05	7.	2.	2.	0.14
+	ROUTED TO 545547	81.	4.10	7.	2.	2.	0.14
+	HYDROGRAPH AT 206J	200.	4.02	16.	5.	5.	0.06
+	4 COMBINED AT C547	758.	4.05	66.	22.	22.	0.26
+	ROUTED TO 547548	732.	4.10	66.	22.	22.	0.26
+	HYDROGRAPH AT 206M	198.	4.02	16.	5.	5.	0.06
+	2 COMBINED AT C548R	883.	4.08	82.	27.	27.	0.32
+	2 COMBINED AT C548	1172.	4.10	440.	233.	233.	4.04
+	ROUTED TO 548549	1160.	4.25	440.	233.	233.	4.04
+	HYDROGRAPH AT 206N	459.	4.05	42.	14.	14.	0.15
+	2 COMBINED AT C549L	1331.	4.23	466.	245.	245.	4.19
+	HYDROGRAPH AT 207A	382.	4.30	55.	18.	18.	0.26
+	HYDROGRAPH AT 207B	306.	4.30	46.	15.	15.	0.21
+	2 COMBINED AT C550	687.	4.30	101.	34.	34.	0.46
+	ROUTED TO 550552	675.	4.37	100.	34.	34.	0.46

+	HYDROGRAPH AT	207C	321.	4.22	34.	11.	11.	0.17
+	2 COMBINED AT	C552L	878.	4.35	132.	44.	44.	0.64
+	HYDROGRAPH AT	207D	424.	4.13	48.	16.	16.	0.20
+	ROUTED TO	551552	416.	4.22	48.	16.	16.	0.20
+	HYDROGRAPH AT	207E	286.	4.12	39.	13.	13.	0.16
+	2 COMBINED AT	C552R	679.	4.18	87.	29.	29.	0.35
+	2 COMBINED AT	C552	1312.	4.28	211.	71.	71.	0.99
+	ROUTED TO	552553	1308.	4.32	211.	71.	71.	0.99
+	HYDROGRAPH AT	207F	253.	4.15	30.	10.	10.	0.13
+	2 COMBINED AT	C553	1440.	4.30	237.	80.	80.	1.12
+	ROUTED TO	553556	1432.	4.33	237.	80.	80.	1.12
+	HYDROGRAPH AT	207G	277.	4.33	46.	15.	15.	0.24
+	2 COMBINED AT	C556L	1601.	4.35	276.	93.	93.	1.35
+	HYDROGRAPH AT	207H	312.	4.07	32.	11.	11.	0.12
+	ROUTED TO	554555	303.	4.12	32.	11.	11.	0.12
+	HYDROGRAPH AT	207I	213.	4.03	19.	7.	7.	0.07
+	2 COMBINED AT	C555	489.	4.07	51.	17.	17.	0.20
+	ROUTED TO	555556	475.	4.15	51.	17.	17.	0.20
+	HYDROGRAPH AT	207J	270.	4.05	25.	8.	8.	0.09
+	2 COMBINED AT	C556R	682.	4.10	76.	25.	25.	0.29
+	2 COMBINED AT	C556	1906.	4.30	343.	115.	115.	1.64
+	ROUTED TO	556557	1899.	4.35	343.	115.	115.	1.64
+	HYDROGRAPH AT	207K	362.	4.05	33.	11.	11.	0.13
+	2 COMBINED AT	C557R	2002.	4.33	372.	125.	125.	1.77
+	HYDROGRAPH AT	207L	236.	4.03	21.	7.	7.	0.08
+	2 COMBINED AT	C557	2067.	4.32	390.	132.	132.	1.85
+	ROUTED TO	557558	2055.	4.37	390.	132.	132.	1.85
+	HYDROGRAPH AT	207M	372.	4.03	28.	9.	9.	0.12
+	2 COMBINED AT	C558	2110.	4.35	414.	140.	140.	1.97
+	ROUTED TO	558560	2104.	4.40	414.	140.	140.	1.97
+	HYDROGRAPH AT	207O	413.	4.03	30.	10.	10.	0.13
+	2 COMBINED AT	C560R	2157.	4.38	440.	148.	148.	2.10
+	HYDROGRAPH AT	207N	160.	4.02	12.	4.	4.	0.05
+	ROUTED TO	559560	151.	4.10	12.	4.	4.	0.05
+	2 COMBINED AT	C560I	2201.	4.37	451.	152.	152.	2.15

+	ROUTED TO C5600	294.	5.77	274.	152.	152.	2.15
+	ROUTED TO 560585	294.	5.85	274.	152.	152.	2.15
+	HYDROGRAPH AT 210A	397.	4.02	28.	9.	9.	0.12
+	2 COMBINED AT C585	360.	4.03	283.	160.	160.	2.27
+	HYDROGRAPH AT 208A	480.	4.02	37.	12.	12.	0.14
+	ROUTED TO 561563	468.	4.03	37.	12.	12.	0.14
+	HYDROGRAPH AT 208B	82.	4.02	7.	2.	2.	0.03
+	2 COMBINED AT C563R	549.	4.03	44.	15.	15.	0.17
+	HYDROGRAPH AT 208C	144.	4.10	16.	5.	5.	0.07
+	ROUTED TO 562563	141.	4.17	16.	5.	5.	0.07
+	HYDROGRAPH AT 208D	225.	4.03	20.	7.	7.	0.08
+	2 COMBINED AT C563L	319.	4.05	36.	12.	12.	0.14
+	2 COMBINED AT C563	864.	4.03	80.	27.	27.	0.31
+	ROUTED TO 563564	833.	4.08	80.	27.	27.	0.31
+	HYDROGRAPH AT 208E	192.	4.03	17.	6.	6.	0.06
+	2 COMBINED AT C564R	994.	4.07	96.	32.	32.	0.37
+	HYDROGRAPH AT 208F	224.	4.02	18.	6.	6.	0.07
+	2 COMBINED AT C564	1195.	4.05	114.	38.	38.	0.44
+	ROUTED TO 564565	1151.	4.13	114.	38.	38.	0.44
+	HYDROGRAPH AT 208G	398.	4.03	35.	12.	12.	0.13
+	2 COMBINED AT C565	1398.	4.12	149.	50.	50.	0.57
+	ROUTED TO 565568	1371.	4.15	148.	50.	50.	0.57
+	HYDROGRAPH AT 208H	99.	4.07	11.	4.	4.	0.04
+	2 COMBINED AT C568L	1429.	4.15	159.	53.	53.	0.61
+	HYDROGRAPH AT 208I	370.	4.03	31.	10.	10.	0.12
+	HYDROGRAPH AT 208J	221.	4.05	22.	7.	7.	0.08
+	2 COMBINED AT C566	590.	4.03	53.	18.	18.	0.20
+	ROUTED TO 566567	572.	4.07	53.	18.	18.	0.20
+	HYDROGRAPH AT 208K	165.	4.02	13.	4.	4.	0.05
+	2 COMBINED AT C567L	713.	4.05	66.	22.	22.	0.25
+	HYDROGRAPH AT 208L	183.	4.02	16.	5.	5.	0.06
+	2 COMBINED AT C567	892.	4.03	82.	27.	27.	0.31
+	ROUTED TO 567568	855.	4.12	81.	27.	27.	0.31
+	HYDROGRAPH AT 208M	484.	4.03	46.	15.	15.	0.16
+	2 COMBINED AT C568R	1263.	4.08	127.	43.	43.	0.46

+	2 COMBINED AT C568	2210.	4.12	278.	93.	93.	1.07
+	ROUTED TO 568573	2187.	4.17	277.	93.	93.	1.07
+	HYDROGRAPH AT 208N	131.	4.05	14.	5.	5.	0.05
+	2 COMBINED AT C573L	2245.	4.17	291.	98.	98.	1.12
+	HYDROGRAPH AT 208O	703.	4.03	61.	20.	20.	0.23
+	ROUTED TO 569570	693.	4.05	61.	20.	20.	0.23
+	HYDROGRAPH AT 208P	204.	4.02	17.	6.	6.	0.06
+	2 COMBINED AT C570R	882.	4.03	78.	26.	26.	0.29
+	HYDROGRAPH AT 208Q	273.	4.05	26.	9.	9.	0.09
+	2 COMBINED AT C570	1154.	4.03	104.	35.	35.	0.38
+	HYDROGRAPH AT 208R	35.	4.02	3.	1.	1.	0.01
+	ROUTED TO 571572	33.	4.05	3.	1.	1.	0.01
+	2 COMBINED AT C572	1187.	4.03	107.	36.	36.	0.39
+	ROUTED TO 572573	1172.	4.05	107.	36.	36.	0.39
+	HYDROGRAPH AT 208S	229.	4.02	21.	7.	7.	0.07
+	2 COMBINED AT C573R	1391.	4.05	128.	43.	43.	0.46
+	2 COMBINED AT C573	2843.	4.12	409.	138.	138.	1.58
+	HYDROGRAPH AT 208T	433.	4.02	36.	12.	12.	0.13
+	HYDROGRAPH AT 208U	483.	4.00	36.	12.	12.	0.13
+	2 COMBINED AT C574	911.	4.02	72.	24.	24.	0.27
+	ROUTED TO 574575	906.	4.02	72.	24.	24.	0.27
+	HYDROGRAPH AT 208V	97.	4.02	8.	3.	3.	0.03
+	2 COMBINED AT C575	1002.	4.02	79.	26.	26.	0.29
+	ROUTED TO 575576	985.	4.05	79.	26.	26.	0.29
+	HYDROGRAPH AT 208W	170.	4.02	14.	5.	5.	0.05
+	2 COMBINED AT C576	1146.	4.03	93.	31.	31.	0.34
+	ROUTED TO 576577	1143.	4.05	93.	31.	31.	0.34
+	2 COMBINED AT C577	3345.	4.10	494.	166.	166.	1.92
+	ROUTED TO 577578	3329.	4.12	494.	166.	166.	1.92
+	HYDROGRAPH AT 208X	247.	4.02	19.	6.	6.	0.08
+	2 COMBINED AT C578I	3404.	4.10	511.	172.	172.	2.00
+	ROUTED TO C578O	1078.	4.67	390.	172.	172.	2.00
+	ROUTED TO 578587	1073.	4.72	390.	172.	172.	2.00
+	HYDROGRAPH AT 210B	307.	4.05	28.	9.	9.	0.11
+	ROUTED TO C586O	246.	4.12	28.	9.	9.	0.11

+	ROUTED TO 586587	245.	4.17	28.	9.	9.	0.11
+	2 COMBINED AT C587	1112.	4.72	411.	181.	181.	2.11
+	ROUTED TO 587595	1105.	4.73	410.	181.	181.	2.11
+	HYDROGRAPH AT 210C	245.	4.03	19.	6.	6.	0.08
+	2 COMBINED AT C595L	1110.	4.73	423.	186.	186.	2.19
+	HYDROGRAPH AT 210D	448.	4.03	36.	12.	12.	0.14
+	ROUTED TO 588590	437.	4.05	36.	12.	12.	0.14
+	HYDROGRAPH AT 210E	93.	4.02	7.	2.	2.	0.03
+	2 COMBINED AT C590L	524.	4.03	43.	14.	14.	0.17
+	HYDROGRAPH AT 210F	306.	4.02	25.	8.	8.	0.09
+	ROUTED TO 589590	299.	4.05	25.	8.	8.	0.09
+	HYDROGRAPH AT 210G	504.	4.03	42.	14.	14.	0.16
+	2 COMBINED AT C590R	800.	4.03	67.	22.	22.	0.25
+	2 COMBINED AT C590	1323.	4.03	110.	37.	37.	0.42
+	HYDROGRAPH AT 210H	234.	4.02	17.	6.	6.	0.07
+	ROUTED TO 592593	226.	4.07	17.	6.	6.	0.07
+	2 COMBINED AT C593	1545.	4.03	127.	42.	42.	0.49
+	ROUTED TO 593594	1532.	4.07	127.	42.	42.	0.49
+	HYDROGRAPH AT 210I	149.	4.03	13.	4.	4.	0.05
+	2 COMBINED AT C594	1636.	4.05	139.	46.	46.	0.54
+	ROUTED TO 594595	1595.	4.10	139.	46.	46.	0.54
+	HYDROGRAPH AT 210J	324.	4.03	25.	8.	8.	0.10
+	2 COMBINED AT C595R	1764.	4.10	163.	54.	54.	0.64
+	2 COMBINED AT C595	1603.	4.12	558.	236.	236.	2.83
+	ROUTED TO 595596	1595.	4.18	557.	236.	236.	2.83
+	HYDROGRAPH AT 210K	270.	4.02	19.	6.	6.	0.08
+	2 COMBINED AT C596	1679.	4.17	572.	241.	241.	2.91
+	HYDROGRAPH AT 209A	951.	4.10	89.	30.	30.	0.37
+	ROUTED TO 579580	942.	4.12	89.	30.	30.	0.37
+	HYDROGRAPH AT 209C	170.	4.05	17.	6.	6.	0.06
+	2 COMBINED AT C580R	1090.	4.10	106.	35.	35.	0.43
+	HYDROGRAPH AT 209B	266.	4.02	22.	7.	7.	0.08
+	2 COMBINED AT C580	1285.	4.08	128.	43.	43.	0.51
+	ROUTED TO 580581	1267.	4.12	127.	43.	43.	0.51
+	HYDROGRAPH AT 209D	802.	4.02	64.	21.	21.	0.24

+	2 COMBINED AT	C581R	1747.	4.07	187.	63.	63.	0.76
+	HYDROGRAPH AT	209E	445.	4.03	40.	13.	13.	0.15
+	2 COMBINED AT	C581	2031.	4.05	224.	75.	75.	0.91
+	ROUTED TO	581582	1981.	4.10	224.	75.	75.	0.91
+	HYDROGRAPH AT	209F	439.	4.17	55.	18.	18.	0.23
+	2 COMBINED AT	C582R	2209.	4.12	274.	92.	92.	1.13
+	HYDROGRAPH AT	209G	625.	4.03	54.	18.	18.	0.20
+	2 COMBINED AT	C582	2498.	4.10	323.	108.	108.	1.34
+	ROUTED TO	582583	2472.	4.13	323.	108.	108.	1.34
+	HYDROGRAPH AT	209H	242.	4.03	19.	6.	6.	0.08
+	2 COMBINED AT	C583	2567.	4.12	340.	114.	114.	1.42
+	ROUTED TO	583584	2536.	4.20	340.	114.	114.	1.42
+	HYDROGRAPH AT	209I	604.	4.02	42.	14.	14.	0.18
+	2 COMBINED AT	C584I	2656.	4.18	377.	127.	127.	1.60
+	ROUTED TO	C584O	925.	4.65	357.	127.	127.	1.60
+	ROUTED TO	584597	903.	4.78	356.	127.	127.	1.60
+	HYDROGRAPH AT	210L	413.	4.03	31.	10.	10.	0.14
+	2 COMBINED AT	C597	900.	4.80	381.	136.	136.	1.74
+	ROUTED TO	597598	883.	4.88	380.	136.	136.	1.74
+	HYDROGRAPH AT	210M	462.	4.05	38.	13.	13.	0.16
+	2 COMBINED AT	C598	884.	4.88	411.	147.	147.	1.90
+	HYDROGRAPH AT	210N	162.	4.00	10.	3.	3.	0.05
+	4 COMBINED AT	C599I	2474.	4.17	1162.	508.	508.	7.13
+	ROUTED TO	C599O	1631.	5.00	994.	508.	508.	7.13
+	ROUTED TO	599608	1630.	5.03	994.	508.	508.	7.13
+	HYDROGRAPH AT	211K	363.	4.00	26.	9.	9.	0.10
+	2 COMBINED AT	C608L	1629.	5.03	998.	515.	515.	7.24
+	HYDROGRAPH AT	211G	18.	4.05	3.	1.	1.	0.01
+	ROUTED TO	604606	17.	4.23	3.	1.	1.	0.01
+	HYDROGRAPH AT	211I	121.	4.03	11.	4.	4.	0.04
+	2 COMBINED AT	C606R	131.	4.03	14.	5.	5.	0.05
+	HYDROGRAPH AT	211H	247.	4.02	17.	6.	6.	0.07
+	ROUTED TO	C605O	129.	4.12	17.	6.	6.	0.07
+	2 COMBINED AT	C606	256.	4.05	31.	10.	10.	0.12
+	ROUTED TO	606607	253.	4.08	31.	10.	10.	0.12

+	HYDROGRAPH AT	211J	51.	4.02	4.	1.	1.	0.01
+	2 COMBINED AT	C607	295.	4.05	35.	12.	12.	0.14
+	ROUTED TO	607608	290.	4.08	35.	12.	12.	0.14
+	2 COMBINED AT	C608	1642.	5.02	1019.	524.	524.	7.37
+	ROUTED TO	608613	1641.	5.05	1019.	524.	524.	7.37
+	HYDROGRAPH AT	211M	278.	4.02	23.	8.	8.	0.08
+	ROUTED TO	610611	272.	4.05	23.	8.	8.	0.08
+	HYDROGRAPH AT	211N	72.	4.00	6.	2.	2.	0.02
+	2 COMBINED AT	C611R	338.	4.03	29.	10.	10.	0.10
+	HYDROGRAPH AT	211O	143.	4.02	11.	4.	4.	0.04
+	ROUTED TO	C609O	69.	4.12	11.	4.	4.	0.04
+	ROUTED TO	609611	69.	4.15	11.	4.	4.	0.04
+	2 COMBINED AT	C611I	402.	4.03	40.	13.	13.	0.14
+	ROUTED TO	C611O	201.	4.20	39.	13.	13.	0.14
+	DIVERSION TO	D611R	169.	4.20	38.	13.	13.	0.14
+	HYDROGRAPH AT	D611L	32.	4.20	1.	0.	0.	0.14
+	ROUTED TO	611612	27.	4.27	1.	0.	0.	0.14
+	HYDROGRAPH AT	211P	119.	4.00	10.	3.	3.	0.03
+	2 COMBINED AT	C612	119.	4.00	10.	3.	3.	0.17
+	2 COMBINED AT	C613	1639.	5.05	1024.	527.	527.	7.55
+	ROUTED TO	613621	1632.	5.05	1022.	526.	526.	7.55
+	HYDROGRAPH AT	211L	317.	4.02	24.	8.	8.	0.10
+	2 COMBINED AT	C621L	1633.	5.05	1035.	532.	532.	7.64
+	HYDROGRAPH AT	211Q	74.	4.00	5.	2.	2.	0.02
+	ROUTED TO	616617	72.	4.03	5.	2.	2.	0.02
+	HYDROGRAPH AT	211R	283.	4.02	22.	7.	7.	0.08
+	2 COMBINED AT	C617L	355.	4.02	27.	9.	9.	0.10
+	HYDROGRAPH AT	211U	61.	4.05	8.	3.	3.	0.03
+	DIVERSION TO	D614R	43.	4.05	5.	2.	2.	0.03
+	HYDROGRAPH AT	D614L	18.	4.05	3.	1.	1.	0.03
+	2 COMBINED AT	C617	372.	4.02	30.	10.	10.	0.13
+	ROUTED TO	617618	359.	4.07	30.	10.	10.	0.13
+	HYDROGRAPH AT	211S	144.	4.05	12.	4.	4.	0.05
+	2 COMBINED AT	C618I	499.	4.07	42.	14.	14.	0.18
+	ROUTED TO	C618O	482.	4.08	36.	14.	14.	0.18

+	HYDROGRAPH AT BB614R	43.	4.05	5.	2.	2.	0.03
+	ROUTED TO 614615	43.	4.10	5.	2.	2.	0.03
+	HYDROGRAPH AT 211V	16.	4.02	2.	1.	1.	0.00
+	2 COMBINED AT C615	55.	4.07	7.	2.	2.	0.03
+	DIVERSION TO D615R	19.	4.07	2.	1.	1.	0.03
+	HYDROGRAPH AT D615L	36.	4.07	5.	2.	2.	0.03
+	ROUTED TO 615618	36.	4.08	5.	2.	2.	0.03
+	2 COMBINED AT C618	518.	4.08	41.	16.	16.	0.19
+	ROUTED TO 618619	507.	4.13	41.	16.	16.	0.19
+	HYDROGRAPH AT 211T	231.	4.02	20.	7.	7.	0.07
+	2 COMBINED AT C619L	637.	4.08	60.	22.	22.	0.26
+	HYDROGRAPH AT BB615R	19.	4.07	2.	1.	1.	0.03
+	ROUTED TO 615619	19.	4.17	2.	1.	1.	0.03
+	2 COMBINED AT C619I	655.	4.10	62.	23.	23.	0.25
+	ROUTED TO C619O	596.	4.18	62.	23.	23.	0.25
+	DIVERSION TO D619L	402.	4.18	12.	4.	4.	0.25
+	HYDROGRAPH AT D619R	194.	4.18	51.	19.	19.	0.25
+	ROUTED TO 619620	194.	4.20	51.	19.	19.	0.25
+	HYDROGRAPH AT BB619L	402.	4.18	12.	4.	4.	0.25
+	ROUTED TO 619620	353.	4.22	12.	4.	4.	0.25
+	HYDROGRAPH AT 211W	108.	4.00	9.	3.	3.	0.03
+	3 COMBINED AT C620R	573.	4.22	72.	26.	26.	0.28
+	HYDROGRAPH AT BB611R	169.	4.20	38.	13.	13.	0.14
+	ROUTED TO 611620	169.	4.22	38.	13.	13.	0.14
+	2 COMBINED AT C620	741.	4.22	110.	39.	39.	0.42
+	ROUTED TO 620621	723.	4.23	110.	39.	39.	0.42
+	2 COMBINED AT C621	1866.	5.00	1118.	566.	566.	7.93
+	ROUTED TO 621622	1865.	5.10	1117.	565.	565.	7.93
+	HYDROGRAPH AT 211X	629.	4.05	60.	20.	20.	0.21
+	2 COMBINED AT C622R	1877.	5.10	1153.	582.	582.	8.14
+	HYDROGRAPH AT 211A	444.	4.03	35.	12.	12.	0.14
+	ROUTED TO C600O	373.	4.10	35.	12.	12.	0.14
+	ROUTED TO 600601	366.	4.15	35.	12.	12.	0.14
+	HYDROGRAPH AT 211B	357.	4.02	26.	9.	9.	0.11
+	2 COMBINED AT C601	663.	4.03	60.	20.	20.	0.25

+	ROUTED TO	601602	651.	4.08	60.	20.	20.	0.25
+	HYDROGRAPH AT	211C	134.	4.03	12.	4.	4.	0.04
+	2 COMBINED AT	C602L	769.	4.07	72.	24.	24.	0.30
+	HYDROGRAPH AT	211D	184.	4.05	17.	6.	6.	0.07
+	2 COMBINED AT	C602	950.	4.07	89.	30.	30.	0.37
+	ROUTED TO	602603	923.	4.12	89.	30.	30.	0.37
+	HYDROGRAPH AT	211E	509.	4.03	41.	14.	14.	0.16
+	2 COMBINED AT	C603	1313.	4.07	129.	43.	43.	0.52
+	ROUTED TO	603622	1284.	4.13	129.	43.	43.	0.52
+	HYDROGRAPH AT	211F	332.	4.05	33.	11.	11.	0.11
+	2 COMBINED AT	C622L	1474.	4.12	160.	54.	54.	0.63
+	2 COMBINED AT	C622	2429.	4.15	1265.	625.	625.	8.78
+	ROUTED TO	622549	2409.	4.23	1264.	624.	624.	8.78
+	HYDROGRAPH AT	211Y	271.	4.05	26.	9.	9.	0.09
+	2 COMBINED AT	C549R	2508.	4.23	1280.	631.	631.	8.87
+	2 COMBINED AT	C549	3524.	4.23	1664.	829.	829.	13.06
+	ROUTED TO	549626	3504.	4.33	1662.	829.	829.	13.06
+	HYDROGRAPH AT	211Z	249.	4.03	20.	7.	7.	0.08
+	2 COMBINED AT	C626C	3561.	4.33	1671.	833.	833.	13.14
+	HYDROGRAPH AT	211AA	96.	4.05	9.	3.	3.	0.03
+	ROUTED TO	625626	92.	4.08	9.	3.	3.	0.03
+	HYDROGRAPH AT	211AB	149.	4.00	12.	4.	4.	0.04
+	ROUTED TO	623624	148.	4.02	12.	4.	4.	0.04
+	HYDROGRAPH AT	211AC	90.	4.02	8.	3.	3.	0.03
+	2 COMBINED AT	C624	238.	4.02	20.	7.	7.	0.07
+	ROUTED TO	624626	231.	4.05	20.	7.	7.	0.07
+	HYDROGRAPH AT	211AD	139.	4.02	12.	4.	4.	0.04
+	2 COMBINED AT	C626R	367.	4.03	32.	11.	11.	0.11
+	3 COMBINED AT	C626	3692.	4.32	1694.	845.	845.	13.28
+	ROUTED TO	626627	3689.	4.33	1694.	845.	845.	13.28
+	HYDROGRAPH AT	211AE	114.	4.02	9.	3.	3.	0.03
+	2 COMBINED AT	C627	3714.	4.33	1698.	847.	847.	13.32
+	HYDROGRAPH AT	211AF	194.	4.00	15.	5.	5.	0.05

*** NORMAL END OF HEC-1 ***

APPENDIX E

100-year, 24-hour Storm HEC-1 Output, Future Condition

```
1*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*              MAY   1991               *
*            VERSION 4.0.1E             *
*                                       *
*  RUN DATE  10/31/94  TIME  13:21:34   *
*                                       *
*****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 551-1748              *
*                                       *
*****************************************
```

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

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

```
1                                    HEC-1 INPUT                                                    PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   Fountain Hills North Floodplain Delineation Study
  2           ID        FCD 92-04        by GVSCE                          File:  FU100-24.IH1
  3           ID    Future Condition Model                                 Date:    07-21-94   dtp
  4           ID    100-Year 24-Hour Storm, Clark Unit Hydrograph      Revised:    10-31-94   dtp
              *
  5           IT       1                    1800
  6           IO       5
  7           IN      15
              *
              * Point precipitation values are are based on Hydro-40 DARF.
              *   0.01    5.00   10.00   50.00   80.00  100.00  200.00
              *  1.000   0.980   0.949   0.883   0.861   0.850   0.819
              *
  8           JD    4.20    0.01
              * The following PC records are a 24-hour SCS Type II rainfall distribution.
  9           PC   0.000   0.002   0.005   0.008   0.011   0.013   0.016   0.019   0.022   0.025
 10           PC   0.028   0.032   0.035   0.038   0.041   0.044   0.048   0.053   0.056   0.060
 11           PC   0.063   0.067   0.071   0.075   0.080   0.084   0.089   0.093   0.098   0.103
 12           PC   0.109   0.114   0.120   0.127   0.133   0.140   0.147   0.155   0.163   0.172
 13           PC   0.181   0.192   0.204   0.220   0.235   0.259   0.283   0.473   0.663   0.699
 14           PC   0.735   0.754   0.772   0.785   0.799   0.810   0.820   0.829   0.838   0.846
 15           PC   0.854   0.861   0.868   0.874   0.880   0.885   0.891   0.900   0.902   0.910
 16           PC   0.912   0.920   0.921   0.926   0.929   0.930   0.937   0.941   0.945   0.950
 17           PC   0.952   0.957   0.959   0.962   0.965   0.970   0.972   0.973   0.978   0.981
 18           PC   0.984   0.987   0.989   0.992   0.995   0.998   1.000
 19           JD    4.12    5.00
 20           JD    3.99   10.00
 21           JD    3.71   50.00
 22           JD    3.62   80.00
              *

 23           KK    201A
 24           KM   Sub-Basin   201A
 25           KM
 26           KM      The Clark Unit Hydrograph is used for this basin.
 27           KM          The HEC-1 time-area relation is used for this basin.
 28           KM
 29           KM      Time of Concentration for this sub-basin is based on the following:
 30           KM          An rainfall areal reduction factor of 1.000
 31           KM
 32           KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 33           KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 34           KM   .26 .26 .26 .26 .26 .25 .02 .02 .02 .02 .01 .01 .00 .00 .00 .00 .00 .00
 35           KM
 36           KM          L=   1.269 miles, S=  208 feet/mile, Kb= .07
 37           KM
 38           BA   0.217
 39           LG    0.13    0.35    5.70    0.19    7.94
 40           UC   0.400   0.387
              *
1                                    HEC-1 INPUT                                                    PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 41           KK    201B
 42           KM   Sub-Basin   201B
 43           KM
 44           KM      The Clark Unit Hydrograph is used for this basin.
 45           KM          The HEC-1 time-area relation is used for this basin.
 46           KM
 47           KM      Time of Concentration for this sub-basin is based on the following:
 48           KM          An rainfall areal reduction factor of 1.000
 49           KM
 50           KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 51           KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
```

```
 52          KM   .25 .25 .25 .25 .25 .24 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
 53          KM
 54          KM          L=   0.680 miles, S=  223 feet/mile, Kb= .10
 55          KM
 56          BA   0.081
 57          LG    0.15    0.38    5.70    0.20    1.84
 58          UC   0.350   0.356
             *

 59          KK    C501
 60          KM      Hydrograph combine 201A + 201B at C501
 61          HC       2
             *

 62          KK  501502
 63          KM      Normal depth channel route from C501 to C502
 64          KM      Source:  200 Scale Mapping
 65          RS       7    FLOW      -1
 66          RC   0.055   0.045   0.055  3000.0  0.0203
 67          RX  1000.0  1010.0  1025.0  1045.0  1075.0  1105.0  1125.0  1155.0
 68          RY  1624.0  1622.0  1620.0  1618.0  1618.0  1620.0  1622.0  1624.0
             *

 69          KK    201C
 70          KM   Sub-Basin   201C
 71          KM
 72          KM      The Clark Unit Hydrograph is used for this basin.
 73          KM          The Urban time-area relation is used for this basin.
 74          KM
 75          KM      Time of Concentration for this sub-basin is based on the following:
 76          KM          An rainfall areal reduction factor of 1.000
 77          KM
 78          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 79          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 80          KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
 81          KM
 82          KM          L=   0.674 miles, S=  206 feet/mile, Kb= .03
 83          KM
 84          BA   0.079
 85          LG    0.09    0.26    5.70    0.18   23.84
 86          UC   0.183   0.175
 87          UA       0       5      16      30      65      77      84      90      94      97
 88          UA     100
             *
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 89          KK   C502R
 90          KM      Hydrograph combine 501502 + 201C at C502 right branch
 91          HC       2
             *

 92          KK    201D
 93          KM   Sub-Basin   201D
 94          KM
 95          KM      The Clark Unit Hydrograph is used for this basin.
 96          KM          The HEC-1 time-area relation is used for this basin.
 97          KM
 98          KM      Time of Concentration for this sub-basin is based on the following:
 99          KM          An rainfall areal reduction factor of 1.000
100          KM
101          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
102          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
103          KM   .26 .26 .26 .26 .26 .25 .02 .02 .02 .02 .02 .01 .00 .00 .00 .00 .00 .00
104          KM
105          KM          L=   0.898 miles, S=  207 feet/mile, Kb= .08
106          KM
107          BA   0.071
108          LG    0.13    0.34    5.70    0.19    8.74
109          UC   0.363   0.497
             *

110          KK    C502
111          KM      Hydrograph combine 502R + 201D at C502
112          HC       2
             *

113          KK  502503
114          KM      Normal depth channel route from C502 to C503
115          KM      Source:  200 Scale Mapping
116          RS       8    FLOW      -1
117          RC   0.050   0.045   0.050  2453.0  0.0183
118          RX  1000.0  1010.0  1025.0  1095.0  1215.0  1295.0  1305.0  1325.0
119          RY  1554.0  1553.0  1552.0  1550.0  1549.8  1551.0  1552.0  1554.0
             *

120          KK    201E
121          KM   Sub-Basin   201E
122          KM
123          KM      The Clark Unit Hydrograph is used for this basin.
124          KM          The HEC-1 time-area relation is used for this basin.
125          KM
126          KM      Time of Concentration for this sub-basin is based on the following:
127          KM          An rainfall areal reduction factor of 1.000
128          KM
129          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
130          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
131          KM   .26 .25 .25 .25 .25 .25 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
132          KM
133          KM          L=   1.245 miles, S=  178 feet/mile, Kb= .08
134          KM
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 135          BA   0.183
 136          LG    0.13    0.34    5.60    0.23    8.39
 137          UC   0.450   0.478
              *

 138          KK   C503I
 139          KM      Hydrograph combine 502503 + 201E at C503I
 140          HC       2
              *

 141          KK   C503O
 142          KM      Reservoir route at C503.
 143          RS       1    ELEV  1535.1
 144          SV    0.00    0.67    2.87    7.16   13.82   22.77   34.37   38.00   41.80   32.20
 145          SV   44.70   46.10   47.80   49.11   50.90   52.80   54.60   56.40
 146          SE  1525.1  1538.0  1540.0  1542.0  1544.0  1546.0  1548.0  1548.5  1549.0  1549.2
 147          SE  1549.4  1549.6  1549.8  1550.0  1550.2  1550.4  1550.6  1550.8
 148          SQ       0      50     133     210     273     325     367     377     407     441
 149          SQ     481     545     612     715     818     971    1115    1268
              *

 150          KK   D503R
 151          KM      Hydrograph diversion at C503.  Main flow continues in the right branch.
 152          KM      Diverted flow is in the left branch.
 153          DT   D503L
 154          DI       0      50     133     210     273     325     367     377     407     441
 155          DI     481     545     612     715     818     971    1115    1268
 156          DQ       0      50     133     210     273     325     367     377     386     391
 157          DQ     394     398     402     405     408     412     415     418
              *

 158          KK  503504
 159          KM      Normal depth channel route from C503 to C504
 160          KM      Source:  200 Scale Mapping
 161          RS       1    FLOW      -1
 162          RC   0.050   0.040   0.050  1151.0  0.0098
 163          RX   940.0  1060.0  1100.0  1140.0  1190.0  1210.0  1230.0  1242.0
 164          RY  1552.0  1548.0  1547.0  1546.2  1546.2  1548.0  1549.0  1552.0
              *
              * *
              * *  End Basin 201.  Start Basin 202
              * *
              *

 165          KK    202A
 166          KM   Sub-Basin   202A
 167          KM
 168          KM      The Clark Unit Hydrograph is used for this basin.
 169          KM          The Urban time-area relation is used for this basin.
 170          KM
 171          KM      Time of Concentration for this sub-basin is based on the following:
 172          KM          An rainfall areal reduction factor of 1.000
 173          KM
 174          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 175          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 176          KM   .26 .26 .26 .26 .26 .26 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
 177          KM
 178          KM          L=   0.409 miles, S=  129 feet/mile, Kb= .03
 179          KM
 180          BA   0.038
 181          LG    0.09    0.25    4.40    0.34   29.61
 182          UC   0.171   0.165
 183          UA       0       5      16      30      65      77      84      90      94      97
 184          UA     100
              *

 185          KK   C504I
 186          KM      Hydrograph combine D503R + 202A at C504I
 187          HC       2
              *

 188          KK   C504O
 189          KM      Reservoir route at C504.
 190          RS       1    ELEV  1538.1
 191          SV    0.00    0.17    0.90    1.00    1.10    1.30    1.60    1.80    2.00    2.30
 192          SV    2.50    2.70    3.00    3.10
 193          SE  1538.1  1540.0  1541.66 1541.80 1542.0  1542.2  1542.4  1542.6  1542.8  1543.0
 194          SE  1543.2  1543.4  1543.6  1543.7
 195          SQ       0      11      20      22      24      30      41      60      85     121
 196          SQ     171     240     322     396
              *

 197          KK   D504R
 198          KM      Hydrograph diversion at C504.  Main flow continues in the right branch.
 199          KM      Diverted flow is in the left branch.
 200          DT   D504L
 201          DI       0      11      20      22      24      30      41      60      85     121
 202          DI     171     240     322     396
 203          DQ       0      11      20      20      21      22      22      23      23      24
 204          DQ      24      25      26      26
              *

 205          KK    202B
 206          KM   Sub-Basin   202B
 207          KM
 208          KM      The Clark Unit Hydrograph is used for this basin.
 209          KM          The Urban time-area relation is used for this basin.
 210          KM
```

```
211          KM      Time of Concentration for this sub-basin is based on the following:
212          KM          An rainfall areal reduction factor of 1.000
213          KM
214          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
215          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
216          KM   .26 .26 .26 .26 .26 .26 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
217          KM
218          KM          L=   0.364 miles, S=  322 feet/mile, Kb= .03
219          KM
220          BA   0.018
221          LG    0.09    0.25    4.55    0.31   29.03
222          UC   0.121   0.156
1                                          HEC-1 INPUT                                                    PAGE  6

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

223          UA       0       5      16      30      65      77      84      90      94      97
224          UA     100
             *

225          KK   C505I
226          KM      Hydrograph combine D504R + 202B at C505I
227          HC       2
             *

228          KK   D505R
229          KM      Hydrograph diversion at C505.  Main flow continues in the right branch.
230          KM      Diverted flow is in the left branch.
231          DT   D505L
232          DI       0       3       7       9      11      14      15      17      23      31
233          DI      44      55      75      95     123     134
234          DQ       0       3       7       9      11      12      12      13      14      14
235          DQ      15      15      16      16      16      17
             *

236          KK    202C
237          KM   Sub-Basin   202C
238          KM
239          KM      The Clark Unit Hydrograph is used for this basin.
240          KM          The Urban time-area relation is used for this basin.
241          KM
242          KM      Time of Concentration for this sub-basin is based on the following:
243          KM          An rainfall areal reduction factor of 1.000
244          KM
245          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
246          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
247          KM   .27 .26 .26 .26 .26 .26 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
248          KM
249          KM          L=   0.192 miles, S=  363 feet/mile, Kb= .04
250          KM
251          BA   0.008
252          LG    0.08    0.25    4.35    0.35   38.72
253          UC   0.096   0.118
254          UA       0       5      16      30      65      77      84      90      94      97
255          UA     100
             *

256          KK    C506
257          KM      Hydrograph combine C505R + 202C at C506
258          HC       2
             *

259          KK   D506R
260          KM      Hydrograph diversion at C506.  Main flow continues in the right branch.
261          KM      Diverted flow is in the left branch.
262          DT   D506L
263          DI       0       3      13      37      77     100     151     206     276     355
264          DI     437     532     698     809     928    1104
265          DQ       0       0       0       0       0       0       4      12      28      52
266          DQ      85     128     183     249     328     421
             *
1                                          HEC-1 INPUT                                                    PAGE  7

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

267          KK    202D
268          KM   Sub-Basin   202D
269          KM
270          KM      The Clark Unit Hydrograph is used for this basin.
271          KM          The Urban time-area relation is used for this basin.
272          KM
273          KM      Time of Concentration for this sub-basin is based on the following:
274          KM          An rainfall areal reduction factor of 1.000
275          KM
276          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
277          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
278          KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
279          KM
280          KM          L=   0.800 miles, S=  248 feet/mile, Kb= .03
281          KM
282          BA   0.063
283          LG    0.09    0.25    5.60    0.20   28.04
284          UC   0.192   0.240
285          UA       0       5      16      30      65      77      84      90      94      97
286          UA     100
             *

287          KK    202E
288          KM   Sub-Basin   202E
289          KM
290          KM      The Clark Unit Hydrograph is used for this basin.
291          KM          The Urban time-area relation is used for this basin.
292          KM
```

```
293     KM      Time of Concentration for this sub-basin is based on the following:
294     KM          An rainfall areal reduction factor of 1.000
295     KM
296     KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
297     KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
298     KM   .28 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
299     KM
300     KM          L=   0.732 miles, S=  270 feet/mile, Kb= .03
301     KM
302     BA   0.104
303     LG    0.09    0.25    5.70    0.18   26.88
304     UC   0.175   0.151
305     UA       0       5      16      30      65      77      84      90      94      97
306     UA     100
        *

307     KK   C508O
308     KM      Reservoir route at C508.
309     RS       1    ELEV  1524.2
310     SV    0.00    0.05    0.09    0.13    0.17    0.21    0.25    0.28    0.36    0.46
311     SV    0.55    0.64    0.72    0.81    0.90    1.00    1.02
312     SE  1524.1  1525.0  1525.5  1526.0  1526.5  1527.0  1527.6  1528.0  1528.2  1528.4
313     SE  1528.6  1528.8  1529.0  1529.2  1529.4  1529.6 1529.64
314     SQ       0       6       9      16      22      28      38      51      58      70
315     SQ      84     100     122     149     183     216     227
        *
```



```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

316     KK   D508L
317     KM      Hydrograph diversion at C508.  Main flow continues in the left branch.
318     KM      Diverted flow is in the right branch.
319     DT   D508R
320     DI       0       6       9      16      22      28      38      51      58      70
321     DI      84     100     122     149     183     216     227
322     DQ       0       6       9      16      22      28      38      47      52      56
323     DQ      60      63      66      68      71      73      73
        *

324     KK  508507
325     KM      Normal depth channel route from C508 to C507
326     KM      Source:  200 Scale Mapping
327     RS       4    FLOW      -1
328     RC   0.020   0.035   0.055   934.0  0.0028
329     RX   893.0  1014.0  1022.0  1026.0  1040.0  1050.0  1060.0  1066.0
330     RY  1532.0  1529.4  1528.6  1527.6  1529.0  1530.2  1531.3  1532.0
        *

331     KK   C507I
332     KM      Hydrograph combine D506R + 202D + D508L at C507I
333     HC       3
        *

334     KK   C507O
335     KM      Reservoir route at C507
336     RS       1    ELEV  1525.2
337     SV    0.00    0.28    0.46    0.65    0.85    1.03    1.38    1.40    1.44    1.48
338     SV    1.52    1.55    1.59    1.64    1.67    1.70    1.75    1.77
339     SE  1525.2  1526.0  1526.5  1527.0  1527.5  1528.0  1529.0  1529.0  1529.1  1529.2
340     SE  1529.3  1529.4  1529.5  1529.6  1529.7  1529.8  1529.9  1530.0
341     SQ       0       2       5       9      13      15      18      20      36      69
342     SQ     118     185     272     378     506     652     816     997
        *

343     KK    202F
344     KM   Sub-Basin   202F
345     KM
346     KM      The Clark Unit Hydrograph is used for this basin.
347     KM          The Urban time-area relation is used for this basin.
348     KM
349     KM      Time of Concentration for this sub-basin is based on the following:
350     KM          An rainfall areal reduction factor of 1.000
351     KM
352     KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
353     KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
354     KM   .28 .28 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
355     KM
356     KM          L=   0.188 miles, S=  337 feet/mile, Kb= .03
357     KM
358     BA   0.013
359     LG    0.08    0.25    5.60    0.20   38.05
360     UC   0.083   0.073
361     UA       0       5      16      30      65      77      84      90      94      97
```



```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

362     UA     100
        *

363     KK    202G
364     KM   Sub-Basin   202G
365     KM
366     KM      The Clark Unit Hydrograph is used for this basin.
367     KM          The Urban time-area relation is used for this basin.
368     KM
369     KM      Time of Concentration for this sub-basin is based on the following:
370     KM          An rainfall areal reduction factor of 1.000
371     KM
372     KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
373     KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
374     KM   .28 .28 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
```

```
375          KM
376          KM          L=   0.175 miles, S=  338 feet/mile, Kb= .03
377          KM
378          BA   0.013
379          LG    0.08    0.25    5.70    0.18   35.52
380          UC   0.083   0.069
381          UA       0       5      16      30      65      77      84      90      94      97
382          UA     100
             *

383          KK    202H
384          KM   Sub-Basin   202H
385          KM
386          KM      The Clark Unit Hydrograph is used for this basin.
387          KM          The Urban time-area relation is used for this basin.
388          KM
389          KM      Time of Concentration for this sub-basin is based on the following:
390          KM          An rainfall areal reduction factor of 1.000
391          KM
392          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
393          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
394          KM   .27 .27 .27 .27 .27 .27 .03 .03 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
395          KM
396          KM          L=   0.861 miles, S=  243 feet/mile, Kb= .03
397          KM
398          BA   0.179
399          LG    0.09    0.25    5.20    0.22   26.85
400          UC   0.200   0.146
401          UA       0       5      16      30      65      77      84      90      94      97
402          UA     100
             *

403          KK   C511O
404          KM      Reservoir route at C511.
405          RS       1    ELEV  1535.2
406          SV    0.00    0.40    0.70    1.19    3.10    3.20    3.55    4.00    4.50    4.90
407          SV    5.40    5.80    6.30    6.80    7.20    7.70    8.13
408          SE  1535.2  1537.0  1538.0  1540.0  1541.6  1541.8  1542.0  1542.2  1542.4  1542.6
409          SE  1542.8  1543.0  1543.2  1543.4  1543.6  1543.8  1544.0
410          SQ       0      42      88     200     274     286     325     393     491     622
```



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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

411          SQ     790    1000    1241    1518    1835    2189    2580
             *

412          KK  511512
413          KM      Normal depth channel route from C511 to C512
414          KM      Source:  200 Scale Mapping
415          RS       3    FLOW      -1
416          RC   0.055   0.045   0.055   760.0  0.0112
417          RX  1000.0  1060.0  1070.0  1090.0  1110.0  1120.0  1180.0  1220.0
418          RY  1536.0  1534.2  1534.0  1532.0  1532.0  1534.0  1535.0  1536.0
             *

419          KK    202I
420          KM   Sub-Basin   202I
421          KM
422          KM      The Clark Unit Hydrograph is used for this basin.
423          KM          The Urban time-area relation is used for this basin.
424          KM
425          KM      Time of Concentration for this sub-basin is based on the following:
426          KM          An rainfall areal reduction factor of 1.000
427          KM
428          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
429          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
430          KM   .29 .29 .28 .28 .28 .28 .04 .04 .04 .04 .04 .04 .02 .02 .02 .02 .02 .02
431          KM
432          KM          L=   0.247 miles, S=  122 feet/mile, Kb= .03
433          KM
434          BA   0.017
435          LG    0.06    0.25    5.10    0.24   73.16
436          UC   0.129   0.125
437          UA       0       5      16      30      65      77      84      90      94      97
438          UA     100
             *

439          KK   C512I
440          KM      Hydrograph combine 511512 + 202I at C512
441          KM      Inflow to reservoir route at C512
442          KM      This is the inflow to the Stock Tank at the end of Bahia Drive
443          HC       2
             *

444          KK   C512O
445          KM      Reservoir route at C512 (Stock Tank).
446          RS       1    ELEV  1517.0
447          SV    0.00    0.03    0.29    0.75    1.38    2.39    4.17    7.43   10.30   12.20
448          SV   12.70   13.36   14.10   15.10   16.20   17.00   17.90
449          SE  1517.0  1518.0  1520.0  1522.0  1524.0  1526.0  1528.0  1530.0  1531.0  1531.6
450          SE  1531.8  1532.0  1532.2  1532.4  1532.6  1532.8  1533.0
451          SQ       0       0       0       0       0       0       0       0       0      15
452          SQ      35      65     137     244     376     541     725
             *
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

453          KK   D512L
454          KM      Hydrograph diversion at C512.
455          KM      Main flow continues in the left branch (weir).
456          KM      Diverted flow enters Bahia Drive (channel) and continues to C591.
```

```
KM      Diverted flow is in the right branch.
DT   D512R
DI       0      15      35      65     137     244     376     541     725
DQ       0       0       4      10      49     112     190     289     395
*
* *
* *  Note :  512591 too short to route
* *
*
* *
* *  End Basin 202.  Start Basin 203.
* *
*

KK    203A
KM   Sub-Basin   203A
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The HEC-1 time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          An rainfall areal reduction factor of 1.000
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .26 .25 .25 .25 .25 .25 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
KM
KM          L=   1.569 miles, S=  229 feet/mile, Kb= .08
KM
BA   0.279
LG    0.14    0.37    5.70    0.20    4.62
UC   0.467   0.471
*

KK   C513O
KM      Reservoir route at C513.
RS       1    ELEV  1789.0
SV    0.00    0.35    0.97    2.05    3.54    5.54    8.17
SE  1789.0  1794.0  1796.0  1798.0  1800.0  1802.0  1804.0
SQ       0       0      20      70     135     315    1995
*

KK  513514
KM      Normal depth channel route from C513 to C514
KM      Source:  200 Scale Mapping
RS       7    FLOW     -1
RC   0.050   0.045   0.050  2403.0  0.0240
RX  1000.0  1010.0  1035.0  1080.0  1100.0  1120.0  1135.0  1145.0
RY  1780.0  1778.0  1770.0  1768.0  1768.0  1770.0  1778.0  1780.0
*
```

1 HEC-1 INPUT PAGE 12

```
LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK    203B
KM   Sub-Basin   203B
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          An rainfall areal reduction factor of 1.000
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
KM
KM          L=   0.484 miles, S=  236 feet/mile, Kb= .04
KM
BA   0.044
LG    0.09    0.27    5.70    0.18   22.92
UC   0.175   0.176
UA       0       5      16      30      65      77      84      90      94      97
UA     100
*

KK   C514R
KM      Hydrograph combine 513514 + 203B at C514 right channel
HC       2
*

KK    203C
KM   Sub-Basin   203C
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The HEC-1 time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          An rainfall areal reduction factor of 1.000
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .26 .26 .26 .26 .26 .26 .02 .02 .02 .02 .02 .02 .00 .00 .00 .00 .00 .00
KM
KM          L=   0.988 miles, S=  258 feet/mile, Kb= .07
KM
BA   0.103
LG    0.12    0.33    5.70    0.20   13.59
UC   0.329   0.390
*

KK    C514
KM      Hydrograph combine C514R + 203C at C514
```

```
535          HC       2
             *
             * *
             * * Note: 514515 too short to route
             * *
             *
1                                          HEC-1 INPUT                                                          PAGE 13
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

536          KK    203D
537          KM   Sub-Basin   203D
538          KM
539          KM      The Clark Unit Hydrograph is used for this basin.
540          KM          The HEC-1 time-area relation is used for this basin.
541          KM
542          KM      Time of Concentration for this sub-basin is based on the following:
543          KM          An rainfall areal reduction factor of 1.000
544          KM
545          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
546          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
547          KM   .26 .26 .26 .26 .25 .25 .02 .02 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
548          KM
549          KM          L=   1.025 miles, S=  252 feet/mile, Kb= .08
550          KM
551          BA   0.108
552          LG    0.13    0.34    5.70    0.20    8.61
553          UC   0.363   0.435
             *

554          KK    C515
555          KM      Hydrograph combine C514 + 203D at C515
556          HC       2
             *

557          KK  515517
558          KM      Normal depth channel route from C515 to C517
559          KM      Source:  200 Scale Mapping
560          RS       9    FLOW      -1
561          RC   0.050   0.045   0.060  3340.0  0.0186
562          RX  1000.0  1020.0  1045.0  1065.0  1085.0  1125.0  1135.0  1145.0
563          RY  1708.0  1704.0  1702.0  1698.0  1698.0  1700.0  1705.0  1710.0
             *

564          KK    203E
565          KM   Sub-Basin   203E
566          KM
567          KM      The Clark Unit Hydrograph is used for this basin.
568          KM          The Urban time-area relation is used for this basin.
569          KM
570          KM      Time of Concentration for this sub-basin is based on the following:
571          KM          An rainfall areal reduction factor of 1.000
572          KM
573          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
574          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
575          KM   .28 .28 .28 .28 .28 .28 .03 .03 .03 .03 .03 .03 .02 .02 .02 .01 .01 .01
576          KM
577          KM          L=   0.640 miles, S=  219 feet/mile, Kb= .03
578          KM
579          BA   0.093
580          LG    0.09    0.19    6.60    0.13   25.00
581          UC   0.175   0.145
582          UA       0       5      16      30      65      77      84      90      94      97
583          UA     100
             *
1                                          HEC-1 INPUT                                                          PAGE 14
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

584          KK   C517R
585          KM      Hydrograph combine 515517 + 203E at C517 right branch
586          HC       2
             *

587          KK    203F
588          KM   Sub-Basin   203F
589          KM
590          KM      The Clark Unit Hydrograph is used for this basin.
591          KM          The Natural time-area relation is used for this basin.
592          KM
593          KM      Time of Concentration for this sub-basin is based on the following:
594          KM          An rainfall areal reduction factor of 1.000
595          KM
596          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
597          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
598          KM   .25 .25 .25 .25 .24 .24 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00 .00
599          KM
600          KM          L=   1.460 miles, S=  237 feet/mile, Kb= .09
601          KM
602          BA   0.333
603          LG    0.15    0.39    5.70    0.21    0.00
604          UC   0.479   0.414
605          UA       0       3       5       8      12      20      43      75      90      96
606          UA     100
             *

607          KK  516517
608          KM      Normal depth channel route from C516 to C517
609          KM      Source:  200 Scale Mapping
610          RS      14    FLOW      -1
611          RC   0.065   0.045   0.055  6720.0  0.0213
612          RX  1000.0  1015.0  1020.0  1040.0  1080.0  1095.0  1100.0  1125.0
```

```
613          RY  1724.0  1718.0  1716.0  1714.0  1714.0  1716.0  1718.0  1724.0
             *

614          KK    203G
615          KM   Sub-Basin   203G
616          KM
617          KM      The Clark Unit Hydrograph is used for this basin.
618          KM          The HEC-1 time-area relation is used for this basin.
619          KM
620          KM      Time of Concentration for this sub-basin is based on the following:
621          KM          An rainfall areal reduction factor of 1.000
622          KM
623          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
624          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
625          KM   .26 .26 .26 .26 .26 .26 .02 .02 .02 .02 .02 .02 .00 .00 .00 .00 .00 .00
626          KM
627          KM          L=   1.424 miles, S=  215 feet/mile, Kb= .07
628          KM
629          BA   0.248
630          LG    0.13     0.34     6.00     0.18     9.21
631          UC   0.421    0.416
             *
1                                          HEC-1 INPUT                                                    PAGE 15
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

632          KK   C517L
633          KM      Hydrograph combine 516517 + 203G at C517 left branch
634          HC       2
             *

635          KK    C517
636          KM      Hydrograph combine C517R + C517L at C517
637          HC       2
             *

638          KK  517518
639          KM      Normal depth channel route from C517 to C518
640          KM      Source:  HEC-2 Cross Section: ES 3.522
641          RS       8    FLOW      -1
642          RC   0.055    0.035    0.060  4367.0  0.0174
643          RX  9808.1  9845.6  9957.0  9990.4 10007.0 10015.9 10076.5 10176.0
644          RY  1628.2  1618.6  1617.5  1614.8  1614.7  1619.7  1622.9  1631.3
             *

645          KK    203H
646          KM   Sub-Basin   203H
647          KM
648          KM      The Clark Unit Hydrograph is used for this basin.
649          KM          The Urban time-area relation is used for this basin.
650          KM
651          KM      Time of Concentration for this sub-basin is based on the following:
652          KM          An rainfall areal reduction factor of 1.000
653          KM
654          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
655          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
656          KM   .27 .27 .27 .27 .27 .27 .03 .03 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
657          KM
658          KM          L=   1.035 miles, S=  178 feet/mile, Kb= .03
659          KM
660          BA   0.207
661          LG    0.09     0.25     5.40     0.21    25.00
662          UC   0.242    0.193
663          UA       0        5       16       30       65       77       84       90       94       97
664          UA     100
             *

665          KK    C518
666          KM      Hydrograph combine 517518 + 203H at C518
667          HC       2
             *

668          KK  518519
669          KM      Normal depth channel route from C518 to C519
670          KM      Source:  HEC-2 Cross Section: ES 3.072
671          RS       4    FLOW      -1
672          RC   0.090    0.050    0.085  1796.0  0.0217
673          RX  9851.4  9884.7  9955.8  9983.5 10028.9 10036.3 10057.6 10087.9
674          RY  1586.3  1569.6  1568.4  1565.8  1565.4  1566.0  1575.0  1589.3
             *
1                                          HEC-1 INPUT                                                    PAGE 16
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

675          KK    203I
676          KM   Sub-Basin   203I
677          KM
678          KM      The Clark Unit Hydrograph is used for this basin.
679          KM          The Urban time-area relation is used for this basin.
680          KM
681          KM      Time of Concentration for this sub-basin is based on the following:
682          KM          An rainfall areal reduction factor of 1.000
683          KM
684          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
685          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
686          KM   .27 .27 .26 .26 .26 .26 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
687          KM
688          KM          L=   1.323 miles, S=  161 feet/mile, Kb= .03
689          KM
690          BA   0.171
691          LG    0.09     0.25     4.80     0.27    29.11
692          UC   0.283    0.313
```

```
693   UA       0       5      16      30      65      77      84      90      94      97
694   UA     100
      *

695   KK    C519
696   KM      Hydrograph combine 518519 + 203I at C519
697   HC       2
      *

698   KK  519591
699   KM      Normal depth channel route from C519 to C591
700   KM      Source:  HEC-2 Cross Section: ES 2.695
701   RS       2    FLOW      -1
702   RC   0.090   0.050   0.085  1274.0  0.0181
703   RX  9851.3  9905.0  9927.9  9949.0 10017.8 10053.7 10096.8 10135.1
704   RY  1540.3  1537.0  1536.5  1529.2  1528.6  1537.7  1539.6  1540.1
      *

705   KK    203J
706   KM   Sub-Basin   203J
707   KM
708   KM      The Clark Unit Hydrograph is used for this basin.
709   KM          The Urban time-area relation is used for this basin.
710   KM
711   KM      Time of Concentration for this sub-basin is based on the following:
712   KM          An rainfall areal reduction factor of 1.000
713   KM
714   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
715   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
716   KM   .29 .29 .28 .28 .28 .28 .04 .04 .04 .04 .04 .04 .02 .02 .02 .02 .02 .02
717   KM
718   KM          L=   0.533 miles, S=  237 feet/mile, Kb= .03
719   KM
720   BA   0.039
721   LG    0.07    0.25    5.60    0.20   64.82
722   UC   0.154   0.179
```



```
LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

723   UA       0       5      16      30      65      77      84      90      94      97
724   UA     100
      *

725   KK  520591
726   KM      Normal depth channel route from C520 to C591
727   KM      Source:  Hydrology Field Reconnaissance
728   RS       3    FLOW      -1
729   RC   0.050   0.018   0.040  2014.0  0.0248
730   RX  1000.0  1030.0  1041.2  1057.2  1073.2  1074.4  1086.4  1116.0
731   RY  1570.0  1566.0  1564.8  1565.2  1564.9  1565.3  1565.9  1568.0
      *

732   KK  BB512R
733   KM      Retrieve previously diverted hydrograph at C512 in the right branch.
734   DR   D512R
      *

735   KK    C591
736   KM      Hydrograph combine 519591 + 520591 + D512R at C591
737   HC       3    1.83
      *

738   KK  591521
739   KM      Normal depth channel route from C591 to C521
740   KM      Source:  HEC-2 Cross Section: ES 2.614
741   RS       1    FLOW      -1
742   RC   0.090   0.050   0.085   915.0  0.0142
743   RX  9827.7  9921.5  9950.2  9970.7 10046.6 10078.1 10120.0 10177.5
744   RY  1531.1  1524.8  1524.4  1520.8  1520.0  1530.3  1531.1  1532.3
      *

745   KK    203K
746   KM   Sub-Basin   203K
747   KM
748   KM      The Clark Unit Hydrograph is used for this basin.
749   KM          The Urban time-area relation is used for this basin.
750   KM
751   KM      Time of Concentration for this sub-basin is based on the following:
752   KM          An rainfall areal reduction factor of 1.000
753   KM
754   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
755   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
756   KM   .28 .28 .28 .28 .28 .28 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
757   KM
758   KM          L=   0.878 miles, S=  158 feet/mile, Kb= .03
759   KM
760   BA   0.160
761   LG    0.08    0.25    5.60    0.19   44.98
762   UC   0.225   0.181
763   UA       0       5      16      30      65      77      84      90      94      97
764   UA     100
      *
```



```
LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

765   KK    C521
766   KM      Hydrograph combine 591521 + 203K at C521
767   HC       2
      *
      * *
      * * C521 is the total flow in Escalante Wash at the Study boundary
```

```
                 * *
                 * * End Basin 203.  Start Basin 204
                 * *
                 *

 768             KK   CLEAR
 769             KM      Clear hydrographs from stack
 770             HC       5
                 *

 771             KK    204A
 772             KM   Sub-Basin   204A
 773             KM
 774             KM      The Clark Unit Hydrograph is used for this basin.
 775             KM          The Urban time-area relation is used for this basin.
 776             KM
 777             KM      Time of Concentration for this sub-basin is based on the following:
 778             KM          An rainfall areal reduction factor of 1.000
 779             KM
 780             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 781             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 782             KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
 783             KM
 784             KM          L=   0.687 miles, S=  175 feet/mile, Kb= .03
 785             KM
 786             BA   0.108
 787             LG    0.09    0.25    5.80    0.18   25.00
 788             UC   0.196   0.160
 789             UA       0       5      16      30      65      77      84      90      94      97
 790             UA     100
                 *

 791             KK  522523
 792             KM      Normal depth channel route from C522 to C523
 793             KM      Source:  200 Scale Mapping
 794             RS       9    FLOW      -1
 795             RC   0.060   0.050   0.060  3275.0  0.0197
 796             RX  1000.0  1020.0  1035.0  1065.0  1080.0  1120.0  1160.0  1185.0
 797             RY  1678.0  1676.0  1674.0  1672.0  1672.0  1674.0  1676.0  1678.0
                 *

 798             KK    204B
 799             KM   Sub-Basin   204B
 800             KM
 801             KM      The Clark Unit Hydrograph is used for this basin.
 802             KM          The Urban time-area relation is used for this basin.
 803             KM
 804             KM      Time of Concentration for this sub-basin is based on the following:
```



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LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 805             KM          An rainfall areal reduction factor of 1.000
 806             KM
 807             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 808             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 809             KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
 810             KM
 811             KM          L=   0.775 miles, S=  128 feet/mile, Kb= .03
 812             KM
 813             BA   0.126
 814             LG    0.09    0.25    5.80    0.18   26.66
 815             UC   0.229   0.192
 816             UA       0       5      16      30      65      77      84      90      94      97
 817             UA     100
                 *

 818             KK   C523I
 819             KM      Hydrograph combine 522523 + 204B at C523I
 820             HC       2
                 *

 821             KK   C523O
 822             KM      Reservoir route at C523.
 823             RS       1    ELEV  1650.3
 824             SV    0.00    0.01    0.12    0.71    2.23    2.50    2.80    3.10    3.20    3.40
 825             SV    3.70    4.00    4.30    4.60    4.90    5.20    5.50
 826             SE  1650.3  1652.0  1654.0  1656.0  1658.0  1658.2  1658.4  1658.6  1658.7  1658.8
 827             SE  1659.0  1659.2  1659.4  1659.6  1659.8  1660.0  1660.2
 828             SQ       0      22      78     144     209     214     220     224     226     232
 829             SQ     239     249     288     384     529     726     960
                 *

 830             KK   D523L
 831             KM      Hydrograph diversion at C523.  Main flow continues in the left branch.
 832             KM      Diverted flow is in the right branch.
 833             DT   D523R
 834             DI       0      22      78     144     209     214     220     224     226     232
 835             DI     239     249     288     384     529     726     960
 836             DQ       0       0       0       0       0       0       0       0       0       3
 837             DQ       5      10      20      37      61      96     139
                 *

 838             KK  523524
 839             KM      Normal depth channel route from C523 to C524
 840             KM      Source:  HEC-2 Cross Section: CA 2.072
 841             KM      This is flow in Fountain Hills Blvd. which is routed to C548
 842             RS       5    FLOW      -1
 843             RC   0.080   0.050   0.075  1732.0  0.0177
 844             RX  9827.8  9925.9  9978.5 10000.0 10020.8 10041.9 10110.6 10151.9
 845             RY  1639.8  1635.7  1634.3  1629.9  1630.2  1631.8  1633.5  1636.7
                 *
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 846          KK    204C
 847          KM   Sub-Basin   204C
 848          KM
 849          KM      The Clark Unit Hydrograph is used for this basin.
 850          KM          The Urban time-area relation is used for this basin.
 851          KM
 852          KM      Time of Concentration for this sub-basin is based on the following:
 853          KM          An rainfall areal reduction factor of 1.000
 854          KM
 855          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 856          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 857          KM   .29 .29 .28 .28 .28 .28 .04 .04 .04 .04 .04 .04 .02 .02 .02 .02 .02 .02
 858          KM
 859          KM          L=   0.400 miles, S=  142 feet/mile, Kb= .03
 860          KM
 861          BA   0.077
 862          LG    0.07    0.25    5.70    0.18   66.42
 863          UC   0.158   0.099
 864          UA       0       5      16      30      65      77      84      90      94      97
 865          UA     100
              *

 866          KK    C524
 867          KM      Hydrograph combine 523524 + 204C at C524
 868          HC       2
              *

 869          KK  524525
 870          KM      Normal depth channel route from C524 to C525
 871          KM      Source:  HEC-2 Cross Section: CA 1.898
 872          RS       1    FLOW      -1
 873          RC   0.050   0.035   0.060  1045.0  0.0211
 874          RX  9823.1  9873.0  9960.0  9986.1 10008.3 10049.7 10070.0 10078.4
 875          RY  1617.9  1616.7  1616.3  1609.2  1609.0  1616.4  1616.8  1617.3
              *

 876          KK    204D
 877          KM   Sub-Basin   204D
 878          KM
 879          KM      The Clark Unit Hydrograph is used for this basin.
 880          KM          The Urban time-area relation is used for this basin.
 881          KM
 882          KM      Time of Concentration for this sub-basin is based on the following:
 883          KM          An rainfall areal reduction factor of 1.000
 884          KM
 885          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 886          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 887          KM   .28 .28 .28 .28 .28 .28 .04 .04 .04 .04 .04 .04 .02 .02 .02 .02 .02 .02
 888          KM
 889          KM          L=   0.345 miles, S=   96 feet/mile, Kb= .03
 890          KM
 891          BA   0.044
 892          LG    0.07    0.25    5.70    0.18   53.85
 893          UC   0.167   0.128
1                                          HEC-1 INPUT                                          PAGE 21
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 894          UA       0       5      16      30      65      77      84      90      94      97
 895          UA     100
              *

 896          KK    C525
 897          KM      Hydrograph combine 524525 + 204D at C525
 898          HC       2
              *

 899          KK  525526
 900          KM      Normal depth channel route from C525 to C526
 901          KM      Source:  HEC-2 Cross Section: CA 1.663
 902          RS       2    FLOW      -1
 903          RC   0.050   0.035   0.060  1520.0  0.0211
 904          RX  9915.0  9940.0  9968.0  9992.6 10012.4 10032.0 10049.6 10106.9
 905          RY  1592.8  1592.3  1591.8  1585.0  1584.8  1591.3  1592.1  1592.5
              *

 906          KK    204E
 907          KM   Sub-Basin   204E
 908          KM
 909          KM      The Clark Unit Hydrograph is used for this basin.
 910          KM          The Urban time-area relation is used for this basin.
 911          KM
 912          KM      Time of Concentration for this sub-basin is based on the following:
 913          KM          An rainfall areal reduction factor of 1.000
 914          KM
 915          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 916          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 917          KM   .28 .28 .28 .28 .28 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
 918          KM
 919          KM          L=   0.508 miles, S=  108 feet/mile, Kb= .03
 920          KM
 921          BA   0.071
 922          LG    0.08    0.25    5.70    0.18   41.17
 923          UC   0.196   0.160
 924          UA       0       5      16      30      65      77      84      90      94      97
 925          UA     100
              *

 926          KK    C526
 927          KM      Hydrograph combine 525526 + 204E at C526
 928          HC       2
```

```
                 *
929              KK  526527
930              KM      Normal depth channel route from C526 to C527
931              KM      Source:  HEC-2 Cross Section: CA 1.186
932              RS       3    FLOW      -1
933              RC   0.050   0.035   0.060  2129.0  0.0183
934              RX  9867.7  9898.1  9967.2  9981.2 10023.8 10035.6 10080.6 10145.3
935              RY  1545.6  1544.4  1539.5  1536.9  1536.7  1539.6  1541.1  1542.3
                 *
1                                          HEC-1 INPUT                                                          PAGE 22
LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

936              KK    204F
937              KM   Sub-Basin   204F
938              KM
939              KM      The Clark Unit Hydrograph is used for this basin.
940              KM          The Urban time-area relation is used for this basin.
941              KM
942              KM      Time of Concentration for this sub-basin is based on the following:
943              KM          An rainfall areal reduction factor of 1.000
944              KM
945              KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
946              KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
947              KM   .29 .29 .28 .28 .28 .28 .04 .04 .04 .04 .04 .04 .02 .02 .02 .02 .02 .02
948              KM
949              KM          L=   0.495 miles, S=  135 feet/mile, Kb= .03
950              KM
951              BA   0.077
952              LG    0.08    0.15    7.00    0.11   45.00
953              UC   0.175   0.131
954              UA       0       5      16      30      65      77      84      90      94      97
955              UA     100
                 *

956              KK    C527
957              KM      Hydrograph combine 526527 + 204F at C527
958              HC       2
                 *
                 * *
                 * * C527 is the total flow in Caliente Wash at the Study boundary
                 * *
                 * * End Basin 204.  Start Basin 205
                 * *
                 *

959              KK   CLEAR
960              KM      Clear hydrographs from stack
961              HC       2
                 *

962              KK    205A
963              KM   Sub-Basin   205A
964              KM
965              KM      The Clark Unit Hydrograph is used for this basin.
966              KM          The Natural time-area relation is used for this basin.
967              KM
968              KM      Time of Concentration for this sub-basin is based on the following:
969              KM          An rainfall areal reduction factor of 1.000
970              KM
971              KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
972              KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
973              KM   .25 .25 .25 .25 .24 .24 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
974              KM
975              KM          L=   0.870 miles, S=  378 feet/mile, Kb= .14
976              KM
977              BA   0.118
1                                          HEC-1 INPUT                                                          PAGE 23
LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

978              LG    0.25    0.35    4.35    0.40   35.00
979              UC   0.400   0.406
980              UA       0       3       5       8      12      20      43      75      90      96
981              UA     100
                 *

982              KK    205B
983              KM   Sub-Basin   205B
984              KM
985              KM      The Clark Unit Hydrograph is used for this basin.
986              KM          The Natural time-area relation is used for this basin.
987              KM
988              KM      Time of Concentration for this sub-basin is based on the following:
989              KM          An rainfall areal reduction factor of 1.000
990              KM
991              KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
992              KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
993              KM   .25 .25 .25 .25 .24 .24 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
994              KM
995              KM          L=   0.759 miles, S=  129 feet/mile, Kb= .14
996              KM
997              BA   0.211
998              LG    0.25    0.35    4.35    0.40   35.00
999              UC   0.538   0.361
1000             UA       0       3       5       8      12      20      43      75      90      96
1001             UA     100
                 *

1002             KK    C528
1003             KM      Hydrograph combine 205A + 205B at C528
1004             HC       2
```

```
                *

1005            KK  528530
1006            KM      Normal depth channel route from C528 to C530
1007            KM      Source:  Hydrology Field Reconnaissance
1008            RS       3    FLOW      -1
1009            RC   0.060   0.043   0.060  2594.0  0.0709
1010            RX  1000.0  1018.0  1031.0  1042.0  1052.0  1066.0  1093.0  1107.0
1011            RY    96.3    92.2    89.9    85.9    85.7    91.5    91.2    96.3
                *

1012            KK    205C
1013            KM   Sub-Basin   205C
1014            KM
1015            KM      The Clark Unit Hydrograph is used for this basin.
1016            KM          The Natural time-area relation is used for this basin.
1017            KM
1018            KM      Time of Concentration for this sub-basin is based on the following:
1019            KM          An rainfall areal reduction factor of 1.000
1020            KM
1021            KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1022            KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1023            KM   .25 .25 .24 .24 .24 .24 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
1024            KM
1
                                          HEC-1 INPUT                                                    PAGE 24
LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1025            KM          L=   0.618 miles, S=  331 feet/mile, Kb= .15
1026            KM
1027            BA   0.059
1028            LG    0.25    0.35    4.35    0.41   35.00
1029            UC   0.367   0.416
1030            UA       0       3       5       8      12      20      43      75      90      96
1031            UA     100
                *

1032            KK   C530R
1033            KM     Hydrograph combine 528530 + 205C at C530 right branch
1034            HC       2
                *

1035            KK    205D
1036            KM   Sub-Basin   205D
1037            KM
1038            KM     The Clark Unit Hydrograph is used for this basin.
1039            KM         The Natural time-area relation is used for this basin.
1040            KM
1041            KM     Time of Concentration for this sub-basin is based on the following:
1042            KM         An rainfall areal reduction factor of 1.000
1043            KM
1044            KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1045            KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1046            KM   .25 .25 .25 .25 .24 .24 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
1047            KM
1048            KM          L=   1.020 miles, S=  361 feet/mile, Kb= .13
1049            KM
1050            BA   0.319
1051            LG    0.25    0.35    4.35    0.40   35.00
1052            UC   0.425   0.279
1053            UA       0       3       5       8      12      20      43      75      90      96
1054            UA     100
                *

1055            KK    205E
1056            KM   Sub-Basin   205E
1057            KM
1058            KM     The Clark Unit Hydrograph is used for this basin.
1059            KM         The Natural time-area relation is used for this basin.
1060            KM
1061            KM     Time of Concentration for this sub-basin is based on the following:
1062            KM         An rainfall areal reduction factor of 1.000
1063            KM
1064            KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1065            KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1066            KM   .25 .25 .25 .25 .24 .24 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
1067            KM
1068            KM          L=   1.357 miles, S=  358 feet/mile, Kb= .14
1069            KM
1070            BA   0.218
1071            LG    0.25    0.35    4.35    0.40   35.00
1072            UC   0.517   0.541
1073            UA       0       3       5       8      12      20      43      75      90      96
1
                                          HEC-1 INPUT                                                    PAGE 25
LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1074            UA     100
                *

1075            KK    C529
1076            KM     Hydrograph combine 205D + 205E at C529
1077            HC       2
                *
                * *
                * * NOTE:  529530 too short to route
                * *
                *

1078            KK    C530
1079            KM     Hydrograph combine C529 + C530R at C530
1080            HC       2
                *
```

```
KK  530531
KM      Normal depth channel route from C530 to C531
KM      Source:  Hydrology Field Reconnaissance
RS       3    FLOW      -1
RC   0.060   0.059   0.060  2426.0  0.0404
RX  1000.0  1035.0  1050.0  1060.0  1075.0  1081.0  1088.0  1094.0
RY    95.9    86.5    86.2    83.1    84.0    90.2    95.6    99.3
*

KK    205F
KM   Sub-Basin   205F
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Natural time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          An rainfall areal reduction factor of 1.000
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .25 .25 .24 .24 .24 .24 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
KM
KM          L=   0.786 miles, S=  326 feet/mile, Kb= .14
KM
BA   0.161
LG    0.25    0.35    4.35    0.41   35.00
UC   0.400   0.312
UA       0       3       5       8      12      20      43      75      90      96
UA     100
*

KK    C531
KM      Hydrograph combine 530531 + 205F at C531
HC       2
*
```

1

HEC-1 INPUT PAGE 26

```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK  531532
KM      Normal depth channel route from C531 to C532
KM      Source:  Hydrology Field Reconnaissance
RS       4    FLOW      -1
RC   0.060   0.065   0.060  3391.0  0.0463
RX  1000.0  1012.0  1022.0  1032.0  1050.0  1056.0  1068.0  1092.0
RY    98.8    93.8    89.1    86.4    86.5    89.1    91.0    97.6
*

KK    205G
KM   Sub-Basin   205G
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Natural time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          An rainfall areal reduction factor of 1.000
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .25 .25 .24 .24 .24 .24 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
KM
KM          L=   0.924 miles, S=  338 feet/mile, Kb= .13
KM
BA   0.185
LG    0.24    0.35    4.50    0.40   31.23
UC   0.417   0.343
UA       0       3       5       8      12      20      43      75      90      96
UA     100
*

KK   C532L
KM      Hydrograph combine 531532 + 205G at C532 left branch
HC       2
*

KK    205H
KM   Sub-Basin   205H
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Natural time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          An rainfall areal reduction factor of 1.000
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .25 .25 .24 .24 .24 .24 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
KM
KM          L=   1.464 miles, S=  325 feet/mile, Kb= .13
KM
BA   0.261
LG    0.24    0.35    4.50    0.39   31.55
UC   0.542   0.547
```

1

HEC-1 INPUT PAGE 27

```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

UA       0       3       5       8      12      20      43      75      90      96
UA     100
*

KK    C532
KM      Hydrograph combine C532L + 205H at C532
```

```
1163        HC       2
            *

1164        KK  532533
1165        KM      Normal depth channel route from C532 to C533
1166        KM      Source:  Hydrology Field Reconnaissance
1167        RS       2    FLOW      -1
1168        RC   0.060   0.045   0.060  1555.0  0.0283
1169        RX  1000.0  1020.0  1030.0  1048.0  1065.0  1077.0  1092.0  1119.0
1170        RY    98.0    89.4    88.1    85.6    85.9    92.2    93.8    97.0
            *

1171        KK   205I
1172        KM   Sub-Basin   205I
1173        KM
1174        KM      The Clark Unit Hydrograph is used for this basin.
1175        KM          The Natural time-area relation is used for this basin.
1176        KM
1177        KM      Time of Concentration for this sub-basin is based on the following:
1178        KM          An rainfall areal reduction factor of 1.000
1179        KM
1180        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1181        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1182        KM   .25 .25 .24 .24 .24 .24 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1183        KM
1184        KM          L=   1.487 miles, S=  326 feet/mile, Kb= .11
1185        KM
1186        BA   0.354
1187        LG    0.20    0.37    5.20    0.28   15.18
1188        UC   0.488   0.414
1189        UA       0       3       5       8      12      20      43      75      90      96
1190        UA     100
            *

1191        KK    C533
1192        KM      Hydrograph combine 532533 + 205I at C533
1193        HC       2
            *

1194        KK  533534
1195        KM      Normal depth channel route from C533 to C534
1196        KM      Source:  Hydrology Field Reconnaissance
1197        RS      10    FLOW      -1
1198        RC   0.060   0.046   0.060  7145.0  0.0241
1199        RX  1000.0  1010.0  1060.0  1073.0  1160.0  1181.0  1223.0  1237.0
1200        RY    97.8    93.7    94.7    90.8    89.9    92.4    94.0    96.8
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1201        KK   205J
1202        KM   Sub-Basin   205J
1203        KM
1204        KM      The Clark Unit Hydrograph is used for this basin.
1205        KM          The Natural time-area relation is used for this basin.
1206        KM
1207        KM      Time of Concentration for this sub-basin is based on the following:
1208        KM          An rainfall areal reduction factor of 1.000
1209        KM
1210        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1211        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1212        KM   .24 .24 .24 .24 .23 .23 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
1213        KM
1214        KM          L=   1.633 miles, S=  243 feet/mile, Kb= .08
1215        KM
1216        BA   0.369
1217        LG    0.21    0.35    4.90    0.30    3.48
1218        UC   0.479   0.427
1219        UA       0       3       5       8      12      20      43      75      90      96
1220        UA     100
            *

1221        KK   C534R
1222        KM      Hydrograph combine 533534 + 205J at C534 right branch
1223        HC       2
            *

1224        KK   205K
1225        KM   Sub-Basin   205K
1226        KM
1227        KM      The Clark Unit Hydrograph is used for this basin.
1228        KM          The Natural time-area relation is used for this basin.
1229        KM
1230        KM      Time of Concentration for this sub-basin is based on the following:
1231        KM          An rainfall areal reduction factor of 1.000
1232        KM
1233        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1234        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1235        KM   .25 .25 .25 .24 .24 .24 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00 .00 .00
1236        KM
1237        KM          L=   1.772 miles, S=  249 feet/mile, Kb= .10
1238        KM
1239        BA   0.245
1240        LG    0.16    0.38    5.60    0.22    1.54
1241        UC   0.579   0.710
1242        UA       0       3       5       8      12      20      43      75      90      96
1243        UA     100
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
KK    C534
KM      Hydrograph combine C534R + 205K at C534
HC       2
*

KK  534535
KM      Normal depth channel route from C534 to C535
KM      Source:  Hydrology Field Reconnaissance
RS       4     FLOW      -1
RC   0.065   0.046   0.065  2037.0  0.0221
RX  1000.0  1010.0  1016.0  1075.0  1150.0  1162.0  1174.0  1182.0
RY    97.1    93.4    91.6    89.6    86.9    90.8    92.2    92.3
*

KK    205L
KM   Sub-Basin   205L
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Natural time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          An rainfall areal reduction factor of 1.000
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .24 .24 .23 .23 .23 .23 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
KM
KM          L=   0.701 miles, S=  284 feet/mile, Kb= .09
KM
BA   0.118
LG    0.19    0.36    5.00    0.29    0.00
UC   0.317   0.263
UA       0       3       5       8      12      20      43      75      90      96
UA     100
*

KK    C535
KM      Hydrograph combine 534535 + 205L at C535
HC       2
*

KK  535536
KM      Normal depth channel route from C535 to C536
KM      Source:  HEC-2 Cross Section: HE 3.275
RS       8     FLOW      -1
RC   0.075   0.050   0.075  2975.0  0.0236
RX  9852.8  9871.5  9957.7 10000.0 10015.6 10052.4 10142.4 10183.6
RY  1911.6  1904.3  1906.9  1900.8  1900.8  1905.4  1905.2  1912.6
*
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK    205M
KM   Sub-Basin   205M
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          An rainfall areal reduction factor of 1.000
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .27 .26 .26 .26 .26 .26 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
KM
KM          L=   0.839 miles, S=  230 feet/mile, Kb= .05
KM
BA   0.139
LG    0.15    0.31    5.40    0.22   22.35
UC   0.263   0.225
UA       0       5      16      30      65      77      84      90      94      97
UA     100
*

KK   C536R
KM      Hydrograph combine 535536 + 205M at C536 right branch
HC       2
*

KK    205N
KM   Sub-Basin   205N
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The HEC-1 time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          An rainfall areal reduction factor of 1.000
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .25 .25 .25 .25 .24 .24 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00 .00
KM
KM          L=   1.183 miles, S=  245 feet/mile, Kb= .10
KM
BA   0.156
LG    0.15    0.39    5.70    0.21    0.80
UC   0.450   0.503
*

KK   C536I
KM      Hydrograph combine C536R + 205N at C536I
```

```
1327        HC       2
            *
            * *
            * * C536I is the total flow in Hesperus Wash upstream of Dam 36
            * *
            *
1                                    HEC-1 INPUT                                                    PAGE 31
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1328        KK   C536O
1329        KM      Reservoir route at C536 (Dam 36).
1330        RS       1    ELEV  1852.1
1331        SV    0.00   14.41   35.94   67.64  108.61  158.07  218.14  276.00  280.00  289.00
1332        SV  298.02  308.00  317.00  327.00  337.00  346.95  358.00  374.00
1333        SE  1852.1  1866.0  1870.0  1874.0  1878.0  1882.0  1886.0  1889.0  1889.2  1889.6
1334        SE  1890.0  1890.4  1890.8  1891.2  1891.6  1892.0  1892.4  1893.0
1335        SQ       0     108     168     211     245     276     301     320     338     347
1336        SQ     356     459     679     995    1408    1905    2477    3119    3826    5009
1337        SE  1852.1  1858.0  1862.0  1866.0  1870.0  1874.0  1878.0  1882.0  1886.0  1889.0
1338        SE  1889.2  1889.6  1890.0  1890.4  1890.8  1891.2  1891.6  1892.0  1892.4  1893.0
1339        RL                   0.17
            *
            * *
            * * End Basin 205.  Start Basin 206
            * *
            *

1340        KK  536537
1341        KM      Normal depth channel route from C536 to C537
1342        KM      Source:  HEC-2 Cross Section: HE 2.729
1343        RS       3    FLOW      -1
1344        RC   0.075   0.050   0.075  1480.0  0.0209
1345        RX  9900.0  9912.0  9947.3  9979.3 10025.0 10044.5 10051.0 10060.0
1346        RY  1846.5  1845.4  1843.1  1834.3  1833.6  1840.5  1843.3  1843.5
            *

1347        KK    206A
1348        KM   Sub-Basin   206A
1349        KM
1350        KM      The Clark Unit Hydrograph is used for this basin.
1351        KM          The Urban time-area relation is used for this basin.
1352        KM
1353        KM      Time of Concentration for this sub-basin is based on the following:
1354        KM          An rainfall areal reduction factor of 1.000
1355        KM
1356        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1357        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1358        KM   .27 .27 .27 .27 .27 .26 .03 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
1359        KM
1360        KM          L=   0.631 miles, S=  256 feet/mile, Kb= .04
1361        KM
1362        BA   0.128
1363        LG    0.12    0.28    5.30    0.23   33.34
1364        UC   0.196   0.135
1365        UA       0       5      16      30      65      77      84      90      94      97
1366        UA     100
            *
1                                    HEC-1 INPUT                                                    PAGE 32
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1367        KK    C537
1368        KM      Hydrograph combine 536537 + 206A at C537
1369        HC       2
            *

1370        KK  537538
1371        KM      Normal depth channel route from C537 to C538
1372        KM      Source:  HEC-2 Cross Section: HE 2.493
1373        RS       3    FLOW      -1
1374        RC   0.075   0.050   0.075  2155.0  0.0210
1375        RX  9946.0  9957.6  9984.8  9994.8 10000.0 10036.5 10070.1 10107.3
1376        RY  1817.0  1815.2  1807.4  1803.2  1803.2  1805.5  1814.3  1815.4
            *

1377        KK    206B
1378        KM   Sub-Basin   206B
1379        KM
1380        KM      The Clark Unit Hydrograph is used for this basin.
1381        KM          The Urban time-area relation is used for this basin.
1382        KM
1383        KM      Time of Concentration for this sub-basin is based on the following:
1384        KM          An rainfall areal reduction factor of 1.000
1385        KM
1386        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1387        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1388        KM   .28 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
1389        KM
1390        KM          L=   0.570 miles, S=  139 feet/mile, Kb= .03
1391        KM
1392        BA   0.095
1393        LG    0.10    0.26    5.20    0.23   41.42
1394        UC   0.192   0.144
1395        UA       0       5      16      30      65      77      84      90      94      97
1396        UA     100
            *

1397        KK   C538I
1398        KM      Hydrograph combine 537538 + 206B at C538I
1399        HC       2
            *
```

```
1400    KK   C538O
1401    KM      Reservoir route at C538.
1402    RS       1    ELEV  1778.2
1403    SV    0.00    0.10    0.57    1.69    2.60    2.70    2.90    3.00    3.20    3.38
1404    SV    3.60    3.90    4.10    4.30    4.60    5.10    5.60    6.10    7.10    8.10
1405    SE  1778.2  1782.0  1784.0  1786.0  1787.1  1787.2  1787.4  1787.6  1787.8  1788.0
1406    SE  1788.2  1788.4  1788.6  1788.8  1789.0  1789.4  1789.8  1790.2  1790.8  1791.4
1407    SQ       0      82     133     185     207     208     212     218     226     235
1408    SQ     249     265     286     310     338     400     482     611     942    1439
        *
```



```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1409    KK  538540
1410    KM      Normal depth channel route from C538 to C540
1411    KM      Source:  HEC-2 Cross Section: HE 1.990
1412    RS       6    FLOW      -1
1413    RC   0.075   0.050   0.075  2176.0  0.0210
1414    RX  9907.7  9931.8  9978.4 10000.0 10041.1 10056.9 10143.7 10164.9
1415    RY  1767.5  1754.9  1755.2  1753.2  1753.1  1755.1  1757.3  1769.4
        *

1416    KK    206C
1417    KM   Sub-Basin   206C
1418    KM
1419    KM      The Clark Unit Hydrograph is used for this basin.
1420    KM          The Urban time-area relation is used for this basin.
1421    KM
1422    KM      Time of Concentration for this sub-basin is based on the following:
1423    KM          An rainfall areal reduction factor of 1.000
1424    KM
1425    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1426    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1427    KM   .26 .26 .26 .25 .25 .25 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1428    KM
1429    KM          L=   0.427 miles, S=  138 feet/mile, Kb= .04
1430    KM
1431    BA   0.024
1432    LG    0.11    0.26    4.35    0.36   28.55
1433    UC   0.196   0.298
1434    UA       0       5      16      30      65      77      84      90      94      97
1435    UA     100
        *

1436    KK   C540R
1437    KM      Hydrograph combine 538540 + 206C at C540 right branch
1438    HC       2
        *

1439    KK    206D
1440    KM   Sub-Basin   206D
1441    KM
1442    KM      The Clark Unit Hydrograph is used for this basin.
1443    KM          The Urban time-area relation is used for this basin.
1444    KM
1445    KM      Time of Concentration for this sub-basin is based on the following:
1446    KM          An rainfall areal reduction factor of 1.000
1447    KM
1448    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1449    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1450    KM   .28 .28 .28 .28 .28 .28 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
1451    KM
1452    KM          L=   0.531 miles, S=  236 feet/mile, Kb= .03
1453    KM
1454    BA   0.062
1455    LG    0.08    0.25    5.70    0.18   43.01
1456    UC   0.154   0.137
```



```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1457    UA       0       5      16      30      65      77      84      90      94      97
1458    UA     100
        *

1459    KK  539540
1460    KM      Normal depth channel route from C539 to C540
1461    KM      Source:  200 Scale Mapping
1462    RS       4    FLOW      -1
1463    RC   0.060   0.050   0.055  1872.0  0.0256
1464    RX  1000.0  1007.0  1016.0  1036.0  1046.0  1080.0  1150.0  1210.0
1465    RY  1750.0  1748.0  1746.0  1744.0  1744.0  1746.0  1748.0  1750.0
        *

1466    KK    206E
1467    KM   Sub-Basin   206E
1468    KM
1469    KM      The Clark Unit Hydrograph is used for this basin.
1470    KM          The Urban time-area relation is used for this basin.
1471    KM
1472    KM      Time of Concentration for this sub-basin is based on the following:
1473    KM          An rainfall areal reduction factor of 1.000
1474    KM
1475    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1476    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1477    KM   .26 .26 .26 .25 .25 .25 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1478    KM
1479    KM          L=   0.343 miles, S=  175 feet/mile, Kb= .03
1480    KM
1481    BA   0.023
1482    LG    0.09    0.25    4.30    0.36   25.75
```

```
1483        UC   0.142   0.155
1484        UA       0       5      16      30      65      77      84      90      94      97
1485        UA     100
            *

1486        KK   C540L
1487        KM      Hydrograph combine 539540 + 206E at C540 left branch
1488        HC       2
            *

1489        KK    C540
1490        KM      Hydrograph combine C540R + C540L at C540
1491        HC       2
            *
            * *
            * * C540 is the end of Hesperus Wash and the start of Balboa Wash
            * *
            *

1492        KK  540541
1493        KM      Normal depth channel route from C540 to C541
1494        KM      Source:  HEC-2 Cross Section: BA 1.645
1495        RS      12    FLOW      -1
1496        RC   0.065   0.035   0.065  4207.0  0.0204
1497        RX  9960.8  9968.0  9975.1  9975.7  9993.2 10018.2 10297.5 10343.9
1
                                          HEC-1 INPUT                                                    PAGE 35

            LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1498        RY  1725.2  1721.8  1718.4  1716.2  1716.4  1718.4  1719.8  1730.5
            *

1499        KK    206F
1500        KM   Sub-Basin   206F
1501        KM
1502        KM      The Clark Unit Hydrograph is used for this basin.
1503        KM          The Urban time-area relation is used for this basin.
1504        KM
1505        KM      Time of Concentration for this sub-basin is based on the following:
1506        KM          An rainfall areal reduction factor of 1.000
1507        KM
1508        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1509        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1510        KM   .26 .26 .26 .26 .26 .26 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
1511        KM
1512        KM          L=   0.975 miles, S=  217 feet/mile, Kb= .03
1513        KM
1514        BA   0.157
1515        LG    0.09    0.25    4.60    0.30   24.97
1516        UC   0.221   0.195
1517        UA       0       5      16      30      65      77      84      90      94      97
1518        UA     100
            *

1519        KK    C541
1520        KM      Hydrograph combine 540541 + 206F at C541
1521        HC       2
            *

1522        KK  541548
1523        KM      Normal depth channel route from C541 to C548
1524        KM      Source:  HEC-2 Cross Section: BA 0.905
1525        RS       2    FLOW      -1
1526        RC   0.060   0.045   0.060  1138.0  0.0316
1527        RX  9761.7  9936.7  9955.2  9986.9  9994.7 10039.2 10065.3 10066.0
1528        RY  1647.4  1644.1  1638.1  1637.3  1636.2  1637.5  1652.9  1653.0
            *

1529        KK    206G
1530        KM   Sub-Basin   206G
1531        KM
1532        KM      The Clark Unit Hydrograph is used for this basin.
1533        KM          The Urban time-area relation is used for this basin.
1534        KM
1535        KM      Time of Concentration for this sub-basin is based on the following:
1536        KM          An rainfall areal reduction factor of 1.000
1537        KM
1538        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1539        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1540        KM   .27 .27 .27 .27 .27 .26 .03 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
1541        KM
1542        KM          L=   0.950 miles, S=  132 feet/mile, Kb= .03
1543        KM
1544        BA   0.089
1
                                          HEC-1 INPUT                                                    PAGE 36

            LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1545        LG    0.11    0.26    5.20    0.23   29.86
1546        UC   0.254   0.307
1547        UA       0       5      16      30      65      77      84      90      94      97
1548        UA     100
            *

1549        KK  BB523R
1550        KM      Retrieve previously diverted hydrograph at C523 in the right branch.
1551        DR   D523R
            *

1552        KK  523548
1553        KM      Normal depth channel route from C523 to C548
1554        KM      Source:  200 Scale Mapping
1555        RS      15    FLOW      -1
1556        RC   0.040   0.018   0.040  2680.0  0.0189
```

```
1557        RX  1000.0  1040.0  1090.0  1130.0  1170.0  1171.2  1181.2  1196.2
1558        RY  1646.0  1645.0  1643.8  1644.7  1644.0  1644.4  1646.0  1648.0
            *

1559        KK   C548L
1560        KM      Hydrograph combine 541548 + 206G + BB523R at C548 left branch
1561        HC       3    3.72
            *
            * *
            * * C548L is the total flow in Balboa Wash above confluence with Oxford Wash
            * *
            *

1562        KK    206H
1563        KM   Sub-Basin   206H
1564        KM
1565        KM      The Clark Unit Hydrograph is used for this basin.
1566        KM          The Urban time-area relation is used for this basin.
1567        KM
1568        KM      Time of Concentration for this sub-basin is based on the following:
1569        KM          An rainfall areal reduction factor of 1.000
1570        KM
1571        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1572        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1573        KM   .28 .28 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
1574        KM
1575        KM          L=   0.515 miles, S=  183 feet/mile, Kb= .03
1576        KM
1577        BA   0.059
1578        LG    0.08    0.25    5.70    0.18   36.29
1579        UC   0.167   0.150
1580        UA       0       5      16      30      65      77      84      90      94      97
1581        UA     100
            *
```

1

HEC-1 INPUT PAGE 37

```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1582        KK  542543
1583        KM      Normal depth channel route from C542 to C543
1584        KM      Source:  HEC-2 Cross Section: OX 0.931
1585        RS       2    FLOW      -1
1586        RC   0.075   0.040   0.050   686.0  0.0066
1587        RX  9846.9  9881.6  9967.5  9983.2 10010.0 10025.0 10033.8 10039.6
1588        RY  1732.3  1723.5  1724.1  1717.8  1717.0  1724.0  1728.2  1730.7
            *

1589        KK    206I
1590        KM   Sub-Basin   206I
1591        KM
1592        KM      The Clark Unit Hydrograph is used for this basin.
1593        KM          The Urban time-area relation is used for this basin.
1594        KM
1595        KM      Time of Concentration for this sub-basin is based on the following:
1596        KM          An rainfall areal reduction factor of 1.000
1597        KM
1598        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1599        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1600        KM   .28 .28 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
1601        KM
1602        KM          L=   0.232 miles, S=  286 feet/mile, Kb= .03
1603        KM
1604        BA   0.021
1605        LG    0.08    0.25    5.70    0.18   34.78
1606        UC   0.096   0.077
1607        UA       0       5      16      30      65      77      84      90      94      97
1608        UA     100
            *

1609        KK    C543
1610        KM      Hydrograph combine 542543 + 206I at C543
1611        HC       2
            *

1612        KK   D543L
1613        KM      Hydrograph diversion at C543.  Main flow continues in the left branch.
1614        KM      Diverted flow is in the right branch.
1615        DT   D543R
1616        DI       0      38      45      50      65      85      97     122     141     162
1617        DI     194     350     395     432     475     522     570     612
1618        DQ       0      38      45      50      65      85      97     122     141     162
1619        DQ     194     350     395     425     460     500     540     575
            *

1620        KK  543544
1621        KM      Normal depth channel route from C543 to C544
1622        KM      Source:  200 Scale Mapping & Hydrology Field Reconnaissance
1623        RS       1    FLOW      -1
1624        RC   0.040   0.018   0.040   597.0  0.0277
1625        RX  1000.0  1020.0  1045.0  1075.0  1105.0  1106.2  1146.2  1266.2
1626        RY  1720.0  1718.0  1712.0  1712.3  1712.0  1712.4  1714.0  1720.0
            *
```

1

HEC-1 INPUT PAGE 38

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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1627        KK    206K
1628        KM   Sub-Basin   206K
1629        KM
1630        KM      The Clark Unit Hydrograph is used for this basin.
1631        KM          The Urban time-area relation is used for this basin.
1632        KM
```

```
KM      Time of Concentration for this sub-basin is based on the following:
KM          An rainfall areal reduction factor of 1.000
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
KM
KM          L=   0.615 miles, S=  255 feet/mile, Kb= .03
KM
BA   0.056
LG    0.09    0.25    5.70    0.18   25.80
UC   0.167   0.178
UA       0       5      16      30      65      77      84      90      94      97
UA     100
*

KK    C544
KM      Hydrograph combine 543544 + 206K at C544
HC       2
*

KK  544545
KM      Normal depth channel route from C544 to C545
KM      Source:  200 Scale Mapping & Hydrology Field Reconnaissance
RS       2    FLOW      -1
RC   0.040   0.018   0.040   985.0  0.0234
RX  1000.0  1008.0  1018.0  1048.0  1078.0  1079.2  1089.2  1109.2
RY  1690.0  1688.0  1686.0  1686.3  1686.0  1686.4  1688.0  1689.0
*

KK   D545L
KM      Hydrograph diversion at C545.  Main flow continues in the left branch.
KM      Diverted flow is in the right branch.
DT   D545R
DI       0      50     100     200     400     800    1600    3200    5000
DQ       0      25      50     100     200     400     800    1600    2500
*

KK  545546
KM      Normal depth channel route from C545 to C546
KM      Source:  200 Scale Mapping & Hydrology Field Reconnaissance
RS       1    FLOW      -1
RC   0.040   0.018   0.040   428.0  0.0164
RX  1000.0  1020.0  1050.0  1080.0  1110.0  1111.2  1121.2  1151.2
RY  1680.0  1678.0  1676.0  1676.3  1676.0  1676.4  1678.0  1678.5
*
```

1 HEC-1 INPUT PAGE 39

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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK    206L
KM   Sub-Basin   206L
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          An rainfall areal reduction factor of 1.000
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
KM
KM          L=   0.546 miles, S=  231 feet/mile, Kb= .03
KM
BA   0.060
LG    0.09    0.25    5.80    0.18   25.01
UC   0.158   0.147
UA       0       5      16      30      65      77      84      90      94      97
UA     100
*

KK    C546
KM      Hydrograph combine 545546 + 206L at C546
HC       2
*

KK  546547
KM      Normal depth channel route from C546 to C547
KM      Source:  200 Scale Mapping
RS       1    FLOW      -1
RC   0.040   0.018   0.040   749.0  0.0327
RX  1000.0  1005.0  1011.0  1013.0  1029.0  1047.0  1052.0  1057.0
RY  1666.0  1664.0  1662.0  1661.9  1662.4  1662.0  1664.0  1666.0
*

KK  BB543R
KM      Retrieve previously diverted hydrograph at C543 in the right branch.
DR   D543R
*

KK  543547
KM      Normal depth channel route from C543 to C547
KM      Source:  HEC-2 Cross Section: OX 0.638
RS       4    FLOW      -1
RC   0.075   0.040   0.050  2395.0  0.0278
RX  9720.9  9769.0  9970.7  9985.5 10020.0 10038.1 10097.0 10102.0
RY  1690.4  1681.2  1683.1  1676.2  1677.0  1687.1  1687.4  1690.0
*
```

1 HEC-1 INPUT PAGE 40

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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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```
1710        KK  BB545R
1711        KM      Retrieve previously diverted hydrograph at C545 in the right branch.
1712        DR   D545R
            *

1713        KK  545547
1714        KM      Normal depth channel route from C545 to C547
1715        KM      Source:  HEC-2 Cross Section: OX 0.542
1716        RS       3    FLOW      -1
1717        RC   0.075   0.040   0.050  1216.0  0.0259
1718        RX  9668.2  9778.4  9957.9  9986.0 10012.7 10043.6 10067.6 10163.4
1719        RY  1674.1  1674.1  1673.3  1662.1  1662.2  1680.4  1680.9  1681.1
            *

1720        KK    206J
1721        KM   Sub-Basin   206J
1722        KM
1723        KM      The Clark Unit Hydrograph is used for this basin.
1724        KM          The Urban time-area relation is used for this basin.
1725        KM
1726        KM      Time of Concentration for this sub-basin is based on the following:
1727        KM          An rainfall areal reduction factor of 1.000
1728        KM
1729        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1730        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1731        KM   .28 .28 .28 .28 .28 .28 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
1732        KM
1733        KM          L=   0.502 miles, S=  214 feet/mile, Kb= .03
1734        KM
1735        BA   0.060
1736        LG    0.08    0.25    5.70    0.18   44.51
1737        UC   0.154   0.133
1738        UA       0       5      16      30      65      77      84      90      94      97
1739        UA     100
            *

1740        KK    C547
1741        KM      Hydrograph combine 546547 + 543547 + 545547 + 206J at C547
1742        HC       4    0.26
            *

1743        KK  547548
1744        KM      Normal depth channel route from C547 to C548
1745        KM      Source:  HEC-2 Cross Section: OX 0.235
1746        RS       3    FLOW      -1
1747        RC   0.075   0.040   0.050  2165.0  0.0182
1748        RX  9910.0  9911.4  9968.5  9987.6 10017.4 10032.3 10077.4 10080.0
1749        RY  1639.0  1638.9  1637.9  1635.7  1635.8  1641.7  1642.9  1643.0
            *
```



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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1750        KK    206M
1751        KM   Sub-Basin   206M
1752        KM
1753        KM      The Clark Unit Hydrograph is used for this basin.
1754        KM          The Urban time-area relation is used for this basin.
1755        KM
1756        KM      Time of Concentration for this sub-basin is based on the following:
1757        KM          An rainfall areal reduction factor of 1.000
1758        KM
1759        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1760        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1761        KM   .28 .28 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
1762        KM
1763        KM          L=   0.465 miles, S=  166 feet/mile, Kb= .03
1764        KM
1765        BA   0.060
1766        LG    0.08    0.25    5.20    0.23   46.18
1767        UC   0.163   0.133
1768        UA       0       5      16      30      65      77      84      90      94      97
1769        UA     100
            *

1770        KK   C548R
1771        KM      Hydrograph combine 547548 + 206M at C548 right branch
1772        HC       2
            *
            * *
            * * C548R is the total flow in Oxford Wash above confluence with Balboa Wash
            * *
            *

1773        KK    C548
1774        KM      Hydrograph combine C548L + C548R at C548
1775        HC       2
            *
            * *
            * * C548 is the total flow in Balboa Wash below the confluence of Balboa Wash
            * * and Oxford Wash
            * *
            *

1776        KK  548549
1777        KM      Normal depth channel route from C548 to C549
1778        KM      Source:  HEC-2 Cross Section: BA0.246
1779        RS       9    FLOW      -1
1780        RC   0.070   0.080   0.070  3258.0  0.0172
1781        RX  9889.1  9912.5  9940.2  9960.0 10026.1 10046.8 10067.8 10079.3
1782        RY  1586.2  1585.7  1577.5  1573.6  1573.2  1579.5  1585.7  1586.2
            *
```

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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 1783         KK    206N
 1784         KM   Sub-Basin   206N
 1785         KM
 1786         KM      The Clark Unit Hydrograph is used for this basin.
 1787         KM          The Urban time-area relation is used for this basin.
 1788         KM
 1789         KM      Time of Concentration for this sub-basin is based on the following:
 1790         KM          An rainfall areal reduction factor of 1.000
 1791         KM
 1792         KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 1793         KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 1794         KM   .28 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
 1795         KM
 1796         KM          L=   0.767 miles, S=  120 feet/mile, Kb= .03
 1797         KM
 1798         BA   0.152
 1799         LG    0.11    0.27    4.65    0.29   52.66
 1800         UC   0.233   0.174
 1801         UA      0       5      16      30      65      77      84      90      94      97
 1802         UA    100
              *

 1803         KK   C549L
 1804         KM      Hydrograph combine 548549 + 206N at C549 left branch
 1805         HC       2
              *
              * *
              * * C549L is the total flow in Balboa Wash above confluence with Ashbrook Wash
              * *
              * * End Basin 206.  Start Basin 207
              * *
              *

 1806         KK    207A
 1807         KM   Sub-Basin   207A
 1808         KM
 1809         KM      The Clark Unit Hydrograph is used for this basin.
 1810         KM          The Natural time-area relation is used for this basin.
 1811         KM
 1812         KM      Time of Concentration for this sub-basin is based on the following:
 1813         KM          An rainfall areal reduction factor of 1.000
 1814         KM
 1815         KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 1816         KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 1817         KM   .25 .25 .24 .24 .24 .24 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
 1818         KM
 1819         KM          L=   1.356 miles, S=  351 feet/mile, Kb= .13
 1820         KM
 1821         BA   0.256
 1822         LG    0.24    0.35    4.55    0.37   29.81
 1823         UC   0.496   0.471
 1824         UA      0       3       5       8      12      20      43      75      90      96
 1825         UA    100
              *
```



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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 1826         KK    207B
 1827         KM   Sub-Basin   207B
 1828         KM
 1829         KM      The Clark Unit Hydrograph is used for this basin.
 1830         KM          The Natural time-area relation is used for this basin.
 1831         KM
 1832         KM      Time of Concentration for this sub-basin is based on the following:
 1833         KM          An rainfall areal reduction factor of 1.000
 1834         KM
 1835         KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 1836         KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 1837         KM   .25 .25 .25 .25 .24 .24 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
 1838         KM
 1839         KM          L=   1.312 miles, S=  359 feet/mile, Kb= .13
 1840         KM
 1841         BA   0.208
 1842         LG    0.24    0.35    4.45    0.38   32.42
 1843         UC   0.483   0.502
 1844         UA      0       3       5       8      12      20      43      75      90      96
 1845         UA    100
              *

 1846         KK    C550
 1847         KM      Hydrograph combine 207A + 207B at C550
 1848         HC       2
              *

 1849         KK  550552
 1850         KM      Normal depth channel route from C550 to C552
 1851         KM      Source:  Hydrology Field Reconnaissance
 1852         RS       4    FLOW      -1
 1853         RC   0.050   0.045   0.050  4410.0  0.0528
 1854         RX  1000.0  1005.0  1018.0  1028.0  1038.0  1043.0  1048.0  1055.0
 1855         RY  2188.0  2184.0  2180.0  2176.0  2176.0  2180.0  2184.0  2188.0
              *

 1856         KK    207C
 1857         KM   Sub-Basin   207C
 1858         KM
 1859         KM      The Clark Unit Hydrograph is used for this basin.
```

```
1860        KM          The Natural time-area relation is used for this basin.
1861        KM
1862        KM      Time of Concentration for this sub-basin is based on the following:
1863        KM          An rainfall areal reduction factor of 1.000
1864        KM
1865        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1866        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1867        KM   .25 .25 .25 .25 .24 .24 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
1868        KM
1869        KM          L=   0.974 miles, S=  297 feet/mile, Kb= .11
1870        KM
1871        BA   0.173
1872        LG    0.19    0.37    5.30    0.26   13.69
1873        UC   0.404   0.360
1
                                        HEC-1 INPUT                                          PAGE 44
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
1874        UA       0       3       5       8      12      20      43      75      90      96
1875        UA     100
            *

1876        KK   C552L
1877        KM      Hydrograph combine 550552 + 207C at C552 left branch
1878        HC       2
            *

1879        KK    207D
1880        KM   Sub-Basin   207D
1881        KM
1882        KM      The Clark Unit Hydrograph is used for this basin.
1883        KM          The HEC-1 time-area relation is used for this basin.
1884        KM
1885        KM      Time of Concentration for this sub-basin is based on the following:
1886        KM          An rainfall areal reduction factor of 1.000
1887        KM
1888        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1889        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1890        KM   .26 .26 .26 .26 .25 .25 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
1891        KM
1892        KM          L=   1.036 miles, S=  373 feet/mile, Kb= .09
1893        KM
1894        BA   0.197
1895        LG    0.18    0.31    4.35    0.38   41.30
1896        UC   0.346   0.296
            *

1897        KK  551552
1898        KM      Normal depth channel route from C551 to C552
1899        KM      Source:  100 Scale 4' CI Mapping
1900        RS       5    FLOW      -1
1901        RC   0.050   0.045   0.050  4410.0  0.0528
1902        RX  1000.0  1005.0  1018.0  1028.0  1038.0  1043.0  1048.0  1055.0
1903        RY  2188.0  2184.0  2180.0  2176.0  2176.0  2180.0  2184.0  2188.0
            *

1904        KK    207E
1905        KM   Sub-Basin   207E
1906        KM
1907        KM      The Clark Unit Hydrograph is used for this basin.
1908        KM          The Urban time-area relation is used for this basin.
1909        KM
1910        KM      Time of Concentration for this sub-basin is based on the following:
1911        KM          An rainfall areal reduction factor of 1.000
1912        KM
1913        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1914        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1915        KM   .26 .26 .26 .26 .26 .26 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
1916        KM
1917        KM          L=   1.366 miles, S=  315 feet/mile, Kb= .07
1918        KM
1919        BA   0.157
1920        LG    0.15    0.29    4.35    0.38   44.41
1
                                        HEC-1 INPUT                                          PAGE 45
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
1921        UC   0.363   0.443
1922        UA       0       5      16      30      65      77      84      90      94      97
1923        UA     100
            *

1924        KK   C552R
1925        KM      Hydrograph combine 551552 + 207E at C552 right branch
1926        HC       2
            *

1927        KK    C552
1928        KM      Hydrograph combine C552L + C552R at C552
1929        HC       2
            *

1930        KK  552553
1931        KM      Normal depth channel route from C552 to C553
1932        KM      Source:  Hydrology Field Reconnaissance
1933        RS       2    FLOW      -1
1934        RC   0.060   0.050   0.060  1336.0  0.0337
1935        RX   993.0  1010.0  1055.0  1061.0  1082.0  1096.0  1105.0  1127.0
1936        RY    98.0    94.3    94.4    94.0    94.3    94.5    96.2    98.0
            *

1937        KK    207F
1938        KM   Sub-Basin   207F
1939        KM
```

```
1940    KM      The Clark Unit Hydrograph is used for this basin.
1941    KM          The HEC-1 time-area relation is used for this basin.
1942    KM
1943    KM      Time of Concentration for this sub-basin is based on the following:
1944    KM          An rainfall areal reduction factor of 1.000
1945    KM
1946    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1947    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1948    KM   .26 .25 .25 .25 .25 .25 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
1949    KM
1950    KM          L=   0.794 miles, S=  296 feet/mile, Kb= .11
1951    KM
1952    BA   0.126
1953    LG    0.20    0.32    4.40    0.39   38.35
1954    UC   0.363   0.325
        *

1955    KK    C553
1956    KM      Hydrograph combine 552553 + 207F at C553
1957    HC       2
        *

1958    KK  553556
1959    KM      Normal depth channel route from C553 to C556
1960    KM      Source:  HEC-2 Cross Section: AS 6.118
1961    RS       2    FLOW      -1
1962    RC   0.055   0.045   0.060  2393.0  0.0255
1963    RX  9904.4  9945.9  9974.0  9987.4  9994.9 10008.6 10027.0 10045.3
```



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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1964        RY  2004.2  2003.9  1991.7  1990.4  1987.9  1988.2  1997.5  2006.7
            *

1965        KK    207G
1966        KM   Sub-Basin   207G
1967        KM
1968        KM      The Clark Unit Hydrograph is used for this basin.
1969        KM          The HEC-1 time-area relation is used for this basin.
1970        KM
1971        KM      Time of Concentration for this sub-basin is based on the following:
1972        KM          An rainfall areal reduction factor of 1.000
1973        KM
1974        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1975        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1976        KM   .25 .25 .25 .25 .25 .24 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
1977        KM
1978        KM          L=   1.467 miles, S=  198 feet/mile, Kb= .10
1979        KM
1980        BA   0.236
1981        LG    0.17    0.37    5.60    0.23    9.10
1982        UC   0.554   0.594
            *

1983        KK   C556L
1984        KM      Hydrograph combine 553556 + 207G at C556 left branch
1985        HC       2
            *

1986        KK    207H
1987        KM   Sub-Basin   207H
1988        KM
1989        KM      The Clark Unit Hydrograph is used for this basin.
1990        KM          The Urban time-area relation is used for this basin.
1991        KM
1992        KM      Time of Concentration for this sub-basin is based on the following:
1993        KM          An rainfall areal reduction factor of 1.000
1994        KM
1995        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1996        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1997        KM   .27 .27 .27 .26 .26 .26 .02 .02 .02 .02 .02 .02 .02 .02 .02 .02 .02 .02
1998        KM
1999        KM          L=   1.044 miles, S=  371 feet/mile, Kb= .05
2000        KM
2001        BA   0.124
2002        LG    0.13    0.27    4.35    0.36   46.78
2003        UC   0.250   0.270
2004        UA      0       5      16      30      65      77      84      90      94      97
2005        UA    100
            *
```



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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2006        KK  554555
2007        KM      Normal depth channel route from C554 to C555
2008        KM      Source:  100 Scale 4' CI Mapping
2009        RS       3    FLOW      -1
2010        RC   0.050   0.045   0.050  2497.0  0.0649
2011        RX  1000.0  1025.0  1080.0  1100.0  1120.0  1130.0  1140.0  1155.0
2012        RY  2192.0  2188.0  2186.0  2184.0  2184.0  2188.0  2192.0  2194.0
            *

2013        KK    207I
2014        KM   Sub-Basin   207I
2015        KM
2016        KM      The Clark Unit Hydrograph is used for this basin.
2017        KM          The Urban time-area relation is used for this basin.
2018        KM
2019        KM      Time of Concentration for this sub-basin is based on the following:
2020        KM          An rainfall areal reduction factor of 1.000
2021        KM
```

```
2022        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2023        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2024        KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
2025        KM
2026        KM          L=   0.810 miles, S=  320 feet/mile, Kb= .03
2027        KM
2028        BA   0.073
2029        LG    0.09    0.25    4.40    0.35   50.00
2030        UC   0.175   0.201
2031        UA       0       5      16      30      65      77      84      90      94      97
2032        UA     100
            *

2033        KK    C555
2034        KM      Hydrograph combine 554555 + 207I at C555
2035        HC       2
            *

2036        KK  555556
2037        KM      Normal depth channel route from C555 to C556
2038        KM      Source:  200 Scale Mapping
2039        RS       7    FLOW     -1
2040        RC   0.050   0.050   0.055  3353.0  0.0480
2041        RX  1000.0  1050.0  1090.0  1095.0  1130.0  1150.0  1160.0  1185.0
2042        RY  2020.0  2016.5  2006.0  2004.0  2005.0  2006.0  2010.0  2020.0
            *

2043        KK    207J
2044        KM   Sub-Basin   207J
2045        KM
2046        KM      The Clark Unit Hydrograph is used for this basin.
2047        KM          The Urban time-area relation is used for this basin.
2048        KM
2049        KM      Time of Concentration for this sub-basin is based on the following:
2050        KM          An rainfall areal reduction factor of 1.000
2051        KM
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2052        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2053        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2054        KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .02 .02 .02 .02 .02 .02 .02 .02 .02
2055        KM
2056        KM          L=   0.714 miles, S=  248 feet/mile, Kb= .04
2057        KM
2058        BA   0.093
2059        LG    0.10    0.26    4.40    0.34   48.61
2060        UC   0.208   0.192
2061        UA       0       5      16      30      65      77      84      90      94      97
2062        UA     100
            *

2063        KK   C556R
2064        KM      Hydrograph combine 555556 + 207J at C556 right branch
2065        HC       2
            *

2066        KK    C556
2067        KM      Hydrograph combine C556L + C556R at C556
2068        HC       2
            *

2069        KK  556557
2070        KM      Normal depth channel route from C556 to C557
2071        KM      Source:  HEC-2 Cross Section: AS 5.765
2072        RS       3    FLOW     -1
2073        RC   0.055   0.045   0.060  2298.0  0.0260
2074        RX  9957.1  9995.6 10000.0 10010.0 10040.4 10084.4 10104.2 10180.7
2075        RY  1949.3  1935.9  1935.8  1936.7  1936.7  1938.2  1947.1  1949.9
            *

2076        KK    207K
2077        KM   Sub-Basin   207K
2078        KM
2079        KM      The Clark Unit Hydrograph is used for this basin.
2080        KM          The Urban time-area relation is used for this basin.
2081        KM
2082        KM      Time of Concentration for this sub-basin is based on the following:
2083        KM          An rainfall areal reduction factor of 1.000
2084        KM
2085        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2086        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2087        KM   .28 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2088        KM
2089        KM          L=   0.859 miles, S=  294 feet/mile, Kb= .05
2090        KM
2091        BA   0.130
2092        LG    0.11    0.27    5.40    0.21   37.19
2093        UC   0.242   0.217
2094        UA       0       5      16      30      65      77      84      90      94      97
2095        UA     100
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2096        KK   C557R
2097        KM      Hydrograph combine 556557 + 207K at C557
2098        HC       2
            *

2099        KK    207L
```

```
2100        KM   Sub-Basin   207L
2101        KM
2102        KM      The Clark Unit Hydrograph is used for this basin.
2103        KM          The Urban time-area relation is used for this basin.
2104        KM
2105        KM      Time of Concentration for this sub-basin is based on the following:
2106        KM          An rainfall areal reduction factor of 1.000
2107        KM
2108        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2109        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2110        KM   .28 .28 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2111        KM
2112        KM          L=   0.667 miles, S=  236 feet/mile, Kb= .04
2113        KM
2114        BA   0.080
2115        LG    0.09    0.26    6.00    0.16   33.25
2116        UC   0.204   0.193
2117        UA       0       5      16      30      65      77      84      90      94      97
2118        UA     100
            *

2119        KK    C557
2120        KM      Hydrograph combine C557R + 207L at C557
2121        HC       2
            *
            * *
            * * C557 is the total flow in Ashbrook Wash downstream of Golden Eagle Blvd.
            * * at fire station
            * *
            *

2122        KK  557558
2123        KM      Normal depth channel route from C557 to C558
2124        KM      Source:  HEC-2 Cross Section: AS 5.254
2125        RS       3    FLOW      -1
2126        RC   0.055   0.045   0.060  2652.0  0.0242
2127        RX  9662.0  9965.0  9967.0 10000.0 10072.0 10095.0 10122.0 10175.0
2128        RY  1890.0  1885.9  1884.0  1878.0  1880.0  1886.0  1888.0  1890.0
            *

2129        KK    207M
2130        KM   Sub-Basin   207M
2131        KM
2132        KM      The Clark Unit Hydrograph is used for this basin.
2133        KM          The Urban time-area relation is used for this basin.
2134        KM
2135        KM      Time of Concentration for this sub-basin is based on the following:
2136        KM          An rainfall areal reduction factor of 1.000
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2137        KM
2138        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2139        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2140        KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2141        KM
2142        KM          L=   0.636 miles, S=  295 feet/mile, Kb= .04
2143        KM
2144        BA   0.116
2145        LG    0.11    0.28    6.00    0.17   23.09
2146        UC   0.188   0.137
2147        UA       0       5      16      30      65      77      84      90      94      97
2148        UA     100
            *

2149        KK    C558
2150        KM      Hydrograph combine 557558 + 207M at C558
2151        HC       2
            *

2152        KK  558560
2153        KM      Normal depth channel route from C558 to C560
2154        KM      Source:  HEC-2 Cross Section: AS 4.839
2155        RS       2    FLOW      -1
2156        RC   0.055   0.045   0.060  1986.0  0.0185
2157        RX  9777.0  9897.0  9933.1  9970.6 10042.2 10063.4 10121.6 10204.9
2158        RY  1840.3  1837.3  1836.3  1824.3  1822.7  1828.5  1827.7  1842.7
            *

2159        KK    2070
2160        KM   Sub-Basin   2070
2161        KM
2162        KM      The Clark Unit Hydrograph is used for this basin.
2163        KM          The Urban time-area relation is used for this basin.
2164        KM
2165        KM      Time of Concentration for this sub-basin is based on the following:
2166        KM          An rainfall areal reduction factor of 1.000
2167        KM
2168        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2169        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2170        KM   .27 .27 .26 .26 .26 .26 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2171        KM
2172        KM          L=   0.643 miles, S=  275 feet/mile, Kb= .04
2173        KM
2174        BA   0.131
2175        LG    0.13    0.29    5.60    0.21   23.47
2176        UC   0.192   0.133
2177        UA       0       5      16      30      65      77      84      90      94      97
2178        UA     100
            *
```



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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
2179        KK   C560R
2180        KM      Hydrograph combine 558560 + 2070 at C560 right branch
2181        HC       2
            *

2182        KK    207N
2183        KM   Sub-Basin   207N
2184        KM
2185        KM      The Clark Unit Hydrograph is used for this basin.
2186        KM          The Urban time-area relation is used for this basin.
2187        KM
2188        KM      Time of Concentration for this sub-basin is based on the following:
2189        KM          An rainfall areal reduction factor of 1.000
2190        KM
2191        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2192        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2193        KM   .27 .27 .27 .27 .27 .26 .03 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2194        KM
2195        KM          L=   0.431 miles, S=  190 feet/mile, Kb= .03
2196        KM
2197        BA   0.049
2198        LG    0.09    0.25    4.80    0.27   35.87
2199        UC   0.150   0.128
2200        UA       0       5      16      30      65      77      84      90      94      97
2201        UA     100
            *

2202        KK  559560
2203        KM      Normal depth channel route from C559 to C560
2204        KM      Source:  200 Scale Mapping
2205        RS       4    FLOW      -1
2206        RC   0.050   0.045   0.050  2170.0  0.0230
2207        RX  1000.0  1050.0  1080.0  1100.0  1110.0  1140.0  1170.0  1205.0
2208        RY  1854.0  1852.0  1850.0  1848.0  1848.0  1850.0  1852.0  1854.0
            *

2209        KK   C560I
2210        KM      Hydrograph combine C560R + 559560 at C560I
2211        HC       2
            *
            * *
            * * C560I is the total flow in Ashbrook Wash upstream of Dam 6
            * *
            *

2212        KK   C560O
2213        KM      Reservoir route at C560 (Dam 6).
2214        RS       1    ELEV  1808.8
2215        SV    0.00    1.71   14.81   34.65   60.43   93.47  135.64  183.00  186.00  191.44
2216        SV  197.00  205.00  212.00  219.00  226.40  234.00  242.00  246.00  250.00  254.00
2217        SE  1808.8  1812.0  1816.0  1820.0  1824.0  1828.0  1832.0  1835.4  1835.6  1836.0
2218        SE  1836.4  1836.8  1837.2  1837.6  1838.0  1838.4  1838.8  1839.0  1839.2  1839.4
2219        SQ       0      57     136     184     224     257     285     303     319     440
2220        SQ     691    1055    1500    2018    2600    3243    3944    4315    4699    5097
```



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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2221        RL                    0.40
            *
            * *
            * * End Basin 207.  Start Basin 210 temporarily
            * *
            *

2222        KK  560585
2223        KM      Normal depth channel route from C560 to C585
2224        KM      Source:  HEC-2 Cross Section: AS4.311
2225        RS       6    FLOW      -1
2226        RC   0.050   0.025   0.050  3127.0  0.0272
2227        RX  9850.4  9950.4  9974.4 10000.0 10035.5 10059.8 10080.4 10104.4
2228        RY  1772.0  1771.7  1765.3  1765.3  1765.9  1768.5  1773.3  1773.7
            *

2229        KK    210A
2230        KM   Sub-Basin   210A
2231        KM
2232        KM      The Clark Unit Hydrograph is used for this basin.
2233        KM          The Urban time-area relation is used for this basin.
2234        KM
2235        KM      Time of Concentration for this sub-basin is based on the following:
2236        KM          An rainfall areal reduction factor of 1.000
2237        KM
2238        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2239        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2240        KM   .27 .26 .26 .26 .26 .26 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2241        KM
2242        KM          L=   0.631 miles, S=  233 feet/mile, Kb= .03
2243        KM
2244        BA   0.123
2245        LG    0.09    0.25    5.00    0.24   16.65
2246        UC   0.175   0.122
2247        UA       0       5      16      30      65      77      84      90      94      97
2248        UA     100
            *

2249        KK    C585
2250        KM      Hydrograph combine 560585 + 210A at C585
2251        HC       2
            *
            * *
            * * C585 is the total flow in Ashbrook Wash at Golden Eagle Blvd. just
            * * upstream of DAM 4
```

```
                 * *
                 * * Temporarily stop Basin 210.  Start Basin 208
                 * *
                 * * Start Bristol Wash
                 * *
                 *
1                                          HEC-1 INPUT                                                          PAGE 53
LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2252             KK    208A
2253             KM   Sub-Basin   208A
2254             KM
2255             KM      The Clark Unit Hydrograph is used for this basin.
2256             KM          The Urban time-area relation is used for this basin.
2257             KM
2258             KM      Time of Concentration for this sub-basin is based on the following:
2259             KM          An rainfall areal reduction factor of 1.000
2260             KM
2261             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2262             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2263             KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
2264             KM
2265             KM          L=   0.626 miles, S=  366 feet/mile, Kb= .03
2266             KM
2267             BA   0.139
2268             LG    0.09    0.25    4.35    0.35   49.86
2269             UC   0.150   0.096
2270             UA       0       5      16      30      65      77      84      90      94      97
2271             UA     100
                 *

2272             KK  561563
2273             KM      Normal depth channel route from C561 to C563
2274             KM      Source:  100 Scale 4' CI Mapping
2275             RS       2    FLOW      -1
2276             RC   0.050   0.045   0.050  2335.0  0.0856
2277             RX  1000.0  1004.0  1009.0  1019.0  1037.0  1045.0  1060.0  1075.0
2278             RY  2280.0  2276.0  2272.0  2268.0  2268.0  2272.0  2274.0  2276.0
                 *

2279             KK    208B
2280             KM   Sub-Basin   208B
2281             KM
2282             KM      The Clark Unit Hydrograph is used for this basin.
2283             KM          The Urban time-area relation is used for this basin.
2284             KM
2285             KM      Time of Concentration for this sub-basin is based on the following:
2286             KM          An rainfall areal reduction factor of 1.000
2287             KM
2288             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2289             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2290             KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
2291             KM
2292             KM          L=   0.491 miles, S=  325 feet/mile, Kb= .03
2293             KM
2294             BA   0.027
2295             LG    0.09    0.25    4.35    0.35   50.00
2296             UC   0.138   0.182
2297             UA       0       5      16      30      65      77      84      90      94      97
2298             UA     100
                 *
1                                          HEC-1 INPUT                                                          PAGE 54
LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2299             KK   C563R
2300             KM      Hydrograph combine 561563 + 206B at C563 right branch
2301             HC       2
                 *

2302             KK    208C
2303             KM   Sub-Basin   208C
2304             KM
2305             KM      The Clark Unit Hydrograph is used for this basin.
2306             KM          The HEC-1 time-area relation is used for this basin.
2307             KM
2308             KM      Time of Concentration for this sub-basin is based on the following:
2309             KM          An rainfall areal reduction factor of 1.000
2310             KM
2311             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2312             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2313             KM   .26 .26 .26 .25 .25 .25 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2314             KM
2315             KM          L=   0.639 miles, S=  387 feet/mile, Kb= .11
2316             KM
2317             BA   0.066
2318             LG    0.20    0.32    4.35    0.38   40.11
2319             UC   0.296   0.314
                 *

2320             KK  562563
2321             KM      Normal depth channel route from C562 to C563
2322             KM      Source:  100 Scale 4' CI Mapping
2323             RS       5    FLOW      -1
2324             RC   0.050   0.045   0.050  3745.0  0.1106
2325             RX  1000.0  1007.0  1012.0  1017.0  1022.0  1027.0  1044.0  1064.0
2326             RY  2420.0  2416.0  2412.0  2411.8  2411.8  2412.0  2416.0  2420.0
                 *

2327             KK    208D
2328             KM   Sub-Basin   208D
```

```
2329        KM
2330        KM      The Clark Unit Hydrograph is used for this basin.
2331        KM          The Urban time-area relation is used for this basin.
2332        KM
2333        KM      Time of Concentration for this sub-basin is based on the following:
2334        KM          An rainfall areal reduction factor of 1.000
2335        KM
2336        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2337        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2338        KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
2339        KM
2340        KM          L=   0.772 miles, S=  327 feet/mile, Kb= .03
2341        KM
2342        BA   0.075
2343        LG    0.09    0.25    4.35    0.35   50.00
2344        UC   0.171   0.186
2345        UA      0       5      16      30      65      77      84      90      94      97
2346        UA    100
            *
1                                          HEC-1 INPUT                                          PAGE 55

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2347        KK   C563L
2348        KM      Hydrograph combine 562563 + 208D at C563 left branch
2349        HC       2
            *

2350        KK    C563
2351        KM      Hydrograph combine C563R + C563L at C563
2352        HC       2
            *

2353        KK  563564
2354        KM      Normal depth channel route from C563 to C564
2355        KM      Source:  HEC-2 Cross Section: BR 2.667
2356        RS       3    FLOW      -1
2357        RC   0.080   0.080   0.080  2762.0  0.0540
2358        RX  9947.0  9980.4  9986.4  9995.5 10000.0 10005.8 10021.9 10037.2
2359        RY  2103.4  2089.5  2089.2  2084.5  2084.4  2084.3  2098.5  2100.6
            *

2360        KK    208E
2361        KM   Sub-Basin   208E
2362        KM
2363        KM      The Clark Unit Hydrograph is used for this basin.
2364        KM          The Urban time-area relation is used for this basin.
2365        KM
2366        KM      Time of Concentration for this sub-basin is based on the following:
2367        KM          An rainfall areal reduction factor of 1.000
2368        KM
2369        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2370        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2371        KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
2372        KM
2373        KM          L=   0.644 miles, S=  306 feet/mile, Kb= .03
2374        KM
2375        BA   0.062
2376        LG    0.09    0.25    4.35    0.35   50.00
2377        UC   0.158   0.164
2378        UA      0       5      16      30      65      77      84      90      94      97
2379        UA    100
            *

2380        KK   C564R
2381        KM      Hydrograph combine 563564 + 208E at C564 right branch
2382        HC       2
            *

2383        KK    208F
2384        KM   Sub-Basin   208F
2385        KM
2386        KM      The Clark Unit Hydrograph is used for this basin.
2387        KM          The Urban time-area relation is used for this basin.
2388        KM
2389        KM      Time of Concentration for this sub-basin is based on the following:
2390        KM          An rainfall areal reduction factor of 1.000
1                                          HEC-1 INPUT                                          PAGE 56

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2391        KM
2392        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2393        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2394        KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
2395        KM
2396        KM          L=   0.582 miles, S=  293 feet/mile, Kb= .03
2397        KM
2398        BA   0.069
2399        LG    0.09    0.25    4.35    0.35   49.92
2400        UC   0.154   0.138
2401        UA      0       5      16      30      65      77      84      90      94      97
2402        UA    100
            *

2403        KK    C564
2404        KM      Hydrograph combine C564R + 208F at C564
2405        HC       2
            *

2406        KK  564565
2407        KM      Normal depth channel route from C564 to C565
2408        KM      Source:  HEC-2 Cross Section: BR 2.236
```

```
2409   RS       5    FLOW      -1
2410   RC   0.080   0.080   0.080  3243.0  0.0398
2411   RX  9937.7  9965.8  9985.5 10000.0 10008.6 10016.4 10037.5 10054.4
2412   RY  1998.7  1998.1  1988.9  1988.8  1989.0  1990.4  1990.6  1999.1
       *

2413   KK    208G
2414   KM   Sub-Basin   208G
2415   KM
2416   KM      The Clark Unit Hydrograph is used for this basin.
2417   KM          The Urban time-area relation is used for this basin.
2418   KM
2419   KM      Time of Concentration for this sub-basin is based on the following:
2420   KM          An rainfall areal reduction factor of 1.000
2421   KM
2422   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2423   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2424   KM   .28 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
2425   KM
2426   KM          L=   0.772 miles, S=  299 feet/mile, Kb= .04
2427   KM
2428   BA   0.129
2429   LG    0.11    0.26    4.60    0.31   54.19
2430   UC   0.204   0.165
2431   UA       0       5      16      30      65      77      84      90      94      97
2432   UA     100
       *
1                                    HEC-1 INPUT                                          PAGE 57
LINE   ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2433   KK    C565
2434   KM      Hydrograph combine 564565 + 208G at C565
2435   HC       2
       *

2436   KK  565568
2437   KM      Normal depth channel route from C565 to C568
2438   KM      Source:  HEC-2 Cross Section: BR 1.853
2439   RS       3    FLOW      -1
2440   RC   0.050   0.060   0.045  2254.0  0.0333
2441   RX  9966.2  9975.6  9985.0 10000.0 10017.9 10027.6 10040.1 10052.5
2442   RY  1929.1  1924.5  1919.8  1918.3  1918.4  1919.6  1925.2  1930.8
       *

2443   KK    208H
2444   KM   Sub-Basin   208H
2445   KM
2446   KM      The Clark Unit Hydrograph is used for this basin.
2447   KM          The Urban time-area relation is used for this basin.
2448   KM
2449   KM      Time of Concentration for this sub-basin is based on the following:
2450   KM          An rainfall areal reduction factor of 1.000
2451   KM
2452   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2453   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2454   KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .02 .01 .01 .01 .01 .01 .01
2455   KM
2456   KM          L=   0.632 miles, S=  283 feet/mile, Kb= .07
2457   KM
2458   BA   0.043
2459   LG    0.12    0.30    5.60    0.21   35.43
2460   UC   0.254   0.338
2461   UA       0       5      16      30      65      77      84      90      94      97
2462   UA     100
       *

2463   KK   C568L
2464   KM      Hydrograph combine 565568 + 208H at C568 left branch
2465   HC       2
       *
       * *
       * * Start Cholula Wash
       * *
       *

2466   KK    208I
2467   KM   Sub-Basin   208I
2468   KM
2469   KM      The Clark Unit Hydrograph is used for this basin.
2470   KM          The Urban time-area relation is used for this basin.
2471   KM
2472   KM      Time of Concentration for this sub-basin is based on the following:
2473   KM          An rainfall areal reduction factor of 1.000
2474   KM
1                                    HEC-1 INPUT                                          PAGE 58
LINE   ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2475   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2476   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2477   KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
2478   KM
2479   KM          L=   0.823 miles, S=  363 feet/mile, Kb= .03
2480   KM
2481   BA   0.117
2482   LG    0.09    0.25    4.35    0.35   50.00
2483   UC   0.171   0.151
2484   UA       0       5      16      30      65      77      84      90      94      97
2485   UA     100
       *

2486   KK    208J
```

```
2487        KM   Sub-Basin   208J
2488        KM
2489        KM      The Clark Unit Hydrograph is used for this basin.
2490        KM          The Urban time-area relation is used for this basin.
2491        KM
2492        KM      Time of Concentration for this sub-basin is based on the following:
2493        KM          An rainfall areal reduction factor of 1.000
2494        KM
2495        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2496        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2497        KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
2498        KM
2499        KM          L=   0.974 miles, S=  353 feet/mile, Kb= .03
2500        KM
2501        BA   0.081
2502        LG    0.09    0.25    4.35    0.35   50.00
2503        UC   0.188   0.237
2504        UA       0       5      16      30      65      77      84      90      94      97
2505        UA     100
            *

2506        KK    C566
2507        KM      Hydrograph combine 208I + 208J at C566
2508        HC       2
            *

2509        KK  566567
2510        KM      Normal depth channel route from C566 to C567
2511        KM      Source:  HEC-2 Cross Section: CH 0.766
2512        RS       3    FLOW      -1
2513        RC   0.080   0.080   0.080  1463.0  0.0410
2514        RX  9925.3  9949.0  9965.7  9988.3 10000.0 10016.2 10029.5 10042.7
2515        RY  2047.9  2043.7  2035.3  2033.3  2031.4  2033.0  2040.1  2047.2
            *

2516        KK    208K
2517        KM   Sub-Basin   208K
2518        KM
2519        KM      The Clark Unit Hydrograph is used for this basin.
2520        KM          The Urban time-area relation is used for this basin.
2521        KM
```

1 HEC-1 INPUT PAGE 59

```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2522        KM      Time of Concentration for this sub-basin is based on the following:
2523        KM          An rainfall areal reduction factor of 1.000
2524        KM
2525        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2526        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2527        KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
2528        KM
2529        KM          L=   0.431 miles, S=  317 feet/mile, Kb= .03
2530        KM
2531        BA   0.048
2532        LG    0.09    0.25    4.35    0.35   54.38
2533        UC   0.129   0.110
2534        UA       0       5      16      30      65      77      84      90      94      97
2535        UA     100
            *

2536        KK   C567L
2537        KM      Hydrograph combine 566567 + 208K at C567 left branch
2538        HC       2
            *

2539        KK    208L
2540        KM   Sub-Basin   208L
2541        KM
2542        KM      The Clark Unit Hydrograph is used for this basin.
2543        KM          The Urban time-area relation is used for this basin.
2544        KM
2545        KM      Time of Concentration for this sub-basin is based on the following:
2546        KM          An rainfall areal reduction factor of 1.000
2547        KM
2548        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2549        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2550        KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
2551        KM
2552        KM          L=   0.655 miles, S=  334 feet/mile, Kb= .03
2553        KM
2554        BA   0.059
2555        LG    0.09    0.25    4.40    0.35   51.31
2556        UC   0.158   0.171
2557        UA       0       5      16      30      65      77      84      90      94      97
2558        UA     100
            *

2559        KK    C567
2560        KM      Hydrograph combine C567L + 208L at C567
2561        HC       2
            *

2562        KK  567568
2563        KM      Normal depth channel route from C567 to C568
2564        KM      Source:  HEC-2 Cross Section: CH 0.129
2565        RS       5    FLOW      -1
2566        RC   0.050   0.060   0.045  3650.0  0.0389
2567        RX  9945.7  9958.4  9989.8 10000.0 10016.4 10028.3 10045.4 10059.8
2568        RY  1912.1  1905.9  1899.0  1899.3  1898.9  1899.5  1907.1  1911.9
            *
```

1 HEC-1 INPUT PAGE 60

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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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```
2569        KK    208M
2570        KM   Sub-Basin   208M
2571        KM
2572        KM      The Clark Unit Hydrograph is used for this basin.
2573        KM          The Urban time-area relation is used for this basin.
2574        KM
2575        KM      Time of Concentration for this sub-basin is based on the following:
2576        KM          An rainfall areal reduction factor of 1.000
2577        KM
2578        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2579        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2580        KM   .28 .28 .28 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
2581        KM
2582        KM          L=   1.031 miles, S=  321 feet/mile, Kb= .03
2583        KM
2584        BA   0.159
2585        LG    0.09    0.25    4.40    0.34   62.04
2586        UC   0.196   0.177
2587        UA       0       5      16      30      65      77      84      90      94      97
2588        UA     100
            *

2589        KK   C568R
2590        KM      Hydrograph combine 567568 + 208M at C568 right branch
2591        HC       2
            *

2592        KK    C568
2593        KM      Hydrograph combine C568L + C568R at C568
2594        HC       2
            *

2595        KK  568573
2596        KM      Normal depth channel route from C568 to C573
2597        KM      Source:  HEC-2 Cross Section: BR 1.340
2598        RS       3    FLOW      -1
2599        RC   0.098   0.075   0.075  2067.0  0.0324
2600        RX  9921.8  9954.1  9968.9  9991.3 10000.0 10006.9 10025.2 10050.4
2601        RY  1843.8  1840.4  1835.1  1834.7  1832.7  1833.3  1838.1  1854.0
            *

2602        KK    208N
2603        KM   Sub-Basin   208N
2604        KM
2605        KM      The Clark Unit Hydrograph is used for this basin.
2606        KM          The Urban time-area relation is used for this basin.
2607        KM
2608        KM      Time of Concentration for this sub-basin is based on the following:
2609        KM          An rainfall areal reduction factor of 1.000
2610        KM
2611        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2612        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2613        KM   .29 .29 .28 .28 .28 .28 .04 .04 .04 .04 .04 .04 .02 .02 .02 .02 .02 .02
2614        KM
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2615        KM          L=   0.589 miles, S=  160 feet/mile, Kb= .04
2616        KM
2617        BA   0.047
2618        LG    0.09    0.25    6.20    0.15   62.49
2619        UC   0.213   0.248
2620        UA       0       5      16      30      65      77      84      90      94      97
2621        UA     100
            *

2622        KK   C573L
2623        KM      Hydrograph combine 568573 + 208N at C573 left branch
2624        HC       2
            *
            * *
            * * C573L is the total flow in Bristol Wash upstream of the confluence with
            * * Zapata Wash
            * *
            * * Start Zapata Wash
            * *
            *

2625        KK    208O
2626        KM   Sub-Basin   208O
2627        KM
2628        KM      The Clark Unit Hydrograph is used for this basin.
2629        KM          The Urban time-area relation is used for this basin.
2630        KM
2631        KM      Time of Concentration for this sub-basin is based on the following:
2632        KM          An rainfall areal reduction factor of 1.000
2633        KM
2634        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2635        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2636        KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
2637        KM
2638        KM          L=   1.174 miles, S=  347 feet/mile, Kb= .03
2639        KM
2640        BA   0.230
2641        LG    0.09    0.25    4.60    0.31   48.49
2642        UC   0.208   0.170
2643        UA       0       5      16      30      65      77      84      90      94      97
2644        UA     100
            *

2645        KK  569570
2646        KM      Normal depth channel route from C569 to C570
```

```
2647        KM      Source:  HEC-2 Cross Section: ZA 0.493
2648        RS       1    FLOW      -1
2649        RC   0.050   0.035   0.055  1696.0  0.0404
2650        RX  9965.3  9985.5  9998.4 10000.0 10010.6 10019.1 10038.5 10038.5
2651        RY  1919.3  1912.3  1908.1  1907.8  1905.2  1908.1  1920.1  1920.1
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2652        KK    208P
2653        KM   Sub-Basin   208P
2654        KM
2655        KM      The Clark Unit Hydrograph is used for this basin.
2656        KM          The Urban time-area relation is used for this basin.
2657        KM
2658        KM      Time of Concentration for this sub-basin is based on the following:
2659        KM          An rainfall areal reduction factor of 1.000
2660        KM
2661        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2662        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2663        KM   .29 .29 .28 .28 .28 .28 .04 .04 .04 .04 .04 .04 .02 .02 .02 .02 .02 .02
2664        KM
2665        KM          L=   0.471 miles, S=  312 feet/mile, Kb= .03
2666        KM
2667        BA   0.058
2668        LG    0.08    0.25    5.70    0.18   59.29
2669        UC   0.133   0.109
2670        UA       0       5      16      30      65      77      84      90      94      97
2671        UA     100
            *

2672        KK   C570R
2673        KM     Hydrograph combine 569570 + 208P at C570 right branch
2674        HC       2
            *

2675        KK    208Q
2676        KM   Sub-Basin   208Q
2677        KM
2678        KM      The Clark Unit Hydrograph is used for this basin.
2679        KM          The Urban time-area relation is used for this basin.
2680        KM
2681        KM      Time of Concentration for this sub-basin is based on the following:
2682        KM          An rainfall areal reduction factor of 1.000
2683        KM
2684        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2685        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2686        KM   .28 .28 .28 .28 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
2687        KM
2688        KM          L=   0.823 miles, S=  324 feet/mile, Kb= .04
2689        KM
2690        BA   0.094
2691        LG    0.10    0.26    5.00    0.25   54.26
2692        UC   0.204   0.209
2693        UA       0       5      16      30      65      77      84      90      94      97
2694        UA     100
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2695        KK    C570
2696        KM     Hydrograph combine C570R + 208Q at C570
2697        HC       2
            *
            * *
            * * NOTE: 570572 is too short to route
            * *
            *

2698        KK    208R
2699        KM   Sub-Basin   208R
2700        KM
2701        KM      The Clark Unit Hydrograph is used for this basin.
2702        KM          The Urban time-area relation is used for this basin.
2703        KM
2704        KM      Time of Concentration for this sub-basin is based on the following:
2705        KM          An rainfall areal reduction factor of 1.000
2706        KM
2707        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2708        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2709        KM   .29 .29 .28 .28 .28 .28 .04 .04 .04 .04 .04 .04 .02 .02 .02 .02 .02 .02
2710        KM
2711        KM          L=   0.238 miles, S=  327 feet/mile, Kb= .03
2712        KM
2713        BA   0.010
2714        LG    0.08    0.23    6.20    0.15   55.16
2715        UC   0.092   0.111
2716        UA       0       5      16      30      65      77      84      90      94      97
2717        UA     100
            *

2718        KK  571572
2719        KM     Normal depth channel route from C571 to C572
2720        KM     Source:  200 Scale Mapping
2721        RS       1    FLOW      -1
2722        RC   0.040   0.020   0.055  1379.0  0.0566
2723        RX  1000.0  1020.0  1040.0  1090.0  1122.0  1125.0  1135.0  1140.0
2724        RY  1894.0  1893.0  1892.0  1891.0  1891.0  1892.0  1894.0  1896.0
            *
```

```
2725        KK    C572
2726        KM      Hydrograph combine C570 + 571572 at C572
2727        HC       2
            *

2728        KK  572573
2729        KM      Normal depth channel route from C572 to C573
2730        KM      Source:  HEC-2 Cross Section: ZA 0.142
2731        RS       1    FLOW     -1
2732        RC   0.050   0.035   0.055  1285.0  0.0335
2733        RX  9961.8  9976.8  9982.5  9987.0 10009.5 10014.3 10022.1 10029.3
2734        RY  1840.3  1832.1  1831.2  1829.5  1829.2  1830.6  1831.2  1835.6
            *
1                                          HEC-1 INPUT                                                    PAGE 64
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2735        KK    208S
2736        KM   Sub-Basin   208S
2737        KM
2738        KM      The Clark Unit Hydrograph is used for this basin.
2739        KM          The Urban time-area relation is used for this basin.
2740        KM
2741        KM      Time of Concentration for this sub-basin is based on the following:
2742        KM          An rainfall areal reduction factor of 1.000
2743        KM
2744        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2745        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2746        KM   .29 .29 .29 .29 .29 .28 .04 .04 .04 .04 .04 .04 .02 .02 .02 .02 .02 .02
2747        KM
2748        KM          L=   0.568 miles, S=  234 feet/mile, Kb= .03
2749        KM
2750        BA   0.068
2751        LG    0.08    0.24    6.20    0.15   67.07
2752        UC   0.158   0.141
2753        UA      0       5      16      30      65      77      84      90      94      97
2754        UA    100
            *

2755        KK   C573R
2756        KM     Hydrograph combine 572573 + 208S at C573 right branch
2757        HC       2
            *

2758        KK    C573
2759        KM      Hydrograph combine C573L + C573R at C573
2760        HC       2
            *
            * *
            * * NOTE: 573577 is too short to route
            * *
            * * C573 is the total flow in Bristol Wash upstream of the confluence
            * * with Montezuna Wash
            * *
            * * Start Montezuna Wash
            * *
            *

2761        KK    208T
2762        KM   Sub-Basin   208T
2763        KM
2764        KM      The Clark Unit Hydrograph is used for this basin.
2765        KM          The Urban time-area relation is used for this basin.
2766        KM
2767        KM      Time of Concentration for this sub-basin is based on the following:
2768        KM          An rainfall areal reduction factor of 1.000
2769        KM
2770        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2771        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2772        KM   .28 .28 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
2773        KM
1                                          HEC-1 INPUT                                                    PAGE 65
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2774        KM          L=   0.787 miles, S=  340 feet/mile, Kb= .03
2775        KM
2776        BA   0.132
2777        LG    0.09    0.25    5.20    0.22   44.80
2778        UC   0.171   0.136
2779        UA      0       5      16      30      65      77      84      90      94      97
2780        UA    100
            *

2781        KK    208U
2782        KM   Sub-Basin   208U
2783        KM
2784        KM      The Clark Unit Hydrograph is used for this basin.
2785        KM          The Urban time-area relation is used for this basin.
2786        KM
2787        KM      Time of Concentration for this sub-basin is based on the following:
2788        KM          An rainfall areal reduction factor of 1.000
2789        KM
2790        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2791        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2792        KM   .28 .28 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2793        KM
2794        KM          L=   0.507 miles, S=  360 feet/mile, Kb= .03
2795        KM
2796        BA   0.134
2797        LG    0.09    0.25    5.30    0.21   44.19
2798        UC   0.133   0.072
2799        UA      0       5      16      30      65      77      84      90      94      97
```

```
2800        UA     100
            *

2801        KK    C574
2802        KM      Hydrograph combine 208T + 208U at C574
2803        HC       2
            *

2804        KK  574575
2805        KM      Normal depth channel route from C574 to C575
2806        KM      Source:  HEC-2 Cross Section: MO 0.587
2807        RS       1    FLOW      -1
2808        RC   0.070   0.050   0.055   823.0  0.0365
2809        RX  9945.0  9970.6  9986.7  9995.9 10002.3 10019.0 10036.7 10055.5
2810        RY  1932.6  1928.5  1922.9  1917.8  1917.7  1924.0  1931.1  1934.1
            *

2811        KK    208V
2812        KM   Sub-Basin   208V
2813        KM
2814        KM      The Clark Unit Hydrograph is used for this basin.
2815        KM          The Urban time-area relation is used for this basin.
2816        KM
2817        KM      Time of Concentration for this sub-basin is based on the following:
2818        KM          An rainfall areal reduction factor of 1.000
2819        KM
2820        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2821        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2822        KM   .28 .28 .28 .28 .28 .28 .04 .04 .04 .04 .04 .04 .02 .02 .02 .02 .02 .02
2823        KM
2824        KM          L=   0.354 miles, S=  319 feet/mile, Kb= .03
2825        KM
2826        BA   0.028
2827        LG    0.09    0.21    6.40    0.15   41.15
2828        UC   0.117   0.114
2829        UA       0       5      16      30      65      77      84      90      94      97
2830        UA     100
            *

2831        KK    C575
2832        KM      Hydrograph combine 574575 + 208V at C575
2833        HC       2
            *

2834        KK  575576
2835        KM      Normal depth channel route from C575 to C576
2836        KM      Source:  HEC-2 Cross Section: MO 0.307
2837        RS       1    FLOW      -1
2838        RC   0.070   0.050   0.055  2342.0  0.0423
2839        RX  9973.7  9974.0  9986.7 10000.0 10000.5 10009.7 10026.7 10037.3
2840        RY  1861.6  1861.5  1855.0  1853.0  1853.1  1854.8  1863.0  1867.1
            *

2841        KK    208W
2842        KM   Sub-Basin   208W
2843        KM
2844        KM      The Clark Unit Hydrograph is used for this basin.
2845        KM          The Urban time-area relation is used for this basin.
2846        KM
2847        KM      Time of Concentration for this sub-basin is based on the following:
2848        KM          An rainfall areal reduction factor of 1.000
2849        KM
2850        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2851        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2852        KM   .28 .28 .28 .28 .28 .28 .04 .03 .03 .03 .03 .03 .02 .02 .02 .01 .01 .01
2853        KM
2854        KM          L=   0.475 miles, S=  288 feet/mile, Kb= .03
2855        KM
2856        BA   0.050
2857        LG    0.09    0.23    6.20    0.16   42.74
2858        UC   0.138   0.124
2859        UA       0       5      16      30      65      77      84      90      94      97
2860        UA     100
            *

2861        KK    C576
2862        KM      Hydrograph combine 575576 + 208W at C576
2863        HC       2
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2864        KK  576577
2865        KM      Normal depth channel route from C576 to C577
2866        KM      Source:  HEC-2 Cross Section: MO 0.116
2867        RS       1    FLOW      -1
2868        RC   0.070   0.050   0.055   740.0  0.0338
2869        RX  9915.1  9960.0  9985.5 10000.0 10000.1 10007.0 10023.3 10023.4
2870        RY  1826.5  1826.4  1814.5  1812.3  1812.3  1814.8  1830.3  1830.4
            *
            * *
            * * 576577 is the total flow in Montezuna Wash just upstream of the confluence
            * * with Bristol Wash
            * *
            *

2871        KK    C577
2872        KM      Hydrograph combine C577L + 576577 at C570
```

```
2873        HC       2
            *
            * *
            * * C577 is the total flow in Bristol Wash downstream of the confluence
            * * with Montezuma Wash
            * *
            *

2874        KK  577578
2875        KM      Normal depth channel route from C577 to C578
2876        KM      Source:  HEC-2 Cross Section: BR 1.099
2877        RS       1    FLOW      -1
2878        RC   0.055   0.045   0.055  1078.0  0.0147
2879        RX  9865.3  9956.6  9991.1 10010.2 10034.3 10063.4 10139.7 10201.7
2880        RY  1821.8  1810.8  1793.2  1792.5  1795.5  1796.1  1813.8  1822.8
            *

2881        KK    208X
2882        KM   Sub-Basin   208X
2883        KM
2884        KM      The Clark Unit Hydrograph is used for this basin.
2885        KM          The Urban time-area relation is used for this basin.
2886        KM
2887        KM      Time of Concentration for this sub-basin is based on the following:
2888        KM          An rainfall areal reduction factor of 1.000
2889        KM
2890        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2891        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2892        KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2893        KM
2894        KM          L=   0.417 miles, S=  223 feet/mile, Kb= .05
2895        KM
2896        BA   0.075
2897        LG    0.13    0.29    5.60    0.21   39.42
2898        UC   0.183   0.122
2899        UA       0       5      16      30      65      77      84      90      94      97
2900        UA     100
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2901        KK   C578I
2902        KM      Hydrograph combine 577578 + 208X at C578I
2903        HC       2
            *
            * *
            * * C578I is the total flow in Bristol Wash upstream of Dam 11
            * *
            *

2904        KK   C578O
2905        KM      Reservoir route at C578 (Dam 11).
2906        RS       1    ELEV  1779.2
2907        SV    0.00   16.38   31.30   53.65   84.39  126.17  138.00  143.00  147.00  154.47
2908        SV  161.00  167.00  174.00  181.00  187.43  194.00  202.00  205.00
2909        SE  1779.2  1794.0  1798.0  1802.0  1806.0  1810.0  1810.8  1811.2  1811.6  1812.0
2910        SE  1812.4  1812.8  1813.2  1813.6  1814.0  1814.4  1814.8  1815.0
2911        SQ       0     131     181     221     254     283     305     325     328     366
2912        SQ     522     812    1194    1651    2176    2763    3406    4104    4855    5250
2913        SE  1779.2  1786.0  1790.0  1794.0  1798.0  1802.0  1806.0  1810.0  1810.8  1811.2
2914        SE  1811.6  1812.0  1812.4  1812.8  1813.2  1813.6  1814.0  1814.4  1814.8  1815.0
2915        RL                   0.97
            *
            * *
            * * End Basin 208.  Rejoin Basin 210
            * *
            *

2916        KK  578587
2917        KM      Normal depth channel route from C578 to C587
2918        KM      Source:  HEC-2 Cross Section: BR 0.697
2919        RS       3    FLOW      -1
2920        RC   0.055   0.045   0.055  1628.0  0.0191
2921        RX  9926.4  9949.5  9960.1  9984.7 10000.0 10014.1 10031.5 10049.4
2922        RY  1763.0  1762.6  1761.8  1757.0  1757.1  1756.9  1761.4  1768.1
            *

2923        KK    210B
2924        KM   Sub-Basin   210B
2925        KM
2926        KM      The Clark Unit Hydrograph is used for this basin.
2927        KM          The Urban time-area relation is used for this basin.
2928        KM
2929        KM      Time of Concentration for this sub-basin is based on the following:
2930        KM          An rainfall areal reduction factor of 1.000
2931        KM
2932        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2933        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2934        KM   .28 .28 .28 .28 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2935        KM
2936        KM          L=   0.930 miles, S=  251 feet/mile, Kb= .03
2937        KM
2938        BA   0.107
2939        LG    0.08    0.25    5.80    0.17   37.15
2940        UC   0.204   0.214
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2941        UA       0       5      16      30      65      77      84      90      94      97
2942        UA     100
            *
```

```
2943    KK   C5860
2944    KM      Reservoir route at C586.
2945    RS       1    ELEV  1804.4
2946    SV    0.00    0.05    0.36    1.09    2.45    4.45    7.00    9.50    9.60   10.00
2947    SV   10.34   10.70   11.20   11.60   12.10   12.50
2948    SE  1804.4  1806.0  1808.0  1810.0  1812.0  1814.0  1816.0 1817.55  1817.6  1817.8
2949    SE  1818.0  1818.2  1818.4  1818.6  1818.8  1819.0
2950    SQ       0      37     130     219     284     322     353     375     377     393
2951    SQ     432     492     574     680     808     959
        *

2952    KK  586587
2953    KM      Normal depth channel route from C586 to C587
2954    KM      Source:  200 Scale Mapping
2955    RS       3    FLOW      -1
2956    RC   0.040   0.035   0.040  1905.0  0.0313
2957    RX  1000.0  1020.0  1050.0  1055.0  1065.0  1070.0  1130.0  1150.0
2958    RY  1782.0  1780.0  1772.0  1771.0  1771.0  1772.0  1778.0  1782.0
        *

2959    KK    C587
2960    KM      Hydrograph combine 578587 + 586587 at C578
2961    HC       2
        *

2962    KK  587595
2963    KM      Normal depth channel route from C587 to C595
2964    KM      Source:  HEC-2 Cross Section: BR 0.533
2965    RS       2    FLOW      -1
2966    RC   0.055   0.045   0.055  1039.0  0.0173
2967    RX  9977.2  9980.4  9983.6  9989.9 10009.9 10020.3 10028.8 10037.3
2968    RY  1745.2  1744.0  1742.8  1740.3  1740.3  1742.4  1743.0  1743.6
        *

2969    KK    210C
2970    KM   Sub-Basin   210C
2971    KM
2972    KM      The Clark Unit Hydrograph is used for this basin.
2973    KM          The Urban time-area relation is used for this basin.
2974    KM
2975    KM      Time of Concentration for this sub-basin is based on the following:
2976    KM          An rainfall areal reduction factor of 1.000
2977    KM
2978    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2979    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2980    KM   .26 .26 .26 .26 .26 .26 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2981    KM
2982    KM          L=   0.637 miles, S=  198 feet/mile, Kb= .03
2983    KM
2984    BA   0.082
2985    LG    0.11    0.26    4.80    0.28   22.29
```



```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2986    UC   0.183   0.164
2987    UA       0       5      16      30      65      77      84      90      94      97
2988    UA     100
        *

2989    KK   C595L
2990    KM      Hydrograph combine 587595 + 210C at C595 left branch
2991    HC       2
        *
        * *
        * * C595L is the total flow in Bristol Wash upstream of the confluence
        * * with Longmont Wash
        * *
        * * Start Longmont Wash Left Branch
        * *
        *

2992    KK    210D
2993    KM   Sub-Basin   210D
2994    KM
2995    KM      The Clark Unit Hydrograph is used for this basin.
2996    KM          The Urban time-area relation is used for this basin.
2997    KM
2998    KM      Time of Concentration for this sub-basin is based on the following:
2999    KM          An rainfall areal reduction factor of 1.000
3000    KM
3001    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3002    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3003    KM   .28 .28 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
3004    KM
3005    KM          L=   0.832 miles, S=  325 feet/mile, Kb= .03
3006    KM
3007    BA   0.140
3008    LG    0.09    0.25    5.80    0.18   33.66
3009    UC   0.179   0.145
3010    UA       0       5      16      30      65      77      84      90      94      97
3011    UA     100
        *

3012    KK  588590
3013    KM      Normal depth channel route from C588 to C590
3014    KM      Source:  HEC-2 Cross Section: LO-LB1 0.128
3015    RS       2    FLOW      -1
3016    RC   0.065   0.050   0.060  1117.0  0.0340
3017    RX  9931.7  9960.6  9984.9 10005.7 10019.1 10033.8 10151.6 10172.9
3018    RY  1839.3  1833.5  1825.9  1824.7  1825.9  1828.8  1832.9  1838.0
        *
```

```
3019          KK    210E
3020          KM   Sub-Basin   210E
3021          KM
3022          KM      The Clark Unit Hydrograph is used for this basin.
3023          KM          The Urban time-area relation is used for this basin.
3024          KM
3025          KM      Time of Concentration for this sub-basin is based on the following:
1                                   HEC-1 INPUT                                          PAGE 71

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3026          KM          An rainfall areal reduction factor of 1.000
3027          KM
3028          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3029          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3030          KM   .28 .28 .28 .28 .28 .28 .03 .03 .03 .03 .03 .03 .02 .02 .01 .01 .01 .01
3031          KM
3032          KM          L=   0.339 miles, S=  151 feet/mile, Kb= .03
3033          KM
3034          BA   0.028
3035          LG    0.09    0.17    6.80    0.12   15.00
3036          UC   0.142   0.138
3037          UA       0       5      16      30      65      77      84      90      94      97
3038          UA     100
              *

3039          KK   C590L
3040          KM     Hydrograph combine 588590 + 210E at C590 left branch
3041          HC       2
              *
              * *
              * * C590L is the total flow in Longmont Wash Left Branch upstream of the
              * * confluence with Longmont Wash
              * *
              * * Start Longmont Wash
              * *
              *

3042          KK    210F
3043          KM   Sub-Basin   210F
3044          KM
3045          KM     The Clark Unit Hydrograph is used for this basin.
3046          KM         The Urban time-area relation is used for this basin.
3047          KM
3048          KM     Time of Concentration for this sub-basin is based on the following:
3049          KM         An rainfall areal reduction factor of 1.000
3050          KM
3051          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3052          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3053          KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
3054          KM
3055          KM          L=   0.668 miles, S=  349 feet/mile, Kb= .03
3056          KM
3057          BA   0.093
3058          LG    0.09    0.25    4.40    0.34   49.44
3059          UC   0.158   0.134
3060          UA       0       5      16      30      65      77      84      90      94      97
3061          UA     100
              *

3062          KK  589590
3063          KM     Normal depth channel route from C589 to C590
3064          KM     Source:  HEC-2 Cross Section: LO 0.813
3065          RS       2    FLOW      -1
3066          RC   0.065   0.050   0.060  1751.0  0.0423
3067          RX  9957.0  9963.5  9984.5  9996.1 10008.8 10017.4 10040.1 10060.8
1                                   HEC-1 INPUT                                          PAGE 72

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3068          RY  1843.8  1842.9  1837.0  1831.2  1830.6  1836.1  1838.3  1842.1
              *

3069          KK    210G
3070          KM   Sub-Basin   210G
3071          KM
3072          KM     The Clark Unit Hydrograph is used for this basin.
3073          KM         The Urban time-area relation is used for this basin.
3074          KM
3075          KM     Time of Concentration for this sub-basin is based on the following:
3076          KM         An rainfall areal reduction factor of 1.000
3077          KM
3078          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3079          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3080          KM   .28 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
3081          KM
3082          KM          L=   0.969 miles, S=  333 feet/mile, Kb= .03
3083          KM
3084          BA   0.162
3085          LG    0.09    0.25    5.30    0.22   39.22
3086          UC   0.192   0.163
3087          UA       0       5      16      30      65      77      84      90      94      97
3088          UA     100
              *

3089          KK   C590R
3090          KM     Hydrograph combine 589590 + 210G at C590 right branch
3091          HC       2
              *
              * * NOTE: 590593 is too short to route
              * *
              * * C590R is the total flow in Longmont Wash upstream of the confluence
              * * with Longmont Wash Left Branch
              * *
```

```
                 *
3092             KK    C590
3093             KM      Hydrograph combine C590L + C590R at C590
3094             HC       2
                 *
                 * * C590 is the total flow in Longmont Wash upstream of the confluence
                 * * Longmont Wash Right Branch
                 * *
                 * * Start Longmont Wash Right Branch
                 * *
                 *

3095             KK    210H
3096             KM   Sub-Basin   210H
3097             KM
3098             KM      The Clark Unit Hydrograph is used for this basin.
3099             KM          The Urban time-area relation is used for this basin.
3100             KM
3101             KM      Time of Concentration for this sub-basin is based on the following:
3102             KM          An rainfall areal reduction factor of 1.000
1                                          HEC-1 INPUT                                          PAGE 73

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3103             KM
3104             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3105             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3106             KM   .28 .28 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
3107             KM
3108             KM          L=   0.565 miles, S=  340 feet/mile, Kb= .03
3109             KM
3110             BA   0.070
3111             LG    0.09    0.23    6.20    0.16   21.74
3112             UC   0.146   0.126
3113             UA       0       5      16      30      65      77      84      90      94      97
3114             UA     100
                 *

3115             KK  592593
3116             KM      Normal depth channel route from C592 to C593
3117             KM      Source:  HEC-2 Cross Section: LO-RB1 0.027
3118             RS       2    FLOW      -1
3119             RC   0.065   0.050   0.060  2062.0  0.0412
3120             RX  9920.6  9964.0  9984.7  9996.1 10003.9 10025.4 10041.1 10057.9
3121             RY  1820.0  1804.5  1801.2  1797.3  1797.3  1808.5  1818.3  1820.1
                 *
                 * *
                 * * 592593 is the total flow in Longmont Wash Right Branch upstream
                 * * of the confluence with Longmont Wash
                 * *
                 *

3122             KK    C593
3123             KM      Hydrograph combine C590 + C593R at C593
3124             HC       2
                 *
                 * *
                 * * C593 is the total flow in Longmont Wash below the confluence with
                 * * Longmont Wash Right Branch
                 * *
                 *

3125             KK  593594
3126             KM      Normal depth channel route from C593 to C594
3127             KM      Source:  HEC-2 Cross Section: LO0.413
3128             RS       1    FLOW      -1
3129             RC   0.065   0.050   0.060   988.0  0.0202
3130             RX  9937.2  9958.5  9981.7  9992.8 10007.7 10024.4 10041.9 10067.8
3131             RY  1783.6  1773.5  1773.9  1771.3  1771.2  1774.5  1778.7  1788.7
                 *

3132             KK    210I
3133             KM   Sub-Basin   210I
3134             KM
3135             KM      The Clark Unit Hydrograph is used for this basin.
3136             KM          The Urban time-area relation is used for this basin.
3137             KM
3138             KM      Time of Concentration for this sub-basin is based on the following:
3139             KM          An rainfall areal reduction factor of 1.000
1                                          HEC-1 INPUT                                          PAGE 74

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3140             KM
3141             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3142             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3143             KM   .29 .29 .28 .28 .28 .28 .04 .04 .04 .04 .04 .04 .02 .02 .02 .02 .02 .02
3144             KM
3145             KM          L=   0.634 miles, S=  250 feet/mile, Kb= .03
3146             KM
3147             BA   0.049
3148             LG    0.09    0.15    7.60    0.09   15.00
3149             UC   0.167   0.196
3150             UA       0       5      16      30      65      77      84      90      94      97
3151             UA     100
                 *

3152             KK    C594
3153             KM      Hydrograph combine 593594 + 210I at C594
3154             HC       2
                 *

3155             KK  594595
```

```
3156        KM      Normal depth channel route from C594 to C595
3157        KM      Source:  HEC-2 Cross Section: LO 0.184
3158        RS       5    FLOW       -1
3159        RC   0.065   0.050   0.060  2093.0  0.0201
3160        RX  9814.0  9836.5  9878.5  9988.2  9994.1 10010.9 10030.4 10030.5
3161        RY  1769.3  1766.6  1752.8  1750.6  1747.9  1749.2  1770.5  1770.6
            *

3162        KK    210J
3163        KM   Sub-Basin   210J
3164        KM
3165        KM      The Clark Unit Hydrograph is used for this basin.
3166        KM          The Urban time-area relation is used for this basin.
3167        KM
3168        KM      Time of Concentration for this sub-basin is based on the following:
3169        KM          An rainfall areal reduction factor of 1.000
3170        KM
3171        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3172        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3173        KM   .28 .28 .28 .28 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
3174        KM
3175        KM          L=   0.684 miles, S=  187 feet/mile, Kb= .03
3176        KM
3177        BA   0.103
3178        LG    0.09    0.19    6.60    0.13   15.00
3179        UC   0.192   0.159
3180        UA       0       5      16      30      65      77      84      90      94      97
3181        UA     100
            *
1                                          HEC-1 INPUT                                                    PAGE 75
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3182        KK   C595R
3183        KM      Hydrograph combine 594595 + 210J at C595
3184        HC       2
            *
            * *
            * * C595R is the total flow in Longmont Wash upstream of the confluence
            * * with Bristol Wash
            * *
            *

3185        KK    C595
3186        KM      Hydrograph combine C595L + C595R at C595
3187        HC       2
            *
            * *
            * * C595 is the total flow in Bristol Wash just downstream of the
            * * confluence with Longmont Wash
            * *
            *

3188        KK  595596
3189        KM      Normal depth channel route from C595 to C596
3190        KM      Source:  HEC-2 Cross Section: BR0.290
3191        RS       4    FLOW       -1
3192        RC   0.055   0.045   0.055  1095.0  0.0110
3193        RX  9886.8  9904.8  9948.0 10000.0 10032.4 10081.5 10107.3 10130.4
3194        RY  1727.2  1724.1  1725.9  1720.2  1725.6  1725.3  1721.3  1731.4
            *

3195        KK    210K
3196        KM   Sub-Basin   210K
3197        KM
3198        KM      The Clark Unit Hydrograph is used for this basin.
3199        KM          The Urban time-area relation is used for this basin.
3200        KM
3201        KM      Time of Concentration for this sub-basin is based on the following:
3202        KM          An rainfall areal reduction factor of 1.000
3203        KM
3204        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3205        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3206        KM   .28 .28 .28 .28 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
3207        KM
3208        KM          L=   0.425 miles, S=  207 feet/mile, Kb= .03
3209        KM
3210        BA   0.077
3211        LG    0.09    0.19    6.60    0.13   15.00
3212        UC   0.146   0.095
3213        UA       0       5      16      30      65      77      84      90      94      97
3214        UA     100
            *
1                                          HEC-1 INPUT                                                    PAGE 76
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3215        KK    C596
3216        KM      Hydrograph combine 595596 + 210K at C596
3217        HC       2
            *
            * *
            * * C596 is the total flow in Bristol Wash at Golden Eagle Blvd.
            * * upstream of DAM 4
            * *
            * * Leave Basin 210 temporarily and move to Basin 209
            * *
            * * Start Cloudburst Wash
            *

3218        KK    209A
3219        KM   Sub-Basin   209A
```

```
3220    KM
3221    KM      The Clark Unit Hydrograph is used for this basin.
3222    KM          The HEC-1 time-area relation is used for this basin.
3223    KM
3224    KM      Time of Concentration for this sub-basin is based on the following:
3225    KM          An rainfall areal reduction factor of 1.000
3226    KM
3227    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3228    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3229    KM   .26 .26 .26 .26 .25 .25 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
3230    KM
3231    KM          L=   1.028 miles, S=  367 feet/mile, Kb= .08
3232    KM
3233    BA   0.368
3234    LG    0.18    0.31    4.35    0.38   41.41
3235    UC   0.325   0.192
        *

3236    KK  579580
3237    KM      Normal depth channel route from C579 to C580
3238    KM      Source:  100 Scale 4' CI Mapping
3239    RS       1    FLOW      -1
3240    RC   0.050   0.045   0.050  1751.0  0.0600
3241    RX  1000.0  1010.0  1025.0  1030.0  1035.0  1040.0  1045.0  1048.0
3242    RY  2336.0  2332.0  2328.0  2327.5  2327.5  2328.0  2332.0  2336.0
        *

3243    KK    209C
3244    KM   Sub-Basin   209C
3245    KM
3246    KM      The Clark Unit Hydrograph is used for this basin.
3247    KM          The Urban time-area relation is used for this basin.
3248    KM
3249    KM      Time of Concentration for this sub-basin is based on the following:
3250    KM          An rainfall areal reduction factor of 1.000
3251    KM
3252    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3253    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3254    KM   .27 .27 .27 .27 .26 .26 .02 .02 .02 .02 .02 .02 .02 .02 .02 .02 .02 .02
```



```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3255    KM
3256    KM          L=   0.723 miles, S=  342 feet/mile, Kb= .05
3257    KM
3258    BA   0.064
3259    LG    0.11    0.26    4.35    0.36   48.03
3260    UC   0.213   0.245
3261    UA      0       5      16      30      65      77      84      90      94      97
3262    UA    100
        *

3263    KK   C580R
3264    KM      Hydrograph combine 579580 + 209C at C580 right branch
3265    HC       2
        *

3266    KK    209B
3267    KM   Sub-Basin   209B
3268    KM
3269    KM      The Clark Unit Hydrograph is used for this basin.
3270    KM          The Urban time-area relation is used for this basin.
3271    KM
3272    KM      Time of Concentration for this sub-basin is based on the following:
3273    KM          An rainfall areal reduction factor of 1.000
3274    KM
3275    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3276    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3277    KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
3278    KM
3279    KM          L=   0.716 miles, S=  403 feet/mile, Kb= .03
3280    KM
3281    BA   0.083
3282    LG    0.09    0.25    4.35    0.35   50.00
3283    UC   0.154   0.147
3284    UA      0       5      16      30      65      77      84      90      94      97
3285    UA    100
        *

3286    KK    C580
3287    KM      Hydrograph combine 580R + 209B at C580
3288    HC       2
        *

3289    KK  580581
3290    KM      Normal depth channel route from C580 to C581
3291    KM      Source:  100 Scale 4' CI Mapping
3292    RS       3    FLOW      -1
3293    RC   0.050   0.045   0.050  2339.0  0.0440
3294    RX  1000.0  1010.0  1025.0  1030.0  1040.0  1045.0  1070.0  1075.0
3295    RY  2452.0  2448.0  2444.0  2443.5  2443.5  2444.0  2448.0  2452.0
        *
```



```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3296    KK    209D
3297    KM   Sub-Basin   209D
3298    KM
3299    KM      The Clark Unit Hydrograph is used for this basin.
3300    KM          The Urban time-area relation is used for this basin.
3301    KM
```

```
3302        KM      Time of Concentration for this sub-basin is based on the following:
3303        KM          An rainfall areal reduction factor of 1.000
3304        KM
3305        KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3306        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3307        KM   .27 .27 .27 .27 .26 .26 .02 .02 .02 .02 .02 .02 .02 .02 .02 .02 .02 .02
3308        KM
3309        KM          L=   0.800 miles, S=  354 feet/mile, Kb= .04
3310        KM
3311        BA   0.244
3312        LG    0.11    0.26    4.35    0.36   48.63
3313        UC   0.200   0.116
3314        UA      0       5      16      30      65      77      84      90      94      97
3315        UA    100
            *

3316        KK   C581R
3317        KM      Hydrograph combine 580581 + 209D at C581 right branch
3318        HC       2
            *

3319        KK    209E
3320        KM   Sub-Basin   209E
3321        KM
3322        KM      The Clark Unit Hydrograph is used for this basin.
3323        KM          The Urban time-area relation is used for this basin.
3324        KM
3325        KM      Time of Concentration for this sub-basin is based on the following:
3326        KM          An rainfall areal reduction factor of 1.000
3327        KM
3328        KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3329        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3330        KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
3331        KM
3332        KM          L=   1.018 miles, S=  341 feet/mile, Kb= .03
3333        KM
3334        BA   0.149
3335        LG    0.09    0.25    4.35    0.35   50.00
3336        UC   0.196   0.182
3337        UA      0       5      16      30      65      77      84      90      94      97
3338        UA    100
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3339        KK    C581
3340        KM      Hydrograph combine 581R + 209E at C581
3341        HC       2
            *

3342        KK  581582
3343        KM      Normal depth channel route from C581 to C582
3344        KM      Source:  100 Scale 4' CI Mapping
3345        RS       3    FLOW      -1
3346        RC   0.050   0.045   0.050  4012.0  0.0459
3347        RX  1000.0  1010.0  1025.0  1030.0  1035.0  1040.0  1050.0  1065.0
3348        RY  2100.0  2096.0  2092.0  2091.5  2091.5  2092.0  2096.0  2100.0
            *

3349        KK    209F
3350        KM   Sub-Basin   209F
3351        KM
3352        KM      The Clark Unit Hydrograph is used for this basin.
3353        KM          The HEC-1 time-area relation is used for this basin.
3354        KM
3355        KM      Time of Concentration for this sub-basin is based on the following:
3356        KM          An rainfall areal reduction factor of 1.000
3357        KM
3358        KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3359        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3360        KM   .26 .26 .26 .26 .26 .25 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
3361        KM
3362        KM          L=   1.191 miles, S=  332 feet/mile, Kb= .09
3363        KM
3364        BA   0.226
3365        LG    0.18    0.31    4.50    0.36   40.21
3366        UC   0.383   0.343
            *

3367        KK   C582R
3368        KM      Hydrograph combine 581582 + 209F at C582 right branch
3369        HC       2
            *

3370        KK    209G
3371        KM   Sub-Basin   209G
3372        KM
3373        KM      The Clark Unit Hydrograph is used for this basin.
3374        KM          The Urban time-area relation is used for this basin.
3375        KM
3376        KM      Time of Concentration for this sub-basin is based on the following:
3377        KM          An rainfall areal reduction factor of 1.000
3378        KM
3379        KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3380        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3381        KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
3382        KM
3383        KM          L=   1.050 miles, S=  306 feet/mile, Kb= .03
3384        KM
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
3385        BA   0.204
3386        LG    0.09    0.25    4.35    0.35   49.93
3387        UC   0.204   0.163
3388        UA       0       5      16      30      65      77      84      90      94      97
3389        UA     100
            *

3390        KK    C582
3391        KM      Hydrograph combine C582R + 209G at C582
3392        HC       2
            *

3393        KK  582583
3394        KM      Normal depth channel route from C582 to C583
3395        KM      Source:  100 Scale 4' CI Mapping.
3396        RS       2    FLOW     -1
3397        RC   0.060   0.050   0.060  1725.0  0.0232
3398        RX   960.0  1020.0  1035.0  1040.0  1050.0  1055.0  1065.0  1073.0
3399        RY  2024.0  2018.0  2016.0  2015.5  2015.5  2016.0  2020.0  2024.0
            *

3400        KK    209H
3401        KM   Sub-Basin   209H
3402        KM
3403        KM      The Clark Unit Hydrograph is used for this basin.
3404        KM          The Urban time-area relation is used for this basin.
3405        KM
3406        KM      Time of Concentration for this sub-basin is based on the following:
3407        KM          An rainfall areal reduction factor of 1.000
3408        KM
3409        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3410        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3411        KM   .27 .26 .26 .26 .26 .26 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
3412        KM
3413        KM          L=   0.542 miles, S=  343 feet/mile, Kb= .07
3414        KM
3415        BA   0.083
3416        LG    0.15    0.31    5.60    0.22   26.57
3417        UC   0.221   0.175
3418        UA       0       5      16      30      65      77      84      90      94      97
3419        UA     100
            *

3420        KK    C583
3421        KM      Hydrograph combine 582583 + 209H at C583
3422        HC       2
            *

3423        KK  583584
3424        KM      Normal depth channel route from C583 to C584
3425        KM      Source:  HEC-2 Cross Section: CL 1.664
3426        RS       4    FLOW     -1
3427        RC   0.055   0.070   0.055  3107.0  0.0356
3428        RX  9859.8  9910.3  9933.5  9995.6 10021.7 10051.0 10083.0 10127.8
3429        RY  1948.3  1944.2  1943.7  1930.9  1932.4  1941.6  1937.3  1945.2
            *
```

1 HEC-1 INPUT PAGE 81

```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3430        KK    209I
3431        KM   Sub-Basin   209I
3432        KM
3433        KM      The Clark Unit Hydrograph is used for this basin.
3434        KM          The Urban time-area relation is used for this basin.
3435        KM
3436        KM      Time of Concentration for this sub-basin is based on the following:
3437        KM          An rainfall areal reduction factor of 1.000
3438        KM
3439        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3440        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3441        KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .02 .02 .02 .01 .01 .01 .01 .01 .01
3442        KM
3443        KM          L=   0.691 miles, S=  347 feet/mile, Kb= .04
3444        KM
3445        BA   0.182
3446        LG    0.10    0.27    6.00    0.17   17.98
3447        UC   0.183   0.110
3448        UA       0       5      16      30      65      77      84      90      94      97
3449        UA     100
            *

3450        KK   C584I
3451        KM      Hydrograph combine 583584 + 209I at C584I
3452        HC       2
            *
            * *
            * * C584I is the total flow in Cloudburst Wash upstream of Dam 7
            * *
            *

3453        KK   C584O
3454        KM      Reservoir route at C584 (Dam 7).
3455        RS       1    ELEV  1884.8
3456        SV    0.00   14.55   37.17   57.52   86.65   94.00   97.00  101.00  104.90  109.00
3457        SV  113.00  118.00  122.00  126.25  131.00  133.00  136.00  139.00
3458        SE  1884.8  1908.0  1916.0  1920.0  1924.0  1924.8  1925.2  1925.6  1926.0  1926.4
3459        SE  1926.8  1927.2  1927.6  1928.0  1928.4  1928.6  1928.8  1929.0
3460        SQ       0     135     223     285     326     341     355     358     385     493
3461        SQ     704    1007    1394    1852    2374    2956    3596    3937    4292    4661
3462        SE  1884.8  1892.0  1900.0  1908.0  1916.0  1920.0  1924.0  1924.8  1925.2  1925.6
3463        SE  1926.0  1926.4  1926.8  1927.2  1927.6  1928.0  1928.4  1928.6  1928.8  1929.0
3464        RL                   0.15
```

```
                    *
                    * *
                    * * End Basin 209.  Rejoin Basin 210
                    * *
                    *
1                                                HEC-1 INPUT                                                          PAGE 82
LINE                ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3465                KK  584597
3466                KM      Normal depth channel route from C584 to C597
3467                KM      Source:  HEC-2 Cross Section: CL 1.032
3468                RS      10    FLOW      -1
3469                RC  0.065   0.050   0.065  3704.0  0.0261
3470                RX  9902.1  9923.0  9938.7  9984.6 10049.3 10056.0 10091.7 10120.0
3471                RY  1839.1  1830.1  1826.6  1824.1  1824.9  1826.7  1828.5  1838.8
                    *

3472                KK   210L
3473                KM  Sub-Basin   210L
3474                KM
3475                KM      The Clark Unit Hydrograph is used for this basin.
3476                KM          The Urban time-area relation is used for this basin.
3477                KM
3478                KM      Time of Concentration for this sub-basin is based on the following:
3479                KM          An rainfall areal reduction factor of 1.000
3480                KM
3481                KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3482                KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3483                KM   .27 .26 .26 .26 .26 .26 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
3484                KM
3485                KM          L=   0.820 miles, S=  251 feet/mile, Kb= .03
3486                KM
3487                BA   0.137
3488                LG    0.09    0.25    5.20    0.23   15.90
3489                UC   0.192   0.156
3490                UA      0       5      16      30      65      77      84      90      94      97
3491                UA    100
                    *

3492                KK    C597
3493                KM      Hydrograph combine 584597 + 210L at C597
3494                HC       2
                    *

3495                KK  597598
3496                KM      Normal depth channel route from C597 to C598
3497                KM      Source:  HEC-2 Cross Section: CL 0.328
3498                RS       6    FLOW      -1
3499                RC  0.065   0.050   0.065  2822.0  0.0252
3500                RX  9961.0  9961.9  9969.1  9986.3 10018.5 10082.6 10155.2 10278.8
3501                RY  1740.2  1740.2  1738.1  1731.6  1732.3  1737.1  1740.0  1740.8
                    *

3502                KK   210M
3503                KM  Sub-Basin   210M
3504                KM
3505                KM      The Clark Unit Hydrograph is used for this basin.
3506                KM          The Urban time-area relation is used for this basin.
3507                KM
3508                KM      Time of Concentration for this sub-basin is based on the following:
3509                KM          An rainfall areal reduction factor of 1.000
3510                KM
1                                                HEC-1 INPUT                                                          PAGE 83
LINE                ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3511                KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3512                KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3513                KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .02 .01 .01 .01 .01 .01 .01
3514                KM
3515                KM          L=   1.022 miles, S=  232 feet/mile, Kb= .03
3516                KM
3517                BA   0.162
3518                LG    0.09    0.25    5.80    0.17   15.02
3519                UC   0.221   0.198
3520                UA      0       5      16      30      65      77      84      90      94      97
3521                UA    100
                    *

3522                KK    C598
3523                KM      Hydrograph combine 597598 + 210M at C598
3524                HC       2
                    *
                    * *
                    * * C598 is the total flow in Cloudburst Wash at Golden Eagle Blvd.
                    * * upstream of DAM 4
                    * *
                    *

3525                KK   210N
3526                KM  Sub-Basin   210N
3527                KM
3528                KM      The Clark Unit Hydrograph is used for this basin.
3529                KM          The Urban time-area relation is used for this basin.
3530                KM
3531                KM      Time of Concentration for this sub-basin is based on the following:
3532                KM          An rainfall areal reduction factor of 1.000
3533                KM
3534                KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3535                KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3536                KM   .25 .25 .25 .24 .24 .24 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
3537                KM
```

```
3538          KM          L=   0.309 miles, S=  178 feet/mile, Kb= .03
3539          KM
3540          BA   0.049
3541          LG    0.09    0.25    4.10    0.40   16.38
3542          UC   0.138   0.090
3543          UA       0       5      16      30      65      77      84      90      94      97
3544          UA     100
              *

3545          KK   C599I
3546          KM      Hydrograph combine C585 + C596 + C598 + 210N at C599I
3547          HC       4
              *
              * *
              * * C599I is the total flow in Ashbrook Wash upstream of DAM 4
              * *
              *
1                                          HEC-1 INPUT                                                    PAGE 84

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3548          KK   C5990
3549          KM      Reservoir route at C599 (Dam 4).
3550          RS       1    ELEV  1694.7
3551          SV    0.00   16.85   31.66   52.71   80.85   95.00   98.00  102.00  105.00  109.00
3552          SV  113.00  116.14  120.00  124.00  128.00  136.00  139.00  144.00  148.00  152.00
3553          SE  1694.7  1708.0  1710.0  1712.0  1714.0  1714.8  1715.0  1715.2  1715.4  1715.6
3554          SE  1715.8  1716.0  1716.2  1716.4  1716.6  1717.0  1717.2  1717.4  1717.6  1717.8
3555          SQ       0      38     214     312     384     443     497     543     587     628
3556          SQ     642     754     957    1262    1665    2182    2483    2811    3164    3540
3557          SE  1694.7  1696.0  1700.0  1702.0  1704.0  1706.0  1708.0  1710.0  1712.0  1714.0
3558          SE  1714.8  1715.4  1715.8  1716.2  1716.6  1717.0  1717.2  1717.4  1717.6  1717.8
3559          RL                   0.97
              *
              * * End Basin 210.  Start Basin 211
              * *
              *

3560          KK  599608
3561          KM      Normal depth channel route from C599 to C608
3562          KM      Source:  HEC-2 Cross Section: AS 3.621
3563          RS       2    FLOW     -1
3564          RC   0.055   0.045   0.025  1476.0  0.0148
3565          RX  9675.4  9726.8  9929.0  9990.7 10005.9 10033.3 10061.9 10082.2
3566          RY  1691.3  1687.2  1685.5  1678.6  1678.1  1682.1  1689.8  1691.8
              *

3567          KK    211K
3568          KM   Sub-Basin   211K
3569          KM
3570          KM      The Clark Unit Hydrograph is used for this basin.
3571          KM          The Urban time-area relation is used for this basin.
3572          KM
3573          KM      Time of Concentration for this sub-basin is based on the following:
3574          KM          An rainfall areal reduction factor of 1.000
3575          KM
3576          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3577          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3578          KM   .28 .28 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
3579          KM
3580          KM          L=   0.376 miles, S=  157 feet/mile, Kb= .03
3581          KM
3582          BA   0.102
3583          LG    0.13    0.27    6.00    0.16   31.48
3584          UC   0.150   0.076
3585          UA       0       5      16      30      65      77      84      90      94      97
3586          UA     100
              *

3587          KK   C608L
3588          KM      Hydrograph combine 599608 + 211K at C608 left branch
3589          HC       2
              *
1                                          HEC-1 INPUT                                                    PAGE 85

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3590          KK    211G
3591          KM   Sub-Basin   211G
3592          KM
3593          KM      The Clark Unit Hydrograph is used for this basin.
3594          KM          The Urban time-area relation is used for this basin.
3595          KM
3596          KM      Time of Concentration for this sub-basin is based on the following:
3597          KM          An rainfall areal reduction factor of 1.000
3598          KM
3599          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3600          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3601          KM   .30 .30 .29 .29 .29 .29 .05 .05 .05 .05 .05 .05 .03 .03 .03 .03 .03 .03
3602          KM
3603          KM          L=   0.448 miles, S=  190 feet/mile, Kb= .04
3604          KM
3605          BA   0.008
3606          LG    0.06    0.25    5.70    0.18   90.00
3607          UC   0.175   0.454
3608          UA       0       5      16      30      65      77      84      90      94      97
3609          UA     100
              *

3610          KK  604606
3611          KM      Normal depth channel route from C604 to C606
3612          KM      Source:  200 Scale Mapping
```

```
3613   RS      11    FLOW      -1
3614   RC   0.040   0.018   0.040  2784.0  0.0647
3615   RX  1000.0  1040.0  1060.0  1076.0  1092.0  1093.2  1098.2  1113.2
3616   RY  1814.0  1811.0  1810.8  1811.1  1810.8  1811.2  1812.0  1816.0
       *

3617   KK    211I
3618   KM   Sub-Basin   211I
3619   KM
3620   KM      The Clark Unit Hydrograph is used for this basin.
3621   KM          The Urban time-area relation is used for this basin.
3622   KM
3623   KM      Time of Concentration for this sub-basin is based on the following:
3624   KM          An rainfall areal reduction factor of 1.000
3625   KM
3626   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3627   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3628   KM   .28 .28 .28 .28 .28 .28 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
3629   KM
3630   KM          L=   0.626 miles, S=  257 feet/mile, Kb= .03
3631   KM
3632   BA   0.041
3633   LG    0.08    0.25    5.70    0.18   45.00
3634   UC   0.163   0.210
3635   UA       0       5      16      30      65      77      84      90      94      97
3636   UA     100
       *
```

1 HEC-1 INPUT PAGE 86

```
LINE   ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3637   KK   C606R
3638   KM      Hydrograph combine 604606 + 211I at C606 right branch
3639   HC       2
       *

3640   KK    211H
3641   KM   Sub-Basin   211H
3642   KM
3643   KM      The Clark Unit Hydrograph is used for this basin.
3644   KM          The Urban time-area relation is used for this basin.
3645   KM
3646   KM      Time of Concentration for this sub-basin is based on the following:
3647   KM          An rainfall areal reduction factor of 1.000
3648   KM
3649   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3650   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3651   KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
3652   KM
3653   KM          L=   0.501 miles, S=  289 feet/mile, Kb= .03
3654   KM
3655   BA   0.073
3656   LG    0.09    0.25    6.00    0.16   17.93
3657   UC   0.142   0.108
3658   UA       0       5      16      30      65      77      84      90      94      97
3659   UA     100
       *

3660   KK   C605O
3661   KM      Reservoir route at C605.
3662   RS       1    ELEV  1722.5
3663   SV    0.00    0.20    0.20    0.20    0.20    0.30    0.30    0.30    0.40    0.60
3664   SV    0.70    0.90    1.00    1.20    1.40    1.60    1.90    2.80    3.40    4.10
3665   SE  1722.5  1726.8  1727.0  1727.2  1727.4  1727.6  1727.8  1728.0  1728.2  1728.4
3666   SE  1728.6  1728.8  1729.0  1729.2  1729.4  1729.6  1730.0  1730.4  1730.7  1731.0
3667   SQ       0       0       5      10      20      43      63      73      78      85
3668   SQ      91      96     101     105     109     113     122     130     136     200
       *

3669   KK    C606
3670   KM      Hydrograph combine C606R + C605O at C606
3671   HC       2
       *

3672   KK  606607
3673   KM      Normal depth channel route from C606 to C607
3674   KM      Source:  200 Scale Mapping
3675   RS       2    FLOW      -1
3676   RC   0.020   0.055   0.035  1061.0  0.0286
3677   RX  1000.0  1032.0  1082.0  1095.0  1105.0  1117.0  1123.0  1153.0
3678   RY  1704.3  1704.0  1703.5  1700.0  1700.0  1703.0  1704.0  1706.0
       *
```

1 HEC-1 INPUT PAGE 87

```
LINE   ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3679   KK    211J
3680   KM   Sub-Basin   211J
3681   KM
3682   KM      The Clark Unit Hydrograph is used for this basin.
3683   KM          The Urban time-area relation is used for this basin.
3684   KM
3685   KM      Time of Concentration for this sub-basin is based on the following:
3686   KM          An rainfall areal reduction factor of 1.000
3687   KM
3688   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3689   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3690   KM   .28 .28 .28 .28 .28 .28 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
3691   KM
3692   KM          L=   0.249 miles, S=  166 feet/mile, Kb= .03
3693   KM
3694   BA   0.015
```

```
3695        LG    0.08    0.23    6.20    0.16   39.19
3696        UC   0.117   0.124
3697        UA       0       5      16      30      65      77      84      90      94      97
3698        UA     100
            *

3699        KK    C607
3700        KM      Hydrograph combine 606607 + 211J at C607
3701        HC       2
            *

3702        KK  607608
3703        KM      Normal depth channel route from C607 to C608
3704        KM      Source:  200 Scale Mapping
3705        RS       2    FLOW      -1
3706        RC   0.040   0.050   0.035  1008.0  0.0145
3707        RX  1000.0  1060.0  1070.0  1082.0  1083.0  1095.0  1115.0  1133.0
3708        RY  1688.0  1686.0  1684.0  1681.0  1681.0  1684.0  1685.0  1685.4
            *

3709        KK    C608
3710        KM      Hydrograph combine C608L + 607608 at C608
3711        HC       2
            *

3712        KK  608613
3713        KM      Normal depth channel route from C608 to C613
3714        KM      Source:  HEC-2 Cross Section: AS 3.421
3715        RS       2    FLOW      -1
3716        RC   0.100   0.045   0.100  1338.0  0.0202
3717        RX  9885.0  9887.9  9957.3  9986.7 10012.9 10054.7 10086.3 10122.2
3718        RY  1670.2  1670.1  1668.0  1660.0  1659.9  1661.6  1669.9  1670.8
            *
            * *
            * * Move to the top of Sunflower Wash
            * *
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3719        KK    211M
3720        KM   Sub-Basin   211M
3721        KM
3722        KM      The Clark Unit Hydrograph is used for this basin.
3723        KM          The Urban time-area relation is used for this basin.
3724        KM
3725        KM      Time of Concentration for this sub-basin is based on the following:
3726        KM          An rainfall areal reduction factor of 1.000
3727        KM
3728        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3729        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3730        KM   .28 .28 .28 .28 .28 .28 .04 .04 .04 .04 .04 .03 .02 .02 .02 .02 .02 .02
3731        KM
3732        KM          L=   0.541 miles, S=  266 feet/mile, Kb= .03
3733        KM
3734        BA   0.081
3735        LG    0.07    0.25    5.70    0.18   50.05
3736        UC   0.150   0.115
3737        UA       0       5      16      30      65      77      84      90      94      97
3738        UA     100
            *

3739        KK  610611
3740        KM      Normal depth channel route from C610 to 1611
3741        KM      Source:  HEC-2 Cross Section: SU 0.216
3742        RS       2    FLOW      -1
3743        RC   0.050   0.045   0.050  1090.0  0.0211
3744        RX  9911.9  9948.1  9973.6  9988.6 10007.1 10027.0 10049.8 10143.7
3745        RY  1699.3  1691.7  1686.3  1680.1  1679.7  1686.6  1687.3  1698.6
            *

3746        KK    211N
3747        KM   Sub-Basin   211N
3748        KM
3749        KM      The Clark Unit Hydrograph is used for this basin.
3750        KM          The Urban time-area relation is used for this basin.
3751        KM
3752        KM      Time of Concentration for this sub-basin is based on the following:
3753        KM          An rainfall areal reduction factor of 1.000
3754        KM
3755        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3756        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3757        KM   .28 .28 .28 .28 .28 .28 .04 .04 .04 .04 .04 .04 .02 .02 .02 .02 .02 .02
3758        KM
3759        KM          L=   0.261 miles, S=  235 feet/mile, Kb= .03
3760        KM
3761        BA   0.020
3762        LG    0.07    0.25    5.70    0.18   56.58
3763        UC   0.108   0.099
3764        UA       0       5      16      30      65      77      84      90      94      97
3765        UA     100
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3766        KK   C611R
3767        KM      Hydrograph combine 610611 + 211N at C611 right branch
3768        HC       2
            *
```

```
KK   2110
KM   Sub-Basin   2110
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          An rainfall areal reduction factor of 1.000
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .28 .28 .28 .28 .28 .28 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
KM
KM          L=   0.371 miles, S=  257 feet/mile, Kb= .03
KM
BA   0.041
LG    0.08    0.25    5.70    0.18   45.31
UC   0.125   0.103
UA       0       5      16      30      65      77      84      90      94      97
UA     100
*

KK   C6090
KM      Reservoir route at C609.
RS       1    ELEV  1694.0
SV    0.00    0.10    0.21    0.50    0.86    1.40    1.93    2.60    3.10    3.20
SV    3.39    3.60    3.80    4.00    4.10    4.30    4.50    4.70    4.90    5.10
SE  1694.0  1695.0  1696.0  1697.0  1698.0  1699.0  1700.0  1701.0  1701.6  1701.8
SE  1702.0  1702.2  1702.4  1702.6  1702.8  1703.0  1703.2  1703.4  1703.6  1703.8
SQ       0       6      16      33      48      59      68      75      79      85
SQ     108     149     209     289     390     512     658     829    1025    1247
*

KK  609611
KM      Normal depth channel route from C609 to C611
KM      Source:  200 Scale Mapping
RS       2    FLOW      -1
RC   0.035   0.050   0.035   470.0  0.0200
RX  1000.0  1025.0  1050.0  1054.0  1064.0  1068.0  1088.0  1103.0
RY  1690.0  1688.0  1684.0  1682.0  1682.0  1684.0  1688.0  1690.0
*

KK   C611I
KM      Hydrograph combine 609611 + C611R at C611I
HC       2
*
```

1

HEC-1 INPUT

PAGE 90

```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK   C6110
KM      Reservoir route at C611.
RS       1    ELEV  1668.4
SV    0.00    0.41    1.10    2.49    4.34    6.64    6.72    6.81    6.89    6.97
SV    7.06    7.14    7.22    7.31    7.39    7.47    7.56    7.64    7.72    7.81
SE  1674.0  1676.0  1678.0  1680.0  1682.0  1684.0  1684.2  1684.4  1684.6  1684.8
SE  1685.0  1685.2  1685.4  1685.6  1685.8  1686.0  1686.2  1686.4  1686.6  1686.8
SQ       0       0      86     117     141     162     164     170     181     199
SQ     225     262     313     378     460     558     673     807     958    1118
*

KK   D611L
KM      Hydrograph diversion at C611.  Main flow continues in the left branch.
KM      Diverted flow is in the right branch.
DT   D611R
DI       0       0      86     117     141     162     164     170     181     199
DI     225     262     313     378     460     558     673     807     958    1118
DQ       0       0      86     117     141     162     164     165     167     169
DQ     171     173     175     176     178     180     182     183     185     187
*

KK  611612
KM      Normal depth channel route from C611 to C612
KM      Source:  200 Scale Mapping
RS       1    FLOW      -1
RC   0.040   0.018   0.040   925.0  0.0270
RX  1000.0  1020.0  1023.0  1041.0  1059.0  1060.2  1071.2  1136.2
RY  1666.0  1664.0  1663.5  1663.9  1663.5  1663.9  1664.0  1666.0
*

KK    211P
KM   Sub-Basin   211P
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          An rainfall areal reduction factor of 1.000
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .29 .29 .28 .28 .28 .28 .04 .04 .04 .04 .04 .04 .02 .02 .02 .02 .02 .02
KM
KM          L=   0.307 miles, S=  192 feet/mile, Kb= .03
KM
BA   0.033
LG    0.08    0.15    7.00    0.11   45.00
UC   0.125   0.099
UA       0       5      16      30      65      77      84      90      94      97
UA     100
*
```

1

HEC-1 INPUT

PAGE 91

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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3852          KK    C612
3853          KM      Hydrograph combine 611612 + 211P at C612
3854          HC       2
              *
              * *
              * * NOTE: 612613 is too short to route
              * *
              *

3855          KK    C613
3856          KM      Hydrograph combine 608613 + C612 at C613
3857          HC       2
              *

3858          KK  613621
3859          KM      Normal depth channel route from C613 to C621
3860          KM      Source:  HEC-2 Cross Section: AS 3.241
3861          RS       1    FLOW      -1
3862          RC   0.100   0.045   0.100   718.0  0.0251
3863          RX  9695.4  9884.0  9985.0  9991.1 10033.8 10062.8 10097.5 10165.1
3864          RY  1655.5  1647.5  1645.8  1641.1  1640.6  1642.1  1648.7  1654.3
              *

3865          KK    211L
3866          KM   Sub-Basin   211L
3867          KM
3868          KM      The Clark Unit Hydrograph is used for this basin.
3869          KM          The Urban time-area relation is used for this basin.
3870          KM
3871          KM      Time of Concentration for this sub-basin is based on the following:
3872          KM          An rainfall areal reduction factor of 1.000
3873          KM
3874          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3875          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3876          KM   .27 .26 .26 .26 .26 .26 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
3877          KM
3878          KM          L=   0.508 miles, S=  181 feet/mile, Kb= .03
3879          KM
3880          BA   0.096
3881          LG    0.11    0.26    4.35    0.36   42.40
3882          UC   0.167   0.112
3883          UA       0       5      16      30      65      77      84      90      94      97
3884          UA     100
              *

3885          KK   C621L
3886          KM      Hydrograph combine 613621 + 211L at C621 left branch
3887          HC       2
              *
              * *
              * * Move to the top of Arrow Wash
              * *
              *
```



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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3888          KK    211Q
3889          KM   Sub-Basin   211Q
3890          KM
3891          KM      The Clark Unit Hydrograph is used for this basin.
3892          KM          The Urban time-area relation is used for this basin.
3893          KM
3894          KM      Time of Concentration for this sub-basin is based on the following:
3895          KM          An rainfall areal reduction factor of 1.000
3896          KM
3897          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3898          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3899          KM   .28 .28 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
3900          KM
3901          KM          L=   0.255 miles, S=  295 feet/mile, Kb= .03
3902          KM
3903          BA   0.021
3904          LG    0.08    0.25    5.70    0.18   30.04
3905          UC   0.100   0.087
3906          UA       0       5      16      30      65      77      84      90      94      97
3907          UA     100
              *

3908          KK  616617
3909          KM      Normal depth channel route from C616 to C617
3910          KM      Source:  200 Scale Mapping
3911          RS       1    FLOW      -1
3912          RC   0.070   0.060   0.070  1131.0  0.0553
3913          RX  1000.0  1008.0  1015.0  1045.0  1050.0  1080.0  1100.0  1110.0
3914          RY  1834.0  1832.0  1830.0  1826.0  1826.0  1830.0  1834.0  1836.0
              *

3915          KK    211R
3916          KM   Sub-Basin   211R
3917          KM
3918          KM      The Clark Unit Hydrograph is used for this basin.
3919          KM          The Urban time-area relation is used for this basin.
3920          KM
3921          KM      Time of Concentration for this sub-basin is based on the following:
3922          KM          An rainfall areal reduction factor of 1.000
3923          KM
3924          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3925          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3926          KM   .28 .28 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
```

```
3927        KM
3928        KM          L=   0.572 miles, S=  271 feet/mile, Kb= .03
3929        KM
3930        BA   0.084
3931        LG    0.08    0.25    5.70    0.18   37.77
3932        UC   0.154   0.122
3933        UA       0       5      16      30      65      77      84      90      94      97
3934        UA     100
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3935        KK   C617L
3936        KM      Hydrograph combine 616617 + 211R at C617 left branch
3937        HC       2
            *

3938        KK    211U
3939        KM   Sub-Basin   211U
3940        KM
3941        KM      The Clark Unit Hydrograph is used for this basin.
3942        KM          The Urban time-area relation is used for this basin.
3943        KM
3944        KM      Time of Concentration for this sub-basin is based on the following:
3945        KM          An rainfall areal reduction factor of 1.000
3946        KM
3947        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3948        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3949        KM   .29 .29 .28 .28 .28 .28 .04 .04 .04 .04 .04 .04 .02 .02 .02 .02 .02 .02
3950        KM
3951        KM          L=   0.831 miles, S=  214 feet/mile, Kb= .03
3952        KM
3953        BA   0.027
3954        LG    0.07    0.25    5.70    0.18   65.99
3955        UC   0.200   0.415
3956        UA       0       5      16      30      65      77      84      90      94      97
3957        UA     100
            *

3958        KK   D614L
3959        KM      Hydrograph diversion at C614.  Main flow continues in the left branch.
3960        KM      Diverted flow is in the right branch.
3961        DT   D614R
3962        DI       0     4.3     8.5    20.0    49.0    85.5
3963        DQ       0     2.5     5.0    13.5    35.0    60.0
            *

3964        KK    C617
3965        KM      Hydrograph combine C617L + D614L at C617
3966        HC       2
            *

3967        KK  617618
3968        KM      Normal depth channel route from C617 to C618
3969        KM      Source:  HEC-2 Cross Section: AR 0.836
3970        RS       3    FLOW      -1
3971        RC   0.070   0.060   0.070  1912.0  0.0345
3972        RX  9983.3  9987.2  9989.2  9991.1 10031.5 10053.5 10070.6 10097.7
3973        RY  1766.5  1762.3  1760.2  1758.1  1757.8  1760.8  1764.2  1770.6
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3974        KK    211S
3975        KM   Sub-Basin   211S
3976        KM
3977        KM      The Clark Unit Hydrograph is used for this basin.
3978        KM          The Urban time-area relation is used for this basin.
3979        KM
3980        KM      Time of Concentration for this sub-basin is based on the following:
3981        KM          An rainfall areal reduction factor of 1.000
3982        KM
3983        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3984        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3985        KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .02 .02 .01 .01 .01 .01 .01 .01
3986        KM
3987        KM          L=   0.445 miles, S=  272 feet/mile, Kb= .07
3988        KM
3989        BA   0.050
3990        LG    0.11    0.31    5.70    0.19   30.06
3991        UC   0.213   0.190
3992        UA       0       5      16      30      65      77      84      90      94      97
3993        UA     100
            *

3994        KK   C618I
3995        KM      Hydrograph combine 617618 + 211S at C618I
3996        HC       2
            *

3997        KK   C618O
3998        KM      Reservoir route at C618.
3999        RS       1    ELEV  1730.6
4000        SV    0.00    0.01    0.06    0.24    0.50    0.75    1.20    1.66    2.30    2.94
4001        SV    3.20    3.30    3.40    3.60    3.80    3.90    4.10    4.30    4.50    4.65
4002        SE  1730.6  1734.0  1736.0  1738.0  1739.0  1740.0  1741.0  1742.0  1743.0  1744.0
4003        SE  1744.3  1744.4  1744.6  1744.8  1745.0  1745.2  1745.4  1745.6  1745.8  1746.0
4004        SQ       0     2.2     2.6     3.0     3.1     3.2     3.3     3.5     3.6     3.7
4005        SQ     3.7     3.8       8      21      48      88     143     212     295     390
            *
```

```
4006          KK  BB614R
4007          KM      Retrieve previously diverted hydrograph at C614 in the right branch.
4008          DR   D614R
              *

4009          KK  614615
4010          KM      Normal depth channel route from C614 to C615
4011          KM      Source:  Hydrology Field Reconnaissance
4012          RS       2    FLOW      -1
4013          RC   0.040   0.018   0.040  1114.0  0.0397
4014          RX  1000.0  1020.0  1025.0  1059.0  1091.0  1093.0  1098.0  1103.0
4015          RY  1828.0  1822.0  1821.5  1822.2  1821.8  1822.0  1824.0  1826.0
              *
1                                          HEC-1 INPUT                                                    PAGE 95
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4016          KK    211V
4017          KM   Sub-Basin   211V
4018          KM
4019          KM      The Clark Unit Hydrograph is used for this basin.
4020          KM          The Urban time-area relation is used for this basin.
4021          KM
4022          KM      Time of Concentration for this sub-basin is based on the following:
4023          KM          An rainfall areal reduction factor of 1.000
4024          KM
4025          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4026          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4027          KM   .30 .30 .29 .29 .29 .29 .05 .05 .05 .05 .05 .05 .03 .03 .03 .03 .03 .03
4028          KM
4029          KM          L=   0.222 miles, S=  212 feet/mile, Kb= .04
4030          KM
4031          BA   0.005
4032          LG    0.06    0.25    5.80    0.18   90.00
4033          UC   0.117   0.212
4034          UA       0       5      16      30      65      77      84      90      94      97
4035          UA     100
              *

4036          KK    C615
4037          KM      Hydrograph combine 614615 + 211V at C615
4038          HC       2    0.03
              *

4039          KK   D615L
4040          KM      Hydrograph diversion at C615.  Main flow continues in the left branch.
4041          KM      Diverted flow is in the right branch.
4042          DT   D615R
4043          DI       0     1.3     2.5     5.3     8.6    14.2    23.0    36.8    55.5    77.5
4044          DQ       0       0       0     1.3     2.6     4.2     7.0    12.8    19.5    29.5
              *

4045          KK  615618
4046          KM      Normal depth channel route from C615 to C618
4047          KM      Source:  Hydrology Field Reconnaissance
4048          RS       1    FLOW      -1
4049          RC   0.040   0.018   0.040   499.0  0.1338
4050          RX  1000.0  1008.0  1009.2  1013.2  1027.2  1028.4  1036.4  1045.4
4051          RY  1800.4  1799.6  1799.2  1798.8  1798.3  1798.7  1798.9  1800.4
              *

4052          KK    C618
4053          KM      Hydrograph combine C618O + 615618 at C618
4054          HC       2    0.19
              *
1                                          HEC-1 INPUT                                                    PAGE 96
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4055          KK  618619
4056          KM      Normal depth channel route from C618 to C619
4057          KM      Source:  HEC-2 Cross Section: AR 0.441
4058          RS       4    FLOW      -1
4059          RC   0.070   0.060   0.070  1837.0  0.0285
4060          RX  9870.6  9928.6  9957.1  9996.9 10004.9 10022.1 10062.0 10116.4
4061          RY  1709.2  1700.9  1698.8  1690.0  1689.8  1699.6  1700.3  1711.3
              *

4062          KK    211T
4063          KM   Sub-Basin   211T
4064          KM
4065          KM      The Clark Unit Hydrograph is used for this basin.
4066          KM          The Urban time-area relation is used for this basin.
4067          KM
4068          KM      Time of Concentration for this sub-basin is based on the following:
4069          KM          An rainfall areal reduction factor of 1.000
4070          KM
4071          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4072          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4073          KM   .29 .29 .28 .28 .28 .28 .04 .04 .04 .04 .04 .04 .04 .02 .02 .02 .02 .02
4074          KM
4075          KM          L=   0.488 miles, S=  250 feet/mile, Kb= .03
4076          KM
4077          BA   0.066
4078          LG    0.07    0.25    5.70    0.18   64.25
4079          UC   0.146   0.115
4080          UA       0       5      16      30      65      77      84      90      94      97
4081          UA     100
              *

4082          KK   C619L
```

```
4083          KM      Hydrograph combine 618619 + 211T at C619 left branch
4084          HC       2
              *

4085          KK  BB615R
4086          KM      Retrieve previously diverted hydrograph at C615 in the right branch.
4087          DR   D615R
              *

4088          KK  615619
4089          KM      Normal depth channel route from C615 to C619
4090          KM      Source:  Hydrology Field Reconnaissance
4091          RS       6    FLOW      -1
4092          RC   0.045   0.024   0.025  2444.0  0.0493
4093          RX  1000.0  1009.3  1018.5  1037.0  1039.3  1053.0  1065.0  1065.0
4094          RY  1727.2  1726.5  1725.8  1724.4  1724.6  1725.8  1725.9  1725.9
              *
1                                        HEC-1 INPUT                                                    PAGE 97

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4095          KK   C619I
4096          KM      Hydrograph combine C619L + 615619 at C619I
4097          HC       2    0.25
              *

4098          KK   C619O
4099          KM      Reservoir route at C619.
4100          RS       1    ELEV  1675.6
4101          SV    0.00    1.72    2.98    4.70    7.00    7.08    7.17    7.26    7.34    7.43
4102          SV    7.51    7.60    7.69    7.77    7.86
4103          SE  1675.6  1686.0  1688.0  1690.0  1692.0  1692.2  1692.4  1692.6  1692.8  1693.0
4104          SE  1693.2  1693.4  1693.6  1693.8  1694.0
4105          SQ       0       4      25      72     128     155     163     172     178     187
4106          SQ     195     213     238     273     318     374     441     518     606     706
4107          SE  1675.6  1676.0  1678.0  1680.0  1682.0  1684.0  1686.0  1688.0  1690.0  1692.0
4108          SE  1692.2  1692.4  1692.6  1692.8  1693.0  1693.2  1693.4  1693.6  1693.8  1694.0
              *

4109          KK   D619R
4110          KM      Hydrograph diversion at C619.  Main flow continues in the right branch.
4111          KM      Diverted flow is in the left branch.
4112          DT   D619L
4113          DI       0       4      25      72     128     155     163     172     178     187
4114          DI     195     213     238     273     318     374     441     518     606     706
4115          DQ       0       0       0       0       0       0       0       0       0       0
4116          DQ       8      24      49      83     128     182     249     326     412     512
              *

4117          KK  619620
4118          KM                Lag route through Palisades Plaza storm drain
4119          RT       0              1
              *

4120          KK  BB619L
4121          KM      Retrieve previously diverted hydrograph at C619 in the left branch.
4122          DR   D619L
              *

4123          KK  619620
4124          KM   Normal depth channel route from C619 to C620 in Fountain Hills Blvd.
4125          KM   Source:  200 Scale Mapping. Similiar to 523548
4126          RS       1    FLOW      -1
4127          RC   0.040   0.024   0.040   800.0  0.0288
4128          RX   918.0   940.0   960.0  1000.0  1040.0  1040.1  1044.1  1088.1
4129          RY  1648.0  1645.8  1643.8  1644.7  1644.0  1644.5  1644.5  1648.0
              *

4130          KK    211W
4131          KM   Sub-Basin   211W
4132          KM
4133          KM      The Clark Unit Hydrograph is used for this basin.
4134          KM          The Urban time-area relation is used for this basin.
4135          KM
4136          KM      Time of Concentration for this sub-basin is based on the following:
1                                        HEC-1 INPUT                                                    PAGE 98

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4137          KM          An rainfall areal reduction factor of 1.000
4138          KM
4139          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4140          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4141          KM   .29 .29 .29 .29 .29 .29 .04 .04 .04 .04 .04 .04 .02 .02 .02 .02 .02 .02
4142          KM
4143          KM          L=   0.289 miles, S=  173 feet/mile, Kb= .03
4144          KM
4145          BA   0.030
4146          LG    0.06    0.25    5.70    0.18   73.65
4147          UC   0.125   0.101
4148          UA       0       5      16      30      65      77      84      90      94      97
4149          UA     100
              *

4150          KK   C620R
4151          KM      Hydrograph combine 619620 + R619L + 211W at C620 right branch
4152          HC       3    0.28
              *

4153          KK  BB611R
4154          KM      Retrieve previously diverted hydrograph at C611 in the right branch.
4155          DR   D611R
              *
```

```
4156        KK  611620
4157        KM                  Lag route through Palisades Plaza storm drain
4158        RT       0                 1
            *

4159        KK    C620
4160        KM      Hydrograph combine 611620 + C620R at C620
4161        HC       2    0.42
            *

4162        KK  620621
4163        KM      Normal depth channel route from C620 to C621
4164        KM      Source:  HEC-2 Cross Section: AR 0.081
4165        RS       2    FLOW      -1
4166        RC   0.050   0.050   0.050   915.0  0.0394
4167        RX  9790.0  9790.1  9972.2  9994.8 10004.9 10029.7 10048.6 10125.0
4168        RY  1657.9  1657.5  1656.4  1646.8  1646.8  1657.8  1657.0  1657.9
            *

4169        KK    C621
4170        KM      Hydrograph combine C621L + 620621 at C621
4171        HC       2    7.93
            *

4172        KK  621622
4173        KM      Normal depth channel route from C621 to C622
4174        KM      Source:  HEC-2 Cross Section: AS 2.785
4175        RS       6    FLOW      -1
4176        RC   0.100   0.045   0.100  3830.0  0.0144
4177        RX  9827.3  9922.9  9951.0 10000.0 10002.7 10044.7 10071.6 10076.8
```

1

HEC-1 INPUT

PAGE 99

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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4178        RY  1615.2  1611.0  1604.1  1600.8  1601.5  1601.6  1611.0  1613.9
            *

4179        KK    211X
4180        KM   Sub-Basin   211X
4181        KM
4182        KM      The Clark Unit Hydrograph is used for this basin.
4183        KM          The Urban time-area relation is used for this basin.
4184        KM
4185        KM      Time of Concentration for this sub-basin is based on the following:
4186        KM          An rainfall areal reduction factor of 1.000
4187        KM
4188        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4189        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4190        KM   .28 .28 .28 .28 .28 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
4191        KM
4192        KM          L=   0.929 miles, S=  111 feet/mile, Kb= .03
4193        KM
4194        BA   0.214
4195        LG    0.10    0.26    4.90    0.26   56.64
4196        UC   0.263   0.190
4197        UA       0       5      16      30      65      77      84      90      94      97
4198        UA     100
            *

4199        KK   C622R
4200        KM      Hydrograph combine 621622 + 211X at C622 right branch
4201        HC       2
            *
            * *
            * * Move to the top of Tulip Wash
            * *
            *

4202        KK    211A
4203        KM   Sub-Basin   211A
4204        KM
4205        KM      The Clark Unit Hydrograph is used for this basin.
4206        KM          The Urban time-area relation is used for this basin.
4207        KM
4208        KM      Time of Concentration for this sub-basin is based on the following:
4209        KM          An rainfall areal reduction factor of 1.000
4210        KM
4211        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4212        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4213        KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
4214        KM
4215        KM          L=   0.820 miles, S=  248 feet/mile, Kb= .03
4216        KM
4217        BA   0.143
4218        LG    0.09    0.25    5.70    0.18   23.09
4219        UC   0.192   0.153
4220        UA       0       5      16      30      65      77      84      90      94      97
4221        UA     100
            *
```

1

HEC-1 INPUT

PAGE100

```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4222        KK   C6000
4223        KM      Reservoir route at C600.
4224        RS       1    ELEV  1754.0
4225        SV    0.00    0.14    0.62    1.52    2.95    5.06    7.98   11.80   16.61   22.67
4226        SV   30.07   38.71   40.50   40.60   41.60   42.70   43.70   44.60   45.70
4227        SE  1754.0  1756.0  1758.0  1760.0  1762.0  1764.0  1766.0  1768.0  1770.0  1772.0
4228        SE  1774.0  1776.0 1776.36  1776.4  1776.6  1776.8  1777.0  1777.2  1777.4
4229        SQ       0      55     183     320     427     513     570     620     665     709
4230        SQ     750     789     795     795     812     849     906     984    1084
```

```
                 *
4231             KK  600601
4232             KM      Normal depth channel route from C600 to C601
4233             KM      Source:  HEC-2 Cross Section: TU 1.538
4234             RS       3    FLOW      -1
4235             RC   0.040   0.025   0.040  2406.0  0.0176
4236             RX  9945.6  9959.4  9968.3  9985.9 10000.0 10017.2 10038.7 10058.8
4237             RY  1734.5  1732.3  1727.9  1726.2  1725.0  1727.7  1735.2  1736.0
                 *

4238             KK    211B
4239             KM   Sub-Basin   211B
4240             KM
4241             KM      The Clark Unit Hydrograph is used for this basin.
4242             KM          The Urban time-area relation is used for this basin.
4243             KM
4244             KM      Time of Concentration for this sub-basin is based on the following:
4245             KM          An rainfall areal reduction factor of 1.000
4246             KM
4247             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4248             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4249             KM   .27 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
4250             KM
4251             KM          L=   0.618 miles, S=  244 feet/mile, Kb= .03
4252             KM
4253             BA   0.109
4254             LG    0.09    0.25    5.80    0.18   20.22
4255             UC   0.167   0.122
4256             UA       0       5      16      30      65      77      84      90      94      97
4257             UA     100
                 *

4258             KK    C601
4259             KM      Hydrograph combine 600601 + 211B at C601
4260             HC       2
                 *

4261             KK  601602
4262             KM      Normal depth channel route from C601 to C602
4263             KM      Source:  HEC-2 Cross Section: TU 1.102
4264             RS       3    FLOW      -1
4265             RC   0.065   0.040   0.055  1765.0  0.0146
4266             RX  9916.9  9959.1  9965.8  9980.2 10004.0 10019.5 10047.3 10094.1
4267             RY  1699.9  1699.8  1696.4  1689.8  1688.9  1695.7  1698.2  1698.4
                 *
1                                          HEC-1 INPUT                                          PAGE101

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4268             KK    211C
4269             KM   Sub-Basin   211C
4270             KM
4271             KM      The Clark Unit Hydrograph is used for this basin.
4272             KM          The Urban time-area relation is used for this basin.
4273             KM
4274             KM      Time of Concentration for this sub-basin is based on the following:
4275             KM          An rainfall areal reduction factor of 1.000
4276             KM
4277             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4278             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4279             KM   .28 .28 .28 .28 .28 .28 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
4280             KM
4281             KM          L=   0.479 miles, S=  154 feet/mile, Kb= .03
4282             KM
4283             BA   0.043
4284             LG    0.08    0.25    5.70    0.18   44.48
4285             UC   0.167   0.169
4286             UA       0       5      16      30      65      77      84      90      94      97
4287             UA     100
                 *

4288             KK   C602L
4289             KM      Hydrograph combine 601602 + 211C at C602 left branch
4290             HC       2
                 *

4291             KK    211D
4292             KM   Sub-Basin   211D
4293             KM
4294             KM      The Clark Unit Hydrograph is used for this basin.
4295             KM          The Urban time-area relation is used for this basin.
4296             KM
4297             KM      Time of Concentration for this sub-basin is based on the following:
4298             KM          An rainfall areal reduction factor of 1.000
4299             KM
4300             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4301             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4302             KM   .26 .26 .25 .25 .25 .25 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
4303             KM
4304             KM          L=   0.686 miles, S=  115 feet/mile, Kb= .03
4305             KM
4306             BA   0.071
4307             LG    0.08    0.25    3.85    0.46   37.42
4308             UC   0.229   0.242
4309             UA       0       5      16      30      65      77      84      90      94      97
4310             UA     100
                 *
1                                          HEC-1 INPUT                                          PAGE102

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
4311          KK    C602
4312          KM      Hydrograph combine C602L + 211D at C602
4313          HC       2
              *

4314          KK  602603
4315          KM      Normal depth channel route from C602 to C603
4316          KM      Source:  HEC-2 Cross Section: LE 0.672
4317          RS       3    FLOW      -1
4318          RC   0.060   0.045   0.060  2610.0  0.0211
4319          RX  9891.9  9963.9  9986.5 10000.0 10012.7 10023.8 10085.0 10176.4
4320          RY  1653.5  1653.5  1644.4  1644.1  1645.0  1649.8  1651.7  1656.7
              *

4321          KK    211E
4322          KM   Sub-Basin   211E
4323          KM
4324          KM      The Clark Unit Hydrograph is used for this basin.
4325          KM          The Urban time-area relation is used for this basin.
4326          KM
4327          KM      Time of Concentration for this sub-basin is based on the following:
4328          KM          An rainfall areal reduction factor of 1.000
4329          KM
4330          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4331          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4332          KM   .28 .27 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
4333          KM
4334          KM          L=   0.609 miles, S=  118 feet/mile, Kb= .03
4335          KM
4336          BA   0.156
4337          LG    0.08    0.25    5.10    0.24   42.21
4338          UC   0.208   0.126
4339          UA       0       5      16      30      65      77      84      90      94      97
4340          UA     100
              *

4341          KK    C603
4342          KM      Hydrograph combine 602603 + 211E at C603
4343          HC       2
              *

4344          KK  603622
4345          KM      Normal depth channel route from C603 to C622
4346          KM      Source:  HEC-2 Cross Section: LE 0.287
4347          RS       4    FLOW      -1
4348          RC   0.060   0.045   0.060  2745.0  0.0204
4349          RX  9883.0  9929.7  9967.3  9991.6 10042.2 10073.6 10177.6 10194.5
4350          RY  1619.4  1618.7  1611.8  1602.1  1603.3  1609.4  1610.5  1610.6
              *
```

1 HEC-1 INPUT PAGE103

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4351          KK    211F
4352          KM   Sub-Basin   211F
4353          KM
4354          KM      The Clark Unit Hydrograph is used for this basin.
4355          KM          The Urban time-area relation is used for this basin.
4356          KM
4357          KM      Time of Concentration for this sub-basin is based on the following:
4358          KM          An rainfall areal reduction factor of 1.000
4359          KM
4360          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4361          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4362          KM   .28 .28 .27 .27 .27 .27 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
4363          KM
4364          KM          L=   0.770 miles, S=  134 feet/mile, Kb= .03
4365          KM
4366          BA   0.113
4367          LG    0.08    0.25    4.30    0.36   62.81
4368          UC   0.225   0.199
4369          UA       0       5      16      30      65      77      84      90      94      97
4370          UA     100
              *

4371          KK   C622L
4372          KM      Hydrograph combine 603622 + 211F at C622 left branch
4373          HC       2
              *

4374          KK    C622
4375          KM      Hydrograph combine C622R + C622L at C622
4376          HC       2
              *

4377          KK  622549
4378          KM      Normal depth channel route from C622 to C549
4379          KM      Source:  HEC-2 Cross Section: AS 2.279
4380          RS       5    FLOW      -1
4381          RC   0.113   0.125   0.120  1697.0  0.0118
4382          RX  9847.1  9851.0  9857.5  9862.8 10052.6 10062.8 10075.6 10084.6
4383          RY  1573.5  1571.3  1567.2  1564.6  1565.1  1566.7  1573.7  1573.9
              *

4384          KK    211Y
4385          KM   Sub-Basin   211Y
4386          KM
4387          KM      The Clark Unit Hydrograph is used for this basin.
4388          KM          The Urban time-area relation is used for this basin.
4389          KM
4390          KM      Time of Concentration for this sub-basin is based on the following:
4391          KM          An rainfall areal reduction factor of 1.000
4392          KM
```

```
4393          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4394          KM      5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4395          KM    .29 .29 .28 .28 .28 .28 .04 .04 .04 .04 .04 .04 .02 .02 .02 .02 .02 .02
4396          KM
1                                                HEC-1 INPUT                                                          PAGE104
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4397          KM           L=   0.606 miles, S=  147 feet/mile, Kb= .04
4398          KM
4399          BA   0.089
4400          LG    0.09    0.21    6.60    0.13   50.06
4401          UC   0.221   0.184
4402          UA      0       5      16      30      65      77      84      90      94      97
4403          UA    100
              *

4404          KK   C549R
4405          KM      Hydrograph combine 622549 + 211Y at C549 right branch
4406          HC       2
              *

4407          KK    C549
4408          KM      Hydrograph combine C549L + C549R at C549
4409          HC       2
              *

4410          KK  549626
4411          KM      Normal depth channel route from C549 to C626
4412          KM      Source:  HEC-2 Cross Section: AS 1.855
4413          RS       5    FLOW      -1
4414          RC   0.113   0.125   0.120  2044.0  0.0171
4415          RX  9943.2  9963.0  9985.6  9994.1 10007.6 10029.2 10150.5 10171.3
4416          RY  1539.3  1534.5  1531.2  1528.3  1528.2  1531.7  1532.5  1537.4
              *

4417          KK    211Z
4418          KM   Sub-Basin   211Z
4419          KM
4420          KM      The Clark Unit Hydrograph is used for this basin.
4421          KM          The Urban time-area relation is used for this basin.
4422          KM
4423          KM      Time of Concentration for this sub-basin is based on the following:
4424          KM          An rainfall areal reduction factor of 1.000
4425          KM
4426          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4427          KM      5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4428          KM    .26 .26 .26 .26 .26 .26 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
4429          KM
4430          KM           L=   0.509 miles, S=  147 feet/mile, Kb= .04
4431          KM
4432          BA   0.083
4433          LG    0.14    0.27    4.50    0.34   34.43
4434          UC   0.208   0.157
4435          UA      0       5      16      30      65      77      84      90      94      97
4436          UA    100
              *
1                                                HEC-1 INPUT                                                          PAGE105
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4437          KK   C626C
4438          KM      Hydrograph combine 549626 + 211Z at C626 main branch
4439          HC       2
              *

4440          KK   211AA
4441          KM   Sub-Basin  211AA
4442          KM
4443          KM      The Clark Unit Hydrograph is used for this basin.
4444          KM          The Urban time-area relation is used for this basin.
4445          KM
4446          KM      Time of Concentration for this sub-basin is based on the following:
4447          KM          An rainfall areal reduction factor of 1.000
4448          KM
4449          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4450          KM      5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4451          KM    .29 .28 .28 .28 .28 .28 .04 .04 .04 .04 .04 .04 .02 .02 .02 .02 .02 .02
4452          KM
4453          KM           L=   0.480 miles, S=   85 feet/mile, Kb= .03
4454          KM
4455          BA   0.034
4456          LG    0.08    0.19    6.60    0.13   39.38
4457          UC   0.200   0.237
4458          UA      0       5      16      30      65      77      84      90      94      97
4459          UA    100
              *

4460          KK  625626
4461          KM      Normal depth channel route from C625 to C626
4462          KM      Source:  200 Scale Mapping
4463          RS       3    FLOW      -1
4464          RC   0.040   0.018   0.040  1350.0  0.0252
4465          RX  1000.0  1020.0  1021.2  1055.2  1089.2  1090.4  1100.4  1105.4
4466          RY  1527.0  1526.0  1525.6  1526.3  1525.6  1526.0  1528.0  1530.0
              *

4467          KK   211AB
4468          KM   Sub-Basin  211AB
4469          KM
4470          KM      The Clark Unit Hydrograph is used for this basin.
4471          KM          The Urban time-area relation is used for this basin.
4472          KM
```

```
4473          KM      Time of Concentration for this sub-basin is based on the following:
4474          KM          An rainfall areal reduction factor of 1.000
4475          KM
4476          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4477          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4478          KM   .29 .29 .29 .29 .29 .29 .04 .04 .04 .04 .04 .04 .02 .02 .02 .02 .02 .02
4479          KM
4480          KM          L=   0.293 miles, S=  321 feet/mile, Kb= .03
4481          KM
4482          BA   0.040
4483          LG    0.07    0.17    6.80    0.12   54.72
4484          UC   0.104   0.071
1                                          HEC-1 INPUT                                          PAGE106

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4485          UA       0       5      16      30      65      77      84      90      94      97
4486          UA     100
              *

4487          KK  623624
4488          KM      Normal depth channel route from C623 to C624
4489          KM      Source:  200 Scale Mapping
4490          RS       1    FLOW      -1
4491          RC   0.040   0.018   0.040   701.0  0.0114
4492          RX  1000.0  1010.0  1011.2  1027.2  1043.2  1044.4  1059.4  1074.4
4493          RY  1534.0  1532.0  1531.6  1531.9  1531.6  1532.0  1532.5  1533.0
              *

4494          KK   211AC
4495          KM   Sub-Basin  211AC
4496          KM
4497          KM      The Clark Unit Hydrograph is used for this basin.
4498          KM          The Urban time-area relation is used for this basin.
4499          KM
4500          KM      Time of Concentration for this sub-basin is based on the following:
4501          KM          An rainfall areal reduction factor of 1.000
4502          KM
4503          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4504          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4505          KM   .29 .29 .29 .29 .29 .29 .04 .04 .04 .04 .04 .04 .03 .03 .03 .03 .03 .03
4506          KM
4507          KM          L=   0.306 miles, S=   82 feet/mile, Kb= .03
4508          KM
4509          BA   0.027
4510          LG    0.08    0.15    8.40    0.07   44.76
4511          UC   0.163   0.148
4512          UA       0       5      16      30      65      77      84      90      94      97
4513          UA     100
              *

4514          KK    C624
4515          KM      Hydrograph combine 623624 + 211AC at C624
4516          HC       2
              *

4517          KK  624626
4518          KM      Normal depth channel route from C624 to C626
4519          KM      Source:  HEC-2 Cross Section: AS 1.727
4520          RS       2    FLOW      -1
4521          RC   0.080   0.060   0.080   637.0  0.0235
4522          RX  9872.9  9881.0  9893.9  9902.2  9967.6  9976.4 10076.1 10084.3
4523          RY  1526.3  1524.6  1521.7  1520.0  1520.7  1521.6  1520.7  1526.2
              *

4524          KK   211AD
4525          KM   Sub-Basin  211AD
4526          KM
4527          KM      The Clark Unit Hydrograph is used for this basin.
4528          KM          The Urban time-area relation is used for this basin.
4529          KM
1                                          HEC-1 INPUT                                          PAGE107

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4530          KM      Time of Concentration for this sub-basin is based on the following:
4531          KM          An rainfall areal reduction factor of 1.000
4532          KM
4533          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4534          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4535          KM   .29 .29 .29 .29 .29 .29 .04 .04 .04 .04 .04 .04 .03 .03 .03 .03 .03 .03
4536          KM
4537          KM          L=   0.489 miles, S=  280 feet/mile, Kb= .03
4538          KM
4539          BA   0.041
4540          LG    0.08    0.15    8.00    0.08   46.16
4541          UC   0.138   0.142
4542          UA       0       5      16      30      65      77      84      90      94      97
4543          UA     100
              *

4544          KK   C626R
4545          KM      Hydrograph combine 624626 + 211AD at C626 right branch
4546          HC       2
              *

4547          KK    C626
4548          KM      Hydrograph combine C626C + 625626 at C626R
4549          HC       3
              *

4550          KK  626627
4551          KM      Normal depth channel route from C626 to C627
4552          KM      Source:  HEC-2 Cross Section: AS 1.602
```

```
4553          RS       1    FLOW      -1
4554          RC   0.080   0.060   0.080   625.0  0.0208
4555          RX  9889.8  9941.2  9963.0 10011.6 10074.8 10083.9 10191.7 10210.4
4556          RY  1517.6  1516.9  1508.1  1506.6  1508.6  1511.7  1513.1  1518.8
              *

4557          KK   211AE
4558          KM   Sub-Basin  211AE
4559          KM
4560          KM      The Clark Unit Hydrograph is used for this basin.
4561          KM          The Urban time-area relation is used for this basin.
4562          KM
4563          KM      Time of Concentration for this sub-basin is based on the following:
4564          KM          An rainfall areal reduction factor of 1.000
4565          KM
4566          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4567          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4568          KM   .28 .28 .28 .28 .28 .28 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
4569          KM
4570          KM          L=   0.313 miles, S=  153 feet/mile, Kb= .04
4571          KM
4572          BA   0.034
4573          LG    0.12    0.24    6.40    0.15   38.15
4574          UC   0.158   0.129
4575          UA       0       5      16      30      65      77      84      90      94      97
4576          UA     100
              *
1                                          HEC-1 INPUT                                          PAGE108

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4577          KK    C627
4578          KM      Hydrograph combine 626627 + 211AE at C627
4579          HC       2
              *
              * *
              * * C627 is the total flow in Ashbrook Wash at the Study boundary
              * *
              *

4580          KK   211AF
4581          KM   Sub-Basin  211AF
4582          KM
4583          KM      The Clark Unit Hydrograph is used for this basin.
4584          KM          The Urban time-area relation is used for this basin.
4585          KM
4586          KM      Time of Concentration for this sub-basin is based on the following:
4587          KM          An rainfall areal reduction factor of 1.000
4588          KM
4589          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4590          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4591          KM   .28 .28 .28 .28 .28 .28 .04 .04 .04 .04 .04 .04 .02 .02 .02 .02 .02 .02
4592          KM
4593          KM          L=   0.332 miles, S=  292 feet/mile, Kb= .03
4594          KM
4595          BA   0.053
4596          LG    0.07    0.25    5.80    0.17   52.43
4597          UC   0.113   0.073
4598          UA       0       5      16      30      65      77      84      90      94      97
4599          UA     100
              *
              * *
              * * End Basin 211.
              * *
              *
4600          ZZ
1*************************************                                  *************************************
*                                   *                                  *                                   *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)*                                  *   U.S. ARMY CORPS OF ENGINEERS    *
*             MAY   1991            *                                  *   HYDROLOGIC ENGINEERING CENTER   *
*           VERSION 4.0.1E          *                                  *         609 SECOND STREET         *
*                                   *                                  *       DAVIS, CALIFORNIA 95616     *
*  RUN DATE  10/31/94  TIME  13:21:34 *                                  *          (916) 551-1748           *
*                                   *                                  *                                   *
*************************************                                  *************************************
```

Fountain Hills North Floodplain Delineation Study
FCD 92-04 by GVSCE — File: FU100-24.IH1
Future Condition Model — Date: 07-21-94 dtp
100-Year 24-Hour Storm, Clark Unit Hydrograph — Revised: 10-31-94 dtp

```
6 IO          OUTPUT CONTROL VARIABLES
                    IPRNT          5  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL         0.  HYDROGRAPH PLOT SCALE

  IT          HYDROGRAPH TIME DATA
                     NMIN          1  MINUTES IN COMPUTATION INTERVAL
                    IDATE      1   0  STARTING DATE
                    ITIME       0000  STARTING TIME
                       NQ       1800  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE      2   0  ENDING DATE
                   NDTIME       0559  ENDING TIME
                    ICENT         19  CENTURY MARK

              COMPUTATION INTERVAL    0.02 HOURS
                   TOTAL TIME BASE   29.98 HOURS

        ENGLISH UNITS
```

```
                DRAINAGE AREA          SQUARE MILES
                PRECIPITATION DEPTH    INCHES
                LENGTH, ELEVATION      FEET
                FLOW                   CUBIC FEET PER SECOND
                STORAGE VOLUME         ACRE-FEET
                SURFACE AREA           ACRES
                TEMPERATURE            DEGREES FAHRENHEIT

 8 JD             INDEX STORM NO. 1
                     STRM          4.20  PRECIPITATION DEPTH
                     TRDA          0.01  TRANSPOSITION DRAINAGE AREA

 9 PI              PRECIPITATION PATTERN
```

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

19 JD INDEX STORM NO. 2

STRM 4.12 PRECIPITATION DEPTH

TRDA 5.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

20 JD INDEX STORM NO. 3

STRM 3.99 PRECIPITATION DEPTH

TRDA 10.00 TRANSPOSITION DRAINAGE AREA

0 PI

PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

21 JD INDEX STORM NO. 4

STRM 3.71 PRECIPITATION DEPTH

TRDA 50.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

22 JD INDEX STORM NO. 5

STRM 3.62 PRECIPITATION DEPTH
TRDA 80.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	201A	241.	12.17	35.	9.	8.	0.22		
+	HYDROGRAPH AT	201B	92.	12.13	12.	3.	2.	0.08		
+	2 COMBINED AT	C501	332.	12.17	47.	12.	10.	0.30		
+	ROUTED TO	501502	327.	12.28	47.	12.	10.	0.30		
+	HYDROGRAPH AT	201C	134.	12.02	16.	5.	4.	0.08		
+	2 COMBINED AT	C502R	388.	12.20	63.	17.	13.	0.38		
+	HYDROGRAPH AT	201D	71.	12.17	12.	3.	3.	0.07		
+	2 COMBINED AT	C502	458.	12.20	74.	20.	16.	0.45		
+	ROUTED TO	502503	453.	12.33	74.	20.	16.	0.45		
+	HYDROGRAPH AT	201E	175.	12.22	29.	8.	6.	0.18		
+	2 COMBINED AT	C503I	616.	12.30	102.	27.	22.	0.63		
+	ROUTED TO	C503O	298.	12.83	102.	28.	22.	0.63		
+	DIVERSION TO	D503L	298.	12.83	102.	28.	22.	0.63		
+	HYDROGRAPH AT	D503R	0.	0.02	0.	0.	0.	0.63		
+	ROUTED TO	503504	0.	0.02	0.	0.	0.	0.63		
+	HYDROGRAPH AT	202A	63.	12.02	7.	2.	2.	0.04		
+	2 COMBINED AT	C504I	62.	12.02	7.	2.	2.	0.67		
+	ROUTED TO	C504O	34.	12.18	7.	2.	2.	0.67		
+	DIVERSION TO	D504L	22.	12.08	6.	2.	2.	0.67		

+	HYDROGRAPH AT D504R	12.	12.18	1.	0.	0.	0.67
+	HYDROGRAPH AT 202B	31.	12.02	3.	1.	1.	0.02
+	2 COMBINED AT C505I	35.	12.03	4.	1.	1.	0.69
+	DIVERSION TO D505L	14.	12.03	3.	1.	1.	0.69
+	HYDROGRAPH AT D505R	21.	12.03	1.	0.	0.	0.69
+	HYDROGRAPH AT 202C	14.	12.00	2.	1.	0.	0.01
+	2 COMBINED AT C506	34.	12.03	3.	1.	1.	0.69
+	DIVERSION TO D506L	0.	0.02	0.	0.	0.	0.69
+	HYDROGRAPH AT D506R	34.	12.03	3.	1.	1.	0.69
+	HYDROGRAPH AT 202D	99.	12.03	13.	4.	3.	0.06
+	HYDROGRAPH AT 202E	183.	12.02	21.	6.	5.	0.10
+	ROUTED TO C508O	182.	12.03	21.	6.	5.	0.10
+	DIVERSION TO D508R	71.	12.03	13.	4.	3.	0.10
+	HYDROGRAPH AT D508L	111.	12.03	8.	2.	2.	0.10
+	ROUTED TO 508507	108.	12.10	8.	2.	2.	0.10
+	3 COMBINED AT C507I	234.	12.05	23.	6.	5.	0.86
+	ROUTED TO C507O	234.	12.05	23.	6.	5.	0.86
+	HYDROGRAPH AT 202F	24.	12.00	3.	1.	1.	0.01
+	HYDROGRAPH AT 202G	25.	12.00	3.	1.	1.	0.01
+	HYDROGRAPH AT 202H	310.	12.02	35.	10.	8.	0.18
+	ROUTED TO C511O	259.	12.10	35.	10.	8.	0.18
+	ROUTED TO 511512	258.	12.15	35.	10.	8.	0.18
+	HYDROGRAPH AT 202I	33.	12.00	5.	2.	1.	0.02
+	2 COMBINED AT C512I	279.	12.10	40.	12.	10.	0.20
+	ROUTED TO C512O	190.	12.38	24.	7.	5.	0.20
+	DIVERSION TO D512R	80.	12.38	5.	1.	1.	0.20
+	HYDROGRAPH AT D512L	110.	12.38	19.	6.	4.	0.20
+	HYDROGRAPH AT 203A	267.	12.22	43.	11.	9.	0.28
+	ROUTED TO C513O	237.	12.38	43.	11.	9.	0.28
+	ROUTED TO 513514	234.	12.48	43.	11.	9.	0.28
+	HYDROGRAPH AT 203B	75.	12.02	9.	2.	2.	0.04
+	2 COMBINED AT C514R	249.	12.48	51.	13.	11.	0.32
+	HYDROGRAPH AT 203C	119.	12.13	18.	5.	4.	0.10
+	2 COMBINED AT C514	319.	12.43	69.	18.	15.	0.43
+	HYDROGRAPH AT 203D	115.	12.17	18.	5.	4.	0.11

+	2 COMBINED AT	C515	402.	12.35	86.	23.	18.	0.53
+	ROUTED TO	515517	400.	12.50	86.	23.	18.	0.53
+	HYDROGRAPH AT	203E	170.	12.02	20.	6.	5.	0.09
+	2 COMBINED AT	C517R	433.	12.45	106.	28.	23.	0.63
+	HYDROGRAPH AT	203F	345.	12.28	47.	12.	9.	0.33
+	ROUTED TO	516517	333.	12.52	47.	12.	9.	0.33
+	HYDROGRAPH AT	203G	267.	12.18	41.	11.	9.	0.25
+	2 COMBINED AT	C517L	508.	12.45	88.	23.	18.	0.58
+	2 COMBINED AT	C517	938.	12.45	193.	51.	41.	1.21
+	ROUTED TO	517518	931.	12.58	193.	51.	41.	1.21
+	HYDROGRAPH AT	203H	337.	12.03	40.	12.	9.	0.21
+	2 COMBINED AT	C518	996.	12.55	232.	63.	50.	1.41
+	ROUTED TO	518519	992.	12.62	232.	63.	50.	1.41
+	HYDROGRAPH AT	203I	233.	12.08	33.	10.	8.	0.17
+	2 COMBINED AT	C519	1063.	12.60	265.	72.	58.	1.59
+	ROUTED TO	519591	1060.	12.63	265.	72.	58.	1.59
+	HYDROGRAPH AT	203J	70.	12.02	10.	3.	3.	0.04
+	ROUTED TO	520591	70.	12.07	10.	3.	3.	0.04
+	HYDROGRAPH AT	BB512R	80.	12.38	5.	1.	1.	0.20
+	3 COMBINED AT	C591	1119.	12.28	280.	77.	62.	1.83
+	ROUTED TO	591521	1115.	12.30	280.	77.	62.	1.83
+	HYDROGRAPH AT	203K	276.	12.03	37.	12.	9.	0.16
+	2 COMBINED AT	C521	1241.	12.25	316.	88.	71.	1.99
+	5 COMBINED AT	CLEAR	1464.	12.23	360.	101.	82.	3.07
+	HYDROGRAPH AT	204A	187.	12.02	22.	6.	5.	0.11
+	ROUTED TO	522523	181.	12.17	22.	6.	5.	0.11
+	HYDROGRAPH AT	204B	209.	12.03	25.	7.	6.	0.13
+	2 COMBINED AT	C523I	370.	12.07	47.	14.	11.	0.23
+	ROUTED TO	C523O	280.	12.25	47.	14.	11.	0.23
+	DIVERSION TO	D523R	18.	12.25	1.	0.	0.	0.23
+	HYDROGRAPH AT	D523L	262.	12.25	46.	13.	11.	0.23
+	ROUTED TO	523524	259.	12.33	46.	13.	11.	0.23
+	HYDROGRAPH AT	204C	149.	12.00	20.	7.	5.	0.08
+	2 COMBINED AT	C524	329.	12.07	66.	20.	16.	0.31
+	ROUTED TO	524525	325.	12.08	66.	20.	16.	0.31

+	HYDROGRAPH AT	204D	82.	12.02	11.	3.	3.	0.04
+	2 COMBINED AT	C525	399.	12.07	77.	24.	19.	0.35
+	ROUTED TO	525526	395.	12.10	77.	24.	19.	0.35
+	HYDROGRAPH AT	204E	126.	12.02	16.	5.	4.	0.07
+	2 COMBINED AT	C526	512.	12.07	93.	29.	23.	0.43
+	ROUTED TO	526527	505.	12.12	93.	28.	23.	0.43
+	HYDROGRAPH AT	204F	147.	12.02	19.	6.	5.	0.08
+	2 COMBINED AT	C527	627.	12.07	112.	34.	28.	0.50
+	2 COMBINED AT	CLEAR	2017.	12.13	471.	136.	109.	3.58
+	HYDROGRAPH AT	205A	130.	12.23	22.	7.	6.	0.12
+	HYDROGRAPH AT	205B	237.	12.30	40.	12.	10.	0.21
+	2 COMBINED AT	C528	361.	12.27	62.	19.	15.	0.33
+	ROUTED TO	528530	360.	12.32	62.	19.	15.	0.33
+	HYDROGRAPH AT	205C	65.	12.22	11.	3.	3.	0.06
+	2 COMBINED AT	C530R	417.	12.30	73.	23.	18.	0.39
+	HYDROGRAPH AT	205D	405.	12.22	60.	19.	15.	0.32
+	HYDROGRAPH AT	205E	203.	12.32	41.	13.	10.	0.22
+	2 COMBINED AT	C529	596.	12.25	100.	31.	25.	0.54
+	2 COMBINED AT	C530	1005.	12.27	173.	54.	43.	0.93
+	ROUTED TO	530531	996.	12.32	173.	54.	43.	0.93
+	HYDROGRAPH AT	205F	197.	12.22	30.	9.	8.	0.16
+	2 COMBINED AT	C531	1172.	12.30	202.	63.	50.	1.09
+	ROUTED TO	531532	1162.	12.37	202.	63.	50.	1.09
+	HYDROGRAPH AT	205G	214.	12.23	33.	10.	8.	0.19
+	2 COMBINED AT	C532L	1344.	12.33	235.	73.	59.	1.27
+	HYDROGRAPH AT	205H	237.	12.33	47.	14.	12.	0.26
+	2 COMBINED AT	C532	1578.	12.33	282.	87.	70.	1.53
+	ROUTED TO	532533	1575.	12.37	282.	87.	70.	1.53
+	HYDROGRAPH AT	205I	367.	12.28	56.	16.	13.	0.35
+	2 COMBINED AT	C533	1920.	12.33	337.	103.	82.	1.89
+	ROUTED TO	533534	1889.	12.50	337.	103.	82.	1.89
+	HYDROGRAPH AT	205J	361.	12.28	50.	13.	10.	0.37
+	2 COMBINED AT	C534R	2142.	12.48	386.	115.	93.	2.25
+	HYDROGRAPH AT	205K	183.	12.37	35.	9.	7.	0.25
+	2 COMBINED AT	C534	2310.	12.47	420.	124.	100.	2.50

+	ROUTED TO 534535	2300.	12.53	420.	124.	100.	2.50
+	HYDROGRAPH AT 205L	147.	12.17	15.	4.	3.	0.12
+	2 COMBINED AT C535	2346.	12.52	435.	128.	103.	2.62
+	ROUTED TO 535536	2320.	12.65	435.	128.	103.	2.62
+	HYDROGRAPH AT 205M	210.	12.05	26.	7.	6.	0.14
+	2 COMBINED AT C536R	2354.	12.65	460.	135.	108.	2.76
+	HYDROGRAPH AT 205N	141.	12.22	22.	6.	4.	0.16
+	2 COMBINED AT C536I	2430.	12.63	482.	140.	113.	2.91
+	ROUTED TO C536O	321.	14.07	307.	140.	113.	2.91
+	ROUTED TO 536537	321.	14.12	307.	140.	113.	2.91
+	HYDROGRAPH AT 206A	224.	12.02	26.	8.	6.	0.13
+	2 COMBINED AT C537	358.	12.07	313.	148.	119.	3.04
+	ROUTED TO 537538	351.	12.12	313.	148.	119.	3.04
+	HYDROGRAPH AT 206B	169.	12.02	21.	6.	5.	0.09
+	2 COMBINED AT C538I	499.	12.07	327.	154.	124.	3.14
+	ROUTED TO C538O	456.	12.15	324.	154.	124.	3.14
+	ROUTED TO 538540	448.	12.25	324.	154.	124.	3.14
+	HYDROGRAPH AT 206C	35.	12.05	4.	1.	1.	0.02
+	2 COMBINED AT C540R	468.	12.25	326.	155.	125.	3.16
+	HYDROGRAPH AT 206D	114.	12.02	14.	4.	4.	0.06
+	ROUTED TO 539540	111.	12.08	14.	4.	4.	0.06
+	HYDROGRAPH AT 206E	38.	12.02	4.	1.	1.	0.02
+	2 COMBINED AT C540L	147.	12.03	18.	6.	5.	0.09
+	2 COMBINED AT C540	561.	12.20	339.	161.	130.	3.24
+	ROUTED TO 540541	548.	12.40	339.	161.	130.	3.24
+	HYDROGRAPH AT 206F	247.	12.03	29.	9.	7.	0.16
+	2 COMBINED AT C541	633.	12.22	358.	169.	136.	3.40
+	ROUTED TO 541548	632.	12.25	358.	169.	136.	3.40
+	HYDROGRAPH AT 206G	125.	12.07	18.	5.	4.	0.09
+	HYDROGRAPH AT BB523R	18.	12.25	1.	0.	0.	0.23
+	ROUTED TO 523548	15.	12.50	1.	0.	0.	0.23
+	3 COMBINED AT C548L	726.	12.12	374.	174.	141.	3.72
+	HYDROGRAPH AT 206H	106.	12.02	13.	4.	3.	0.06
+	ROUTED TO 542543	105.	12.05	13.	4.	3.	0.06
+	HYDROGRAPH AT 206I	40.	12.00	5.	1.	1.	0.02

+	2 COMBINED AT	C543	143.	12.02	17.	5.	4.	0.08
+	DIVERSION TO	D543R	143.	12.02	17.	5.	4.	0.08
+	HYDROGRAPH AT	D543L	0.	0.02	0.	0.	0.	0.08
+	ROUTED TO	543544	0.	0.02	0.	0.	0.	0.08
+	HYDROGRAPH AT	206K	96.	12.02	11.	3.	3.	0.06
+	2 COMBINED AT	C544	96.	12.02	11.	3.	3.	0.14
+	ROUTED TO	544545	95.	12.05	11.	3.	3.	0.14
+	DIVERSION TO	D545R	48.	12.05	6.	2.	1.	0.14
+	HYDROGRAPH AT	D545L	48.	12.05	6.	2.	1.	0.14
+	ROUTED TO	545546	47.	12.07	6.	2.	1.	0.14
+	HYDROGRAPH AT	206L	106.	12.02	12.	3.	3.	0.06
+	2 COMBINED AT	C546	152.	12.02	18.	5.	4.	0.20
+	ROUTED TO	546547	152.	12.03	18.	5.	4.	0.20
+	HYDROGRAPH AT	BB543R	143.	12.02	17.	5.	4.	0.08
+	ROUTED TO	543547	140.	12.08	17.	5.	4.	0.08
+	HYDROGRAPH AT	BB545R	48.	12.05	6.	2.	1.	0.14
+	ROUTED TO	545547	47.	12.10	6.	2.	1.	0.14
+	HYDROGRAPH AT	206J	111.	12.02	14.	4.	3.	0.06
+	4 COMBINED AT	C547	443.	12.03	54.	16.	13.	0.26
+	ROUTED TO	547548	436.	12.08	54.	16.	13.	0.26
+	HYDROGRAPH AT	206M	109.	12.02	14.	4.	3.	0.06
+	2 COMBINED AT	C548R	535.	12.05	68.	21.	16.	0.32
+	2 COMBINED AT	C548	1241.	12.08	436.	194.	157.	4.04
+	ROUTED TO	548549	1216.	12.23	435.	194.	157.	4.04
+	HYDROGRAPH AT	206N	260.	12.03	35.	11.	9.	0.15
+	2 COMBINED AT	C549L	1370.	12.20	462.	205.	166.	4.19
+	HYDROGRAPH AT	207A	254.	12.30	46.	14.	11.	0.26
+	HYDROGRAPH AT	207B	202.	12.30	38.	12.	9.	0.21
+	2 COMBINED AT	C550	455.	12.30	84.	26.	21.	0.46
+	ROUTED TO	550552	450.	12.37	84.	26.	21.	0.46
+	HYDROGRAPH AT	207C	197.	12.22	27.	8.	6.	0.17
+	2 COMBINED AT	C552L	617.	12.32	111.	33.	27.	0.64
+	HYDROGRAPH AT	207D	255.	12.12	40.	13.	10.	0.20
+	ROUTED TO	551552	252.	12.20	40.	13.	10.	0.20
+	HYDROGRAPH AT	207E	178.	12.12	33.	11.	8.	0.16

+	2 COMBINED AT C552R	420.	12.17	73.	23.	19.	0.35
+	2 COMBINED AT C552	1001.	12.27	183.	56.	45.	0.99
+	ROUTED TO 552553	998.	12.30	183.	56.	45.	0.99
+	HYDROGRAPH AT 207F	153.	12.13	25.	8.	6.	0.13
+	2 COMBINED AT C553	1127.	12.28	208.	64.	51.	1.12
+	ROUTED TO 553556	1121.	12.32	208.	64.	51.	1.12
+	HYDROGRAPH AT 207G	190.	12.28	36.	10.	8.	0.24
+	2 COMBINED AT C556L	1309.	12.32	244.	73.	59.	1.35
+	HYDROGRAPH AT 207H	181.	12.07	27.	9.	7.	0.12
+	ROUTED TO 554555	178.	12.12	27.	9.	7.	0.12
+	HYDROGRAPH AT 207I	120.	12.03	16.	5.	4.	0.07
+	2 COMBINED AT C555	289.	12.07	43.	14.	11.	0.20
+	ROUTED TO 555556	282.	12.18	43.	14.	11.	0.20
+	HYDROGRAPH AT 207J	154.	12.03	21.	7.	5.	0.09
+	2 COMBINED AT C556R	404.	12.08	64.	20.	16.	0.29
+	2 COMBINED AT C556	1626.	12.27	307.	94.	75.	1.64
+	ROUTED TO 556557	1619.	12.32	307.	94.	75.	1.64
+	HYDROGRAPH AT 207K	209.	12.05	28.	9.	7.	0.13
+	2 COMBINED AT C557R	1720.	12.30	334.	102.	82.	1.77
+	HYDROGRAPH AT 207L	136.	12.03	17.	5.	4.	0.08
+	2 COMBINED AT C557	1780.	12.28	351.	107.	86.	1.85
+	ROUTED TO 557558	1770.	12.33	351.	107.	86.	1.85
+	HYDROGRAPH AT 207M	205.	12.02	23.	7.	5.	0.12
+	2 COMBINED AT C558	1821.	12.33	373.	113.	91.	1.97
+	ROUTED TO 558560	1813.	12.37	373.	113.	91.	1.97
+	HYDROGRAPH AT 207O	227.	12.02	25.	7.	6.	0.13
+	2 COMBINED AT C560R	1857.	12.37	397.	120.	97.	2.10
+	HYDROGRAPH AT 207N	87.	12.02	10.	3.	3.	0.05
+	ROUTED TO 559560	85.	12.08	10.	3.	3.	0.05
+	2 COMBINED AT C560I	1892.	12.35	407.	124.	99.	2.15
+	ROUTED TO C560O	283.	13.78	263.	123.	99.	2.15
+	ROUTED TO 560585	283.	13.88	263.	123.	99.	2.15
+	HYDROGRAPH AT 210A	213.	12.02	22.	6.	5.	0.12
+	2 COMBINED AT C585	339.	12.03	270.	129.	104.	2.27
+	HYDROGRAPH AT 208A	253.	12.00	31.	10.	8.	0.14

+	ROUTED TO 561563	251.	12.03	31.	10.	8.	0.14
+	HYDROGRAPH AT 208B	46.	12.02	6.	2.	2.	0.03
+	2 COMBINED AT C563R	297.	12.02	37.	12.	10.	0.17
+	HYDROGRAPH AT 208C	85.	12.10	13.	4.	3.	0.07
+	ROUTED TO 562563	83.	12.18	13.	4.	3.	0.07
+	HYDROGRAPH AT 208D	126.	12.02	17.	5.	4.	0.08
+	2 COMBINED AT C563L	197.	12.05	30.	10.	8.	0.14
+	2 COMBINED AT C563	491.	12.03	67.	22.	17.	0.31
+	ROUTED TO 563564	483.	12.08	67.	22.	17.	0.31
+	HYDROGRAPH AT 208E	107.	12.02	14.	5.	4.	0.06
+	2 COMBINED AT C564R	579.	12.07	81.	26.	21.	0.37
+	HYDROGRAPH AT 208F	122.	12.02	16.	5.	4.	0.07
+	2 COMBINED AT C564	696.	12.05	97.	31.	25.	0.44
+	ROUTED TO 564565	681.	12.13	96.	31.	25.	0.44
+	HYDROGRAPH AT 208G	224.	12.03	30.	10.	8.	0.13
+	2 COMBINED AT C565	870.	12.08	126.	41.	33.	0.57
+	ROUTED TO 565568	862.	12.13	126.	41.	33.	0.57
+	HYDROGRAPH AT 208H	59.	12.07	9.	3.	2.	0.04
+	2 COMBINED AT C568L	916.	12.13	135.	43.	35.	0.61
+	HYDROGRAPH AT 208I	204.	12.02	26.	8.	7.	0.12
+	HYDROGRAPH AT 208J	128.	12.03	18.	6.	5.	0.08
+	2 COMBINED AT C566	330.	12.02	44.	14.	11.	0.20
+	ROUTED TO 566567	326.	12.07	44.	14.	11.	0.20
+	HYDROGRAPH AT 208K	88.	12.00	11.	4.	3.	0.05
+	2 COMBINED AT C567L	408.	12.03	56.	18.	14.	0.25
+	HYDROGRAPH AT 208L	101.	12.02	13.	4.	3.	0.06
+	2 COMBINED AT C567	508.	12.03	69.	22.	18.	0.31
+	ROUTED TO 567568	497.	12.12	69.	22.	18.	0.31
+	HYDROGRAPH AT 208M	276.	12.03	39.	13.	10.	0.16
+	2 COMBINED AT C568R	752.	12.07	108.	35.	28.	0.46
+	2 COMBINED AT C568	1638.	12.10	243.	78.	63.	1.07
+	ROUTED TO 568573	1622.	12.15	242.	78.	63.	1.07
+	HYDROGRAPH AT 208N	78.	12.05	12.	4.	3.	0.05
+	2 COMBINED AT C573L	1687.	12.15	255.	82.	66.	1.12
+	HYDROGRAPH AT 208O	392.	12.03	52.	17.	13.	0.23

+	ROUTED TO	569570	389.	12.05	52.	17.	13.	0.23
+	HYDROGRAPH AT	208P	111.	12.00	15.	5.	4.	0.06
+	2 COMBINED AT	C570R	496.	12.03	66.	21.	17.	0.29
+	HYDROGRAPH AT	208Q	158.	12.03	22.	7.	6.	0.09
+	2 COMBINED AT	C570	652.	12.03	89.	29.	23.	0.38
+	HYDROGRAPH AT	208R	19.	12.00	3.	1.	1.	0.01
+	ROUTED TO	571572	19.	12.02	3.	1.	1.	0.01
+	2 COMBINED AT	C572	671.	12.03	91.	29.	23.	0.39
+	ROUTED TO	572573	667.	12.05	91.	29.	23.	0.39
+	HYDROGRAPH AT	208S	129.	12.02	18.	6.	5.	0.07
+	2 COMBINED AT	C573R	792.	12.03	109.	35.	28.	0.46
+	2 COMBINED AT	C573	2380.	12.10	363.	117.	94.	1.58
+	HYDROGRAPH AT	208T	239.	12.02	30.	9.	8.	0.13
+	HYDROGRAPH AT	208U	252.	12.00	30.	10.	8.	0.13
+	2 COMBINED AT	C574	489.	12.00	60.	19.	15.	0.27
+	ROUTED TO	574575	488.	12.02	60.	19.	15.	0.27
+	HYDROGRAPH AT	208V	53.	12.00	6.	2.	2.	0.03
+	2 COMBINED AT	C575	541.	12.02	67.	21.	17.	0.29
+	ROUTED TO	575576	537.	12.03	67.	21.	17.	0.29
+	HYDROGRAPH AT	208W	93.	12.00	12.	4.	3.	0.05
+	2 COMBINED AT	C576	628.	12.02	78.	24.	20.	0.34
+	ROUTED TO	576577	628.	12.03	78.	24.	20.	0.34
+	2 COMBINED AT	C577	2969.	12.08	440.	141.	114.	1.92
+	ROUTED TO	577578	2951.	12.10	440.	141.	114.	1.92
+	HYDROGRAPH AT	208X	135.	12.02	16.	5.	4.	0.08
+	2 COMBINED AT	C578I	3058.	12.10	456.	146.	118.	2.00
+	ROUTED TO	C578O	460.	12.93	326.	146.	118.	2.00
+	ROUTED TO	578587	459.	12.98	326.	146.	118.	2.00
+	HYDROGRAPH AT	210B	178.	12.03	23.	7.	6.	0.11
+	ROUTED TO	C586O	168.	12.08	23.	7.	6.	0.11
+	ROUTED TO	586587	167.	12.13	23.	7.	6.	0.11
+	2 COMBINED AT	C587	477.	12.97	345.	153.	123.	2.11
+	ROUTED TO	587595	476.	13.00	345.	153.	123.	2.11
+	HYDROGRAPH AT	210C	135.	12.02	15.	4.	3.	0.08
+	2 COMBINED AT	C595L	553.	12.08	356.	157.	127.	2.19

+	HYDROGRAPH AT 210D	250.	12.02	30.	9.	7.	0.14
+	ROUTED TO 588590	248.	12.05	30.	9.	7.	0.14
+	HYDROGRAPH AT 210E	52.	12.02	6.	2.	1.	0.03
+	2 COMBINED AT C590L	299.	12.03	36.	11.	8.	0.17
+	HYDROGRAPH AT 210F	165.	12.02	21.	7.	5.	0.09
+	ROUTED TO 589590	164.	12.05	21.	7.	5.	0.09
+	HYDROGRAPH AT 210G	282.	12.02	35.	11.	9.	0.16
+	2 COMBINED AT C590R	444.	12.03	56.	18.	14.	0.25
+	2 COMBINED AT C590	741.	12.03	91.	28.	22.	0.42
+	HYDROGRAPH AT 210H	127.	12.02	14.	4.	3.	0.07
+	ROUTED TO 592593	126.	12.05	14.	4.	3.	0.07
+	2 COMBINED AT C593	866.	12.03	105.	32.	26.	0.49
+	ROUTED TO 593594	859.	12.05	105.	32.	26.	0.49
+	HYDROGRAPH AT 210I	86.	12.03	11.	3.	2.	0.05
+	2 COMBINED AT C594	944.	12.05	116.	35.	28.	0.54
+	ROUTED TO 594595	929.	12.13	116.	35.	28.	0.54
+	HYDROGRAPH AT 210J	183.	12.02	21.	6.	5.	0.10
+	2 COMBINED AT C595R	1082.	12.08	136.	40.	32.	0.64
+	2 COMBINED AT C595	1629.	12.08	485.	197.	159.	2.83
+	ROUTED TO 595596	1619.	12.15	484.	197.	159.	2.83
+	HYDROGRAPH AT 210K	145.	12.00	16.	4.	3.	0.08
+	2 COMBINED AT C596	1696.	12.13	498.	201.	162.	2.91
+	HYDROGRAPH AT 209A	549.	12.08	75.	24.	19.	0.37
+	ROUTED TO 579580	546.	12.10	75.	24.	19.	0.37
+	HYDROGRAPH AT 209C	98.	12.05	14.	5.	4.	0.06
+	2 COMBINED AT C580R	639.	12.08	89.	28.	23.	0.43
+	HYDROGRAPH AT 209B	146.	12.02	19.	6.	5.	0.08
+	2 COMBINED AT C580	771.	12.05	107.	34.	27.	0.51
+	ROUTED TO 580581	765.	12.10	107.	34.	27.	0.51
+	HYDROGRAPH AT 209D	432.	12.02	54.	17.	14.	0.24
+	2 COMBINED AT C581R	1164.	12.05	161.	51.	41.	0.76
+	HYDROGRAPH AT 209E	250.	12.03	34.	11.	9.	0.15
+	2 COMBINED AT C581	1409.	12.05	194.	62.	50.	0.91
+	ROUTED TO 581582	1389.	12.10	194.	62.	50.	0.91
+	HYDROGRAPH AT 209F	273.	12.15	46.	14.	12.	0.23

+	2 COMBINED AT C582R	1654.	12.10	239.	76.	61.	1.13
+	HYDROGRAPH AT 209G	348.	12.02	46.	15.	12.	0.20
+	2 COMBINED AT C582	1968.	12.08	285.	91.	73.	1.34
+	ROUTED TO 582583	1950.	12.12	285.	91.	73.	1.34
+	HYDROGRAPH AT 209H	136.	12.03	16.	5.	4.	0.08
+	2 COMBINED AT C583	2065.	12.12	300.	95.	77.	1.42
+	ROUTED TO 583584	2039.	12.18	300.	95.	77.	1.42
+	HYDROGRAPH AT 209I	326.	12.02	34.	10.	8.	0.18
+	2 COMBINED AT C584I	2209.	12.15	334.	105.	84.	1.60
+	ROUTED TO C584O	393.	12.90	319.	105.	84.	1.60
+	ROUTED TO 584597	392.	13.07	319.	105.	84.	1.60
+	HYDROGRAPH AT 210L	230.	12.02	24.	7.	5.	0.14
+	2 COMBINED AT C597	483.	12.07	340.	111.	90.	1.74
+	ROUTED TO 597598	473.	12.17	340.	111.	90.	1.74
+	HYDROGRAPH AT 210M	264.	12.03	30.	8.	7.	0.16
+	2 COMBINED AT C598	691.	12.10	367.	120.	96.	1.90
+	HYDROGRAPH AT 210N	81.	12.00	8.	2.	2.	0.05
+	4 COMBINED AT C599I	2655.	12.10	1122.	443.	356.	7.13
+	ROUTED TO C599O	1143.	13.05	952.	442.	356.	7.13
+	ROUTED TO 599608	1143.	13.08	951.	442.	356.	7.13
+	HYDROGRAPH AT 211K	191.	12.00	21.	6.	5.	0.10
+	2 COMBINED AT C608L	1147.	13.05	954.	448.	361.	7.24
+	HYDROGRAPH AT 211G	11.	12.05	2.	1.	1.	0.01
+	ROUTED TO 604606	11.	12.23	2.	1.	1.	0.01
+	HYDROGRAPH AT 211I	70.	12.03	9.	3.	2.	0.04
+	2 COMBINED AT C606R	78.	12.03	12.	4.	3.	0.05
+	HYDROGRAPH AT 211H	133.	12.00	14.	4.	3.	0.07
+	ROUTED TO C605O	107.	12.08	14.	4.	3.	0.07
+	2 COMBINED AT C606	184.	12.05	26.	8.	6.	0.12
+	ROUTED TO 606607	182.	12.08	26.	8.	6.	0.12
+	HYDROGRAPH AT 211J	28.	12.00	3.	1.	1.	0.01
+	2 COMBINED AT C607	207.	12.05	29.	9.	7.	0.14
+	ROUTED TO 607608	206.	12.08	29.	9.	7.	0.14
+	2 COMBINED AT C608	1161.	12.95	972.	456.	367.	7.37
+	ROUTED TO 608613	1161.	12.98	972.	456.	367.	7.37

+	HYDROGRAPH AT 211M	152.	12.00	19.	6.	5.	0.08
+	ROUTED TO 610611	152.	12.03	19.	6.	5.	0.08
+	HYDROGRAPH AT 211N	39.	12.00	5.	2.	1.	0.02
+	2 COMBINED AT C611R	190.	12.02	24.	8.	6.	0.10
+	HYDROGRAPH AT 211O	78.	12.00	10.	3.	2.	0.04
+	ROUTED TO C609O	56.	12.08	9.	3.	2.	0.04
+	ROUTED TO 609611	56.	12.12	9.	3.	2.	0.04
+	2 COMBINED AT C611I	242.	12.02	34.	11.	9.	0.14
+	ROUTED TO C611O	143.	12.20	34.	11.	8.	0.14
+	DIVERSION TO D611R	143.	12.20	34.	11.	8.	0.14
+	HYDROGRAPH AT D611L	0.	0.02	0.	0.	0.	0.14
+	ROUTED TO 611612	0.	0.02	0.	0.	0.	0.14
+	HYDROGRAPH AT 211P	65.	12.00	8.	3.	2.	0.03
+	2 COMBINED AT C612	64.	12.00	8.	3.	2.	0.17
+	2 COMBINED AT C613	1162.	12.98	976.	458.	369.	7.55
+	ROUTED TO 613621	1162.	13.00	976.	458.	369.	7.55
+	HYDROGRAPH AT 211L	169.	12.02	20.	6.	5.	0.10
+	2 COMBINED AT C621L	1169.	13.00	989.	463.	373.	7.64
+	HYDROGRAPH AT 211Q	39.	12.00	4.	1.	1.	0.02
+	ROUTED TO 616617	39.	12.02	4.	1.	1.	0.02
+	HYDROGRAPH AT 211R	155.	12.02	18.	6.	5.	0.08
+	2 COMBINED AT C617L	193.	12.02	23.	7.	6.	0.10
+	HYDROGRAPH AT 211U	37.	12.07	7.	2.	2.	0.03
+	DIVERSION TO D614R	26.	12.07	5.	1.	1.	0.03
+	HYDROGRAPH AT D614L	11.	12.07	2.	1.	1.	0.03
+	2 COMBINED AT C617	204.	12.02	25.	8.	6.	0.13
+	ROUTED TO 617618	200.	12.07	25.	8.	6.	0.13
+	HYDROGRAPH AT 211S	83.	12.03	10.	3.	2.	0.05
+	2 COMBINED AT C618I	282.	12.05	35.	11.	9.	0.18
+	ROUTED TO C618O	280.	12.07	30.	10.	8.	0.18
+	HYDROGRAPH AT BB614R	26.	12.07	5.	1.	1.	0.03
+	ROUTED TO 614615	26.	12.10	5.	1.	1.	0.03
+	HYDROGRAPH AT 211V	9.	12.02	2.	1.	0.	0.00
+	2 COMBINED AT C615	34.	12.07	6.	2.	2.	0.03
+	DIVERSION TO D615R	12.	12.07	2.	0.	0.	0.03

+	HYDROGRAPH AT	D615L	22.	12.07	5.	2.	1.	0.03
+	ROUTED TO	615618	22.	12.07	5.	2.	1.	0.03
+	2 COMBINED AT	C618	302.	12.07	34.	11.	10.	0.19
+	ROUTED TO	618619	299.	12.13	34.	11.	10.	0.19
+	HYDROGRAPH AT	211T	127.	12.00	17.	6.	5.	0.07
+	2 COMBINED AT	C619L	399.	12.07	51.	17.	14.	0.26
+	HYDROGRAPH AT	BB615R	12.	12.07	2.	0.	0.	0.03
+	ROUTED TO	615619	11.	12.17	2.	0.	0.	0.03
+	2 COMBINED AT	C619I	408.	12.07	52.	17.	14.	0.25
+	ROUTED TO	C619O	185.	12.40	52.	17.	14.	0.25
+	DIVERSION TO	D619L	0.	0.02	0.	0.	0.	0.25
+	HYDROGRAPH AT	D619R	185.	12.40	52.	17.	14.	0.25
+	ROUTED TO	619620	185.	12.42	52.	17.	14.	0.25
+	HYDROGRAPH AT	BB619L	0.	0.02	0.	0.	0.	0.25
+	ROUTED TO	619620	0.	0.02	0.	0.	0.	0.25
+	HYDROGRAPH AT	211W	59.	12.00	8.	3.	2.	0.03
+	3 COMBINED AT	C620R	223.	12.03	60.	20.	17.	0.28
+	HYDROGRAPH AT	BB611R	143.	12.20	34.	11.	8.	0.14
+	ROUTED TO	611620	143.	12.22	34.	11.	8.	0.14
+	2 COMBINED AT	C620	355.	12.05	94.	30.	25.	0.42
+	ROUTED TO	620621	354.	12.08	94.	30.	25.	0.42
+	2 COMBINED AT	C621	1484.	12.05	1073.	492.	397.	7.93
+	ROUTED TO	621622	1458.	12.15	1072.	492.	397.	7.93
+	HYDROGRAPH AT	211X	362.	12.05	52.	17.	14.	0.21
+	2 COMBINED AT	C622R	1761.	12.12	1110.	507.	409.	8.14
+	HYDROGRAPH AT	211A	249.	12.02	28.	8.	6.	0.14
+	ROUTED TO	C600O	241.	12.07	28.	8.	6.	0.14
+	ROUTED TO	600601	238.	12.12	28.	8.	6.	0.14
+	HYDROGRAPH AT	211B	195.	12.02	21.	6.	5.	0.11
+	2 COMBINED AT	C601	419.	12.03	49.	14.	11.	0.25
+	ROUTED TO	601602	415.	12.08	49.	14.	11.	0.25
+	HYDROGRAPH AT	211C	77.	12.02	10.	3.	2.	0.04
+	2 COMBINED AT	C602L	487.	12.07	59.	17.	14.	0.30
+	HYDROGRAPH AT	211D	103.	12.05	14.	4.	4.	0.07
+	2 COMBINED AT	C602	589.	12.07	73.	21.	17.	0.37

+	ROUTED TO	602603	581.	12.12	73.	21.	17.	0.37
+	HYDROGRAPH AT	211E	281.	12.02	34.	11.	9.	0.16
+	2 COMBINED AT	C603	833.	12.07	107.	32.	26.	0.52
+	ROUTED TO	603622	816.	12.13	107.	32.	26.	0.52
+	HYDROGRAPH AT	211F	190.	12.03	28.	9.	7.	0.11
+	2 COMBINED AT	C622L	979.	12.12	134.	41.	33.	0.63
+	2 COMBINED AT	C622	2697.	12.12	1227.	544.	439.	8.78
+	ROUTED TO	622549	2662.	12.20	1225.	544.	439.	8.78
+	HYDROGRAPH AT	211Y	158.	12.03	22.	7.	6.	0.09
+	2 COMBINED AT	C549R	2760.	12.20	1240.	551.	444.	8.87
+	2 COMBINED AT	C549	4013.	12.20	1665.	733.	592.	13.06
+	ROUTED TO	549626	3968.	12.28	1663.	733.	592.	13.06
+	HYDROGRAPH AT	211Z	137.	12.02	16.	5.	4.	0.08
+	2 COMBINED AT	C626C	4012.	12.28	1672.	737.	596.	13.14
+	HYDROGRAPH AT	211AA	57.	12.03	8.	2.	2.	0.03
+	ROUTED TO	625626	56.	12.08	8.	2.	2.	0.03
+	HYDROGRAPH AT	211AB	79.	12.00	10.	3.	3.	0.04
+	ROUTED TO	623624	79.	12.00	10.	3.	3.	0.04
+	HYDROGRAPH AT	211AC	51.	12.02	7.	2.	2.	0.03
+	2 COMBINED AT	C624	130.	12.00	17.	5.	4.	0.07
+	ROUTED TO	624626	129.	12.03	17.	5.	4.	0.07
+	HYDROGRAPH AT	211AD	78.	12.02	11.	3.	3.	0.04
+	2 COMBINED AT	C626R	207.	12.02	28.	9.	7.	0.11
+	3 COMBINED AT	C626	4117.	12.27	1693.	747.	604.	13.28
+	ROUTED TO	626627	4113.	12.28	1693.	747.	604.	13.28
+	HYDROGRAPH AT	211AE	63.	12.02	8.	2.	2.	0.03
+	2 COMBINED AT	C627	4130.	12.28	1697.	749.	605.	13.32
+	HYDROGRAPH AT	211AF	102.	12.00	13.	4.	3.	0.05

*** NORMAL END OF HEC-1 ***

APPENDIX F

10-year, 6-hour Storm HEC-1 Output, Future Condition

```
1*************************************
 *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
 *              MAY  1991            *
 *           VERSION 4.0.1E          *
 *                                   *
 *  RUN DATE  10/31/94  TIME  13:27:08  *
 *                                   *
 *************************************
```

```
*************************************
*                                   *
*    U.S. ARMY CORPS OF ENGINEERS   *
*    HYDROLOGIC ENGINEERING CENTER  *
*          609 SECOND STREET        *
*       DAVIS, CALIFORNIA 95616     *
*           (916) 551-1748          *
*                                   *
*************************************
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X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX   XXXXX         XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

```
1                                    HEC-1 INPUT                                                    PAGE  1

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

    1           ID   Fountain Hills North Floodplain Delineation Study
    2           ID        FCD 92-04        by GVSCE                          File:   FU10-6.IH1
    3           ID   Future Condition Model                                   Date:    07-21-94   dtp
    4           ID      10-Year 6-Hour Storm, Clark Unit Hydrograph        Revised:   10-31-94   dtp
                *
    5           IT       1                    1080
    6           IO       5
    7           IN      15
                *
    8           JD    2.20    0.01
    9           PC   0.000   0.008   0.016   0.025   0.033   0.041   0.050   0.058   0.066   0.074
   10           PC   0.087   0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931   0.950
   11           PC   0.962   0.972   0.983   0.991   1.000
   12           JD    2.19    0.50
   13           JD    2.16    2.80
   14           PC   0.000   0.009   0.016   0.025   0.034   0.042   0.051   0.059   0.067   0.076
   15           PC   0.087   0.100   0.120   0.163   0.252   0.451   0.694   0.837   0.900   0.938
   16           PC   0.950   0.963   0.975   0.988   1.000
   17           JD    2.03    16.0
   18           PC   0.000   0.015   0.020   0.030   0.048   0.063   0.076   0.090   0.105   0.119
   19           PC   0.135   0.152   0.175   0.222   0.304   0.472   0.670   0.796   0.868   0.912
   20           PC   0.946   0.960   0.973   0.987   1.000
   21           JD    1.78    90.0
   22           PC   0.000   0.021   0.035   0.051   0.071   0.087   0.105   0.125   0.143   0.160
   23           PC   0.179   0.201   0.232   0.281   0.364   0.500   0.658   0.773   0.841   0.888
   24           PC   0.927   0.945   0.964   0.982   1.000
   25           JD    1.25   500.0
   26           PC   0.000   0.024   0.043   0.059   0.078   0.098   0.119   0.141   0.162   0.186
   27           PC   0.212   0.239   0.271   0.321   0.408   0.515   0.627   0.735   0.814   0.864
   28           PC   0.907   0.930   0.954   0.977   1.000
                *

   29           KK    201A
   30           KM   Sub-Basin   201A
   31           KM
   32           KM      The Clark Unit Hydrograph is used for this basin.
   33           KM          The HEC-1 time-area relation is used for this basin.
   34           KM
   35           KM      Time of Concentration for this sub-basin is based on the following:
   36           KM          6-Hour Rainfall, Pattern No.  1.00
   37           KM          An rainfall areal reduction factor of 0.997
   38           KM
   39           KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
   40           KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
   41           KM   .28 .28 .27 .06 .04 .02 .01 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
   42           KM
   43           KM          L=   1.269 miles, S=  208 feet/mile, Kb= .07
   44           KM
   45           BA   0.217
   46           LG    0.13    0.35    5.70    0.19    7.94
   47           UC   0.471   0.464
                *
1                                    HEC-1 INPUT                                                    PAGE  2

  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

   48           KK    201B
   49           KM   Sub-Basin   201B
   50           KM
   51           KM      The Clark Unit Hydrograph is used for this basin.
   52           KM          The HEC-1 time-area relation is used for this basin.
   53           KM
   54           KM      Time of Concentration for this sub-basin is based on the following:
   55           KM          6-Hour Rainfall, Pattern No.  1.00
   56           KM          An rainfall areal reduction factor of 0.999
```

```
 57          KM
 58          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 59          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 60          KM   .27 .27 .26 .05 .02 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
 61          KM
 62          KM          L=   0.680 miles, S=  223 feet/mile, Kb= .10
 63          KM
 64          BA   0.081
 65          LG    0.15    0.38    5.70    0.20    1.84
 66          UC   0.392   0.403
             *

 67          KK    C501
 68          KM      Hydrograph combine 201A + 201B at C501
 69          HC       2
             *

 70          KK  501502
 71          KM      Normal depth channel route from C501 to C502
 72          KM      Source:  200 Scale Mapping
 73          RS       9    FLOW     -1
 74          RC   0.055   0.045   0.055  3000.0  0.0203
 75          RX  1000.0  1010.0  1025.0  1045.0  1075.0  1105.0  1125.0  1155.0
 76          RY  1624.0  1622.0  1620.0  1618.0  1618.0  1620.0  1622.0  1624.0
             *

 77          KK    201C
 78          KM   Sub-Basin   201C
 79          KM
 80          KM      The Clark Unit Hydrograph is used for this basin.
 81          KM          The Urban time-area relation is used for this basin.
 82          KM
 83          KM      Time of Concentration for this sub-basin is based on the following:
 84          KM          6-Hour Rainfall, Pattern No.  1.00
 85          KM          An rainfall areal reduction factor of 0.999
 86          KM
 87          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 88          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 89          KM   .30 .30 .29 .09 .07 .06 .03 .02 .02 .01 .01 .01 .00 .00 .00 .00 .00 .00
 90          KM
 91          KM          L=   0.674 miles, S=  206 feet/mile, Kb= .03
 92          KM
 93          BA   0.079
 94          LG    0.09    0.26    5.70    0.18   23.84
 95          UC   0.179   0.171
1                                        HEC-1 INPUT                                                    PAGE  3
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 96          UA       0       5      16      30      65      77      84      90      94      97
 97          UA     100
             *

 98          KK   C502R
 99          KM      Hydrograph combine 501502 + 201C at C502 right branch
100          HC       2
             *

101          KK    201D
102          KM   Sub-Basin   201D
103          KM
104          KM      The Clark Unit Hydrograph is used for this basin.
105          KM          The HEC-1 time-area relation is used for this basin.
106          KM
107          KM      Time of Concentration for this sub-basin is based on the following:
108          KM          6-Hour Rainfall, Pattern No.  1.00
109          KM          An rainfall areal reduction factor of 0.999
110          KM
111          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
112          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
113          KM   .28 .28 .27 .07 .04 .02 .01 .01 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00
114          KM
115          KM          L=   0.898 miles, S=  207 feet/mile, Kb= .08
116          KM
117          BA   0.071
118          LG    0.13    0.34    5.70    0.19    8.74
119          UC   0.404   0.561
             *

120          KK    C502
121          KM      Hydrograph combine 502R + 201D at C502
122          HC       2
             *

123          KK  502503
124          KM      Normal depth channel route from C502 to C503
125          KM      Source:  200 Scale Mapping
126          RS      10    FLOW     -1
127          RC   0.050   0.045   0.050  2453.0  0.0183
128          RX  1000.0  1010.0  1025.0  1095.0  1215.0  1295.0  1305.0  1325.0
129          RY  1554.0  1553.0  1552.0  1550.0  1549.8  1551.0  1552.0  1554.0
             *

130          KK    201E
131          KM   Sub-Basin   201E
132          KM
133          KM      The Clark Unit Hydrograph is used for this basin.
134          KM          The HEC-1 time-area relation is used for this basin.
135          KM
136          KM      Time of Concentration for this sub-basin is based on the following:
137          KM          6-Hour Rainfall, Pattern No.  1.00
138          KM          An rainfall areal reduction factor of 0.998
139          KM
140          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
```

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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 141          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 142          KM   .28 .27 .27 .06 .03 .01 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
 143          KM
 144          KM          L=   1.245 miles, S=  178 feet/mile, Kb= .08
 145          KM
 146          BA   0.183
 147          LG    0.13    0.34    5.60    0.23    8.39
 148          UC   0.575   0.628
              *

 149          KK   C503I
 150          KM      Hydrograph combine 502503 + 201E at C503I
 151          HC       2
              *

 152          KK   C503O
 153          KM      Reservoir route at C503.
 154          RS       1    ELEV  1535.1
 155          SV    0.00    0.67    2.87    7.16   13.82   22.77   34.37   38.00   41.80   32.20
 156          SV   44.70   46.10   47.80   49.11   50.90   52.80   54.60   56.40
 157          SE  1525.1  1538.0  1540.0  1542.0  1544.0  1546.0  1548.0  1548.5  1549.0  1549.2
 158          SE  1549.4  1549.6  1549.8  1550.0  1550.2  1550.4  1550.6  1550.8
 159          SQ       0      50     133     210     273     325     367     377     407     441
 160          SQ     481     545     612     715     818     971    1115    1268
              *

 161          KK   D503R
 162          KM      Hydrograph diversion at C503.  Main flow continues in the right branch.
 163          KM      Diverted flow is in the left branch.
 164          DT   D503L
 165          DI       0      50     133     210     273     325     367     377     407     441
 166          DI     481     545     612     715     818     971    1115    1268
 167          DQ       0      50     133     210     273     325     367     377     386     391
 168          DQ     394     398     402     405     408     412     415     418
              *

 169          KK  503504
 170          KM      Normal depth channel route from C503 to C504
 171          KM      Source:  200 Scale Mapping
 172          RS       1    FLOW      -1
 173          RC   0.050   0.040   0.050  1151.0  0.0098
 174          RX   940.0  1060.0  1100.0  1140.0  1190.0  1210.0  1230.0  1242.0
 175          RY  1552.0  1548.0  1547.0  1546.2  1546.2  1548.0  1549.0  1552.0
              *
              * *
              * *  End Basin 201.  Start Basin 202
              * *
              *

 176          KK    202A
 177          KM   Sub-Basin   202A
 178          KM
 179          KM      The Clark Unit Hydrograph is used for this basin.
 180          KM          The Urban time-area relation is used for this basin.
 181          KM
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 182          KM      Time of Concentration for this sub-basin is based on the following:
 183          KM          6-Hour Rainfall, Pattern No.  1.00
 184          KM          An rainfall areal reduction factor of 1.000
 185          KM
 186          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 187          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 188          KM   .29 .29 .28 .08 .05 .04 .02 .02 .02 .02 .02 .02 .00 .00 .00 .00 .00 .00
 189          KM
 190          KM          L=   0.409 miles, S=  129 feet/mile, Kb= .03
 191          KM
 192          BA   0.038
 193          LG    0.09    0.25    4.40    0.34   29.61
 194          UC   0.163   0.156
 195          UA       0       5      16      30      65      77      84      90      94      97
 196          UA     100
              *

 197          KK   C504I
 198          KM      Hydrograph combine D503R + 202A at C504I
 199          HC       2
              *

 200          KK   C504O
 201          KM      Reservoir route at C504.
 202          RS       1    ELEV  1538.1
 203          SV    0.00    0.17    0.90    1.00    1.10    1.30    1.60    1.80    2.00    2.30
 204          SV    2.50    2.70    3.00    3.10
 205          SE  1538.1  1540.0  1541.66 1541.80 1542.0  1542.2  1542.4  1542.6  1542.8  1543.0
 206          SE  1543.2  1543.4  1543.6  1543.7
 207          SQ       0      11      20      22      24      30      41      60      85     121
 208          SQ     171     240     322     396
              *

 209          KK   D504R
 210          KM      Hydrograph diversion at C504.  Main flow continues in the right branch.
 211          KM      Diverted flow is in the left branch.
 212          DT   D504L
 213          DI       0      11      20      22      24      30      41      60      85     121
 214          DI     171     240     322     396
 215          DQ       0      11      20      20      21      22      22      23      23      24
 216          DQ      24      25      26      26
```

```
                *

 217            KK    202B
 218            KM   Sub-Basin   202B
 219            KM
 220            KM      The Clark Unit Hydrograph is used for this basin.
 221            KM          The Urban time-area relation is used for this basin.
 222            KM
 223            KM      Time of Concentration for this sub-basin is based on the following:
 224            KM          6-Hour Rainfall, Pattern No.  1.00
 225            KM          An rainfall areal reduction factor of 1.000
 226            KM
 227            KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 228            KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1                                                HEC-1 INPUT                                                    PAGE  6
LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 229            KM   .29 .29 .28 .08 .05 .04 .02 .02 .02 .02 .02 .02 .00 .00 .00 .00 .00 .00
 230            KM
 231            KM          L=   0.364 miles, S=  322 feet/mile, Kb= .03
 232            KM
 233            BA   0.018
 234            LG    0.09    0.25    4.55    0.31   29.03
 235            UC   0.117   0.150
 236            UA       0       5      16      30      65      77      84      90      94      97
 237            UA     100
                *

 238            KK   C505I
 239            KM      Hydrograph combine D504R + 202B at C505I
 240            HC       2
                *

 241            KK   D505R
 242            KM      Hydrograph diversion at C505.  Main flow continues in the right branch.
 243            KM      Diverted flow is in the left branch.
 244            DT   D505L
 245            DI       0       3       7       9      11      14      15      17      23      31
 246            DI      44      55      75      95     123     134
 247            DQ       0       3       7       9      11      12      12      13      14      14
 248            DQ      15      15      16      16      16      17
                *

 249            KK    202C
 250            KM   Sub-Basin   202C
 251            KM
 252            KM      The Clark Unit Hydrograph is used for this basin.
 253            KM          The Urban time-area relation is used for this basin.
 254            KM
 255            KM      Time of Concentration for this sub-basin is based on the following:
 256            KM          6-Hour Rainfall, Pattern No.  1.00
 257            KM          An rainfall areal reduction factor of 1.000
 258            KM
 259            KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 260            KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 261            KM   .30 .29 .29 .08 .06 .05 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
 262            KM
 263            KM          L=   0.192 miles, S=  363 feet/mile, Kb= .04
 264            KM
 265            BA   0.008
 266            LG    0.08    0.25    4.35    0.35   38.72
 267            UC   0.092   0.112
 268            UA       0       5      16      30      65      77      84      90      94      97
 269            UA     100
                *

 270            KK    C506
 271            KM      Hydrograph combine C505R + 202C at C506
 272            HC       2
                *
1                                                HEC-1 INPUT                                                    PAGE  7
LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 273            KK   D506R
 274            KM      Hydrograph diversion at C506.  Main flow continues in the right branch.
 275            KM      Diverted flow is in the left branch.
 276            DT   D506L
 277            DI       0       3      13      37      77     100     151     206     276     355
 278            DI     437     532     698     809     928    1104
 279            DQ       0       0       0       0       0       0       4      12      28      52
 280            DQ      85     128     183     249     328     421
                *

 281            KK    202D
 282            KM   Sub-Basin   202D
 283            KM
 284            KM      The Clark Unit Hydrograph is used for this basin.
 285            KM          The Urban time-area relation is used for this basin.
 286            KM
 287            KM      Time of Concentration for this sub-basin is based on the following:
 288            KM          6-Hour Rainfall, Pattern No.  1.00
 289            KM          An rainfall areal reduction factor of 0.999
 290            KM
 291            KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 292            KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 293            KM   .30 .30 .29 .09 .07 .06 .03 .02 .02 .02 .02 .02 .00 .00 .00 .00 .00 .00
 294            KM
 295            KM          L=   0.800 miles, S=  248 feet/mile, Kb= .03
 296            KM
 297            BA   0.063
 298            LG    0.09    0.25    5.60    0.20   28.04
```

```
299   UC   0.183   0.229
300   UA      0       5      16      30      65      77      84      90      94      97
301   UA    100
      *

302   KK   202E
303   KM   Sub-Basin   202E
304   KM
305   KM      The Clark Unit Hydrograph is used for this basin.
306   KM          The Urban time-area relation is used for this basin.
307   KM
308   KM      Time of Concentration for this sub-basin is based on the following:
309   KM          6-Hour Rainfall, Pattern No.  1.00
310   KM          An rainfall areal reduction factor of 0.999
311   KM
312   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
313   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
314   KM   .30 .30 .30 .09 .07 .06 .03 .03 .02 .02 .02 .02 .00 .00 .00 .00 .00 .00
315   KM
316   KM          L=   0.732 miles, S=  270 feet/mile, Kb= .03
317   KM
318   BA   0.104
319   LG    0.09    0.25    5.70    0.18   26.88
320   UC   0.171   0.147
321   UA      0       5      16      30      65      77      84      90      94      97
322   UA    100
      *
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1 HEC-1 INPUT PAGE 8

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LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

323   KK   C508O
324   KM      Reservoir route at C508.
325   RS       1    ELEV  1524.2
326   SV    0.00    0.05    0.09    0.13    0.17    0.21    0.25    0.28    0.36    0.46
327   SV    0.55    0.64    0.72    0.81    0.90    1.00    1.02
328   SE  1524.1  1525.0  1525.5  1526.0  1526.5  1527.0  1527.6  1528.0  1528.2  1528.4
329   SE  1528.6  1528.8  1529.0  1529.2  1529.4  1529.6  1529.64
330   SQ       0       6       9      16      22      28      38      51      58      70
331   SQ      84     100     122     149     183     216     227
      *

332   KK   D508L
333   KM      Hydrograph diversion at C508.  Main flow continues in the left branch.
334   KM      Diverted flow is in the right branch.
335   DT   D508R
336   DI       0       6       9      16      22      28      38      51      58      70
337   DI      84     100     122     149     183     216     227
338   DQ       0       6       9      16      22      28      38      47      52      56
339   DQ      60      63      66      68      71      73      73
      *

340   KK  508507
341   KM      Normal depth channel route from C508 to C507
342   KM      Source:  200 Scale Mapping
343   RS       5    FLOW      -1
344   RC   0.020   0.035   0.055   934.0  0.0028
345   RX   893.0  1014.0  1022.0  1026.0  1040.0  1050.0  1060.0  1066.0
346   RY  1532.0  1529.4  1528.6  1527.6  1529.0  1530.2  1531.3  1532.0
      *

347   KK   C507I
348   KM      Hydrograph combine D506R + 202D + D508L at C507I
349   HC       3
      *

350   KK   C507O
351   KM      Reservoir route at C507
352   RS       1    ELEV  1525.2
353   SV    0.00    0.28    0.46    0.65    0.85    1.03    1.38    1.40    1.44    1.48
354   SV    1.52    1.55    1.59    1.64    1.67    1.70    1.75    1.77
355   SE  1525.2  1526.0  1526.5  1527.0  1527.5  1528.0  1529.0  1529.0  1529.1  1529.2
356   SE  1529.3  1529.4  1529.5  1529.6  1529.7  1529.8  1529.9  1530.0
357   SQ       0       2       5       9      13      15      18      20      36      69
358   SQ     118     185     272     378     506     652     816     997
      *

359   KK   202F
360   KM   Sub-Basin   202F
361   KM
362   KM      The Clark Unit Hydrograph is used for this basin.
363   KM          The Urban time-area relation is used for this basin.
364   KM
365   KM      Time of Concentration for this sub-basin is based on the following:
366   KM          6-Hour Rainfall, Pattern No.  1.00
```

1 HEC-1 INPUT PAGE 9

```
LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

367   KM          An rainfall areal reduction factor of 1.000
368   KM
369   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
370   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
371   KM   .31 .30 .30 .10 .07 .07 .03 .03 .03 .02 .02 .02 .01 .01 .01 .01 .01 .01
372   KM
373   KM          L=   0.188 miles, S=  337 feet/mile, Kb= .03
374   KM
375   BA   0.013
376   LG    0.08    0.25    5.60    0.20   38.05
377   UC   0.083   0.073
378   UA      0       5      16      30      65      77      84      90      94      97
379   UA    100
      *
```

```
380          KK    202G
381          KM   Sub-Basin   202G
382          KM
383          KM      The Clark Unit Hydrograph is used for this basin.
384          KM          The Urban time-area relation is used for this basin.
385          KM
386          KM      Time of Concentration for this sub-basin is based on the following:
387          KM          6-Hour Rainfall, Pattern No.  1.00
388          KM          An rainfall areal reduction factor of 1.000
389          KM
390          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
391          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
392          KM   .31 .30 .30 .10 .07 .07 .03 .03 .03 .02 .02 .02 .01 .01 .01 .01 .01 .01
393          KM
394          KM          L=   0.175 miles, S=  338 feet/mile, Kb= .03
395          KM
396          BA   0.013
397          LG    0.08    0.25    5.70    0.18   35.52
398          UC   0.083   0.069
399          UA       0       5      16      30      65      77      84      90      94      97
400          UA     100
             *

401          KK    202H
402          KM   Sub-Basin   202H
403          KM
404          KM      The Clark Unit Hydrograph is used for this basin.
405          KM          The Urban time-area relation is used for this basin.
406          KM
407          KM      Time of Concentration for this sub-basin is based on the following:
408          KM          6-Hour Rainfall, Pattern No.  1.00
409          KM          An rainfall areal reduction factor of 0.998
410          KM
411          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
412          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
413          KM   .30 .29 .29 .09 .06 .05 .02 .02 .02 .02 .02 .02 .00 .00 .00 .00 .00 .00
414          KM
415          KM          L=   0.861 miles, S=  243 feet/mile, Kb= .03
416          KM
417          BA   0.179
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

418          LG    0.09    0.25    5.20    0.22   26.85
419          UC   0.192   0.140
420          UA       0       5      16      30      65      77      84      90      94      97
421          UA     100
             *

422          KK   C511O
423          KM      Reservoir route at C511.
424          RS       1    ELEV  1535.2
425          SV    0.00    0.40    0.70    1.19    3.10    3.20    3.55    4.00    4.50    4.90
426          SV    5.40    5.80    6.30    6.80    7.20    7.70    8.13
427          SE  1535.2  1537.0  1538.0  1540.0  1541.6  1541.8  1542.0  1542.2  1542.4  1542.6
428          SE  1542.8  1543.0  1543.2  1543.4  1543.6  1543.8  1544.0
429          SQ       0      42      88     200     274     286     325     393     491     622
430          SQ     790    1000    1241    1518    1835    2189    2580
             *

431          KK  511512
432          KM      Normal depth channel route from C511 to C512
433          KM      Source:  200 Scale Mapping
434          RS       2    FLOW      -1
435          RC   0.055   0.045   0.055   760.0  0.0112
436          RX  1000.0  1060.0  1070.0  1090.0  1110.0  1120.0  1180.0  1220.0
437          RY  1536.0  1534.2  1534.0  1532.0  1532.0  1534.0  1535.0  1536.0
             *

438          KK    202I
439          KM   Sub-Basin   202I
440          KM
441          KM      The Clark Unit Hydrograph is used for this basin.
442          KM          The Urban time-area relation is used for this basin.
443          KM
444          KM      Time of Concentration for this sub-basin is based on the following:
445          KM          6-Hour Rainfall, Pattern No.  1.00
446          KM          An rainfall areal reduction factor of 1.000
447          KM
448          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
449          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
450          KM   .32 .32 .32 .11 .09 .09 .04 .04 .04 .04 .04 .04 .01 .01 .01 .01 .01 .01
451          KM
452          KM          L=   0.247 miles, S=  122 feet/mile, Kb= .03
453          KM
454          BA   0.017
455          LG    0.06    0.25    5.10    0.24   73.16
456          UC   0.125   0.121
457          UA       0       5      16      30      65      77      84      90      94      97
458          UA     100
             *

459          KK   C512I
460          KM      Hydrograph combine 511512 + 202I at C512
461          KM      Inflow to reservoir route at C512
462          KM      This is the inflow to the Stock Tank at the end of Bahia Drive
463          HC       2
             *
```



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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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```
464     KK   C5120
465     KM      Reservoir route at C512 (Stock Tank).
466     RS       1    ELEV  1517.0
467     SV    0.00    0.03    0.29    0.75    1.38    2.39    4.17    7.43   10.30   12.20
468     SV   12.70   13.36   14.10   15.10   16.20   17.00   17.90
469     SE  1517.0  1518.0  1520.0  1522.0  1524.0  1526.0  1528.0  1530.0  1531.0  1531.6
470     SE  1531.8  1532.0  1532.2  1532.4  1532.6  1532.8  1533.0
471     SQ       0       0       0       0       0       0       0       0       0      15
472     SQ      35      65     137     244     376     541     725
        *

473     KK   D512L
474     KM      Hydrograph diversion at C512.
475     KM      Main flow continues in the left branch (weir).
476     KM      Diverted flow enters Bahia Drive (channel) and continues to C591.
477     KM      Diverted flow is in the right branch.
478     DT   D512R
479     DI       0      15      35      65     137     244     376     541     725
480     DQ       0       0       4      10      49     112     190     289     395
        *
        * *
        * *  Note:  512591 too short to route
        * *
        *
        * *
        * *  End Basin 202.  Start Basin 203.
        * *
        *

481     KK    203A
482     KM   Sub-Basin   203A
483     KM
484     KM      The Clark Unit Hydrograph is used for this basin.
485     KM          The HEC-1 time-area relation is used for this basin.
486     KM
487     KM      Time of Concentration for this sub-basin is based on the following:
488     KM          6-Hour Rainfall, Pattern No.  1.00
489     KM          An rainfall areal reduction factor of 0.996
490     KM
491     KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
492     KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
493     KM   .28 .27 .26 .06 .03 .01 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
494     KM
495     KM          L=   1.569 miles, S=  229 feet/mile, Kb= .08
496     KM
497     BA   0.279
498     LG    0.14    0.37    5.70    0.20    4.62
499     UC   0.613   0.637
        *
```



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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

500     KK   C5130
501     KM      Reservoir route at C513.
502     RS       1    ELEV  1789.0
503     SV    0.00    0.35    0.97    2.05    3.54    5.54    8.17
504     SE  1789.0  1794.0  1796.0  1798.0  1800.0  1802.0  1804.0
505     SQ       0       0      20      70     135     315    1995
        *

506     KK  513514
507     KM      Normal depth channel route from C513 to C514
508     KM      Source:  200 Scale Mapping
509     RS       8    FLOW      -1
510     RC   0.050   0.045   0.050  2403.0  0.0240
511     RX  1000.0  1010.0  1035.0  1080.0  1100.0  1120.0  1135.0  1145.0
512     RY  1780.0  1778.0  1770.0  1768.0  1768.0  1770.0  1778.0  1780.0
        *

513     KK    203B
514     KM   Sub-Basin   203B
515     KM
516     KM      The Clark Unit Hydrograph is used for this basin.
517     KM          The Urban time-area relation is used for this basin.
518     KM
519     KM      Time of Concentration for this sub-basin is based on the following:
520     KM          6-Hour Rainfall, Pattern No.  1.00
521     KM          An rainfall areal reduction factor of 0.999
522     KM
523     KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
524     KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
525     KM   .30 .30 .29 .09 .06 .06 .02 .02 .02 .01 .01 .01 .00 .00 .00 .00 .00 .00
526     KM
527     KM          L=   0.484 miles, S=  236 feet/mile, Kb= .04
528     KM
529     BA   0.044
530     LG    0.09    0.27    5.70    0.18   22.92
531     UC   0.167   0.167
532     UA       0       5      16      30      65      77      84      90      94      97
533     UA     100
        *

534     KK   C514R
535     KM      Hydrograph combine 513514 + 203B at C514 right channel
536     HC       2
        *

537     KK    203C
538     KM   Sub-Basin   203C
539     KM
540     KM      The Clark Unit Hydrograph is used for this basin.
```

```
541        KM          The HEC-1 time-area relation is used for this basin.
542        KM
543        KM      Time of Concentration for this sub-basin is based on the following:
544        KM          6-Hour Rainfall, Pattern No.  1.00
545        KM          An rainfall areal reduction factor of 0.999
1                                        HEC-1 INPUT                                                    PAGE 13
LINE       ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

546        KM
547        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
548        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
549        KM   .29 .28 .28 .07 .04 .03 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
550        KM
551        KM          L=   0.988 miles, S=  258 feet/mile, Kb= .07
552        KM
553        BA   0.103
554        LG    0.12    0.33    5.70    0.20   13.59
555        UC   0.350   0.417
           *

556        KK    C514
557        KM      Hydrograph combine C514R + 203C at C514
558        HC       2
           *
           * *
           * * Note: 514515 too short to route
           * *
           *

559        KK    203D
560        KM   Sub-Basin   203D
561        KM
562        KM      The Clark Unit Hydrograph is used for this basin.
563        KM          The HEC-1 time-area relation is used for this basin.
564        KM
565        KM      Time of Concentration for this sub-basin is based on the following:
566        KM          6-Hour Rainfall, Pattern No.  1.00
567        KM          An rainfall areal reduction factor of 0.999
568        KM
569        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
570        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
571        KM   .28 .28 .27 .06 .04 .02 .01 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
572        KM
573        KM          L=   1.025 miles, S=  252 feet/mile, Kb= .08
574        KM
575        BA   0.108
576        LG    0.13    0.34    5.70    0.20    8.61
577        UC   0.408   0.496
           *

578        KK    C515
579        KM      Hydrograph combine C514 + 203D at C515
580        HC       2
           *

581        KK  515517
582        KM      Normal depth channel route from C515 to C517
583        KM      Source:  200 Scale Mapping
584        RS       9    FLOW     -1
585        RC   0.050   0.045   0.060  3340.0  0.0186
586        RX  1000.0  1020.0  1045.0  1065.0  1085.0  1125.0  1135.0  1145.0
587        RY  1708.0  1704.0  1702.0  1698.0  1698.0  1700.0  1705.0  1710.0
           *
1                                        HEC-1 INPUT                                                    PAGE 14
LINE       ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

588        KK    203E
589        KM   Sub-Basin   203E
590        KM
591        KM      The Clark Unit Hydrograph is used for this basin.
592        KM          The Urban time-area relation is used for this basin.
593        KM
594        KM      Time of Concentration for this sub-basin is based on the following:
595        KM          6-Hour Rainfall, Pattern No.  1.00
596        KM          An rainfall areal reduction factor of 0.999
597        KM
598        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
599        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
600        KM   .31 .31 .31 .10 .08 .08 .03 .03 .03 .02 .02 .01 .00 .00 .00 .00 .00 .00
601        KM
602        KM          L=   0.640 miles, S=  219 feet/mile, Kb= .03
603        KM
604        BA   0.093
605        LG    0.09    0.19    6.60    0.13   25.00
606        UC   0.167   0.137
607        UA      0       5      16      30      65      77      84      90      94      97
608        UA    100
           *

609        KK   C517R
610        KM     Hydrograph combine 515517 + 203E at C517 right branch
611        HC       2
           *

612        KK    203F
613        KM   Sub-Basin   203F
614        KM
615        KM      The Clark Unit Hydrograph is used for this basin.
616        KM          The Natural time-area relation is used for this basin.
617        KM
618        KM      Time of Concentration for this sub-basin is based on the following:
```

```
619          KM          6-Hour Rainfall, Pattern No.  1.00
620          KM          An rainfall areal reduction factor of 0.996
621          KM
622          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
623          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
624          KM   .27 .26 .26 .05 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
625          KM
626          KM          L=   1.460 miles, S=  237 feet/mile, Kb= .09
627          KM
628          BA   0.333
629          LG    0.15    0.39    5.70    0.21    0.00
630          UC   0.658   0.589
631          UA       0       3       5       8      12      20      43      75      90      96
632          UA     100
             *
1                                          HEC-1 INPUT                                                    PAGE 15

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

633          KK  516517
634          KM      Normal depth channel route from C516 to C517
635          KM      Source:  200 Scale Mapping
636          RS      21    FLOW      -1
637          RC   0.065   0.045   0.055  6720.0  0.0213
638          RX  1000.0  1015.0  1020.0  1040.0  1080.0  1095.0  1100.0  1125.0
639          RY  1724.0  1718.0  1716.0  1714.0  1714.0  1716.0  1718.0  1724.0
             *

640          KK    203G
641          KM   Sub-Basin   203G
642          KM
643          KM      The Clark Unit Hydrograph is used for this basin.
644          KM          The HEC-1 time-area relation is used for this basin.
645          KM
646          KM      Time of Concentration for this sub-basin is based on the following:
647          KM          6-Hour Rainfall, Pattern No.  1.00
648          KM          An rainfall areal reduction factor of 0.997
649          KM
650          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
651          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
652          KM   .28 .28 .27 .07 .04 .02 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
653          KM
654          KM          L=   1.424 miles, S=  215 feet/mile, Kb= .07
655          KM
656          BA   0.248
657          LG    0.13    0.34    6.00    0.18    9.21
658          UC   0.504   0.508
             *

659          KK   C517L
660          KM      Hydrograph combine 516517 + 203G at C517 left branch
661          HC       2
             *

662          KK    C517
663          KM      Hydrograph combine C517R + C517L at C517
664          HC       2
             *

665          KK  517518
666          KM      Normal depth channel route from C517 to C518
667          KM      Source:  HEC-2 Cross Section: ES 3.522
668          RS       8    FLOW      -1
669          RC   0.055   0.035   0.060  4367.0  0.0174
670          RX  9808.1  9845.6  9957.0  9990.4 10007.0 10015.9 10076.5 10176.0
671          RY  1628.2  1618.6  1617.5  1614.8  1614.7  1619.7  1622.9  1631.3
             *
1                                          HEC-1 INPUT                                                    PAGE 16

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

672          KK    203H
673          KM   Sub-Basin   203H
674          KM
675          KM      The Clark Unit Hydrograph is used for this basin.
676          KM          The Urban time-area relation is used for this basin.
677          KM
678          KM      Time of Concentration for this sub-basin is based on the following:
679          KM          6-Hour Rainfall, Pattern No.  1.00
680          KM          An rainfall areal reduction factor of 0.997
681          KM
682          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
683          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
684          KM   .30 .29 .29 .09 .06 .05 .02 .02 .02 .01 .01 .01 .00 .00 .00 .00 .00 .00
685          KM
686          KM          L=   1.035 miles, S=  178 feet/mile, Kb= .03
687          KM
688          BA   0.207
689          LG    0.09    0.25    5.40    0.21   25.00
690          UC   0.233   0.186
691          UA       0       5      16      30      65      77      84      90      94      97
692          UA     100
             *

693          KK    C518
694          KM      Hydrograph combine 517518 + 203H at C518
695          HC       2
             *

696          KK  518519
697          KM      Normal depth channel route from C518 to C519
698          KM      Source:  HEC-2 Cross Section: ES 3.072
```

```
699          RS       4    FLOW      -1
700          RC   0.090   0.050   0.085  1796.0  0.0217
701          RX  9851.4  9884.7  9955.8  9983.5 10028.9 10036.3 10057.6 10087.9
702          RY  1586.3  1569.6  1568.4  1565.8  1565.4  1566.0  1575.0  1589.3
             *

703          KK    203I
704          KM   Sub-Basin   203I
705          KM
706          KM      The Clark Unit Hydrograph is used for this basin.
707          KM          The Urban time-area relation is used for this basin.
708          KM
709          KM      Time of Concentration for this sub-basin is based on the following:
710          KM          6-Hour Rainfall, Pattern No.  1.00
711          KM          An rainfall areal reduction factor of 0.998
712          KM
713          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
714          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
715          KM   .29 .29 .29 .08 .06 .05 .02 .02 .02 .02 .02 .02 .00 .00 .00 .00 .00 .00
716          KM
717          KM          L=   1.323 miles, S=  161 feet/mile, Kb= .03
718          KM
719          BA   0.171
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

720          LG    0.09    0.25    4.80    0.27   29.11
721          UC   0.279   0.308
722          UA       0       5      16      30      65      77      84      90      94      97
723          UA     100
             *

724          KK    C519
725          KM      Hydrograph combine 518519 + 203I at C519
726          HC       2
             *

727          KK  519591
728          KM      Normal depth channel route from C519 to C591
729          KM      Source:  HEC-2 Cross Section: ES 2.695
730          RS       3    FLOW      -1
731          RC   0.090   0.050   0.085  1274.0  0.0181
732          RX  9851.3  9905.0  9927.9  9949.0 10017.8 10053.7 10096.8 10135.1
733          RY  1540.3  1537.0  1536.5  1529.2  1528.6  1537.7  1539.6  1540.1
             *

734          KK    203J
735          KM   Sub-Basin   203J
736          KM
737          KM      The Clark Unit Hydrograph is used for this basin.
738          KM          The Urban time-area relation is used for this basin.
739          KM
740          KM      Time of Concentration for this sub-basin is based on the following:
741          KM          6-Hour Rainfall, Pattern No.  1.00
742          KM          An rainfall areal reduction factor of 0.999
743          KM
744          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
745          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
746          KM   .32 .32 .32 .11 .09 .09 .04 .04 .04 .04 .04 .04 .01 .01 .01 .01 .01 .01
747          KM
748          KM          L=   0.533 miles, S=  237 feet/mile, Kb= .03
749          KM
750          BA   0.039
751          LG    0.07    0.25    5.60    0.20   64.82
752          UC   0.150   0.173
753          UA       0       5      16      30      65      77      84      90      94      97
754          UA     100
             *

755          KK  520591
756          KM      Normal depth channel route from C520 to C591
757          KM      Source:  Hydrology Field Reconnaissance
758          RS       4    FLOW      -1
759          RC   0.050   0.018   0.040  2014.0  0.0248
760          RX  1000.0  1030.0  1041.2  1057.2  1073.2  1074.4  1086.4  1116.0
761          RY  1570.0  1566.0  1564.8  1565.2  1564.9  1565.3  1565.9  1568.0
             *
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

762          KK  BB512R
763          KM      Retrieve previously diverted hydrograph at C512 in the right branch.
764          DR   D512R
             *

765          KK    C591
766          KM      Hydrograph combine 519591 + 520591 + D512R at C591
767          HC       3    1.83
             *

768          KK  591521
769          KM      Normal depth channel route from C591 to C521
770          KM      Source:  HEC-2 Cross Section: ES 2.614
771          RS       3    FLOW      -1
772          RC   0.090   0.050   0.085   915.0  0.0142
773          RX  9827.7  9921.5  9950.2  9970.7 10046.6 10078.1 10120.0 10177.5
774          RY  1531.1  1524.8  1524.4  1520.8  1520.0  1530.3  1531.1  1532.3
             *

775          KK    203K
776          KM   Sub-Basin   203K
```

```
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          6-Hour Rainfall, Pattern No.  1.00
KM          An rainfall areal reduction factor of 0.998
KM
KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .31 .31 .30 .10 .08 .07 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
KM
KM          L=   0.878 miles, S=  158 feet/mile, Kb= .03
KM
BA   0.160
LG    0.08    0.25    5.60    0.19   44.98
UC   0.217   0.173
UA       0       5      16      30      65      77      84      90      94      97
UA     100
*

KK    C521
KM      Hydrograph combine 591521 + 203K at C521
HC       2
*
* *
* * C521 is the total flow in Escalante Wash at the Study boundary
* *
* * End Basin 203.  Start Basin 204
* *
*
```

1 HEC-1 INPUT PAGE 19

```
LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK   CLEAR
KM      Clear hydrographs from stack
HC       5
*

KK    204A
KM   Sub-Basin   204A
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          6-Hour Rainfall, Pattern No.  1.00
KM          An rainfall areal reduction factor of 0.999
KM
KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .30 .30 .29 .09 .07 .06 .03 .02 .02 .01 .01 .01 .00 .00 .00 .00 .00 .00
KM
KM          L=   0.687 miles, S=  175 feet/mile, Kb= .03
KM
BA   0.108
LG    0.09    0.25    5.80    0.18   25.00
UC   0.188   0.152
UA       0       5      16      30      65      77      84      90      94      97
UA     100
*

KK  522523
KM      Normal depth channel route from C522 to C523
KM      Source:  200 Scale Mapping
RS      10     FLOW      -1
RC   0.060   0.050   0.060  3275.0  0.0197
RX  1000.0  1020.0  1035.0  1065.0  1080.0  1120.0  1160.0  1185.0
RY  1678.0  1676.0  1674.0  1672.0  1672.0  1674.0  1676.0  1678.0
*

KK    204B
KM   Sub-Basin   204B
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          6-Hour Rainfall, Pattern No.  1.00
KM          An rainfall areal reduction factor of 0.998
KM
KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .30 .30 .30 .09 .07 .06 .03 .03 .02 .02 .02 .02 .00 .00 .00 .00 .00 .00
KM
KM          L=   0.775 miles, S=  128 feet/mile, Kb= .03
KM
BA   0.126
```

1 HEC-1 INPUT PAGE 20

```
LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

LG    0.09    0.25    5.80    0.18   26.66
UC   0.221   0.184
UA       0       5      16      30      65      77      84      90      94      97
UA     100
*

KK   C523I
KM      Hydrograph combine 522523 + 204B at C523I
HC       2
*
```

```
854          KK   C5230
855          KM      Reservoir route at C523.
856          RS       1    ELEV  1650.3
857          SV    0.00     0.01     0.12     0.71     2.23     2.50     2.80     3.10     3.20     3.40
858          SV    3.70     4.00     4.30     4.60     4.90     5.20     5.50
859          SE  1650.3  1652.0  1654.0  1656.0  1658.0  1658.2  1658.4  1658.6  1658.7  1658.8
860          SE  1659.0  1659.2  1659.4  1659.6  1659.8  1660.0  1660.2
861          SQ       0       22       78      144      209      214      220      224      226      232
862          SQ     239      249      288      384      529      726      960
             *

863          KK   D523L
864          KM      Hydrograph diversion at C523.  Main flow continues in the left branch.
865          KM      Diverted flow is in the right branch.
866          DT   D523R
867          DI       0       22       78      144      209      214      220      224      226      232
868          DI     239      249      288      384      529      726      960
869          DQ       0        0        0        0        0        0        0        0        0        3
870          DQ       5       10       20       37       61       96      139
             *

871          KK  523524
872          KM      Normal depth channel route from C523 to C524
873          KM      Source:  HEC-2 Cross Section: CA 2.072
874          KM      This is flow in Fountain Hills Blvd. which is routed to C548
875          RS       4    FLOW      -1
876          RC   0.080    0.050    0.075  1732.0   0.0177
877          RX  9827.8  9925.9  9978.5 10000.0 10020.8 10041.9 10110.6 10151.9
878          RY  1639.8  1635.7  1634.3  1629.9  1630.2  1631.8  1633.5  1636.7
             *

879          KK    204C
880          KM   Sub-Basin   204C
881          KM
882          KM      The Clark Unit Hydrograph is used for this basin.
883          KM          The Urban time-area relation is used for this basin.
884          KM
885          KM      Time of Concentration for this sub-basin is based on the following:
886          KM          6-Hour Rainfall, Pattern No.  1.00
887          KM          An rainfall areal reduction factor of 0.999
888          KM
889          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
890          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
891          KM   .32 .32 .32 .11 .09 .09 .04 .04 .04 .04 .04 .04 .01 .01 .01 .01 .01 .01
1                                          HEC-1 INPUT                                                    PAGE 21
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
892          KM
893          KM          L=   0.400 miles, S=  142 feet/mile, Kb= .03
894          KM
895          BA   0.077
896          LG    0.07     0.25     5.70     0.18    66.42
897          UC   0.150    0.094
898          UA       0        5       16       30       65       77       84       90       94       97
899          UA     100
             *

900          KK    C524
901          KM      Hydrograph combine 523524 + 204C at C524
902          HC       2
             *

903          KK  524525
904          KM      Normal depth channel route from C524 to C525
905          KM      Source:  HEC-2 Cross Section: CA 1.898
906          RS       2    FLOW      -1
907          RC   0.050    0.035    0.060  1045.0   0.0211
908          RX  9823.1  9873.0  9960.0  9986.1 10008.3 10049.7 10070.0 10078.4
909          RY  1617.9  1616.7  1616.3  1609.2  1609.0  1616.4  1616.8  1617.3
             *

910          KK    204D
911          KM   Sub-Basin   204D
912          KM
913          KM      The Clark Unit Hydrograph is used for this basin.
914          KM          The Urban time-area relation is used for this basin.
915          KM
916          KM      Time of Concentration for this sub-basin is based on the following:
917          KM          6-Hour Rainfall, Pattern No.  1.00
918          KM          An rainfall areal reduction factor of 0.999
919          KM
920          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
921          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
922          KM   .32 .31 .31 .11 .09 .08 .04 .04 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
923          KM
924          KM          L=   0.345 miles, S=   96 feet/mile, Kb= .03
925          KM
926          BA   0.044
927          LG    0.07     0.25     5.70     0.18    53.85
928          UC   0.158    0.121
929          UA       0        5       16       30       65       77       84       90       94       97
930          UA     100
             *

931          KK    C525
932          KM      Hydrograph combine 524525 + 204D at C525
933          HC       2
             *
1                                          HEC-1 INPUT                                                    PAGE 22
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
934          KK  525526
935          KM      Normal depth channel route from C525 to C526
936          KM      Source:  HEC-2 Cross Section: CA 1.663
937          RS        2    FLOW      -1
938          RC   0.050   0.035   0.060  1520.0  0.0211
939          RX  9915.0  9940.0  9968.0  9992.6 10012.4 10032.0 10049.6 10106.9
940          RY  1592.8  1592.3  1591.8  1585.0  1584.8  1591.3  1592.1  1592.5
             *

941          KK   204E
942          KM   Sub-Basin   204E
943          KM
944          KM      The Clark Unit Hydrograph is used for this basin.
945          KM          The Urban time-area relation is used for this basin.
946          KM
947          KM      Time of Concentration for this sub-basin is based on the following:
948          KM          6-Hour Rainfall, Pattern No.  1.00
949          KM          An rainfall areal reduction factor of 0.999
950          KM
951          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
952          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
953          KM   .31 .31 .30 .10 .08 .07 .03 .03 .03 .02 .02 .02 .01 .01 .01 .01 .01 .01
954          KM
955          KM          L=   0.508 miles, S=  108 feet/mile, Kb= .03
956          KM
957          BA   0.071
958          LG    0.08    0.25    5.70    0.18   41.17
959          UC   0.188   0.152
960          UA       0       5      16      30      65      77      84      90      94      97
961          UA     100
             *

962          KK    C526
963          KM      Hydrograph combine 525526 + 204E at C526
964          HC       2
             *

965          KK  526527
966          KM      Normal depth channel route from C526 to C527
967          KM      Source:  HEC-2 Cross Section: CA 1.186
968          RS        3    FLOW      -1
969          RC   0.050   0.035   0.060  2129.0  0.0183
970          RX  9867.7  9898.1  9967.2  9981.2 10023.8 10035.6 10080.6 10145.3
971          RY  1545.6  1544.4  1539.5  1536.9  1536.7  1539.6  1541.1  1542.3
             *

972          KK   204F
973          KM   Sub-Basin   204F
974          KM
975          KM      The Clark Unit Hydrograph is used for this basin.
976          KM          The Urban time-area relation is used for this basin.
977          KM
978          KM      Time of Concentration for this sub-basin is based on the following:
979          KM          6-Hour Rainfall, Pattern No.  1.00
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

980          KM          An rainfall areal reduction factor of 0.999
981          KM
982          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
983          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
984          KM   .32 .32 .32 .11 .09 .09 .04 .04 .04 .04 .03 .03 .01 .01 .01 .01 .01 .01
985          KM
986          KM          L=   0.495 miles, S=  135 feet/mile, Kb= .03
987          KM
988          BA   0.077
989          LG    0.08    0.15    7.00    0.11   45.00
990          UC   0.171   0.128
991          UA       0       5      16      30      65      77      84      90      94      97
992          UA     100
             *

993          KK    C527
994          KM      Hydrograph combine 526527 + 204F at C527
995          HC       2
             *
             * *
             * * C527 is the total flow in Caliente Wash at the Study boundary
             * *
             * * End Basin 204.  Start Basin 205
             * *
             *

996          KK   CLEAR
997          KM      Clear hydrographs from stack
998          HC       2
             *

999          KK    205A
1000         KM   Sub-Basin   205A
1001         KM
1002         KM      The Clark Unit Hydrograph is used for this basin.
1003         KM          The Natural time-area relation is used for this basin.
1004         KM
1005         KM      Time of Concentration for this sub-basin is based on the following:
1006         KM          6-Hour Rainfall, Pattern No.  1.00
1007         KM          An rainfall areal reduction factor of 0.998
1008         KM
1009         KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1010         KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1011         KM   .27 .27 .26 .05 .04 .04 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
1012         KM
```

```
1013        KM          L=   0.870 miles, S=  378 feet/mile, Kb= .14
1014        KM
1015        BA   0.118
1016        LG    0.25    0.35    4.35    0.40   35.00
1017        UC   0.471   0.486
1018        UA      0       3       5       8      12      20      43      75      90      96
1019        UA    100
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1020        KK    205B
1021        KM   Sub-Basin   205B
1022        KM
1023        KM      The Clark Unit Hydrograph is used for this basin.
1024        KM          The Natural time-area relation is used for this basin.
1025        KM
1026        KM      Time of Concentration for this sub-basin is based on the following:
1027        KM          6-Hour Rainfall, Pattern No.  1.00
1028        KM          An rainfall areal reduction factor of 0.997
1029        KM
1030        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1031        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1032        KM   .27 .27 .26 .05 .04 .04 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
1033        KM
1034        KM          L=   0.759 miles, S=  129 feet/mile, Kb= .14
1035        KM
1036        BA   0.211
1037        LG    0.25    0.35    4.35    0.40   35.00
1038        UC   0.696   0.481
1039        UA      0       3       5       8      12      20      43      75      90      96
1040        UA    100
            *

1041        KK    C528
1042        KM      Hydrograph combine 205A + 205B at C528
1043        HC       2
            *

1044        KK  528530
1045        KM      Normal depth channel route from C528 to C530
1046        KM      Source:  Hydrology Field Reconnaissance
1047        RS       3    FLOW     -1
1048        RC   0.060   0.043   0.060  2594.0  0.0709
1049        RX  1000.0  1018.0  1031.0  1042.0  1052.0  1066.0  1093.0  1107.0
1050        RY    96.3    92.2    89.9    85.9    85.7    91.5    91.2    96.3
            *

1051        KK    205C
1052        KM   Sub-Basin   205C
1053        KM
1054        KM      The Clark Unit Hydrograph is used for this basin.
1055        KM          The Natural time-area relation is used for this basin.
1056        KM
1057        KM      Time of Concentration for this sub-basin is based on the following:
1058        KM          6-Hour Rainfall, Pattern No.  1.00
1059        KM          An rainfall areal reduction factor of 0.999
1060        KM
1061        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1062        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1063        KM   .27 .27 .26 .05 .04 .04 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
1064        KM
1065        KM          L=   0.618 miles, S=  331 feet/mile, Kb= .15
1066        KM
1067        BA   0.059
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1068        LG    0.25    0.35    4.35    0.41   35.00
1069        UC   0.417   0.479
1070        UA      0       3       5       8      12      20      43      75      90      96
1071        UA    100
            *

1072        KK   C530R
1073        KM      Hydrograph combine 528530 + 205C at C530 right branch
1074        HC       2
            *

1075        KK    205D
1076        KM   Sub-Basin   205D
1077        KM
1078        KM      The Clark Unit Hydrograph is used for this basin.
1079        KM          The Natural time-area relation is used for this basin.
1080        KM
1081        KM      Time of Concentration for this sub-basin is based on the following:
1082        KM          6-Hour Rainfall, Pattern No.  1.00
1083        KM          An rainfall areal reduction factor of 0.996
1084        KM
1085        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1086        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1087        KM   .27 .27 .26 .05 .04 .04 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
1088        KM
1089        KM          L=   1.020 miles, S=  361 feet/mile, Kb= .13
1090        KM
1091        BA   0.319
1092        LG    0.25    0.35    4.35    0.40   35.00
1093        UC   0.513   0.343
1094        UA      0       3       5       8      12      20      43      75      90      96
1095        UA    100
            *
```

```
1096        KK    205E
1097        KM   Sub-Basin   205E
1098        KM
1099        KM      The Clark Unit Hydrograph is used for this basin.
1100        KM          The Natural time-area relation is used for this basin.
1101        KM
1102        KM      Time of Concentration for this sub-basin is based on the following:
1103        KM          6-Hour Rainfall, Pattern No.  1.00
1104        KM          An rainfall areal reduction factor of 0.997
1105        KM
1106        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1107        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1108        KM   .27 .27 .26 .05 .04 .04 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
1109        KM
1110        KM          L=   1.357 miles, S=  358 feet/mile, Kb= .14
1111        KM
1112        BA   0.218
1113        LG    0.25    0.35    4.35    0.40   35.00
1114        UC   0.671   0.723
1115        UA       0       3       5       8      12      20      43      75      90      96
1116        UA     100
            *
1                                          HEC-1 INPUT                                          PAGE 26

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1117        KK    C529
1118        KM      Hydrograph combine 205D + 205E at C529
1119        HC       2
            *
            * *
            * * NOTE:  529530 too short to route
            * *
            *

1120        KK    C530
1121        KM      Hydrograph combine C529 + C530R at C530
1122        HC       2
            *

1123        KK  530531
1124        KM      Normal depth channel route from C530 to C531
1125        KM      Source:  Hydrology Field Reconnaissance
1126        RS       3    FLOW      -1
1127        RC   0.060   0.059   0.060  2426.0  0.0404
1128        RX  1000.0  1035.0  1050.0  1060.0  1075.0  1081.0  1088.0  1094.0
1129        RY    95.9    86.5    86.2    83.1    84.0    90.2    95.6    99.3
            *

1130        KK    205F
1131        KM   Sub-Basin   205F
1132        KM
1133        KM      The Clark Unit Hydrograph is used for this basin.
1134        KM          The Natural time-area relation is used for this basin.
1135        KM
1136        KM      Time of Concentration for this sub-basin is based on the following:
1137        KM          6-Hour Rainfall, Pattern No.  1.00
1138        KM          An rainfall areal reduction factor of 0.998
1139        KM
1140        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1141        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1142        KM   .27 .27 .26 .05 .04 .04 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
1143        KM
1144        KM          L=   0.786 miles, S=  326 feet/mile, Kb= .14
1145        KM
1146        BA   0.161
1147        LG    0.25    0.35    4.35    0.41   35.00
1148        UC   0.471   0.374
1149        UA       0       3       5       8      12      20      43      75      90      96
1150        UA     100
            *

1151        KK    C531
1152        KM      Hydrograph combine 530531 + 205F at C531
1153        HC       2
            *
1                                          HEC-1 INPUT                                          PAGE 27

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1154        KK  531532
1155        KM      Normal depth channel route from C531 to C532
1156        KM      Source:  Hydrology Field Reconnaissance
1157        RS       5    FLOW      -1
1158        RC   0.060   0.065   0.060  3391.0  0.0463
1159        RX  1000.0  1012.0  1022.0  1032.0  1050.0  1056.0  1068.0  1092.0
1160        RY    98.8    93.8    89.1    86.4    86.5    89.1    91.0    97.6
            *

1161        KK    205G
1162        KM   Sub-Basin   205G
1163        KM
1164        KM      The Clark Unit Hydrograph is used for this basin.
1165        KM          The Natural time-area relation is used for this basin.
1166        KM
1167        KM      Time of Concentration for this sub-basin is based on the following:
1168        KM          6-Hour Rainfall, Pattern No.  1.00
1169        KM          An rainfall areal reduction factor of 0.998
1170        KM
1171        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1172        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
```

```
KM   .27 .26 .25 .04 .03 .03 .02 .02 .02 .02 .02 .02 .00 .00 .00 .00 .00 .00
KM
KM          L=   0.924 miles, S=  338 feet/mile, Kb= .13
KM
BA   0.185
LG    0.24    0.35    4.50    0.40   31.23
UC   0.500   0.420
UA       0       3       5       8      12      20      43      75      90      96
UA     100
*

KK   C532L
KM      Hydrograph combine 531532 + 205G at C532 left branch
HC       2
*

KK    205H
KM   Sub-Basin   205H
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Natural time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          6-Hour Rainfall, Pattern No.  1.00
KM          An rainfall areal reduction factor of 0.997
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .27 .26 .26 .04 .04 .03 .02 .02 .02 .02 .02 .02 .00 .00 .00 .00 .00 .00
KM
KM          L=   1.464 miles, S=  325 feet/mile, Kb= .13
KM
BA   0.261
```

1 HEC-1 INPUT PAGE 28

```
LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

LG    0.24    0.35    4.50    0.39   31.55
UC   0.713   0.742
UA       0       3       5       8      12      20      43      75      90      96
UA     100
*

KK    C532
KM      Hydrograph combine C532L + 205H at C532
HC       2
*

KK  532533
KM      Normal depth channel route from C532 to C533
KM      Source:  Hydrology Field Reconnaissance
RS       2    FLOW      -1
RC   0.060   0.045   0.060  1555.0  0.0283
RX  1000.0  1020.0  1030.0  1048.0  1065.0  1077.0  1092.0  1119.0
RY    98.0    89.4    88.1    85.6    85.9    92.2    93.8    97.0
*

KK    205I
KM   Sub-Basin   205I
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Natural time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          6-Hour Rainfall, Pattern No.  1.00
KM          An rainfall areal reduction factor of 0.995
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .27 .26 .25 .04 .02 .02 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
KM
KM          L=   1.487 miles, S=  326 feet/mile, Kb= .11
KM
BA   0.354
LG    0.20    0.37    5.20    0.28   15.18
UC   0.658   0.578
UA       0       3       5       8      12      20      43      75      90      96
UA     100
*

KK    C533
KM      Hydrograph combine 532533 + 205I at C533
HC       2
*

KK  533534
KM      Normal depth channel route from C533 to C534
KM      Source:  Hydrology Field Reconnaissance
RS      13    FLOW      -1
RC   0.060   0.046   0.060  7145.0  0.0241
RX  1000.0  1010.0  1060.0  1073.0  1160.0  1181.0  1223.0  1237.0
RY    97.8    93.7    94.7    90.8    89.9    92.4    94.0    96.8
*
```

1 HEC-1 INPUT PAGE 29

```
LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK    205J
KM   Sub-Basin   205J
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Natural time-area relation is used for this basin.
KM
```

```
1253        KM      Time of Concentration for this sub-basin is based on the following:
1254        KM          6-Hour Rainfall, Pattern No.  1.00
1255        KM          An rainfall areal reduction factor of 0.995
1256        KM
1257        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1258        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1259        KM   .26 .25 .24 .03 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
1260        KM
1261        KM          L=   1.633 miles, S=  243 feet/mile, Kb= .08
1262        KM
1263        BA   0.369
1264        LG    0.21    0.35    4.90    0.30    3.48
1265        UC   0.667   0.616
1266        UA       0       3       5       8      12      20      43      75      90      96
1267        UA     100
            *

1268        KK   C534R
1269        KM      Hydrograph combine 533534 + 205J at C534 right branch
1270        HC       2
            *

1271        KK    205K
1272        KM   Sub-Basin   205K
1273        KM
1274        KM      The Clark Unit Hydrograph is used for this basin.
1275        KM          The Natural time-area relation is used for this basin.
1276        KM
1277        KM      Time of Concentration for this sub-basin is based on the following:
1278        KM          6-Hour Rainfall, Pattern No.  1.00
1279        KM          An rainfall areal reduction factor of 0.997
1280        KM
1281        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1282        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1283        KM   .27 .26 .26 .05 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
1284        KM
1285        KM          L=   1.772 miles, S=  249 feet/mile, Kb= .10
1286        KM
1287        BA   0.245
1288        LG    0.16    0.38    5.60    0.22    1.54
1289        UC   0.817   1.040
1290        UA       0       3       5       8      12      20      43      75      90      96
1291        UA     100
            *
```

1

HEC-1 INPUT PAGE 30

```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1292        KK    C534
1293        KM      Hydrograph combine C534R + 205K at C534
1294        HC       2
            *

1295        KK  534535
1296        KM      Normal depth channel route from C534 to C535
1297        KM      Source:  Hydrology Field Reconnaissance
1298        RS       4    FLOW      -1
1299        RC   0.065   0.046   0.065  2037.0  0.0221
1300        RX  1000.0  1010.0  1016.0  1075.0  1150.0  1162.0  1174.0  1182.0
1301        RY    97.1    93.4    91.6    89.6    86.9    90.8    92.2    92.3
            *

1302        KK    205L
1303        KM   Sub-Basin   205L
1304        KM
1305        KM      The Clark Unit Hydrograph is used for this basin.
1306        KM          The Natural time-area relation is used for this basin.
1307        KM
1308        KM      Time of Concentration for this sub-basin is based on the following:
1309        KM          6-Hour Rainfall, Pattern No.  1.00
1310        KM          An rainfall areal reduction factor of 0.998
1311        KM
1312        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1313        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1314        KM   .26 .25 .24 .03 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
1315        KM
1316        KM          L=   0.701 miles, S=  284 feet/mile, Kb= .09
1317        KM
1318        BA   0.118
1319        LG    0.19    0.36    5.00    0.29    0.00
1320        UC   0.346   0.290
1321        UA       0       3       5       8      12      20      43      75      90      96
1322        UA     100
            *

1323        KK    C535
1324        KM      Hydrograph combine 534535 + 205L at C535
1325        HC       2
            *

1326        KK  535536
1327        KM      Normal depth channel route from C535 to C536
1328        KM      Source:  HEC-2 Cross Section: HE 3.275
1329        RS       5    FLOW      -1
1330        RC   0.075   0.050   0.075  2975.0  0.0236
1331        RX  9852.8  9871.5  9957.7 10000.0 10015.6 10052.4 10142.4 10183.6
1332        RY  1911.6  1904.3  1906.9  1900.8  1900.8  1905.4  1905.2  1912.6
            *
```

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HEC-1 INPUT PAGE 31

```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
KK    205M
KM   Sub-Basin   205M
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          6-Hour Rainfall, Pattern No.  1.00
KM          An rainfall areal reduction factor of 0.998
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .29 .28 .28 .07 .05 .03 .02 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
KM
KM          L=   0.839 miles, S=  230 feet/mile, Kb= .05
KM
BA   0.139
LG    0.15    0.31    5.40    0.22   22.35
UC   0.258   0.221
UA       0       5      16      30      65      77      84      90      94      97
UA     100
*

KK   C536R
KM      Hydrograph combine 535536 + 205M at C536 right branch
HC       2
*

KK    205N
KM   Sub-Basin   205N
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The HEC-1 time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          6-Hour Rainfall, Pattern No.  1.00
KM          An rainfall areal reduction factor of 0.998
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .27 .26 .26 .05 .01 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
KM
KM          L=   1.183 miles, S=  245 feet/mile, Kb= .10
KM
BA   0.156
LG    0.15    0.39    5.70    0.21    0.80
UC   0.592   0.681
*
```



```
LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK   C536I
KM      Hydrograph combine C536R + 205N at C536I
HC       2
*
* *
* * C536I is the total flow in Hesperus Wash upstream of Dam 36
* *
*

KK   C536O
KM      Reservoir route at C536 (Dam 36).
RS       1    ELEV  1852.1
SV    0.00   14.41   35.94   67.64  108.61  158.07  218.14  276.00  280.00  289.00
SV  298.02  308.00  317.00  327.00  337.00  346.95  358.00  374.00
SE  1852.1  1866.0  1870.0  1874.0  1878.0  1882.0  1886.0  1889.0  1889.2  1889.6
SE  1890.0  1890.4  1890.8  1891.2  1891.6  1892.0  1892.4  1893.0
SQ       0     108     168     211     245     276     301     320     338     347
SQ     356     459     679     995    1408    1905    2477    3119    3826    5009
SE  1852.1  1858.0  1862.0  1866.0  1870.0  1874.0  1878.0  1882.0  1886.0  1889.0
SE  1889.2  1889.6  1890.0  1890.4  1890.8  1891.2  1891.6  1892.0  1892.4  1893.0
RL                   0.17
*
* *
* * End Basin 205.  Start Basin 206
* *
*

KK  536537
KM      Normal depth channel route from C536 to C537
KM      Source:  HEC-2 Cross Section: HE 2.729
RS       3    FLOW      -1
RC   0.075   0.050   0.075  1480.0  0.0209
RX  9900.0  9912.0  9947.3  9979.3 10025.0 10044.5 10051.0 10060.0
RY  1846.5  1845.4  1843.1  1834.3  1833.6  1840.5  1843.3  1843.5
*

KK    206A
KM   Sub-Basin   206A
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          6-Hour Rainfall, Pattern No.  1.00
KM          An rainfall areal reduction factor of 0.998
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .30 .29 .29 .08 .06 .05 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
KM
KM          L=   0.631 miles, S=  256 feet/mile, Kb= .04
```

```
1413          KM
1414          BA   0.128
1415          LG    0.12    0.28    5.30    0.23   33.34
1             HEC-1 INPUT                                                                                    PAGE 33
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
1416          UC   0.188   0.129
1417          UA       0       5      16      30      65      77      84      90      94      97
1418          UA     100
              *

1419          KK    C537
1420          KM      Hydrograph combine 536537 + 206A at C537
1421          HC       2
              *

1422          KK  537538
1423          KM      Normal depth channel route from C537 to C538
1424          KM      Source:  HEC-2 Cross Section: HE 2.493
1425          RS       4    FLOW      -1
1426          RC   0.075   0.050   0.075  2155.0  0.0210
1427          RX  9946.0  9957.6  9984.8  9994.8 10000.0 10036.5 10070.1 10107.3
1428          RY  1817.0  1815.2  1807.4  1803.2  1803.2  1805.5  1814.3  1815.4
              *

1429          KK    206B
1430          KM   Sub-Basin   206B
1431          KM
1432          KM      The Clark Unit Hydrograph is used for this basin.
1433          KM          The Urban time-area relation is used for this basin.
1434          KM
1435          KM      Time of Concentration for this sub-basin is based on the following:
1436          KM          6-Hour Rainfall, Pattern No.  1.00
1437          KM          An rainfall areal reduction factor of 0.999
1438          KM
1439          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1440          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1441          KM   .30 .30 .30 .09 .07 .06 .03 .03 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
1442          KM
1443          KM          L=   0.570 miles, S=  139 feet/mile, Kb= .03
1444          KM
1445          BA   0.095
1446          LG    0.10    0.26    5.20    0.23   41.42
1447          UC   0.183   0.137
1448          UA       0       5      16      30      65      77      84      90      94      97
1449          UA     100
              *

1450          KK   C538I
1451          KM      Hydrograph combine 537538 + 206B at C538I
1452          HC       2
              *

1453          KK   C538O
1454          KM      Reservoir route at C538.
1455          RS       1    ELEV  1778.2
1456          SV    0.00    0.10    0.57    1.69    2.60    2.70    2.90    3.00    3.20    3.38
1457          SV    3.60    3.90    4.10    4.30    4.60    5.10    5.60    6.10    7.10    8.10
1458          SE  1778.2  1782.0  1784.0  1786.0  1787.1  1787.2  1787.4  1787.6  1787.8  1788.0
1459          SE  1788.2  1788.4  1788.6  1788.8  1789.0  1789.4  1789.8  1790.2  1790.8  1791.4
1460          SQ       0      82     133     185     207     208     212     218     226     235
1             HEC-1 INPUT                                                                                    PAGE 34
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
1461          SQ     249     265     286     310     338     400     482     611     942    1439
              *

1462          KK  538540
1463          KM      Normal depth channel route from C538 to C540
1464          KM      Source:  HEC-2 Cross Section: HE 1.990
1465          RS       6    FLOW      -1
1466          RC   0.075   0.050   0.075  2176.0  0.0210
1467          RX  9907.7  9931.8  9978.4 10000.0 10041.1 10056.9 10143.7 10164.9
1468          RY  1767.5  1754.9  1755.2  1753.2  1753.1  1755.1  1757.3  1769.4
              *

1469          KK    206C
1470          KM   Sub-Basin   206C
1471          KM
1472          KM      The Clark Unit Hydrograph is used for this basin.
1473          KM          The Urban time-area relation is used for this basin.
1474          KM
1475          KM      Time of Concentration for this sub-basin is based on the following:
1476          KM          6-Hour Rainfall, Pattern No.  1.00
1477          KM          An rainfall areal reduction factor of 1.000
1478          KM
1479          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1480          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1481          KM   .29 .28 .28 .07 .04 .03 .02 .02 .02 .02 .02 .02 .00 .00 .00 .00 .00 .00
1482          KM
1483          KM          L=   0.427 miles, S=  138 feet/mile, Kb= .04
1484          KM
1485          BA   0.024
1486          LG    0.11    0.26    4.35    0.36   28.55
1487          UC   0.192   0.252
1488          UA       0       5      16      30      65      77      84      90      94      97
1489          UA     100
              *

1490          KK   C540R
1491          KM      Hydrograph combine 538540 + 206C at C540 right branch
1492          HC       2
```

```
                *

1493            KK    206D
1494            KM   Sub-Basin   206D
1495            KM
1496            KM      The Clark Unit Hydrograph is used for this basin.
1497            KM          The Urban time-area relation is used for this basin.
1498            KM
1499            KM      Time of Concentration for this sub-basin is based on the following:
1500            KM          6-Hour Rainfall, Pattern No.  1.00
1501            KM          An rainfall areal reduction factor of 0.999
1502            KM
1503            KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1504            KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1505            KM   .31 .31 .31 .10 .08 .07 .03 .03 .03 .02 .02 .02 .01 .01 .01 .01 .01 .01
1506            KM
1507            KM          L=   0.531 miles, S=  236 feet/mile, Kb= .03
1                                              HEC-1 INPUT                                          PAGE 35

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1508            KM
1509            BA   0.062
1510            LG    0.08    0.25    5.70    0.18   43.01
1511            UC   0.150   0.133
1512            UA       0       5      16      30      65      77      84      90      94      97
1513            UA     100
                *

1514            KK  539540
1515            KM      Normal depth channel route from C539 to C540
1516            KM      Source:  200 Scale Mapping
1517            RS       5    FLOW      -1
1518            RC   0.060   0.050   0.055  1872.0  0.0256
1519            RX  1000.0  1007.0  1016.0  1036.0  1046.0  1080.0  1150.0  1210.0
1520            RY  1750.0  1748.0  1746.0  1744.0  1744.0  1746.0  1748.0  1750.0
                *

1521            KK    206E
1522            KM   Sub-Basin   206E
1523            KM
1524            KM      The Clark Unit Hydrograph is used for this basin.
1525            KM          The Urban time-area relation is used for this basin.
1526            KM
1527            KM      Time of Concentration for this sub-basin is based on the following:
1528            KM          6-Hour Rainfall, Pattern No.  1.00
1529            KM          An rainfall areal reduction factor of 1.000
1530            KM
1531            KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1532            KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1533            KM   .29 .28 .28 .07 .04 .03 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
1534            KM
1535            KM          L=   0.343 miles, S=  175 feet/mile, Kb= .03
1536            KM
1537            BA   0.023
1538            LG    0.09    0.25    4.30    0.36   25.75
1539            UC   0.138   0.150
1540            UA       0       5      16      30      65      77      84      90      94      97
1541            UA     100
                *

1542            KK   C540L
1543            KM      Hydrograph combine 539540 + 206E at C540 left branch
1544            HC       2
                *

1545            KK    C540
1546            KM      Hydrograph combine C540R + C540L at C540
1547            HC       2
                *
                * *
                * * C540 is the end of Hesperus Wash and the start of Balboa Wash
                * *
                *
1                                              HEC-1 INPUT                                          PAGE 36

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1548            KK  540541
1549            KM      Normal depth channel route from C540 to C541
1550            KM      Source:  HEC-2 Cross Section: BA 1.645
1551            RS       7    FLOW      -1
1552            RC   0.065   0.035   0.065  4207.0  0.0204
1553            RX  9960.8  9968.0  9975.1  9975.7  9993.2 10018.2 10297.5 10343.9
1554            RY  1725.2  1721.8  1718.4  1716.2  1716.4  1718.4  1719.8  1730.5
                *

1555            KK    206F
1556            KM   Sub-Basin   206F
1557            KM
1558            KM      The Clark Unit Hydrograph is used for this basin.
1559            KM          The Urban time-area relation is used for this basin.
1560            KM
1561            KM      Time of Concentration for this sub-basin is based on the following:
1562            KM          6-Hour Rainfall, Pattern No.  1.00
1563            KM          An rainfall areal reduction factor of 0.998
1564            KM
1565            KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1566            KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1567            KM   .29 .29 .28 .08 .05 .04 .02 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
1568            KM
1569            KM          L=   0.975 miles, S=  217 feet/mile, Kb= .03
1570            KM
```

```
1571          BA   0.157
1572          LG    0.09    0.25    4.60    0.30   24.97
1573          UC   0.213   0.187
1574          UA       0       5      16      30      65      77      84      90      94      97
1575          UA     100
              *

1576          KK    C541
1577          KM      Hydrograph combine 540541 + 206F at C541
1578          HC       2
              *

1579          KK  541548
1580          KM      Normal depth channel route from C541 to C548
1581          KM      Source:  HEC-2 Cross Section: BA 0.905
1582          RS       2    FLOW      -1
1583          RC   0.060   0.045   0.060  1138.0  0.0316
1584          RX  9761.7  9936.7  9955.2  9986.9  9994.7 10039.2 10065.3 10066.0
1585          RY  1647.4  1644.1  1638.1  1637.3  1636.2  1637.5  1652.9  1653.0
              *

1586          KK    206G
1587          KM   Sub-Basin   206G
1588          KM
1589          KM      The Clark Unit Hydrograph is used for this basin.
1590          KM          The Urban time-area relation is used for this basin.
1591          KM
1592          KM      Time of Concentration for this sub-basin is based on the following:
1593          KM          6-Hour Rainfall, Pattern No.  1.00
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1594          KM          An rainfall areal reduction factor of 0.999
1595          KM
1596          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1597          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1598          KM   .30 .29 .29 .09 .06 .05 .02 .02 .02 .02 .02 .02 .00 .00 .00 .00 .00 .00
1599          KM
1600          KM          L=   0.950 miles, S=  132 feet/mile, Kb= .03
1601          KM
1602          BA   0.089
1603          LG    0.11    0.26    5.20    0.23   29.86
1604          UC   0.246   0.296
1605          UA       0       5      16      30      65      77      84      90      94      97
1606          UA     100
              *

1607          KK  BB523R
1608          KM      Retrieve previously diverted hydrograph at C523 in the right branch.
1609          DR   D523R
              *

1610          KK  523548
1611          KM      Normal depth channel route from C523 to C548
1612          KM      Source:  200 Scale Mapping
1613          RS      23    FLOW      -1
1614          RC   0.040   0.018   0.040  2680.0  0.0189
1615          RX  1000.0  1040.0  1090.0  1130.0  1170.0  1171.2  1181.2  1196.2
1616          RY  1646.0  1645.0  1643.8  1644.7  1644.0  1644.4  1646.0  1648.0
              *

1617          KK   C548L
1618          KM      Hydrograph combine 541548 + 206G + BB523R at C548 left branch
1619          HC       3    3.72
              *
              * *
              * * C548L is the total flow in Balboa Wash above confluence with Oxford Wash
              * *
              *

1620          KK    206H
1621          KM   Sub-Basin   206H
1622          KM
1623          KM      The Clark Unit Hydrograph is used for this basin.
1624          KM          The Urban time-area relation is used for this basin.
1625          KM
1626          KM      Time of Concentration for this sub-basin is based on the following:
1627          KM          6-Hour Rainfall, Pattern No.  1.00
1628          KM          An rainfall areal reduction factor of 0.999
1629          KM
1630          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1631          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1632          KM   .31 .30 .30 .10 .07 .07 .03 .03 .03 .02 .02 .02 .01 .01 .01 .01 .01 .01
1633          KM
1634          KM          L=   0.515 miles, S=  183 feet/mile, Kb= .03
1635          KM
1636          BA   0.059
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1637          LG    0.08    0.25    5.70    0.18   36.29
1638          UC   0.158   0.141
1639          UA       0       5      16      30      65      77      84      90      94      97
1640          UA     100
              *

1641          KK  542543
1642          KM      Normal depth channel route from C542 to C543
1643          KM      Source:  HEC-2 Cross Section: OX 0.931
1644          RS       2    FLOW      -1
1645          RC   0.075   0.040   0.050   686.0  0.0066
1646          RX  9846.9  9881.6  9967.5  9983.2 10010.0 10025.0 10033.8 10039.6
```

```
1647        RY  1732.3  1723.5  1724.1  1717.8  1717.0  1724.0  1728.2  1730.7
            *

1648        KK    206I
1649        KM   Sub-Basin   206I
1650        KM
1651        KM      The Clark Unit Hydrograph is used for this basin.
1652        KM          The Urban time-area relation is used for this basin.
1653        KM
1654        KM      Time of Concentration for this sub-basin is based on the following:
1655        KM          6-Hour Rainfall, Pattern No.  1.00
1656        KM          An rainfall areal reduction factor of 1.000
1657        KM
1658        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1659        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1660        KM   .31 .30 .30 .10 .07 .07 .03 .03 .03 .02 .02 .02 .01 .01 .01 .01 .01 .01
1661        KM
1662        KM          L=   0.232 miles, S=  286 feet/mile, Kb= .03
1663        KM
1664        BA   0.021
1665        LG    0.08    0.25    5.70    0.18   34.78
1666        UC   0.092   0.074
1667        UA       0       5      16      30      65      77      84      90      94      97
1668        UA     100
            *

1669        KK    C543
1670        KM      Hydrograph combine 542543 + 206I at C543
1671        HC       2
            *

1672        KK   D543L
1673        KM      Hydrograph diversion at C543.  Main flow continues in the left branch.
1674        KM      Diverted flow is in the right branch.
1675        DT   D543R
1676        DI       0      38      45      50      65      85      97     122     141     162
1677        DI     194     350     395     432     475     522     570     612
1678        DQ       0      38      45      50      65      85      97     122     141     162
1679        DQ     194     350     395     425     460     500     540     575
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1680        KK  543544
1681        KM      Normal depth channel route from C543 to C544
1682        KM      Source:  200 Scale Mapping & Hydrology Field Reconnaissance
1683        RS       1    FLOW      -1
1684        RC   0.040   0.018   0.040   597.0  0.0277
1685        RX  1000.0  1020.0  1045.0  1075.0  1105.0  1106.2  1146.2  1266.2
1686        RY  1720.0  1718.0  1712.0  1712.3  1712.0  1712.4  1714.0  1720.0
            *

1687        KK    206K
1688        KM   Sub-Basin   206K
1689        KM
1690        KM      The Clark Unit Hydrograph is used for this basin.
1691        KM          The Urban time-area relation is used for this basin.
1692        KM
1693        KM      Time of Concentration for this sub-basin is based on the following:
1694        KM          6-Hour Rainfall, Pattern No.  1.00
1695        KM          An rainfall areal reduction factor of 0.999
1696        KM
1697        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1698        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1699        KM   .30 .30 .30 .09 .07 .06 .03 .03 .02 .01 .01 .01 .00 .00 .00 .00 .00 .00
1700        KM
1701        KM          L=   0.615 miles, S=  255 feet/mile, Kb= .03
1702        KM
1703        BA   0.056
1704        LG    0.09    0.25    5.70    0.18   25.80
1705        UC   0.158   0.168
1706        UA       0       5      16      30      65      77      84      90      94      97
1707        UA     100
            *

1708        KK    C544
1709        KM      Hydrograph combine 543544 + 206K at C544
1710        HC       2
            *

1711        KK  544545
1712        KM      Normal depth channel route from C544 to C545
1713        KM      Source:  200 Scale Mapping & Hydrology Field Reconnaissance
1714        RS       2    FLOW      -1
1715        RC   0.040   0.018   0.040   985.0  0.0234
1716        RX  1000.0  1008.0  1018.0  1048.0  1078.0  1079.2  1089.2  1109.2
1717        RY  1690.0  1688.0  1686.0  1686.3  1686.0  1686.4  1688.0  1689.0
            *

1718        KK   D545L
1719        KM      Hydrograph diversion at C545.  Main flow continues in the left branch.
1720        KM      Diverted flow is in the right branch.
1721        DT   D545R
1722        DI       0      50     100     200     400     800    1600    3200    5000
1723        DQ       0      25      50     100     200     400     800    1600    2500
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1724        KK  545546
```

```
KM      Normal depth channel route from C545 to C546
KM      Source:  200 Scale Mapping & Hydrology Field Reconnaissance
RS       1    FLOW      -1
RC   0.040   0.018   0.040   428.0  0.0164
RX  1000.0  1020.0  1050.0  1080.0  1110.0  1111.2  1121.2  1151.2
RY  1680.0  1678.0  1676.0  1676.3  1676.0  1676.4  1678.0  1678.5
*

KK    206L
KM   Sub-Basin   206L
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          6-Hour Rainfall, Pattern No.  1.00
KM          An rainfall areal reduction factor of 0.999
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .30 .30 .30 .09 .07 .06 .03 .02 .02 .01 .01 .01 .00 .00 .00 .00 .00 .00
KM
KM          L=   0.546 miles, S=  231 feet/mile, Kb= .03
KM
BA   0.060
LG    0.09    0.25    5.80    0.18   25.01
UC   0.154   0.143
UA       0       5      16      30      65      77      84      90      94      97
UA     100
*

KK    C546
KM      Hydrograph combine 545546 + 206L at C546
HC       2
*

KK  546547
KM      Normal depth channel route from C546 to C547
KM      Source:  200 Scale Mapping
RS       1    FLOW      -1
RC   0.040   0.018   0.040   749.0  0.0327
RX  1000.0  1005.0  1011.0  1013.0  1029.0  1047.0  1052.0  1057.0
RY  1666.0  1664.0  1662.0  1661.9  1662.4  1662.0  1664.0  1666.0
*

KK  BB543R
KM      Retrieve previously diverted hydrograph at C543 in the right branch.
DR   D543R
*
```



```
LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK  543547
KM      Normal depth channel route from C543 to C547
KM      Source:  HEC-2 Cross Section: OX 0.638
RS       5    FLOW      -1
RC   0.075   0.040   0.050  2395.0  0.0278
RX  9720.9  9769.0  9970.7  9985.5 10020.0 10038.1 10097.0 10102.0
RY  1690.4  1681.2  1683.1  1676.2  1677.0  1687.1  1687.4  1690.0
*

KK  BB545R
KM      Retrieve previously diverted hydrograph at C545 in the right branch.
DR   D545R
*

KK  545547
KM      Normal depth channel route from C545 to C547
KM      Source:  HEC-2 Cross Section: OX 0.542
RS       4    FLOW      -1
RC   0.075   0.040   0.050  1216.0  0.0259
RX  9668.2  9778.4  9957.9  9986.0 10012.7 10043.6 10067.6 10163.4
RY  1674.1  1674.1  1673.3  1662.1  1662.2  1680.4  1680.9  1681.1
*

KK    206J
KM   Sub-Basin   206J
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          6-Hour Rainfall, Pattern No.  1.00
KM          An rainfall areal reduction factor of 0.999
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .31 .31 .31 .10 .08 .07 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
KM
KM          L=   0.502 miles, S=  214 feet/mile, Kb= .03
KM
BA   0.060
LG    0.08    0.25    5.70    0.18   44.51
UC   0.150   0.129
UA       0       5      16      30      65      77      84      90      94      97
UA     100
*

KK    C547
KM      Hydrograph combine 546547 + 543547 + 545547 + 206J at C547
HC       4    0.26
*
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 1806         KK  547548
 1807         KM      Normal depth channel route from C547 to C548
 1808         KM      Source:  HEC-2 Cross Section: OX 0.235
 1809         RS       4    FLOW      -1
 1810         RC   0.075   0.040   0.050  2165.0  0.0182
 1811         RX  9910.0  9911.4  9968.5  9987.6 10017.4 10032.3 10077.4 10080.0
 1812         RY  1639.0  1638.9  1637.9  1635.7  1635.8  1641.7  1642.9  1643.0
              *

 1813         KK   206M
 1814         KM  Sub-Basin   206M
 1815         KM
 1816         KM      The Clark Unit Hydrograph is used for this basin.
 1817         KM          The Urban time-area relation is used for this basin.
 1818         KM
 1819         KM      Time of Concentration for this sub-basin is based on the following:
 1820         KM          6-Hour Rainfall, Pattern No.  1.00
 1821         KM          An rainfall areal reduction factor of 0.999
 1822         KM
 1823         KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 1824         KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 1825         KM   .31 .30 .30 .10 .07 .07 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
 1826         KM
 1827         KM          L=   0.465 miles, S=  166 feet/mile, Kb= .03
 1828         KM
 1829         BA   0.060
 1830         LG    0.08    0.25    5.20    0.23   46.18
 1831         UC   0.158   0.129
 1832         UA       0       5      16      30      65      77      84      90      94      97
 1833         UA     100
              *

 1834         KK   C548R
 1835         KM      Hydrograph combine 547548 + 206M at C548 right branch
 1836         HC       2
              *
              * *
              * * C548R is the total flow in Oxford Wash above confluence with Balboa Wash
              * *
              *

 1837         KK    C548
 1838         KM      Hydrograph combine C548L + C548R at C548
 1839         HC       2
              *
              * *
              * * C548 is the total flow in Balboa Wash below the confluence of Balboa Wash
              * * and Oxford Wash
              * *
              *
```



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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 1840         KK  548549
 1841         KM      Normal depth channel route from C548 to C549
 1842         KM      Source:  HEC-2 Cross Section: BA0.246
 1843         RS       9    FLOW      -1
 1844         RC   0.070   0.080   0.070  3258.0  0.0172
 1845         RX  9889.1  9912.5  9940.2  9960.0 10026.1 10046.8 10067.8 10079.3
 1846         RY  1586.2  1585.7  1577.5  1573.6  1573.2  1579.5  1585.7  1586.2
              *

 1847         KK   206N
 1848         KM  Sub-Basin   206N
 1849         KM
 1850         KM      The Clark Unit Hydrograph is used for this basin.
 1851         KM          The Urban time-area relation is used for this basin.
 1852         KM
 1853         KM      Time of Concentration for this sub-basin is based on the following:
 1854         KM          6-Hour Rainfall, Pattern No.  1.00
 1855         KM          An rainfall areal reduction factor of 0.998
 1856         KM
 1857         KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 1858         KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 1859         KM   .31 .30 .30 .10 .07 .06 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
 1860         KM
 1861         KM          L=   0.767 miles, S=  120 feet/mile, Kb= .03
 1862         KM
 1863         BA   0.152
 1864         LG    0.11    0.27    4.65    0.29   52.66
 1865         UC   0.225   0.167
 1866         UA       0       5      16      30      65      77      84      90      94      97
 1867         UA     100
              *

 1868         KK   C549L
 1869         KM      Hydrograph combine 548549 + 206N at C549 left branch
 1870         HC       2
              *
              * *
              * * C549L is the total flow in Balboa Wash above confluence with Ashbrook Wash
              * *
              * * End Basin 206.  Start Basin 207
              * *
              *

 1871         KK    207A
```

```
1872    KM   Sub-Basin   207A
1873    KM
1874    KM      The Clark Unit Hydrograph is used for this basin.
1875    KM          The Natural time-area relation is used for this basin.
1876    KM
1877    KM      Time of Concentration for this sub-basin is based on the following:
1878    KM          6-Hour Rainfall, Pattern No.  1.00
1879    KM          An rainfall areal reduction factor of 0.997
1880    KM
1881    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
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LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1882    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1883    KM   .27 .26 .26 .04 .03 .03 .02 .02 .02 .02 .02 .02 .00 .00 .00 .00 .00 .00
1884    KM
1885    KM          L=   1.356 miles, S=  351 feet/mile, Kb= .13
1886    KM
1887    BA   0.256
1888    LG    0.24    0.35    4.55    0.37   29.81
1889    UC   0.650   0.636
1890    UA       0       3       5       8      12      20      43      75      90      96
1891    UA     100
        *

1892    KK    207B
1893    KM   Sub-Basin   207B
1894    KM
1895    KM      The Clark Unit Hydrograph is used for this basin.
1896    KM          The Natural time-area relation is used for this basin.
1897    KM
1898    KM      Time of Concentration for this sub-basin is based on the following:
1899    KM          6-Hour Rainfall, Pattern No.  1.00
1900    KM          An rainfall areal reduction factor of 0.997
1901    KM
1902    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1903    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1904    KM   .27 .27 .26 .05 .04 .04 .02 .02 .02 .02 .02 .02 .00 .00 .00 .00 .00 .00
1905    KM
1906    KM          L=   1.312 miles, S=  359 feet/mile, Kb= .13
1907    KM
1908    BA   0.208
1909    LG    0.24    0.35    4.45    0.38   32.42
1910    UC   0.621   0.662
1911    UA       0       3       5       8      12      20      43      75      90      96
1912    UA     100
        *

1913    KK    C550
1914    KM      Hydrograph combine 207A + 207B at C550
1915    HC       2
        *

1916    KK  550552
1917    KM      Normal depth channel route from C550 to C552
1918    KM      Source:  Hydrology Field Reconnaissance
1919    RS       5    FLOW      -1
1920    RC   0.050   0.045   0.050  4410.0  0.0528
1921    RX  1000.0  1005.0  1018.0  1028.0  1038.0  1043.0  1048.0  1055.0
1922    RY  2188.0  2184.0  2180.0  2176.0  2176.0  2180.0  2184.0  2188.0
        *

1923    KK    207C
1924    KM   Sub-Basin   207C
1925    KM
1926    KM      The Clark Unit Hydrograph is used for this basin.
1927    KM          The Natural time-area relation is used for this basin.
1928    KM
```



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LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1929    KM      Time of Concentration for this sub-basin is based on the following:
1930    KM          6-Hour Rainfall, Pattern No.  1.00
1931    KM          An rainfall areal reduction factor of 0.998
1932    KM
1933    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1934    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1935    KM   .27 .26 .26 .05 .02 .02 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
1936    KM
1937    KM          L=   0.974 miles, S=  297 feet/mile, Kb= .11
1938    KM
1939    BA   0.173
1940    LG    0.19    0.37    5.30    0.26   13.69
1941    UC   0.492   0.448
1942    UA       0       3       5       8      12      20      43      75      90      96
1943    UA     100
        *

1944    KK   C552L
1945    KM      Hydrograph combine 550552 + 207C at C552 left branch
1946    HC       2
        *

1947    KK    207D
1948    KM   Sub-Basin   207D
1949    KM
1950    KM      The Clark Unit Hydrograph is used for this basin.
1951    KM          The HEC-1 time-area relation is used for this basin.
1952    KM
1953    KM      Time of Concentration for this sub-basin is based on the following:
1954    KM          6-Hour Rainfall, Pattern No.  1.00
1955    KM          An rainfall areal reduction factor of 0.997
```

```
1956    KM
1957    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1958    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1959    KM   .29 .28 .28 .07 .05 .05 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
1960    KM
1961    KM          L=   1.036 miles, S=  373 feet/mile, Kb= .09
1962    KM
1963    BA   0.197
1964    LG    0.18    0.31    4.35    0.38   41.30
1965    UC   0.371   0.319
        *

1966    KK  551552
1967    KM      Normal depth channel route from C551 to C552
1968    KM      Source:  100 Scale 4' CI Mapping
1969    RS       6    FLOW      -1
1970    RC   0.050   0.045   0.050  4410.0  0.0528
1971    RX  1000.0  1005.0  1018.0  1028.0  1038.0  1043.0  1048.0  1055.0
1972    RY  2188.0  2184.0  2180.0  2176.0  2176.0  2180.0  2184.0  2188.0
        *
```



```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1973    KK    207E
1974    KM   Sub-Basin   207E
1975    KM
1976    KM      The Clark Unit Hydrograph is used for this basin.
1977    KM          The Urban time-area relation is used for this basin.
1978    KM
1979    KM      Time of Concentration for this sub-basin is based on the following:
1980    KM          6-Hour Rainfall, Pattern No.  1.00
1981    KM          An rainfall areal reduction factor of 0.998
1982    KM
1983    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1984    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1985    KM   .29 .29 .28 .08 .05 .05 .03 .03 .03 .03 .03 .02 .01 .01 .01 .01 .01 .01
1986    KM
1987    KM          L=   1.366 miles, S=  315 feet/mile, Kb= .07
1988    KM
1989    BA   0.157
1990    LG    0.15    0.29    4.35    0.38   44.41
1991    UC   0.400   0.494
1992    UA       0       5      16      30      65      77      84      90      94      97
1993    UA     100
        *

1994    KK   C552R
1995    KM      Hydrograph combine 551552 + 207E at C552 right branch
1996    HC       2
        *

1997    KK    C552
1998    KM      Hydrograph combine C552L + C552R at C552
1999    HC       2
        *

2000    KK  552553
2001    KM      Normal depth channel route from C552 to C553
2002    KM      Source:  Hydrology Field Reconnaissance
2003    RS       2    FLOW      -1
2004    RC   0.060   0.050   0.060  1336.0  0.0337
2005    RX   993.0  1010.0  1055.0  1061.0  1082.0  1096.0  1105.0  1127.0
2006    RY    98.0    94.3    94.4    94.0    94.3    94.5    96.2    98.0
        *

2007    KK    207F
2008    KM   Sub-Basin   207F
2009    KM
2010    KM      The Clark Unit Hydrograph is used for this basin.
2011    KM          The HEC-1 time-area relation is used for this basin.
2012    KM
2013    KM      Time of Concentration for this sub-basin is based on the following:
2014    KM          6-Hour Rainfall, Pattern No.  1.00
2015    KM          An rainfall areal reduction factor of 0.998
2016    KM
2017    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2018    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
```



```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2019    KM   .28 .28 .27 .06 .04 .04 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2020    KM
2021    KM          L=   0.794 miles, S=  296 feet/mile, Kb= .11
2022    KM
2023    BA   0.126
2024    LG    0.20    0.32    4.40    0.39   38.35
2025    UC   0.400   0.362
        *

2026    KK    C553
2027    KM      Hydrograph combine 552553 + 207F at C553
2028    HC       2
        *

2029    KK  553556
2030    KM      Normal depth channel route from C553 to C556
2031    KM      Source:  HEC-2 Cross Section: AS 6.118
2032    RS       3    FLOW      -1
2033    RC   0.055   0.045   0.060  2393.0  0.0255
2034    RX  9904.4  9945.9  9974.0  9987.4  9994.9 10008.6 10027.0 10045.3
2035    RY  2004.2  2003.9  1991.7  1990.4  1987.9  1988.2  1997.5  2006.7
```

```
                *
2036            KK    207G
2037            KM   Sub-Basin    207G
2038            KM
2039            KM      The Clark Unit Hydrograph is used for this basin.
2040            KM          The HEC-1 time-area relation is used for this basin.
2041            KM
2042            KM      Time of Concentration for this sub-basin is based on the following:
2043            KM          6-Hour Rainfall, Pattern No.  1.00
2044            KM          An rainfall areal reduction factor of 0.997
2045            KM
2046            KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2047            KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2048            KM   .27 .27 .26 .05 .02 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00 .00
2049            KM
2050            KM          L=   1.467 miles, S=  198 feet/mile, Kb= .10
2051            KM
2052            BA   0.236
2053            LG    0.17     0.37     5.60     0.23     9.10
2054            UC   0.763    0.847
                *

2055            KK   C556L
2056            KM      Hydrograph combine 553556 + 207G at C556 left branch
2057            HC       2
                *

2058            KK    207H
2059            KM   Sub-Basin    207H
2060            KM
2061            KM      The Clark Unit Hydrograph is used for this basin.
2062            KM          The Urban time-area relation is used for this basin.
2063            KM
1                                          HEC-1 INPUT                                                    PAGE 48
LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2064            KM      Time of Concentration for this sub-basin is based on the following:
2065            KM          6-Hour Rainfall, Pattern No.  1.00
2066            KM          An rainfall areal reduction factor of 0.998
2067            KM
2068            KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2069            KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2070            KM   .30 .29 .29 .08 .06 .05 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2071            KM
2072            KM          L=   1.044 miles, S=  371 feet/mile, Kb= .05
2073            KM
2074            BA   0.124
2075            LG    0.13     0.27     4.35     0.36    46.78
2076            UC   0.242    0.260
2077            UA       0        5       16       30       65       77       84       90       94       97
2078            UA     100
                *

2079            KK  554555
2080            KM      Normal depth channel route from C554 to C555
2081            KM      Source:  100 Scale 4' CI Mapping
2082            RS       4    FLOW      -1
2083            RC   0.050   0.045   0.050  2497.0  0.0649
2084            RX  1000.0  1025.0  1080.0  1100.0  1120.0  1130.0  1140.0  1155.0
2085            RY  2192.0  2188.0  2186.0  2184.0  2184.0  2188.0  2192.0  2194.0
                *

2086            KK    207I
2087            KM   Sub-Basin    207I
2088            KM
2089            KM      The Clark Unit Hydrograph is used for this basin.
2090            KM          The Urban time-area relation is used for this basin.
2091            KM
2092            KM      Time of Concentration for this sub-basin is based on the following:
2093            KM          6-Hour Rainfall, Pattern No.  1.00
2094            KM          An rainfall areal reduction factor of 0.999
2095            KM
2096            KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2097            KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2098            KM   .30 .30 .30 .09 .07 .06 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2099            KM
2100            KM          L=   0.810 miles, S=  320 feet/mile, Kb= .03
2101            KM
2102            BA   0.073
2103            LG    0.09     0.25     4.40     0.35    50.00
2104            UC   0.171    0.196
2105            UA       0        5       16       30       65       77       84       90       94       97
2106            UA     100
                *

2107            KK    C555
2108            KM      Hydrograph combine 554555 + 207I at C555
2109            HC       2
                *
1                                          HEC-1 INPUT                                                    PAGE 49
LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2110            KK  555556
2111            KM      Normal depth channel route from C555 to C556
2112            KM      Source:  200 Scale Mapping
2113            RS       8    FLOW      -1
2114            RC   0.050   0.050   0.055  3353.0  0.0480
2115            RX  1000.0  1050.0  1090.0  1095.0  1130.0  1150.0  1160.0  1185.0
2116            RY  2020.0  2016.5  2006.0  2004.0  2005.0  2006.0  2010.0  2020.0
                *
```

```
2117        KK    207J
2118        KM   Sub-Basin   207J
2119        KM
2120        KM      The Clark Unit Hydrograph is used for this basin.
2121        KM          The Urban time-area relation is used for this basin.
2122        KM
2123        KM      Time of Concentration for this sub-basin is based on the following:
2124        KM          6-Hour Rainfall, Pattern No.  1.00
2125        KM          An rainfall areal reduction factor of 0.999
2126        KM
2127        KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2128        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2129        KM   .30 .30 .30 .09 .07 .06 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2130        KM
2131        KM          L=   0.714 miles, S=  248 feet/mile, Kb= .04
2132        KM
2133        BA   0.093
2134        LG    0.10    0.26    4.40    0.34   48.61
2135        UC   0.200   0.184
2136        UA      0       5      16      30      65      77      84      90      94      97
2137        UA    100
            *

2138        KK   C556R
2139        KM      Hydrograph combine 555556 + 207J at C556 right branch
2140        HC       2
            *

2141        KK    C556
2142        KM      Hydrograph combine C556L + C556R at C556
2143        HC       2
            *

2144        KK  556557
2145        KM      Normal depth channel route from C556 to C557
2146        KM      Source:  HEC-2 Cross Section: AS 5.765
2147        RS       3    FLOW      -1
2148        RC   0.055   0.045   0.060  2298.0  0.0260
2149        RX  9957.1  9995.6 10000.0 10010.0 10040.4 10084.4 10104.2 10180.7
2150        RY  1949.3  1935.9  1935.8  1936.7  1936.7  1938.2  1947.1  1949.9
            *
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2151        KK    207K
2152        KM   Sub-Basin   207K
2153        KM
2154        KM      The Clark Unit Hydrograph is used for this basin.
2155        KM          The Urban time-area relation is used for this basin.
2156        KM
2157        KM      Time of Concentration for this sub-basin is based on the following:
2158        KM          6-Hour Rainfall, Pattern No.  1.00
2159        KM          An rainfall areal reduction factor of 0.998
2160        KM
2161        KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2162        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2163        KM   .30 .30 .30 .09 .07 .06 .03 .03 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2164        KM
2165        KM          L=   0.859 miles, S=  294 feet/mile, Kb= .05
2166        KM
2167        BA   0.130
2168        LG    0.11    0.27    5.40    0.21   37.19
2169        UC   0.233   0.209
2170        UA      0       5      16      30      65      77      84      90      94      97
2171        UA    100
            *

2172        KK   C557R
2173        KM      Hydrograph combine 556557 + 207K at C557
2174        HC       2
            *

2175        KK    207L
2176        KM   Sub-Basin   207L
2177        KM
2178        KM      The Clark Unit Hydrograph is used for this basin.
2179        KM          The Urban time-area relation is used for this basin.
2180        KM
2181        KM      Time of Concentration for this sub-basin is based on the following:
2182        KM          6-Hour Rainfall, Pattern No.  1.00
2183        KM          An rainfall areal reduction factor of 0.999
2184        KM
2185        KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2186        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2187        KM   .31 .30 .30 .10 .07 .07 .03 .03 .03 .02 .02 .02 .01 .01 .01 .01 .01 .01
2188        KM
2189        KM          L=   0.667 miles, S=  236 feet/mile, Kb= .04
2190        KM
2191        BA   0.080
2192        LG    0.09    0.26    6.00    0.16   33.25
2193        UC   0.196   0.184
2194        UA      0       5      16      30      65      77      84      90      94      97
2195        UA    100
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2196        KK    C557
2197        KM      Hydrograph combine C557R + 207L at C557
```

```
2198        HC       2
            *
            * *
            * * C557 is the total flow in Ashbrook Wash downstream of Golden Eagle Blvd.
            * * at fire station
            * *
            *

2199        KK  557558
2200        KM      Normal depth channel route from C557 to C558
2201        KM      Source:  HEC-2 Cross Section: AS 5.254
2202        RS       4    FLOW      -1
2203        RC   0.055   0.045   0.060  2652.0  0.0242
2204        RX  9662.0  9965.0  9967.0 10000.0 10072.0 10095.0 10122.0 10175.0
2205        RY  1890.0  1885.9  1884.0  1878.0  1880.0  1886.0  1888.0  1890.0
            *

2206        KK    207M
2207        KM   Sub-Basin   207M
2208        KM
2209        KM      The Clark Unit Hydrograph is used for this basin.
2210        KM          The Urban time-area relation is used for this basin.
2211        KM
2212        KM      Time of Concentration for this sub-basin is based on the following:
2213        KM          6-Hour Rainfall, Pattern No.  1.00
2214        KM          An rainfall areal reduction factor of 0.998
2215        KM
2216        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2217        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2218        KM   .30 .29 .29 .09 .06 .05 .02 .02 .02 .01 .01 .01 .00 .00 .00 .00 .00 .00
2219        KM
2220        KM          L=   0.636 miles, S=  295 feet/mile, Kb= .04
2221        KM
2222        BA   0.116
2223        LG    0.11    0.28    6.00    0.17   23.09
2224        UC   0.179   0.130
2225        UA       0       5      16      30      65      77      84      90      94      97
2226        UA     100
            *

2227        KK    C558
2228        KM      Hydrograph combine 557558 + 207M at C558
2229        HC       2
            *

2230        KK  558560
2231        KM      Normal depth channel route from C558 to C560
2232        KM      Source:  HEC-2 Cross Section: AS 4.839
2233        RS       3    FLOW      -1
2234        RC   0.055   0.045   0.060  1986.0  0.0185
2235        RX  9777.0  9897.0  9933.1  9970.6 10042.2 10063.4 10121.6 10204.9
2236        RY  1840.3  1837.3  1836.3  1824.3  1822.7  1828.5  1827.7  1842.7
            *
```



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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2237        KK    207O
2238        KM   Sub-Basin   207O
2239        KM
2240        KM      The Clark Unit Hydrograph is used for this basin.
2241        KM          The Urban time-area relation is used for this basin.
2242        KM
2243        KM      Time of Concentration for this sub-basin is based on the following:
2244        KM          6-Hour Rainfall, Pattern No.  1.00
2245        KM          An rainfall areal reduction factor of 0.998
2246        KM
2247        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2248        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2249        KM   .29 .29 .28 .08 .05 .04 .02 .02 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
2250        KM
2251        KM          L=   0.643 miles, S=  275 feet/mile, Kb= .04
2252        KM
2253        BA   0.131
2254        LG    0.13    0.29    5.60    0.21   23.47
2255        UC   0.188   0.129
2256        UA       0       5      16      30      65      77      84      90      94      97
2257        UA     100
            *

2258        KK   C560R
2259        KM      Hydrograph combine 558560 + 207O at C560 right branch
2260        HC       2
            *

2261        KK    207N
2262        KM   Sub-Basin   207N
2263        KM
2264        KM      The Clark Unit Hydrograph is used for this basin.
2265        KM          The Urban time-area relation is used for this basin.
2266        KM
2267        KM      Time of Concentration for this sub-basin is based on the following:
2268        KM          6-Hour Rainfall, Pattern No.  1.00
2269        KM          An rainfall areal reduction factor of 0.999
2270        KM
2271        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2272        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2273        KM   .30 .30 .29 .09 .06 .05 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2274        KM
2275        KM          L=   0.431 miles, S=  190 feet/mile, Kb= .03
2276        KM
2277        BA   0.049
2278        LG    0.09    0.25    4.80    0.27   35.87
```

```
2279          UC   0.146   0.124
2280          UA       0       5      16      30      65      77      84      90      94      97
2281          UA     100
              *
1                                          HEC-1 INPUT                                                    PAGE 53
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2282          KK  559560
2283          KM      Normal depth channel route from C559 to C560
2284          KM      Source:  200 Scale Mapping
2285          RS       6    FLOW      -1
2286          RC   0.050   0.045   0.050  2170.0  0.0230
2287          RX  1000.0  1050.0  1080.0  1100.0  1110.0  1140.0  1170.0  1205.0
2288          RY  1854.0  1852.0  1850.0  1848.0  1848.0  1850.0  1852.0  1854.0
              *

2289          KK   C560I
2290          KM      Hydrograph combine C560R + 559560 at C560I
2291          HC       2
              *
              * *
              * * C560I is the total flow in Ashbrook Wash upstream of Dam 6
              * *
              *

2292          KK   C5600
2293          KM      Reservoir route at C560 (Dam 6).
2294          RS       1    ELEV  1808.8
2295          SV    0.00    1.71   14.81   34.65   60.43   93.47  135.64  183.00  186.00  191.44
2296          SV  197.00  205.00  212.00  219.00  226.40  234.00  242.00  246.00  250.00  254.00
2297          SE  1808.8  1812.0  1816.0  1820.0  1824.0  1828.0  1832.0  1835.4  1835.6  1836.0
2298          SE  1836.4  1836.8  1837.2  1837.6  1838.0  1838.4  1838.8  1839.0  1839.2  1839.4
2299          SQ       0      57     136     184     224     257     285     303     319     440
2300          SQ     691    1055    1500    2018    2600    3243    3944    4315    4699    5097
2301          RL                    0.40
              *
              * *
              * * End Basin 207.  Start Basin 210 temporarily
              * *
              *

2302          KK  560585
2303          KM      Normal depth channel route from C560 to C585
2304          KM      Source:  HEC-2 Cross Section: AS4.311
2305          RS       6    FLOW      -1
2306          RC   0.050   0.025   0.050  3127.0  0.0272
2307          RX  9850.4  9950.4  9974.4 10000.0 10035.5 10059.8 10080.4 10104.4
2308          RY  1772.0  1771.7  1765.3  1765.3  1765.9  1768.5  1773.3  1773.7
              *

2309          KK    210A
2310          KM   Sub-Basin   210A
2311          KM
2312          KM      The Clark Unit Hydrograph is used for this basin.
2313          KM          The Urban time-area relation is used for this basin.
2314          KM
2315          KM      Time of Concentration for this sub-basin is based on the following:
2316          KM          6-Hour Rainfall, Pattern No.  1.00
2317          KM          An rainfall areal reduction factor of 0.998
2318          KM
2319          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1                                          HEC-1 INPUT                                                    PAGE 54
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2320          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2321          KM   .29 .29 .28 .08 .05 .04 .02 .02 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
2322          KM
2323          KM          L=   0.631 miles, S=  233 feet/mile, Kb= .03
2324          KM
2325          BA   0.123
2326          LG    0.09    0.25    5.00    0.24   16.65
2327          UC   0.167   0.116
2328          UA       0       5      16      30      65      77      84      90      94      97
2329          UA     100
              *

2330          KK    C585
2331          KM      Hydrograph combine 560585 + 210A at C585
2332          HC       2
              *
              * *
              * * C585 is the total flow in Ashbrook Wash at Golden Eagle Blvd. just
              * * upstream of DAM 4
              * *
              * * Temporarily stop Basin 210.  Start Basin 208
              * *
              * * Start Bristol Wash
              * *
              *

2333          KK    208A
2334          KM   Sub-Basin   208A
2335          KM
2336          KM      The Clark Unit Hydrograph is used for this basin.
2337          KM          The Urban time-area relation is used for this basin.
2338          KM
2339          KM      Time of Concentration for this sub-basin is based on the following:
2340          KM          6-Hour Rainfall, Pattern No.  1.00
2341          KM          An rainfall areal reduction factor of 0.998
2342          KM
2343          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
```

```
2344        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2345        KM   .30 .30 .30 .09 .07 .06 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2346        KM
2347        KM          L=   0.626 miles, S=  366 feet/mile, Kb= .03
2348        KM
2349        BA   0.139
2350        LG    0.09    0.25    4.35    0.35   49.86
2351        UC   0.142   0.090
2352        UA       0       5      16      30      65      77      84      90      94      97
2353        UA     100
            *

2354        KK  561563
2355        KM      Normal depth channel route from C561 to C563
2356        KM      Source:  100 Scale 4' CI Mapping
2357        RS       2    FLOW      -1
2358        RC   0.050   0.045   0.050  2335.0  0.0856
2359        RX  1000.0  1004.0  1009.0  1019.0  1037.0  1045.0  1060.0  1075.0
1                                          HEC-1 INPUT                                    PAGE 55
            LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2360        RY  2280.0  2276.0  2272.0  2268.0  2268.0  2272.0  2274.0  2276.0
            *

2361        KK    208B
2362        KM   Sub-Basin   208B
2363        KM
2364        KM      The Clark Unit Hydrograph is used for this basin.
2365        KM          The Urban time-area relation is used for this basin.
2366        KM
2367        KM      Time of Concentration for this sub-basin is based on the following:
2368        KM          6-Hour Rainfall, Pattern No.  1.00
2369        KM          An rainfall areal reduction factor of 1.000
2370        KM
2371        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2372        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2373        KM   .30 .30 .30 .09 .07 .06 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2374        KM
2375        KM          L=   0.491 miles, S=  325 feet/mile, Kb= .03
2376        KM
2377        BA   0.027
2378        LG    0.09    0.25    4.35    0.35   50.00
2379        UC   0.133   0.176
2380        UA       0       5      16      30      65      77      84      90      94      97
2381        UA     100
            *

2382        KK   C563R
2383        KM     Hydrograph combine 561563 + 206B at C563 right branch
2384        HC       2
            *

2385        KK    208C
2386        KM   Sub-Basin   208C
2387        KM
2388        KM     The Clark Unit Hydrograph is used for this basin.
2389        KM         The HEC-1 time-area relation is used for this basin.
2390        KM
2391        KM     Time of Concentration for this sub-basin is based on the following:
2392        KM         6-Hour Rainfall, Pattern No.  1.00
2393        KM         An rainfall areal reduction factor of 0.999
2394        KM
2395        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2396        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2397        KM   .29 .28 .27 .06 .04 .04 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2398        KM
2399        KM          L=   0.639 miles, S=  387 feet/mile, Kb= .11
2400        KM
2401        BA   0.066
2402        LG    0.20    0.32    4.35    0.38   40.11
2403        UC   0.300   0.319
            *
1                                          HEC-1 INPUT                                    PAGE 56
            LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2404        KK  562563
2405        KM      Normal depth channel route from C562 to C563
2406        KM      Source:  100 Scale 4' CI Mapping
2407        RS       6    FLOW      -1
2408        RC   0.050   0.045   0.050  3745.0  0.1106
2409        RX  1000.0  1007.0  1012.0  1017.0  1022.0  1027.0  1044.0  1064.0
2410        RY  2420.0  2416.0  2412.0  2411.8  2411.8  2412.0  2416.0  2420.0
            *

2411        KK    208D
2412        KM   Sub-Basin   208D
2413        KM
2414        KM     The Clark Unit Hydrograph is used for this basin.
2415        KM         The Urban time-area relation is used for this basin.
2416        KM
2417        KM     Time of Concentration for this sub-basin is based on the following:
2418        KM         6-Hour Rainfall, Pattern No.  1.00
2419        KM         An rainfall areal reduction factor of 0.999
2420        KM
2421        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2422        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2423        KM   .30 .30 .30 .09 .07 .06 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2424        KM
2425        KM          L=   0.772 miles, S=  327 feet/mile, Kb= .03
2426        KM
2427        BA   0.075
```

```
2428        LG    0.09    0.25    4.35    0.35   50.00
2429        UC   0.167   0.181
2430        UA       0       5      16      30      65      77      84      90      94      97
2431        UA     100
            *

2432        KK   C563L
2433        KM      Hydrograph combine 562563 + 208D at C563 left branch
2434        HC       2
            *

2435        KK    C563
2436        KM      Hydrograph combine C563R + C563L at C563
2437        HC       2
            *

2438        KK  563564
2439        KM      Normal depth channel route from C563 to C564
2440        KM      Source:  HEC-2 Cross Section: BR 2.667
2441        RS       4    FLOW      -1
2442        RC   0.080   0.080   0.080  2762.0  0.0540
2443        RX  9947.0  9980.4  9986.4  9995.5 10000.0 10005.8 10021.9 10037.2
2444        RY  2103.4  2089.5  2089.2  2084.5  2084.4  2084.3  2098.5  2100.6
            *
```



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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2445        KK    208E
2446        KM   Sub-Basin   208E
2447        KM
2448        KM      The Clark Unit Hydrograph is used for this basin.
2449        KM          The Urban time-area relation is used for this basin.
2450        KM
2451        KM      Time of Concentration for this sub-basin is based on the following:
2452        KM          6-Hour Rainfall, Pattern No.  1.00
2453        KM          An rainfall areal reduction factor of 0.999
2454        KM
2455        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2456        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2457        KM   .30 .30 .30 .09 .07 .06 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2458        KM
2459        KM          L=   0.644 miles, S=  306 feet/mile, Kb= .03
2460        KM
2461        BA   0.062
2462        LG    0.09    0.25    4.35    0.35   50.00
2463        UC   0.154   0.159
2464        UA       0       5      16      30      65      77      84      90      94      97
2465        UA     100
            *

2466        KK   C564R
2467        KM      Hydrograph combine 563564 + 208E at C564 right branch
2468        HC       2
            *

2469        KK    208F
2470        KM   Sub-Basin   208F
2471        KM
2472        KM      The Clark Unit Hydrograph is used for this basin.
2473        KM          The Urban time-area relation is used for this basin.
2474        KM
2475        KM      Time of Concentration for this sub-basin is based on the following:
2476        KM          6-Hour Rainfall, Pattern No.  1.00
2477        KM          An rainfall areal reduction factor of 0.999
2478        KM
2479        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2480        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2481        KM   .30 .30 .30 .09 .07 .06 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2482        KM
2483        KM          L=   0.582 miles, S=  293 feet/mile, Kb= .03
2484        KM
2485        BA   0.069
2486        LG    0.09    0.25    4.35    0.35   49.92
2487        UC   0.150   0.134
2488        UA       0       5      16      30      65      77      84      90      94      97
2489        UA     100
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2490        KK    C564
2491        KM      Hydrograph combine C564R + 208F at C564
2492        HC       2
            *

2493        KK  564565
2494        KM      Normal depth channel route from C564 to C565
2495        KM      Source:  HEC-2 Cross Section: BR 2.236
2496        RS       6    FLOW      -1
2497        RC   0.080   0.080   0.080  3243.0  0.0398
2498        RX  9937.7  9965.8  9985.5 10000.0 10008.6 10016.4 10037.5 10054.4
2499        RY  1998.7  1998.1  1988.9  1988.8  1989.0  1990.4  1990.6  1999.1
            *

2500        KK    208G
2501        KM   Sub-Basin   208G
2502        KM
2503        KM      The Clark Unit Hydrograph is used for this basin.
2504        KM          The Urban time-area relation is used for this basin.
2505        KM
```

```
2506    KM      Time of Concentration for this sub-basin is based on the following:
2507    KM          6-Hour Rainfall, Pattern No.  1.00
2508    KM          An rainfall areal reduction factor of 0.998
2509    KM
2510    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2511    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2512    KM   .31 .30 .30 .10 .07 .06 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2513    KM
2514    KM          L=   0.772 miles, S=  299 feet/mile, Kb= .04
2515    KM
2516    BA   0.129
2517    LG    0.11    0.26    4.60    0.31   54.19
2518    UC   0.196   0.158
2519    UA       0       5      16      30      65      77      84      90      94      97
2520    UA     100
        *

2521    KK    C565
2522    KM      Hydrograph combine 564565 + 208G at C565
2523    HC       2
        *

2524    KK  565568
2525    KM      Normal depth channel route from C565 to C568
2526    KM      Source:  HEC-2 Cross Section: BR 1.853
2527    RS       3    FLOW      -1
2528    RC   0.050   0.060   0.045  2254.0  0.0333
2529    RX  9966.2  9975.6  9985.0 10000.0 10017.9 10027.6 10040.1 10052.5
2530    RY  1929.1  1924.5  1919.8  1918.3  1918.4  1919.6  1925.2  1930.8
        *
```



```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2531    KK    208H
2532    KM   Sub-Basin   208H
2533    KM
2534    KM      The Clark Unit Hydrograph is used for this basin.
2535    KM          The Urban time-area relation is used for this basin.
2536    KM
2537    KM      Time of Concentration for this sub-basin is based on the following:
2538    KM          6-Hour Rainfall, Pattern No.  1.00
2539    KM          An rainfall areal reduction factor of 0.999
2540    KM
2541    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2542    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2543    KM   .30 .30 .29 .09 .06 .05 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2544    KM
2545    KM          L=   0.632 miles, S=  283 feet/mile, Kb= .07
2546    KM
2547    BA   0.043
2548    LG    0.12    0.30    5.60    0.21   35.43
2549    UC   0.246   0.326
2550    UA       0       5      16      30      65      77      84      90      94      97
2551    UA     100
        *

2552    KK   C568L
2553    KM      Hydrograph combine 565568 + 208H at C568 left branch
2554    HC       2
        *
        * *
        * * Start Cholula Wash
        * *
        *

2555    KK    208I
2556    KM   Sub-Basin   208I
2557    KM
2558    KM      The Clark Unit Hydrograph is used for this basin.
2559    KM          The Urban time-area relation is used for this basin.
2560    KM
2561    KM      Time of Concentration for this sub-basin is based on the following:
2562    KM          6-Hour Rainfall, Pattern No.  1.00
2563    KM          An rainfall areal reduction factor of 0.998
2564    KM
2565    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2566    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2567    KM   .30 .30 .30 .09 .07 .06 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2568    KM
2569    KM          L=   0.823 miles, S=  363 feet/mile, Kb= .03
2570    KM
2571    BA   0.117
2572    LG    0.09    0.25    4.35    0.35   50.00
2573    UC   0.167   0.147
2574    UA       0       5      16      30      65      77      84      90      94      97
2575    UA     100
        *
```



```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2576    KK    208J
2577    KM   Sub-Basin   208J
2578    KM
2579    KM      The Clark Unit Hydrograph is used for this basin.
2580    KM          The Urban time-area relation is used for this basin.
2581    KM
2582    KM      Time of Concentration for this sub-basin is based on the following:
2583    KM          6-Hour Rainfall, Pattern No.  1.00
2584    KM          An rainfall areal reduction factor of 0.999
2585    KM
```

```
2586   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2587   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2588   KM   .30 .30 .30 .09 .07 .06 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2589   KM
2590   KM          L=   0.974 miles, S=  353 feet/mile, Kb= .03
2591   KM
2592   BA   0.081
2593   LG    0.09    0.25    4.35    0.35   50.00
2594   UC   0.179   0.225
2595   UA      0       5      16      30      65      77      84      90      94      97
2596   UA    100
       *

2597   KK    C566
2598   KM      Hydrograph combine 208I + 208J at C566
2599   HC       2
       *

2600   KK  566567
2601   KM      Normal depth channel route from C566 to C567
2602   KM      Source:  HEC-2 Cross Section: CH 0.766
2603   RS       3    FLOW      -1
2604   RC   0.080   0.080   0.080  1463.0  0.0410
2605   RX  9925.3  9949.0  9965.7  9988.3 10000.0 10016.2 10029.5 10042.7
2606   RY  2047.9  2043.7  2035.3  2033.3  2031.4  2033.0  2040.1  2047.2
       *

2607   KK    208K
2608   KM   Sub-Basin   208K
2609   KM
2610   KM      The Clark Unit Hydrograph is used for this basin.
2611   KM          The Urban time-area relation is used for this basin.
2612   KM
2613   KM      Time of Concentration for this sub-basin is based on the following:
2614   KM          6-Hour Rainfall, Pattern No.  1.00
2615   KM          An rainfall areal reduction factor of 0.999
2616   KM
2617   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2618   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2619   KM   .31 .30 .30 .09 .07 .06 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2620   KM
2621   KM          L=   0.431 miles, S=  317 feet/mile, Kb= .03
2622   KM
2623   BA   0.048
```



```
LINE   ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2624   LG    0.09    0.25    4.35    0.35   54.38
2625   UC   0.125   0.106
2626   UA      0       5      16      30      65      77      84      90      94      97
2627   UA    100
       *

2628   KK   C567L
2629   KM      Hydrograph combine 566567 + 208K at C567 left branch
2630   HC       2
       *

2631   KK    208L
2632   KM   Sub-Basin   208L
2633   KM
2634   KM      The Clark Unit Hydrograph is used for this basin.
2635   KM          The Urban time-area relation is used for this basin.
2636   KM
2637   KM      Time of Concentration for this sub-basin is based on the following:
2638   KM          6-Hour Rainfall, Pattern No.  1.00
2639   KM          An rainfall areal reduction factor of 0.999
2640   KM
2641   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2642   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2643   KM   .30 .30 .30 .09 .07 .06 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2644   KM
2645   KM          L=   0.655 miles, S=  334 feet/mile, Kb= .03
2646   KM
2647   BA   0.059
2648   LG    0.09    0.25    4.40    0.35   51.31
2649   UC   0.150   0.161
2650   UA      0       5      16      30      65      77      84      90      94      97
2651   UA    100
       *

2652   KK    C567
2653   KM      Hydrograph combine C567L + 208L at C567
2654   HC       2
       *

2655   KK  567568
2656   KM      Normal depth channel route from C567 to C568
2657   KM      Source:  HEC-2 Cross Section: CH 0.129
2658   RS       7    FLOW      -1
2659   RC   0.050   0.060   0.045  3650.0  0.0389
2660   RX  9945.7  9958.4  9989.8 10000.0 10016.4 10028.3 10045.4 10059.8
2661   RY  1912.1  1905.9  1899.0  1899.3  1898.9  1899.5  1907.1  1911.9
       *

2662   KK    208M
2663   KM   Sub-Basin   208M
2664   KM
2665   KM      The Clark Unit Hydrograph is used for this basin.
2666   KM          The Urban time-area relation is used for this basin.
2667   KM
2668   KM      Time of Concentration for this sub-basin is based on the following:
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2669          KM          6-Hour Rainfall, Pattern No.  1.00
2670          KM          An rainfall areal reduction factor of 0.998
2671          KM
2672          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2673          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2674          KM   .31 .31 .31 .10 .08 .07 .04 .04 .04 .04 .04 .03 .01 .01 .01 .01 .01 .01
2675          KM
2676          KM          L=   1.031 miles, S=  321 feet/mile, Kb= .03
2677          KM
2678          BA   0.159
2679          LG    0.09    0.25    4.40    0.34   62.04
2680          UC   0.192   0.173
2681          UA      0       5      16      30      65      77      84      90      94      97
2682          UA    100
              *

2683          KK   C568R
2684          KM      Hydrograph combine 567568 + 208M at C568 right branch
2685          HC       2
              *

2686          KK    C568
2687          KM      Hydrograph combine C568L + C568R at C568
2688          HC       2
              *

2689          KK  568573
2690          KM      Normal depth channel route from C568 to C573
2691          KM      Source:  HEC-2 Cross Section: BR 1.340
2692          RS       3    FLOW      -1
2693          RC   0.098   0.075   0.075  2067.0  0.0324
2694          RX  9921.8  9954.1  9968.9  9991.3 10000.0 10006.9 10025.2 10050.4
2695          RY  1843.8  1840.4  1835.1  1834.7  1832.7  1833.3  1838.1  1854.0
              *

2696          KK    208N
2697          KM   Sub-Basin   208N
2698          KM
2699          KM      The Clark Unit Hydrograph is used for this basin.
2700          KM          The Urban time-area relation is used for this basin.
2701          KM
2702          KM      Time of Concentration for this sub-basin is based on the following:
2703          KM          6-Hour Rainfall, Pattern No.  1.00
2704          KM          An rainfall areal reduction factor of 0.999
2705          KM
2706          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2707          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2708          KM   .32 .32 .32 .11 .09 .09 .04 .04 .04 .04 .04 .04 .01 .01 .01 .01 .01 .01
2709          KM
2710          KM          L=   0.589 miles, S=  160 feet/mile, Kb= .04
2711          KM
2712          BA   0.047
2713          LG    0.09    0.25    6.20    0.15   62.49
2714          UC   0.204   0.237
2715          UA      0       5      16      30      65      77      84      90      94      97
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2716          UA    100
              *

2717          KK   C573L
2718          KM      Hydrograph combine 568573 + 208N at C573 left branch
2719          HC       2
              *
              * *
              * * C573L is the total flow in Bristol Wash upstream of the confluence with
              * * Zapata Wash
              * *
              * * Start Zapata Wash
              * *
              *

2720          KK    208O
2721          KM   Sub-Basin   208O
2722          KM
2723          KM      The Clark Unit Hydrograph is used for this basin.
2724          KM          The Urban time-area relation is used for this basin.
2725          KM
2726          KM      Time of Concentration for this sub-basin is based on the following:
2727          KM          6-Hour Rainfall, Pattern No.  1.00
2728          KM          An rainfall areal reduction factor of 0.997
2729          KM
2730          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2731          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2732          KM   .30 .30 .30 .09 .07 .06 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2733          KM
2734          KM          L=   1.174 miles, S=  347 feet/mile, Kb= .03
2735          KM
2736          BA   0.230
2737          LG    0.09    0.25    4.60    0.31   48.49
2738          UC   0.200   0.163
2739          UA      0       5      16      30      65      77      84      90      94      97
2740          UA    100
              *

2741          KK  569570
2742          KM      Normal depth channel route from C569 to C570
2743          KM      Source:  HEC-2 Cross Section: ZA 0.493
2744          RS       2    FLOW      -1
2745          RC   0.050   0.035   0.055  1696.0  0.0404
```

```
2746        RX  9965.3  9985.5  9998.4 10000.0 10010.6 10019.1 10038.5 10038.5
2747        RY  1919.3  1912.3  1908.1  1907.8  1905.2  1908.1  1920.1  1920.1
            *

2748        KK    208P
2749        KM   Sub-Basin   208P
2750        KM
2751        KM      The Clark Unit Hydrograph is used for this basin.
2752        KM          The Urban time-area relation is used for this basin.
2753        KM
2754        KM      Time of Concentration for this sub-basin is based on the following:
2755        KM          6-Hour Rainfall, Pattern No.  1.00
1                                        HEC-1 INPUT                                                    PAGE 64

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2756        KM          An rainfall areal reduction factor of 0.999
2757        KM
2758        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2759        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2760        KM   .32 .31 .31 .11 .09 .08 .04 .04 .04 .03 .03 .03 .01 .01 .01 .01 .01 .01
2761        KM
2762        KM          L=   0.471 miles, S=  312 feet/mile, Kb= .03
2763        KM
2764        BA   0.058
2765        LG    0.08    0.25    5.70    0.18   59.29
2766        UC   0.129   0.106
2767        UA       0       5      16      30      65      77      84      90      94      97
2768        UA     100
            *

2769        KK   C570R
2770        KM      Hydrograph combine 569570 + 208P at C570 right branch
2771        HC       2
            *

2772        KK    208Q
2773        KM   Sub-Basin   208Q
2774        KM
2775        KM      The Clark Unit Hydrograph is used for this basin.
2776        KM          The Urban time-area relation is used for this basin.
2777        KM
2778        KM      Time of Concentration for this sub-basin is based on the following:
2779        KM          6-Hour Rainfall, Pattern No.  1.00
2780        KM          An rainfall areal reduction factor of 0.999
2781        KM
2782        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2783        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2784        KM   .31 .31 .30 .10 .08 .07 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2785        KM
2786        KM          L=   0.823 miles, S=  324 feet/mile, Kb= .04
2787        KM
2788        BA   0.094
2789        LG    0.10    0.26    5.00    0.25   54.26
2790        UC   0.196   0.199
2791        UA       0       5      16      30      65      77      84      90      94      97
2792        UA     100
            *

2793        KK    C570
2794        KM      Hydrograph combine C570R + 208Q at C570
2795        HC       2
            *
            * *
            * * NOTE: 570572 is too short to route
            * *
            *
1                                        HEC-1 INPUT                                                    PAGE 65

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2796        KK    208R
2797        KM   Sub-Basin   208R
2798        KM
2799        KM      The Clark Unit Hydrograph is used for this basin.
2800        KM          The Urban time-area relation is used for this basin.
2801        KM
2802        KM      Time of Concentration for this sub-basin is based on the following:
2803        KM          6-Hour Rainfall, Pattern No.  1.00
2804        KM          An rainfall areal reduction factor of 1.000
2805        KM
2806        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2807        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2808        KM   .32 .32 .31 .11 .09 .09 .04 .04 .04 .03 .03 .03 .01 .01 .01 .01 .01 .01
2809        KM
2810        KM          L=   0.238 miles, S=  327 feet/mile, Kb= .03
2811        KM
2812        BA   0.010
2813        LG    0.08    0.23    6.20    0.15   55.16
2814        UC   0.092   0.111
2815        UA       0       5      16      30      65      77      84      90      94      97
2816        UA     100
            *

2817        KK  571572
2818        KM      Normal depth channel route from C571 to C572
2819        KM      Source:  200 Scale Mapping
2820        RS       2    FLOW     -1
2821        RC   0.040   0.020   0.055  1379.0  0.0566
2822        RX  1000.0  1020.0  1040.0  1090.0  1122.0  1125.0  1135.0  1140.0
2823        RY  1894.0  1893.0  1892.0  1891.0  1891.0  1892.0  1894.0  1896.0
            *
```

```
2824          KK    C572
2825          KM      Hydrograph combine C570 + 571572 at C572
2826          HC       2
              *

2827          KK  572573
2828          KM      Normal depth channel route from C572 to C573
2829          KM      Source:  HEC-2 Cross Section: ZA 0.142
2830          RS       2    FLOW      -1
2831          RC   0.050   0.035   0.055  1285.0  0.0335
2832          RX  9961.8  9976.8  9982.5  9987.0 10009.5 10014.3 10022.1 10029.3
2833          RY  1840.3  1832.1  1831.2  1829.5  1829.2  1830.6  1831.2  1835.6
              *

2834          KK    208S
2835          KM   Sub-Basin   208S
2836          KM
2837          KM      The Clark Unit Hydrograph is used for this basin.
2838          KM          The Urban time-area relation is used for this basin.
2839          KM
2840          KM      Time of Concentration for this sub-basin is based on the following:
2841          KM          6-Hour Rainfall, Pattern No.  1.00
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2842          KM          An rainfall areal reduction factor of 0.999
2843          KM
2844          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2845          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2846          KM   .32 .32 .32 .12 .09 .09 .05 .04 .04 .04 .04 .04 .01 .01 .01 .01 .01 .01
2847          KM
2848          KM          L=   0.568 miles, S=  234 feet/mile, Kb= .03
2849          KM
2850          BA   0.068
2851          LG    0.08    0.24    6.20    0.15   67.07
2852          UC   0.154   0.136
2853          UA       0       5      16      30      65      77      84      90      94      97
2854          UA     100
              *

2855          KK   C573R
2856          KM      Hydrograph combine 572573 + 208S at C573 right branch
2857          HC       2
              *

2858          KK    C573
2859          KM      Hydrograph combine C573L + C573R at C573
2860          HC       2
              *
              * *
              * * NOTE: 573577 is too short to route
              * *
              * * C573 is the total flow in Bristol Wash upstream of the confluence
              * * with Montezuna Wash
              * *
              * * Start Montezuna Wash
              * *
              *

2861          KK    208T
2862          KM   Sub-Basin   208T
2863          KM
2864          KM      The Clark Unit Hydrograph is used for this basin.
2865          KM          The Urban time-area relation is used for this basin.
2866          KM
2867          KM      Time of Concentration for this sub-basin is based on the following:
2868          KM          6-Hour Rainfall, Pattern No.  1.00
2869          KM          An rainfall areal reduction factor of 0.998
2870          KM
2871          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2872          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2873          KM   .31 .30 .30 .10 .07 .07 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2874          KM
2875          KM          L=   0.787 miles, S=  340 feet/mile, Kb= .03
2876          KM
2877          BA   0.132
2878          LG    0.09    0.25    5.20    0.22   44.80
2879          UC   0.163   0.129
2880          UA       0       5      16      30      65      77      84      90      94      97
2881          UA     100
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2882          KK    208U
2883          KM   Sub-Basin   208U
2884          KM
2885          KM      The Clark Unit Hydrograph is used for this basin.
2886          KM          The Urban time-area relation is used for this basin.
2887          KM
2888          KM      Time of Concentration for this sub-basin is based on the following:
2889          KM          6-Hour Rainfall, Pattern No.  1.00
2890          KM          An rainfall areal reduction factor of 0.998
2891          KM
2892          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2893          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2894          KM   .31 .30 .30 .10 .08 .07 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
2895          KM
2896          KM          L=   0.507 miles, S=  360 feet/mile, Kb= .03
2897          KM
2898          BA   0.134
```

```
2899    LG    0.09    0.25    5.30    0.21   44.19
2900    UC   0.129   0.070
2901    UA       0       5      16      30      65      77      84      90      94      97
2902    UA     100
        *

2903    KK    C574
2904    KM      Hydrograph combine 208T + 208U at C574
2905    HC       2
        *

2906    KK  574575
2907    KM      Normal depth channel route from C574 to C575
2908    KM      Source:  HEC-2 Cross Section: MO 0.587
2909    RS       1    FLOW      -1
2910    RC   0.070   0.050   0.055   823.0  0.0365
2911    RX  9945.0  9970.6  9986.7  9995.9 10002.3 10019.0 10036.7 10055.5
2912    RY  1932.6  1928.5  1922.9  1917.8  1917.7  1924.0  1931.1  1934.1
        *

2913    KK    208V
2914    KM   Sub-Basin   208V
2915    KM
2916    KM      The Clark Unit Hydrograph is used for this basin.
2917    KM          The Urban time-area relation is used for this basin.
2918    KM
2919    KM      Time of Concentration for this sub-basin is based on the following:
2920    KM          6-Hour Rainfall, Pattern No.  1.00
2921    KM          An rainfall areal reduction factor of 1.000
2922    KM
2923    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2924    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2925    KM   .31 .31 .31 .10 .08 .08 .04 .04 .03 .02 .02 .02 .01 .01 .01 .01 .01 .01
2926    KM
2927    KM          L=   0.354 miles, S=  319 feet/mile, Kb= .03
2928    KM
2929    BA   0.028
```



```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2930    LG    0.09    0.21    6.40    0.15   41.15
2931    UC   0.113   0.110
2932    UA       0       5      16      30      65      77      84      90      94      97
2933    UA     100
        *

2934    KK    C575
2935    KM      Hydrograph combine 574575 + 208V at C575
2936    HC       2
        *

2937    KK  575576
2938    KM      Normal depth channel route from C575 to C576
2939    KM      Source:  HEC-2 Cross Section: MO 0.307
2940    RS       2    FLOW      -1
2941    RC   0.070   0.050   0.055  2342.0  0.0423
2942    RX  9973.7  9974.0  9986.7 10000.0 10000.5 10009.7 10026.7 10037.3
2943    RY  1861.6  1861.5  1855.0  1853.0  1853.1  1854.8  1863.0  1867.1
        *

2944    KK    208W
2945    KM   Sub-Basin   208W
2946    KM
2947    KM      The Clark Unit Hydrograph is used for this basin.
2948    KM          The Urban time-area relation is used for this basin.
2949    KM
2950    KM      Time of Concentration for this sub-basin is based on the following:
2951    KM          6-Hour Rainfall, Pattern No.  1.00
2952    KM          An rainfall areal reduction factor of 0.999
2953    KM
2954    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2955    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2956    KM   .31 .31 .31 .10 .08 .08 .04 .03 .03 .02 .02 .02 .01 .01 .01 .01 .01 .01
2957    KM
2958    KM          L=   0.475 miles, S=  288 feet/mile, Kb= .03
2959    KM
2960    BA   0.050
2961    LG    0.09    0.23    6.20    0.16   42.74
2962    UC   0.133   0.120
2963    UA       0       5      16      30      65      77      84      90      94      97
2964    UA     100
        *

2965    KK    C576
2966    KM      Hydrograph combine 575576 + 208W at C576
2967    HC       2
        *

2968    KK  576577
2969    KM      Normal depth channel route from C576 to C577
2970    KM      Source:  HEC-2 Cross Section: MO 0.116
2971    RS       1    FLOW      -1
2972    RC   0.070   0.050   0.055   740.0  0.0338
2973    RX  9915.1  9960.0  9985.5 10000.0 10000.1 10007.0 10023.3 10023.4
2974    RY  1826.5  1826.4  1814.5  1812.3  1812.3  1814.8  1830.3  1830.4
        *
        * *
        * * 576577 is the total flow in Montezuna Wash just upstream of the confluence
        * * with Bristol Wash
        * *
        *
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2975          KK    C577
2976          KM      Hydrograph combine C577L + 576577 at C570
2977          HC       2
              *
              * *
              * * C577 is the total flow in Bristol Wash downstream of the confluence
              * * with Montezuma Wash
              * *
              *

2978          KK  577578
2979          KM      Normal depth channel route from C577 to C578
2980          KM      Source:  HEC-2 Cross Section: BR 1.099
2981          RS       2    FLOW      -1
2982          RC   0.055   0.045   0.055  1078.0  0.0147
2983          RX  9865.3  9956.6  9991.1 10010.2 10034.3 10063.4 10139.7 10201.7
2984          RY  1821.8  1810.8  1793.2  1792.5  1795.5  1796.1  1813.8  1822.8
              *

2985          KK    208X
2986          KM   Sub-Basin   208X
2987          KM
2988          KM      The Clark Unit Hydrograph is used for this basin.
2989          KM          The Urban time-area relation is used for this basin.
2990          KM
2991          KM      Time of Concentration for this sub-basin is based on the following:
2992          KM          6-Hour Rainfall, Pattern No.  1.00
2993          KM          An rainfall areal reduction factor of 0.999
2994          KM
2995          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2996          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2997          KM   .30 .30 .30 .09 .06 .05 .03 .03 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2998          KM
2999          KM          L=   0.417 miles, S=  223 feet/mile, Kb= .05
3000          KM
3001          BA   0.075
3002          LG    0.13    0.29    5.60    0.21   39.42
3003          UC   0.179   0.119
3004          UA       0       5      16      30      65      77      84      90      94      97
3005          UA     100
              *

3006          KK   C578I
3007          KM      Hydrograph combine 577578 + 208X at C578I
3008          HC       2
              *
              * *
              * * C578I is the total flow in Bristol Wash upstream of Dam 11
              * *
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3009          KK   C578O
3010          KM      Reservoir route at C578 (Dam 11).
3011          RS       1    ELEV  1779.2
3012          SV    0.00   16.38   31.30   53.65   84.39  126.17  138.00  143.00  147.00  154.47
3013          SV  161.00  167.00  174.00  181.00  187.43  194.00  202.00  205.00
3014          SE  1779.2  1794.0  1798.0  1802.0  1806.0  1810.0  1810.8  1811.2  1811.6  1812.0
3015          SE  1812.4  1812.8  1813.2  1813.6  1814.0  1814.4  1814.8  1815.0
3016          SQ       0     131     181     221     254     283     305     325     328     366
3017          SQ     522     812    1194    1651    2176    2763    3406    4104    4855    5250
3018          SE  1779.2  1786.0  1790.0  1794.0  1798.0  1802.0  1806.0  1810.0  1810.8  1811.2
3019          SE  1811.6  1812.0  1812.4  1812.8  1813.2  1813.6  1814.0  1814.4  1814.8  1815.0
3020          RL                   0.97
              *
              * *
              * * End Basin 208.  Rejoin Basin 210
              * *
              *

3021          KK  578587
3022          KM      Normal depth channel route from C578 to C587
3023          KM      Source:  HEC-2 Cross Section: BR 0.697
3024          RS       3    FLOW      -1
3025          RC   0.055   0.045   0.055  1628.0  0.0191
3026          RX  9926.4  9949.5  9960.1  9984.7 10000.0 10014.1 10031.5 10049.4
3027          RY  1763.0  1762.6  1761.8  1757.0  1757.1  1756.9  1761.4  1768.1
              *

3028          KK    210B
3029          KM   Sub-Basin   210B
3030          KM
3031          KM      The Clark Unit Hydrograph is used for this basin.
3032          KM          The Urban time-area relation is used for this basin.
3033          KM
3034          KM      Time of Concentration for this sub-basin is based on the following:
3035          KM          6-Hour Rainfall, Pattern No.  1.00
3036          KM          An rainfall areal reduction factor of 0.999
3037          KM
3038          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3039          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3040          KM   .31 .30 .30 .10 .08 .07 .03 .03 .03 .02 .02 .02 .01 .01 .01 .01 .01 .01
3041          KM
3042          KM          L=   0.930 miles, S=  251 feet/mile, Kb= .03
3043          KM
3044          BA   0.107
3045          LG    0.08    0.25    5.80    0.17   37.15
3046          UC   0.196   0.205
```

```
3047        UA       0       5      16      30      65      77      84      90      94      97
3048        UA     100
            *
1                                          HEC-1 INPUT                                                    PAGE 71

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3049        KK   C5860
3050        KM       Reservoir route at C586.
3051        RS       1    ELEV  1804.4
3052        SV    0.00    0.05    0.36    1.09    2.45    4.45    7.00    9.50    9.60   10.00
3053        SV   10.34   10.70   11.20   11.60   12.10   12.50
3054        SE  1804.4  1806.0  1808.0  1810.0  1812.0  1814.0  1816.0 1817.55  1817.6  1817.8
3055        SE  1818.0  1818.2  1818.4  1818.6  1818.8  1819.0
3056        SQ       0      37     130     219     284     322     353     375     377     393
3057        SQ     432     492     574     680     808     959
            *

3058        KK  586587
3059        KM       Normal depth channel route from C586 to C587
3060        KM       Source:  200 Scale Mapping
3061        RS       3    FLOW      -1
3062        RC   0.040   0.035   0.040  1905.0  0.0313
3063        RX  1000.0  1020.0  1050.0  1055.0  1065.0  1070.0  1130.0  1150.0
3064        RY  1782.0  1780.0  1772.0  1771.0  1771.0  1772.0  1778.0  1782.0
            *

3065        KK    C587
3066        KM       Hydrograph combine 578587 + 586587 at C578
3067        HC       2
            *

3068        KK  587595
3069        KM       Normal depth channel route from C587 to C595
3070        KM       Source:  HEC-2 Cross Section: BR 0.533
3071        RS       2    FLOW      -1
3072        RC   0.055   0.045   0.055  1039.0  0.0173
3073        RX  9977.2  9980.4  9983.6  9989.9 10009.9 10020.3 10028.8 10037.3
3074        RY  1745.2  1744.0  1742.8  1740.3  1740.3  1742.4  1743.0  1743.6
            *

3075        KK    210C
3076        KM   Sub-Basin   210C
3077        KM
3078        KM       The Clark Unit Hydrograph is used for this basin.
3079        KM           The Urban time-area relation is used for this basin.
3080        KM
3081        KM       Time of Concentration for this sub-basin is based on the following:
3082        KM           6-Hour Rainfall, Pattern No.  1.00
3083        KM           An rainfall areal reduction factor of 0.999
3084        KM
3085        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3086        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3087        KM   .29 .28 .28 .07 .05 .04 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
3088        KM
3089        KM           L=   0.637 miles, S=  198 feet/mile, Kb= .03
3090        KM
3091        BA   0.082
3092        LG    0.11    0.26    4.80    0.28   22.29
3093        UC   0.179   0.159
3094        UA       0       5      16      30      65      77      84      90      94      97
1                                          HEC-1 INPUT                                                    PAGE 72

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3095        UA     100
            *

3096        KK   C595L
3097        KM       Hydrograph combine 587595 + 210C at C595 left branch
3098        HC       2
            *
            * *
            * * C595L is the total flow in Bristol Wash upstream of the confluence
            * * with Longmont Wash
            * *
            * * Start Longmont Wash Left Branch
            * *
            *

3099        KK    210D
3100        KM   Sub-Basin   210D
3101        KM
3102        KM       The Clark Unit Hydrograph is used for this basin.
3103        KM           The Urban time-area relation is used for this basin.
3104        KM
3105        KM       Time of Concentration for this sub-basin is based on the following:
3106        KM           6-Hour Rainfall, Pattern No.  1.00
3107        KM           An rainfall areal reduction factor of 0.998
3108        KM
3109        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3110        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3111        KM   .30 .30 .30 .09 .07 .06 .03 .03 .03 .02 .02 .02 .01 .01 .01 .01 .01 .01
3112        KM
3113        KM           L=   0.832 miles, S=  325 feet/mile, Kb= .03
3114        KM
3115        BA   0.140
3116        LG    0.09    0.25    5.80    0.18   33.66
3117        UC   0.171   0.138
3118        UA       0       5      16      30      65      77      84      90      94      97
3119        UA     100
            *
```

```
3120        KK  588590
3121        KM      Normal depth channel route from C588 to C590
3122        KM      Source:  HEC-2 Cross Section: LO-LB1 0.128
3123        RS       2    FLOW      -1
3124        RC   0.065   0.050   0.060  1117.0  0.0340
3125        RX  9931.7  9960.6  9984.9 10005.7 10019.1 10033.8 10151.6 10172.9
3126        RY  1839.3  1833.5  1825.9  1824.7  1825.9  1828.8  1832.9  1838.0
            *

3127        KK   210E
3128        KM   Sub-Basin   210E
3129        KM
3130        KM      The Clark Unit Hydrograph is used for this basin.
3131        KM          The Urban time-area relation is used for this basin.
3132        KM
3133        KM      Time of Concentration for this sub-basin is based on the following:
3134        KM          6-Hour Rainfall, Pattern No.  1.00
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3135        KM          An rainfall areal reduction factor of 1.000
3136        KM
3137        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3138        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3139        KM   .31 .31 .31 .10 .08 .08 .03 .03 .03 .02 .01 .01 .00 .00 .00 .00 .00 .00
3140        KM
3141        KM          L=   0.339 miles, S=  151 feet/mile, Kb= .03
3142        KM
3143        BA   0.028
3144        LG    0.09    0.17    6.80    0.12   15.00
3145        UC   0.138   0.133
3146        UA       0       5      16      30      65      77      84      90      94      97
3147        UA     100
            *

3148        KK   C590L
3149        KM      Hydrograph combine 588590 + 210E at C590 left branch
3150        HC       2
            *
            * *
            * * C590L is the total flow in Longmont Wash Left Branch upstream of the
            * * confluence with Longmont Wash
            * *
            * * Start Longmont Wash
            * *
            *

3151        KK    210F
3152        KM   Sub-Basin   210F
3153        KM
3154        KM      The Clark Unit Hydrograph is used for this basin.
3155        KM          The Urban time-area relation is used for this basin.
3156        KM
3157        KM      Time of Concentration for this sub-basin is based on the following:
3158        KM          6-Hour Rainfall, Pattern No.  1.00
3159        KM          An rainfall areal reduction factor of 0.999
3160        KM
3161        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3162        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3163        KM   .30 .30 .30 .09 .07 .06 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
3164        KM
3165        KM          L=   0.668 miles, S=  349 feet/mile, Kb= .03
3166        KM
3167        BA   0.093
3168        LG    0.09    0.25    4.40    0.34   49.44
3169        UC   0.150   0.127
3170        UA       0       5      16      30      65      77      84      90      94      97
3171        UA     100
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3172        KK  589590
3173        KM      Normal depth channel route from C589 to C590
3174        KM      Source:  HEC-2 Cross Section: LO 0.813
3175        RS       2    FLOW      -1
3176        RC   0.065   0.050   0.060  1751.0  0.0423
3177        RX  9957.0  9963.5  9984.5  9996.1 10008.8 10017.4 10040.1 10060.8
3178        RY  1843.8  1842.9  1837.0  1831.2  1830.6  1836.1  1838.3  1842.1
            *

3179        KK    210G
3180        KM   Sub-Basin   210G
3181        KM
3182        KM      The Clark Unit Hydrograph is used for this basin.
3183        KM          The Urban time-area relation is used for this basin.
3184        KM
3185        KM      Time of Concentration for this sub-basin is based on the following:
3186        KM          6-Hour Rainfall, Pattern No.  1.00
3187        KM          An rainfall areal reduction factor of 0.998
3188        KM
3189        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3190        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3191        KM   .30 .30 .30 .09 .07 .06 .03 .03 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
3192        KM
3193        KM          L=   0.969 miles, S=  333 feet/mile, Kb= .03
3194        KM
3195        BA   0.162
3196        LG    0.09    0.25    5.30    0.22   39.22
3197        UC   0.183   0.155
3198        UA       0       5      16      30      65      77      84      90      94      97
```

```
3199        UA     100
            *

3200        KK   C590R
3201        KM      Hydrograph combine 589590 + 210G at C590 right branch
3202        HC       2
            *
            * * NOTE: 590593 is too short to route
            * *
            * * C590R is the total flow in Longmont Wash upstream of the confluence
            * * with Longmont Wash Left Branch
            * *
            *

3203        KK    C590
3204        KM      Hydrograph combine C590L + C590R at C590
3205        HC       2
            *
            * * C590 is the total flow in Longmont Wash upstream of the confluence
            * * Longmont Wash Right Branch
            * *
            * * Start Longmont Wash Right Branch
            * *
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3206        KK    210H
3207        KM   Sub-Basin   210H
3208        KM
3209        KM      The Clark Unit Hydrograph is used for this basin.
3210        KM          The Urban time-area relation is used for this basin.
3211        KM
3212        KM      Time of Concentration for this sub-basin is based on the following:
3213        KM          6-Hour Rainfall, Pattern No.  1.00
3214        KM          An rainfall areal reduction factor of 0.999
3215        KM
3216        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3217        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3218        KM   .30 .30 .30 .09 .07 .06 .03 .03 .02 .01 .01 .01 .00 .00 .00 .00 .00 .00
3219        KM
3220        KM          L=   0.565 miles, S=  340 feet/mile, Kb= .03
3221        KM
3222        BA   0.070
3223        LG    0.09     0.23     6.20     0.16    21.74
3224        UC   0.138    0.118
3225        UA       0        5       16       30       65       77       84       90       94       97
3226        UA     100
            *

3227        KK  592593
3228        KM      Normal depth channel route from C592 to C593
3229        KM      Source:  HEC-2 Cross Section: LO-RB1 0.027
3230        RS       2    FLOW      -1
3231        RC   0.065   0.050   0.060  2062.0  0.0412
3232        RX  9920.6  9964.0  9984.7  9996.1 10003.9 10025.4 10041.1 10057.9
3233        RY  1820.0  1804.5  1801.2  1797.3  1797.3  1808.5  1818.3  1820.1
            *
            * *
            * * 592593 is the total flow in Longmont Wash Right Branch upstream
            * * of the confluence with Longmont Wash
            * *
            *

3234        KK    C593
3235        KM      Hydrograph combine C590 + C593R at C593
3236        HC       2
            *
            * *
            * * C593 is the total flow in Longmont Wash below the confluence with
            * * Longmont Wash Right Branch
            * *
            *

3237        KK  593594
3238        KM      Normal depth channel route from C593 to C594
3239        KM      Source:  HEC-2 Cross Section: LO0.413
3240        RS       2    FLOW      -1
3241        RC   0.065   0.050   0.060   988.0  0.0202
3242        RX  9937.2  9958.5  9981.7  9992.8 10007.7 10024.4 10041.9 10067.8
3243        RY  1783.6  1773.5  1773.9  1771.3  1771.2  1774.5  1778.7  1788.7
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3244        KK    210I
3245        KM   Sub-Basin   210I
3246        KM
3247        KM      The Clark Unit Hydrograph is used for this basin.
3248        KM          The Urban time-area relation is used for this basin.
3249        KM
3250        KM      Time of Concentration for this sub-basin is based on the following:
3251        KM          6-Hour Rainfall, Pattern No.  1.00
3252        KM          An rainfall areal reduction factor of 0.999
3253        KM
3254        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3255        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3256        KM   .31 .31 .31 .11 .09 .08 .04 .04 .03 .03 .02 .02 .00 .00 .00 .00 .00 .00
3257        KM
3258        KM          L=   0.634 miles, S=  250 feet/mile, Kb= .03
```

```
3259        KM
3260        BA   0.049
3261        LG    0.09    0.15    7.60    0.09   15.00
3262        UC   0.158   0.185
3263        UA       0       5      16      30      65      77      84      90      94      97
3264        UA     100
            *

3265        KK    C594
3266        KM      Hydrograph combine 593594 + 210I at C594
3267        HC       2
            *

3268        KK  594595
3269        KM      Normal depth channel route from C594 to C595
3270        KM      Source:  HEC-2 Cross Section: LO 0.184
3271        RS       5    FLOW      -1
3272        RC   0.065   0.050   0.060  2093.0  0.0201
3273        RX  9814.0  9836.5  9878.5  9988.2  9994.1 10010.9 10030.4 10030.5
3274        RY  1769.3  1766.6  1752.8  1750.6  1747.9  1749.2  1770.5  1770.6
            *

3275        KK    210J
3276        KM   Sub-Basin   210J
3277        KM
3278        KM      The Clark Unit Hydrograph is used for this basin.
3279        KM          The Urban time-area relation is used for this basin.
3280        KM
3281        KM      Time of Concentration for this sub-basin is based on the following:
3282        KM          6-Hour Rainfall, Pattern No.  1.00
3283        KM          An rainfall areal reduction factor of 0.999
3284        KM
3285        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3286        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3287        KM   .31 .30 .30 .10 .08 .07 .03 .03 .03 .01 .01 .01 .00 .00 .00 .00 .00 .00
3288        KM
3289        KM          L=   0.684 miles, S=  187 feet/mile, Kb= .03
3290        KM
3291        BA   0.103
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3292        LG    0.09    0.19    6.60    0.13   15.00
3293        UC   0.183   0.152
3294        UA       0       5      16      30      65      77      84      90      94      97
3295        UA     100
            *

3296        KK   C595R
3297        KM      Hydrograph combine 594595 + 210J at C595
3298        HC       2
            *
            * *
            * * C595R is the total flow in Longmont Wash upstream of the confluence
            * * with Bristol Wash
            * *
            *

3299        KK    C595
3300        KM      Hydrograph combine C595L + C595R at C595
3301        HC       2
            *
            * *
            * * C595 is the total flow in Bristol Wash just downstream of the
            * * confluence with Longmont Wash
            * *
            *

3302        KK  595596
3303        KM      Normal depth channel route from C595 to C596
3304        KM      Source:  HEC-2 Cross Section: BR0.290
3305        RS       3    FLOW      -1
3306        RC   0.055   0.045   0.055  1095.0  0.0110
3307        RX  9886.8  9904.8  9948.0 10000.0 10032.4 10081.5 10107.3 10130.4
3308        RY  1727.2  1724.1  1725.9  1720.2  1725.6  1725.3  1721.3  1731.4
            *

3309        KK    210K
3310        KM   Sub-Basin   210K
3311        KM
3312        KM      The Clark Unit Hydrograph is used for this basin.
3313        KM          The Urban time-area relation is used for this basin.
3314        KM
3315        KM      Time of Concentration for this sub-basin is based on the following:
3316        KM          6-Hour Rainfall, Pattern No.  1.00
3317        KM          An rainfall areal reduction factor of 0.999
3318        KM
3319        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3320        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3321        KM   .31 .30 .30 .10 .08 .07 .03 .03 .03 .01 .01 .01 .00 .00 .00 .00 .00 .00
3322        KM
3323        KM          L=   0.425 miles, S=  207 feet/mile, Kb= .03
3324        KM
3325        BA   0.077
3326        LG    0.09    0.19    6.60    0.13   15.00
3327        UC   0.142   0.092
3328        UA       0       5      16      30      65      77      84      90      94      97
```



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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3329        UA     100
            *
```

```
3330          KK    C596
3331          KM      Hydrograph combine 595596 + 210K at C596
3332          HC       2
              *
              * *
              * * C596 is the total flow in Bristol Wash at Golden Eagle Blvd.
              * * upstream of DAM 4
              * *
              * * Leave Basin 210 temporarily and move to Basin 209
              * *
              * * Start Cloudburst Wash
              *

3333          KK    209A
3334          KM   Sub-Basin   209A
3335          KM
3336          KM      The Clark Unit Hydrograph is used for this basin.
3337          KM          The HEC-1 time-area relation is used for this basin.
3338          KM
3339          KM      Time of Concentration for this sub-basin is based on the following:
3340          KM          6-Hour Rainfall, Pattern No.  1.00
3341          KM          An rainfall areal reduction factor of 0.995
3342          KM
3343          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3344          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3345          KM   .29 .28 .28 .07 .05 .05 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
3346          KM
3347          KM          L=   1.028 miles, S=  367 feet/mile, Kb= .08
3348          KM
3349          BA   0.368
3350          LG    0.18    0.31    4.35    0.38   41.41
3351          UC   0.342   0.203
              *

3352          KK  579580
3353          KM      Normal depth channel route from C579 to C580
3354          KM      Source:  100 Scale 4' CI Mapping
3355          RS       2    FLOW      -1
3356          RC   0.050   0.045   0.050  1751.0  0.0600
3357          RX  1000.0  1010.0  1025.0  1030.0  1035.0  1040.0  1045.0  1048.0
3358          RY  2336.0  2332.0  2328.0  2327.5  2327.5  2328.0  2332.0  2336.0
              *

3359          KK    209C
3360          KM   Sub-Basin   209C
3361          KM
3362          KM      The Clark Unit Hydrograph is used for this basin.
3363          KM          The Urban time-area relation is used for this basin.
3364          KM
3365          KM      Time of Concentration for this sub-basin is based on the following:
3366          KM          6-Hour Rainfall, Pattern No.  1.00
3367          KM          An rainfall areal reduction factor of 0.999
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3368          KM
3369          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3370          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3371          KM   .30 .30 .29 .09 .06 .05 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
3372          KM
3373          KM          L=   0.723 miles, S=  342 feet/mile, Kb= .05
3374          KM
3375          BA   0.064
3376          LG    0.11    0.26    4.35    0.36   48.03
3377          UC   0.208   0.240
3378          UA       0       5      16      30      65      77      84      90      94      97
3379          UA     100
              *

3380          KK   C580R
3381          KM      Hydrograph combine 579580 + 209C at C580 right branch
3382          HC       2
              *

3383          KK    209B
3384          KM   Sub-Basin   209B
3385          KM
3386          KM      The Clark Unit Hydrograph is used for this basin.
3387          KM          The Urban time-area relation is used for this basin.
3388          KM
3389          KM      Time of Concentration for this sub-basin is based on the following:
3390          KM          6-Hour Rainfall, Pattern No.  1.00
3391          KM          An rainfall areal reduction factor of 0.999
3392          KM
3393          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3394          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3395          KM   .30 .30 .30 .09 .07 .06 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
3396          KM
3397          KM          L=   0.716 miles, S=  403 feet/mile, Kb= .03
3398          KM
3399          BA   0.083
3400          LG    0.09    0.25    4.35    0.35   50.00
3401          UC   0.150   0.142
3402          UA       0       5      16      30      65      77      84      90      94      97
3403          UA     100
              *

3404          KK    C580
3405          KM      Hydrograph combine 580R + 209B at C580
3406          HC       2
              *
```

```
3407          KK  580581
3408          KM      Normal depth channel route from C580 to C581
3409          KM      Source:  100 Scale 4' CI Mapping
3410          RS       3    FLOW     -1
3411          RC   0.050   0.045   0.050  2339.0  0.0440
3412          RX  1000.0  1010.0  1025.0  1030.0  1040.0  1045.0  1070.0  1075.0
3413          RY  2452.0  2448.0  2444.0  2443.5  2443.5  2444.0  2448.0  2452.0
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3414          KK    209D
3415          KM   Sub-Basin   209D
3416          KM
3417          KM      The Clark Unit Hydrograph is used for this basin.
3418          KM          The Urban time-area relation is used for this basin.
3419          KM
3420          KM      Time of Concentration for this sub-basin is based on the following:
3421          KM          6-Hour Rainfall, Pattern No.  1.00
3422          KM          An rainfall areal reduction factor of 0.997
3423          KM
3424          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3425          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3426          KM   .30 .30 .29 .09 .06 .05 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
3427          KM
3428          KM          L=   0.800 miles, S=  354 feet/mile, Kb= .04
3429          KM
3430          BA   0.244
3431          LG    0.11    0.26    4.35    0.36   48.63
3432          UC   0.192   0.110
3433          UA       0       5      16      30      65      77      84      90      94      97
3434          UA     100
              *

3435          KK   C581R
3436          KM      Hydrograph combine 580581 + 209D at C581 right branch
3437          HC       2
              *

3438          KK    209E
3439          KM   Sub-Basin   209E
3440          KM
3441          KM      The Clark Unit Hydrograph is used for this basin.
3442          KM          The Urban time-area relation is used for this basin.
3443          KM
3444          KM      Time of Concentration for this sub-basin is based on the following:
3445          KM          6-Hour Rainfall, Pattern No.  1.00
3446          KM          An rainfall areal reduction factor of 0.998
3447          KM
3448          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3449          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3450          KM   .30 .30 .30 .09 .07 .06 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
3451          KM
3452          KM          L=   1.018 miles, S=  341 feet/mile, Kb= .03
3453          KM
3454          BA   0.149
3455          LG    0.09    0.25    4.35    0.35   50.00
3456          UC   0.188   0.173
3457          UA       0       5      16      30      65      77      84      90      94      97
3458          UA     100
              *
```



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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3459          KK    C581
3460          KM      Hydrograph combine 581R + 209E at C581
3461          HC       2
              *

3462          KK  581582
3463          KM      Normal depth channel route from C581 to C582
3464          KM      Source:  100 Scale 4' CI Mapping
3465          RS       4    FLOW     -1
3466          RC   0.050   0.045   0.050  4012.0  0.0459
3467          RX  1000.0  1010.0  1025.0  1030.0  1035.0  1040.0  1050.0  1065.0
3468          RY  2100.0  2096.0  2092.0  2091.5  2091.5  2092.0  2096.0  2100.0
              *

3469          KK    209F
3470          KM   Sub-Basin   209F
3471          KM
3472          KM      The Clark Unit Hydrograph is used for this basin.
3473          KM          The HEC-1 time-area relation is used for this basin.
3474          KM
3475          KM      Time of Concentration for this sub-basin is based on the following:
3476          KM          6-Hour Rainfall, Pattern No.  1.00
3477          KM          An rainfall areal reduction factor of 0.997
3478          KM
3479          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3480          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3481          KM   .29 .28 .28 .07 .04 .04 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
3482          KM
3483          KM          L=   1.191 miles, S=  332 feet/mile, Kb= .09
3484          KM
3485          BA   0.226
3486          LG    0.18    0.31    4.50    0.36   40.21
3487          UC   0.433   0.393
              *

3488          KK   C582R
```

```
3489          KM      Hydrograph combine 581582 + 209F at C582 right branch
3490          HC       2
              *

3491          KK    209G
3492          KM   Sub-Basin   209G
3493          KM
3494          KM      The Clark Unit Hydrograph is used for this basin.
3495          KM          The Urban time-area relation is used for this basin.
3496          KM
3497          KM      Time of Concentration for this sub-basin is based on the following:
3498          KM          6-Hour Rainfall, Pattern No.  1.00
3499          KM          An rainfall areal reduction factor of 0.997
3500          KM
3501          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3502          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3503          KM   .30 .30 .30 .09 .07 .06 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
3504          KM
1                                                HEC-1 INPUT                                                          PAGE 82
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3505          KM          L=   1.050 miles, S=  306 feet/mile, Kb= .03
3506          KM
3507          BA   0.204
3508          LG    0.09    0.25    4.35    0.35   49.93
3509          UC   0.196   0.156
3510          UA       0       5      16      30      65      77      84      90      94      97
3511          UA     100
              *

3512          KK    C582
3513          KM      Hydrograph combine C582R + 209G at C582
3514          HC       2
              *

3515          KK  582583
3516          KM      Normal depth channel route from C582 to C583
3517          KM      Source:  100 Scale 4' CI Mapping.
3518          RS       2     FLOW     -1
3519          RC   0.060   0.050   0.060  1725.0  0.0232
3520          RX   960.0  1020.0  1035.0  1040.0  1050.0  1055.0  1065.0  1073.0
3521          RY  2024.0  2018.0  2016.0  2015.5  2015.5  2016.0  2020.0  2024.0
              *

3522          KK    209H
3523          KM   Sub-Basin   209H
3524          KM
3525          KM      The Clark Unit Hydrograph is used for this basin.
3526          KM          The Urban time-area relation is used for this basin.
3527          KM
3528          KM      Time of Concentration for this sub-basin is based on the following:
3529          KM          6-Hour Rainfall, Pattern No.  1.00
3530          KM          An rainfall areal reduction factor of 0.999
3531          KM
3532          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3533          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3534          KM   .29 .29 .28 .08 .05 .03 .02 .02 .02 .02 .02 .01 .00 .00 .00 .00 .00 .00
3535          KM
3536          KM          L=   0.542 miles, S=  343 feet/mile, Kb= .07
3537          KM
3538          BA   0.083
3539          LG    0.15    0.31    5.60    0.22   26.57
3540          UC   0.217   0.171
3541          UA       0       5      16      30      65      77      84      90      94      97
3542          UA     100
              *

3543          KK    C583
3544          KM      Hydrograph combine 582583 + 209H at C583
3545          HC       2
              *
1                                                HEC-1 INPUT                                                          PAGE 83
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3546          KK  583584
3547          KM      Normal depth channel route from C583 to C584
3548          KM      Source:  HEC-2 Cross Section: CL 1.664
3549          RS       4     FLOW     -1
3550          RC   0.055   0.070   0.055  3107.0  0.0356
3551          RX   9859.8  9910.3  9933.5  9995.6 10021.7 10051.0 10083.0 10127.8
3552          RY   1948.3  1944.2  1943.7  1930.9  1932.4  1941.6  1937.3  1945.2
              *

3553          KK    209I
3554          KM   Sub-Basin   209I
3555          KM
3556          KM      The Clark Unit Hydrograph is used for this basin.
3557          KM          The Urban time-area relation is used for this basin.
3558          KM
3559          KM      Time of Concentration for this sub-basin is based on the following:
3560          KM          6-Hour Rainfall, Pattern No.  1.00
3561          KM          An rainfall areal reduction factor of 0.998
3562          KM
3563          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3564          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3565          KM   .30 .29 .29 .08 .06 .05 .02 .02 .02 .01 .01 .01 .00 .00 .00 .00 .00 .00
3566          KM
3567          KM          L=   0.691 miles, S=  347 feet/mile, Kb= .04
3568          KM
3569          BA   0.182
3570          LG    0.10    0.27    6.00    0.17   17.98
```

```
3571    UC   0.179   0.108
3572    UA       0       5      16      30      65      77      84      90      94      97
3573    UA     100
        *

3574    KK   C584I
3575    KM      Hydrograph combine 583584 + 209I at C584I
3576    HC       2
        *
        * *
        * * C584I is the total flow in Cloudburst Wash upstream of Dam 7
        * *
        *

3577    KK   C584O
3578    KM      Reservoir route at C584 (Dam 7).
3579    RS       1    ELEV  1884.8
3580    SV    0.00   14.55   37.17   57.52   86.65   94.00   97.00  101.00  104.90  109.00
3581    SV  113.00  118.00  122.00  126.25  131.00  133.00  136.00  139.00
3582    SE  1884.8  1908.0  1916.0  1920.0  1924.0  1924.8  1925.2  1925.6  1926.0  1926.4
3583    SE  1926.8  1927.2  1927.6  1928.0  1928.4  1928.6  1928.8  1929.0
3584    SQ       0     135     223     285     326     341     355     358     385     493
3585    SQ     704    1007    1394    1852    2374    2956    3596    3937    4292    4661
3586    SE  1884.8  1892.0  1900.0  1908.0  1916.0  1920.0  1924.0  1924.8  1925.2  1925.6
3587    SE  1926.0  1926.4  1926.8  1927.2  1927.6  1928.0  1928.4  1928.6  1928.8  1929.0
3588    RL                   0.15
        *
        * *
        * * End Basin 209.  Rejoin Basin 210
        * *
        *
```



```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3589    KK  584597
3590    KM      Normal depth channel route from C584 to C597
3591    KM      Source:  HEC-2 Cross Section: CL 1.032
3592    RS      10    FLOW      -1
3593    RC   0.065   0.050   0.065  3704.0  0.0261
3594    RX  9902.1  9923.0  9938.7  9984.6 10049.3 10056.0 10091.7 10120.0
3595    RY  1839.1  1830.1  1826.6  1824.1  1824.9  1826.7  1828.5  1838.8
        *

3596    KK    210L
3597    KM   Sub-Basin   210L
3598    KM
3599    KM      The Clark Unit Hydrograph is used for this basin.
3600    KM          The Urban time-area relation is used for this basin.
3601    KM
3602    KM      Time of Concentration for this sub-basin is based on the following:
3603    KM          6-Hour Rainfall, Pattern No.  1.00
3604    KM          An rainfall areal reduction factor of 0.998
3605    KM
3606    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3607    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3608    KM   .29 .29 .28 .08 .05 .04 .02 .02 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
3609    KM
3610    KM          L=   0.820 miles, S=  251 feet/mile, Kb= .03
3611    KM
3612    BA   0.137
3613    LG    0.09    0.25    5.20    0.23   15.90
3614    UC   0.188   0.153
3615    UA       0       5      16      30      65      77      84      90      94      97
3616    UA     100
        *

3617    KK    C597
3618    KM      Hydrograph combine 584597 + 210L at C597
3619    HC       2
        *

3620    KK  597598
3621    KM      Normal depth channel route from C597 to C598
3622    KM      Source:  HEC-2 Cross Section: CL 0.328
3623    RS       6    FLOW      -1
3624    RC   0.065   0.050   0.065  2822.0  0.0252
3625    RX  9961.0  9961.9  9969.1  9986.3 10018.5 10082.6 10155.2 10278.8
3626    RY  1740.2  1740.2  1738.1  1731.6  1732.3  1737.1  1740.0  1740.8
        *

3627    KK    210M
3628    KM   Sub-Basin   210M
3629    KM
3630    KM      The Clark Unit Hydrograph is used for this basin.
3631    KM          The Urban time-area relation is used for this basin.
3632    KM
3633    KM      Time of Concentration for this sub-basin is based on the following:
3634    KM          6-Hour Rainfall, Pattern No.  1.00
```



```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3635    KM          An rainfall areal reduction factor of 0.998
3636    KM
3637    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3638    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3639    KM   .30 .29 .29 .09 .06 .06 .02 .02 .02 .01 .01 .01 .00 .00 .00 .00 .00 .00
3640    KM
3641    KM          L=   1.022 miles, S=  232 feet/mile, Kb= .03
3642    KM
3643    BA   0.162
3644    LG    0.09    0.25    5.80    0.17   15.02
```

```
3645          UC   0.213   0.190
3646          UA       0       5      16      30      65      77      84      90      94      97
3647          UA     100
              *

3648          KK    C598
3649          KM      Hydrograph combine 597598 + 210M at C598
3650          HC       2
              *
              * *
              * * C598 is the total flow in Cloudburst Wash at Golden Eagle Blvd.
              * * upstream of DAM 4
              * *
              *

3651          KK    210N
3652          KM   Sub-Basin   210N
3653          KM
3654          KM      The Clark Unit Hydrograph is used for this basin.
3655          KM          The Urban time-area relation is used for this basin.
3656          KM
3657          KM      Time of Concentration for this sub-basin is based on the following:
3658          KM          6-Hour Rainfall, Pattern No.  1.00
3659          KM          An rainfall areal reduction factor of 0.999
3660          KM
3661          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3662          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3663          KM   .28 .27 .27 .06 .03 .02 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
3664          KM
3665          KM          L=   0.309 miles, S=  178 feet/mile, Kb= .03
3666          KM
3667          BA   0.049
3668          LG    0.09    0.25    4.10    0.40   16.38
3669          UC   0.129   0.084
3670          UA       0       5      16      30      65      77      84      90      94      97
3671          UA     100
              *

3672          KK   C599I
3673          KM      Hydrograph combine C585 + C596 + C598 + 210N at C599I
3674          HC       4
              *
              * *
              * * C599I is the total flow in Ashbrook Wash upstream of DAM 4
              * *
              *
1                                          HEC-1 INPUT                                          PAGE 86
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3675          KK   C5990
3676          KM      Reservoir route at C599 (Dam 4).
3677          RS       1    ELEV  1694.7
3678          SV    0.00   16.85   31.66   52.71   80.85   95.00   98.00  102.00  105.00  109.00
3679          SV  113.00  116.14  120.00  124.00  128.00  136.00  139.00  144.00  148.00  152.00
3680          SE  1694.7  1708.0  1710.0  1712.0  1714.0  1714.8  1715.0  1715.2  1715.4  1715.6
3681          SE  1715.8  1716.0  1716.2  1716.4  1716.6  1717.0  1717.2  1717.4  1717.6  1717.8
3682          SQ       0      38     214     312     384     443     497     543     587     628
3683          SQ     642     754     957    1262    1665    2182    2483    2811    3164    3540
3684          SE  1694.7  1696.0  1700.0  1702.0  1704.0  1706.0  1708.0  1710.0  1712.0  1714.0
3685          SE  1714.8  1715.4  1715.8  1716.2  1716.6  1717.0  1717.2  1717.4  1717.6  1717.8
3686          RL                    0.97
              *
              * * End Basin 210.  Start Basin 211
              * *
              *

3687          KK  599608
3688          KM      Normal depth channel route from C599 to C608
3689          KM      Source:  HEC-2 Cross Section: AS 3.621
3690          RS       4    FLOW      -1
3691          RC   0.055   0.045   0.025  1476.0  0.0148
3692          RX  9675.4  9726.8  9929.0  9990.7 10005.9 10033.3 10061.9 10082.2
3693          RY  1691.3  1687.2  1685.5  1678.6  1678.1  1682.1  1689.8  1691.8
              *

3694          KK    211K
3695          KM   Sub-Basin   211K
3696          KM
3697          KM      The Clark Unit Hydrograph is used for this basin.
3698          KM          The Urban time-area relation is used for this basin.
3699          KM
3700          KM      Time of Concentration for this sub-basin is based on the following:
3701          KM          6-Hour Rainfall, Pattern No.  1.00
3702          KM          An rainfall areal reduction factor of 0.999
3703          KM
3704          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3705          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3706          KM   .30 .30 .30 .09 .07 .06 .03 .03 .02 .02 .02 .02 .00 .00 .00 .00 .00 .00
3707          KM
3708          KM          L=   0.376 miles, S=  157 feet/mile, Kb= .03
3709          KM
3710          BA   0.102
3711          LG    0.13    0.27    6.00    0.16   31.48
3712          UC   0.146   0.073
3713          UA       0       5      16      30      65      77      84      90      94      97
3714          UA     100
              *
1                                          HEC-1 INPUT                                          PAGE 87
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
3715        KK   C608L
3716        KM      Hydrograph combine 599608 + 211K at C608 left branch
3717        HC       2
            *

3718        KK    211G
3719        KM   Sub-Basin   211G
3720        KM
3721        KM      The Clark Unit Hydrograph is used for this basin.
3722        KM          The Urban time-area relation is used for this basin.
3723        KM
3724        KM      Time of Concentration for this sub-basin is based on the following:
3725        KM          6-Hour Rainfall, Pattern No.  1.00
3726        KM          An rainfall areal reduction factor of 1.000
3727        KM
3728        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3729        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3730        KM   .33 .33 .33 .13 .11 .10 .05 .05 .05 .05 .05 .05 .01 .01 .01 .01 .01 .01
3731        KM
3732        KM          L=   0.448 miles, S=  190 feet/mile, Kb= .04
3733        KM
3734        BA   0.008
3735        LG    0.06    0.25    5.70    0.18   90.00
3736        UC   0.167   0.430
3737        UA       0       5      16      30      65      77      84      90      94      97
3738        UA     100
            *

3739        KK  604606
3740        KM      Normal depth channel route from C604 to C606
3741        KM      Source:  200 Scale Mapping
3742        RS      11    FLOW      -1
3743        RC   0.040   0.018   0.040  2784.0  0.0647
3744        RX  1000.0  1040.0  1060.0  1076.0  1092.0  1093.2  1098.2  1113.2
3745        RY  1814.0  1811.0  1810.8  1811.1  1810.8  1811.2  1812.0  1816.0
            *

3746        KK    211I
3747        KM   Sub-Basin   211I
3748        KM
3749        KM      The Clark Unit Hydrograph is used for this basin.
3750        KM          The Urban time-area relation is used for this basin.
3751        KM
3752        KM      Time of Concentration for this sub-basin is based on the following:
3753        KM          6-Hour Rainfall, Pattern No.  1.00
3754        KM          An rainfall areal reduction factor of 0.999
3755        KM
3756        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3757        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3758        KM   .31 .31 .31 .10 .08 .07 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
3759        KM
3760        KM          L=   0.626 miles, S=  257 feet/mile, Kb= .03
3761        KM
3762        BA   0.041
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3763        LG    0.08    0.25    5.70    0.18   45.00
3764        UC   0.158   0.204
3765        UA       0       5      16      30      65      77      84      90      94      97
3766        UA     100
            *

3767        KK   C606R
3768        KM      Hydrograph combine 604606 + 211I at C606 right branch
3769        HC       2
            *

3770        KK    211H
3771        KM   Sub-Basin   211H
3772        KM
3773        KM      The Clark Unit Hydrograph is used for this basin.
3774        KM          The Urban time-area relation is used for this basin.
3775        KM
3776        KM      Time of Concentration for this sub-basin is based on the following:
3777        KM          6-Hour Rainfall, Pattern No.  1.00
3778        KM          An rainfall areal reduction factor of 0.999
3779        KM
3780        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3781        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3782        KM   .30 .30 .29 .09 .07 .06 .03 .02 .02 .01 .01 .01 .00 .00 .00 .00 .00 .00
3783        KM
3784        KM          L=   0.501 miles, S=  289 feet/mile, Kb= .03
3785        KM
3786        BA   0.073
3787        LG    0.09    0.25    6.00    0.16   17.93
3788        UC   0.138   0.104
3789        UA       0       5      16      30      65      77      84      90      94      97
3790        UA     100
            *

3791        KK   C605O
3792        KM      Reservoir route at C605.
3793        RS       1    ELEV  1722.5
3794        SV    0.00    0.20    0.20    0.20    0.20    0.30    0.30    0.30    0.40    0.60
3795        SV    0.70    0.90    1.00    1.20    1.40    1.60    1.90    2.80    3.40    4.10
3796        SE  1722.5  1726.8  1727.0  1727.2  1727.4  1727.6  1727.8  1728.0  1728.2  1728.4
3797        SE  1728.6  1728.8  1729.0  1729.2  1729.4  1729.6  1730.0  1730.4  1730.7  1731.0
3798        SQ       0       0       5      10      20      43      63      73      78      85
3799        SQ      91      96     101     105     109     113     122     130     136     200
            *

3800        KK    C606
```

```
3801          KM      Hydrograph combine C606R + C605O at C606
3802          HC       2
              *
1                                          HEC-1 INPUT                                                    PAGE 89
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3803          KK  606607
3804          KM      Normal depth channel route from C606 to C607
3805          KM      Source:  200 Scale Mapping
3806          RS       2    FLOW      -1
3807          RC   0.020   0.055   0.035  1061.0  0.0286
3808          RX  1000.0  1032.0  1082.0  1095.0  1105.0  1117.0  1123.0  1153.0
3809          RY  1704.3  1704.0  1703.5  1700.0  1700.0  1703.0  1704.0  1706.0
              *

3810          KK    211J
3811          KM   Sub-Basin   211J
3812          KM
3813          KM      The Clark Unit Hydrograph is used for this basin.
3814          KM          The Urban time-area relation is used for this basin.
3815          KM
3816          KM      Time of Concentration for this sub-basin is based on the following:
3817          KM          6-Hour Rainfall, Pattern No.  1.00
3818          KM          An rainfall areal reduction factor of 1.000
3819          KM
3820          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3821          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3822          KM   .31 .31 .31 .10 .08 .07 .03 .03 .03 .02 .02 .02 .01 .01 .01 .01 .01 .01
3823          KM
3824          KM          L=   0.249 miles, S=  166 feet/mile, Kb= .03
3825          KM
3826          BA   0.015
3827          LG    0.08    0.23    6.20    0.16   39.19
3828          UC   0.113   0.119
3829          UA       0       5      16      30      65      77      84      90      94      97
3830          UA     100
              *

3831          KK    C607
3832          KM      Hydrograph combine 606607 + 211J at C607
3833          HC       2
              *

3834          KK  607608
3835          KM      Normal depth channel route from C607 to C608
3836          KM      Source:  200 Scale Mapping
3837          RS       2    FLOW      -1
3838          RC   0.040   0.050   0.035  1008.0  0.0145
3839          RX  1000.0  1060.0  1070.0  1082.0  1083.0  1095.0  1115.0  1133.0
3840          RY  1688.0  1686.0  1684.0  1681.0  1681.0  1684.0  1685.0  1685.4
              *

3841          KK    C608
3842          KM      Hydrograph combine C608L + 607608 at C608
3843          HC       2
              *
1                                          HEC-1 INPUT                                                    PAGE 90
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3844          KK  608613
3845          KM      Normal depth channel route from C608 to C613
3846          KM      Source:  HEC-2 Cross Section: AS 3.421
3847          RS       3    FLOW      -1
3848          RC   0.100   0.045   0.100  1338.0  0.0202
3849          RX  9885.0  9887.9  9957.3  9986.7 10012.9 10054.7 10086.3 10122.2
3850          RY  1670.2  1670.1  1668.0  1660.0  1659.9  1661.6  1669.9  1670.8
              *
              * *
              * * Move to the top of Sunflower Wash
              * *
              *

3851          KK    211M
3852          KM   Sub-Basin   211M
3853          KM
3854          KM      The Clark Unit Hydrograph is used for this basin.
3855          KM          The Urban time-area relation is used for this basin.
3856          KM
3857          KM      Time of Concentration for this sub-basin is based on the following:
3858          KM          6-Hour Rainfall, Pattern No.  1.00
3859          KM          An rainfall areal reduction factor of 0.999
3860          KM
3861          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3862          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3863          KM   .31 .31 .31 .10 .08 .08 .04 .04 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
3864          KM
3865          KM          L=   0.541 miles, S=  266 feet/mile, Kb= .03
3866          KM
3867          BA   0.081
3868          LG    0.07    0.25    5.70    0.18   50.05
3869          UC   0.146   0.112
3870          UA       0       5      16      30      65      77      84      90      94      97
3871          UA     100
              *

3872          KK  610611
3873          KM      Normal depth channel route from C610 to 1611
3874          KM      Source:  HEC-2 Cross Section: SU 0.216
3875          RS       1    FLOW      -1
3876          RC   0.050   0.045   0.050  1090.0  0.0211
```

```
3877          RX  9911.9  9948.1  9973.6  9988.6 10007.1 10027.0 10049.8 10143.7
3878          RY  1699.3  1691.7  1686.3  1680.1  1679.7  1686.6  1687.3  1698.6
              *

3879          KK    211N
3880          KM   Sub-Basin   211N
3881          KM
3882          KM      The Clark Unit Hydrograph is used for this basin.
3883          KM          The Urban time-area relation is used for this basin.
3884          KM
3885          KM      Time of Concentration for this sub-basin is based on the following:
3886          KM          6-Hour Rainfall, Pattern No.  1.00
3887          KM          An rainfall areal reduction factor of 1.000
1                                          HEC-1 INPUT                                                    PAGE 91

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3888          KM
3889          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3890          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3891          KM   .32 .31 .31 .11 .09 .08 .04 .04 .04 .03 .03 .03 .01 .01 .01 .01 .01 .01
3892          KM
3893          KM          L=   0.261 miles, S=  235 feet/mile, Kb= .03
3894          KM
3895          BA   0.020
3896          LG    0.07    0.25    5.70    0.18   56.58
3897          UC   0.104   0.094
3898          UA       0       5      16      30      65      77      84      90      94      97
3899          UA     100
              *

3900          KK   C611R
3901          KM      Hydrograph combine 610611 + 211N at C611 right branch
3902          HC       2
              *

3903          KK    211O
3904          KM   Sub-Basin   211O
3905          KM
3906          KM      The Clark Unit Hydrograph is used for this basin.
3907          KM          The Urban time-area relation is used for this basin.
3908          KM
3909          KM      Time of Concentration for this sub-basin is based on the following:
3910          KM          6-Hour Rainfall, Pattern No.  1.00
3911          KM          An rainfall areal reduction factor of 0.999
3912          KM
3913          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3914          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3915          KM   .31 .31 .31 .10 .08 .07 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
3916          KM
3917          KM          L=   0.371 miles, S=  257 feet/mile, Kb= .03
3918          KM
3919          BA   0.041
3920          LG    0.08    0.25    5.70    0.18   45.31
3921          UC   0.121   0.099
3922          UA       0       5      16      30      65      77      84      90      94      97
3923          UA     100
              *

3924          KK   C609O
3925          KM      Reservoir route at C609.
3926          RS       1    ELEV  1694.0
3927          SV    0.00    0.10    0.21    0.50    0.86    1.40    1.93    2.60    3.10    3.20
3928          SV    3.39    3.60    3.80    4.00    4.10    4.30    4.50    4.70    4.90    5.10
3929          SE  1694.0  1695.0  1696.0  1697.0  1698.0  1699.0  1700.0  1701.0  1701.6  1701.8
3930          SE  1702.0  1702.2  1702.4  1702.6  1702.8  1703.0  1703.2  1703.4  1703.6  1703.8
3931          SQ       0       6      16      33      48      59      68      75      79      85
3932          SQ     108     149     209     289     390     512     658     829    1025    1247
              *
1                                          HEC-1 INPUT                                                    PAGE 92

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3933          KK  609611
3934          KM      Normal depth channel route from C609 to C611
3935          KM      Source:  200 Scale Mapping
3936          RS       1    FLOW      -1
3937          RC   0.035   0.050   0.035   470.0  0.0200
3938          RX  1000.0  1025.0  1050.0  1054.0  1064.0  1068.0  1088.0  1103.0
3939          RY  1690.0  1688.0  1684.0  1682.0  1682.0  1684.0  1688.0  1690.0
              *

3940          KK   C611I
3941          KM      Hydrograph combine 609611 + C611R at C611I
3942          HC       2
              *

3943          KK   C611O
3944          KM      Reservoir route at C611.
3945          RS       1    ELEV  1668.4
3946          SV    0.00    0.41    1.10    2.49    4.34    6.64    6.72    6.81    6.89    6.97
3947          SV    7.06    7.14    7.22    7.31    7.39    7.47    7.56    7.64    7.72    7.81
3948          SE  1674.0  1676.0  1678.0  1680.0  1682.0  1684.0  1684.2  1684.4  1684.6  1684.8
3949          SE  1685.0  1685.2  1685.4  1685.6  1685.8  1686.0  1686.2  1686.4  1686.6  1686.8
3950          SQ       0       0      86     117     141     162     164     170     181     199
3951          SQ     225     262     313     378     460     558     673     807     958    1118
              *

3952          KK   D611L
3953          KM      Hydrograph diversion at C611.  Main flow continues in the left branch.
3954          KM      Diverted flow is in the right branch.
3955          DT   D611R
3956          DI       0       0      86     117     141     162     164     170     181     199
```

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3957        DI     225     262     313     378     460     558     673     807     958    1118
3958        DQ       0       0      86     117     141     162     164     165     167     169
3959        DQ     171     173     175     176     178     180     182     183     185     187
            *

3960        KK  611612
3961        KM      Normal depth channel route from C611 to C612
3962        KM      Source:  200 Scale Mapping
3963        RS       1    FLOW     -1
3964        RC   0.040   0.018   0.040   925.0  0.0270
3965        RX  1000.0  1020.0  1023.0  1041.0  1059.0  1060.2  1071.2  1136.2
3966        RY  1666.0  1664.0  1663.5  1663.9  1663.5  1663.9  1664.0  1666.0
            *

3967        KK    211P
3968        KM   Sub-Basin   211P
3969        KM
3970        KM      The Clark Unit Hydrograph is used for this basin.
3971        KM          The Urban time-area relation is used for this basin.
3972        KM
3973        KM      Time of Concentration for this sub-basin is based on the following:
3974        KM          6-Hour Rainfall, Pattern No.  1.00
3975        KM          An rainfall areal reduction factor of 1.000
3976        KM
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3977        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3978        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3979        KM   .32 .32 .32 .11 .09 .09 .04 .04 .04 .04 .03 .03 .01 .01 .01 .01 .01 .01
3980        KM
3981        KM          L=   0.307 miles, S=  192 feet/mile, Kb= .03
3982        KM
3983        BA   0.033
3984        LG    0.08    0.15    7.00    0.11   45.00
3985        UC   0.121   0.096
3986        UA       0       5      16      30      65      77      84      90      94      97
3987        UA     100
            *

3988        KK    C612
3989        KM      Hydrograph combine 611612 + 211P at C612
3990        HC       2
            *
            * *
            * * NOTE: 612613 is too short to route
            * *
            *

3991        KK    C613
3992        KM      Hydrograph combine 608613 + C612 at C613
3993        HC       2
            *

3994        KK  613621
3995        KM      Normal depth channel route from C613 to C621
3996        KM      Source:  HEC-2 Cross Section: AS 3.241
3997        RS       1    FLOW     -1
3998        RC   0.100   0.045   0.100   718.0  0.0251
3999        RX  9695.4  9884.0  9985.0  9991.1 10033.8 10062.8 10097.5 10165.1
4000        RY  1655.5  1647.5  1645.8  1641.1  1640.6  1642.1  1648.7  1654.3
            *

4001        KK    211L
4002        KM   Sub-Basin   211L
4003        KM
4004        KM      The Clark Unit Hydrograph is used for this basin.
4005        KM          The Urban time-area relation is used for this basin.
4006        KM
4007        KM      Time of Concentration for this sub-basin is based on the following:
4008        KM          6-Hour Rainfall, Pattern No.  1.00
4009        KM          An rainfall areal reduction factor of 0.999
4010        KM
4011        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4012        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4013        KM   .30 .29 .29 .08 .06 .05 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
4014        KM
4015        KM          L=   0.508 miles, S=  181 feet/mile, Kb= .03
4016        KM
4017        BA   0.096
4018        LG    0.11    0.26    4.35    0.36   42.40
4019        UC   0.163   0.109
```



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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4020        UA       0       5      16      30      65      77      84      90      94      97
4021        UA     100
            *

4022        KK   C621L
4023        KM      Hydrograph combine 613621 + 211L at C621 left branch
4024        HC       2
            *
            * *
            * * Move to the top of Arrow Wash
            * *
            *

4025        KK    211Q
4026        KM   Sub-Basin   211Q
4027        KM
4028        KM      The Clark Unit Hydrograph is used for this basin.
```

```
4029        KM          The Urban time-area relation is used for this basin.
4030        KM
4031        KM      Time of Concentration for this sub-basin is based on the following:
4032        KM          6-Hour Rainfall, Pattern No.  1.00
4033        KM          An rainfall areal reduction factor of 1.000
4034        KM
4035        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4036        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4037        KM   .30 .30 .30 .09 .07 .06 .03 .03 .02 .02 .02 .02 .00 .00 .00 .00 .00 .00
4038        KM
4039        KM          L=   0.255 miles, S=  295 feet/mile, Kb= .03
4040        KM
4041        BA   0.021
4042        LG    0.08    0.25    5.70    0.18   30.04
4043        UC   0.096   0.083
4044        UA       0       5      16      30      65      77      84      90      94      97
4045        UA     100
            *

4046        KK  616617
4047        KM      Normal depth channel route from C616 to C617
4048        KM      Source:  200 Scale Mapping
4049        RS       2    FLOW      -1
4050        RC   0.070   0.060   0.070  1131.0  0.0553
4051        RX  1000.0  1008.0  1015.0  1045.0  1050.0  1080.0  1100.0  1110.0
4052        RY  1834.0  1832.0  1830.0  1826.0  1826.0  1830.0  1834.0  1836.0
            *

4053        KK   211R
4054        KM   Sub-Basin   211R
4055        KM
4056        KM      The Clark Unit Hydrograph is used for this basin.
4057        KM          The Urban time-area relation is used for this basin.
4058        KM
4059        KM      Time of Concentration for this sub-basin is based on the following:
4060        KM          6-Hour Rainfall, Pattern No.  1.00
4061        KM          An rainfall areal reduction factor of 0.999
4062        KM
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4063        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4064        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4065        KM   .31 .30 .30 .10 .08 .07 .03 .03 .03 .02 .02 .02 .01 .01 .01 .01 .01 .01
4066        KM
4067        KM          L=   0.572 miles, S=  271 feet/mile, Kb= .03
4068        KM
4069        BA   0.084
4070        LG    0.08    0.25    5.70    0.18   37.77
4071        UC   0.150   0.118
4072        UA       0       5      16      30      65      77      84      90      94      97
4073        UA     100
            *

4074        KK   C617L
4075        KM      Hydrograph combine 616617 + 211R at C617 left branch
4076        HC       2
            *

4077        KK    211U
4078        KM   Sub-Basin   211U
4079        KM
4080        KM      The Clark Unit Hydrograph is used for this basin.
4081        KM          The Urban time-area relation is used for this basin.
4082        KM
4083        KM      Time of Concentration for this sub-basin is based on the following:
4084        KM          6-Hour Rainfall, Pattern No.  1.00
4085        KM          An rainfall areal reduction factor of 1.000
4086        KM
4087        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4088        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4089        KM   .32 .32 .32 .11 .09 .09 .04 .04 .04 .04 .04 .04 .01 .01 .01 .01 .01 .01
4090        KM
4091        KM          L=   0.831 miles, S=  214 feet/mile, Kb= .03
4092        KM
4093        BA   0.027
4094        LG    0.07    0.25    5.70    0.18   65.99
4095        UC   0.192   0.396
4096        UA       0       5      16      30      65      77      84      90      94      97
4097        UA     100
            *

4098        KK   D614L
4099        KM      Hydrograph diversion at C614.  Main flow continues in the left branch.
4100        KM      Diverted flow is in the right branch.
4101        DT   D614R
4102        DI       0     4.3     8.5    20.0    49.0    85.5
4103        DQ       0     2.5     5.0    13.5    35.0    60.0
            *

4104        KK    C617
4105        KM      Hydrograph combine C617L + D614L at C617
4106        HC       2
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4107        KK  617618
4108        KM      Normal depth channel route from C617 to C618
4109        KM      Source:  HEC-2 Cross Section: AR 0.836
4110        RS       4    FLOW      -1
```

```
4111          RC   0.070   0.060   0.070  1912.0  0.0345
4112          RX  9983.3  9987.2  9989.2  9991.1 10031.5 10053.5 10070.6 10097.7
4113          RY  1766.5  1762.3  1760.2  1758.1  1757.8  1760.8  1764.2  1770.6
              *

4114          KK    211S
4115          KM   Sub-Basin   211S
4116          KM
4117          KM      The Clark Unit Hydrograph is used for this basin.
4118          KM          The Urban time-area relation is used for this basin.
4119          KM
4120          KM      Time of Concentration for this sub-basin is based on the following:
4121          KM          6-Hour Rainfall, Pattern No.  1.00
4122          KM          An rainfall areal reduction factor of 0.999
4123          KM
4124          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4125          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4126          KM   .30 .29 .29 .09 .06 .05 .02 .02 .02 .02 .02 .02 .00 .00 .00 .00 .00 .00
4127          KM
4128          KM          L=   0.445 miles, S=  272 feet/mile, Kb= .07
4129          KM
4130          BA   0.050
4131          LG    0.11    0.31    5.70    0.19   30.06
4132          UC   0.208   0.186
4133          UA       0       5      16      30      65      77      84      90      94      97
4134          UA     100
              *

4135          KK   C618I
4136          KM      Hydrograph combine 617618 + 211S at C618I
4137          HC       2
              *

4138          KK   C618O
4139          KM      Reservoir route at C618.
4140          RS       1    ELEV  1730.6
4141          SV    0.00    0.01    0.06    0.24    0.50    0.75    1.20    1.66    2.30    2.94
4142          SV    3.20    3.30    3.40    3.60    3.80    3.90    4.10    4.30    4.50    4.65
4143          SE  1730.6  1734.0  1736.0  1738.0  1739.0  1740.0  1741.0  1742.0  1743.0  1744.0
4144          SE  1744.3  1744.4  1744.6  1744.8  1745.0  1745.2  1745.4  1745.6  1745.8  1746.0
4145          SQ       0     2.2     2.6     3.0     3.1     3.2     3.3     3.5     3.6     3.7
4146          SQ     3.7     3.8       8      21      48      88     143     212     295     390
              *

4147          KK  BB614R
4148          KM      Retrieve previously diverted hydrograph at C614 in the right branch.
4149          DR   D614R
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4150          KK  614615
4151          KM      Normal depth channel route from C614 to C615
4152          KM      Source:  Hydrology Field Reconnaissance
4153          RS       3    FLOW      -1
4154          RC   0.040   0.018   0.040  1114.0  0.0397
4155          RX  1000.0  1020.0  1025.0  1059.0  1091.0  1093.0  1098.0  1103.0
4156          RY  1828.0  1822.0  1821.5  1822.2  1821.8  1822.0  1824.0  1826.0
              *

4157          KK    211V
4158          KM   Sub-Basin   211V
4159          KM
4160          KM      The Clark Unit Hydrograph is used for this basin.
4161          KM          The Urban time-area relation is used for this basin.
4162          KM
4163          KM      Time of Concentration for this sub-basin is based on the following:
4164          KM          6-Hour Rainfall, Pattern No.  1.00
4165          KM          An rainfall areal reduction factor of 1.000
4166          KM
4167          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4168          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4169          KM   .33 .33 .33 .13 .11 .10 .05 .05 .05 .05 .05 .05 .01 .01 .01 .01 .01 .01
4170          KM
4171          KM          L=   0.222 miles, S=  212 feet/mile, Kb= .04
4172          KM
4173          BA   0.005
4174          LG    0.06    0.25    5.80    0.18   90.00
4175          UC   0.113   0.204
4176          UA       0       5      16      30      65      77      84      90      94      97
4177          UA     100
              *

4178          KK    C615
4179          KM      Hydrograph combine 614615 + 211V at C615
4180          HC       2    0.03
              *

4181          KK   D615L
4182          KM      Hydrograph diversion at C615.  Main flow continues in the left branch.
4183          KM      Diverted flow is in the right branch.
4184          DT   D615R
4185          DI       0     1.3     2.5     5.3     8.6    14.2    23.0    36.8    55.5    77.5
4186          DQ       0       0       0     1.3     2.6     4.2     7.0    12.8    19.5    29.5
              *

4187          KK  615618
4188          KM      Normal depth channel route from C615 to C618
4189          KM      Source:  Hydrology Field Reconnaissance
4190          RS       1    FLOW      -1
4191          RC   0.040   0.018   0.040   499.0  0.1338
4192          RX  1000.0  1008.0  1009.2  1013.2  1027.2  1028.4  1036.4  1045.4
```

```
4193        RY  1800.4  1799.6  1799.2  1798.8  1798.3  1798.7  1798.9  1800.4
            *
1                                    HEC-1 INPUT                                                    PAGE 98
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4194        KK    C618
4195        KM      Hydrograph combine C618O + 615618 at C618
4196        HC       2    0.19
            *

4197        KK  618619
4198        KM      Normal depth channel route from C618 to C619
4199        KM      Source:  HEC-2 Cross Section: AR 0.441
4200        RS       5    FLOW      -1
4201        RC   0.070   0.060   0.070  1837.0  0.0285
4202        RX  9870.6  9928.6  9957.1  9996.9 10004.9 10022.1 10062.0 10116.4
4203        RY  1709.2  1700.9  1698.8  1690.0  1689.8  1699.6  1700.3  1711.3
            *

4204        KK    211T
4205        KM   Sub-Basin   211T
4206        KM
4207        KM      The Clark Unit Hydrograph is used for this basin.
4208        KM          The Urban time-area relation is used for this basin.
4209        KM
4210        KM      Time of Concentration for this sub-basin is based on the following:
4211        KM          6-Hour Rainfall, Pattern No.  1.00
4212        KM          An rainfall areal reduction factor of 0.999
4213        KM
4214        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4215        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4216        KM   .32 .32 .32 .11 .09 .09 .04 .04 .04 .04 .04 .04 .01 .01 .01 .01 .01 .01
4217        KM
4218        KM          L=   0.488 miles, S=  250 feet/mile, Kb= .03
4219        KM
4220        BA   0.066
4221        LG    0.07    0.25    5.70    0.18   64.25
4222        UC   0.138   0.108
4223        UA       0       5      16      30      65      77      84      90      94      97
4224        UA     100
            *

4225        KK   C619L
4226        KM      Hydrograph combine 618619 + 211T at C619 left branch
4227        HC       2
            *

4228        KK  BB615R
4229        KM      Retrieve previously diverted hydrograph at C615 in the right branch.
4230        DR   D615R
            *

4231        KK  615619
4232        KM      Normal depth channel route from C615 to C619
4233        KM      Source:  Hydrology Field Reconnaissance
4234        RS       8    FLOW      -1
4235        RC   0.045   0.024   0.025  2444.0  0.0493
4236        RX  1000.0  1009.3  1018.5  1037.0  1039.3  1053.0  1065.0  1065.0
4237        RY  1727.2  1726.5  1725.8  1724.4  1724.6  1725.8  1725.9  1725.9
            *
1                                    HEC-1 INPUT                                                    PAGE 99
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4238        KK   C619I
4239        KM      Hydrograph combine C619L + 615619 at C619I
4240        HC       2    0.25
            *

4241        KK   C619O
4242        KM      Reservoir route at C619.
4243        RS       1    ELEV  1675.6
4244        SV    0.00    1.72    2.98    4.70    7.00    7.08    7.17    7.26    7.34    7.43
4245        SV    7.51    7.60    7.69    7.77    7.86
4246        SE  1675.6  1686.0  1688.0  1690.0  1692.0  1692.2  1692.4  1692.6  1692.8  1693.0
4247        SE  1693.2  1693.4  1693.6  1693.8  1694.0
4248        SQ       0       4      25      72     128     155     163     172     178     187
4249        SQ     195     213     238     273     318     374     441     518     606     706
4250        SE  1675.6  1676.0  1678.0  1680.0  1682.0  1684.0  1686.0  1688.0  1690.0  1692.0
4251        SE  1692.2  1692.4  1692.6  1692.8  1693.0  1693.2  1693.4  1693.6  1693.8  1694.0
            *

4252        KK   D619R
4253        KM      Hydrograph diversion at C619.  Main flow continues in the right branch.
4254        KM      Diverted flow is in the left branch.
4255        DT   D619L
4256        DI       0       4      25      72     128     155     163     172     178     187
4257        DI     195     213     238     273     318     374     441     518     606     706
4258        DQ       0       0       0       0       0       0       0       0       0       0
4259        DQ       8      24      49      83     128     182     249     326     412     512
            *

4260        KK  619620
4261        KM                  Lag route through Palisades Plaza storm drain
4262        RT       0                1
            *

4263        KK  BB619L
4264        KM      Retrieve previously diverted hydrograph at C619 in the left branch.
4265        DR   D619L
            *
```

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4266          KK  619620
4267          KM   Normal depth channel route from C619 to C620 in Fountain Hills Blvd.
4268          KM   Source:  200 Scale Mapping. Similiar to 523548
4269          RS       1    FLOW      -1
4270          RC   0.040   0.024   0.040   800.0  0.0288
4271          RX   918.0   940.0   960.0  1000.0  1040.0  1040.1  1044.1  1088.1
4272          RY  1648.0  1645.8  1643.8  1644.7  1644.0  1644.5  1644.5  1648.0
              *

4273          KK   211W
4274          KM   Sub-Basin   211W
4275          KM
4276          KM      The Clark Unit Hydrograph is used for this basin.
4277          KM          The Urban time-area relation is used for this basin.
4278          KM
4279          KM      Time of Concentration for this sub-basin is based on the following:
1                                        HEC-1 INPUT                                          PAGE100

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4280          KM          6-Hour Rainfall, Pattern No.  1.00
4281          KM          An rainfall areal reduction factor of 1.000
4282          KM
4283          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4284          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4285          KM   .32 .32 .32 .12 .10 .09 .05 .05 .04 .04 .04 .04 .01 .01 .01 .01 .01 .01
4286          KM
4287          KM          L=   0.289 miles, S=  173 feet/mile, Kb= .03
4288          KM
4289          BA   0.030
4290          LG    0.06    0.25    5.70    0.18   73.65
4291          UC   0.121   0.097
4292          UA       0       5      16      30      65      77      84      90      94      97
4293          UA     100
              *

4294          KK   C620R
4295          KM      Hydrograph combine 619620 + R619L + 211W at C620 right branch
4296          HC       3    0.28
              *

4297          KK  BB611R
4298          KM      Retrieve previously diverted hydrograph at C611 in the right branch.
4299          DR   D611R
              *

4300          KK  611620
4301          KM                 Lag route through Palisades Plaza storm drain
4302          RT       0                1
              *

4303          KK    C620
4304          KM      Hydrograph combine 611620 + C620R at C620
4305          HC       2    0.42
              *

4306          KK  620621
4307          KM      Normal depth channel route from C620 to C621
4308          KM      Source:  HEC-2 Cross Section: AR 0.081
4309          RS       1    FLOW      -1
4310          RC   0.050   0.050   0.050   915.0  0.0394
4311          RX  9790.0  9790.1  9972.2  9994.8 10004.9 10029.7 10048.6 10125.0
4312          RY  1657.9  1657.5  1656.4  1646.8  1646.8  1657.8  1657.0  1657.9
              *

4313          KK    C621
4314          KM      Hydrograph combine C621L + 620621 at C621
4315          HC       2    7.93
              *
1                                        HEC-1 INPUT                                          PAGE101

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4316          KK  621622
4317          KM      Normal depth channel route from C621 to C622
4318          KM      Source:  HEC-2 Cross Section: AS 2.785
4319          RS       6    FLOW      -1
4320          RC   0.100   0.045   0.100  3830.0  0.0144
4321          RX  9827.3  9922.9  9951.0 10000.0 10002.7 10044.7 10071.6 10076.8
4322          RY  1615.2  1611.0  1604.1  1600.8  1601.5  1601.6  1611.0  1613.9
              *

4323          KK    211X
4324          KM   Sub-Basin   211X
4325          KM
4326          KM      The Clark Unit Hydrograph is used for this basin.
4327          KM          The Urban time-area relation is used for this basin.
4328          KM
4329          KM      Time of Concentration for this sub-basin is based on the following:
4330          KM          6-Hour Rainfall, Pattern No.  1.00
4331          KM          An rainfall areal reduction factor of 0.997
4332          KM
4333          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4334          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4335          KM   .31 .31 .31 .10 .08 .07 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
4336          KM
4337          KM          L=   0.929 miles, S=  111 feet/mile, Kb= .03
4338          KM
4339          BA   0.214
4340          LG    0.10    0.26    4.90    0.26   56.64
4341          UC   0.250   0.180
4342          UA       0       5      16      30      65      77      84      90      94      97
```

```
4343          UA     100
              *

4344          KK   C622R
4345          KM      Hydrograph combine 621622 + 211X at C622 right branch
4346          HC       2
              *
              * *
              * * Move to the top of Tulip Wash
              * *
              *

4347          KK    211A
4348          KM   Sub-Basin   211A
4349          KM
4350          KM      The Clark Unit Hydrograph is used for this basin.
4351          KM          The Urban time-area relation is used for this basin.
4352          KM
4353          KM      Time of Concentration for this sub-basin is based on the following:
4354          KM          6-Hour Rainfall, Pattern No.  1.00
4355          KM          An rainfall areal reduction factor of 0.998
4356          KM
4357          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4358          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4359          KM   .30 .30 .29 .09 .07 .06 .03 .02 .02 .01 .01 .01 .00 .00 .00 .00 .00 .00
1                                          HEC-1 INPUT                                          PAGE102

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4360          KM
4361          KM          L=   0.820 miles, S=  248 feet/mile, Kb= .03
4362          KM
4363          BA   0.143
4364          LG    0.09    0.25    5.70    0.18   23.09
4365          UC   0.188   0.149
4366          UA       0       5      16      30      65      77      84      90      94      97
4367          UA     100
              *

4368          KK   C6000
4369          KM      Reservoir route at C600.
4370          RS       1    ELEV  1754.0
4371          SV    0.00    0.14    0.62    1.52    2.95    5.06    7.98   11.80   16.61   22.67
4372          SV   30.07   38.71   40.50   40.60   41.60   42.70   43.70   44.60   45.70
4373          SE  1754.0  1756.0  1758.0  1760.0  1762.0  1764.0  1766.0  1768.0  1770.0  1772.0
4374          SE  1774.0  1776.0 1776.36  1776.4  1776.6  1776.8  1777.0  1777.2  1777.4
4375          SQ       0      55     183     320     427     513     570     620     665     709
4376          SQ     750     789     795     795     812     849     906     984    1084
              *

4377          KK  600601
4378          KM      Normal depth channel route from C600 to C601
4379          KM      Source:  HEC-2 Cross Section: TU 1.538
4380          RS       3    FLOW      -1
4381          RC   0.040   0.025   0.040  2406.0  0.0176
4382          RX  9945.6  9959.4  9968.3  9985.9 10000.0 10017.2 10038.7 10058.8
4383          RY  1734.5  1732.3  1727.9  1726.2  1725.0  1727.7  1735.2  1736.0
              *

4384          KK    211B
4385          KM   Sub-Basin   211B
4386          KM
4387          KM      The Clark Unit Hydrograph is used for this basin.
4388          KM          The Urban time-area relation is used for this basin.
4389          KM
4390          KM      Time of Concentration for this sub-basin is based on the following:
4391          KM          6-Hour Rainfall, Pattern No.  1.00
4392          KM          An rainfall areal reduction factor of 0.999
4393          KM
4394          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4395          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4396          KM   .30 .29 .29 .09 .06 .06 .02 .02 .02 .01 .01 .01 .00 .00 .00 .00 .00 .00
4397          KM
4398          KM          L=   0.618 miles, S=  244 feet/mile, Kb= .03
4399          KM
4400          BA   0.109
4401          LG    0.09    0.25    5.80    0.18   20.22
4402          UC   0.163   0.119
4403          UA       0       5      16      30      65      77      84      90      94      97
4404          UA     100
              *
1                                          HEC-1 INPUT                                          PAGE103

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4405          KK    C601
4406          KM      Hydrograph combine 600601 + 211B at C601
4407          HC       2
              *

4408          KK  601602
4409          KM      Normal depth channel route from C601 to C602
4410          KM      Source:  HEC-2 Cross Section: TU 1.102
4411          RS       3    FLOW      -1
4412          RC   0.065   0.040   0.055  1765.0  0.0146
4413          RX  9916.9  9959.1  9965.8  9980.2 10004.0 10019.5 10047.3 10094.1
4414          RY  1699.9  1699.8  1696.4  1689.8  1688.9  1695.7  1698.2  1698.4
              *

4415          KK    211C
4416          KM   Sub-Basin   211C
4417          KM
4418          KM      The Clark Unit Hydrograph is used for this basin.
```

```
4419    KM          The Urban time-area relation is used for this basin.
4420    KM
4421    KM      Time of Concentration for this sub-basin is based on the following:
4422    KM          6-Hour Rainfall, Pattern No.  1.00
4423    KM          An rainfall areal reduction factor of 0.999
4424    KM
4425    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4426    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4427    KM   .31 .31 .31 .10 .08 .07 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
4428    KM
4429    KM          L=   0.479 miles, S=  154 feet/mile, Kb= .03
4430    KM
4431    BA   0.043
4432    LG    0.08    0.25    5.70    0.18   44.48
4433    UC   0.163   0.165
4434    UA      0       5      16      30      65      77      84      90      94      97
4435    UA    100
        *

4436    KK   C602L
4437    KM      Hydrograph combine 601602 + 211C at C602 left branch
4438    HC       2
        *

4439    KK    211D
4440    KM   Sub-Basin   211D
4441    KM
4442    KM      The Clark Unit Hydrograph is used for this basin.
4443    KM          The Urban time-area relation is used for this basin.
4444    KM
4445    KM      Time of Concentration for this sub-basin is based on the following:
4446    KM          6-Hour Rainfall, Pattern No.  1.00
4447    KM          An rainfall areal reduction factor of 0.999
4448    KM
4449    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4450    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
```

1

HEC-1 INPUT PAGE104

```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4451    KM   .29 .28 .28 .07 .05 .04 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
4452    KM
4453    KM          L=   0.686 miles, S=  115 feet/mile, Kb= .03
4454    KM
4455    BA   0.071
4456    LG    0.08    0.25    3.85    0.46   37.42
4457    UC   0.221   0.232
4458    UA      0       5      16      30      65      77      84      90      94      97
4459    UA    100
        *

4460    KK    C602
4461    KM      Hydrograph combine C602L + 211D at C602
4462    HC       2
        *

4463    KK  602603
4464    KM      Normal depth channel route from C602 to C603
4465    KM      Source:  HEC-2 Cross Section: LE 0.672
4466    RS       4    FLOW      -1
4467    RC   0.060   0.045   0.060  2610.0  0.0211
4468    RX  9891.9  9963.9  9986.5 10000.0 10012.7 10023.8 10085.0 10176.4
4469    RY  1653.5  1653.5  1644.4  1644.1  1645.0  1649.8  1651.7  1656.7
        *

4470    KK    211E
4471    KM   Sub-Basin   211E
4472    KM
4473    KM      The Clark Unit Hydrograph is used for this basin.
4474    KM          The Urban time-area relation is used for this basin.
4475    KM
4476    KM      Time of Concentration for this sub-basin is based on the following:
4477    KM          6-Hour Rainfall, Pattern No.  1.00
4478    KM          An rainfall areal reduction factor of 0.998
4479    KM
4480    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4481    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4482    KM   .30 .30 .30 .09 .07 .06 .03 .03 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
4483    KM
4484    KM          L=   0.609 miles, S=  118 feet/mile, Kb= .03
4485    KM
4486    BA   0.156
4487    LG    0.08    0.25    5.10    0.24   42.21
4488    UC   0.200   0.120
4489    UA      0       5      16      30      65      77      84      90      94      97
4490    UA    100
        *

4491    KK    C603
4492    KM      Hydrograph combine 602603 + 211E at C603
4493    HC       2
        *
```

1

HEC-1 INPUT PAGE105

```
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4494    KK  603622
4495    KM      Normal depth channel route from C603 to C622
4496    KM      Source:  HEC-2 Cross Section: LE 0.287
4497    RS       5    FLOW      -1
4498    RC   0.060   0.045   0.060  2745.0  0.0204
4499    RX  9883.0  9929.7  9967.3  9991.6 10042.2 10073.6 10177.6 10194.5
4500    RY  1619.4  1618.7  1611.8  1602.1  1603.3  1609.4  1610.5  1610.6
```

```
                 *
4501             KK    211F
4502             KM   Sub-Basin   211F
4503             KM
4504             KM      The Clark Unit Hydrograph is used for this basin.
4505             KM          The Urban time-area relation is used for this basin.
4506             KM
4507             KM      Time of Concentration for this sub-basin is based on the following:
4508             KM          6-Hour Rainfall, Pattern No.  1.00
4509             KM          An rainfall areal reduction factor of 0.999
4510             KM
4511             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4512             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4513             KM   .31 .31 .31 .10 .08 .07 .04 .04 .04 .04 .04 .04 .03 .01 .01 .01 .01 .01 .01
4514             KM
4515             KM          L=   0.770 miles, S=  134 feet/mile, Kb= .03
4516             KM
4517             BA   0.113
4518             LG    0.08    0.25    4.30    0.36   62.81
4519             UC   0.217   0.191
4520             UA       0       5      16      30      65      77      84      90      94      97
4521             UA     100
                 *

4522             KK   C622L
4523             KM      Hydrograph combine 603622 + 211F at C622 left branch
4524             HC       2
                 *

4525             KK    C622
4526             KM      Hydrograph combine C622R + C622L at C622
4527             HC       2
                 *

4528             KK  622549
4529             KM      Normal depth channel route from C622 to C549
4530             KM      Source:  HEC-2 Cross Section: AS 2.279
4531             RS       7    FLOW      -1
4532             RC   0.113   0.125   0.120  1697.0  0.0118
4533             RX  9847.1  9851.0  9857.5  9862.8 10052.6 10062.8 10075.6 10084.6
4534             RY  1573.5  1571.3  1567.2  1564.6  1565.1  1566.7  1573.7  1573.9
                 *
1                                          HEC-1 INPUT                                          PAGE106
LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4535             KK    211Y
4536             KM   Sub-Basin   211Y
4537             KM
4538             KM      The Clark Unit Hydrograph is used for this basin.
4539             KM          The Urban time-area relation is used for this basin.
4540             KM
4541             KM      Time of Concentration for this sub-basin is based on the following:
4542             KM          6-Hour Rainfall, Pattern No.  1.00
4543             KM          An rainfall areal reduction factor of 0.999
4544             KM
4545             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4546             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4547             KM   .32 .32 .31 .11 .09 .09 .04 .04 .04 .03 .03 .03 .01 .01 .01 .01 .01 .01
4548             KM
4549             KM          L=   0.606 miles, S=  147 feet/mile, Kb= .04
4550             KM
4551             BA   0.089
4552             LG    0.09    0.21    6.60    0.13   50.06
4553             UC   0.213   0.176
4554             UA       0       5      16      30      65      77      84      90      94      97
4555             UA     100
                 *

4556             KK   C549R
4557             KM      Hydrograph combine 622549 + 211Y at C549 right branch
4558             HC       2
                 *

4559             KK    C549
4560             KM      Hydrograph combine C549L + C549R at C549
4561             HC       2
                 *

4562             KK  549626
4563             KM      Normal depth channel route from C549 to C626
4564             KM      Source:  HEC-2 Cross Section: AS 1.855
4565             RS       7    FLOW      -1
4566             RC   0.113   0.125   0.120  2044.0  0.0171
4567             RX  9943.2  9963.0  9985.6  9994.1 10007.6 10029.2 10150.5 10171.3
4568             RY  1539.3  1534.5  1531.2  1528.3  1528.2  1531.7  1532.5  1537.4
                 *

4569             KK    211Z
4570             KM   Sub-Basin   211Z
4571             KM
4572             KM      The Clark Unit Hydrograph is used for this basin.
4573             KM          The Urban time-area relation is used for this basin.
4574             KM
4575             KM      Time of Concentration for this sub-basin is based on the following:
4576             KM          6-Hour Rainfall, Pattern No.  1.00
4577             KM          An rainfall areal reduction factor of 0.999
4578             KM
4579             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4580             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1                                          HEC-1 INPUT                                          PAGE107
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4581          KM   .29 .29 .28 .07 .05 .04 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
4582          KM
4583          KM          L=   0.509 miles, S=  147 feet/mile, Kb= .04
4584          KM
4585          BA   0.083
4586          LG    0.14    0.27    4.50    0.34   34.43
4587          UC   0.204   0.153
4588          UA       0       5      16      30      65      77      84      90      94      97
4589          UA     100
              *

4590          KK   C626C
4591          KM      Hydrograph combine 549626 + 211Z at C626 main branch
4592          HC       2
              *

4593          KK   211AA
4594          KM   Sub-Basin  211AA
4595          KM
4596          KM      The Clark Unit Hydrograph is used for this basin.
4597          KM          The Urban time-area relation is used for this basin.
4598          KM
4599          KM      Time of Concentration for this sub-basin is based on the following:
4600          KM          6-Hour Rainfall, Pattern No.  1.00
4601          KM          An rainfall areal reduction factor of 1.000
4602          KM
4603          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4604          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4605          KM   .32 .31 .31 .11 .09 .08 .04 .04 .04 .03 .02 .02 .01 .01 .01 .01 .01 .01
4606          KM
4607          KM          L=   0.480 miles, S=   85 feet/mile, Kb= .03
4608          KM
4609          BA   0.034
4610          LG    0.08    0.19    6.60    0.13   39.38
4611          UC   0.196   0.231
4612          UA       0       5      16      30      65      77      84      90      94      97
4613          UA     100
              *

4614          KK  625626
4615          KM      Normal depth channel route from C625 to C626
4616          KM      Source:  200 Scale Mapping
4617          RS       3    FLOW      -1
4618          RC   0.040   0.018   0.040  1350.0  0.0252
4619          RX  1000.0  1020.0  1021.2  1055.2  1089.2  1090.4  1100.4  1105.4
4620          RY  1527.0  1526.0  1525.6  1526.3  1525.6  1526.0  1528.0  1530.0
              *

4621          KK   211AB
4622          KM   Sub-Basin  211AB
4623          KM
4624          KM      The Clark Unit Hydrograph is used for this basin.
4625          KM          The Urban time-area relation is used for this basin.
4626          KM
4627          KM      Time of Concentration for this sub-basin is based on the following:
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4628          KM          6-Hour Rainfall, Pattern No.  1.00
4629          KM          An rainfall areal reduction factor of 0.999
4630          KM
4631          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4632          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4633          KM   .32 .32 .32 .12 .10 .09 .04 .04 .04 .04 .04 .03 .01 .01 .01 .01 .01 .01
4634          KM
4635          KM          L=   0.293 miles, S=  321 feet/mile, Kb= .03
4636          KM
4637          BA   0.040
4638          LG    0.07    0.17    6.80    0.12   54.72
4639          UC   0.100   0.068
4640          UA       0       5      16      30      65      77      84      90      94      97
4641          UA     100
              *

4642          KK  623624
4643          KM      Normal depth channel route from C623 to C624
4644          KM      Source:  200 Scale Mapping
4645          RS       1    FLOW      -1
4646          RC   0.040   0.018   0.040   701.0  0.0114
4647          RX  1000.0  1010.0  1011.2  1027.2  1043.2  1044.4  1059.4  1074.4
4648          RY  1534.0  1532.0  1531.6  1531.9  1531.6  1532.0  1532.5  1533.0
              *

4649          KK   211AC
4650          KM   Sub-Basin  211AC
4651          KM
4652          KM      The Clark Unit Hydrograph is used for this basin.
4653          KM          The Urban time-area relation is used for this basin.
4654          KM
4655          KM      Time of Concentration for this sub-basin is based on the following:
4656          KM          6-Hour Rainfall, Pattern No.  1.00
4657          KM          An rainfall areal reduction factor of 1.000
4658          KM
4659          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4660          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4661          KM   .32 .32 .32 .12 .10 .09 .05 .05 .04 .04 .04 .04 .01 .01 .01 .01 .01 .01
4662          KM
4663          KM          L=   0.306 miles, S=   82 feet/mile, Kb= .03
4664          KM
4665          BA   0.027
4666          LG    0.08    0.15    8.40    0.07   44.76
```

```
4667          UC   0.154   0.140
4668          UA       0       5      16      30      65      77      84      90      94      97
4669          UA     100
              *

4670          KK    C624
4671          KM      Hydrograph combine 623624 + 211AC at C624
4672          HC       2
              *
```



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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4673          KK  624626
4674          KM      Normal depth channel route from C624 to C626
4675          KM      Source:  HEC-2 Cross Section: AS 1.727
4676          RS       3    FLOW      -1
4677          RC   0.080   0.060   0.080   637.0  0.0235
4678          RX  9872.9  9881.0  9893.9  9902.2  9967.6  9976.4 10076.1 10084.3
4679          RY  1526.3  1524.6  1521.7  1520.0  1520.7  1521.6  1520.7  1526.2
              *

4680          KK   211AD
4681          KM   Sub-Basin  211AD
4682          KM
4683          KM      The Clark Unit Hydrograph is used for this basin.
4684          KM          The Urban time-area relation is used for this basin.
4685          KM
4686          KM      Time of Concentration for this sub-basin is based on the following:
4687          KM          6-Hour Rainfall, Pattern No.  1.00
4688          KM          An rainfall areal reduction factor of 0.999
4689          KM
4690          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4691          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4692          KM   .32 .32 .32 .12 .10 .09 .05 .05 .04 .04 .04 .04 .01 .01 .01 .01 .01 .01
4693          KM
4694          KM          L=   0.489 miles, S=  280 feet/mile, Kb= .03
4695          KM
4696          BA   0.041
4697          LG    0.08    0.15    8.00    0.08   46.16
4698          UC   0.133   0.137
4699          UA       0       5      16      30      65      77      84      90      94      97
4700          UA     100
              *

4701          KK   C626R
4702          KM      Hydrograph combine 624626 + 211AD at C626 right branch
4703          HC       2
              *

4704          KK    C626
4705          KM      Hydrograph combine C626C + 625626 at C626R
4706          HC       3
              *

4707          KK  626627
4708          KM      Normal depth channel route from C626 to C627
4709          KM      Source:  HEC-2 Cross Section: AS 1.602
4710          RS       2    FLOW      -1
4711          RC   0.080   0.060   0.080   625.0  0.0208
4712          RX  9889.8  9941.2  9963.0 10011.6 10074.8 10083.9 10191.7 10210.4
4713          RY  1517.6  1516.9  1508.1  1506.6  1508.6  1511.7  1513.1  1518.8
              *
```



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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4714          KK   211AE
4715          KM   Sub-Basin  211AE
4716          KM
4717          KM      The Clark Unit Hydrograph is used for this basin.
4718          KM          The Urban time-area relation is used for this basin.
4719          KM
4720          KM      Time of Concentration for this sub-basin is based on the following:
4721          KM          6-Hour Rainfall, Pattern No.  1.00
4722          KM          An rainfall areal reduction factor of 1.000
4723          KM
4724          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4725          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4726          KM   .31 .31 .30 .10 .08 .07 .03 .03 .03 .02 .02 .02 .01 .01 .01 .01 .01 .01
4727          KM
4728          KM          L=   0.313 miles, S=  153 feet/mile, Kb= .04
4729          KM
4730          BA   0.034
4731          LG    0.12    0.24    6.40    0.15   38.15
4732          UC   0.154   0.125
4733          UA       0       5      16      30      65      77      84      90      94      97
4734          UA     100
              *

4735          KK    C627
4736          KM      Hydrograph combine 626627 + 211AE at C627
4737          HC       2
              *
              * *
              * * C627 is the total flow in Ashbrook Wash at the Study boundary
              * *
              *

4738          KK   211AF
4739          KM   Sub-Basin  211AF
4740          KM
```

```
4741          KM      The Clark Unit Hydrograph is used for this basin.
4742          KM          The Urban time-area relation is used for this basin.
4743          KM
4744          KM      Time of Concentration for this sub-basin is based on the following:
4745          KM          6-Hour Rainfall, Pattern No.  1.00
4746          KM          An rainfall areal reduction factor of 0.999
4747          KM
4748          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4749          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4750          KM   .32 .31 .31 .11 .09 .08 .04 .04 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
4751          KM
4752          KM          L=   0.332 miles, S= 292 feet/mile, Kb= .03
4753          KM
4754          BA   0.053
4755          LG    0.07    0.25    5.80    0.17   52.43
4756          UC   0.108   0.070
4757          UA       0       5      16      30      65      77      84      90      94      97
4758          UA     100
              *
              * *
              * * End Basin 211.
              * *
              *
1                                                HEC-1 INPUT                                          PAGE111
      LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
4759          ZZ
1*************************************
*                                   *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)*
*              MAY  1991            *
*           VERSION 4.0.1E          *
*                                   *
*  RUN DATE  10/31/94  TIME  13:27:08*
*                                   *
*************************************

*************************************
*                                   *
*    U.S. ARMY CORPS OF ENGINEERS   *
*   HYDROLOGIC ENGINEERING CENTER   *
*         609 SECOND STREET         *
*       DAVIS, CALIFORNIA 95616     *
*          (916) 551-1748           *
*                                   *
*************************************
```

Fountain Hills North Floodplain Delineation Study
FCD 92-04 by GVSCE
Future Condition Model
10-Year 6-Hour Storm, Clark Unit Hydrograph

File: FU10-6.IH1
Date: 07-21-94 dtp
Revised: 10-31-94 dtp

```
6 IO        OUTPUT CONTROL VARIABLES
                IPRNT          5  PRINT CONTROL
                IPLOT          0  PLOT CONTROL
                QSCAL         0.  HYDROGRAPH PLOT SCALE

  IT        HYDROGRAPH TIME DATA
                 NMIN          1  MINUTES IN COMPUTATION INTERVAL
                IDATE     1    0  STARTING DATE
                ITIME        0000  STARTING TIME
                   NQ        1080  NUMBER OF HYDROGRAPH ORDINATES
              NDDATE     1    0  ENDING DATE
              NDTIME        1759  ENDING TIME
               ICENT          19  CENTURY MARK

           COMPUTATION INTERVAL    0.02 HOURS
                TOTAL TIME BASE   17.98 HOURS

      ENGLISH UNITS
          DRAINAGE AREA          SQUARE MILES
          PRECIPITATION DEPTH    INCHES
          LENGTH, ELEVATION      FEET
          FLOW                   CUBIC FEET PER SECOND
          STORAGE VOLUME         ACRE-FEET
          SURFACE AREA           ACRES
          TEMPERATURE            DEGREES FAHRENHEIT

8 JD        INDEX STORM NO. 1
                STRM       2.20  PRECIPITATION DEPTH
                TRDA       0.01  TRANSPOSITION DRAINAGE AREA

9 PI         PRECIPITATION PATTERN
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
             0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01
             0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01
             0.01    0.01    0.01    0.01    0.01    0.03    0.03    0.03    0.03    0.03
             0.03    0.03    0.03    0.03    0.03    0.03    0.03    0.03    0.03    0.03
             0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01
             0.01    0.01    0.01    0.01    0.01    0.00    0.00    0.00    0.00    0.00
```

```
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
12 JD     INDEX STORM NO. 2
            STRM        2.19  PRECIPITATION DEPTH
            TRDA        0.50  TRANSPOSITION DRAINAGE AREA
0 PI      PRECIPITATION PATTERN
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01
0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01
0.01    0.01    0.01    0.01    0.01    0.03    0.03    0.03    0.03    0.03
0.03    0.03    0.03    0.03    0.03    0.03    0.03    0.03    0.03    0.03
0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01
0.01    0.01    0.01    0.01    0.01    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
13 JD     INDEX STORM NO. 3
            STRM        2.16  PRECIPITATION DEPTH
            TRDA        2.80  TRANSPOSITION DRAINAGE AREA
14 PI     PRECIPITATION PATTERN
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01
0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01
0.01    0.01    0.01    0.01    0.01    0.02    0.02    0.02    0.02    0.02
0.02    0.02    0.02    0.02    0.02    0.02    0.02    0.02    0.02    0.02
0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01    0.01
0.01    0.01    0.01    0.01    0.01    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
17 JD     INDEX STORM NO. 4
            STRM        2.03  PRECIPITATION DEPTH
            TRDA       16.00  TRANSPOSITION DRAINAGE AREA
18 PI     PRECIPITATION PATTERN
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
```

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

21 JD INDEX STORM NO. 5

STRM 1.78 PRECIPITATION DEPTH
TRDA 90.00 TRANSPOSITION DRAINAGE AREA

22 PI PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

25 JD INDEX STORM NO. 6

STRM 1.25 PRECIPITATION DEPTH
TRDA 500.00 TRANSPOSITION DRAINAGE AREA

26 PI PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO
WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO

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RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	201A	169.	4.28	24.	8.	8.	0.22		
+	HYDROGRAPH AT	201B	66.	4.23	8.	3.	3.	0.08		
+	2 COMBINED AT	C501	233.	4.27	32.	11.	11.	0.30		
+	ROUTED TO	501502	228.	4.42	32.	11.	11.	0.30		
+	HYDROGRAPH AT	201C	138.	4.05	11.	4.	4.	0.08		
+	2 COMBINED AT	C502R	260.	4.37	43.	14.	14.	0.38		
+	HYDROGRAPH AT	201D	51.	4.25	8.	3.	3.	0.07		
+	2 COMBINED AT	C502	307.	4.35	51.	17.	17.	0.45		
+	ROUTED TO	502503	302.	4.52	51.	17.	17.	0.45		
+	HYDROGRAPH AT	201E	108.	4.38	19.	6.	6.	0.18		
+	2 COMBINED AT	C503I	386.	4.48	68.	23.	23.	0.63		
+	ROUTED TO	C503O	230.	4.90	68.	23.	23.	0.63		
+	DIVERSION TO	D503L	230.	4.90	68.	23.	23.	0.63		
+	HYDROGRAPH AT	D503R	0.	0.02	0.	0.	0.	0.63		
+	ROUTED TO	503504	0.	0.02	0.	0.	0.	0.63		
+	HYDROGRAPH AT	202A	66.	4.03	5.	2.	2.	0.04		
+	2 COMBINED AT	C504I	60.	4.03	5.	2.	2.	0.67		
+	ROUTED TO	C504O	24.	4.25	5.	2.	2.	0.67		
+	DIVERSION TO	D504L	21.	4.27	5.	2.	2.	0.67		
+	HYDROGRAPH AT	D504R	4.	4.25	0.	0.	0.	0.67		
+	HYDROGRAPH AT	202B	32.	4.03	2.	1.	1.	0.02		
+	2 COMBINED AT	C505I	29.	4.03	3.	1.	1.	0.69		
+	DIVERSION TO	D505L	14.	4.03	2.	1.	1.	0.69		
+	HYDROGRAPH AT	D505R	16.	4.03	1.	0.	0.	0.69		
+	HYDROGRAPH AT	202C	16.	4.02	1.	0.	0.	0.01		
+	2 COMBINED AT	C506	30.	4.02	2.	1.	1.	0.69		
+	DIVERSION TO	D506L	0.	0.02	0.	0.	0.	0.69		

+	HYDROGRAPH AT D506R	30.	4.02	2.	1.	1.	0.69
+	HYDROGRAPH AT 202D	97.	4.05	9.	3.	3.	0.06
+	HYDROGRAPH AT 202E	193.	4.03	15.	5.	5.	0.10
+	ROUTED TO C508O	187.	4.07	15.	5.	5.	0.10
+	DIVERSION TO D508R	71.	4.07	10.	3.	3.	0.10
+	HYDROGRAPH AT D508L	116.	4.07	5.	2.	2.	0.10
+	ROUTED TO 508507	108.	4.15	5.	2.	2.	0.10
+	3 COMBINED AT C507I	170.	4.12	15.	5.	5.	0.86
+	ROUTED TO C507O	170.	4.12	14.	5.	5.	0.86
+	HYDROGRAPH AT 202F	29.	4.00	2.	1.	1.	0.01
+	HYDROGRAPH AT 202G	30.	4.00	2.	1.	1.	0.01
+	HYDROGRAPH AT 202H	328.	4.05	25.	9.	9.	0.18
+	ROUTED TO C511O	245.	4.13	25.	9.	9.	0.18
+	ROUTED TO 511512	244.	4.17	25.	9.	9.	0.18
+	HYDROGRAPH AT 202I	37.	4.02	3.	1.	1.	0.02
+	2 COMBINED AT C512I	263.	4.13	29.	10.	10.	0.20
+	ROUTED TO C512O	35.	4.67	8.	3.	3.	0.20
+	DIVERSION TO D512R	4.	4.67	0.	0.	0.	0.20
+	HYDROGRAPH AT D512L	31.	4.67	8.	3.	3.	0.20
+	HYDROGRAPH AT 203A	159.	4.42	28.	9.	9.	0.28
+	ROUTED TO C513O	125.	4.65	27.	9.	9.	0.28
+	ROUTED TO 513514	124.	4.78	27.	9.	9.	0.28
+	HYDROGRAPH AT 203B	77.	4.05	6.	2.	2.	0.04
+	2 COMBINED AT C514R	127.	4.77	33.	11.	11.	0.32
+	HYDROGRAPH AT 203C	94.	4.20	12.	4.	4.	0.10
+	2 COMBINED AT C514	161.	4.65	45.	15.	15.	0.43
+	HYDROGRAPH AT 203D	83.	4.25	12.	4.	4.	0.11
+	2 COMBINED AT C515	220.	4.18	57.	19.	19.	0.53
+	ROUTED TO 515517	217.	4.35	57.	19.	19.	0.53
+	HYDROGRAPH AT 203E	184.	4.03	14.	5.	5.	0.09
+	2 COMBINED AT C517R	266.	4.27	69.	23.	23.	0.63
+	HYDROGRAPH AT 203F	202.	4.45	30.	10.	10.	0.33
+	ROUTED TO 516517	192.	4.80	30.	10.	10.	0.33
+	HYDROGRAPH AT 203G	183.	4.32	28.	9.	9.	0.25
+	2 COMBINED AT C517L	274.	4.77	57.	19.	19.	0.58

+	2 COMBINED AT C517	424.	4.77	115.	39.	39.	1.21
+	ROUTED TO 517518	418.	4.90	115.	39.	39.	1.21
+	HYDROGRAPH AT 203H	337.	4.07	29.	10.	10.	0.21
+	2 COMBINED AT C518	475.	4.33	139.	47.	47.	1.41
+	ROUTED TO 518519	474.	4.40	139.	47.	47.	1.41
+	HYDROGRAPH AT 203I	212.	4.10	24.	8.	8.	0.17
+	2 COMBINED AT C519	576.	4.30	158.	54.	54.	1.59
+	ROUTED TO 519591	574.	4.35	158.	54.	54.	1.59
+	HYDROGRAPH AT 203J	75.	4.03	7.	2.	2.	0.04
+	ROUTED TO 520591	72.	4.10	7.	2.	2.	0.04
+	HYDROGRAPH AT BB512R	4.	4.67	0.	0.	0.	0.20
+	3 COMBINED AT C591	590.	4.33	162.	55.	55.	1.83
+	ROUTED TO 591521	589.	4.38	162.	55.	55.	1.83
+	HYDROGRAPH AT 203K	285.	4.07	27.	9.	9.	0.16
+	2 COMBINED AT C521	692.	4.27	185.	63.	63.	1.99
+	5 COMBINED AT CLEAR	720.	4.27	194.	66.	66.	3.07
+	HYDROGRAPH AT 204A	196.	4.05	16.	5.	5.	0.11
+	ROUTED TO 522523	178.	4.22	16.	5.	5.	0.11
+	HYDROGRAPH AT 204B	211.	4.07	18.	6.	6.	0.13
+	2 COMBINED AT C523I	322.	4.15	34.	11.	11.	0.23
+	ROUTED TO C523O	227.	4.33	34.	11.	11.	0.23
+	DIVERSION TO D523R	0.	4.33	0.	0.	0.	0.23
+	HYDROGRAPH AT D523L	226.	4.33	34.	11.	11.	0.23
+	ROUTED TO 523524	226.	4.40	34.	11.	11.	0.23
+	HYDROGRAPH AT 204C	173.	4.02	15.	5.	5.	0.08
+	2 COMBINED AT C524	288.	4.05	49.	16.	16.	0.31
+	ROUTED TO 524525	284.	4.08	49.	16.	16.	0.31
+	HYDROGRAPH AT 204D	92.	4.03	8.	3.	3.	0.04
+	2 COMBINED AT C525	369.	4.07	56.	19.	19.	0.35
+	ROUTED TO 525526	362.	4.10	56.	19.	19.	0.35
+	HYDROGRAPH AT 204E	134.	4.05	12.	4.	4.	0.07
+	2 COMBINED AT C526	484.	4.08	68.	23.	23.	0.43
+	ROUTED TO 526527	471.	4.13	68.	23.	23.	0.43
+	HYDROGRAPH AT 204F	161.	4.03	14.	5.	5.	0.08
+	2 COMBINED AT C527	589.	4.12	82.	28.	28.	0.50

+	2 COMBINED AT CLEAR	1057.	4.25	261.	90.	90.	3.58
+	HYDROGRAPH AT 205A	97.	4.32	15.	5.	5.	0.12
+	HYDROGRAPH AT 205B	164.	4.47	27.	9.	9.	0.21
+	2 COMBINED AT C528	247.	4.43	42.	14.	14.	0.33
+	ROUTED TO 528530	246.	4.48	42.	14.	14.	0.33
+	HYDROGRAPH AT 205C	50.	4.28	8.	3.	3.	0.06
+	2 COMBINED AT C530R	284.	4.47	50.	17.	17.	0.39
+	HYDROGRAPH AT 205D	315.	4.33	41.	14.	14.	0.32
+	HYDROGRAPH AT 205E	133.	4.48	28.	9.	9.	0.22
+	2 COMBINED AT C529	418.	4.37	68.	23.	23.	0.54
+	2 COMBINED AT C530	596.	4.42	110.	37.	37.	0.93
+	ROUTED TO 530531	592.	4.47	110.	37.	37.	0.93
+	HYDROGRAPH AT 205F	153.	4.30	21.	7.	7.	0.16
+	2 COMBINED AT C531	669.	4.45	127.	43.	43.	1.09
+	ROUTED TO 531532	663.	4.53	127.	43.	43.	1.09
+	HYDROGRAPH AT 205G	160.	4.33	23.	8.	8.	0.19
+	2 COMBINED AT C532L	735.	4.52	144.	49.	49.	1.27
+	HYDROGRAPH AT 205H	151.	4.50	32.	11.	11.	0.26
+	2 COMBINED AT C532	808.	4.52	168.	57.	57.	1.53
+	ROUTED TO 532533	806.	4.55	168.	57.	57.	1.53
+	HYDROGRAPH AT 205I	226.	4.45	37.	12.	12.	0.35
+	2 COMBINED AT C533	907.	4.55	193.	66.	66.	1.89
+	ROUTED TO 533534	892.	4.77	193.	66.	66.	1.89
+	HYDROGRAPH AT 205J	204.	4.47	32.	11.	11.	0.37
+	2 COMBINED AT C534R	946.	4.75	211.	72.	72.	2.25
+	HYDROGRAPH AT 205K	95.	4.60	22.	7.	7.	0.25
+	2 COMBINED AT C534	978.	4.77	224.	76.	76.	2.50
+	ROUTED TO 534535	974.	4.83	224.	76.	76.	2.50
+	HYDROGRAPH AT 205L	117.	4.22	10.	3.	3.	0.12
+	2 COMBINED AT C535	972.	4.83	229.	78.	78.	2.62
+	ROUTED TO 535536	968.	4.92	229.	78.	78.	2.62
+	HYDROGRAPH AT 205M	197.	4.08	18.	6.	6.	0.14
+	2 COMBINED AT C536R	967.	4.92	241.	82.	82.	2.76
+	HYDROGRAPH AT 205N	80.	4.40	14.	5.	5.	0.16
+	2 COMBINED AT C536I	983.	4.92	249.	85.	85.	2.91

+	ROUTED TO	C536O	271.	6.20	233.	85.	85.	2.91
+	ROUTED TO	536537	271.	6.25	232.	85.	85.	2.91
+	HYDROGRAPH AT	206A	240.	4.05	19.	6.	6.	0.13
+	2 COMBINED AT	C537	273.	6.05	237.	90.	90.	3.04
+	ROUTED TO	537538	273.	6.12	236.	90.	90.	3.04
+	HYDROGRAPH AT	206B	181.	4.05	15.	5.	5.	0.09
+	2 COMBINED AT	C538I	275.	6.05	243.	94.	94.	3.14
+	ROUTED TO	C538O	273.	6.15	240.	94.	94.	3.14
+	ROUTED TO	538540	273.	6.25	240.	94.	94.	3.14
+	HYDROGRAPH AT	206C	33.	4.07	3.	1.	1.	0.02
+	2 COMBINED AT	C540R	274.	6.25	241.	95.	95.	3.16
+	HYDROGRAPH AT	206D	124.	4.03	10.	3.	3.	0.06
+	ROUTED TO	539540	117.	4.12	10.	3.	3.	0.06
+	HYDROGRAPH AT	206E	40.	4.03	3.	1.	1.	0.02
+	2 COMBINED AT	C540L	147.	4.10	13.	4.	4.	0.09
+	2 COMBINED AT	C540	275.	6.23	247.	98.	98.	3.24
+	ROUTED TO	540541	275.	6.35	247.	98.	98.	3.24
+	HYDROGRAPH AT	206F	247.	4.07	21.	7.	7.	0.16
+	2 COMBINED AT	C541	357.	4.30	256.	103.	103.	3.40
+	ROUTED TO	541548	355.	4.33	256.	103.	103.	3.40
+	HYDROGRAPH AT	206G	116.	4.08	13.	4.	4.	0.09
+	HYDROGRAPH AT	BB523R	0.	4.33	0.	0.	0.	0.23
+	ROUTED TO	523548	0.	4.72	0.	0.	0.	0.23
+	3 COMBINED AT	C548L	406.	4.32	262.	106.	106.	3.72
+	HYDROGRAPH AT	206H	114.	4.03	9.	3.	3.	0.06
+	ROUTED TO	542543	110.	4.07	9.	3.	3.	0.06
+	HYDROGRAPH AT	206I	47.	4.00	3.	1.	1.	0.02
+	2 COMBINED AT	C543	150.	4.03	13.	4.	4.	0.08
+	DIVERSION TO	D543R	150.	4.03	13.	4.	4.	0.08
+	HYDROGRAPH AT	D543L	0.	0.02	0.	0.	0.	0.08
+	ROUTED TO	543544	0.	0.02	0.	0.	0.	0.08
+	HYDROGRAPH AT	206K	100.	4.03	8.	3.	3.	0.06
+	2 COMBINED AT	C544	100.	4.03	8.	3.	3.	0.14
+	ROUTED TO	544545	98.	4.07	8.	3.	3.	0.14
+	DIVERSION TO	D545R	49.	4.07	4.	1.	1.	0.14

+	HYDROGRAPH AT D545L	49.	4.07	4.	1.	1.	0.14
+	ROUTED TO 545546	48.	4.08	4.	1.	1.	0.14
+	HYDROGRAPH AT 206L	113.	4.03	9.	3.	3.	0.06
+	2 COMBINED AT C546	157.	4.05	13.	4.	4.	0.20
+	ROUTED TO 546547	156.	4.07	13.	4.	4.	0.20
+	HYDROGRAPH AT BB543R	150.	4.03	13.	4.	4.	0.08
+	ROUTED TO 543547	143.	4.12	13.	4.	4.	0.08
+	HYDROGRAPH AT BB545R	49.	4.07	4.	1.	1.	0.14
+	ROUTED TO 545547	47.	4.13	4.	1.	1.	0.14
+	HYDROGRAPH AT 206J	121.	4.03	10.	3.	3.	0.06
+	4 COMBINED AT C547	446.	4.07	39.	13.	13.	0.26
+	ROUTED TO 547548	433.	4.13	39.	13.	13.	0.26
+	HYDROGRAPH AT 206M	119.	4.03	10.	3.	3.	0.06
+	2 COMBINED AT C548R	518.	4.12	49.	16.	16.	0.32
+	2 COMBINED AT C548	646.	4.23	296.	119.	119.	4.04
+	ROUTED TO 548549	641.	4.38	295.	119.	119.	4.04
+	HYDROGRAPH AT 206N	269.	4.07	26.	9.	9.	0.15
+	2 COMBINED AT C549L	730.	4.32	308.	126.	126.	4.19
+	HYDROGRAPH AT 207A	165.	4.45	31.	11.	11.	0.26
+	HYDROGRAPH AT 207B	134.	4.43	26.	9.	9.	0.21
+	2 COMBINED AT C550	298.	4.45	57.	19.	19.	0.46
+	ROUTED TO 550552	295.	4.53	57.	19.	19.	0.46
+	HYDROGRAPH AT 207C	138.	4.33	18.	6.	6.	0.17
+	2 COMBINED AT C552L	378.	4.50	73.	25.	25.	0.64
+	HYDROGRAPH AT 207D	213.	4.20	28.	9.	9.	0.20
+	ROUTED TO 551552	209.	4.30	28.	9.	9.	0.20
+	HYDROGRAPH AT 207E	140.	4.17	23.	8.	8.	0.16
+	2 COMBINED AT C552R	338.	4.27	52.	17.	17.	0.35
+	2 COMBINED AT C552	577.	4.43	117.	40.	40.	0.99
+	ROUTED TO 552553	574.	4.47	117.	40.	40.	0.99
+	HYDROGRAPH AT 207F	122.	4.23	17.	6.	6.	0.13
+	2 COMBINED AT C553	634.	4.45	131.	45.	45.	1.12
+	ROUTED TO 553556	630.	4.50	131.	45.	45.	1.12
+	HYDROGRAPH AT 207G	104.	4.55	24.	8.	8.	0.24
+	2 COMBINED AT C556L	687.	4.52	149.	51.	51.	1.35

+	HYDROGRAPH AT 207H	174.	4.08	19.	6.	6.	0.12
+	ROUTED TO 554555	168.	4.15	19.	6.	6.	0.12
+	HYDROGRAPH AT 207I	123.	4.05	12.	4.	4.	0.07
+	2 COMBINED AT C555	269.	4.10	31.	10.	10.	0.20
+	ROUTED TO 555556	260.	4.23	31.	10.	10.	0.20
+	HYDROGRAPH AT 207J	157.	4.05	15.	5.	5.	0.09
+	2 COMBINED AT C556R	356.	4.18	46.	15.	15.	0.29
+	2 COMBINED AT C556	824.	4.45	187.	64.	64.	1.64
+	ROUTED TO 556557	821.	4.50	187.	64.	64.	1.64
+	HYDROGRAPH AT 207K	206.	4.07	20.	7.	7.	0.13
+	2 COMBINED AT C557R	860.	4.47	204.	69.	69.	1.77
+	HYDROGRAPH AT 207L	139.	4.05	12.	4.	4.	0.08
+	2 COMBINED AT C557	886.	4.43	214.	73.	73.	1.85
+	ROUTED TO 557558	883.	4.50	214.	73.	73.	1.85
+	HYDROGRAPH AT 207M	219.	4.03	16.	5.	5.	0.12
+	2 COMBINED AT C558	898.	4.48	227.	77.	77.	1.97
+	ROUTED TO 558560	896.	4.53	227.	77.	77.	1.97
+	HYDROGRAPH AT 207O	240.	4.05	17.	6.	6.	0.13
+	2 COMBINED AT C560R	908.	4.50	240.	82.	82.	2.10
+	HYDROGRAPH AT 207N	95.	4.03	7.	2.	2.	0.05
+	ROUTED TO 559560	89.	4.13	7.	2.	2.	0.05
+	2 COMBINED AT C560I	928.	4.48	246.	84.	84.	2.15
+	ROUTED TO C560O	234.	5.80	200.	84.	84.	2.15
+	ROUTED TO 560585	234.	5.90	200.	84.	84.	2.15
+	HYDROGRAPH AT 210A	234.	4.03	16.	5.	5.	0.12
+	2 COMBINED AT C585	235.	5.88	205.	88.	88.	2.27
+	HYDROGRAPH AT 208A	295.	4.02	23.	8.	8.	0.14
+	ROUTED TO 561563	289.	4.05	23.	8.	8.	0.14
+	HYDROGRAPH AT 208B	48.	4.03	4.	1.	1.	0.03
+	2 COMBINED AT C563R	336.	4.05	27.	9.	9.	0.17
+	HYDROGRAPH AT 208C	73.	4.15	9.	3.	3.	0.07
+	ROUTED TO 562563	72.	4.25	9.	3.	3.	0.07
+	HYDROGRAPH AT 208D	130.	4.05	12.	4.	4.	0.08
+	2 COMBINED AT C563L	165.	4.10	22.	7.	7.	0.14
+	2 COMBINED AT C563	492.	4.05	49.	16.	16.	0.31

+	ROUTED TO	563564	476.	4.12	49.	16.	16.	0.31
+	HYDROGRAPH AT	208E	113.	4.03	10.	3.	3.	0.06
+	2 COMBINED AT	C564R	565.	4.10	59.	20.	20.	0.37
+	HYDROGRAPH AT	208F	133.	4.03	11.	4.	4.	0.07
+	2 COMBINED AT	C564	676.	4.08	70.	23.	23.	0.44
+	ROUTED TO	564565	651.	4.18	70.	23.	23.	0.44
+	HYDROGRAPH AT	208G	236.	4.05	22.	7.	7.	0.13
+	2 COMBINED AT	C565	779.	4.17	91.	31.	31.	0.57
+	ROUTED TO	565568	765.	4.22	91.	31.	31.	0.57
+	HYDROGRAPH AT	208H	54.	4.08	6.	2.	2.	0.04
+	2 COMBINED AT	C568L	793.	4.22	97.	33.	33.	0.61
+	HYDROGRAPH AT	208I	218.	4.03	19.	6.	6.	0.12
+	HYDROGRAPH AT	208J	128.	4.05	13.	4.	4.	0.08
+	2 COMBINED AT	C566	346.	4.05	32.	11.	11.	0.20
+	ROUTED TO	566567	334.	4.10	32.	11.	11.	0.20
+	HYDROGRAPH AT	208K	101.	4.02	8.	3.	3.	0.05
+	2 COMBINED AT	C567L	413.	4.07	40.	14.	14.	0.25
+	HYDROGRAPH AT	208L	108.	4.03	10.	3.	3.	0.06
+	2 COMBINED AT	C567	517.	4.05	50.	17.	17.	0.31
+	ROUTED TO	567568	497.	4.17	50.	17.	17.	0.31
+	HYDROGRAPH AT	208M	289.	4.05	29.	10.	10.	0.16
+	2 COMBINED AT	C568R	720.	4.12	79.	26.	26.	0.46
+	2 COMBINED AT	C568	1231.	4.18	169.	57.	57.	1.07
+	ROUTED TO	568573	1214.	4.23	169.	57.	57.	1.07
+	HYDROGRAPH AT	208N	79.	4.07	9.	3.	3.	0.05
+	2 COMBINED AT	C573L	1246.	4.23	177.	60.	60.	1.12
+	HYDROGRAPH AT	208O	410.	4.05	38.	13.	13.	0.23
+	ROUTED TO	569570	404.	4.08	37.	13.	13.	0.23
+	HYDROGRAPH AT	208P	127.	4.02	11.	4.	4.	0.06
+	2 COMBINED AT	C570R	514.	4.05	48.	16.	16.	0.29
+	HYDROGRAPH AT	208Q	161.	4.05	16.	5.	5.	0.09
+	2 COMBINED AT	C570	674.	4.05	64.	22.	22.	0.38
+	HYDROGRAPH AT	208R	22.	4.02	2.	1.	1.	0.01
+	ROUTED TO	571572	21.	4.05	2.	1.	1.	0.01
+	2 COMBINED AT	C572	695.	4.05	66.	22.	22.	0.39

+	ROUTED TO	572573	690.	4.08	66.	22.	22.	0.39
+	HYDROGRAPH AT	208S	142.	4.03	13.	4.	4.	0.07
+	2 COMBINED AT	C573R	821.	4.07	80.	27.	27.	0.46
+	2 COMBINED AT	C573	1573.	4.18	249.	84.	84.	1.58
+	HYDROGRAPH AT	208T	262.	4.03	22.	7.	7.	0.13
+	HYDROGRAPH AT	208U	303.	4.02	22.	7.	7.	0.13
+	2 COMBINED AT	C574	561.	4.02	44.	15.	15.	0.27
+	ROUTED TO	574575	557.	4.03	44.	15.	15.	0.27
+	HYDROGRAPH AT	208V	60.	4.02	5.	2.	2.	0.03
+	2 COMBINED AT	C575	616.	4.03	49.	16.	16.	0.29
+	ROUTED TO	575576	601.	4.07	48.	16.	16.	0.29
+	HYDROGRAPH AT	208W	104.	4.02	8.	3.	3.	0.05
+	2 COMBINED AT	C576	697.	4.05	57.	19.	19.	0.34
+	ROUTED TO	576577	694.	4.07	57.	19.	19.	0.34
+	2 COMBINED AT	C577	1864.	4.13	299.	101.	101.	1.92
+	ROUTED TO	577578	1855.	4.17	299.	101.	101.	1.92
+	HYDROGRAPH AT	208X	147.	4.03	12.	4.	4.	0.08
+	2 COMBINED AT	C578I	1899.	4.15	309.	104.	104.	2.00
+	ROUTED TO	C578O	311.	5.05	272.	104.	104.	2.00
+	ROUTED TO	578587	311.	5.10	272.	104.	104.	2.00
+	HYDROGRAPH AT	210B	179.	4.05	17.	6.	6.	0.11
+	ROUTED TO	C586O	161.	4.12	17.	6.	6.	0.11
+	ROUTED TO	586587	160.	4.17	17.	6.	6.	0.11
+	2 COMBINED AT	C587	378.	4.27	285.	109.	109.	2.11
+	ROUTED TO	587595	378.	4.30	285.	109.	109.	2.11
+	HYDROGRAPH AT	210C	139.	4.05	11.	4.	4.	0.08
+	2 COMBINED AT	C595L	427.	4.20	292.	112.	112.	2.19
+	HYDROGRAPH AT	210D	268.	4.03	22.	7.	7.	0.14
+	ROUTED TO	588590	264.	4.07	22.	7.	7.	0.14
+	HYDROGRAPH AT	210E	56.	4.03	4.	1.	1.	0.03
+	2 COMBINED AT	C590L	316.	4.05	26.	9.	9.	0.17
+	HYDROGRAPH AT	210F	183.	4.03	15.	5.	5.	0.09
+	ROUTED TO	589590	177.	4.07	15.	5.	5.	0.09
+	HYDROGRAPH AT	210G	297.	4.05	26.	9.	9.	0.16
+	2 COMBINED AT	C590R	471.	4.05	41.	14.	14.	0.25

+	2 COMBINED AT C590	787.	4.05	66.	22.	22.	0.42
+	HYDROGRAPH AT 210H	141.	4.03	10.	3.	3.	0.07
+	ROUTED TO 592593	134.	4.07	10.	3.	3.	0.07
+	2 COMBINED AT C593	919.	4.05	76.	26.	26.	0.49
+	ROUTED TO 593594	906.	4.08	76.	26.	26.	0.49
+	HYDROGRAPH AT 210I	89.	4.05	8.	3.	3.	0.05
+	2 COMBINED AT C594	968.	4.08	84.	28.	28.	0.54
+	ROUTED TO 594595	926.	4.17	84.	28.	28.	0.54
+	HYDROGRAPH AT 210J	193.	4.05	15.	5.	5.	0.10
+	2 COMBINED AT C595R	1003.	4.15	97.	33.	33.	0.64
+	2 COMBINED AT C595	1023.	4.17	371.	140.	140.	2.83
+	ROUTED TO 595596	1019.	4.22	371.	140.	140.	2.83
+	HYDROGRAPH AT 210K	166.	4.02	11.	4.	4.	0.08
+	2 COMBINED AT C596	1068.	4.22	379.	143.	143.	2.91
+	HYDROGRAPH AT 209A	491.	4.15	53.	18.	18.	0.37
+	ROUTED TO 579580	488.	4.18	53.	18.	18.	0.37
+	HYDROGRAPH AT 209C	96.	4.07	10.	3.	3.	0.06
+	2 COMBINED AT C580R	563.	4.17	63.	21.	21.	0.43
+	HYDROGRAPH AT 209B	158.	4.03	14.	5.	5.	0.08
+	2 COMBINED AT C580	657.	4.13	76.	26.	26.	0.51
+	ROUTED TO 580581	651.	4.18	76.	26.	26.	0.51
+	HYDROGRAPH AT 209D	481.	4.03	39.	13.	13.	0.24
+	2 COMBINED AT C581R	911.	4.08	112.	38.	38.	0.76
+	HYDROGRAPH AT 209E	260.	4.05	24.	8.	8.	0.15
+	2 COMBINED AT C581	1080.	4.07	134.	45.	45.	0.91
+	ROUTED TO 581582	1059.	4.13	134.	45.	45.	0.91
+	HYDROGRAPH AT 209F	213.	4.25	32.	11.	11.	0.23
+	2 COMBINED AT C582R	1151.	4.15	162.	54.	54.	1.13
+	HYDROGRAPH AT 209G	368.	4.05	33.	11.	11.	0.20
+	2 COMBINED AT C582	1317.	4.13	191.	64.	64.	1.34
+	ROUTED TO 582583	1303.	4.17	191.	64.	64.	1.34
+	HYDROGRAPH AT 209H	135.	4.07	11.	4.	4.	0.08
+	2 COMBINED AT C583	1355.	4.17	200.	67.	67.	1.42
+	ROUTED TO 583584	1332.	4.25	200.	67.	67.	1.42
+	HYDROGRAPH AT 209I	359.	4.03	24.	8.	8.	0.18

+	2 COMBINED AT	C584I	1399.	4.23	221.	74.	74.	1.60
+	ROUTED TO	C584O	341.	4.95	215.	74.	74.	1.60
+	ROUTED TO	584597	341.	5.12	215.	74.	74.	1.60
+	HYDROGRAPH AT	210L	237.	4.05	17.	6.	6.	0.14
+	2 COMBINED AT	C597	371.	4.28	229.	79.	79.	1.74
+	ROUTED TO	597598	369.	4.38	229.	79.	79.	1.74
+	HYDROGRAPH AT	210M	263.	4.07	22.	7.	7.	0.16
+	2 COMBINED AT	C598	468.	4.28	246.	85.	85.	1.90
+	HYDROGRAPH AT	210N	95.	4.02	6.	2.	2.	0.05
+	4 COMBINED AT	C599I	1549.	4.27	756.	288.	288.	7.13
+	ROUTED TO	C599O	751.	6.87	657.	288.	288.	7.13
+	ROUTED TO	599608	751.	6.92	657.	288.	288.	7.13
+	HYDROGRAPH AT	211K	225.	4.02	15.	5.	5.	0.10
+	2 COMBINED AT	C608L	749.	6.93	659.	291.	291.	7.24
+	HYDROGRAPH AT	211G	11.	4.07	2.	1.	1.	0.01
+	ROUTED TO	604606	10.	4.25	2.	1.	1.	0.01
+	HYDROGRAPH AT	211I	71.	4.05	7.	2.	2.	0.04
+	2 COMBINED AT	C606R	77.	4.05	9.	3.	3.	0.05
+	HYDROGRAPH AT	211H	150.	4.02	10.	3.	3.	0.07
+	ROUTED TO	C605O	103.	4.10	10.	3.	3.	0.07
+	2 COMBINED AT	C606	178.	4.07	18.	6.	6.	0.12
+	ROUTED TO	606607	175.	4.10	18.	6.	6.	0.12
+	HYDROGRAPH AT	211J	31.	4.02	2.	1.	1.	0.01
+	2 COMBINED AT	C607	199.	4.08	21.	7.	7.	0.14
+	ROUTED TO	607608	197.	4.12	21.	7.	7.	0.14
+	2 COMBINED AT	C608	748.	6.92	671.	297.	297.	7.37
+	ROUTED TO	608613	748.	6.97	671.	297.	297.	7.37
+	HYDROGRAPH AT	211M	171.	4.03	14.	5.	5.	0.08
+	ROUTED TO	610611	166.	4.05	14.	5.	5.	0.08
+	HYDROGRAPH AT	211N	45.	4.02	4.	1.	1.	0.02
+	2 COMBINED AT	C611R	208.	4.03	18.	6.	6.	0.10
+	HYDROGRAPH AT	211O	89.	4.02	7.	2.	2.	0.04
+	ROUTED TO	C609O	53.	4.12	7.	2.	2.	0.04
+	ROUTED TO	609611	52.	4.13	7.	2.	2.	0.04
+	2 COMBINED AT	C611I	255.	4.05	25.	8.	8.	0.14

+	ROUTED TO	C611O	133.	4.23	24.	8.	8.	0.14
+	DIVERSION TO	D611R	133.	4.23	24.	8.	8.	0.14
+	HYDROGRAPH AT	D611L	0.	0.02	0.	0.	0.	0.14
+	ROUTED TO	611612	0.	0.02	0.	0.	0.	0.14
+	HYDROGRAPH AT	211P	75.	4.02	6.	2.	2.	0.03
+	2 COMBINED AT	C612	75.	4.02	6.	2.	2.	0.17
+	2 COMBINED AT	C613	746.	6.97	673.	298.	298.	7.55
+	ROUTED TO	613621	746.	6.98	673.	298.	298.	7.55
+	HYDROGRAPH AT	211L	189.	4.03	15.	5.	5.	0.10
+	2 COMBINED AT	C621L	793.	4.10	679.	301.	301.	7.64
+	HYDROGRAPH AT	211Q	46.	4.02	3.	1.	1.	0.02
+	ROUTED TO	616617	44.	4.05	3.	1.	1.	0.02
+	HYDROGRAPH AT	211R	171.	4.03	13.	4.	4.	0.08
+	2 COMBINED AT	C617L	215.	4.03	17.	6.	6.	0.10
+	HYDROGRAPH AT	211U	35.	4.07	5.	2.	2.	0.03
+	DIVERSION TO	D614R	25.	4.07	3.	1.	1.	0.03
+	HYDROGRAPH AT	D614L	10.	4.07	2.	1.	1.	0.03
+	2 COMBINED AT	C617	225.	4.03	18.	6.	6.	0.13
+	ROUTED TO	617618	214.	4.10	18.	6.	6.	0.13
+	HYDROGRAPH AT	211S	82.	4.07	7.	2.	2.	0.05
+	2 COMBINED AT	C618I	291.	4.08	26.	9.	9.	0.18
+	ROUTED TO	C618O	273.	4.13	20.	9.	9.	0.18
+	HYDROGRAPH AT	BB614R	25.	4.07	3.	1.	1.	0.03
+	ROUTED TO	614615	24.	4.12	3.	1.	1.	0.03
+	HYDROGRAPH AT	211V	10.	4.03	1.	0.	0.	0.00
+	2 COMBINED AT	C615	32.	4.08	4.	2.	2.	0.03
+	DIVERSION TO	D615R	11.	4.08	1.	0.	0.	0.03
+	HYDROGRAPH AT	D615L	21.	4.08	3.	1.	1.	0.03
+	ROUTED TO	615618	21.	4.10	3.	1.	1.	0.03
+	2 COMBINED AT	C618	294.	4.13	23.	10.	10.	0.19
+	ROUTED TO	618619	283.	4.22	23.	10.	10.	0.19
+	HYDROGRAPH AT	211T	145.	4.02	13.	4.	4.	0.07
+	2 COMBINED AT	C619L	338.	4.20	35.	14.	14.	0.26
+	HYDROGRAPH AT	BB615R	11.	4.08	1.	0.	0.	0.03
+	ROUTED TO	615619	11.	4.20	1.	0.	0.	0.03

+	2 COMBINED AT	C619I	349.	4.20	36.	14.	14.	0.25
+	ROUTED TO	C619O	175.	4.40	36.	14.	14.	0.25
+	DIVERSION TO	D619L	0.	0.02	0.	0.	0.	0.25
+	HYDROGRAPH AT	D619R	175.	4.40	36.	14.	14.	0.25
+	ROUTED TO	619620	175.	4.42	36.	14.	14.	0.25
+	HYDROGRAPH AT	BB619L	0.	0.02	0.	0.	0.	0.25
+	ROUTED TO	619620	0.	0.02	0.	0.	0.	0.25
+	HYDROGRAPH AT	211W	69.	4.02	6.	2.	2.	0.03
+	3 COMBINED AT	C620R	201.	4.03	42.	16.	16.	0.28
+	HYDROGRAPH AT	BB611R	133.	4.23	24.	8.	8.	0.14
+	ROUTED TO	611620	133.	4.25	24.	8.	8.	0.14
+	2 COMBINED AT	C620	321.	4.27	66.	24.	24.	0.42
+	ROUTED TO	620621	321.	4.28	66.	24.	24.	0.42
+	2 COMBINED AT	C621	998.	4.33	723.	321.	321.	7.93
+	ROUTED TO	621622	990.	4.43	722.	321.	321.	7.93
+	HYDROGRAPH AT	211X	372.	4.07	38.	13.	13.	0.21
+	2 COMBINED AT	C622R	1125.	4.25	741.	331.	331.	8.14
+	HYDROGRAPH AT	211A	260.	4.05	20.	7.	7.	0.14
+	ROUTED TO	C600O	236.	4.10	20.	7.	7.	0.14
+	ROUTED TO	600601	231.	4.15	20.	7.	7.	0.14
+	HYDROGRAPH AT	211B	213.	4.03	15.	5.	5.	0.11
+	2 COMBINED AT	C601	396.	4.07	35.	12.	12.	0.25
+	ROUTED TO	601602	388.	4.12	35.	12.	12.	0.25
+	HYDROGRAPH AT	211C	80.	4.05	7.	2.	2.	0.04
+	2 COMBINED AT	C602L	455.	4.10	42.	14.	14.	0.30
+	HYDROGRAPH AT	211D	100.	4.07	10.	3.	3.	0.07
+	2 COMBINED AT	C602	552.	4.10	52.	18.	18.	0.37
+	ROUTED TO	602603	538.	4.17	52.	18.	18.	0.37
+	HYDROGRAPH AT	211E	306.	4.05	25.	8.	8.	0.16
+	2 COMBINED AT	C603	742.	4.12	77.	26.	26.	0.52
+	ROUTED TO	603622	728.	4.20	77.	26.	26.	0.52
+	HYDROGRAPH AT	211F	196.	4.07	20.	7.	7.	0.11
+	2 COMBINED AT	C622L	829.	4.17	96.	32.	32.	0.63
+	2 COMBINED AT	C622	1551.	4.23	803.	355.	355.	8.78
+	ROUTED TO	622549	1541.	4.35	802.	355.	355.	8.78

+	HYDROGRAPH AT	211Y	164.	4.07	16.	5.	5.	0.09
+	2 COMBINED AT	C549R	1594.	4.35	810.	359.	359.	8.87
+	2 COMBINED AT	C549	2118.	4.35	1064.	454.	454.	13.06
+	ROUTED TO	549626	2102.	4.47	1063.	454.	454.	13.06
+	HYDROGRAPH AT	211Z	141.	4.05	12.	4.	4.	0.08
+	2 COMBINED AT	C626C	2121.	4.47	1066.	456.	456.	13.14
+	HYDROGRAPH AT	211AA	56.	4.07	6.	2.	2.	0.03
+	ROUTED TO	625626	54.	4.12	6.	2.	2.	0.03
+	HYDROGRAPH AT	211AB	96.	4.00	8.	3.	3.	0.04
+	ROUTED TO	623624	95.	4.02	8.	3.	3.	0.04
+	HYDROGRAPH AT	211AC	56.	4.03	5.	2.	2.	0.03
+	2 COMBINED AT	C624	151.	4.02	13.	4.	4.	0.07
+	ROUTED TO	624626	147.	4.07	13.	4.	4.	0.07
+	HYDROGRAPH AT	211AD	86.	4.03	8.	3.	3.	0.04
+	2 COMBINED AT	C626R	231.	4.05	20.	7.	7.	0.11
+	3 COMBINED AT	C626	2184.	4.45	1078.	463.	463.	13.28
+	ROUTED TO	626627	2183.	4.47	1078.	463.	463.	13.28
+	HYDROGRAPH AT	211AE	69.	4.03	6.	2.	2.	0.03
+	2 COMBINED AT	C627	2193.	4.47	1080.	464.	464.	13.32
+	HYDROGRAPH AT	211AF	123.	4.00	9.	3.	3.	0.05

*** NORMAL END OF HEC-1 ***

APPENDIX G

10-year, 24-hour Storm HEC-1 Output, Future Condition

```
1****************************************
*                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*             MAY   1991               *
*           VERSION 4.0.1E             *
*                                      *
*  RUN DATE  10/31/94  TIME  13:34:21  *
*                                      *
****************************************
```

```
****************************************
*                                      *
*   U.S. ARMY CORPS OF ENGINEERS       *
*   HYDROLOGIC ENGINEERING CENTER      *
*         609 SECOND STREET            *
*      DAVIS, CALIFORNIA 95616         *
*          (916) 551-1748              *
*                                      *
****************************************
```

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

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

```
1                                    HEC-1 INPUT                                                    PAGE  1

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID   Fountain Hills North Floodplain Delineation Study
  2           ID        FCD 92-04        by GVSCE                          File:   FU10-24.IH1
  3           ID    Future Condition Model                                  Date:    07-20-94  dtp
  4           ID     10-Year 24-Hour Storm, Clark Unit Hydrograph         Revised:   10-31-94  dtp
              *
  5           IT       1                    1800
  6           IO       5
  7           IN      15
              *
              * Point precipitation values are are based on Hydro-40 DARF.
              *   0.01    5.00   10.00   50.00   80.00  100.00  200.00
              *  1.000   0.980   0.949   0.883   0.861   0.850   0.819
              *
  8           JD    2.80    0.01
              * The following PC records are a 24-hour SCS Type II rainfall distribution.
  9           PC   0.000   0.002   0.005   0.008   0.011   0.013   0.016   0.019   0.022   0.025
 10           PC   0.028   0.032   0.035   0.038   0.041   0.044   0.048   0.053   0.056   0.060
 11           PC   0.063   0.067   0.071   0.075   0.080   0.084   0.089   0.093   0.098   0.103
 12           PC   0.109   0.114   0.120   0.127   0.133   0.140   0.147   0.155   0.163   0.172
 13           PC   0.181   0.192   0.204   0.220   0.235   0.259   0.283   0.473   0.663   0.699
 14           PC   0.735   0.754   0.772   0.785   0.799   0.810   0.820   0.829   0.838   0.846
 15           PC   0.854   0.861   0.868   0.874   0.880   0.885   0.891   0.900   0.902   0.910
 16           PC   0.912   0.920   0.921   0.926   0.929   0.930   0.937   0.941   0.945   0.950
 17           PC   0.952   0.957   0.959   0.962   0.965   0.970   0.972   0.973   0.978   0.981
 18           PC   0.984   0.987   0.989   0.992   0.995   0.998   1.000
 19           JD    2.74    5.00
 20           JD    2.66   10.00
 21           JD    2.47   50.00
 22           JD    2.41   80.00
              *

 23           KK    201A
 24           KM   Sub-Basin   201A
 25           KM
 26           KM      The Clark Unit Hydrograph is used for this basin.
 27           KM          The HEC-1 time-area relation is used for this basin.
 28           KM
 29           KM      Time of Concentration for this sub-basin is based on the following:
 30           KM          An rainfall areal reduction factor of 1.000
 31           KM
 32           KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 33           KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 34           KM   .16 .16 .16 .16 .16 .15 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
 35           KM
 36           KM          L=   1.269 miles, S=  208 feet/mile, Kb= .07
 37           KM
 38           BA   0.217
 39           LG    0.13    0.35    5.70    0.19    7.94
 40           UC   0.483   0.478
              *
1                                    HEC-1 INPUT                                                    PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 41           KK    201B
 42           KM   Sub-Basin   201B
 43           KM
 44           KM      The Clark Unit Hydrograph is used for this basin.
 45           KM          The HEC-1 time-area relation is used for this basin.
 46           KM
 47           KM      Time of Concentration for this sub-basin is based on the following:
 48           KM          An rainfall areal reduction factor of 1.000
 49           KM
 50           KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 51           KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
```

```
 52          KM   .15 .15 .15 .15 .15 .14 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
 53          KM
 54          KM          L=   0.680 miles, S=  223 feet/mile, Kb= .10
 55          KM
 56          BA   0.081
 57          LG    0.15    0.38    5.70    0.20    1.84
 58          UC   0.425   0.441
             *

 59          KK    C501
 60          KM      Hydrograph combine 201A + 201B at C501
 61          HC       2
             *

 62          KK  501502
 63          KM      Normal depth channel route from C501 to C502
 64          KM      Source:  200 Scale Mapping
 65          RS       9    FLOW      -1
 66          RC   0.055   0.045   0.055  3000.0  0.0203
 67          RX  1000.0  1010.0  1025.0  1045.0  1075.0  1105.0  1125.0  1155.0
 68          RY  1624.0  1622.0  1620.0  1618.0  1618.0  1620.0  1622.0  1624.0
             *

 69          KK    201C
 70          KM   Sub-Basin   201C
 71          KM
 72          KM      The Clark Unit Hydrograph is used for this basin.
 73          KM          The Urban time-area relation is used for this basin.
 74          KM
 75          KM      Time of Concentration for this sub-basin is based on the following:
 76          KM          An rainfall areal reduction factor of 1.000
 77          KM
 78          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 79          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 80          KM   .18 .18 .18 .18 .17 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
 81          KM
 82          KM          L=   0.674 miles, S=  206 feet/mile, Kb= .03
 83          KM
 84          BA   0.079
 85          LG    0.09    0.26    5.70    0.18   23.84
 86          UC   0.217   0.211
 87          UA       0       5      16      30      65      77      84      90      94      97
 88          UA     100
             *
1                                          HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 89          KK   C502R
 90          KM      Hydrograph combine 501502 + 201C at C502 right branch
 91          HC       2
             *

 92          KK    201D
 93          KM   Sub-Basin   201D
 94          KM
 95          KM      The Clark Unit Hydrograph is used for this basin.
 96          KM          The HEC-1 time-area relation is used for this basin.
 97          KM
 98          KM      Time of Concentration for this sub-basin is based on the following:
 99          KM          An rainfall areal reduction factor of 1.000
100          KM
101          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
102          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
103          KM   .16 .16 .16 .16 .16 .15 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
104          KM
105          KM          L=   0.898 miles, S=  207 feet/mile, Kb= .08
106          KM
107          BA   0.071
108          LG    0.13    0.34    5.70    0.19    8.74
109          UC   0.433   0.606
             *

110          KK    C502
111          KM      Hydrograph combine 502R + 201D at C502
112          HC       2
             *

113          KK  502503
114          KM      Normal depth channel route from C502 to C503
115          KM      Source:  200 Scale Mapping
116          RS      11    FLOW      -1
117          RC   0.050   0.045   0.050  2453.0  0.0183
118          RX  1000.0  1010.0  1025.0  1095.0  1215.0  1295.0  1305.0  1325.0
119          RY  1554.0  1553.0  1552.0  1550.0  1549.8  1551.0  1552.0  1554.0
             *

120          KK    201E
121          KM   Sub-Basin   201E
122          KM
123          KM      The Clark Unit Hydrograph is used for this basin.
124          KM          The HEC-1 time-area relation is used for this basin.
125          KM
126          KM      Time of Concentration for this sub-basin is based on the following:
127          KM          An rainfall areal reduction factor of 1.000
128          KM
129          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
130          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
131          KM   .16 .16 .15 .15 .15 .14 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
132          KM
133          KM          L=   1.245 miles, S=  178 feet/mile, Kb= .08
134          KM
1                                          HEC-1 INPUT                                          PAGE  4
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 135          BA   0.183
 136          LG    0.13    0.34    5.60    0.23    8.39
 137          UC   0.579   0.633
              *

 138          KK   C503I
 139          KM      Hydrograph combine 502503 + 201E at C503I
 140          HC       2
              *

 141          KK   C503O
 142          KM      Reservoir route at C503.
 143          RS       1    ELEV  1535.1
 144          SV    0.00    0.67    2.87    7.16   13.82   22.77   34.37   38.00   41.80   32.20
 145          SV   44.70   46.10   47.80   49.11   50.90   52.80   54.60   56.40
 146          SE  1525.1  1538.0  1540.0  1542.0  1544.0  1546.0  1548.0  1548.5  1549.0  1549.2
 147          SE  1549.4  1549.6  1549.8  1550.0  1550.2  1550.4  1550.6  1550.8
 148          SQ       0      50     133     210     273     325     367     377     407     441
 149          SQ     481     545     612     715     818     971    1115    1268
              *

 150          KK   D503R
 151          KM      Hydrograph diversion at C503.  Main flow continues in the right branch.
 152          KM      Diverted flow is in the left branch.
 153          DT   D503L
 154          DI       0      50     133     210     273     325     367     377     407     441
 155          DI     481     545     612     715     818     971    1115    1268
 156          DQ       0      50     133     210     273     325     367     377     386     391
 157          DQ     394     398     402     405     408     412     415     418
              *

 158          KK  503504
 159          KM      Normal depth channel route from C503 to C504
 160          KM      Source:  200 Scale Mapping
 161          RS       1    FLOW      -1
 162          RC   0.050   0.040   0.050  1151.0  0.0098
 163          RX   940.0  1060.0  1100.0  1140.0  1190.0  1210.0  1230.0  1242.0
 164          RY  1552.0  1548.0  1547.0  1546.2  1546.2  1548.0  1549.0  1552.0
              *
              * *
              * *  End Basin 201.  Start Basin 202
              * *
              *

 165          KK    202A
 166          KM   Sub-Basin   202A
 167          KM
 168          KM      The Clark Unit Hydrograph is used for this basin.
 169          KM          The Urban time-area relation is used for this basin.
 170          KM
 171          KM      Time of Concentration for this sub-basin is based on the following:
 172          KM          An rainfall areal reduction factor of 1.000
 173          KM
 174          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 175          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1                                          HEC-1 INPUT                                          PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 176          KM   .17 .17 .16 .16 .16 .16 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
 177          KM
 178          KM          L=   0.409 miles, S=  129 feet/mile, Kb= .03
 179          KM
 180          BA   0.038
 181          LG    0.09    0.25    4.40    0.34   29.61
 182          UC   0.200   0.196
 183          UA       0       5      16      30      65      77      84      90      94      97
 184          UA     100
              *

 185          KK   C504I
 186          KM      Hydrograph combine D503R + 202A at C504I
 187          HC       2
              *

 188          KK   C504O
 189          KM      Reservoir route at C504.
 190          RS       1    ELEV  1538.1
 191          SV    0.00    0.17    0.90    1.00    1.10    1.30    1.60    1.80    2.00    2.30
 192          SV    2.50    2.70    3.00    3.10
 193          SE  1538.1  1540.0  1541.66 1541.80 1542.0  1542.2  1542.4  1542.6  1542.8  1543.0
 194          SE  1543.2  1543.4  1543.6  1543.7
 195          SQ       0      11      20      22      24      30      41      60      85     121
 196          SQ     171     240     322     396
              *

 197          KK   D504R
 198          KM      Hydrograph diversion at C504.  Main flow continues in the right branch.
 199          KM      Diverted flow is in the left branch.
 200          DT   D504L
 201          DI       0      11      20      22      24      30      41      60      85     121
 202          DI     171     240     322     396
 203          DQ       0      11      20      20      21      22      22      23      23      24
 204          DQ      24      25      26      26
              *

 205          KK    202B
 206          KM   Sub-Basin   202B
 207          KM
 208          KM      The Clark Unit Hydrograph is used for this basin.
 209          KM          The Urban time-area relation is used for this basin.
 210          KM
```

```
211          KM      Time of Concentration for this sub-basin is based on the following:
212          KM          An rainfall areal reduction factor of 1.000
213          KM
214          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
215          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
216          KM   .17 .17 .17 .16 .16 .16 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
217          KM
218          KM          L=   0.364 miles, S=  322 feet/mile, Kb= .03
219          KM
220          BA   0.018
221          LG    0.09    0.25    4.55    0.31   29.03
222          UC   0.142   0.186
1                                        HEC-1 INPUT                                          PAGE  6

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

223          UA       0       5      16      30      65      77      84      90      94      97
224          UA     100
             *

225          KK   C505I
226          KM      Hydrograph combine D504R + 202B at C505I
227          HC       2
             *

228          KK   D505R
229          KM      Hydrograph diversion at C505.  Main flow continues in the right branch.
230          KM      Diverted flow is in the left branch.
231          DT   D505L
232          DI       0       3       7       9      11      14      15      17      23      31
233          DI      44      55      75      95     123     134
234          DQ       0       3       7       9      11      12      12      13      14      14
235          DQ      15      15      16      16      16      17
             *

236          KK    202C
237          KM   Sub-Basin   202C
238          KM
239          KM      The Clark Unit Hydrograph is used for this basin.
240          KM          The Urban time-area relation is used for this basin.
241          KM
242          KM      Time of Concentration for this sub-basin is based on the following:
243          KM          An rainfall areal reduction factor of 1.000
244          KM
245          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
246          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
247          KM   .17 .17 .17 .17 .17 .16 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
248          KM
249          KM          L=   0.192 miles, S=  363 feet/mile, Kb= .04
250          KM
251          BA   0.008
252          LG    0.08    0.25    4.35    0.35   38.72
253          UC   0.113   0.141
254          UA       0       5      16      30      65      77      84      90      94      97
255          UA     100
             *

256          KK    C506
257          KM      Hydrograph combine C505R + 202C at C506
258          HC       2
             *

259          KK   D506R
260          KM      Hydrograph diversion at C506.  Main flow continues in the right branch.
261          KM      Diverted flow is in the left branch.
262          DT   D506L
263          DI       0       3      13      37      77     100     151     206     276     355
264          DI     437     532     698     809     928    1104
265          DQ       0       0       0       0       0       0       4      12      28      52
266          DQ      85     128     183     249     328     421
             *
1                                        HEC-1 INPUT                                          PAGE  7

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

267          KK    202D
268          KM   Sub-Basin   202D
269          KM
270          KM      The Clark Unit Hydrograph is used for this basin.
271          KM          The Urban time-area relation is used for this basin.
272          KM
273          KM      Time of Concentration for this sub-basin is based on the following:
274          KM          An rainfall areal reduction factor of 1.000
275          KM
276          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
277          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
278          KM   .18 .18 .18 .17 .17 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
279          KM
280          KM          L=   0.800 miles, S=  248 feet/mile, Kb= .03
281          KM
282          BA   0.063
283          LG    0.09    0.25    5.60    0.20   28.04
284          UC   0.225   0.287
285          UA       0       5      16      30      65      77      84      90      94      97
286          UA     100
             *

287          KK    202E
288          KM   Sub-Basin   202E
289          KM
290          KM      The Clark Unit Hydrograph is used for this basin.
291          KM          The Urban time-area relation is used for this basin.
292          KM
```

```
293        KM      Time of Concentration for this sub-basin is based on the following:
294        KM          An rainfall areal reduction factor of 1.000
295        KM
296        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
297        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
298        KM   .18 .18 .18 .18 .18 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
299        KM
300        KM          L=   0.732 miles, S=  270 feet/mile, Kb= .03
301        KM
302        BA   0.104
303        LG    0.09    0.25    5.70    0.18   26.88
304        UC   0.208   0.184
305        UA       0       5      16      30      65      77      84      90      94      97
306        UA     100
           *

307        KK   C508O
308        KM      Reservoir route at C508.
309        RS       1    ELEV  1524.2
310        SV    0.00    0.05    0.09    0.13    0.17    0.21    0.25    0.28    0.36    0.46
311        SV    0.55    0.64    0.72    0.81    0.90    1.00    1.02
312        SE  1524.1  1525.0  1525.5  1526.0  1526.5  1527.0  1527.6  1528.0  1528.2  1528.4
313        SE  1528.6  1528.8  1529.0  1529.2  1529.4  1529.6 1529.64
314        SQ       0       6       9      16      22      28      38      51      58      70
315        SQ      84     100     122     149     183     216     227
           *
```



```
LINE       ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

316        KK   D508L
317        KM      Hydrograph diversion at C508.  Main flow continues in the left branch.
318        KM      Diverted flow is in the right branch.
319        DT   D508R
320        DI       0       6       9      16      22      28      38      51      58      70
321        DI      84     100     122     149     183     216     227
322        DQ       0       6       9      16      22      28      38      47      52      56
323        DQ      60      63      66      68      71      73      73
           *

324        KK  508507
325        KM      Normal depth channel route from C508 to C507
326        KM      Source:  200 Scale Mapping
327        RS       6    FLOW      -1
328        RC   0.020   0.035   0.055   934.0  0.0028
329        RX   893.0  1014.0  1022.0  1026.0  1040.0  1050.0  1060.0  1066.0
330        RY  1532.0  1529.4  1528.6  1527.6  1529.0  1530.2  1531.3  1532.0
           *

331        KK   C507I
332        KM      Hydrograph combine D506R + 202D + D508L at C507I
333        HC       3
           *

334        KK   C507O
335        KM      Reservoir route at C507
336        RS       1    ELEV  1525.2
337        SV    0.00    0.28    0.46    0.65    0.85    1.03    1.38    1.40    1.44    1.48
338        SV    1.52    1.55    1.59    1.64    1.67    1.70    1.75    1.77
339        SE  1525.2  1526.0  1526.5  1527.0  1527.5  1528.0  1529.0  1529.0  1529.1  1529.2
340        SE  1529.3  1529.4  1529.5  1529.6  1529.7  1529.8  1529.9  1530.0
341        SQ       0       2       5       9      13      15      18      20      36      69
342        SQ     118     185     272     378     506     652     816     997
           *

343        KK    202F
344        KM   Sub-Basin   202F
345        KM
346        KM      The Clark Unit Hydrograph is used for this basin.
347        KM          The Urban time-area relation is used for this basin.
348        KM
349        KM      Time of Concentration for this sub-basin is based on the following:
350        KM          An rainfall areal reduction factor of 1.000
351        KM
352        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
353        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
354        KM   .18 .18 .18 .18 .18 .18 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
355        KM
356        KM          L=   0.188 miles, S=  337 feet/mile, Kb= .03
357        KM
358        BA   0.013
359        LG    0.08    0.25    5.60    0.20   38.05
360        UC   0.096   0.085
361        UA       0       5      16      30      65      77      84      90      94      97
```



```
LINE       ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

362        UA     100
           *

363        KK    202G
364        KM   Sub-Basin   202G
365        KM
366        KM      The Clark Unit Hydrograph is used for this basin.
367        KM          The Urban time-area relation is used for this basin.
368        KM
369        KM      Time of Concentration for this sub-basin is based on the following:
370        KM          An rainfall areal reduction factor of 1.000
371        KM
372        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
373        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
374        KM   .18 .18 .18 .18 .18 .18 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
```

```
375          KM
376          KM          L=   0.175 miles, S=  338 feet/mile, Kb= .03
377          KM
378          BA   0.013
379          LG    0.08    0.25    5.70    0.18   35.52
380          UC   0.092   0.076
381          UA       0       5      16      30      65      77      84      90      94      97
382          UA     100
             *

383          KK    202H
384          KM   Sub-Basin   202H
385          KM
386          KM      The Clark Unit Hydrograph is used for this basin.
387          KM          The Urban time-area relation is used for this basin.
388          KM
389          KM      Time of Concentration for this sub-basin is based on the following:
390          KM          An rainfall areal reduction factor of 1.000
391          KM
392          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
393          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
394          KM   .18 .17 .17 .17 .17 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
395          KM
396          KM          L=   0.861 miles, S=  243 feet/mile, Kb= .03
397          KM
398          BA   0.179
399          LG    0.09    0.25    5.20    0.22   26.85
400          UC   0.233   0.174
401          UA       0       5      16      30      65      77      84      90      94      97
402          UA     100
             *

403          KK   C511O
404          KM      Reservoir route at C511.
405          RS       1    ELEV  1535.2
406          SV    0.00    0.40    0.70    1.19    3.10    3.20    3.55    4.00    4.50    4.90
407          SV    5.40    5.80    6.30    6.80    7.20    7.70    8.13
408          SE  1535.2  1537.0  1538.0  1540.0  1541.6  1541.8  1542.0  1542.2  1542.4  1542.6
409          SE  1542.8  1543.0  1543.2  1543.4  1543.6  1543.8  1544.0
410          SQ       0      42      88     200     274     286     325     393     491     622
```



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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

411          SQ     790    1000    1241    1518    1835    2189    2580
             *

412          KK  511512
413          KM      Normal depth channel route from C511 to C512
414          KM      Source:  200 Scale Mapping
415          RS       2    FLOW      -1
416          RC   0.055   0.045   0.055   760.0  0.0112
417          RX  1000.0  1060.0  1070.0  1090.0  1110.0  1120.0  1180.0  1220.0
418          RY  1536.0  1534.2  1534.0  1532.0  1532.0  1534.0  1535.0  1536.0
             *

419          KK    202I
420          KM   Sub-Basin   202I
421          KM
422          KM      The Clark Unit Hydrograph is used for this basin.
423          KM          The Urban time-area relation is used for this basin.
424          KM
425          KM      Time of Concentration for this sub-basin is based on the following:
426          KM          An rainfall areal reduction factor of 1.000
427          KM
428          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
429          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
430          KM   .20 .20 .19 .19 .19 .19 .02 .02 .02 .02 .02 .02 .02 .02 .02 .02 .02 .02
431          KM
432          KM          L=   0.247 miles, S=  122 feet/mile, Kb= .03
433          KM
434          BA   0.017
435          LG    0.06    0.25    5.10    0.24   73.16
436          UC   0.150   0.148
437          UA       0       5      16      30      65      77      84      90      94      97
438          UA     100
             *

439          KK   C512I
440          KM      Hydrograph combine 511512 + 202I at C512
441          KM      Inflow to reservoir route at C512
442          KM      This is the inflow to the Stock Tank at the end of Bahia Drive
443          HC       2
             *

444          KK   C512O
445          KM      Reservoir route at C512 (Stock Tank).
446          RS       1    ELEV  1517.0
447          SV    0.00    0.03    0.29    0.75    1.38    2.39    4.17    7.43   10.30   12.20
448          SV   12.70   13.36   14.10   15.10   16.20   17.00   17.90
449          SE  1517.0  1518.0  1520.0  1522.0  1524.0  1526.0  1528.0  1530.0  1531.0  1531.6
450          SE  1531.8  1532.0  1532.2  1532.4  1532.6  1532.8  1533.0
451          SQ       0       0       0       0       0       0       0       0       0      15
452          SQ      35      65     137     244     376     541     725
             *
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

453          KK   D512L
454          KM      Hydrograph diversion at C512.
455          KM      Main flow continues in the left branch (weir).
456          KM      Diverted flow enters Bahia Drive (channel) and continues to C591.
```

```
457          KM      Diverted flow is in the right branch.
458          DT   D512R
459          DI       0      15      35      65     137     244     376     541     725
460          DQ       0       0       4      10      49     112     190     289     395
             *
             * *
             * *  Note:  512591 too short to route
             * *
             *
             * *
             * *  End Basin 202.  Start Basin 203.
             * *
             *

461          KK    203A
462          KM   Sub-Basin   203A
463          KM
464          KM      The Clark Unit Hydrograph is used for this basin.
465          KM          The HEC-1 time-area relation is used for this basin.
466          KM
467          KM      Time of Concentration for this sub-basin is based on the following:
468          KM          An rainfall areal reduction factor of 1.000
469          KM
470          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
471          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
472          KM   .16 .16 .15 .15 .15 .14 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
473          KM
474          KM          L=   1.569 miles, S=  229 feet/mile, Kb= .08
475          KM
476          BA   0.279
477          LG    0.14    0.37    5.70    0.20    4.62
478          UC   0.613   0.637
             *

479          KK   C513O
480          KM      Reservoir route at C513.
481          RS       1    ELEV  1789.0
482          SV    0.00    0.35    0.97    2.05    3.54    5.54    8.17
483          SE  1789.0  1794.0  1796.0  1798.0  1800.0  1802.0  1804.0
484          SQ       0       0      20      70     135     315    1995
             *

485          KK  513514
486          KM      Normal depth channel route from C513 to C514
487          KM      Source:  200 Scale Mapping
488          RS       7    FLOW      -1
489          RC   0.050   0.045   0.050  2403.0  0.0240
490          RX  1000.0  1010.0  1035.0  1080.0  1100.0  1120.0  1135.0  1145.0
491          RY  1780.0  1778.0  1770.0  1768.0  1768.0  1770.0  1778.0  1780.0
             *
```



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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

492          KK    203B
493          KM   Sub-Basin   203B
494          KM
495          KM      The Clark Unit Hydrograph is used for this basin.
496          KM          The Urban time-area relation is used for this basin.
497          KM
498          KM      Time of Concentration for this sub-basin is based on the following:
499          KM          An rainfall areal reduction factor of 1.000
500          KM
501          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
502          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
503          KM   .18 .18 .17 .17 .17 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
504          KM
505          KM          L=   0.484 miles, S=  236 feet/mile, Kb= .04
506          KM
507          BA   0.044
508          LG    0.09    0.27    5.70    0.18   22.92
509          UC   0.204   0.209
510          UA       0       5      16      30      65      77      84      90      94      97
511          UA     100
             *

512          KK   C514R
513          KM      Hydrograph combine 513514 + 203B at C514 right channel
514          HC       2
             *

515          KK    203C
516          KM   Sub-Basin   203C
517          KM
518          KM      The Clark Unit Hydrograph is used for this basin.
519          KM          The HEC-1 time-area relation is used for this basin.
520          KM
521          KM      Time of Concentration for this sub-basin is based on the following:
522          KM          An rainfall areal reduction factor of 1.000
523          KM
524          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
525          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
526          KM   .17 .16 .16 .16 .16 .15 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
527          KM
528          KM          L=   0.988 miles, S=  258 feet/mile, Kb= .07
529          KM
530          BA   0.103
531          LG    0.12    0.33    5.70    0.20   13.59
532          UC   0.396   0.478
             *

533          KK    C514
534          KM      Hydrograph combine C514R + 203C at C514
```

```
535          HC       2
             *
             * *
             * * Note: 514515 too short to route
             * *
             *
1                                          HEC-1 INPUT                                                          PAGE 13
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

536          KK    203D
537          KM   Sub-Basin   203D
538          KM
539          KM      The Clark Unit Hydrograph is used for this basin.
540          KM          The HEC-1 time-area relation is used for this basin.
541          KM
542          KM      Time of Concentration for this sub-basin is based on the following:
543          KM          An rainfall areal reduction factor of 1.000
544          KM
545          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
546          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
547          KM   .16 .16 .16 .15 .15 .15 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
548          KM
549          KM          L=   1.025 miles, S=  252 feet/mile, Kb= .08
550          KM
551          BA   0.108
552          LG    0.13    0.34    5.70    0.20    8.61
553          UC   0.438   0.536
             *

554          KK    C515
555          KM      Hydrograph combine C514 + 203D at C515
556          HC       2
             *

557          KK  515517
558          KM      Normal depth channel route from C515 to C517
559          KM      Source:  200 Scale Mapping
560          RS      12    FLOW      -1
561          RC   0.050   0.045   0.060  3340.0  0.0186
562          RX  1000.0  1020.0  1045.0  1065.0  1085.0  1125.0  1135.0  1145.0
563          RY  1708.0  1704.0  1702.0  1698.0  1698.0  1700.0  1705.0  1710.0
             *

564          KK    203E
565          KM   Sub-Basin   203E
566          KM
567          KM      The Clark Unit Hydrograph is used for this basin.
568          KM          The Urban time-area relation is used for this basin.
569          KM
570          KM      Time of Concentration for this sub-basin is based on the following:
571          KM          An rainfall areal reduction factor of 1.000
572          KM
573          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
574          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
575          KM   .19 .19 .19 .19 .19 .18 .02 .02 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
576          KM
577          KM          L=   0.640 miles, S=  219 feet/mile, Kb= .03
578          KM
579          BA   0.093
580          LG    0.09    0.19    6.60    0.13   25.00
581          UC   0.204   0.171
582          UA      0       5      16      30      65      77      84      90      94      97
583          UA    100
             *
1                                          HEC-1 INPUT                                                          PAGE 14
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

584          KK   C517R
585          KM      Hydrograph combine 515517 + 203E at C517 right branch
586          HC       2
             *

587          KK    203F
588          KM   Sub-Basin   203F
589          KM
590          KM      The Clark Unit Hydrograph is used for this basin.
591          KM          The Natural time-area relation is used for this basin.
592          KM
593          KM      Time of Concentration for this sub-basin is based on the following:
594          KM          An rainfall areal reduction factor of 1.000
595          KM
596          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
597          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
598          KM   .15 .15 .14 .14 .14 .13 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
599          KM
600          KM          L=   1.460 miles, S=  237 feet/mile, Kb= .09
601          KM
602          BA   0.333
603          LG    0.15    0.39    5.70    0.21    0.00
604          UC   0.650   0.581
605          UA      0       3       5       8      12      20      43      75      90      96
606          UA    100
             *

607          KK  516517
608          KM      Normal depth channel route from C516 to C517
609          KM      Source:  200 Scale Mapping
610          RS      19    FLOW      -1
611          RC   0.065   0.045   0.055  6720.0  0.0213
612          RX  1000.0  1015.0  1020.0  1040.0  1080.0  1095.0  1100.0  1125.0
```

```
613          RY  1724.0  1718.0  1716.0  1714.0  1714.0  1716.0  1718.0  1724.0
             *

614          KK    203G
615          KM   Sub-Basin   203G
616          KM
617          KM      The Clark Unit Hydrograph is used for this basin.
618          KM          The HEC-1 time-area relation is used for this basin.
619          KM
620          KM      Time of Concentration for this sub-basin is based on the following:
621          KM          An rainfall areal reduction factor of 1.000
622          KM
623          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
624          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
625          KM   .16 .16 .16 .16 .16 .15 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
626          KM
627          KM          L=   1.424 miles, S=  215 feet/mile, Kb= .07
628          KM
629          BA   0.248
630          LG    0.13    0.34    6.00    0.18    9.21
631          UC   0.508   0.513
             *
1                                          HEC-1 INPUT                                                    PAGE 15
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

632          KK   C517L
633          KM      Hydrograph combine 516517 + 203G at C517 left branch
634          HC       2
             *

635          KK    C517
636          KM      Hydrograph combine C517R + C517L at C517
637          HC       2
             *

638          KK  517518
639          KM      Normal depth channel route from C517 to C518
640          KM      Source:  HEC-2 Cross Section: ES 3.522
641          RS       8    FLOW      -1
642          RC   0.055   0.035   0.060  4367.0  0.0174
643          RX  9808.1  9845.6  9957.0  9990.4 10007.0 10015.9 10076.5 10176.0
644          RY  1628.2  1618.6  1617.5  1614.8  1614.7  1619.7  1622.9  1631.3
             *

645          KK    203H
646          KM   Sub-Basin   203H
647          KM
648          KM      The Clark Unit Hydrograph is used for this basin.
649          KM          The Urban time-area relation is used for this basin.
650          KM
651          KM      Time of Concentration for this sub-basin is based on the following:
652          KM          An rainfall areal reduction factor of 1.000
653          KM
654          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
655          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
656          KM   .18 .17 .17 .17 .17 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
657          KM
658          KM          L=   1.035 miles, S=  178 feet/mile, Kb= .03
659          KM
660          BA   0.207
661          LG    0.09    0.25    5.40    0.21   25.00
662          UC   0.283   0.230
663          UA       0       5      16      30      65      77      84      90      94      97
664          UA     100
             *

665          KK    C518
666          KM      Hydrograph combine 517518 + 203H at C518
667          HC       2
             *

668          KK  518519
669          KM      Normal depth channel route from C518 to C519
670          KM      Source:  HEC-2 Cross Section: ES 3.072
671          RS       3    FLOW      -1
672          RC   0.090   0.050   0.085  1796.0  0.0217
673          RX  9851.4  9884.7  9955.8  9983.5 10028.9 10036.3 10057.6 10087.9
674          RY  1586.3  1569.6  1568.4  1565.8  1565.4  1566.0  1575.0  1589.3
             *
1                                          HEC-1 INPUT                                                    PAGE 16
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

675          KK    203I
676          KM   Sub-Basin   203I
677          KM
678          KM      The Clark Unit Hydrograph is used for this basin.
679          KM          The Urban time-area relation is used for this basin.
680          KM
681          KM      Time of Concentration for this sub-basin is based on the following:
682          KM          An rainfall areal reduction factor of 1.000
683          KM
684          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
685          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
686          KM   .17 .17 .17 .17 .17 .16 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
687          KM
688          KM          L=   1.323 miles, S=  161 feet/mile, Kb= .03
689          KM
690          BA   0.171
691          LG    0.09    0.25    4.80    0.27   29.11
692          UC   0.333   0.375
```

```
693        UA       0       5      16      30      65      77      84      90      94      97
694        UA     100
           *

695        KK    C519
696        KM      Hydrograph combine 518519 + 203I at C519
697        HC       2
           *

698        KK  519591
699        KM      Normal depth channel route from C519 to C591
700        KM      Source:  HEC-2 Cross Section: ES 2.695
701        RS       2    FLOW      -1
702        RC   0.090   0.050   0.085  1274.0  0.0181
703        RX  9851.3  9905.0  9927.9  9949.0 10017.8 10053.7 10096.8 10135.1
704        RY  1540.3  1537.0  1536.5  1529.2  1528.6  1537.7  1539.6  1540.1
           *

705        KK    203J
706        KM   Sub-Basin   203J
707        KM
708        KM      The Clark Unit Hydrograph is used for this basin.
709        KM          The Urban time-area relation is used for this basin.
710        KM
711        KM      Time of Concentration for this sub-basin is based on the following:
712        KM          An rainfall areal reduction factor of 1.000
713        KM
714        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
715        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
716        KM   .19 .19 .19 .19 .19 .19 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
717        KM
718        KM          L=   0.533 miles, S=  237 feet/mile, Kb= .03
719        KM
720        BA   0.039
721        LG    0.07    0.25    5.60    0.20   64.82
722        UC   0.179   0.211
```



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LINE       ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

723        UA       0       5      16      30      65      77      84      90      94      97
724        UA     100
           *

725        KK  520591
726        KM      Normal depth channel route from C520 to C591
727        KM      Source:  Hydrology Field Reconnaissance
728        RS       4    FLOW      -1
729        RC   0.050   0.018   0.040  2014.0  0.0248
730        RX  1000.0  1030.0  1041.2  1057.2  1073.2  1074.4  1086.4  1116.0
731        RY  1570.0  1566.0  1564.8  1565.2  1564.9  1565.3  1565.9  1568.0
           *

732        KK  BB512R
733        KM      Retrieve previously diverted hydrograph at C512 in the right branch.
734        DR   D512R
           *

735        KK    C591
736        KM      Hydrograph combine 519591 + 520591 + D512R at C591
737        HC       3    1.83
           *

738        KK  591521
739        KM      Normal depth channel route from C591 to C521
740        KM      Source:  HEC-2 Cross Section: ES 2.614
741        RS       3    FLOW      -1
742        RC   0.090   0.050   0.085   915.0  0.0142
743        RX  9827.7  9921.5  9950.2  9970.7 10046.6 10078.1 10120.0 10177.5
744        RY  1531.1  1524.8  1524.4  1520.8  1520.0  1530.3  1531.1  1532.3
           *

745        KK    203K
746        KM   Sub-Basin   203K
747        KM
748        KM      The Clark Unit Hydrograph is used for this basin.
749        KM          The Urban time-area relation is used for this basin.
750        KM
751        KM      Time of Concentration for this sub-basin is based on the following:
752        KM          An rainfall areal reduction factor of 1.000
753        KM
754        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
755        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
756        KM   .19 .18 .18 .18 .18 .18 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
757        KM
758        KM          L=   0.878 miles, S=  158 feet/mile, Kb= .03
759        KM
760        BA   0.160
761        LG    0.08    0.25    5.60    0.19   44.98
762        UC   0.267   0.218
763        UA       0       5      16      30      65      77      84      90      94      97
764        UA     100
           *
```



```
LINE       ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

765        KK    C521
766        KM      Hydrograph combine 591521 + 203K at C521
767        HC       2
           *
           * *
           * * C521 is the total flow in Escalante Wash at the Study boundary
```

```
                 * *
                 * * End Basin 203.  Start Basin 204
                 * *
                 *

768              KK   CLEAR
769              KM      Clear hydrographs from stack
770              HC       5
                 *

771              KK    204A
772              KM   Sub-Basin   204A
773              KM
774              KM      The Clark Unit Hydrograph is used for this basin.
775              KM          The Urban time-area relation is used for this basin.
776              KM
777              KM      Time of Concentration for this sub-basin is based on the following:
778              KM          An rainfall areal reduction factor of 1.000
779              KM
780              KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
781              KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
782              KM   .18 .18 .18 .18 .17 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
783              KM
784              KM          L=   0.687 miles, S=  175 feet/mile, Kb= .03
785              KM
786              BA   0.108
787              LG    0.09    0.25    5.80    0.18   25.00
788              UC   0.229   0.190
789              UA      0       5      16      30      65      77      84      90      94      97
790              UA    100
                 *

791              KK  522523
792              KM      Normal depth channel route from C522 to C523
793              KM      Source:  200 Scale Mapping
794              RS      11    FLOW     -1
795              RC   0.060   0.050   0.060  3275.0  0.0197
796              RX  1000.0  1020.0  1035.0  1065.0  1080.0  1120.0  1160.0  1185.0
797              RY  1678.0  1676.0  1674.0  1672.0  1672.0  1674.0  1676.0  1678.0
                 *

798              KK    204B
799              KM   Sub-Basin   204B
800              KM
801              KM      The Clark Unit Hydrograph is used for this basin.
802              KM          The Urban time-area relation is used for this basin.
803              KM
804              KM      Time of Concentration for this sub-basin is based on the following:
```



```
LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

805              KM          An rainfall areal reduction factor of 1.000
806              KM
807              KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
808              KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
809              KM   .18 .18 .18 .18 .18 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
810              KM
811              KM          L=   0.775 miles, S=  128 feet/mile, Kb= .03
812              KM
813              BA   0.126
814              LG    0.09    0.25    5.80    0.18   26.66
815              UC   0.271   0.231
816              UA      0       5      16      30      65      77      84      90      94      97
817              UA    100
                 *

818              KK   C523I
819              KM      Hydrograph combine 522523 + 204B at C523I
820              HC       2
                 *

821              KK   C523O
822              KM      Reservoir route at C523.
823              RS       1    ELEV  1650.3
824              SV    0.00    0.01    0.12    0.71    2.23    2.50    2.80    3.10    3.20    3.40
825              SV    3.70    4.00    4.30    4.60    4.90    5.20    5.50
826              SE  1650.3  1652.0  1654.0  1656.0  1658.0  1658.2  1658.4  1658.6  1658.7  1658.8
827              SE  1659.0  1659.2  1659.4  1659.6  1659.8  1660.0  1660.2
828              SQ       0      22      78     144     209     214     220     224     226     232
829              SQ     239     249     288     384     529     726     960
                 *

830              KK   D523L
831              KM      Hydrograph diversion at C523.  Main flow continues in the left branch.
832              KM      Diverted flow is in the right branch.
833              DT   D523R
834              DI       0      22      78     144     209     214     220     224     226     232
835              DI     239     249     288     384     529     726     960
836              DQ       0       0       0       0       0       0       0       0       0       3
837              DQ       5      10      20      37      61      96     139
                 *

838              KK  523524
839              KM      Normal depth channel route from C523 to C524
840              KM      Source:  HEC-2 Cross Section: CA 2.072
841              KM      This is flow in Fountain Hills Blvd. which is routed to C548
842              RS       6    FLOW     -1
843              RC   0.080   0.050   0.075  1732.0  0.0177
844              RX  9827.8  9925.9  9978.5 10000.0 10020.8 10041.9 10110.6 10151.9
845              RY  1639.8  1635.7  1634.3  1629.9  1630.2  1631.8  1633.5  1636.7
                 *
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 846          KK    204C
 847          KM   Sub-Basin   204C
 848          KM
 849          KM      The Clark Unit Hydrograph is used for this basin.
 850          KM          The Urban time-area relation is used for this basin.
 851          KM
 852          KM      Time of Concentration for this sub-basin is based on the following:
 853          KM          An rainfall areal reduction factor of 1.000
 854          KM
 855          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 856          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 857          KM   .20 .20 .19 .19 .19 .19 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
 858          KM
 859          KM          L=   0.400 miles, S=  142 feet/mile, Kb= .03
 860          KM
 861          BA   0.077
 862          LG    0.07    0.25    5.70    0.18   66.42
 863          UC   0.179   0.114
 864          UA       0       5      16      30      65      77      84      90      94      97
 865          UA     100
              *

 866          KK    C524
 867          KM      Hydrograph combine 523524 + 204C at C524
 868          HC       2
              *

 869          KK  524525
 870          KM      Normal depth channel route from C524 to C525
 871          KM      Source:  HEC-2 Cross Section: CA 1.898
 872          RS       3    FLOW      -1
 873          RC   0.050   0.035   0.060  1045.0  0.0211
 874          RX  9823.1  9873.0  9960.0  9986.1 10008.3 10049.7 10070.0 10078.4
 875          RY  1617.9  1616.7  1616.3  1609.2  1609.0  1616.4  1616.8  1617.3
              *

 876          KK    204D
 877          KM   Sub-Basin   204D
 878          KM
 879          KM      The Clark Unit Hydrograph is used for this basin.
 880          KM          The Urban time-area relation is used for this basin.
 881          KM
 882          KM      Time of Concentration for this sub-basin is based on the following:
 883          KM          An rainfall areal reduction factor of 1.000
 884          KM
 885          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 886          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 887          KM   .19 .19 .19 .19 .19 .19 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
 888          KM
 889          KM          L=   0.345 miles, S=   96 feet/mile, Kb= .03
 890          KM
 891          BA   0.044
 892          LG    0.07    0.25    5.70    0.18   53.85
 893          UC   0.192   0.150
```



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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 894          UA       0       5      16      30      65      77      84      90      94      97
 895          UA     100
              *

 896          KK    C525
 897          KM      Hydrograph combine 524525 + 204D at C525
 898          HC       2
              *

 899          KK  525526
 900          KM      Normal depth channel route from C525 to C526
 901          KM      Source:  HEC-2 Cross Section: CA 1.663
 902          RS       3    FLOW      -1
 903          RC   0.050   0.035   0.060  1520.0  0.0211
 904          RX  9915.0  9940.0  9968.0  9992.6 10012.4 10032.0 10049.6 10106.9
 905          RY  1592.8  1592.3  1591.8  1585.0  1584.8  1591.3  1592.1  1592.5
              *

 906          KK    204E
 907          KM   Sub-Basin   204E
 908          KM
 909          KM      The Clark Unit Hydrograph is used for this basin.
 910          KM          The Urban time-area relation is used for this basin.
 911          KM
 912          KM      Time of Concentration for this sub-basin is based on the following:
 913          KM          An rainfall areal reduction factor of 1.000
 914          KM
 915          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 916          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 917          KM   .19 .18 .18 .18 .18 .18 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
 918          KM
 919          KM          L=   0.508 miles, S=  108 feet/mile, Kb= .03
 920          KM
 921          BA   0.071
 922          LG    0.08    0.25    5.70    0.18   41.17
 923          UC   0.225   0.186
 924          UA       0       5      16      30      65      77      84      90      94      97
 925          UA     100
              *

 926          KK    C526
 927          KM      Hydrograph combine 525526 + 204E at C526
 928          HC       2
```

```
                 *
 929             KK  526527
 930             KM      Normal depth channel route from C526 to C527
 931             KM      Source:  HEC-2 Cross Section: CA 1.186
 932             RS       4    FLOW      -1
 933             RC   0.050   0.035   0.060  2129.0  0.0183
 934             RX  9867.7  9898.1  9967.2  9981.2 10023.8 10035.6 10080.6 10145.3
 935             RY  1545.6  1544.4  1539.5  1536.9  1536.7  1539.6  1541.1  1542.3
                 *
1                                          HEC-1 INPUT                                                    PAGE 22
LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 936             KK    204F
 937             KM   Sub-Basin   204F
 938             KM
 939             KM      The Clark Unit Hydrograph is used for this basin.
 940             KM          The Urban time-area relation is used for this basin.
 941             KM
 942             KM      Time of Concentration for this sub-basin is based on the following:
 943             KM          An rainfall areal reduction factor of 1.000
 944             KM
 945             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 946             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 947             KM   .20 .20 .19 .19 .19 .19 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
 948             KM
 949             KM          L=   0.495 miles, S=  135 feet/mile, Kb= .03
 950             KM
 951             BA   0.077
 952             LG    0.08    0.15    7.00    0.11   45.00
 953             UC   0.204   0.156
 954             UA       0       5      16      30      65      77      84      90      94      97
 955             UA     100
                 *

 956             KK    C527
 957             KM      Hydrograph combine 526527 + 204F at C527
 958             HC       2
                 *
                 * *
                 * * C527 is the total flow in Caliente Wash at the Study boundary
                 * *
                 * * End Basin 204.  Start Basin 205
                 * *
                 *

 959             KK   CLEAR
 960             KM      Clear hydrographs from stack
 961             HC       2
                 *

 962             KK    205A
 963             KM   Sub-Basin   205A
 964             KM
 965             KM      The Clark Unit Hydrograph is used for this basin.
 966             KM          The Natural time-area relation is used for this basin.
 967             KM
 968             KM      Time of Concentration for this sub-basin is based on the following:
 969             KM          An rainfall areal reduction factor of 1.000
 970             KM
 971             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 972             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 973             KM   .15 .15 .15 .14 .14 .13 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
 974             KM
 975             KM          L=   0.870 miles, S=  378 feet/mile, Kb= .14
 976             KM
 977             BA   0.118
1                                          HEC-1 INPUT                                                    PAGE 23
LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 978             LG    0.25    0.35    4.35    0.40   35.00
 979             UC   0.492   0.510
 980             UA       0       3       5       8      12      20      43      75      90      96
 981             UA     100
                 *

 982             KK    205B
 983             KM   Sub-Basin   205B
 984             KM
 985             KM      The Clark Unit Hydrograph is used for this basin.
 986             KM          The Natural time-area relation is used for this basin.
 987             KM
 988             KM      Time of Concentration for this sub-basin is based on the following:
 989             KM          An rainfall areal reduction factor of 1.000
 990             KM
 991             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
 992             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
 993             KM   .15 .15 .15 .14 .14 .13 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
 994             KM
 995             KM          L=   0.759 miles, S=  129 feet/mile, Kb= .14
 996             KM
 997             BA   0.211
 998             LG    0.25    0.35    4.35    0.40   35.00
 999             UC   0.729   0.507
1000             UA       0       3       5       8      12      20      43      75      90      96
1001             UA     100
                 *

1002             KK    C528
1003             KM      Hydrograph combine 205A + 205B at C528
1004             HC       2
```

```
                *

1005            KK  528530
1006            KM      Normal depth channel route from C528 to C530
1007            KM      Source:  Hydrology Field Reconnaissance
1008            RS       3    FLOW      -1
1009            RC   0.060   0.043   0.060  2594.0  0.0709
1010            RX  1000.0  1018.0  1031.0  1042.0  1052.0  1066.0  1093.0  1107.0
1011            RY    96.3    92.2    89.9    85.9    85.7    91.5    91.2    96.3
                *

1012            KK    205C
1013            KM   Sub-Basin   205C
1014            KM
1015            KM      The Clark Unit Hydrograph is used for this basin.
1016            KM          The Natural time-area relation is used for this basin.
1017            KM
1018            KM      Time of Concentration for this sub-basin is based on the following:
1019            KM          An rainfall areal reduction factor of 1.000
1020            KM
1021            KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1022            KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1023            KM   .15 .15 .15 .14 .14 .13 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1024            KM
```



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LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1025            KM          L=   0.618 miles, S=  331 feet/mile, Kb= .15
1026            KM
1027            BA   0.059
1028            LG    0.25    0.35    4.35    0.41   35.00
1029            UC   0.446   0.517
1030            UA       0       3       5       8      12      20      43      75      90      96
1031            UA     100
                *

1032            KK   C530R
1033            KM      Hydrograph combine 528530 + 205C at C530 right branch
1034            HC       2
                *

1035            KK    205D
1036            KM   Sub-Basin   205D
1037            KM
1038            KM      The Clark Unit Hydrograph is used for this basin.
1039            KM          The Natural time-area relation is used for this basin.
1040            KM
1041            KM      Time of Concentration for this sub-basin is based on the following:
1042            KM          An rainfall areal reduction factor of 1.000
1043            KM
1044            KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1045            KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1046            KM   .15 .15 .15 .14 .14 .13 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1047            KM
1048            KM          L=   1.020 miles, S=  361 feet/mile, Kb= .13
1049            KM
1050            BA   0.319
1051            LG    0.25    0.35    4.35    0.40   35.00
1052            UC   0.529   0.356
1053            UA       0       3       5       8      12      20      43      75      90      96
1054            UA     100
                *

1055            KK    205E
1056            KM   Sub-Basin   205E
1057            KM
1058            KM      The Clark Unit Hydrograph is used for this basin.
1059            KM          The Natural time-area relation is used for this basin.
1060            KM
1061            KM      Time of Concentration for this sub-basin is based on the following:
1062            KM          An rainfall areal reduction factor of 1.000
1063            KM
1064            KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1065            KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1066            KM   .15 .15 .15 .14 .14 .13 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1067            KM
1068            KM          L=   1.357 miles, S=  358 feet/mile, Kb= .14
1069            KM
1070            BA   0.218
1071            LG    0.25    0.35    4.35    0.40   35.00
1072            UC   0.700   0.758
1073            UA       0       3       5       8      12      20      43      75      90      96
```



```
LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1074            UA     100
                *

1075            KK    C529
1076            KM      Hydrograph combine 205D + 205E at C529
1077            HC       2
                *
                * *
                * * NOTE:  529530 too short to route
                * *
                *

1078            KK    C530
1079            KM      Hydrograph combine C529 + C530R at C530
1080            HC       2
                *
```

```
1081        KK  530531
1082        KM      Normal depth channel route from C530 to C531
1083        KM      Source:  Hydrology Field Reconnaissance
1084        RS       4    FLOW      -1
1085        RC   0.060   0.059   0.060  2426.0  0.0404
1086        RX  1000.0  1035.0  1050.0  1060.0  1075.0  1081.0  1088.0  1094.0
1087        RY    95.9    86.5    86.2    83.1    84.0    90.2    95.6    99.3
            *

1088        KK    205F
1089        KM   Sub-Basin   205F
1090        KM
1091        KM      The Clark Unit Hydrograph is used for this basin.
1092        KM          The Natural time-area relation is used for this basin.
1093        KM
1094        KM      Time of Concentration for this sub-basin is based on the following:
1095        KM          An rainfall areal reduction factor of 1.000
1096        KM
1097        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1098        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1099        KM   .15 .15 .15 .14 .14 .13 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1100        KM
1101        KM          L=   0.786 miles, S=  326 feet/mile, Kb= .14
1102        KM
1103        BA   0.161
1104        LG    0.25    0.35    4.35    0.41   35.00
1105        UC   0.492   0.393
1106        UA       0       3       5       8      12      20      43      75      90      96
1107        UA     100
            *

1108        KK    C531
1109        KM      Hydrograph combine 530531 + 205F at C531
1110        HC       2
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1111        KK  531532
1112        KM      Normal depth channel route from C531 to C532
1113        KM      Source:  Hydrology Field Reconnaissance
1114        RS       5    FLOW      -1
1115        RC   0.060   0.065   0.060  3391.0  0.0463
1116        RX  1000.0  1012.0  1022.0  1032.0  1050.0  1056.0  1068.0  1092.0
1117        RY    98.8    93.8    89.1    86.4    86.5    89.1    91.0    97.6
            *

1118        KK    205G
1119        KM   Sub-Basin   205G
1120        KM
1121        KM      The Clark Unit Hydrograph is used for this basin.
1122        KM          The Natural time-area relation is used for this basin.
1123        KM
1124        KM      Time of Concentration for this sub-basin is based on the following:
1125        KM          An rainfall areal reduction factor of 1.000
1126        KM
1127        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1128        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1129        KM   .15 .15 .14 .14 .14 .12 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1130        KM
1131        KM          L=   0.924 miles, S=  338 feet/mile, Kb= .13
1132        KM
1133        BA   0.185
1134        LG    0.24    0.35    4.50    0.40   31.23
1135        UC   0.517   0.436
1136        UA       0       3       5       8      12      20      43      75      90      96
1137        UA     100
            *

1138        KK   C532L
1139        KM      Hydrograph combine 531532 + 205G at C532 left branch
1140        HC       2
            *

1141        KK    205H
1142        KM   Sub-Basin   205H
1143        KM
1144        KM      The Clark Unit Hydrograph is used for this basin.
1145        KM          The Natural time-area relation is used for this basin.
1146        KM
1147        KM      Time of Concentration for this sub-basin is based on the following:
1148        KM          An rainfall areal reduction factor of 1.000
1149        KM
1150        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1151        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1152        KM   .15 .15 .15 .14 .14 .13 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1153        KM
1154        KM          L=   1.464 miles, S=  325 feet/mile, Kb= .13
1155        KM
1156        BA   0.261
1157        LG    0.24    0.35    4.50    0.39   31.55
1158        UC   0.742   0.775
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1159        UA       0       3       5       8      12      20      43      75      90      96
1160        UA     100
            *

1161        KK    C532
1162        KM      Hydrograph combine C532L + 205H at C532
```

```
1163          HC       2
              *

1164          KK  532533
1165          KM      Normal depth channel route from C532 to C533
1166          KM      Source:  Hydrology Field Reconnaissance
1167          RS       2    FLOW      -1
1168          RC   0.060   0.045   0.060  1555.0  0.0283
1169          RX  1000.0  1020.0  1030.0  1048.0  1065.0  1077.0  1092.0  1119.0
1170          RY    98.0    89.4    88.1    85.6    85.9    92.2    93.8    97.0
              *

1171          KK    205I
1172          KM   Sub-Basin   205I
1173          KM
1174          KM      The Clark Unit Hydrograph is used for this basin.
1175          KM          The Natural time-area relation is used for this basin.
1176          KM
1177          KM      Time of Concentration for this sub-basin is based on the following:
1178          KM          An rainfall areal reduction factor of 1.000
1179          KM
1180          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1181          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1182          KM   .15 .15 .14 .14 .14 .13 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
1183          KM
1184          KM          L=   1.487 miles, S=  326 feet/mile, Kb= .11
1185          KM
1186          BA   0.354
1187          LG    0.20    0.37    5.20    0.28   15.18
1188          UC   0.667   0.586
1189          UA       0       3       5       8      12      20      43      75      90      96
1190          UA     100
              *

1191          KK    C533
1192          KM      Hydrograph combine 532533 + 205I at C533
1193          HC       2
              *

1194          KK  533534
1195          KM      Normal depth channel route from C533 to C534
1196          KM      Source:  Hydrology Field Reconnaissance
1197          RS      13    FLOW      -1
1198          RC   0.060   0.046   0.060  7145.0  0.0241
1199          RX  1000.0  1010.0  1060.0  1073.0  1160.0  1181.0  1223.0  1237.0
1200          RY    97.8    93.7    94.7    90.8    89.9    92.4    94.0    96.8
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1201          KK    205J
1202          KM   Sub-Basin   205J
1203          KM
1204          KM      The Clark Unit Hydrograph is used for this basin.
1205          KM          The Natural time-area relation is used for this basin.
1206          KM
1207          KM      Time of Concentration for this sub-basin is based on the following:
1208          KM          An rainfall areal reduction factor of 1.000
1209          KM
1210          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1211          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1212          KM   .14 .14 .13 .13 .13 .12 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
1213          KM
1214          KM          L=   1.633 miles, S=  243 feet/mile, Kb= .08
1215          KM
1216          BA   0.369
1217          LG    0.21    0.35    4.90    0.30    3.48
1218          UC   0.667   0.616
1219          UA       0       3       5       8      12      20      43      75      90      96
1220          UA     100
              *

1221          KK   C534R
1222          KM      Hydrograph combine 533534 + 205J at C534 right branch
1223          HC       2
              *

1224          KK    205K
1225          KM   Sub-Basin   205K
1226          KM
1227          KM      The Clark Unit Hydrograph is used for this basin.
1228          KM          The Natural time-area relation is used for this basin.
1229          KM
1230          KM      Time of Concentration for this sub-basin is based on the following:
1231          KM          An rainfall areal reduction factor of 1.000
1232          KM
1233          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1234          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1235          KM   .15 .15 .14 .14 .14 .13 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
1236          KM
1237          KM          L=   1.772 miles, S=  249 feet/mile, Kb= .10
1238          KM
1239          BA   0.245
1240          LG    0.16    0.38    5.60    0.22    1.54
1241          UC   0.808   1.028
1242          UA       0       3       5       8      12      20      43      75      90      96
1243          UA     100
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
1244        KK    C534
1245        KM      Hydrograph combine C534R + 205K at C534
1246        HC       2
            *

1247        KK  534535
1248        KM      Normal depth channel route from C534 to C535
1249        KM      Source:  Hydrology Field Reconnaissance
1250        RS       4     FLOW      -1
1251        RC   0.065   0.046   0.065  2037.0  0.0221
1252        RX  1000.0  1010.0  1016.0  1075.0  1150.0  1162.0  1174.0  1182.0
1253        RY    97.1    93.4    91.6    89.6    86.9    90.8    92.2    92.3
            *

1254        KK    205L
1255        KM   Sub-Basin   205L
1256        KM
1257        KM      The Clark Unit Hydrograph is used for this basin.
1258        KM          The Natural time-area relation is used for this basin.
1259        KM
1260        KM      Time of Concentration for this sub-basin is based on the following:
1261        KM          An rainfall areal reduction factor of 1.000
1262        KM
1263        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1264        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1265        KM   .14 .14 .13 .13 .13 .11 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
1266        KM
1267        KM          L=   0.701 miles, S=  284 feet/mile, Kb= .09
1268        KM
1269        BA   0.118
1270        LG    0.19    0.36    5.00    0.29    0.00
1271        UC   0.396   0.337
1272        UA       0       3       5       8      12      20      43      75      90      96
1273        UA     100
            *

1274        KK    C535
1275        KM      Hydrograph combine 534535 + 205L at C535
1276        HC       2
            *

1277        KK  535536
1278        KM      Normal depth channel route from C535 to C536
1279        KM      Source:  HEC-2 Cross Section: HE 3.275
1280        RS       5     FLOW      -1
1281        RC   0.075   0.050   0.075  2975.0  0.0236
1282        RX  9852.8  9871.5  9957.7 10000.0 10015.6 10052.4 10142.4 10183.6
1283        RY  1911.6  1904.3  1906.9  1900.8  1900.8  1905.4  1905.2  1912.6
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1284        KK    205M
1285        KM   Sub-Basin   205M
1286        KM
1287        KM      The Clark Unit Hydrograph is used for this basin.
1288        KM          The Urban time-area relation is used for this basin.
1289        KM
1290        KM      Time of Concentration for this sub-basin is based on the following:
1291        KM          An rainfall areal reduction factor of 1.000
1292        KM
1293        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1294        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1295        KM   .17 .17 .16 .16 .16 .16 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1296        KM
1297        KM          L=   0.839 miles, S=  230 feet/mile, Kb= .05
1298        KM
1299        BA   0.139
1300        LG    0.15    0.31    5.40    0.22   22.35
1301        UC   0.313   0.273
1302        UA       0       5      16      30      65      77      84      90      94      97
1303        UA     100
            *

1304        KK   C536R
1305        KM     Hydrograph combine 535536 + 205M at C536 right branch
1306        HC       2
            *

1307        KK    205N
1308        KM   Sub-Basin   205N
1309        KM
1310        KM      The Clark Unit Hydrograph is used for this basin.
1311        KM          The HEC-1 time-area relation is used for this basin.
1312        KM
1313        KM      Time of Concentration for this sub-basin is based on the following:
1314        KM          An rainfall areal reduction factor of 1.000
1315        KM
1316        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1317        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1318        KM   .15 .15 .15 .14 .14 .13 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
1319        KM
1320        KM          L=   1.183 miles, S=  245 feet/mile, Kb= .10
1321        KM
1322        BA   0.156
1323        LG    0.15    0.39    5.70    0.21    0.80
1324        UC   0.588   0.676
            *

1325        KK   C536I
1326        KM     Hydrograph combine C536R + 205N at C536I
```

```
1327        HC       2
            *
            * *
            * * C536I is the total flow in Hesperus Wash upstream of Dam 36
            * *
            *
1
                                          HEC-1 INPUT                                                          PAGE 31
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1328        KK   C5360
1329        KM      Reservoir route at C536 (Dam 36).
1330        RS       1    ELEV  1852.1
1331        SV    0.00   14.41   35.94   67.64  108.61  158.07  218.14  276.00  280.00  289.00
1332        SV  298.02  308.00  317.00  327.00  337.00  346.95  358.00  374.00
1333        SE  1852.1  1866.0  1870.0  1874.0  1878.0  1882.0  1886.0  1889.0  1889.2  1889.6
1334        SE  1890.0  1890.4  1890.8  1891.2  1891.6  1892.0  1892.4  1893.0
1335        SQ       0     108     168     211     245     276     301     320     338     347
1336        SQ     356     459     679     995    1408    1905    2477    3119    3826    5009
1337        SE  1852.1  1858.0  1862.0  1866.0  1870.0  1874.0  1878.0  1882.0  1886.0  1889.0
1338        SE  1889.2  1889.6  1890.0  1890.4  1890.8  1891.2  1891.6  1892.0  1892.4  1893.0
1339        RL                    0.17
            *
            * *
            * * End Basin 205.  Start Basin 206
            * *
            *

1340        KK  536537
1341        KM      Normal depth channel route from C536 to C537
1342        KM      Source:  HEC-2 Cross Section: HE 2.729
1343        RS       4    FLOW     -1
1344        RC   0.075   0.050   0.075  1480.0  0.0209
1345        RX  9900.0  9912.0  9947.3  9979.3 10025.0 10044.5 10051.0 10060.0
1346        RY  1846.5  1845.4  1843.1  1834.3  1833.6  1840.5  1843.3  1843.5
            *

1347        KK    206A
1348        KM   Sub-Basin   206A
1349        KM
1350        KM      The Clark Unit Hydrograph is used for this basin.
1351        KM          The Urban time-area relation is used for this basin.
1352        KM
1353        KM      Time of Concentration for this sub-basin is based on the following:
1354        KM          An rainfall areal reduction factor of 1.000
1355        KM
1356        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1357        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1358        KM   .18 .17 .17 .17 .17 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1359        KM
1360        KM          L=   0.631 miles, S=  256 feet/mile, Kb= .04
1361        KM
1362        BA   0.128
1363        LG    0.12    0.28    5.30    0.23   33.34
1364        UC   0.229   0.161
1365        UA       0       5      16      30      65      77      84      90      94      97
1366        UA     100
            *
1
                                          HEC-1 INPUT                                                          PAGE 32
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1367        KK    C537
1368        KM      Hydrograph combine 536537 + 206A at C537
1369        HC       2
            *

1370        KK  537538
1371        KM      Normal depth channel route from C537 to C538
1372        KM      Source:  HEC-2 Cross Section: HE 2.493
1373        RS       4    FLOW     -1
1374        RC   0.075   0.050   0.075  2155.0  0.0210
1375        RX  9946.0  9957.6  9984.8  9994.8 10000.0 10036.5 10070.1 10107.3
1376        RY  1817.0  1815.2  1807.4  1803.2  1803.2  1805.5  1814.3  1815.4
            *

1377        KK    206B
1378        KM   Sub-Basin   206B
1379        KM
1380        KM      The Clark Unit Hydrograph is used for this basin.
1381        KM          The Urban time-area relation is used for this basin.
1382        KM
1383        KM      Time of Concentration for this sub-basin is based on the following:
1384        KM          An rainfall areal reduction factor of 1.000
1385        KM
1386        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1387        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1388        KM   .18 .18 .18 .18 .18 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1389        KM
1390        KM          L=   0.570 miles, S=  139 feet/mile, Kb= .03
1391        KM
1392        BA   0.095
1393        LG    0.10    0.26    5.20    0.23   41.42
1394        UC   0.225   0.172
1395        UA       0       5      16      30      65      77      84      90      94      97
1396        UA     100
            *

1397        KK   C538I
1398        KM      Hydrograph combine 537538 + 206B at C538I
1399        HC       2
            *
```

```
1400   KK   C538O
1401   KM      Reservoir route at C538.
1402   RS       1    ELEV  1778.2
1403   SV    0.00    0.10    0.57    1.69    2.60    2.70    2.90    3.00    3.20    3.38
1404   SV    3.60    3.90    4.10    4.30    4.60    5.10    5.60    6.10    7.10    8.10
1405   SE  1778.2  1782.0  1784.0  1786.0  1787.1  1787.2  1787.4  1787.6  1787.8  1788.0
1406   SE  1788.2  1788.4  1788.6  1788.8  1789.0  1789.4  1789.8  1790.2  1790.8  1791.4
1407   SQ       0      82     133     185     207     208     212     218     226     235
1408   SQ     249     265     286     310     338     400     482     611     942    1439
       *
```



```
LINE   ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1409   KK  538540
1410   KM      Normal depth channel route from C538 to C540
1411   KM      Source:  HEC-2 Cross Section: HE 1.990
1412   RS       6    FLOW      -1
1413   RC   0.075   0.050   0.075  2176.0  0.0210
1414   RX  9907.7  9931.8  9978.4 10000.0 10041.1 10056.9 10143.7 10164.9
1415   RY  1767.5  1754.9  1755.2  1753.2  1753.1  1755.1  1757.3  1769.4
       *

1416   KK    206C
1417   KM   Sub-Basin   206C
1418   KM
1419   KM      The Clark Unit Hydrograph is used for this basin.
1420   KM          The Urban time-area relation is used for this basin.
1421   KM
1422   KM      Time of Concentration for this sub-basin is based on the following:
1423   KM          An rainfall areal reduction factor of 1.000
1424   KM
1425   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1426   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1427   KM   .16 .16 .16 .16 .16 .15 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1428   KM
1429   KM          L=   0.427 miles, S=  138 feet/mile, Kb= .04
1430   KM
1431   BA   0.024
1432   LG    0.11    0.26    4.35    0.36   28.55
1433   UC   0.238   0.320
1434   UA       0       5      16      30      65      77      84      90      94      97
1435   UA     100
       *

1436   KK   C540R
1437   KM      Hydrograph combine 538540 + 206C at C540 right branch
1438   HC       2
       *

1439   KK    206D
1440   KM   Sub-Basin   206D
1441   KM
1442   KM      The Clark Unit Hydrograph is used for this basin.
1443   KM          The Urban time-area relation is used for this basin.
1444   KM
1445   KM      Time of Concentration for this sub-basin is based on the following:
1446   KM          An rainfall areal reduction factor of 1.000
1447   KM
1448   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1449   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1450   KM   .19 .18 .18 .18 .18 .18 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1451   KM
1452   KM          L=   0.531 miles, S=  236 feet/mile, Kb= .03
1453   KM
1454   BA   0.062
1455   LG    0.08    0.25    5.70    0.18   43.01
1456   UC   0.183   0.166
```



```
LINE   ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1457   UA       0       5      16      30      65      77      84      90      94      97
1458   UA     100
       *

1459   KK  539540
1460   KM      Normal depth channel route from C539 to C540
1461   KM      Source:  200 Scale Mapping
1462   RS       6    FLOW      -1
1463   RC   0.060   0.050   0.055  1872.0  0.0256
1464   RX  1000.0  1007.0  1016.0  1036.0  1046.0  1080.0  1150.0  1210.0
1465   RY  1750.0  1748.0  1746.0  1744.0  1744.0  1746.0  1748.0  1750.0
       *

1466   KK    206E
1467   KM   Sub-Basin   206E
1468   KM
1469   KM      The Clark Unit Hydrograph is used for this basin.
1470   KM          The Urban time-area relation is used for this basin.
1471   KM
1472   KM      Time of Concentration for this sub-basin is based on the following:
1473   KM          An rainfall areal reduction factor of 1.000
1474   KM
1475   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1476   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1477   KM   .16 .16 .16 .16 .16 .15 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1478   KM
1479   KM          L=   0.343 miles, S=  175 feet/mile, Kb= .03
1480   KM
1481   BA   0.023
1482   LG    0.09    0.25    4.30    0.36   25.75
```

```
1483          UC   0.171   0.191
1484          UA       0       5      16      30      65      77      84      90      94      97
1485          UA     100
              *

1486          KK   C540L
1487          KM      Hydrograph combine 539540 + 206E at C540 left branch
1488          HC       2
              *

1489          KK    C540
1490          KM      Hydrograph combine C540R + C540L at C540
1491          HC       2
              *
              * *
              * * C540 is the end of Hesperus Wash and the start of Balboa Wash
              * *
              *

1492          KK  540541
1493          KM      Normal depth channel route from C540 to C541
1494          KM      Source:  HEC-2 Cross Section: BA 1.645
1495          RS       7    FLOW      -1
1496          RC   0.065   0.035   0.065  4207.0  0.0204
1497          RX  9960.8  9968.0  9975.1  9975.7  9993.2 10018.2 10297.5 10343.9
1                                          HEC-1 INPUT                                                    PAGE 35

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1498          RY  1725.2  1721.8  1718.4  1716.2  1716.4  1718.4  1719.8  1730.5
              *

1499          KK    206F
1500          KM   Sub-Basin   206F
1501          KM
1502          KM      The Clark Unit Hydrograph is used for this basin.
1503          KM          The Urban time-area relation is used for this basin.
1504          KM
1505          KM      Time of Concentration for this sub-basin is based on the following:
1506          KM          An rainfall areal reduction factor of 1.000
1507          KM
1508          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1509          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1510          KM   .17 .17 .16 .16 .16 .16 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1511          KM
1512          KM          L=   0.975 miles, S=  217 feet/mile, Kb= .03
1513          KM
1514          BA   0.157
1515          LG    0.09    0.26    4.60    0.30   24.97
1516          UC   0.263   0.236
1517          UA       0       5      16      30      65      77      84      90      94      97
1518          UA     100
              *

1519          KK    C541
1520          KM      Hydrograph combine 540541 + 206F at C541
1521          HC       2
              *

1522          KK  541548
1523          KM      Normal depth channel route from C541 to C548
1524          KM      Source:  HEC-2 Cross Section: BA 0.905
1525          RS       4    FLOW      -1
1526          RC   0.060   0.045   0.060  1138.0  0.0316
1527          RX  9761.7  9936.7  9955.2  9986.9  9994.7 10039.2 10065.3 10066.0
1528          RY  1647.4  1644.1  1638.1  1637.3  1636.2  1637.5  1652.9  1653.0
              *

1529          KK    206G
1530          KM   Sub-Basin   206G
1531          KM
1532          KM      The Clark Unit Hydrograph is used for this basin.
1533          KM          The Urban time-area relation is used for this basin.
1534          KM
1535          KM      Time of Concentration for this sub-basin is based on the following:
1536          KM          An rainfall areal reduction factor of 1.000
1537          KM
1538          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1539          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1540          KM   .18 .17 .17 .17 .17 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1541          KM
1542          KM          L=   0.950 miles, S=  132 feet/mile, Kb= .03
1543          KM
1544          BA   0.089
1                                          HEC-1 INPUT                                                    PAGE 36

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1545          LG    0.11    0.26    5.20    0.23   29.86
1546          UC   0.300   0.369
1547          UA       0       5      16      30      65      77      84      90      94      97
1548          UA     100
              *

1549          KK  BB523R
1550          KM      Retrieve previously diverted hydrograph at C523 in the right branch.
1551          DR   D523R
              *

1552          KK  523548
1553          KM      Normal depth channel route from C523 to C548
1554          KM      Source:  200 Scale Mapping
1555          RS       1    FLOW      -1
1556          RC   0.040   0.018   0.040  2680.0  0.0189
```

```
1557        RX  1000.0  1040.0  1090.0  1130.0  1170.0  1171.2  1181.2  1196.2
1558        RY  1646.0  1645.0  1643.8  1644.7  1644.0  1644.4  1646.0  1648.0
            *

1559        KK   C548L
1560        KM      Hydrograph combine 541548 + 206G + BB523R at C548 left branch
1561        HC       3    3.72
            *
            * *
            * * C548L is the total flow in Balboa Wash above confluence with Oxford Wash
            * *
            *

1562        KK    206H
1563        KM   Sub-Basin   206H
1564        KM
1565        KM      The Clark Unit Hydrograph is used for this basin.
1566        KM          The Urban time-area relation is used for this basin.
1567        KM
1568        KM      Time of Concentration for this sub-basin is based on the following:
1569        KM          An rainfall areal reduction factor of 1.000
1570        KM
1571        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1572        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1573        KM   .18 .18 .18 .18 .18 .18 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1574        KM
1575        KM          L=   0.515 miles, S=  183 feet/mile, Kb= .03
1576        KM
1577        BA   0.059
1578        LG    0.08    0.25    5.70    0.18   36.29
1579        UC   0.196   0.179
1580        UA       0       5      16      30      65      77      84      90      94      97
1581        UA     100
            *
```

1 HEC-1 INPUT PAGE 37

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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1582        KK  542543
1583        KM      Normal depth channel route from C542 to C543
1584        KM      Source:  HEC-2 Cross Section: OX 0.931
1585        RS       2    FLOW      -1
1586        RC   0.075   0.040   0.050   686.0  0.0066
1587        RX  9846.9  9881.6  9967.5  9983.2 10010.0 10025.0 10033.8 10039.6
1588        RY  1732.3  1723.5  1724.1  1717.8  1717.0  1724.0  1728.2  1730.7
            *

1589        KK    206I
1590        KM   Sub-Basin   206I
1591        KM
1592        KM      The Clark Unit Hydrograph is used for this basin.
1593        KM          The Urban time-area relation is used for this basin.
1594        KM
1595        KM      Time of Concentration for this sub-basin is based on the following:
1596        KM          An rainfall areal reduction factor of 1.000
1597        KM
1598        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1599        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1600        KM   .18 .18 .18 .18 .18 .18 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1601        KM
1602        KM          L=   0.232 miles, S=  286 feet/mile, Kb= .03
1603        KM
1604        BA   0.021
1605        LG    0.08    0.25    5.70    0.18   34.78
1606        UC   0.113   0.092
1607        UA       0       5      16      30      65      77      84      90      94      97
1608        UA     100
            *

1609        KK    C543
1610        KM      Hydrograph combine 542543 + 206I at C543
1611        HC       2
            *

1612        KK   D543L
1613        KM      Hydrograph diversion at C543.  Main flow continues in the left branch.
1614        KM      Diverted flow is in the right branch.
1615        DT   D543R
1616        DI       0      38      45      50      65      85      97     122     141     162
1617        DI     194     350     395     432     475     522     570     612
1618        DQ       0      38      45      50      65      85      97     122     141     162
1619        DQ     194     350     395     425     460     500     540     575
            *

1620        KK  543544
1621        KM      Normal depth channel route from C543 to C544
1622        KM      Source:  200 Scale Mapping & Hydrology Field Reconnaissance
1623        RS       1    FLOW      -1
1624        RC   0.040   0.018   0.040   597.0  0.0277
1625        RX  1000.0  1020.0  1045.0  1075.0  1105.0  1106.2  1146.2  1266.2
1626        RY  1720.0  1718.0  1712.0  1712.3  1712.0  1712.4  1714.0  1720.0
            *
```

1 HEC-1 INPUT PAGE 38

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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1627        KK    206K
1628        KM   Sub-Basin   206K
1629        KM
1630        KM      The Clark Unit Hydrograph is used for this basin.
1631        KM          The Urban time-area relation is used for this basin.
1632        KM
```

```
1633        KM      Time of Concentration for this sub-basin is based on the following:
1634        KM          An rainfall areal reduction factor of 1.000
1635        KM
1636        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1637        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1638        KM   .18 .18 .18 .18 .18 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1639        KM
1640        KM          L=   0.615 miles, S=  255 feet/mile, Kb= .03
1641        KM
1642        BA   0.056
1643        LG    0.09    0.25    5.70    0.18   25.80
1644        UC   0.196   0.213
1645        UA       0       5      16      30      65      77      84      90      94      97
1646        UA     100
            *

1647        KK    C544
1648        KM      Hydrograph combine 543544 + 206K at C544
1649        HC       2
            *

1650        KK  544545
1651        KM      Normal depth channel route from C544 to C545
1652        KM      Source:  200 Scale Mapping & Hydrology Field Reconnaissance
1653        RS       2    FLOW      -1
1654        RC   0.040   0.018   0.040   985.0  0.0234
1655        RX  1000.0  1008.0  1018.0  1048.0  1078.0  1079.2  1089.2  1109.2
1656        RY  1690.0  1688.0  1686.0  1686.3  1686.0  1686.4  1688.0  1689.0
            *

1657        KK   D545L
1658        KM      Hydrograph diversion at C545.  Main flow continues in the left branch.
1659        KM      Diverted flow is in the right branch.
1660        DT   D545R
1661        DI       0      50     100     200     400     800    1600    3200    5000
1662        DQ       0      25      50     100     200     400     800    1600    2500
            *

1663        KK  545546
1664        KM      Normal depth channel route from C545 to C546
1665        KM      Source:  200 Scale Mapping & Hydrology Field Reconnaissance
1666        RS       1    FLOW      -1
1667        RC   0.040   0.018   0.040   428.0  0.0164
1668        RX  1000.0  1020.0  1050.0  1080.0  1110.0  1111.2  1121.2  1151.2
1669        RY  1680.0  1678.0  1676.0  1676.3  1676.0  1676.4  1678.0  1678.5
            *
1                                    HEC-1 INPUT                                    PAGE 39
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1670        KK    206L
1671        KM   Sub-Basin   206L
1672        KM
1673        KM      The Clark Unit Hydrograph is used for this basin.
1674        KM          The Urban time-area relation is used for this basin.
1675        KM
1676        KM      Time of Concentration for this sub-basin is based on the following:
1677        KM          An rainfall areal reduction factor of 1.000
1678        KM
1679        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1680        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1681        KM   .18 .18 .18 .18 .17 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1682        KM
1683        KM          L=   0.546 miles, S=  231 feet/mile, Kb= .03
1684        KM
1685        BA   0.060
1686        LG    0.09    0.25    5.80    0.18   25.01
1687        UC   0.188   0.178
1688        UA       0       5      16      30      65      77      84      90      94      97
1689        UA     100
            *

1690        KK    C546
1691        KM      Hydrograph combine 545546 + 206L at C546
1692        HC       2
            *

1693        KK  546547
1694        KM      Normal depth channel route from C546 to C547
1695        KM      Source:  200 Scale Mapping
1696        RS       1    FLOW      -1
1697        RC   0.040   0.018   0.040   749.0  0.0327
1698        RX  1000.0  1005.0  1011.0  1013.0  1029.0  1047.0  1052.0  1057.0
1699        RY  1666.0  1664.0  1662.0  1661.9  1662.4  1662.0  1664.0  1666.0
            *

1700        KK  BB543R
1701        KM      Retrieve previously diverted hydrograph at C543 in the right branch.
1702        DR   D543R
            *

1703        KK  543547
1704        KM      Normal depth channel route from C543 to C547
1705        KM      Source:  HEC-2 Cross Section: OX 0.638
1706        RS       4    FLOW      -1
1707        RC   0.075   0.040   0.050  2395.0  0.0278
1708        RX  9720.9  9769.0  9970.7  9985.5 10020.0 10038.1 10097.0 10102.0
1709        RY  1690.4  1681.2  1683.1  1676.2  1677.0  1687.1  1687.4  1690.0
            *
1                                    HEC-1 INPUT                                    PAGE 40
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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```
1710        KK  BB545R
1711        KM      Retrieve previously diverted hydrograph at C545 in the right branch.
1712        DR   D545R
            *

1713        KK  545547
1714        KM      Normal depth channel route from C545 to C547
1715        KM      Source:  HEC-2 Cross Section: OX 0.542
1716        RS       3    FLOW      -1
1717        RC   0.075   0.040   0.050  1216.0  0.0259
1718        RX  9668.2  9778.4  9957.9  9986.0 10012.7 10043.6 10067.6 10163.4
1719        RY  1674.1  1674.1  1673.3  1662.1  1662.2  1680.4  1680.9  1681.1
            *

1720        KK    206J
1721        KM   Sub-Basin   206J
1722        KM
1723        KM      The Clark Unit Hydrograph is used for this basin.
1724        KM          The Urban time-area relation is used for this basin.
1725        KM
1726        KM      Time of Concentration for this sub-basin is based on the following:
1727        KM          An rainfall areal reduction factor of 1.000
1728        KM
1729        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1730        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1731        KM   .19 .19 .19 .18 .18 .18 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1732        KM
1733        KM          L=   0.502 miles, S=  214 feet/mile, Kb= .03
1734        KM
1735        BA   0.060
1736        LG    0.08    0.25    5.70    0.18   44.51
1737        UC   0.183   0.161
1738        UA       0       5      16      30      65      77      84      90      94      97
1739        UA     100
            *

1740        KK    C547
1741        KM      Hydrograph combine 546547 + 543547 + 545547 + 206J at C547
1742        HC       4    0.26
            *

1743        KK  547548
1744        KM      Normal depth channel route from C547 to C548
1745        KM      Source:  HEC-2 Cross Section: OX 0.235
1746        RS       4    FLOW      -1
1747        RC   0.075   0.040   0.050  2165.0  0.0182
1748        RX  9910.0  9911.4  9968.5  9987.6 10017.4 10032.3 10077.4 10080.0
1749        RY  1639.0  1638.9  1637.9  1635.7  1635.8  1641.7  1642.9  1643.0
            *
```

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HEC-1 INPUT PAGE 41

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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1750        KK    206M
1751        KM   Sub-Basin   206M
1752        KM
1753        KM      The Clark Unit Hydrograph is used for this basin.
1754        KM          The Urban time-area relation is used for this basin.
1755        KM
1756        KM      Time of Concentration for this sub-basin is based on the following:
1757        KM          An rainfall areal reduction factor of 1.000
1758        KM
1759        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1760        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1761        KM   .18 .18 .18 .18 .18 .18 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
1762        KM
1763        KM          L=   0.465 miles, S=  166 feet/mile, Kb= .03
1764        KM
1765        BA   0.060
1766        LG    0.08    0.25    5.20    0.23   46.18
1767        UC   0.192   0.160
1768        UA       0       5      16      30      65      77      84      90      94      97
1769        UA     100
            *

1770        KK   C548R
1771        KM      Hydrograph combine 547548 + 206M at C548 right branch
1772        HC       2
            *
            * *
            * * C548R is the total flow in Oxford Wash above confluence with Balboa Wash
            * *
            *

1773        KK    C548
1774        KM      Hydrograph combine C548L + C548R at C548
1775        HC       2
            *
            * *
            * * C548 is the total flow in Balboa Wash below the confluence of Balboa Wash
            * * and Oxford Wash
            * *
            *

1776        KK  548549
1777        KM      Normal depth channel route from C548 to C549
1778        KM      Source:  HEC-2 Cross Section: BA0.246
1779        RS      10    FLOW      -1
1780        RC   0.070   0.080   0.070  3258.0  0.0172
1781        RX  9889.1  9912.5  9940.2  9960.0 10026.1 10046.8 10067.8 10079.3
1782        RY  1586.2  1585.7  1577.5  1573.6  1573.2  1579.5  1585.7  1586.2
            *
```

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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1783          KK    206N
1784          KM   Sub-Basin   206N
1785          KM
1786          KM      The Clark Unit Hydrograph is used for this basin.
1787          KM          The Urban time-area relation is used for this basin.
1788          KM
1789          KM      Time of Concentration for this sub-basin is based on the following:
1790          KM          An rainfall areal reduction factor of 1.000
1791          KM
1792          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1793          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1794          KM   .18 .18 .18 .18 .18 .17 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
1795          KM
1796          KM          L=   0.767 miles, S=  120 feet/mile, Kb= .03
1797          KM
1798          BA   0.152
1799          LG    0.11    0.27    4.65    0.29   52.66
1800          UC   0.271   0.206
1801          UA       0       5      16      30      65      77      84      90      94      97
1802          UA     100
              *

1803          KK   C549L
1804          KM      Hydrograph combine 548549 + 206N at C549 left branch
1805          HC       2
              *
              * *
              * * C549L is the total flow in Balboa Wash above confluence with Ashbrook Wash
              * *
              * * End Basin 206.  Start Basin 207
              * *
              *

1806          KK    207A
1807          KM   Sub-Basin   207A
1808          KM
1809          KM      The Clark Unit Hydrograph is used for this basin.
1810          KM          The Natural time-area relation is used for this basin.
1811          KM
1812          KM      Time of Concentration for this sub-basin is based on the following:
1813          KM          An rainfall areal reduction factor of 1.000
1814          KM
1815          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1816          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1817          KM   .15 .15 .15 .14 .14 .13 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1818          KM
1819          KM          L=   1.356 miles, S=  351 feet/mile, Kb= .13
1820          KM
1821          BA   0.256
1822          LG    0.24    0.35    4.55    0.37   29.81
1823          UC   0.675   0.663
1824          UA       0       3       5       8      12      20      43      75      90      96
1825          UA     100
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1826          KK    207B
1827          KM   Sub-Basin   207B
1828          KM
1829          KM      The Clark Unit Hydrograph is used for this basin.
1830          KM          The Natural time-area relation is used for this basin.
1831          KM
1832          KM      Time of Concentration for this sub-basin is based on the following:
1833          KM          An rainfall areal reduction factor of 1.000
1834          KM
1835          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1836          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1837          KM   .15 .15 .15 .14 .14 .13 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1838          KM
1839          KM          L=   1.312 miles, S=  359 feet/mile, Kb= .13
1840          KM
1841          BA   0.208
1842          LG    0.24    0.35    4.45    0.38   32.42
1843          UC   0.646   0.692
1844          UA       0       3       5       8      12      20      43      75      90      96
1845          UA     100
              *

1846          KK    C550
1847          KM      Hydrograph combine 207A + 207B at C550
1848          HC       2
              *

1849          KK  550552
1850          KM      Normal depth channel route from C550 to C552
1851          KM      Source:  Hydrology Field Reconnaissance
1852          RS       6    FLOW      -1
1853          RC   0.050   0.045   0.050  4410.0  0.0528
1854          RX  1000.0  1005.0  1018.0  1028.0  1038.0  1043.0  1048.0  1055.0
1855          RY  2188.0  2184.0  2180.0  2176.0  2176.0  2180.0  2184.0  2188.0
              *

1856          KK    207C
1857          KM   Sub-Basin   207C
1858          KM
1859          KM      The Clark Unit Hydrograph is used for this basin.
```

```
1860        KM          The Natural time-area relation is used for this basin.
1861        KM
1862        KM      Time of Concentration for this sub-basin is based on the following:
1863        KM          An rainfall areal reduction factor of 1.000
1864        KM
1865        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1866        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1867        KM   .15 .15 .15 .14 .14 .13 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
1868        KM
1869        KM          L=   0.974 miles, S=  297 feet/mile, Kb= .11
1870        KM
1871        BA   0.173
1872        LG    0.19    0.37    5.30    0.26   13.69
1873        UC   0.496   0.452
1                                        HEC-1 INPUT                                          PAGE 44

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1874        UA       0       3       5       8      12      20      43      75      90      96
1875        UA     100
            *

1876        KK   C552L
1877        KM      Hydrograph combine 550552 + 207C at C552 left branch
1878        HC       2
            *

1879        KK    207D
1880        KM   Sub-Basin   207D
1881        KM
1882        KM      The Clark Unit Hydrograph is used for this basin.
1883        KM          The HEC-1 time-area relation is used for this basin.
1884        KM
1885        KM      Time of Concentration for this sub-basin is based on the following:
1886        KM          An rainfall areal reduction factor of 1.000
1887        KM
1888        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1889        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1890        KM   .17 .16 .16 .16 .16 .15 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1891        KM
1892        KM          L=   1.036 miles, S=  373 feet/mile, Kb= .09
1893        KM
1894        BA   0.197
1895        LG    0.18    0.31    4.35    0.38   41.30
1896        UC   0.413   0.359
            *

1897        KK  551552
1898        KM      Normal depth channel route from C551 to C552
1899        KM      Source:  100 Scale 4' CI Mapping
1900        RS       6    FLOW      -1
1901        RC   0.050   0.045   0.050  4410.0  0.0528
1902        RX  1000.0  1005.0  1018.0  1028.0  1038.0  1043.0  1048.0  1055.0
1903        RY  2188.0  2184.0  2180.0  2176.0  2176.0  2180.0  2184.0  2188.0
            *

1904        KK    207E
1905        KM   Sub-Basin   207E
1906        KM
1907        KM      The Clark Unit Hydrograph is used for this basin.
1908        KM          The Urban time-area relation is used for this basin.
1909        KM
1910        KM      Time of Concentration for this sub-basin is based on the following:
1911        KM          An rainfall areal reduction factor of 1.000
1912        KM
1913        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1914        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1915        KM   .17 .17 .16 .16 .16 .16 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1916        KM
1917        KM          L=   1.366 miles, S=  315 feet/mile, Kb= .07
1918        KM
1919        BA   0.157
1920        LG    0.15    0.29    4.35    0.38   44.41
1                                        HEC-1 INPUT                                          PAGE 45

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1921        UC   0.433   0.540
1922        UA       0       5      16      30      65      77      84      90      94      97
1923        UA     100
            *

1924        KK   C552R
1925        KM      Hydrograph combine 551552 + 207E at C552 right branch
1926        HC       2
            *

1927        KK    C552
1928        KM      Hydrograph combine C552L + C552R at C552
1929        HC       2
            *

1930        KK  552553
1931        KM      Normal depth channel route from C552 to C553
1932        KM      Source:  Hydrology Field Reconnaissance
1933        RS       4    FLOW      -1
1934        RC   0.060   0.050   0.060  1336.0  0.0337
1935        RX   993.0  1010.0  1055.0  1061.0  1082.0  1096.0  1105.0  1127.0
1936        RY    98.0    94.3    94.4    94.0    94.3    94.5    96.2    98.0
            *

1937        KK    207F
1938        KM   Sub-Basin   207F
1939        KM
```

```
1940    KM      The Clark Unit Hydrograph is used for this basin.
1941    KM          The HEC-1 time-area relation is used for this basin.
1942    KM
1943    KM      Time of Concentration for this sub-basin is based on the following:
1944    KM          An rainfall areal reduction factor of 1.000
1945    KM
1946    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1947    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1948    KM   .16 .16 .16 .15 .15 .14 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
1949    KM
1950    KM          L=   0.794 miles, S=  296 feet/mile, Kb= .11
1951    KM
1952    BA   0.126
1953    LG    0.20    0.32    4.40    0.39   38.35
1954    UC   0.438   0.400
        *

1955    KK    C553
1956    KM      Hydrograph combine 552553 + 207F at C553
1957    HC       2
        *

1958    KK  553556
1959    KM      Normal depth channel route from C553 to C556
1960    KM      Source:  HEC-2 Cross Section: AS 6.118
1961    RS       4    FLOW      -1
1962    RC   0.055   0.045   0.060  2393.0  0.0255
1963    RX  9904.4  9945.9  9974.0  9987.4  9994.9 10008.6 10027.0 10045.3
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1964        RY  2004.2  2003.9  1991.7  1990.4  1987.9  1988.2  1997.5  2006.7
            *

1965        KK    207G
1966        KM   Sub-Basin    207G
1967        KM
1968        KM      The Clark Unit Hydrograph is used for this basin.
1969        KM          The HEC-1 time-area relation is used for this basin.
1970        KM
1971        KM      Time of Concentration for this sub-basin is based on the following:
1972        KM          An rainfall areal reduction factor of 1.000
1973        KM
1974        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1975        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1976        KM   .15 .15 .15 .14 .14 .13 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00
1977        KM
1978        KM          L=   1.467 miles, S=  198 feet/mile, Kb= .10
1979        KM
1980        BA   0.236
1981        LG    0.17    0.37    5.60    0.23    9.10
1982        UC   0.767   0.852
            *

1983        KK   C556L
1984        KM      Hydrograph combine 553556 + 207G at C556 left branch
1985        HC       2
            *

1986        KK    207H
1987        KM   Sub-Basin    207H
1988        KM
1989        KM      The Clark Unit Hydrograph is used for this basin.
1990        KM          The Urban time-area relation is used for this basin.
1991        KM
1992        KM      Time of Concentration for this sub-basin is based on the following:
1993        KM          An rainfall areal reduction factor of 1.000
1994        KM
1995        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1996        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
1997        KM   .17 .17 .17 .17 .17 .16 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
1998        KM
1999        KM          L=   1.044 miles, S=  371 feet/mile, Kb= .05
2000        KM
2001        BA   0.124
2002        LG    0.13    0.27    4.35    0.36   46.78
2003        UC   0.296   0.325
2004        UA      0       5      16      30      65      77      84      90      94      97
2005        UA    100
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2006        KK  554555
2007        KM      Normal depth channel route from C554 to C555
2008        KM      Source:  100 Scale 4' CI Mapping
2009        RS       4    FLOW      -1
2010        RC   0.050   0.045   0.050  2497.0  0.0649
2011        RX  1000.0  1025.0  1080.0  1100.0  1120.0  1130.0  1140.0  1155.0
2012        RY  2192.0  2188.0  2186.0  2184.0  2184.0  2188.0  2192.0  2194.0
            *

2013        KK    207I
2014        KM   Sub-Basin    207I
2015        KM
2016        KM      The Clark Unit Hydrograph is used for this basin.
2017        KM          The Urban time-area relation is used for this basin.
2018        KM
2019        KM      Time of Concentration for this sub-basin is based on the following:
2020        KM          An rainfall areal reduction factor of 1.000
2021        KM
```

```
2022        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2023        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2024        KM   .18 .18 .17 .17 .17 .17 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2025        KM
2026        KM          L=   0.810 miles, S=  320 feet/mile, Kb= .03
2027        KM
2028        BA   0.073
2029        LG    0.09    0.25    4.40    0.35   50.00
2030        UC   0.208   0.244
2031        UA       0       5      16      30      65      77      84      90      94      97
2032        UA     100
            *

2033        KK    C555
2034        KM      Hydrograph combine 554555 + 207I at C555
2035        HC       2
            *

2036        KK  555556
2037        KM      Normal depth channel route from C555 to C556
2038        KM      Source:  200 Scale Mapping
2039        RS       8    FLOW      -1
2040        RC   0.050   0.050   0.055  3353.0  0.0480
2041        RX  1000.0  1050.0  1090.0  1095.0  1130.0  1150.0  1160.0  1185.0
2042        RY  2020.0  2016.5  2006.0  2004.0  2005.0  2006.0  2010.0  2020.0
            *

2043        KK    207J
2044        KM   Sub-Basin   207J
2045        KM
2046        KM      The Clark Unit Hydrograph is used for this basin.
2047        KM          The Urban time-area relation is used for this basin.
2048        KM
2049        KM      Time of Concentration for this sub-basin is based on the following:
2050        KM          An rainfall areal reduction factor of 1.000
2051        KM
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2052        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2053        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2054        KM   .18 .18 .17 .17 .17 .17 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2055        KM
2056        KM          L=   0.714 miles, S=  248 feet/mile, Kb= .04
2057        KM
2058        BA   0.093
2059        LG    0.10    0.26    4.40    0.34   48.61
2060        UC   0.246   0.231
2061        UA       0       5      16      30      65      77      84      90      94      97
2062        UA     100
            *

2063        KK   C556R
2064        KM      Hydrograph combine 555556 + 207J at C556 right branch
2065        HC       2
            *

2066        KK    C556
2067        KM      Hydrograph combine C556L + C556R at C556
2068        HC       2
            *

2069        KK  556557
2070        KM      Normal depth channel route from C556 to C557
2071        KM      Source:  HEC-2 Cross Section: AS 5.765
2072        RS       4    FLOW      -1
2073        RC   0.055   0.045   0.060  2298.0  0.0260
2074        RX  9957.1  9995.6 10000.0 10010.0 10040.4 10084.4 10104.2 10180.7
2075        RY  1949.3  1935.9  1935.8  1936.7  1936.7  1938.2  1947.1  1949.9
            *

2076        KK    207K
2077        KM   Sub-Basin   207K
2078        KM
2079        KM      The Clark Unit Hydrograph is used for this basin.
2080        KM          The Urban time-area relation is used for this basin.
2081        KM
2082        KM      Time of Concentration for this sub-basin is based on the following:
2083        KM          An rainfall areal reduction factor of 1.000
2084        KM
2085        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2086        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2087        KM   .18 .18 .18 .18 .18 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
2088        KM
2089        KM          L=   0.859 miles, S=  294 feet/mile, Kb= .05
2090        KM
2091        BA   0.130
2092        LG    0.11    0.27    5.40    0.21   37.19
2093        UC   0.288   0.263
2094        UA       0       5      16      30      65      77      84      90      94      97
2095        UA     100
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2096        KK   C557R
2097        KM      Hydrograph combine 556557 + 207K at C557
2098        HC       2
            *

2099        KK    207L
```

```
2100        KM   Sub-Basin   207L
2101        KM
2102        KM      The Clark Unit Hydrograph is used for this basin.
2103        KM          The Urban time-area relation is used for this basin.
2104        KM
2105        KM      Time of Concentration for this sub-basin is based on the following:
2106        KM          An rainfall areal reduction factor of 1.000
2107        KM
2108        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2109        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2110        KM   .18 .18 .18 .18 .18 .18 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
2111        KM
2112        KM          L=   0.667 miles, S=  236 feet/mile, Kb= .04
2113        KM
2114        BA   0.080
2115        LG    0.09    0.26    6.00    0.16   33.25
2116        UC   0.238   0.228
2117        UA       0       5      16      30      65      77      84      90      94      97
2118        UA     100
            *

2119        KK    C557
2120        KM      Hydrograph combine C557R + 207L at C557
2121        HC       2
            *
            * *
            * * C557 is the total flow in Ashbrook Wash downstream of Golden Eagle Blvd.
            * * at fire station
            * *
            *

2122        KK  557558
2123        KM      Normal depth channel route from C557 to C558
2124        KM      Source:  HEC-2 Cross Section: AS 5.254
2125        RS       5    FLOW      -1
2126        RC   0.055   0.045   0.060  2652.0  0.0242
2127        RX  9662.0  9965.0  9967.0 10000.0 10072.0 10095.0 10122.0 10175.0
2128        RY  1890.0  1885.9  1884.0  1878.0  1880.0  1886.0  1888.0  1890.0
            *

2129        KK    207M
2130        KM   Sub-Basin   207M
2131        KM
2132        KM      The Clark Unit Hydrograph is used for this basin.
2133        KM          The Urban time-area relation is used for this basin.
2134        KM
2135        KM      Time of Concentration for this sub-basin is based on the following:
2136        KM          An rainfall areal reduction factor of 1.000
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
2137        KM
2138        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2139        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2140        KM   .18 .18 .17 .17 .17 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
2141        KM
2142        KM          L=   0.636 miles, S=  295 feet/mile, Kb= .04
2143        KM
2144        BA   0.116
2145        LG    0.11    0.28    6.00    0.17   23.09
2146        UC   0.221   0.165
2147        UA       0       5      16      30      65      77      84      90      94      97
2148        UA     100
            *

2149        KK    C558
2150        KM      Hydrograph combine 557558 + 207M at C558
2151        HC       2
            *

2152        KK  558560
2153        KM      Normal depth channel route from C558 to C560
2154        KM      Source:  HEC-2 Cross Section: AS 4.839
2155        RS       3    FLOW      -1
2156        RC   0.055   0.045   0.060  1986.0  0.0185
2157        RX  9777.0  9897.0  9933.1  9970.6 10042.2 10063.4 10121.6 10204.9
2158        RY  1840.3  1837.3  1836.3  1824.3  1822.7  1828.5  1827.7  1842.7
            *

2159        KK    2070
2160        KM   Sub-Basin   2070
2161        KM
2162        KM      The Clark Unit Hydrograph is used for this basin.
2163        KM          The Urban time-area relation is used for this basin.
2164        KM
2165        KM      Time of Concentration for this sub-basin is based on the following:
2166        KM          An rainfall areal reduction factor of 1.000
2167        KM
2168        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2169        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2170        KM   .17 .17 .17 .17 .17 .16 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
2171        KM
2172        KM          L=   0.643 miles, S=  275 feet/mile, Kb= .04
2173        KM
2174        BA   0.131
2175        LG    0.13    0.29    5.60    0.21   23.47
2176        UC   0.229   0.162
2177        UA       0       5      16      30      65      77      84      90      94      97
2178        UA     100
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
KK   C560R
KM      Hydrograph combine 558560 + 2070 at C560 right branch
HC       2
*

KK    207N
KM   Sub-Basin   207N
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          An rainfall areal reduction factor of 1.000
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .18 .17 .17 .17 .17 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
KM
KM          L=   0.431 miles, S=  190 feet/mile, Kb= .03
KM
BA   0.049
LG    0.09    0.25    4.80    0.27   35.87
UC   0.179   0.156
UA       0       5      16      30      65      77      84      90      94      97
UA     100
*

KK  559560
KM      Normal depth channel route from C559 to C560
KM      Source:  200 Scale Mapping
RS       7    FLOW      -1
RC   0.050   0.045   0.050  2170.0  0.0230
RX  1000.0  1050.0  1080.0  1100.0  1110.0  1140.0  1170.0  1205.0
RY  1854.0  1852.0  1850.0  1848.0  1848.0  1850.0  1852.0  1854.0
*

KK   C560I
KM      Hydrograph combine C560R + 559560 at C560I
HC       2
*
* *
* * C560I is the total flow in Ashbrook Wash upstream of Dam 6
* *
*

KK   C560O
KM      Reservoir route at C560 (Dam 6).
RS       1    ELEV  1808.8
SV    0.00    1.71   14.81   34.65   60.43   93.47  135.64  183.00  186.00  191.44
SV  197.00  205.00  212.00  219.00  226.40  234.00  242.00  246.00  250.00  254.00
SE  1808.8  1812.0  1816.0  1820.0  1824.0  1828.0  1832.0  1835.4  1835.6  1836.0
SE  1836.4  1836.8  1837.2  1837.6  1838.0  1838.4  1838.8  1839.0  1839.2  1839.4
SQ       0      57     136     184     224     257     285     303     319     440
SQ     691    1055    1500    2018    2600    3243    3944    4315    4699    5097
```



```
LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

RL                    0.40
*
* *
* * End Basin 207.  Start Basin 210 temporarily
* *
*

KK  560585
KM      Normal depth channel route from C560 to C585
KM      Source:  HEC-2 Cross Section: AS4.311
RS       6    FLOW      -1
RC   0.050   0.025   0.050  3127.0  0.0272
RX  9850.4  9950.4  9974.4 10000.0 10035.5 10059.8 10080.4 10104.4
RY  1772.0  1771.7  1765.3  1765.3  1765.9  1768.5  1773.3  1773.7
*

KK    210A
KM   Sub-Basin   210A
KM
KM      The Clark Unit Hydrograph is used for this basin.
KM          The Urban time-area relation is used for this basin.
KM
KM      Time of Concentration for this sub-basin is based on the following:
KM          An rainfall areal reduction factor of 1.000
KM
KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM   .17 .17 .17 .17 .16 .16 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
KM
KM          L=   0.631 miles, S=  233 feet/mile, Kb= .03
KM
BA   0.123
LG    0.09    0.25    5.00    0.24   16.65
UC   0.208   0.148
UA       0       5      16      30      65      77      84      90      94      97
UA     100
*

KK    C585
KM      Hydrograph combine 560585 + 210A at C585
HC       2
*
* *
* * C585 is the total flow in Ashbrook Wash at Golden Eagle Blvd. just
* * upstream of DAM 4
```

```
                 * *
                 * * Temporarily stop Basin 210.  Start Basin 208
                 * *
                 * * Start Bristol Wash
                 * *
                 *
1                                          HEC-1 INPUT                                                    PAGE 53
      LINE       ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

      2252       KK    208A
      2253       KM   Sub-Basin   208A
      2254       KM
      2255       KM      The Clark Unit Hydrograph is used for this basin.
      2256       KM          The Urban time-area relation is used for this basin.
      2257       KM
      2258       KM      Time of Concentration for this sub-basin is based on the following:
      2259       KM          An rainfall areal reduction factor of 1.000
      2260       KM
      2261       KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
      2262       KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
      2263       KM   .18 .18 .17 .17 .17 .17 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
      2264       KM
      2265       KM          L=   0.626 miles, S=  366 feet/mile, Kb= .03
      2266       KM
      2267       BA   0.139
      2268       LG    0.09    0.25    4.35    0.35   49.86
      2269       UC   0.175   0.113
      2270       UA       0       5      16      30      65      77      84      90      94      97
      2271       UA     100
                 *

      2272       KK  561563
      2273       KM      Normal depth channel route from C561 to C563
      2274       KM      Source:  100 Scale 4' CI Mapping
      2275       RS       2    FLOW      -1
      2276       RC   0.050   0.045   0.050  2335.0  0.0856
      2277       RX  1000.0  1004.0  1009.0  1019.0  1037.0  1045.0  1060.0  1075.0
      2278       RY  2280.0  2276.0  2272.0  2268.0  2268.0  2272.0  2274.0  2276.0
                 *

      2279       KK    208B
      2280       KM   Sub-Basin   208B
      2281       KM
      2282       KM      The Clark Unit Hydrograph is used for this basin.
      2283       KM          The Urban time-area relation is used for this basin.
      2284       KM
      2285       KM      Time of Concentration for this sub-basin is based on the following:
      2286       KM          An rainfall areal reduction factor of 1.000
      2287       KM
      2288       KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
      2289       KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
      2290       KM   .18 .18 .17 .17 .17 .17 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
      2291       KM
      2292       KM          L=   0.491 miles, S=  325 feet/mile, Kb= .03
      2293       KM
      2294       BA   0.027
      2295       LG    0.09    0.25    4.35    0.35   50.00
      2296       UC   0.163   0.219
      2297       UA       0       5      16      30      65      77      84      90      94      97
      2298       UA     100
                 *
1                                          HEC-1 INPUT                                                    PAGE 54
      LINE       ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

      2299       KK   C563R
      2300       KM      Hydrograph combine 561563 + 206B at C563 right branch
      2301       HC       2
                 *

      2302       KK    208C
      2303       KM   Sub-Basin   208C
      2304       KM
      2305       KM      The Clark Unit Hydrograph is used for this basin.
      2306       KM          The HEC-1 time-area relation is used for this basin.
      2307       KM
      2308       KM      Time of Concentration for this sub-basin is based on the following:
      2309       KM          An rainfall areal reduction factor of 1.000
      2310       KM
      2311       KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
      2312       KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
      2313       KM   .16 .16 .16 .16 .15 .15 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
      2314       KM
      2315       KM          L=   0.639 miles, S=  387 feet/mile, Kb= .11
      2316       KM
      2317       BA   0.066
      2318       LG    0.20    0.32    4.35    0.38   40.11
      2319       UC   0.354   0.383
                 *

      2320       KK  562563
      2321       KM      Normal depth channel route from C562 to C563
      2322       KM      Source:  100 Scale 4' CI Mapping
      2323       RS       5    FLOW      -1
      2324       RC   0.050   0.045   0.050  3745.0  0.1106
      2325       RX  1000.0  1007.0  1012.0  1017.0  1022.0  1027.0  1044.0  1064.0
      2326       RY  2420.0  2416.0  2412.0  2411.8  2411.8  2412.0  2416.0  2420.0
                 *

      2327       KK    208D
      2328       KM   Sub-Basin   208D
```

```
2329        KM
2330        KM      The Clark Unit Hydrograph is used for this basin.
2331        KM          The Urban time-area relation is used for this basin.
2332        KM
2333        KM      Time of Concentration for this sub-basin is based on the following:
2334        KM          An rainfall areal reduction factor of 1.000
2335        KM
2336        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2337        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2338        KM   .18 .18 .17 .17 .17 .17 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2339        KM
2340        KM          L=   0.772 miles, S=  327 feet/mile, Kb= .03
2341        KM
2342        BA   0.075
2343        LG    0.09    0.25    4.35    0.35   50.00
2344        UC   0.200   0.221
2345        UA       0       5      16      30      65      77      84      90      94      97
2346        UA     100
            *
1                                          HEC-1 INPUT                                          PAGE 55
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2347        KK   C563L
2348        KM      Hydrograph combine 562563 + 208D at C563 left branch
2349        HC       2
            *

2350        KK    C563
2351        KM      Hydrograph combine C563R + C563L at C563
2352        HC       2
            *

2353        KK  563564
2354        KM      Normal depth channel route from C563 to C564
2355        KM      Source:  HEC-2 Cross Section: BR 2.667
2356        RS       5    FLOW      -1
2357        RC   0.080   0.080   0.080  2762.0  0.0540
2358        RX  9947.0  9980.4  9986.4  9995.5 10000.0 10005.8 10021.9 10037.2
2359        RY  2103.4  2089.5  2089.2  2084.5  2084.4  2084.3  2098.5  2100.6
            *

2360        KK    208E
2361        KM   Sub-Basin   208E
2362        KM
2363        KM      The Clark Unit Hydrograph is used for this basin.
2364        KM          The Urban time-area relation is used for this basin.
2365        KM
2366        KM      Time of Concentration for this sub-basin is based on the following:
2367        KM          An rainfall areal reduction factor of 1.000
2368        KM
2369        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2370        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2371        KM   .18 .18 .17 .17 .17 .17 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2372        KM
2373        KM          L=   0.644 miles, S=  306 feet/mile, Kb= .03
2374        KM
2375        BA   0.062
2376        LG    0.09    0.25    4.35    0.35   50.00
2377        UC   0.188   0.198
2378        UA       0       5      16      30      65      77      84      90      94      97
2379        UA     100
            *

2380        KK   C564R
2381        KM      Hydrograph combine 563564 + 208E at C564 right branch
2382        HC       2
            *

2383        KK    208F
2384        KM   Sub-Basin   208F
2385        KM
2386        KM      The Clark Unit Hydrograph is used for this basin.
2387        KM          The Urban time-area relation is used for this basin.
2388        KM
2389        KM      Time of Concentration for this sub-basin is based on the following:
2390        KM          An rainfall areal reduction factor of 1.000
1                                          HEC-1 INPUT                                          PAGE 56
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2391        KM
2392        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2393        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2394        KM   .18 .18 .17 .17 .17 .17 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2395        KM
2396        KM          L=   0.582 miles, S=  293 feet/mile, Kb= .03
2397        KM
2398        BA   0.069
2399        LG    0.09    0.25    4.35    0.35   49.92
2400        UC   0.179   0.163
2401        UA       0       5      16      30      65      77      84      90      94      97
2402        UA     100
            *

2403        KK    C564
2404        KM      Hydrograph combine C564R + 208F at C564
2405        HC       2
            *

2406        KK  564565
2407        KM      Normal depth channel route from C564 to C565
2408        KM      Source:  HEC-2 Cross Section: BR 2.236
```

```
2409        RS       7    FLOW      -1
2410        RC   0.080   0.080   0.080  3243.0  0.0398
2411        RX  9937.7  9965.8  9985.5 10000.0 10008.6 10016.4 10037.5 10054.4
2412        RY  1998.7  1998.1  1988.9  1988.8  1989.0  1990.4  1990.6  1999.1
            *

2413        KK    208G
2414        KM   Sub-Basin   208G
2415        KM
2416        KM      The Clark Unit Hydrograph is used for this basin.
2417        KM          The Urban time-area relation is used for this basin.
2418        KM
2419        KM      Time of Concentration for this sub-basin is based on the following:
2420        KM          An rainfall areal reduction factor of 1.000
2421        KM
2422        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2423        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2424        KM   .18 .18 .18 .18 .18 .17 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2425        KM
2426        KM          L=   0.772 miles, S=  299 feet/mile, Kb= .04
2427        KM
2428        BA   0.129
2429        LG    0.11    0.26    4.60    0.31   54.19
2430        UC   0.238   0.196
2431        UA       0       5      16      30      65      77      84      90      94      97
2432        UA     100
            *
1                                          HEC-1 INPUT                                          PAGE 57

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2433        KK    C565
2434        KM      Hydrograph combine 564565 + 208G at C565
2435        HC       2
            *

2436        KK  565568
2437        KM      Normal depth channel route from C565 to C568
2438        KM      Source:  HEC-2 Cross Section: BR 1.853
2439        RS       3    FLOW      -1
2440        RC   0.050   0.060   0.045  2254.0  0.0333
2441        RX  9966.2  9975.6  9985.0 10000.0 10017.9 10027.6 10040.1 10052.5
2442        RY  1929.1  1924.5  1919.8  1918.3  1918.4  1919.6  1925.2  1930.8
            *

2443        KK    208H
2444        KM   Sub-Basin   208H
2445        KM
2446        KM      The Clark Unit Hydrograph is used for this basin.
2447        KM          The Urban time-area relation is used for this basin.
2448        KM
2449        KM      Time of Concentration for this sub-basin is based on the following:
2450        KM          An rainfall areal reduction factor of 1.000
2451        KM
2452        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2453        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2454        KM   .18 .18 .17 .17 .17 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
2455        KM
2456        KM          L=   0.632 miles, S=  283 feet/mile, Kb= .07
2457        KM
2458        BA   0.043
2459        LG    0.12    0.30    5.60    0.21   35.43
2460        UC   0.300   0.406
2461        UA       0       5      16      30      65      77      84      90      94      97
2462        UA     100
            *

2463        KK   C568L
2464        KM      Hydrograph combine 565568 + 208H at C568 left branch
2465        HC       2
            *
            * *
            * * Start Cholula Wash
            * *
            *

2466        KK    208I
2467        KM   Sub-Basin   208I
2468        KM
2469        KM      The Clark Unit Hydrograph is used for this basin.
2470        KM          The Urban time-area relation is used for this basin.
2471        KM
2472        KM      Time of Concentration for this sub-basin is based on the following:
2473        KM          An rainfall areal reduction factor of 1.000
2474        KM
1                                          HEC-1 INPUT                                          PAGE 58

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2475        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2476        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2477        KM   .18 .18 .17 .17 .17 .17 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2478        KM
2479        KM          L=   0.823 miles, S=  363 feet/mile, Kb= .03
2480        KM
2481        BA   0.117
2482        LG    0.09    0.25    4.35    0.35   50.00
2483        UC   0.200   0.180
2484        UA       0       5      16      30      65      77      84      90      94      97
2485        UA     100
            *

2486        KK    208J
```

```
2487        KM   Sub-Basin   208J
2488        KM
2489        KM      The Clark Unit Hydrograph is used for this basin.
2490        KM          The Urban time-area relation is used for this basin.
2491        KM
2492        KM      Time of Concentration for this sub-basin is based on the following:
2493        KM          An rainfall areal reduction factor of 1.000
2494        KM
2495        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2496        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2497        KM   .18 .18 .17 .17 .17 .17 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2498        KM
2499        KM          L=   0.974 miles, S=  353 feet/mile, Kb= .03
2500        KM
2501        BA   0.081
2502        LG    0.09    0.25    4.35    0.35   50.00
2503        UC   0.221   0.284
2504        UA       0       5      16      30      65      77      84      90      94      97
2505        UA     100
            *

2506        KK    C566
2507        KM      Hydrograph combine 208I + 208J at C566
2508        HC       2
            *

2509        KK  566567
2510        KM      Normal depth channel route from C566 to C567
2511        KM      Source:  HEC-2 Cross Section: CH 0.766
2512        RS       4    FLOW      -1
2513        RC   0.080   0.080   0.080  1463.0  0.0410
2514        RX  9925.3  9949.0  9965.7  9988.3 10000.0 10016.2 10029.5 10042.7
2515        RY  2047.9  2043.7  2035.3  2033.3  2031.4  2033.0  2040.1  2047.2
            *

2516        KK    208K
2517        KM   Sub-Basin   208K
2518        KM
2519        KM      The Clark Unit Hydrograph is used for this basin.
2520        KM          The Urban time-area relation is used for this basin.
2521        KM
```



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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2522        KM      Time of Concentration for this sub-basin is based on the following:
2523        KM          An rainfall areal reduction factor of 1.000
2524        KM
2525        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2526        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2527        KM   .18 .18 .18 .18 .18 .17 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2528        KM
2529        KM          L=   0.431 miles, S=  317 feet/mile, Kb= .03
2530        KM
2531        BA   0.048
2532        LG    0.09    0.25    4.35    0.35   54.38
2533        UC   0.150   0.130
2534        UA       0       5      16      30      65      77      84      90      94      97
2535        UA     100
            *

2536        KK   C567L
2537        KM     Hydrograph combine 566567 + 208K at C567 left branch
2538        HC       2
            *

2539        KK    208L
2540        KM   Sub-Basin   208L
2541        KM
2542        KM      The Clark Unit Hydrograph is used for this basin.
2543        KM          The Urban time-area relation is used for this basin.
2544        KM
2545        KM      Time of Concentration for this sub-basin is based on the following:
2546        KM          An rainfall areal reduction factor of 1.000
2547        KM
2548        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2549        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2550        KM   .18 .18 .18 .18 .17 .17 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2551        KM
2552        KM          L=   0.655 miles, S=  334 feet/mile, Kb= .03
2553        KM
2554        BA   0.059
2555        LG    0.09    0.25    4.40    0.35   51.31
2556        UC   0.183   0.202
2557        UA       0       5      16      30      65      77      84      90      94      97
2558        UA     100
            *

2559        KK    C567
2560        KM     Hydrograph combine C567L + 208L at C567
2561        HC       2
            *

2562        KK  567568
2563        KM      Normal depth channel route from C567 to C568
2564        KM      Source:  HEC-2 Cross Section: CH 0.129
2565        RS       6    FLOW      -1
2566        RC   0.050   0.060   0.045  3650.0  0.0389
2567        RX  9945.7  9958.4  9989.8 10000.0 10016.4 10028.3 10045.4 10059.8
2568        RY  1912.1  1905.9  1899.0  1899.3  1898.9  1899.5  1907.1  1911.9
            *
```



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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
2569        KK    208M
2570        KM   Sub-Basin   208M
2571        KM
2572        KM      The Clark Unit Hydrograph is used for this basin.
2573        KM          The Urban time-area relation is used for this basin.
2574        KM
2575        KM      Time of Concentration for this sub-basin is based on the following:
2576        KM          An rainfall areal reduction factor of 1.000
2577        KM
2578        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2579        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2580        KM   .19 .18 .18 .18 .18 .18 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2581        KM
2582        KM          L=   1.031 miles, S=  321 feet/mile, Kb= .03
2583        KM
2584        BA   0.159
2585        LG    0.09    0.25    4.40    0.34   62.04
2586        UC   0.229   0.210
2587        UA       0       5      16      30      65      77      84      90      94      97
2588        UA     100
            *

2589        KK   C568R
2590        KM     Hydrograph combine 567568 + 208M at C568 right branch
2591        HC       2
            *

2592        KK    C568
2593        KM      Hydrograph combine C568L + C568R at C568
2594        HC       2
            *

2595        KK  568573
2596        KM      Normal depth channel route from C568 to C573
2597        KM      Source:  HEC-2 Cross Section: BR 1.340
2598        RS       4     FLOW      -1
2599        RC   0.098   0.075   0.075  2067.0  0.0324
2600        RX  9921.8  9954.1  9968.9  9991.3 10000.0 10006.9 10025.2 10050.4
2601        RY  1843.8  1840.4  1835.1  1834.7  1832.7  1833.3  1838.1  1854.0
            *

2602        KK    208N
2603        KM   Sub-Basin   208N
2604        KM
2605        KM      The Clark Unit Hydrograph is used for this basin.
2606        KM          The Urban time-area relation is used for this basin.
2607        KM
2608        KM      Time of Concentration for this sub-basin is based on the following:
2609        KM          An rainfall areal reduction factor of 1.000
2610        KM
2611        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2612        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2613        KM   .20 .19 .19 .19 .19 .19 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2614        KM
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2615        KM          L=   0.589 miles, S=  160 feet/mile, Kb= .04
2616        KM
2617        BA   0.047
2618        LG    0.09    0.25    6.20    0.15   62.49
2619        UC   0.246   0.291
2620        UA       0       5      16      30      65      77      84      90      94      97
2621        UA     100
            *

2622        KK   C573L
2623        KM     Hydrograph combine 568573 + 208N at C573 left branch
2624        HC       2
            *
            * *
            * * C573L is the total flow in Bristol Wash upstream of the confluence with
            * * Zapata Wash
            * *
            * * Start Zapata Wash
            * *
            *

2625        KK    208O
2626        KM   Sub-Basin   208O
2627        KM
2628        KM      The Clark Unit Hydrograph is used for this basin.
2629        KM          The Urban time-area relation is used for this basin.
2630        KM
2631        KM      Time of Concentration for this sub-basin is based on the following:
2632        KM          An rainfall areal reduction factor of 1.000
2633        KM
2634        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2635        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2636        KM   .18 .18 .18 .18 .18 .17 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2637        KM
2638        KM          L=   1.174 miles, S=  347 feet/mile, Kb= .03
2639        KM
2640        BA   0.230
2641        LG    0.09    0.25    4.60    0.31   48.49
2642        UC   0.242   0.201
2643        UA       0       5      16      30      65      77      84      90      94      97
2644        UA     100
            *

2645        KK  569570
2646        KM      Normal depth channel route from C569 to C570
```

```
2647   KM      Source:  HEC-2 Cross Section: ZA 0.493
2648   RS       1    FLOW      -1
2649   RC   0.050   0.035   0.055  1696.0  0.0404
2650   RX  9965.3  9985.5  9998.4 10000.0 10010.6 10019.1 10038.5 10038.5
2651   RY  1919.3  1912.3  1908.1  1907.8  1905.2  1908.1  1920.1  1920.1
       *
```



```
LINE   ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2652   KK    208P
2653   KM   Sub-Basin   208P
2654   KM
2655   KM      The Clark Unit Hydrograph is used for this basin.
2656   KM          The Urban time-area relation is used for this basin.
2657   KM
2658   KM      Time of Concentration for this sub-basin is based on the following:
2659   KM          An rainfall areal reduction factor of 1.000
2660   KM
2661   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2662   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2663   KM   .19 .19 .19 .19 .19 .19 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2664   KM
2665   KM          L=   0.471 miles, S=  312 feet/mile, Kb= .03
2666   KM
2667   BA   0.058
2668   LG    0.08    0.25    5.70    0.18   59.29
2669   UC   0.154   0.128
2670   UA      0       5      16      30      65      77      84      90      94      97
2671   UA    100
       *

2672   KK   C570R
2673   KM      Hydrograph combine 569570 + 208P at C570 right branch
2674   HC       2
       *

2675   KK    208Q
2676   KM   Sub-Basin   208Q
2677   KM
2678   KM      The Clark Unit Hydrograph is used for this basin.
2679   KM          The Urban time-area relation is used for this basin.
2680   KM
2681   KM      Time of Concentration for this sub-basin is based on the following:
2682   KM          An rainfall areal reduction factor of 1.000
2683   KM
2684   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2685   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2686   KM   .19 .18 .18 .18 .18 .18 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2687   KM
2688   KM          L=   0.823 miles, S=  324 feet/mile, Kb= .04
2689   KM
2690   BA   0.094
2691   LG    0.10    0.26    5.00    0.25   54.26
2692   UC   0.238   0.247
2693   UA      0       5      16      30      65      77      84      90      94      97
2694   UA    100
       *
```



```
LINE   ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2695   KK    C570
2696   KM      Hydrograph combine C570R + 208Q at C570
2697   HC       2
       *
       * *
       * * NOTE: 570572 is too short to route
       * *
       *

2698   KK    208R
2699   KM   Sub-Basin   208R
2700   KM
2701   KM      The Clark Unit Hydrograph is used for this basin.
2702   KM          The Urban time-area relation is used for this basin.
2703   KM
2704   KM      Time of Concentration for this sub-basin is based on the following:
2705   KM          An rainfall areal reduction factor of 1.000
2706   KM
2707   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2708   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2709   KM   .19 .19 .19 .19 .19 .19 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2710   KM
2711   KM          L=   0.238 miles, S=  327 feet/mile, Kb= .03
2712   KM
2713   BA   0.010
2714   LG    0.08    0.23    6.20    0.15   55.16
2715   UC   0.108   0.134
2716   UA      0       5      16      30      65      77      84      90      94      97
2717   UA    100
       *

2718   KK  571572
2719   KM      Normal depth channel route from C571 to C572
2720   KM      Source:  200 Scale Mapping
2721   RS       2    FLOW      -1
2722   RC   0.040   0.020   0.055  1379.0  0.0566
2723   RX  1000.0  1020.0  1040.0  1090.0  1122.0  1125.0  1135.0  1140.0
2724   RY  1894.0  1893.0  1892.0  1891.0  1891.0  1892.0  1894.0  1896.0
       *
```

```
2725          KK    C572
2726          KM      Hydrograph combine C570 + 571572 at C572
2727          HC       2
              *

2728          KK  572573
2729          KM      Normal depth channel route from C572 to C573
2730          KM      Source:  HEC-2 Cross Section: ZA 0.142
2731          RS       1    FLOW       -1
2732          RC   0.050   0.035   0.055  1285.0  0.0335
2733          RX  9961.8  9976.8  9982.5  9987.0 10009.5 10014.3 10022.1 10029.3
2734          RY  1840.3  1832.1  1831.2  1829.5  1829.2  1830.6  1831.2  1835.6
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2735          KK    208S
2736          KM   Sub-Basin   208S
2737          KM
2738          KM      The Clark Unit Hydrograph is used for this basin.
2739          KM          The Urban time-area relation is used for this basin.
2740          KM
2741          KM      Time of Concentration for this sub-basin is based on the following:
2742          KM          An rainfall areal reduction factor of 1.000
2743          KM
2744          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2745          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2746          KM   .20 .20 .20 .19 .19 .19 .02 .02 .02 .02 .02 .02 .02 .02 .02 .02 .02 .02
2747          KM
2748          KM          L=   0.568 miles, S=  234 feet/mile, Kb= .03
2749          KM
2750          BA   0.068
2751          LG    0.08    0.24    6.20    0.15   67.07
2752          UC   0.183   0.165
2753          UA       0       5      16      30      65      77      84      90      94      97
2754          UA     100
              *

2755          KK   C573R
2756          KM      Hydrograph combine 572573 + 208S at C573 right branch
2757          HC       2
              *

2758          KK    C573
2759          KM      Hydrograph combine C573L + C573R at C573
2760          HC       2
              *
              * *
              * * NOTE: 573577 is too short to route
              * *
              * * C573 is the total flow in Bristol Wash upstream of the confluence
              * * with Montezuna Wash
              * *
              * * Start Montezuna Wash
              * *
              *

2761          KK    208T
2762          KM   Sub-Basin   208T
2763          KM
2764          KM      The Clark Unit Hydrograph is used for this basin.
2765          KM          The Urban time-area relation is used for this basin.
2766          KM
2767          KM      Time of Concentration for this sub-basin is based on the following:
2768          KM          An rainfall areal reduction factor of 1.000
2769          KM
2770          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2771          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2772          KM   .18 .18 .18 .18 .18 .18 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2773          KM
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2774          KM          L=   0.787 miles, S=  340 feet/mile, Kb= .03
2775          KM
2776          BA   0.132
2777          LG    0.09    0.25    5.20    0.22   44.80
2778          UC   0.200   0.163
2779          UA       0       5      16      30      65      77      84      90      94      97
2780          UA     100
              *

2781          KK    208U
2782          KM   Sub-Basin   208U
2783          KM
2784          KM      The Clark Unit Hydrograph is used for this basin.
2785          KM          The Urban time-area relation is used for this basin.
2786          KM
2787          KM      Time of Concentration for this sub-basin is based on the following:
2788          KM          An rainfall areal reduction factor of 1.000
2789          KM
2790          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2791          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2792          KM   .19 .18 .18 .18 .18 .18 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
2793          KM
2794          KM          L=   0.507 miles, S=  360 feet/mile, Kb= .03
2795          KM
2796          BA   0.134
2797          LG    0.09    0.25    5.30    0.21   44.19
2798          UC   0.158   0.087
2799          UA       0       5      16      30      65      77      84      90      94      97
```

```
2800        UA     100
            *

2801        KK    C574
2802        KM      Hydrograph combine 208T + 208U at C574
2803        HC       2
            *

2804        KK  574575
2805        KM      Normal depth channel route from C574 to C575
2806        KM      Source:  HEC-2 Cross Section: MO 0.587
2807        RS       1    FLOW      -1
2808        RC   0.070   0.050   0.055   823.0  0.0365
2809        RX  9945.0  9970.6  9986.7  9995.9 10002.3 10019.0 10036.7 10055.5
2810        RY  1932.6  1928.5  1922.9  1917.8  1917.7  1924.0  1931.1  1934.1
            *

2811        KK    208V
2812        KM   Sub-Basin   208V
2813        KM
2814        KM      The Clark Unit Hydrograph is used for this basin.
2815        KM          The Urban time-area relation is used for this basin.
2816        KM
2817        KM      Time of Concentration for this sub-basin is based on the following:
2818        KM          An rainfall areal reduction factor of 1.000
2819        KM
2820        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
1                                        HEC-1 INPUT                                          PAGE 66

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2821        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2822        KM   .19 .19 .19 .19 .19 .19 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
2823        KM
2824        KM          L=   0.354 miles, S=  319 feet/mile, Kb= .03
2825        KM
2826        BA   0.028
2827        LG    0.09    0.21    6.40    0.15   41.15
2828        UC   0.133   0.133
2829        UA       0       5      16      30      65      77      84      90      94      97
2830        UA     100
            *

2831        KK    C575
2832        KM      Hydrograph combine 574575 + 208V at C575
2833        HC       2
            *

2834        KK  575576
2835        KM      Normal depth channel route from C575 to C576
2836        KM      Source:  HEC-2 Cross Section: MO 0.307
2837        RS       3    FLOW      -1
2838        RC   0.070   0.050   0.055  2342.0  0.0423
2839        RX  9973.7  9974.0  9986.7 10000.0 10000.5 10009.7 10026.7 10037.3
2840        RY  1861.6  1861.5  1855.0  1853.0  1853.1  1854.8  1863.0  1867.1
            *

2841        KK    208W
2842        KM   Sub-Basin   208W
2843        KM
2844        KM      The Clark Unit Hydrograph is used for this basin.
2845        KM          The Urban time-area relation is used for this basin.
2846        KM
2847        KM      Time of Concentration for this sub-basin is based on the following:
2848        KM          An rainfall areal reduction factor of 1.000
2849        KM
2850        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2851        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2852        KM   .19 .19 .19 .19 .19 .18 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01 .01 .01
2853        KM
2854        KM          L=   0.475 miles, S=  288 feet/mile, Kb= .03
2855        KM
2856        BA   0.050
2857        LG    0.09    0.23    6.20    0.16   42.74
2858        UC   0.163   0.149
2859        UA       0       5      16      30      65      77      84      90      94      97
2860        UA     100
            *

2861        KK    C576
2862        KM      Hydrograph combine 575576 + 208W at C576
2863        HC       2
            *
1                                        HEC-1 INPUT                                          PAGE 67

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2864        KK  576577
2865        KM      Normal depth channel route from C576 to C577
2866        KM      Source:  HEC-2 Cross Section: MO 0.116
2867        RS       1    FLOW      -1
2868        RC   0.070   0.050   0.055   740.0  0.0338
2869        RX  9915.1  9960.0  9985.5 10000.0 10000.1 10007.0 10023.3 10023.4
2870        RY  1826.5  1826.4  1814.5  1812.3  1812.3  1814.8  1830.3  1830.4
            *
            * *
            * * 576577 is the total flow in Montezuna Wash just upstream of the confluence
            * * with Bristol Wash
            * *
            *

2871        KK    C577
2872        KM      Hydrograph combine C577L + 576577 at C570
```

```
2873        HC       2
            *
            * *
            * * C577 is the total flow in Bristol Wash downstream of the confluence
            * * with Montezuma Wash
            * *
            *

2874        KK  577578
2875        KM      Normal depth channel route from C577 to C578
2876        KM      Source:  HEC-2 Cross Section: BR 1.099
2877        RS       2    FLOW      -1
2878        RC   0.055   0.045   0.055  1078.0  0.0147
2879        RX  9865.3  9956.6  9991.1 10010.2 10034.3 10063.4 10139.7 10201.7
2880        RY  1821.8  1810.8  1793.2  1792.5  1795.5  1796.1  1813.8  1822.8
            *

2881        KK    208X
2882        KM   Sub-Basin   208X
2883        KM
2884        KM      The Clark Unit Hydrograph is used for this basin.
2885        KM          The Urban time-area relation is used for this basin.
2886        KM
2887        KM      Time of Concentration for this sub-basin is based on the following:
2888        KM          An rainfall areal reduction factor of 1.000
2889        KM
2890        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2891        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2892        KM   .18 .18 .18 .18 .17 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
2893        KM
2894        KM          L=   0.417 miles, S=  223 feet/mile, Kb= .05
2895        KM
2896        BA   0.075
2897        LG    0.13    0.29    5.60    0.21   39.42
2898        UC   0.217   0.147
2899        UA       0       5      16      30      65      77      84      90      94      97
2900        UA     100
            *
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2901        KK   C578I
2902        KM      Hydrograph combine 577578 + 208X at C578I
2903        HC       2
            *
            * *
            * * C578I is the total flow in Bristol Wash upstream of Dam 11
            * *
            *

2904        KK   C578O
2905        KM      Reservoir route at C578 (Dam 11).
2906        RS       1    ELEV  1779.2
2907        SV    0.00   16.38   31.30   53.65   84.39  126.17  138.00  143.00  147.00  154.47
2908        SV  161.00  167.00  174.00  181.00  187.43  194.00  202.00  205.00
2909        SE  1779.2  1794.0  1798.0  1802.0  1806.0  1810.0  1810.8  1811.2  1811.6  1812.0
2910        SE  1812.4  1812.8  1813.2  1813.6  1814.0  1814.4  1814.8  1815.0
2911        SQ       0     131     181     221     254     283     305     325     328     366
2912        SQ     522     812    1194    1651    2176    2763    3406    4104    4855    5250
2913        SE  1779.2  1786.0  1790.0  1794.0  1798.0  1802.0  1806.0  1810.0  1810.8  1811.2
2914        SE  1811.6  1812.0  1812.4  1812.8  1813.2  1813.6  1814.0  1814.4  1814.8  1815.0
2915        RL                    0.97
            *
            * *
            * * End Basin 208.  Rejoin Basin 210
            * *
            *

2916        KK  578587
2917        KM      Normal depth channel route from C578 to C587
2918        KM      Source:  HEC-2 Cross Section: BR 0.697
2919        RS       4    FLOW      -1
2920        RC   0.055   0.045   0.055  1628.0  0.0191
2921        RX  9926.4  9949.5  9960.1  9984.7 10000.0 10014.1 10031.5 10049.4
2922        RY  1763.0  1762.6  1761.8  1757.0  1757.1  1756.9  1761.4  1768.1
            *

2923        KK    210B
2924        KM   Sub-Basin   210B
2925        KM
2926        KM      The Clark Unit Hydrograph is used for this basin.
2927        KM          The Urban time-area relation is used for this basin.
2928        KM
2929        KM      Time of Concentration for this sub-basin is based on the following:
2930        KM          An rainfall areal reduction factor of 1.000
2931        KM
2932        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2933        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2934        KM   .19 .18 .18 .18 .18 .18 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
2935        KM
2936        KM          L=   0.930 miles, S=  251 feet/mile, Kb= .03
2937        KM
2938        BA   0.107
2939        LG    0.08    0.25    5.80    0.17   37.15
2940        UC   0.238   0.253
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2941        UA       0       5      16      30      65      77      84      90      94      97
2942        UA     100
            *
```

```
2943    KK   C586O
2944    KM      Reservoir route at C586.
2945    RS       1     ELEV  1804.4
2946    SV    0.00    0.05    0.36    1.09    2.45    4.45    7.00    9.50    9.60   10.00
2947    SV   10.34   10.70   11.20   11.60   12.10   12.50
2948    SE  1804.4  1806.0  1808.0  1810.0  1812.0  1814.0  1816.0 1817.55  1817.6  1817.8
2949    SE  1818.0  1818.2  1818.4  1818.6  1818.8  1819.0
2950    SQ       0      37     130     219     284     322     353     375     377     393
2951    SQ     432     492     574     680     808     959
        *

2952    KK  586587
2953    KM      Normal depth channel route from C586 to C587
2954    KM      Source:  200 Scale Mapping
2955    RS       3    FLOW      -1
2956    RC   0.040   0.035   0.040  1905.0  0.0313
2957    RX  1000.0  1020.0  1050.0  1055.0  1065.0  1070.0  1130.0  1150.0
2958    RY  1782.0  1780.0  1772.0  1771.0  1771.0  1772.0  1778.0  1782.0
        *

2959    KK    C587
2960    KM      Hydrograph combine 578587 + 586587 at C578
2961    HC       2
        *

2962    KK  587595
2963    KM      Normal depth channel route from C587 to C595
2964    KM      Source:  HEC-2 Cross Section: BR 0.533
2965    RS       2    FLOW      -1
2966    RC   0.055   0.045   0.055  1039.0  0.0173
2967    RX  9977.2  9980.4  9983.6  9989.9 10009.9 10020.3 10028.8 10037.3
2968    RY  1745.2  1744.0  1742.8  1740.3  1740.3  1742.4  1743.0  1743.6
        *

2969    KK    210C
2970    KM   Sub-Basin   210C
2971    KM
2972    KM      The Clark Unit Hydrograph is used for this basin.
2973    KM          The Urban time-area relation is used for this basin.
2974    KM
2975    KM      Time of Concentration for this sub-basin is based on the following:
2976    KM          An rainfall areal reduction factor of 1.000
2977    KM
2978    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
2979    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
2980    KM   .17 .17 .16 .16 .16 .16 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
2981    KM
2982    KM          L=   0.637 miles, S=  198 feet/mile, Kb= .03
2983    KM
2984    BA   0.082
2985    LG    0.11    0.26    4.80    0.28   22.29
```



```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2986    UC   0.221   0.201
2987    UA       0       5      16      30      65      77      84      90      94      97
2988    UA     100
        *

2989    KK   C595L
2990    KM      Hydrograph combine 587595 + 210C at C595 left branch
2991    HC       2
        *
        * *
        * * C595L is the total flow in Bristol Wash upstream of the confluence
        * * with Longmont Wash
        * *
        * * Start Longmont Wash Left Branch
        * *
        *

2992    KK    210D
2993    KM   Sub-Basin   210D
2994    KM
2995    KM      The Clark Unit Hydrograph is used for this basin.
2996    KM          The Urban time-area relation is used for this basin.
2997    KM
2998    KM      Time of Concentration for this sub-basin is based on the following:
2999    KM          An rainfall areal reduction factor of 1.000
3000    KM
3001    KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3002    KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3003    KM   .18 .18 .18 .18 .18 .18 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
3004    KM
3005    KM          L=   0.832 miles, S=  325 feet/mile, Kb= .03
3006    KM
3007    BA   0.140
3008    LG    0.09    0.25    5.80    0.18   33.66
3009    UC   0.208   0.172
3010    UA       0       5      16      30      65      77      84      90      94      97
3011    UA     100
        *

3012    KK  588590
3013    KM      Normal depth channel route from C588 to C590
3014    KM      Source:  HEC-2 Cross Section: LO-LB1 0.128
3015    RS       2    FLOW      -1
3016    RC   0.065   0.050   0.060  1117.0  0.0340
3017    RX  9931.7  9960.6  9984.9 10005.7 10019.1 10033.8 10151.6 10172.9
3018    RY  1839.3  1833.5  1825.9  1824.7  1825.9  1828.8  1832.9  1838.0
        *
```

```
3019        KK    210E
3020        KM   Sub-Basin   210E
3021        KM
3022        KM      The Clark Unit Hydrograph is used for this basin.
3023        KM          The Urban time-area relation is used for this basin.
3024        KM
3025        KM      Time of Concentration for this sub-basin is based on the following:
1                                   HEC-1 INPUT                                          PAGE 71

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3026        KM          An rainfall areal reduction factor of 1.000
3027        KM
3028        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3029        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3030        KM   .19 .19 .19 .19 .19 .18 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
3031        KM
3032        KM          L=   0.339 miles, S=  151 feet/mile, Kb= .03
3033        KM
3034        BA   0.028
3035        LG    0.09    0.17    6.80    0.12   15.00
3036        UC   0.167   0.165
3037        UA       0       5      16      30      65      77      84      90      94      97
3038        UA     100
            *

3039        KK   C590L
3040        KM      Hydrograph combine 588590 + 210E at C590 left branch
3041        HC       2
            *
            * *
            * * C590L is the total flow in Longmont Wash Left Branch upstream of the
            * * confluence with Longmont Wash
            * *
            * * Start Longmont Wash
            * *
            *

3042        KK    210F
3043        KM   Sub-Basin   210F
3044        KM
3045        KM      The Clark Unit Hydrograph is used for this basin.
3046        KM          The Urban time-area relation is used for this basin.
3047        KM
3048        KM      Time of Concentration for this sub-basin is based on the following:
3049        KM          An rainfall areal reduction factor of 1.000
3050        KM
3051        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3052        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3053        KM   .18 .18 .18 .18 .17 .17 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
3054        KM
3055        KM          L=   0.668 miles, S=  349 feet/mile, Kb= .03
3056        KM
3057        BA   0.093
3058        LG    0.09    0.25    4.40    0.34   49.44
3059        UC   0.183   0.158
3060        UA       0       5      16      30      65      77      84      90      94      97
3061        UA     100
            *

3062        KK  589590
3063        KM      Normal depth channel route from C589 to C590
3064        KM      Source:  HEC-2 Cross Section: LO 0.813
3065        RS       3    FLOW      -1
3066        RC   0.065   0.050   0.060  1751.0  0.0423
3067        RX  9957.0  9963.5  9984.5  9996.1 10008.8 10017.4 10040.1 10060.8
1                                   HEC-1 INPUT                                          PAGE 72

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3068        RY  1843.8  1842.9  1837.0  1831.2  1830.6  1836.1  1838.3  1842.1
            *

3069        KK    210G
3070        KM   Sub-Basin   210G
3071        KM
3072        KM      The Clark Unit Hydrograph is used for this basin.
3073        KM          The Urban time-area relation is used for this basin.
3074        KM
3075        KM      Time of Concentration for this sub-basin is based on the following:
3076        KM          An rainfall areal reduction factor of 1.000
3077        KM
3078        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3079        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3080        KM   .18 .18 .18 .18 .18 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
3081        KM
3082        KM          L=   0.969 miles, S=  333 feet/mile, Kb= .03
3083        KM
3084        BA   0.162
3085        LG    0.09    0.25    5.30    0.22   39.22
3086        UC   0.225   0.195
3087        UA       0       5      16      30      65      77      84      90      94      97
3088        UA     100
            *

3089        KK   C590R
3090        KM      Hydrograph combine 589590 + 210G at C590 right branch
3091        HC       2
            *
            * * NOTE: 590593 is too short to route
            * *
            * * C590R is the total flow in Longmont Wash upstream of the confluence
            * * with Longmont Wash Left Branch
            * *
```

```
                 *
3092             KK    C590
3093             KM      Hydrograph combine C590L + C590R at C590
3094             HC       2
                 *
                 * * C590 is the total flow in Longmont Wash upstream of the confluence
                 * * Longmont Wash Right Branch
                 * *
                 * * Start Longmont Wash Right Branch
                 * *
                 *

3095             KK    210H
3096             KM   Sub-Basin   210H
3097             KM
3098             KM      The Clark Unit Hydrograph is used for this basin.
3099             KM          The Urban time-area relation is used for this basin.
3100             KM
3101             KM      Time of Concentration for this sub-basin is based on the following:
3102             KM          An rainfall areal reduction factor of 1.000
1                                          HEC-1 INPUT                                                    PAGE 73

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3103             KM
3104             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3105             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3106             KM   .18 .18 .18 .18 .18 .18 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
3107             KM
3108             KM          L=   0.565 miles, S=  340 feet/mile, Kb= .03
3109             KM
3110             BA   0.070
3111             LG    0.09    0.23    6.20    0.16   21.74
3112             UC   0.171   0.150
3113             UA       0       5      16      30      65      77      84      90      94      97
3114             UA     100
                 *

3115             KK  592593
3116             KM      Normal depth channel route from C592 to C593
3117             KM      Source:  HEC-2 Cross Section: LO-RB1 0.027
3118             RS       3    FLOW      -1
3119             RC   0.065   0.050   0.060  2062.0  0.0412
3120             RX  9920.6  9964.0  9984.7  9996.1 10003.9 10025.4 10041.1 10057.9
3121             RY  1820.0  1804.5  1801.2  1797.3  1797.3  1808.5  1818.3  1820.1
                 *
                 * *
                 * * 592593 is the total flow in Longmont Wash Right Branch upstream
                 * * of the confluence with Longmont Wash
                 * *
                 *

3122             KK    C593
3123             KM      Hydrograph combine C590 + C593R at C593
3124             HC       2
                 *
                 * *
                 * * C593 is the total flow in Longmont Wash below the confluence with
                 * * Longmont Wash Right Branch
                 * *
                 *

3125             KK  593594
3126             KM      Normal depth channel route from C593 to C594
3127             KM      Source:  HEC-2 Cross Section: LO0.413
3128             RS       2    FLOW      -1
3129             RC   0.065   0.050   0.060   988.0  0.0202
3130             RX  9937.2  9958.5  9981.7  9992.8 10007.7 10024.4 10041.9 10067.8
3131             RY  1783.6  1773.5  1773.9  1771.3  1771.2  1774.5  1778.7  1788.7
                 *

3132             KK    210I
3133             KM   Sub-Basin   210I
3134             KM
3135             KM      The Clark Unit Hydrograph is used for this basin.
3136             KM          The Urban time-area relation is used for this basin.
3137             KM
3138             KM      Time of Concentration for this sub-basin is based on the following:
3139             KM          An rainfall areal reduction factor of 1.000
1                                          HEC-1 INPUT                                                    PAGE 74

LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3140             KM
3141             KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3142             KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3143             KM   .19 .19 .19 .19 .19 .19 .02 .02 .02 .02 .02 .02 .01 .01 .01 .00 .00 .00
3144             KM
3145             KM          L=   0.634 miles, S=  250 feet/mile, Kb= .03
3146             KM
3147             BA   0.049
3148             LG    0.09    0.15    7.60    0.09   15.00
3149             UC   0.192   0.229
3150             UA       0       5      16      30      65      77      84      90      94      97
3151             UA     100
                 *

3152             KK    C594
3153             KM      Hydrograph combine 593594 + 210I at C594
3154             HC       2
                 *

3155             KK  594595
```

```
3156        KM      Normal depth channel route from C594 to C595
3157        KM      Source:  HEC-2 Cross Section: LO 0.184
3158        RS       6    FLOW      -1
3159        RC   0.065   0.050   0.060  2093.0  0.0201
3160        RX  9814.0  9836.5  9878.5  9988.2  9994.1 10010.9 10030.4 10030.5
3161        RY  1769.3  1766.6  1752.8  1750.6  1747.9  1749.2  1770.5  1770.6
            *

3162        KK    210J
3163        KM   Sub-Basin   210J
3164        KM
3165        KM      The Clark Unit Hydrograph is used for this basin.
3166        KM          The Urban time-area relation is used for this basin.
3167        KM
3168        KM      Time of Concentration for this sub-basin is based on the following:
3169        KM          An rainfall areal reduction factor of 1.000
3170        KM
3171        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3172        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3173        KM   .19 .18 .18 .18 .18 .18 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
3174        KM
3175        KM          L=   0.684 miles, S=  187 feet/mile, Kb= .03
3176        KM
3177        BA   0.103
3178        LG    0.09    0.19    6.60    0.13   15.00
3179        UC   0.221   0.186
3180        UA       0       5      16      30      65      77      84      90      94      97
3181        UA     100
            *
1                                          HEC-1 INPUT                                          PAGE 75
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3182        KK   C595R
3183        KM      Hydrograph combine 594595 + 210J at C595
3184        HC       2
            *
            * *
            * * C595R is the total flow in Longmont Wash upstream of the confluence
            * * with Bristol Wash
            * *
            *

3185        KK    C595
3186        KM      Hydrograph combine C595L + C595R at C595
3187        HC       2
            *
            * *
            * * C595 is the total flow in Bristol Wash just downstream of the
            * * confluence with Longmont Wash
            * *
            *

3188        KK  595596
3189        KM      Normal depth channel route from C595 to C596
3190        KM      Source:  HEC-2 Cross Section: BR0.290
3191        RS       3    FLOW      -1
3192        RC   0.055   0.045   0.055  1095.0  0.0110
3193        RX  9886.8  9904.8  9948.0 10000.0 10032.4 10081.5 10107.3 10130.4
3194        RY  1727.2  1724.1  1725.9  1720.2  1725.6  1725.3  1721.3  1731.4
            *

3195        KK    210K
3196        KM   Sub-Basin   210K
3197        KM
3198        KM      The Clark Unit Hydrograph is used for this basin.
3199        KM          The Urban time-area relation is used for this basin.
3200        KM
3201        KM      Time of Concentration for this sub-basin is based on the following:
3202        KM          An rainfall areal reduction factor of 1.000
3203        KM
3204        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3205        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3206        KM   .19 .18 .18 .18 .18 .18 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
3207        KM
3208        KM          L=   0.425 miles, S=  207 feet/mile, Kb= .03
3209        KM
3210        BA   0.077
3211        LG    0.09    0.19    6.60    0.13   15.00
3212        UC   0.171   0.113
3213        UA       0       5      16      30      65      77      84      90      94      97
3214        UA     100
            *
1                                          HEC-1 INPUT                                          PAGE 76
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3215        KK    C596
3216        KM      Hydrograph combine 595596 + 210K at C596
3217        HC       2
            *
            * *
            * * C596 is the total flow in Bristol Wash at Golden Eagle Blvd.
            * * upstream of DAM 4
            * *
            * * Leave Basin 210 temporarily and move to Basin 209
            * *
            * * Start Cloudburst Wash
            *

3218        KK    209A
3219        KM   Sub-Basin   209A
```

```
3220          KM
3221          KM      The Clark Unit Hydrograph is used for this basin.
3222          KM          The HEC-1 time-area relation is used for this basin.
3223          KM
3224          KM      Time of Concentration for this sub-basin is based on the following:
3225          KM          An rainfall areal reduction factor of 1.000
3226          KM
3227          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3228          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3229          KM   .17 .16 .16 .16 .16 .15 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
3230          KM
3231          KM          L=   1.028 miles, S=  367 feet/mile, Kb= .08
3232          KM
3233          BA   0.368
3234          LG    0.18     0.31     4.35     0.38    41.41
3235          UC   0.388    0.234
              *

3236          KK  579580
3237          KM      Normal depth channel route from C579 to C580
3238          KM      Source:  100 Scale 4' CI Mapping
3239          RS       2    FLOW      -1
3240          RC   0.050    0.045    0.050  1751.0  0.0600
3241          RX  1000.0  1010.0  1025.0  1030.0  1035.0  1040.0  1045.0  1048.0
3242          RY  2336.0  2332.0  2328.0  2327.5  2327.5  2328.0  2332.0  2336.0
              *

3243          KK    209C
3244          KM   Sub-Basin   209C
3245          KM
3246          KM      The Clark Unit Hydrograph is used for this basin.
3247          KM          The Urban time-area relation is used for this basin.
3248          KM
3249          KM      Time of Concentration for this sub-basin is based on the following:
3250          KM          An rainfall areal reduction factor of 1.000
3251          KM
3252          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3253          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3254          KM   .18 .17 .17 .17 .17 .17 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3255          KM
3256          KM          L=   0.723 miles, S=  342 feet/mile, Kb= .05
3257          KM
3258          BA   0.064
3259          LG    0.11     0.26     4.35     0.36    48.03
3260          UC   0.254    0.299
3261          UA       0        5       16       30       65       77       84       90       94       97
3262          UA     100
              *

3263          KK   C580R
3264          KM      Hydrograph combine 579580 + 209C at C580 right branch
3265          HC       2
              *

3266          KK    209B
3267          KM   Sub-Basin   209B
3268          KM
3269          KM      The Clark Unit Hydrograph is used for this basin.
3270          KM          The Urban time-area relation is used for this basin.
3271          KM
3272          KM      Time of Concentration for this sub-basin is based on the following:
3273          KM          An rainfall areal reduction factor of 1.000
3274          KM
3275          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3276          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3277          KM   .18 .18 .17 .17 .17 .17 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
3278          KM
3279          KM          L=   0.716 miles, S=  403 feet/mile, Kb= .03
3280          KM
3281          BA   0.083
3282          LG    0.09     0.25     4.35     0.35    50.00
3283          UC   0.183    0.178
3284          UA       0        5       16       30       65       77       84       90       94       97
3285          UA     100
              *

3286          KK    C580
3287          KM      Hydrograph combine 580R + 209B at C580
3288          HC       2
              *

3289          KK  580581
3290          KM      Normal depth channel route from C580 to C581
3291          KM      Source:  100 Scale 4' CI Mapping
3292          RS       3    FLOW      -1
3293          RC   0.050    0.045    0.050  2339.0  0.0440
3294          RX  1000.0  1010.0  1025.0  1030.0  1040.0  1045.0  1070.0  1075.0
3295          RY  2452.0  2448.0  2444.0  2443.5  2443.5  2444.0  2448.0  2452.0
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3296          KK    209D
3297          KM   Sub-Basin   209D
3298          KM
3299          KM      The Clark Unit Hydrograph is used for this basin.
3300          KM          The Urban time-area relation is used for this basin.
3301          KM
```

```
3302          KM      Time of Concentration for this sub-basin is based on the following:
3303          KM          An rainfall areal reduction factor of 1.000
3304          KM
3305          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3306          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3307          KM   .18 .17 .17 .17 .17 .17 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
3308          KM
3309          KM          L=   0.800 miles, S=  354 feet/mile, Kb= .04
3310          KM
3311          BA   0.244
3312          LG    0.11    0.26    4.35    0.36   48.63
3313          UC   0.233   0.137
3314          UA      0       5      16      30      65      77      84      90      94      97
3315          UA    100
              *

3316          KK   C581R
3317          KM     Hydrograph combine 580581 + 209D at C581 right branch
3318          HC       2
              *

3319          KK    209E
3320          KM   Sub-Basin   209E
3321          KM
3322          KM     The Clark Unit Hydrograph is used for this basin.
3323          KM         The Urban time-area relation is used for this basin.
3324          KM
3325          KM     Time of Concentration for this sub-basin is based on the following:
3326          KM         An rainfall areal reduction factor of 1.000
3327          KM
3328          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3329          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3330          KM   .18 .18 .17 .17 .17 .17 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
3331          KM
3332          KM          L=   1.018 miles, S=  341 feet/mile, Kb= .03
3333          KM
3334          BA   0.149
3335          LG    0.09    0.25    4.35    0.35   50.00
3336          UC   0.229   0.217
3337          UA      0       5      16      30      65      77      84      90      94      97
3338          UA    100
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3339          KK    C581
3340          KM     Hydrograph combine 581R + 209E at C581
3341          HC       2
              *

3342          KK  581582
3343          KM     Normal depth channel route from C581 to C582
3344          KM     Source:  100 Scale 4' CI Mapping
3345          RS       4    FLOW      -1
3346          RC   0.050   0.045   0.050  4012.0  0.0459
3347          RX  1000.0  1010.0  1025.0  1030.0  1035.0  1040.0  1050.0  1065.0
3348          RY  2100.0  2096.0  2092.0  2091.5  2091.5  2092.0  2096.0  2100.0
              *

3349          KK    209F
3350          KM   Sub-Basin   209F
3351          KM
3352          KM     The Clark Unit Hydrograph is used for this basin.
3353          KM         The HEC-1 time-area relation is used for this basin.
3354          KM
3355          KM     Time of Concentration for this sub-basin is based on the following:
3356          KM         An rainfall areal reduction factor of 1.000
3357          KM
3358          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3359          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3360          KM   .17 .16 .16 .16 .16 .15 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
3361          KM
3362          KM          L=   1.191 miles, S=  332 feet/mile, Kb= .09
3363          KM
3364          BA   0.226
3365          LG    0.18    0.31    4.50    0.36   40.21
3366          UC   0.458   0.418
              *

3367          KK   C582R
3368          KM     Hydrograph combine 581582 + 209F at C582 right branch
3369          HC       2
              *

3370          KK    209G
3371          KM   Sub-Basin   209G
3372          KM
3373          KM     The Clark Unit Hydrograph is used for this basin.
3374          KM         The Urban time-area relation is used for this basin.
3375          KM
3376          KM     Time of Concentration for this sub-basin is based on the following:
3377          KM         An rainfall areal reduction factor of 1.000
3378          KM
3379          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3380          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3381          KM   .18 .18 .17 .17 .17 .17 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
3382          KM
3383          KM          L=   1.050 miles, S=  306 feet/mile, Kb= .03
3384          KM
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
3385          BA   0.204
3386          LG    0.09    0.25    4.35    0.35   49.93
3387          UC   0.242   0.197
3388          UA       0       5      16      30      65      77      84      90      94      97
3389          UA     100
              *

3390          KK    C582
3391          KM      Hydrograph combine C582R + 209G at C582
3392          HC       2
              *

3393          KK  582583
3394          KM      Normal depth channel route from C582 to C583
3395          KM      Source:  100 Scale 4' CI Mapping.
3396          RS       3    FLOW      -1
3397          RC   0.060   0.050   0.060  1725.0  0.0232
3398          RX   960.0  1020.0  1035.0  1040.0  1050.0  1055.0  1065.0  1073.0
3399          RY  2024.0  2018.0  2016.0  2015.5  2015.5  2016.0  2020.0  2024.0
              *

3400          KK    209H
3401          KM   Sub-Basin   209H
3402          KM
3403          KM      The Clark Unit Hydrograph is used for this basin.
3404          KM          The Urban time-area relation is used for this basin.
3405          KM
3406          KM      Time of Concentration for this sub-basin is based on the following:
3407          KM          An rainfall areal reduction factor of 1.000
3408          KM
3409          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3410          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3411          KM   .17 .17 .17 .16 .16 .16 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
3412          KM
3413          KM          L=   0.542 miles, S=  343 feet/mile, Kb= .07
3414          KM
3415          BA   0.083
3416          LG    0.15    0.31    5.60    0.22   26.57
3417          UC   0.263   0.212
3418          UA       0       5      16      30      65      77      84      90      94      97
3419          UA     100
              *

3420          KK    C583
3421          KM      Hydrograph combine 582583 + 209H at C583
3422          HC       2
              *

3423          KK  583584
3424          KM      Normal depth channel route from C583 to C584
3425          KM      Source:  HEC-2 Cross Section: CL 1.664
3426          RS       5    FLOW      -1
3427          RC   0.055   0.070   0.055  3107.0  0.0356
3428          RX  9859.8  9910.3  9933.5  9995.6 10021.7 10051.0 10083.0 10127.8
3429          RY  1948.3  1944.2  1943.7  1930.9  1932.4  1941.6  1937.3  1945.2
              *
```

1 HEC-1 INPUT PAGE 81

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3430          KK    209I
3431          KM   Sub-Basin   209I
3432          KM
3433          KM      The Clark Unit Hydrograph is used for this basin.
3434          KM          The Urban time-area relation is used for this basin.
3435          KM
3436          KM      Time of Concentration for this sub-basin is based on the following:
3437          KM          An rainfall areal reduction factor of 1.000
3438          KM
3439          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3440          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3441          KM   .18 .17 .17 .17 .17 .17 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
3442          KM
3443          KM          L=   0.691 miles, S=  347 feet/mile, Kb= .04
3444          KM
3445          BA   0.182
3446          LG    0.10    0.27    6.00    0.17   17.98
3447          UC   0.221   0.136
3448          UA       0       5      16      30      65      77      84      90      94      97
3449          UA     100
              *

3450          KK   C584I
3451          KM      Hydrograph combine 583584 + 209I at C584I
3452          HC       2
              *
              * *
              * * C584I is the total flow in Cloudburst Wash upstream of Dam 7
              * *
              *

3453          KK   C584O
3454          KM      Reservoir route at C584 (Dam 7).
3455          RS       1    ELEV  1884.8
3456          SV    0.00   14.55   37.17   57.52   86.65   94.00   97.00  101.00  104.90  109.00
3457          SV  113.00  118.00  122.00  126.25  131.00  133.00  136.00  139.00
3458          SE  1884.8  1908.0  1916.0  1920.0  1924.0  1924.8  1925.2  1925.6  1926.0  1926.4
3459          SE  1926.8  1927.2  1927.6  1928.0  1928.4  1928.6  1928.8  1929.0
3460          SQ       0     135     223     285     326     341     355     358     385     493
3461          SQ     704    1007    1394    1852    2374    2956    3596    3937    4292    4661
3462          SE  1884.8  1892.0  1900.0  1908.0  1916.0  1920.0  1924.0  1924.8  1925.2  1925.6
3463          SE  1926.0  1926.4  1926.8  1927.2  1927.6  1928.0  1928.4  1928.6  1928.8  1929.0
3464          RL                    0.15
```

```
                    *
                    * *
                    * * End Basin 209.  Rejoin Basin 210
                    * *
                    *
1                                          HEC-1 INPUT                                                    PAGE 82
LINE                ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3465                KK  584597
3466                KM      Normal depth channel route from C584 to C597
3467                KM      Source:  HEC-2 Cross Section: CL 1.032
3468                RS      10     FLOW      -1
3469                RC   0.065    0.050    0.065   3704.0   0.0261
3470                RX  9902.1   9923.0   9938.7   9984.6 10049.3 10056.0 10091.7 10120.0
3471                RY  1839.1   1830.1   1826.6   1824.1  1824.9  1826.7  1828.5  1838.8
                    *

3472                KK    210L
3473                KM   Sub-Basin    210L
3474                KM
3475                KM      The Clark Unit Hydrograph is used for this basin.
3476                KM          The Urban time-area relation is used for this basin.
3477                KM
3478                KM      Time of Concentration for this sub-basin is based on the following:
3479                KM          An rainfall areal reduction factor of 1.000
3480                KM
3481                KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3482                KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3483                KM   .17 .17 .17 .17 .16 .16 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
3484                KM
3485                KM          L=    0.820 miles, S=  251 feet/mile, Kb= .03
3486                KM
3487                BA   0.137
3488                LG    0.09     0.25     5.20     0.23    15.90
3489                UC   0.229    0.191
3490                UA       0        5       16       30       65       77       84       90       94       97
3491                UA     100
                    *

3492                KK    C597
3493                KM      Hydrograph combine 584597 + 210L at C597
3494                HC       2
                    *

3495                KK  597598
3496                KM      Normal depth channel route from C597 to C598
3497                KM      Source:  HEC-2 Cross Section: CL 0.328
3498                RS       7     FLOW      -1
3499                RC   0.065    0.050    0.065   2822.0   0.0252
3500                RX  9961.0   9961.9   9969.1   9986.3 10018.5 10082.6 10155.2 10278.8
3501                RY  1740.2   1740.2   1738.1   1731.6  1732.3  1737.1  1740.0  1740.8
                    *

3502                KK    210M
3503                KM   Sub-Basin    210M
3504                KM
3505                KM      The Clark Unit Hydrograph is used for this basin.
3506                KM          The Urban time-area relation is used for this basin.
3507                KM
3508                KM      Time of Concentration for this sub-basin is based on the following:
3509                KM          An rainfall areal reduction factor of 1.000
3510                KM
1                                          HEC-1 INPUT                                                    PAGE 83
LINE                ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3511                KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3512                KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3513                KM   .18 .18 .17 .17 .17 .17 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
3514                KM
3515                KM          L=    1.022 miles, S=  232 feet/mile, Kb= .03
3516                KM
3517                BA   0.162
3518                LG    0.09     0.25     5.80     0.17    15.02
3519                UC   0.258    0.236
3520                UA       0        5       16       30       65       77       84       90       94       97
3521                UA     100
                    *

3522                KK    C598
3523                KM      Hydrograph combine 597598 + 210M at C598
3524                HC       2
                    *
                    * *
                    * * C598 is the total flow in Cloudburst Wash at Golden Eagle Blvd.
                    * * upstream of DAM 4
                    * *
                    *

3525                KK    210N
3526                KM   Sub-Basin    210N
3527                KM
3528                KM      The Clark Unit Hydrograph is used for this basin.
3529                KM          The Urban time-area relation is used for this basin.
3530                KM
3531                KM      Time of Concentration for this sub-basin is based on the following:
3532                KM          An rainfall areal reduction factor of 1.000
3533                KM
3534                KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3535                KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3536                KM   .15 .15 .15 .15 .15 .14 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
3537                KM
```

```
3538        KM          L=   0.309 miles, S=  178 feet/mile, Kb= .03
3539        KM
3540        BA   0.049
3541        LG    0.09    0.25    4.10    0.40   16.38
3542        UC   0.163   0.108
3543        UA       0       5      16      30      65      77      84      90      94      97
3544        UA     100
            *

3545        KK   C599I
3546        KM      Hydrograph combine C585 + C596 + C598 + 210N at C599I
3547        HC       4
            *
            * *
            * * C599I is the total flow in Ashbrook Wash upstream of DAM 4
            * *
            *
1                                          HEC-1 INPUT                                                    PAGE 84
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3548        KK   C5990
3549        KM      Reservoir route at C599 (Dam 4).
3550        RS       1    ELEV  1694.7
3551        SV    0.00   16.85   31.66   52.71   80.85   95.00   98.00  102.00  105.00  109.00
3552        SV  113.00  116.14  120.00  124.00  128.00  136.00  139.00  144.00  148.00  152.00
3553        SE  1694.7  1708.0  1710.0  1712.0  1714.0  1714.8  1715.0  1715.2  1715.4  1715.6
3554        SE  1715.8  1716.0  1716.2  1716.4  1716.6  1717.0  1717.2  1717.4  1717.6  1717.8
3555        SQ       0      38     214     312     384     443     497     543     587     628
3556        SQ     642     754     957    1262    1665    2182    2483    2811    3164    3540
3557        SE  1694.7  1696.0  1700.0  1702.0  1704.0  1706.0  1708.0  1710.0  1712.0  1714.0
3558        SE  1714.8  1715.4  1715.8  1716.2  1716.6  1717.0  1717.2  1717.4  1717.6  1717.8
3559        RL                   0.97
            *
            * * End Basin 210.  Start Basin 211
            * *
            *

3560        KK  599608
3561        KM      Normal depth channel route from C599 to C608
3562        KM      Source:  HEC-2 Cross Section: AS 3.621
3563        RS       3    FLOW      -1
3564        RC   0.055   0.045   0.025  1476.0  0.0148
3565        RX  9675.4  9726.8  9929.0  9990.7 10005.9 10033.3 10061.9 10082.2
3566        RY  1691.3  1687.2  1685.5  1678.6  1678.1  1682.1  1689.8  1691.8
            *

3567        KK    211K
3568        KM   Sub-Basin   211K
3569        KM
3570        KM      The Clark Unit Hydrograph is used for this basin.
3571        KM          The Urban time-area relation is used for this basin.
3572        KM
3573        KM      Time of Concentration for this sub-basin is based on the following:
3574        KM          An rainfall areal reduction factor of 1.000
3575        KM
3576        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3577        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3578        KM   .18 .18 .18 .18 .18 .18 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
3579        KM
3580        KM          L=   0.376 miles, S=  157 feet/mile, Kb= .03
3581        KM
3582        BA   0.102
3583        LG    0.13    0.27    6.00    0.16   31.48
3584        UC   0.175   0.090
3585        UA       0       5      16      30      65      77      84      90      94      97
3586        UA     100
            *

3587        KK   C608L
3588        KM      Hydrograph combine 599608 + 211K at C608 left branch
3589        HC       2
            *
1                                          HEC-1 INPUT                                                    PAGE 85
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3590        KK    211G
3591        KM   Sub-Basin   211G
3592        KM
3593        KM      The Clark Unit Hydrograph is used for this basin.
3594        KM          The Urban time-area relation is used for this basin.
3595        KM
3596        KM      Time of Concentration for this sub-basin is based on the following:
3597        KM          An rainfall areal reduction factor of 1.000
3598        KM
3599        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3600        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3601        KM   .21 .21 .20 .20 .20 .20 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
3602        KM
3603        KM          L=   0.448 miles, S=  190 feet/mile, Kb= .04
3604        KM
3605        BA   0.008
3606        LG    0.06    0.25    5.70    0.18   90.00
3607        UC   0.200   0.527
3608        UA       0       5      16      30      65      77      84      90      94      97
3609        UA     100
            *

3610        KK  604606
3611        KM      Normal depth channel route from C604 to C606
3612        KM      Source:  200 Scale Mapping
```

```
3613   RS      11    FLOW      -1
3614   RC   0.040   0.018   0.040  2784.0  0.0647
3615   RX  1000.0  1040.0  1060.0  1076.0  1092.0  1093.2  1098.2  1113.2
3616   RY  1814.0  1811.0  1810.8  1811.1  1810.8  1811.2  1812.0  1816.0
       *

3617   KK    211I
3618   KM   Sub-Basin   211I
3619   KM
3620   KM      The Clark Unit Hydrograph is used for this basin.
3621   KM          The Urban time-area relation is used for this basin.
3622   KM
3623   KM      Time of Concentration for this sub-basin is based on the following:
3624   KM          An rainfall areal reduction factor of 1.000
3625   KM
3626   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3627   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3628   KM   .19 .19 .19 .18 .18 .18 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
3629   KM
3630   KM          L=   0.626 miles, S=  257 feet/mile, Kb= .03
3631   KM
3632   BA   0.041
3633   LG    0.08    0.25    5.70    0.18   45.00
3634   UC   0.192   0.252
3635   UA      0       5      16      30      65      77      84      90      94      97
3636   UA    100
       *
```

1 HEC-1 INPUT PAGE 86

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LINE   ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3637   KK   C606R
3638   KM      Hydrograph combine 604606 + 211I at C606 right branch
3639   HC       2
       *

3640   KK    211H
3641   KM   Sub-Basin   211H
3642   KM
3643   KM      The Clark Unit Hydrograph is used for this basin.
3644   KM          The Urban time-area relation is used for this basin.
3645   KM
3646   KM      Time of Concentration for this sub-basin is based on the following:
3647   KM          An rainfall areal reduction factor of 1.000
3648   KM
3649   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3650   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3651   KM   .18 .18 .18 .18 .17 .17 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
3652   KM
3653   KM          L=   0.501 miles, S=  289 feet/mile, Kb= .03
3654   KM
3655   BA   0.073
3656   LG    0.09    0.25    6.00    0.16   17.93
3657   UC   0.167   0.129
3658   UA      0       5      16      30      65      77      84      90      94      97
3659   UA    100
       *

3660   KK   C605O
3661   KM      Reservoir route at C605.
3662   RS       1    ELEV  1722.5
3663   SV    0.00    0.20    0.20    0.20    0.20    0.30    0.30    0.30    0.40    0.60
3664   SV    0.70    0.90    1.00    1.20    1.40    1.60    1.90    2.80    3.40    4.10
3665   SE  1722.5  1726.8  1727.0  1727.2  1727.4  1727.6  1727.8  1728.0  1728.2  1728.4
3666   SE  1728.6  1728.8  1729.0  1729.2  1729.4  1729.6  1730.0  1730.4  1730.7  1731.0
3667   SQ       0       0       5      10      20      43      63      73      78      85
3668   SQ      91      96     101     105     109     113     122     130     136     200
       *

3669   KK    C606
3670   KM      Hydrograph combine C606R + C605O at C606
3671   HC       2
       *

3672   KK  606607
3673   KM      Normal depth channel route from C606 to C607
3674   KM      Source:  200 Scale Mapping
3675   RS       3    FLOW      -1
3676   RC   0.020   0.055   0.035  1061.0  0.0286
3677   RX  1000.0  1032.0  1082.0  1095.0  1105.0  1117.0  1123.0  1153.0
3678   RY  1704.3  1704.0  1703.5  1700.0  1700.0  1703.0  1704.0  1706.0
       *
```

1 HEC-1 INPUT PAGE 87

```
LINE   ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3679   KK    211J
3680   KM   Sub-Basin   211J
3681   KM
3682   KM      The Clark Unit Hydrograph is used for this basin.
3683   KM          The Urban time-area relation is used for this basin.
3684   KM
3685   KM      Time of Concentration for this sub-basin is based on the following:
3686   KM          An rainfall areal reduction factor of 1.000
3687   KM
3688   KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3689   KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3690   KM   .19 .19 .19 .18 .18 .18 .02 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
3691   KM
3692   KM          L=   0.249 miles, S=  166 feet/mile, Kb= .03
3693   KM
3694   BA   0.015
```

```
3695        LG    0.08    0.23    6.20    0.16   39.19
3696        UC   0.138   0.148
3697        UA       0       5      16      30      65      77      84      90      94      97
3698        UA     100
            *

3699        KK    C607
3700        KM      Hydrograph combine 606607 + 211J at C607
3701        HC       2
            *

3702        KK  607608
3703        KM      Normal depth channel route from C607 to C608
3704        KM      Source:  200 Scale Mapping
3705        RS       2    FLOW      -1
3706        RC   0.040   0.050   0.035  1008.0  0.0145
3707        RX  1000.0  1060.0  1070.0  1082.0  1083.0  1095.0  1115.0  1133.0
3708        RY  1688.0  1686.0  1684.0  1681.0  1681.0  1684.0  1685.0  1685.4
            *

3709        KK    C608
3710        KM      Hydrograph combine C608L + 607608 at C608
3711        HC       2
            *

3712        KK  608613
3713        KM      Normal depth channel route from C608 to C613
3714        KM      Source:  HEC-2 Cross Section: AS 3.421
3715        RS       2    FLOW      -1
3716        RC   0.100   0.045   0.100  1338.0  0.0202
3717        RX  9885.0  9887.9  9957.3  9986.7 10012.9 10054.7 10086.3 10122.2
3718        RY  1670.2  1670.1  1668.0  1660.0  1659.9  1661.6  1669.9  1670.8
            *
            * *
            * * Move to the top of Sunflower Wash
            * *
            *
```

1 HEC-1 INPUT PAGE 88

```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3719        KK    211M
3720        KM   Sub-Basin   211M
3721        KM
3722        KM      The Clark Unit Hydrograph is used for this basin.
3723        KM          The Urban time-area relation is used for this basin.
3724        KM
3725        KM      Time of Concentration for this sub-basin is based on the following:
3726        KM          An rainfall areal reduction factor of 1.000
3727        KM
3728        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3729        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3730        KM   .19 .19 .19 .19 .19 .18 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
3731        KM
3732        KM          L=   0.541 miles, S=  266 feet/mile, Kb= .03
3733        KM
3734        BA   0.081
3735        LG    0.07    0.25    5.70    0.18   50.05
3736        UC   0.175   0.137
3737        UA       0       5      16      30      65      77      84      90      94      97
3738        UA     100
            *

3739        KK  610611
3740        KM      Normal depth channel route from C610 to 1611
3741        KM      Source:  HEC-2 Cross Section: SU 0.216
3742        RS       2    FLOW      -1
3743        RC   0.050   0.045   0.050  1090.0  0.0211
3744        RX  9911.9  9948.1  9973.6  9988.6 10007.1 10027.0 10049.8 10143.7
3745        RY  1699.3  1691.7  1686.3  1680.1  1679.7  1686.6  1687.3  1698.6
            *

3746        KK    211N
3747        KM   Sub-Basin   211N
3748        KM
3749        KM      The Clark Unit Hydrograph is used for this basin.
3750        KM          The Urban time-area relation is used for this basin.
3751        KM
3752        KM      Time of Concentration for this sub-basin is based on the following:
3753        KM          An rainfall areal reduction factor of 1.000
3754        KM
3755        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3756        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3757        KM   .19 .19 .19 .19 .19 .19 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
3758        KM
3759        KM          L=   0.261 miles, S=  235 feet/mile, Kb= .03
3760        KM
3761        BA   0.020
3762        LG    0.07    0.25    5.70    0.18   56.58
3763        UC   0.125   0.116
3764        UA       0       5      16      30      65      77      84      90      94      97
3765        UA     100
            *
```

1 HEC-1 INPUT PAGE 89

```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3766        KK   C611R
3767        KM      Hydrograph combine 610611 + 211N at C611 right branch
3768        HC       2
            *
```

```
KK    211O
KM   Sub-Basin    211O
KM
KM       The Clark Unit Hydrograph is used for this basin.
KM           The Urban time-area relation is used for this basin.
KM
KM       Time of Concentration for this sub-basin is based on the following:
KM           An rainfall areal reduction factor of 1.000
KM
KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM      5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM    .19 .19 .19 .18 .18 .18 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
KM
KM           L=    0.371 miles, S=  257 feet/mile, Kb= .03
KM
BA    0.041
LG     0.08     0.25     5.70     0.18    45.31
UC    0.146    0.122
UA       0        5       16       30       65       77       84       90       94       97
UA     100
*

KK    C609O
KM       Reservoir route at C609.
RS        1     ELEV  1694.0
SV     0.00     0.10     0.21     0.50     0.86     1.40     1.93     2.60     3.10     3.20
SV     3.39     3.60     3.80     4.00     4.10     4.30     4.50     4.70     4.90     5.10
SE   1694.0   1695.0   1696.0   1697.0   1698.0   1699.0   1700.0   1701.0   1701.6   1701.8
SE   1702.0   1702.2   1702.4   1702.6   1702.8   1703.0   1703.2   1703.4   1703.6   1703.8
SQ        0        6       16       33       48       59       68       75       79       85
SQ      108      149      209      289      390      512      658      829     1025     1247
*

KK   609611
KM       Normal depth channel route from C609 to C611
KM       Source:  200 Scale Mapping
RS        1     FLOW      -1
RC    0.035    0.050    0.035    470.0   0.0200
RX   1000.0   1025.0   1050.0   1054.0   1064.0   1068.0   1088.0   1103.0
RY   1690.0   1688.0   1684.0   1682.0   1682.0   1684.0   1688.0   1690.0
*

KK    C611I
KM       Hydrograph combine 609611 + C611R at C611I
HC        2
*
```

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HEC-1 INPUT

PAGE 90

```
LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK    C611O
KM       Reservoir route at C611.
RS        1     ELEV  1668.4
SV     0.00     0.41     1.10     2.49     4.34     6.64     6.72     6.81     6.89     6.97
SV     7.06     7.14     7.22     7.31     7.39     7.47     7.56     7.64     7.72     7.81
SE   1674.0   1676.0   1678.0   1680.0   1682.0   1684.0   1684.2   1684.4   1684.6   1684.8
SE   1685.0   1685.2   1685.4   1685.6   1685.8   1686.0   1686.2   1686.4   1686.6   1686.8
SQ        0        0       86      117      141      162      164      170      181      199
SQ      225      262      313      378      460      558      673      807      958     1118
*

KK    D611L
KM       Hydrograph diversion at C611.  Main flow continues in the left branch.
KM       Diverted flow is in the right branch.
DT    D611R
DI        0        0       86      117      141      162      164      170      181      199
DI      225      262      313      378      460      558      673      807      958     1118
DQ        0        0       86      117      141      162      164      165      167      169
DQ      171      173      175      176      178      180      182      183      185      187
*

KK   611612
KM       Normal depth channel route from C611 to C612
KM       Source:  200 Scale Mapping
RS        1     FLOW      -1
RC    0.040    0.018    0.040    925.0   0.0270
RX   1000.0   1020.0   1023.0   1041.0   1059.0   1060.2   1071.2   1136.2
RY   1666.0   1664.0   1663.5   1663.9   1663.5   1663.9   1664.0   1666.0
*

KK    211P
KM   Sub-Basin    211P
KM
KM       The Clark Unit Hydrograph is used for this basin.
KM           The Urban time-area relation is used for this basin.
KM
KM       Time of Concentration for this sub-basin is based on the following:
KM           An rainfall areal reduction factor of 1.000
KM
KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
KM      5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
KM    .20 .20 .19 .19 .19 .19 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
KM
KM           L=    0.307 miles, S=  192 feet/mile, Kb= .03
KM
BA    0.033
LG     0.08     0.15     7.00     0.11    45.00
UC    0.146    0.118
UA       0        5       16       30       65       77       84       90       94       97
UA     100
*
```

1

HEC-1 INPUT

PAGE 91

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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3852          KK    C612
3853          KM      Hydrograph combine 611612 + 211P at C612
3854          HC       2
              *
              * *
              * * NOTE: 612613 is too short to route
              * *
              *

3855          KK    C613
3856          KM      Hydrograph combine 608613 + C612 at C613
3857          HC       2
              *

3858          KK  613621
3859          KM      Normal depth channel route from C613 to C621
3860          KM      Source:  HEC-2 Cross Section: AS 3.241
3861          RS       1    FLOW      -1
3862          RC   0.100   0.045   0.100   718.0  0.0251
3863          RX  9695.4  9884.0  9985.0  9991.1 10033.8 10062.8 10097.5 10165.1
3864          RY  1655.5  1647.5  1645.8  1641.1  1640.6  1642.1  1648.7  1654.3
              *

3865          KK    211L
3866          KM   Sub-Basin   211L
3867          KM
3868          KM      The Clark Unit Hydrograph is used for this basin.
3869          KM          The Urban time-area relation is used for this basin.
3870          KM
3871          KM      Time of Concentration for this sub-basin is based on the following:
3872          KM          An rainfall areal reduction factor of 1.000
3873          KM
3874          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3875          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3876          KM   .17 .17 .17 .17 .17 .16 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
3877          KM
3878          KM          L=   0.508 miles, S=  181 feet/mile, Kb= .03
3879          KM
3880          BA   0.096
3881          LG    0.11    0.26    4.35    0.36   42.40
3882          UC   0.200   0.137
3883          UA       0       5      16      30      65      77      84      90      94      97
3884          UA     100
              *

3885          KK   C621L
3886          KM      Hydrograph combine 613621 + 211L at C621 left branch
3887          HC       2
              *
              * *
              * * Move to the top of Arrow Wash
              * *
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3888          KK    211Q
3889          KM   Sub-Basin   211Q
3890          KM
3891          KM      The Clark Unit Hydrograph is used for this basin.
3892          KM          The Urban time-area relation is used for this basin.
3893          KM
3894          KM      Time of Concentration for this sub-basin is based on the following:
3895          KM          An rainfall areal reduction factor of 1.000
3896          KM
3897          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3898          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3899          KM   .18 .18 .18 .18 .18 .18 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
3900          KM
3901          KM          L=   0.255 miles, S=  295 feet/mile, Kb= .03
3902          KM
3903          BA   0.021
3904          LG    0.08    0.25    5.70    0.18   30.04
3905          UC   0.117   0.103
3906          UA       0       5      16      30      65      77      84      90      94      97
3907          UA     100
              *

3908          KK  616617
3909          KM      Normal depth channel route from C616 to C617
3910          KM      Source:  200 Scale Mapping
3911          RS       2    FLOW      -1
3912          RC   0.070   0.060   0.070  1131.0  0.0553
3913          RX  1000.0  1008.0  1015.0  1045.0  1050.0  1080.0  1100.0  1110.0
3914          RY  1834.0  1832.0  1830.0  1826.0  1826.0  1830.0  1834.0  1836.0
              *

3915          KK    211R
3916          KM   Sub-Basin   211R
3917          KM
3918          KM      The Clark Unit Hydrograph is used for this basin.
3919          KM          The Urban time-area relation is used for this basin.
3920          KM
3921          KM      Time of Concentration for this sub-basin is based on the following:
3922          KM          An rainfall areal reduction factor of 1.000
3923          KM
3924          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3925          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3926          KM   .19 .18 .18 .18 .18 .18 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
```

```
3927          KM
3928          KM          L=   0.572 miles, S=  271 feet/mile, Kb= .03
3929          KM
3930          BA   0.084
3931          LG    0.08    0.25    5.70    0.18   37.77
3932          UC   0.183   0.147
3933          UA       0       5      16      30      65      77      84      90      94      97
3934          UA     100
              *
```

1

HEC-1 INPUT

PAGE 93

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3935          KK   C617L
3936          KM      Hydrograph combine 616617 + 211R at C617 left branch
3937          HC       2
              *

3938          KK    211U
3939          KM   Sub-Basin   211U
3940          KM
3941          KM      The Clark Unit Hydrograph is used for this basin.
3942          KM          The Urban time-area relation is used for this basin.
3943          KM
3944          KM      Time of Concentration for this sub-basin is based on the following:
3945          KM          An rainfall areal reduction factor of 1.000
3946          KM
3947          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3948          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3949          KM   .20 .19 .19 .19 .19 .19 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
3950          KM
3951          KM          L=   0.831 miles, S=  214 feet/mile, Kb= .03
3952          KM
3953          BA   0.027
3954          LG    0.07    0.25    5.70    0.18   65.99
3955          UC   0.229   0.483
3956          UA       0       5      16      30      65      77      84      90      94      97
3957          UA     100
              *

3958          KK   D614L
3959          KM      Hydrograph diversion at C614.  Main flow continues in the left branch.
3960          KM      Diverted flow is in the right branch.
3961          DT   D614R
3962          DI       0     4.3     8.5    20.0    49.0    85.5
3963          DQ       0     2.5     5.0    13.5    35.0    60.0
              *

3964          KK    C617
3965          KM      Hydrograph combine C617L + D614L at C617
3966          HC       2
              *

3967          KK  617618
3968          KM      Normal depth channel route from C617 to C618
3969          KM      Source:  HEC-2 Cross Section: AR 0.836
3970          RS       4    FLOW      -1
3971          RC   0.070   0.060   0.070  1912.0  0.0345
3972          RX  9983.3  9987.2  9989.2  9991.1 10031.5 10053.5 10070.6 10097.7
3973          RY  1766.5  1762.3  1760.2  1758.1  1757.8  1760.8  1764.2  1770.6
              *
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1

HEC-1 INPUT

PAGE 94

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

3974          KK    211S
3975          KM   Sub-Basin   211S
3976          KM
3977          KM      The Clark Unit Hydrograph is used for this basin.
3978          KM          The Urban time-area relation is used for this basin.
3979          KM
3980          KM      Time of Concentration for this sub-basin is based on the following:
3981          KM          An rainfall areal reduction factor of 1.000
3982          KM
3983          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
3984          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
3985          KM   .18 .17 .17 .17 .17 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
3986          KM
3987          KM          L=   0.445 miles, S=  272 feet/mile, Kb= .07
3988          KM
3989          BA   0.050
3990          LG    0.11    0.31    5.70    0.19   30.06
3991          UC   0.254   0.232
3992          UA       0       5      16      30      65      77      84      90      94      97
3993          UA     100
              *

3994          KK   C618I
3995          KM      Hydrograph combine 617618 + 211S at C618I
3996          HC       2
              *

3997          KK   C618O
3998          KM      Reservoir route at C618.
3999          RS       1    ELEV  1730.6
4000          SV    0.00    0.01    0.06    0.24    0.50    0.75    1.20    1.66    2.30    2.94
4001          SV    3.20    3.30    3.40    3.60    3.80    3.90    4.10    4.30    4.50    4.65
4002          SE  1730.6  1734.0  1736.0  1738.0  1739.0  1740.0  1741.0  1742.0  1743.0  1744.0
4003          SE  1744.3  1744.4  1744.6  1744.8  1745.0  1745.2  1745.4  1745.6  1745.8  1746.0
4004          SQ       0     2.2     2.6     3.0     3.1     3.2     3.3     3.5     3.6     3.7
4005          SQ     3.7     3.8       8      21      48      88     143     212     295     390
              *
```

```
4006          KK  BB614R
4007          KM      Retrieve previously diverted hydrograph at C614 in the right branch.
4008          DR   D614R
              *

4009          KK  614615
4010          KM      Normal depth channel route from C614 to C615
4011          KM      Source:  Hydrology Field Reconnaissance
4012          RS       3    FLOW      -1
4013          RC   0.040   0.018   0.040  1114.0  0.0397
4014          RX  1000.0  1020.0  1025.0  1059.0  1091.0  1093.0  1098.0  1103.0
4015          RY  1828.0  1822.0  1821.5  1822.2  1821.8  1822.0  1824.0  1826.0
              *
1                                          HEC-1 INPUT                                                    PAGE 95
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4016          KK    211V
4017          KM   Sub-Basin   211V
4018          KM
4019          KM      The Clark Unit Hydrograph is used for this basin.
4020          KM          The Urban time-area relation is used for this basin.
4021          KM
4022          KM      Time of Concentration for this sub-basin is based on the following:
4023          KM          An rainfall areal reduction factor of 1.000
4024          KM
4025          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4026          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4027          KM   .21 .20 .20 .20 .20 .20 .03 .03 .03 .03 .03 .03 .02 .02 .02 .02 .02 .02
4028          KM
4029          KM          L=   0.222 miles, S=  212 feet/mile, Kb= .04
4030          KM
4031          BA   0.005
4032          LG    0.06    0.25    5.80    0.18   90.00
4033          UC   0.138   0.254
4034          UA       0       5      16      30      65      77      84      90      94      97
4035          UA     100
              *

4036          KK    C615
4037          KM      Hydrograph combine 614615 + 211V at C615
4038          HC       2    0.03
              *

4039          KK   D615L
4040          KM      Hydrograph diversion at C615.  Main flow continues in the left branch.
4041          KM      Diverted flow is in the right branch.
4042          DT   D615R
4043          DI       0     1.3     2.5     5.3     8.6    14.2    23.0    36.8    55.5    77.5
4044          DQ       0       0       0     1.3     2.6     4.2     7.0    12.8    19.5    29.5
              *

4045          KK  615618
4046          KM      Normal depth channel route from C615 to C618
4047          KM      Source:  Hydrology Field Reconnaissance
4048          RS       1    FLOW      -1
4049          RC   0.040   0.018   0.040   499.0  0.1338
4050          RX  1000.0  1008.0  1009.2  1013.2  1027.2  1028.4  1036.4  1045.4
4051          RY  1800.4  1799.6  1799.2  1798.8  1798.3  1798.7  1798.9  1800.4
              *

4052          KK    C618
4053          KM      Hydrograph combine C6180 + 615618 at C618
4054          HC       2    0.19
              *
1                                          HEC-1 INPUT                                                    PAGE 96
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4055          KK  618619
4056          KM      Normal depth channel route from C618 to C619
4057          KM      Source:  HEC-2 Cross Section: AR 0.441
4058          RS       6    FLOW      -1
4059          RC   0.070   0.060   0.070  1837.0  0.0285
4060          RX  9870.6  9928.6  9957.1  9996.9 10004.9 10022.1 10062.0 10116.4
4061          RY  1709.2  1700.9  1698.8  1690.0  1689.8  1699.6  1700.3  1711.3
              *

4062          KK    211T
4063          KM   Sub-Basin   211T
4064          KM
4065          KM      The Clark Unit Hydrograph is used for this basin.
4066          KM          The Urban time-area relation is used for this basin.
4067          KM
4068          KM      Time of Concentration for this sub-basin is based on the following:
4069          KM          An rainfall areal reduction factor of 1.000
4070          KM
4071          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4072          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4073          KM   .20 .19 .19 .19 .19 .19 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
4074          KM
4075          KM          L=   0.488 miles, S=  250 feet/mile, Kb= .03
4076          KM
4077          BA   0.066
4078          LG    0.07    0.25    5.70    0.18   64.25
4079          UC   0.167   0.134
4080          UA       0       5      16      30      65      77      84      90      94      97
4081          UA     100
              *

4082          KK   C619L
```

```
4083        KM      Hydrograph combine 618619 + 211T at C619 left branch
4084        HC       2
            *

4085        KK  BB615R
4086        KM      Retrieve previously diverted hydrograph at C615 in the right branch.
4087        DR   D615R
            *

4088        KK  615619
4089        KM      Normal depth channel route from C615 to C619
4090        KM      Source:  Hydrology Field Reconnaissance
4091        RS       7    FLOW      -1
4092        RC   0.045   0.024   0.025  2444.0  0.0493
4093        RX  1000.0  1009.3  1018.5  1037.0  1039.3  1053.0  1065.0  1065.0
4094        RY  1727.2  1726.5  1725.8  1724.4  1724.6  1725.8  1725.9  1725.9
            *
1                                        HEC-1 INPUT                                                    PAGE 97
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4095        KK   C619I
4096        KM      Hydrograph combine C619L + 615619 at C619I
4097        HC       2    0.25
            *

4098        KK   C619O
4099        KM      Reservoir route at C619.
4100        RS       1    ELEV  1675.6
4101        SV    0.00    1.72    2.98    4.70    7.00    7.08    7.17    7.26    7.34    7.43
4102        SV    7.51    7.60    7.69    7.77    7.86
4103        SE  1675.6  1686.0  1688.0  1690.0  1692.0  1692.2  1692.4  1692.6  1692.8  1693.0
4104        SE  1693.2  1693.4  1693.6  1693.8  1694.0
4105        SQ       0       4      25      72     128     155     163     172     178     187
4106        SQ     195     213     238     273     318     374     441     518     606     706
4107        SE  1675.6  1676.0  1678.0  1680.0  1682.0  1684.0  1686.0  1688.0  1690.0  1692.0
4108        SE  1692.2  1692.4  1692.6  1692.8  1693.0  1693.2  1693.4  1693.6  1693.8  1694.0
            *

4109        KK   D619R
4110        KM      Hydrograph diversion at C619.  Main flow continues in the right branch.
4111        KM      Diverted flow is in the left branch.
4112        DT   D619L
4113        DI       0       4      25      72     128     155     163     172     178     187
4114        DI     195     213     238     273     318     374     441     518     606     706
4115        DQ       0       0       0       0       0       0       0       0       0       0
4116        DQ       8      24      49      83     128     182     249     326     412     512
            *

4117        KK  619620
4118        KM                  Lag route through Palisades Plaza storm drain
4119        RT       0                1
            *

4120        KK  BB619L
4121        KM      Retrieve previously diverted hydrograph at C619 in the left branch.
4122        DR   D619L
            *

4123        KK  619620
4124        KM   Normal depth channel route from C619 to C620 in Fountain Hills Blvd.
4125        KM   Source:  200 Scale Mapping. Similiar to 523548
4126        RS       1    FLOW      -1
4127        RC   0.040   0.024   0.040   800.0  0.0288
4128        RX   918.0   940.0   960.0  1000.0  1040.0  1040.1  1044.1  1088.1
4129        RY  1648.0  1645.8  1643.8  1644.7  1644.0  1644.5  1644.5  1648.0
            *

4130        KK    211W
4131        KM   Sub-Basin   211W
4132        KM
4133        KM      The Clark Unit Hydrograph is used for this basin.
4134        KM          The Urban time-area relation is used for this basin.
4135        KM
4136        KM      Time of Concentration for this sub-basin is based on the following:
1                                        HEC-1 INPUT                                                    PAGE 98
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4137        KM          An rainfall areal reduction factor of 1.000
4138        KM
4139        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4140        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4141        KM   .20 .20 .20 .20 .20 .19 .02 .02 .02 .02 .02 .02 .02 .02 .02 .02 .02 .02
4142        KM
4143        KM          L=   0.289 miles, S=  173 feet/mile, Kb= .03
4144        KM
4145        BA   0.030
4146        LG    0.06    0.25    5.70    0.18   73.65
4147        UC   0.146   0.120
4148        UA       0       5      16      30      65      77      84      90      94      97
4149        UA     100
            *

4150        KK   C620R
4151        KM      Hydrograph combine 619620 + R619L + 211W at C620 right branch
4152        HC       3    0.28
            *

4153        KK  BB611R
4154        KM      Retrieve previously diverted hydrograph at C611 in the right branch.
4155        DR   D611R
            *
```

```
4156        KK  611620
4157        KM                  Lag route through Palisades Plaza storm drain
4158        RT       0                 1
            *

4159        KK    C620
4160        KM      Hydrograph combine 611620 + C620R at C620
4161        HC       2     0.42
            *

4162        KK  620621
4163        KM      Normal depth channel route from C620 to C621
4164        KM      Source:  HEC-2 Cross Section: AR 0.081
4165        RS       2     FLOW      -1
4166        RC   0.050   0.050   0.050   915.0  0.0394
4167        RX  9790.0  9790.1  9972.2  9994.8 10004.9 10029.7 10048.6 10125.0
4168        RY  1657.9  1657.5  1656.4  1646.8  1646.8  1657.8  1657.0  1657.9
            *

4169        KK    C621
4170        KM      Hydrograph combine C621L + 620621 at C621
4171        HC       2     7.93
            *

4172        KK  621622
4173        KM      Normal depth channel route from C621 to C622
4174        KM      Source:  HEC-2 Cross Section: AS 2.785
4175        RS       8     FLOW      -1
4176        RC   0.100   0.045   0.100  3830.0  0.0144
4177        RX  9827.3  9922.9  9951.0 10000.0 10002.7 10044.7 10071.6 10076.8
1                                        HEC-1 INPUT                                                          PAGE 99
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4178        RY  1615.2  1611.0  1604.1  1600.8  1601.5  1601.6  1611.0  1613.9
            *

4179        KK    211X
4180        KM   Sub-Basin   211X
4181        KM
4182        KM      The Clark Unit Hydrograph is used for this basin.
4183        KM          The Urban time-area relation is used for this basin.
4184        KM
4185        KM      Time of Concentration for this sub-basin is based on the following:
4186        KM          An rainfall areal reduction factor of 1.000
4187        KM
4188        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4189        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4190        KM   .19 .18 .18 .18 .18 .18 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
4191        KM
4192        KM          L=   0.929 miles, S=  111 feet/mile, Kb= .03
4193        KM
4194        BA   0.214
4195        LG    0.10    0.26    4.90    0.26   56.64
4196        UC   0.304   0.224
4197        UA       0       5      16      30      65      77      84      90      94      97
4198        UA     100
            *

4199        KK   C622R
4200        KM      Hydrograph combine 621622 + 211X at C622 right branch
4201        HC       2
            *
            * *
            * * Move to the top of Tulip Wash
            * *
            *

4202        KK    211A
4203        KM   Sub-Basin   211A
4204        KM
4205        KM      The Clark Unit Hydrograph is used for this basin.
4206        KM          The Urban time-area relation is used for this basin.
4207        KM
4208        KM      Time of Concentration for this sub-basin is based on the following:
4209        KM          An rainfall areal reduction factor of 1.000
4210        KM
4211        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4212        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4213        KM   .18 .18 .18 .18 .17 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
4214        KM
4215        KM          L=   0.820 miles, S=  248 feet/mile, Kb= .03
4216        KM
4217        BA   0.143
4218        LG    0.09    0.25    5.70    0.18   23.09
4219        UC   0.225   0.183
4220        UA       0       5      16      30      65      77      84      90      94      97
4221        UA     100
            *
1                                        HEC-1 INPUT                                                         PAGE100
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4222        KK   C600O
4223        KM      Reservoir route at C600.
4224        RS       1    ELEV  1754.0
4225        SV    0.00    0.14    0.62    1.52    2.95    5.06    7.98   11.80   16.61   22.67
4226        SV   30.07   38.71   40.50   40.60   41.60   42.70   43.70   44.60   45.70
4227        SE  1754.0  1756.0  1758.0  1760.0  1762.0  1764.0  1766.0  1768.0  1770.0  1772.0
4228        SE  1774.0  1776.0 1776.36  1776.4  1776.6  1776.8  1777.0  1777.2  1777.4
4229        SQ       0      55     183     320     427     513     570     620     665     709
4230        SQ     750     789     795     795     812     849     906     984    1084
```

```
                *
4231            KK  600601
4232            KM      Normal depth channel route from C600 to C601
4233            KM      Source:  HEC-2 Cross Section: TU 1.538
4234            RS       4    FLOW      -1
4235            RC   0.040   0.025   0.040  2406.0  0.0176
4236            RX  9945.6  9959.4  9968.3  9985.9 10000.0 10017.2 10038.7 10058.8
4237            RY  1734.5  1732.3  1727.9  1726.2  1725.0  1727.7  1735.2  1736.0
                *

4238            KK    211B
4239            KM   Sub-Basin   211B
4240            KM
4241            KM      The Clark Unit Hydrograph is used for this basin.
4242            KM          The Urban time-area relation is used for this basin.
4243            KM
4244            KM      Time of Concentration for this sub-basin is based on the following:
4245            KM          An rainfall areal reduction factor of 1.000
4246            KM
4247            KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4248            KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4249            KM   .18 .18 .17 .17 .17 .17 .01 .01 .01 .01 .01 .01 .00 .00 .00 .00 .00 .00
4250            KM
4251            KM          L=   0.618 miles, S=  244 feet/mile, Kb= .03
4252            KM
4253            BA   0.109
4254            LG    0.09    0.25    5.80    0.18   20.22
4255            UC   0.200   0.150
4256            UA       0       5      16      30      65      77      84      90      94      97
4257            UA     100
                *

4258            KK    C601
4259            KM      Hydrograph combine 600601 + 211B at C601
4260            HC       2
                *

4261            KK  601602
4262            KM      Normal depth channel route from C601 to C602
4263            KM      Source:  HEC-2 Cross Section: TU 1.102
4264            RS       3    FLOW      -1
4265            RC   0.065   0.040   0.055  1765.0  0.0146
4266            RX  9916.9  9959.1  9965.8  9980.2 10004.0 10019.5 10047.3 10094.1
4267            RY  1699.9  1699.8  1696.4  1689.8  1688.9  1695.7  1698.2  1698.4
                *
1                                          HEC-1 INPUT                                                    PAGE101
LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4268            KK    211C
4269            KM   Sub-Basin   211C
4270            KM
4271            KM      The Clark Unit Hydrograph is used for this basin.
4272            KM          The Urban time-area relation is used for this basin.
4273            KM
4274            KM      Time of Concentration for this sub-basin is based on the following:
4275            KM          An rainfall areal reduction factor of 1.000
4276            KM
4277            KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4278            KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4279            KM   .19 .19 .19 .18 .18 .18 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
4280            KM
4281            KM          L=   0.479 miles, S=  154 feet/mile, Kb= .03
4282            KM
4283            BA   0.043
4284            LG    0.08    0.25    5.70    0.18   44.48
4285            UC   0.196   0.203
4286            UA       0       5      16      30      65      77      84      90      94      97
4287            UA     100
                *

4288            KK   C602L
4289            KM      Hydrograph combine 601602 + 211C at C602 left branch
4290            HC       2
                *

4291            KK    211D
4292            KM   Sub-Basin   211D
4293            KM
4294            KM      The Clark Unit Hydrograph is used for this basin.
4295            KM          The Urban time-area relation is used for this basin.
4296            KM
4297            KM      Time of Concentration for this sub-basin is based on the following:
4298            KM          An rainfall areal reduction factor of 1.000
4299            KM
4300            KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4301            KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4302            KM   .16 .16 .16 .16 .16 .15 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
4303            KM
4304            KM          L=   0.686 miles, S=  115 feet/mile, Kb= .03
4305            KM
4306            BA   0.071
4307            LG    0.08    0.25    3.85    0.46   37.42
4308            UC   0.271   0.291
4309            UA       0       5      16      30      65      77      84      90      94      97
4310            UA     100
                *
1                                          HEC-1 INPUT                                                    PAGE102
LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
4311          KK    C602
4312          KM      Hydrograph combine C602L + 211D at C602
4313          HC       2
              *

4314          KK  602603
4315          KM      Normal depth channel route from C602 to C603
4316          KM      Source:  HEC-2 Cross Section: LE 0.672
4317          RS       4    FLOW      -1
4318          RC   0.060   0.045   0.060  2610.0  0.0211
4319          RX  9891.9  9963.9  9986.5 10000.0 10012.7 10023.8 10085.0 10176.4
4320          RY  1653.5  1653.5  1644.4  1644.1  1645.0  1649.8  1651.7  1656.7
              *

4321          KK    211E
4322          KM   Sub-Basin   211E
4323          KM
4324          KM      The Clark Unit Hydrograph is used for this basin.
4325          KM          The Urban time-area relation is used for this basin.
4326          KM
4327          KM      Time of Concentration for this sub-basin is based on the following:
4328          KM          An rainfall areal reduction factor of 1.000
4329          KM
4330          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4331          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4332          KM   .18 .18 .18 .18 .18 .17 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
4333          KM
4334          KM          L=   0.609 miles, S=  118 feet/mile, Kb= .03
4335          KM
4336          BA   0.156
4337          LG    0.08    0.25    5.10    0.24   42.21
4338          UC   0.246   0.151
4339          UA       0       5      16      30      65      77      84      90      94      97
4340          UA     100
              *

4341          KK    C603
4342          KM      Hydrograph combine 602603 + 211E at C603
4343          HC       2
              *

4344          KK  603622
4345          KM      Normal depth channel route from C603 to C622
4346          KM      Source:  HEC-2 Cross Section: LE 0.287
4347          RS       5    FLOW      -1
4348          RC   0.060   0.045   0.060  2745.0  0.0204
4349          RX  9883.0  9929.7  9967.3  9991.6 10042.2 10073.6 10177.6 10194.5
4350          RY  1619.4  1618.7  1611.8  1602.1  1603.3  1609.4  1610.5  1610.6
              *
```

1

HEC-1 INPUT PAGE103

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4351          KK    211F
4352          KM   Sub-Basin   211F
4353          KM
4354          KM      The Clark Unit Hydrograph is used for this basin.
4355          KM          The Urban time-area relation is used for this basin.
4356          KM
4357          KM      Time of Concentration for this sub-basin is based on the following:
4358          KM          An rainfall areal reduction factor of 1.000
4359          KM
4360          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4361          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4362          KM   .19 .18 .18 .18 .18 .18 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
4363          KM
4364          KM          L=   0.770 miles, S=  134 feet/mile, Kb= .03
4365          KM
4366          BA   0.113
4367          LG    0.08    0.25    4.30    0.36   62.81
4368          UC   0.263   0.236
4369          UA       0       5      16      30      65      77      84      90      94      97
4370          UA     100
              *

4371          KK   C622L
4372          KM      Hydrograph combine 603622 + 211F at C622 left branch
4373          HC       2
              *

4374          KK    C622
4375          KM      Hydrograph combine C622R + C622L at C622
4376          HC       2
              *

4377          KK  622549
4378          KM      Normal depth channel route from C622 to C549
4379          KM      Source:  HEC-2 Cross Section: AS 2.279
4380          RS       7    FLOW      -1
4381          RC   0.113   0.125   0.120  1697.0  0.0118
4382          RX  9847.1  9851.0  9857.5  9862.8 10052.6 10062.8 10075.6 10084.6
4383          RY  1573.5  1571.3  1567.2  1564.6  1565.1  1566.7  1573.7  1573.9
              *

4384          KK    211Y
4385          KM   Sub-Basin   211Y
4386          KM
4387          KM      The Clark Unit Hydrograph is used for this basin.
4388          KM          The Urban time-area relation is used for this basin.
4389          KM
4390          KM      Time of Concentration for this sub-basin is based on the following:
4391          KM          An rainfall areal reduction factor of 1.000
4392          KM
```

```
4393          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4394          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4395          KM   .19 .19 .19 .19 .19 .19 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
4396          KM
1                                                HEC-1 INPUT                                                          PAGE104

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4397          KM          L=   0.606 miles, S=  147 feet/mile, Kb= .04
4398          KM
4399          BA   0.089
4400          LG    0.09    0.21    6.60    0.13   50.06
4401          UC   0.258   0.219
4402          UA       0       5      16      30      65      77      84      90      94      97
4403          UA     100
              *

4404          KK   C549R
4405          KM      Hydrograph combine 622549 + 211Y at C549 right branch
4406          HC       2
              *

4407          KK    C549
4408          KM      Hydrograph combine C549L + C549R at C549
4409          HC       2
              *

4410          KK  549626
4411          KM      Normal depth channel route from C549 to C626
4412          KM      Source:  HEC-2 Cross Section: AS 1.855
4413          RS       7    FLOW      -1
4414          RC   0.113   0.125   0.120  2044.0  0.0171
4415          RX  9943.2  9963.0  9985.6  9994.1 10007.6 10029.2 10150.5 10171.3
4416          RY  1539.3  1534.5  1531.2  1528.3  1528.2  1531.7  1532.5  1537.4
              *

4417          KK    211Z
4418          KM   Sub-Basin   211Z
4419          KM
4420          KM      The Clark Unit Hydrograph is used for this basin.
4421          KM          The Urban time-area relation is used for this basin.
4422          KM
4423          KM      Time of Concentration for this sub-basin is based on the following:
4424          KM          An rainfall areal reduction factor of 1.000
4425          KM
4426          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4427          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4428          KM   .17 .17 .16 .16 .16 .16 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
4429          KM
4430          KM          L=   0.509 miles, S=  147 feet/mile, Kb= .04
4431          KM
4432          BA   0.083
4433          LG    0.14    0.27    4.50    0.34   34.43
4434          UC   0.250   0.192
4435          UA       0       5      16      30      65      77      84      90      94      97
4436          UA     100
              *
1                                                HEC-1 INPUT                                                          PAGE105

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4437          KK   C626C
4438          KM      Hydrograph combine 549626 + 211Z at C626 main branch
4439          HC       2
              *

4440          KK   211AA
4441          KM   Sub-Basin  211AA
4442          KM
4443          KM      The Clark Unit Hydrograph is used for this basin.
4444          KM          The Urban time-area relation is used for this basin.
4445          KM
4446          KM      Time of Concentration for this sub-basin is based on the following:
4447          KM          An rainfall areal reduction factor of 1.000
4448          KM
4449          KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4450          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4451          KM   .19 .19 .19 .19 .19 .19 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
4452          KM
4453          KM          L=   0.480 miles, S=   85 feet/mile, Kb= .03
4454          KM
4455          BA   0.034
4456          LG    0.08    0.19    6.60    0.13   39.38
4457          UC   0.233   0.281
4458          UA       0       5      16      30      65      77      84      90      94      97
4459          UA     100
              *

4460          KK  625626
4461          KM      Normal depth channel route from C625 to C626
4462          KM      Source:  200 Scale Mapping
4463          RS       4    FLOW      -1
4464          RC   0.040   0.018   0.040  1350.0  0.0252
4465          RX  1000.0  1020.0  1021.2  1055.2  1089.2  1090.4  1100.4  1105.4
4466          RY  1527.0  1526.0  1525.6  1526.3  1525.6  1526.0  1528.0  1530.0
              *

4467          KK   211AB
4468          KM   Sub-Basin  211AB
4469          KM
4470          KM      The Clark Unit Hydrograph is used for this basin.
4471          KM          The Urban time-area relation is used for this basin.
4472          KM
```

```
4473        KM      Time of Concentration for this sub-basin is based on the following:
4474        KM          An rainfall areal reduction factor of 1.000
4475        KM
4476        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4477        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4478        KM   .20 .20 .20 .20 .20 .19 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
4479        KM
4480        KM          L=   0.293 miles, S=  321 feet/mile, Kb= .03
4481        KM
4482        BA   0.040
4483        LG    0.07    0.17    6.80    0.12   54.72
4484        UC   0.121   0.083
1                                          HEC-1 INPUT                                                    PAGE106

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4485        UA       0       5      16      30      65      77      84      90      94      97
4486        UA     100
            *

4487        KK  623624
4488        KM      Normal depth channel route from C623 to C624
4489        KM      Source:  200 Scale Mapping
4490        RS       1    FLOW      -1
4491        RC   0.040   0.018   0.040   701.0  0.0114
4492        RX  1000.0  1010.0  1011.2  1027.2  1043.2  1044.4  1059.4  1074.4
4493        RY  1534.0  1532.0  1531.6  1531.9  1531.6  1532.0  1532.5  1533.0
            *

4494        KK   211AC
4495        KM   Sub-Basin  211AC
4496        KM
4497        KM      The Clark Unit Hydrograph is used for this basin.
4498        KM          The Urban time-area relation is used for this basin.
4499        KM
4500        KM      Time of Concentration for this sub-basin is based on the following:
4501        KM          An rainfall areal reduction factor of 1.000
4502        KM
4503        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4504        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4505        KM   .20 .20 .20 .20 .20 .20 .03 .03 .03 .03 .03 .03 .01 .01 .01 .01 .01 .01
4506        KM
4507        KM          L=   0.306 miles, S=   82 feet/mile, Kb= .03
4508        KM
4509        BA   0.027
4510        LG    0.08    0.15    8.40    0.07   44.76
4511        UC   0.188   0.174
4512        UA       0       5      16      30      65      77      84      90      94      97
4513        UA     100
            *

4514        KK    C624
4515        KM      Hydrograph combine 623624 + 211AC at C624
4516        HC       2
            *

4517        KK  624626
4518        KM      Normal depth channel route from C624 to C626
4519        KM      Source:  HEC-2 Cross Section: AS 1.727
4520        RS       2    FLOW      -1
4521        RC   0.080   0.060   0.080   637.0  0.0235
4522        RX  9872.9  9881.0  9893.9  9902.2  9967.6  9976.4 10076.1 10084.3
4523        RY  1526.3  1524.6  1521.7  1520.0  1520.7  1521.6  1520.7  1526.2
            *

4524        KK   211AD
4525        KM   Sub-Basin  211AD
4526        KM
4527        KM      The Clark Unit Hydrograph is used for this basin.
4528        KM          The Urban time-area relation is used for this basin.
4529        KM
1                                          HEC-1 INPUT                                                    PAGE107

LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4530        KM      Time of Concentration for this sub-basin is based on the following:
4531        KM          An rainfall areal reduction factor of 1.000
4532        KM
4533        KM       EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4534        KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4535        KM   .20 .20 .20 .20 .20 .20 .03 .03 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
4536        KM
4537        KM          L=   0.489 miles, S=  280 feet/mile, Kb= .03
4538        KM
4539        BA   0.041
4540        LG    0.08    0.15    8.00    0.08   46.16
4541        UC   0.163   0.171
4542        UA       0       5      16      30      65      77      84      90      94      97
4543        UA     100
            *

4544        KK   C626R
4545        KM      Hydrograph combine 624626 + 211AD at C626 right branch
4546        HC       2
            *

4547        KK    C626
4548        KM      Hydrograph combine C626C + 625626 at C626R
4549        HC       3
            *

4550        KK  626627
4551        KM      Normal depth channel route from C626 to C627
4552        KM      Source:  HEC-2 Cross Section: AS 1.602
```

```
4553          RS       1    FLOW      -1
4554          RC   0.080   0.060   0.080   625.0  0.0208
4555          RX  9889.8  9941.2  9963.0 10011.6 10074.8 10083.9 10191.7 10210.4
4556          RY  1517.6  1516.9  1508.1  1506.6  1508.6  1511.7  1513.1  1518.8
              *

4557          KK   211AE
4558          KM   Sub-Basin  211AE
4559          KM
4560          KM      The Clark Unit Hydrograph is used for this basin.
4561          KM          The Urban time-area relation is used for this basin.
4562          KM
4563          KM      Time of Concentration for this sub-basin is based on the following:
4564          KM          An rainfall areal reduction factor of 1.000
4565          KM
4566          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4567          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4568          KM   .19 .19 .19 .18 .18 .18 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01 .01
4569          KM
4570          KM          L=   0.313 miles, S=  153 feet/mile, Kb= .04
4571          KM
4572          BA   0.034
4573          LG    0.12    0.24    6.40    0.15   38.15
4574          UC   0.183   0.152
4575          UA       0       5      16      30      65      77      84      90      94      97
4576          UA     100
              *
1                                                HEC-1 INPUT                                          PAGE108
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

4577          KK    C627
4578          KM      Hydrograph combine 626627 + 211AE at C627
4579          HC       2
              *
              * *
              * * C627 is the total flow in Ashbrook Wash at the Study boundary
              * *
              *

4580          KK   211AF
4581          KM   Sub-Basin  211AF
4582          KM
4583          KM      The Clark Unit Hydrograph is used for this basin.
4584          KM          The Urban time-area relation is used for this basin.
4585          KM
4586          KM      Time of Concentration for this sub-basin is based on the following:
4587          KM          An rainfall areal reduction factor of 1.000
4588          KM
4589          KM        EXCESS RAINFALL VALUES EXCEEDED IN 5-MINUTE INTERVALS
4590          KM     5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90
4591          KM   .19 .19 .19 .19 .19 .19 .02 .02 .02 .02 .02 .02 .01 .01 .01 .01 .01 .01
4592          KM
4593          KM          L=   0.332 miles, S=  292 feet/mile, Kb= .03
4594          KM
4595          BA   0.053
4596          LG    0.07    0.25    5.80    0.17   52.43
4597          UC   0.133   0.088
4598          UA       0       5      16      30      65      77      84      90      94      97
4599          UA     100
              *
              * *
              * * End Basin 211.
              * *
              *
4600          ZZ
1*************************************
*                                   *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)*
*              MAY   1991           *
*           VERSION 4.0.1E          *
*                                   *
*  RUN DATE  10/31/94  TIME  13:34:21*
*                                   *
*************************************

                                                  *************************************
                                                  *                                   *
                                                  *    U.S. ARMY CORPS OF ENGINEERS   *
                                                  *    HYDROLOGIC ENGINEERING CENTER  *
                                                  *          609 SECOND STREET        *
                                                  *       DAVIS, CALIFORNIA 95616     *
                                                  *          (916) 551-1748           *
                                                  *                                   *
                                                  *************************************

                    Fountain Hills North Floodplain Delineation Study
                         FCD 92-04        by GVSCE                    File:   FU10-24.IH1
                     Future Condition Model                            Date:   07-20-94  dtp
                      10-Year 24-Hour Storm, Clark Unit Hydrograph   Revised:  10-31-94  dtp

  6 IO          OUTPUT CONTROL VARIABLES
                      IPRNT          5  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE

  IT            HYDROGRAPH TIME DATA
                       NMIN          1  MINUTES IN COMPUTATION INTERVAL
                      IDATE      1    0  STARTING DATE
                      ITIME       0000  STARTING TIME
                         NQ       1800  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE      2    0  ENDING DATE
                     NDTIME       0559  ENDING TIME
                      ICENT         19  CENTURY MARK

                 COMPUTATION INTERVAL    0.02 HOURS
                      TOTAL TIME BASE   29.98 HOURS

        ENGLISH UNITS
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DRAINAGE AREA          SQUARE MILES
PRECIPITATION DEPTH    INCHES
LENGTH, ELEVATION      FEET
FLOW                   CUBIC FEET PER SECOND
STORAGE VOLUME         ACRE-FEET
SURFACE AREA           ACRES
TEMPERATURE            DEGREES FAHRENHEIT
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8 JD          INDEX STORM NO. 1
                   STRM        2.80  PRECIPITATION DEPTH
                   TRDA        0.01  TRANSPOSITION DRAINAGE AREA

9 PI          PRECIPITATION PATTERN
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

19 JD

INDEX STORM NO. 2

STRM	2.74	PRECIPITATION DEPTH
TRDA	5.00	TRANSPOSITION DRAINAGE AREA

0 PI

PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

```
20 JD         INDEX STORM NO. 3
                  STRM        2.66  PRECIPITATION DEPTH
                  TRDA       10.00  TRANSPOSITION DRAINAGE AREA
```

0 PI PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

21 JD INDEX STORM NO. 4

STRM 2.47 PRECIPITATION DEPTH

TRDA 50.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

22 JD INDEX STORM NO. 5

STRM 2.41 PRECIPITATION DEPTH

TRDA 80.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

File: FU10-24.OH1

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO
WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO

1

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	201A	118.	12.23	19.	5.	4.	0.22		
+	HYDROGRAPH AT	201B	43.	12.20	6.	2.	1.	0.08		
+	2 COMBINED AT	C501	160.	12.22	25.	7.	5.	0.30		
+	ROUTED TO	501502	158.	12.37	25.	7.	5.	0.30		
+	HYDROGRAPH AT	201C	77.	12.03	9.	3.	2.	0.08		
+	2 COMBINED AT	C502R	184.	12.32	34.	9.	8.	0.38		
+	HYDROGRAPH AT	201D	35.	12.22	6.	2.	1.	0.07		
+	2 COMBINED AT	C502	217.	12.30	41.	11.	9.	0.45		
+	ROUTED TO	502503	215.	12.48	41.	11.	9.	0.45		
+	HYDROGRAPH AT	201E	78.	12.32	15.	4.	3.	0.18		
+	2 COMBINED AT	C503I	286.	12.43	56.	15.	12.	0.63		
+	ROUTED TO	C503O	196.	12.82	56.	15.	12.	0.63		
+	DIVERSION TO	D503L	196.	12.82	56.	15.	12.	0.63		
+	HYDROGRAPH AT	D503R	0.	0.02	0.	0.	0.	0.63		
+	ROUTED TO	503504	0.	0.02	0.	0.	0.	0.63		
+	HYDROGRAPH AT	202A	35.	12.03	4.	1.	1.	0.04		
+	2 COMBINED AT	C504I	35.	12.03	4.	1.	1.	0.67		
+	ROUTED TO	C504O	18.	12.23	4.	1.	1.	0.67		
+	DIVERSION TO	D504L	18.	12.23	4.	1.	1.	0.67		
+	HYDROGRAPH AT	D504R	0.	0.02	0.	0.	0.	0.67		
+	HYDROGRAPH AT	202B	17.	12.02	2.	1.	1.	0.02		
	2 COMBINED AT									

+		C505I	17.	12.02	2.	1.	0.	0.69
+	DIVERSION TO	D505L	13.	12.02	2.	1.	0.	0.69
+	HYDROGRAPH AT	D505R	4.	12.02	0.	0.	0.	0.69
+	HYDROGRAPH AT	202C	8.	12.02	1.	0.	0.	0.01
+	2 COMBINED AT	C506	12.	12.02	1.	0.	0.	0.69
+	DIVERSION TO	D506L	0.	0.02	0.	0.	0.	0.69
+	HYDROGRAPH AT	D506R	12.	12.02	1.	0.	0.	0.69
+	HYDROGRAPH AT	202D	56.	12.05	8.	2.	2.	0.06
+	HYDROGRAPH AT	202E	107.	12.03	12.	4.	3.	0.10
+	ROUTED TO	C508O	104.	12.07	12.	4.	3.	0.10
+	DIVERSION TO	D508R	64.	12.07	10.	3.	3.	0.10
+	HYDROGRAPH AT	D508L	40.	12.07	2.	1.	0.	0.10
+	ROUTED TO	508507	38.	12.17	2.	1.	0.	0.10
+	3 COMBINED AT	C507I	96.	12.08	11.	3.	3.	0.86
+	ROUTED TO	C507O	96.	12.08	11.	3.	3.	0.86
+	HYDROGRAPH AT	202F	15.	12.00	2.	1.	0.	0.01
+	HYDROGRAPH AT	202G	15.	12.00	2.	1.	0.	0.01
+	HYDROGRAPH AT	202H	180.	12.03	21.	6.	5.	0.18
+	ROUTED TO	C511O	176.	12.07	21.	6.	5.	0.18
+	ROUTED TO	511512	175.	12.10	21.	6.	5.	0.18
+	HYDROGRAPH AT	202I	21.	12.02	3.	1.	1.	0.02
+	2 COMBINED AT	C512I	191.	12.08	24.	7.	6.	0.20
+	ROUTED TO	C512O	11.	13.12	6.	2.	2.	0.20
+	DIVERSION TO	D512R	0.	0.02	0.	0.	0.	0.20
+	HYDROGRAPH AT	D512L	11.	13.12	6.	2.	2.	0.20
+	HYDROGRAPH AT	203A	116.	12.33	22.	6.	5.	0.28
+	ROUTED TO	C513O	96.	12.58	22.	6.	5.	0.28
+	ROUTED TO	513514	95.	12.70	22.	6.	5.	0.28
+	HYDROGRAPH AT	203B	43.	12.03	5.	1.	1.	0.04
+	2 COMBINED AT	C514R	100.	12.67	27.	7.	6.	0.32
+	HYDROGRAPH AT	203C	60.	12.18	10.	3.	2.	0.10
+	2 COMBINED AT	C514	131.	12.53	37.	10.	8.	0.43
+	HYDROGRAPH AT	203D	56.	12.22	10.	3.	2.	0.11
+	2 COMBINED AT	C515	171.	12.45	46.	12.	10.	0.53
+	ROUTED TO	515517	169.	12.65	46.	12.	10.	0.53

+	HYDROGRAPH AT 203E	103.	12.03	12.	3.	3.	0.09
+	2 COMBINED AT C517R	197.	12.12	58.	16.	13.	0.63
+	HYDROGRAPH AT 203F	144.	12.42	24.	6.	5.	0.33
+	ROUTED TO 516517	139.	12.73	24.	6.	5.	0.33
+	HYDROGRAPH AT 203G	131.	12.25	22.	6.	5.	0.25
+	2 COMBINED AT C517L	207.	12.68	46.	12.	10.	0.58
+	2 COMBINED AT C517	384.	12.67	103.	28.	22.	1.21
+	ROUTED TO 517518	379.	12.80	103.	28.	22.	1.21
+	HYDROGRAPH AT 203H	191.	12.07	24.	7.	6.	0.21
+	2 COMBINED AT C518	424.	12.27	127.	35.	28.	1.41
+	ROUTED TO 518519	420.	12.32	127.	35.	28.	1.41
+	HYDROGRAPH AT 203I	126.	12.10	20.	6.	5.	0.17
+	2 COMBINED AT C519	512.	12.28	146.	41.	33.	1.59
+	ROUTED TO 519591	510.	12.32	146.	41.	33.	1.59
+	HYDROGRAPH AT 203J	43.	12.03	6.	2.	2.	0.04
+	ROUTED TO 520591	42.	12.10	6.	2.	2.	0.04
+	HYDROGRAPH AT BB512R	0.	0.02	0.	0.	0.	0.20
+	3 COMBINED AT C591	535.	12.28	152.	43.	34.	1.83
+	ROUTED TO 591521	534.	12.33	152.	43.	34.	1.83
+	HYDROGRAPH AT 203K	163.	12.05	23.	7.	6.	0.16
+	2 COMBINED AT C521	622.	12.25	174.	50.	40.	1.99
+	5 COMBINED AT CLEAR	702.	12.22	193.	56.	45.	3.07
+	HYDROGRAPH AT 204A	109.	12.03	13.	4.	3.	0.11
+	ROUTED TO 522523	105.	12.22	13.	4.	3.	0.11
+	HYDROGRAPH AT 204B	120.	12.05	15.	4.	4.	0.13
+	2 COMBINED AT C523I	207.	12.10	28.	8.	7.	0.23
+	ROUTED TO C523O	172.	12.27	28.	8.	7.	0.23
+	DIVERSION TO D523R	0.	0.02	0.	0.	0.	0.23
+	HYDROGRAPH AT D523L	172.	12.27	28.	8.	7.	0.23
+	ROUTED TO 523524	171.	12.37	28.	8.	7.	0.23
+	HYDROGRAPH AT 204C	95.	12.02	13.	4.	3.	0.08
+	2 COMBINED AT C524	205.	12.08	40.	13.	10.	0.31
+	ROUTED TO 524525	204.	12.13	40.	13.	10.	0.31
+	HYDROGRAPH AT 204D	51.	12.02	7.	2.	2.	0.04
+	2 COMBINED AT C525	247.	12.08	47.	15.	12.	0.35

+	ROUTED TO	525526	245.	12.13	47.	15.	12.	0.35
+	HYDROGRAPH AT	204E	76.	12.03	10.	3.	2.	0.07
+	2 COMBINED AT	C526	312.	12.10	57.	18.	14.	0.43
+	ROUTED TO	526527	309.	12.17	57.	18.	14.	0.43
+	HYDROGRAPH AT	204F	92.	12.02	12.	4.	3.	0.08
+	2 COMBINED AT	C527	378.	12.10	68.	21.	17.	0.50
+	2 COMBINED AT	CLEAR	1058.	12.18	260.	77.	62.	3.58
+	HYDROGRAPH AT	205A	62.	12.30	13.	4.	3.	0.12
+	HYDROGRAPH AT	205B	105.	12.45	22.	7.	6.	0.21
+	2 COMBINED AT	C528	160.	12.40	35.	11.	9.	0.33
+	ROUTED TO	528530	159.	12.45	35.	11.	9.	0.33
+	HYDROGRAPH AT	205C	31.	12.28	6.	2.	2.	0.06
+	2 COMBINED AT	C530R	184.	12.43	41.	13.	11.	0.39
+	HYDROGRAPH AT	205D	195.	12.30	34.	11.	9.	0.32
+	HYDROGRAPH AT	205E	88.	12.47	23.	7.	6.	0.22
+	2 COMBINED AT	C529	272.	12.33	57.	18.	15.	0.54
+	2 COMBINED AT	C530	449.	12.37	97.	31.	25.	0.93
+	ROUTED TO	530531	446.	12.43	97.	31.	25.	0.93
+	HYDROGRAPH AT	205F	94.	12.28	17.	5.	4.	0.16
+	2 COMBINED AT	C531	528.	12.40	114.	37.	29.	1.09
+	ROUTED TO	531532	524.	12.48	114.	37.	29.	1.09
+	HYDROGRAPH AT	205G	100.	12.32	19.	6.	5.	0.19
+	2 COMBINED AT	C532L	606.	12.47	132.	42.	34.	1.27
+	HYDROGRAPH AT	205H	100.	12.50	26.	8.	7.	0.26
+	2 COMBINED AT	C532	703.	12.47	158.	51.	41.	1.53
+	ROUTED TO	532533	701.	12.50	158.	51.	41.	1.53
+	HYDROGRAPH AT	205I	154.	12.42	30.	9.	7.	0.35
+	2 COMBINED AT	C533	847.	12.48	187.	59.	48.	1.89
+	ROUTED TO	533534	831.	12.70	187.	59.	48.	1.89
+	HYDROGRAPH AT	205J	140.	12.43	25.	6.	5.	0.37
+	2 COMBINED AT	C534R	932.	12.68	212.	65.	53.	2.25
+	HYDROGRAPH AT	205K	71.	12.55	18.	4.	4.	0.25
+	2 COMBINED AT	C534	997.	12.68	229.	70.	56.	2.50
+	ROUTED TO	534535	991.	12.75	229.	70.	56.	2.50
+	HYDROGRAPH AT	205L	65.	12.22	7.	2.	1.	0.12

+	2 COMBINED AT C535	1007.	12.75	236.	72.	58.	2.62
+	ROUTED TO 535536	1000.	12.83	236.	72.	58.	2.62
+	HYDROGRAPH AT 205M	113.	12.08	15.	4.	3.	0.14
+	2 COMBINED AT C536R	1014.	12.83	250.	76.	61.	2.76
+	HYDROGRAPH AT 205N	59.	12.33	11.	3.	2.	0.16
+	2 COMBINED AT C536I	1046.	12.83	261.	79.	63.	2.91
+	ROUTED TO C536O	272.	14.13	242.	78.	63.	2.91
+	ROUTED TO 536537	272.	14.20	242.	78.	63.	2.91
+	HYDROGRAPH AT 206A	130.	12.03	16.	5.	4.	0.13
+	2 COMBINED AT C537	275.	14.13	245.	83.	67.	3.04
+	ROUTED TO 537538	275.	14.20	245.	83.	67.	3.04
+	HYDROGRAPH AT 206B	100.	12.03	13.	4.	3.	0.09
+	2 COMBINED AT C538I	278.	14.15	252.	87.	70.	3.14
+	ROUTED TO C538O	278.	14.28	250.	87.	70.	3.14
+	ROUTED TO 538540	278.	14.38	249.	87.	70.	3.14
+	HYDROGRAPH AT 206C	18.	12.07	3.	1.	1.	0.02
+	2 COMBINED AT C540R	278.	14.37	251.	88.	71.	3.16
+	HYDROGRAPH AT 206D	69.	12.02	9.	3.	2.	0.06
+	ROUTED TO 539540	67.	12.12	9.	3.	2.	0.06
+	HYDROGRAPH AT 206E	21.	12.03	2.	1.	1.	0.02
+	2 COMBINED AT C540L	85.	12.07	11.	3.	3.	0.09
+	2 COMBINED AT C540	285.	12.17	257.	91.	74.	3.24
+	ROUTED TO 540541	282.	12.28	257.	91.	74.	3.24
+	HYDROGRAPH AT 206F	136.	12.05	17.	5.	4.	0.16
+	2 COMBINED AT C541	366.	12.20	267.	96.	78.	3.40
+	ROUTED TO 541548	364.	12.27	267.	96.	78.	3.40
+	HYDROGRAPH AT 206G	68.	12.08	11.	3.	3.	0.09
+	HYDROGRAPH AT BB523R	0.	0.02	0.	0.	0.	0.23
+	ROUTED TO 523548	0.	0.02	0.	0.	0.	0.23
+	3 COMBINED AT C548L	417.	12.25	275.	99.	80.	3.72
+	HYDROGRAPH AT 206H	63.	12.03	8.	2.	2.	0.06
+	ROUTED TO 542543	62.	12.07	8.	2.	2.	0.06
+	HYDROGRAPH AT 206I	24.	12.00	3.	1.	1.	0.02
+	2 COMBINED AT C543	85.	12.03	10.	3.	3.	0.08
+	DIVERSION TO D543R	85.	12.03	10.	3.	3.	0.08

+	HYDROGRAPH AT D543L	0.	0.02	0.	0.	0.	0.08
+	ROUTED TO 543544	0.	0.02	0.	0.	0.	0.08
+	HYDROGRAPH AT 206K	56.	12.03	7.	2.	2.	0.06
+	2 COMBINED AT C544	55.	12.03	7.	2.	2.	0.14
+	ROUTED TO 544545	55.	12.07	7.	2.	2.	0.14
+	DIVERSION TO D545R	27.	12.07	3.	1.	1.	0.14
+	HYDROGRAPH AT D545L	27.	12.07	3.	1.	1.	0.14
+	ROUTED TO 545546	27.	12.08	3.	1.	1.	0.14
+	HYDROGRAPH AT 206L	62.	12.03	7.	2.	2.	0.06
+	2 COMBINED AT C546	88.	12.03	10.	3.	2.	0.20
+	ROUTED TO 546547	88.	12.05	10.	3.	2.	0.20
+	HYDROGRAPH AT BB543R	85.	12.03	10.	3.	3.	0.08
+	ROUTED TO 543547	83.	12.10	10.	3.	3.	0.08
+	HYDROGRAPH AT BB545R	27.	12.07	3.	1.	1.	0.14
+	ROUTED TO 545547	27.	12.12	3.	1.	1.	0.14
+	HYDROGRAPH AT 206J	67.	12.02	9.	3.	2.	0.06
+	4 COMBINED AT C547	261.	12.05	33.	10.	8.	0.26
+	ROUTED TO 547548	256.	12.12	33.	10.	8.	0.26
+	HYDROGRAPH AT 206M	66.	12.02	8.	3.	2.	0.06
+	2 COMBINED AT C548R	312.	12.08	41.	13.	10.	0.32
+	2 COMBINED AT C548	685.	12.15	311.	111.	90.	4.04
+	ROUTED TO 548549	676.	12.32	310.	111.	90.	4.04
+	HYDROGRAPH AT 206N	153.	12.05	22.	7.	6.	0.15
+	2 COMBINED AT C549L	753.	12.28	325.	118.	96.	4.19
+	HYDROGRAPH AT 207A	109.	12.43	26.	8.	6.	0.26
+	HYDROGRAPH AT 207B	89.	12.42	22.	7.	6.	0.21
+	2 COMBINED AT C550	197.	12.43	47.	15.	12.	0.46
+	ROUTED TO 550552	195.	12.53	47.	15.	12.	0.46
+	HYDROGRAPH AT 207C	92.	12.30	15.	4.	3.	0.17
+	2 COMBINED AT C552L	263.	12.47	61.	19.	15.	0.64
+	HYDROGRAPH AT 207D	132.	12.17	24.	8.	6.	0.20
+	ROUTED TO 551552	131.	12.27	24.	8.	6.	0.20
+	HYDROGRAPH AT 207E	92.	12.15	20.	7.	5.	0.16
+	2 COMBINED AT C552R	217.	12.23	44.	14.	11.	0.35
+	2 COMBINED AT C552	451.	12.35	105.	33.	27.	0.99

+	ROUTED TO 552553	451.	12.40	105.	33.	27.	0.99
+	HYDROGRAPH AT 207F	77.	12.20	15.	5.	4.	0.13
+	2 COMBINED AT C553	513.	12.38	119.	38.	30.	1.12
+	ROUTED TO 553556	511.	12.45	119.	38.	30.	1.12
+	HYDROGRAPH AT 207G	76.	12.47	19.	5.	4.	0.24
+	2 COMBINED AT C556L	586.	12.45	138.	43.	34.	1.35
+	HYDROGRAPH AT 207H	100.	12.08	17.	5.	4.	0.12
+	ROUTED TO 554555	99.	12.15	17.	5.	4.	0.12
+	HYDROGRAPH AT 207I	69.	12.05	10.	3.	3.	0.07
+	2 COMBINED AT C555	161.	12.08	27.	9.	7.	0.20
+	ROUTED TO 555556	158.	12.22	27.	9.	7.	0.20
+	HYDROGRAPH AT 207J	88.	12.05	13.	4.	3.	0.09
+	2 COMBINED AT C556R	225.	12.15	40.	13.	10.	0.29
+	2 COMBINED AT C556	735.	12.38	177.	56.	45.	1.64
+	ROUTED TO 556557	732.	12.45	177.	56.	45.	1.64
+	HYDROGRAPH AT 207K	119.	12.07	17.	5.	4.	0.13
+	2 COMBINED AT C557R	778.	12.43	193.	61.	49.	1.77
+	HYDROGRAPH AT 207L	80.	12.05	10.	3.	3.	0.08
+	2 COMBINED AT C557	803.	12.42	203.	64.	51.	1.85
+	ROUTED TO 557558	800.	12.50	203.	64.	51.	1.85
+	HYDROGRAPH AT 207M	119.	12.03	13.	4.	3.	0.12
+	2 COMBINED AT C558	817.	12.48	216.	68.	54.	1.97
+	ROUTED TO 558560	815.	12.53	216.	68.	54.	1.97
+	HYDROGRAPH AT 207O	129.	12.03	14.	4.	3.	0.13
+	2 COMBINED AT C560R	831.	12.52	230.	72.	58.	2.10
+	HYDROGRAPH AT 207N	51.	12.02	6.	2.	2.	0.05
+	ROUTED TO 559560	50.	12.13	6.	2.	2.	0.05
+	2 COMBINED AT C560I	845.	12.50	236.	74.	59.	2.15
+	ROUTED TO C560O	226.	13.78	195.	74.	59.	2.15
+	ROUTED TO 560585	226.	13.88	195.	74.	59.	2.15
+	HYDROGRAPH AT 210A	122.	12.02	13.	4.	3.	0.12
+	2 COMBINED AT C585	228.	13.83	200.	77.	62.	2.27
+	HYDROGRAPH AT 208A	152.	12.02	20.	6.	5.	0.14
+	ROUTED TO 561563	151.	12.05	20.	6.	5.	0.14
+	HYDROGRAPH AT 208B	27.	12.03	4.	1.	1.	0.03

+	2 COMBINED AT C563R	177.	12.03	23.	8.	6.	0.17
+	HYDROGRAPH AT 208C	43.	12.15	8.	3.	2.	0.07
+	ROUTED TO 562563	43.	12.23	8.	3.	2.	0.07
+	HYDROGRAPH AT 208D	73.	12.03	11.	3.	3.	0.08
+	2 COMBINED AT C563L	101.	12.12	18.	6.	5.	0.14
+	2 COMBINED AT C563	275.	12.05	42.	14.	11.	0.31
+	ROUTED TO 563564	270.	12.13	42.	14.	11.	0.31
+	HYDROGRAPH AT 208E	62.	12.03	9.	3.	2.	0.06
+	2 COMBINED AT C564R	324.	12.08	50.	16.	13.	0.37
+	HYDROGRAPH AT 208F	72.	12.02	10.	3.	3.	0.07
+	2 COMBINED AT C564	391.	12.07	60.	20.	16.	0.44
+	ROUTED TO 564565	382.	12.18	60.	20.	16.	0.44
+	HYDROGRAPH AT 208G	132.	12.03	19.	6.	5.	0.13
+	2 COMBINED AT C565	481.	12.15	79.	26.	21.	0.57
+	ROUTED TO 565568	477.	12.20	78.	26.	21.	0.57
+	HYDROGRAPH AT 208H	32.	12.10	5.	2.	1.	0.04
+	2 COMBINED AT C568L	504.	12.20	84.	27.	22.	0.61
+	HYDROGRAPH AT 208I	120.	12.03	16.	5.	4.	0.12
+	HYDROGRAPH AT 208J	73.	12.05	11.	4.	3.	0.08
+	2 COMBINED AT C566	192.	12.03	28.	9.	7.	0.20
+	ROUTED TO 566567	189.	12.10	28.	9.	7.	0.20
+	HYDROGRAPH AT 208K	53.	12.02	7.	2.	2.	0.05
+	2 COMBINED AT C567L	235.	12.05	35.	11.	9.	0.25
+	HYDROGRAPH AT 208L	60.	12.03	8.	3.	2.	0.06
+	2 COMBINED AT C567	294.	12.05	43.	14.	11.	0.31
+	ROUTED TO 567568	288.	12.15	43.	14.	11.	0.31
+	HYDROGRAPH AT 208M	165.	12.05	25.	8.	7.	0.16
+	2 COMBINED AT C568R	435.	12.10	68.	22.	18.	0.46
+	2 COMBINED AT C568	913.	12.15	151.	50.	40.	1.07
+	ROUTED TO 568573	904.	12.22	151.	50.	40.	1.07
+	HYDROGRAPH AT 208N	47.	12.07	8.	3.	2.	0.05
+	2 COMBINED AT C573L	939.	12.22	159.	52.	42.	1.12
+	HYDROGRAPH AT 208O	229.	12.05	32.	10.	8.	0.23
+	ROUTED TO 569570	227.	12.07	32.	10.	8.	0.23
+	HYDROGRAPH AT 208P	70.	12.02	9.	3.	2.	0.06

+	2 COMBINED AT	C570R	293.	12.05	41.	13.	11.	0.29
+	HYDROGRAPH AT	208Q	93.	12.05	14.	5.	4.	0.09
+	2 COMBINED AT	C570	385.	12.05	55.	18.	14.	0.38
+	HYDROGRAPH AT	208R	12.	12.00	2.	1.	0.	0.01
+	ROUTED TO	571572	12.	12.03	2.	1.	0.	0.01
+	2 COMBINED AT	C572	397.	12.05	57.	19.	15.	0.39
+	ROUTED TO	572573	394.	12.07	57.	19.	15.	0.39
+	HYDROGRAPH AT	208S	81.	12.02	12.	4.	3.	0.07
+	2 COMBINED AT	C573R	472.	12.05	68.	22.	18.	0.46
+	2 COMBINED AT	C573	1313.	12.15	227.	74.	60.	1.58
+	HYDROGRAPH AT	208T	143.	12.03	18.	6.	5.	0.13
+	HYDROGRAPH AT	208U	156.	12.00	19.	6.	5.	0.13
+	2 COMBINED AT	C574	298.	12.02	37.	12.	9.	0.27
+	ROUTED TO	574575	297.	12.03	37.	12.	9.	0.27
+	HYDROGRAPH AT	208V	33.	12.02	4.	1.	1.	0.03
+	2 COMBINED AT	C575	330.	12.02	41.	13.	10.	0.29
+	ROUTED TO	575576	327.	12.07	41.	13.	10.	0.29
+	HYDROGRAPH AT	208W	57.	12.02	7.	2.	2.	0.05
+	2 COMBINED AT	C576	382.	12.05	48.	15.	12.	0.34
+	ROUTED TO	576577	381.	12.05	48.	15.	12.	0.34
+	2 COMBINED AT	C577	1654.	12.12	274.	89.	72.	1.92
+	ROUTED TO	577578	1646.	12.15	274.	89.	72.	1.92
+	HYDROGRAPH AT	208X	80.	12.02	10.	3.	2.	0.08
+	2 COMBINED AT	C578I	1701.	12.15	284.	92.	74.	2.00
+	ROUTED TO	C578O	302.	13.00	263.	92.	74.	2.00
+	ROUTED TO	578587	302.	13.07	263.	92.	74.	2.00
+	HYDROGRAPH AT	210B	104.	12.05	14.	4.	4.	0.11
+	ROUTED TO	C586O	103.	12.08	14.	4.	4.	0.11
+	ROUTED TO	586587	101.	12.13	14.	4.	4.	0.11
+	2 COMBINED AT	C587	358.	12.20	276.	97.	78.	2.11
+	ROUTED TO	587595	358.	12.23	276.	97.	78.	2.11
+	HYDROGRAPH AT	210C	74.	12.03	9.	3.	2.	0.08
+	2 COMBINED AT	C595L	405.	12.17	283.	99.	80.	2.19
+	HYDROGRAPH AT	210D	149.	12.03	18.	5.	4.	0.14
+	ROUTED TO	588590	147.	12.07	18.	5.	4.	0.14

+	HYDROGRAPH AT 210E	32.	12.02	3.	1.	1.	0.03
+	2 COMBINED AT C590L	177.	12.05	21.	6.	5.	0.17
+	HYDROGRAPH AT 210F	98.	12.02	13.	4.	3.	0.09
+	ROUTED TO 589590	97.	12.07	13.	4.	3.	0.09
+	HYDROGRAPH AT 210G	165.	12.03	21.	7.	5.	0.16
+	2 COMBINED AT C590R	261.	12.05	34.	11.	9.	0.25
+	2 COMBINED AT C590	437.	12.05	55.	17.	14.	0.42
+	HYDROGRAPH AT 210H	76.	12.02	8.	2.	2.	0.07
+	ROUTED TO 592593	75.	12.07	8.	2.	2.	0.07
+	2 COMBINED AT C593	509.	12.05	63.	20.	16.	0.49
+	ROUTED TO 593594	506.	12.08	63.	20.	16.	0.49
+	HYDROGRAPH AT 210I	52.	12.03	6.	2.	1.	0.05
+	2 COMBINED AT C594	556.	12.07	70.	21.	17.	0.54
+	ROUTED TO 594595	547.	12.17	70.	21.	17.	0.54
+	HYDROGRAPH AT 210J	109.	12.03	12.	3.	3.	0.10
+	2 COMBINED AT C595R	631.	12.13	81.	25.	20.	0.64
+	2 COMBINED AT C595	1029.	12.13	360.	123.	99.	2.83
+	ROUTED TO 595596	1025.	12.18	360.	123.	99.	2.83
+	HYDROGRAPH AT 210K	89.	12.02	9.	2.	2.	0.08
+	2 COMBINED AT C596	1066.	12.15	368.	126.	101.	2.91
+	HYDROGRAPH AT 209A	290.	12.12	45.	14.	12.	0.37
+	ROUTED TO 579580	289.	12.15	45.	14.	12.	0.37
+	HYDROGRAPH AT 209C	55.	12.07	9.	3.	2.	0.06
+	2 COMBINED AT C580R	338.	12.13	53.	17.	14.	0.43
+	HYDROGRAPH AT 209B	86.	12.03	12.	4.	3.	0.08
+	2 COMBINED AT C580	410.	12.08	65.	21.	17.	0.51
+	ROUTED TO 580581	406.	12.13	65.	21.	17.	0.51
+	HYDROGRAPH AT 209D	254.	12.02	33.	11.	9.	0.24
+	2 COMBINED AT C581R	632.	12.08	98.	32.	26.	0.76
+	HYDROGRAPH AT 209E	145.	12.05	21.	7.	5.	0.15
+	2 COMBINED AT C581	773.	12.07	119.	39.	31.	0.91
+	ROUTED TO 581582	760.	12.13	119.	39.	31.	0.91
+	HYDROGRAPH AT 209F	140.	12.22	27.	9.	7.	0.23
+	2 COMBINED AT C582R	894.	12.13	146.	47.	38.	1.13
+	HYDROGRAPH AT 209G	202.	12.05	29.	9.	7.	0.20

+	2 COMBINED AT C582	1068.	12.12	174.	57.	45.	1.34
+	ROUTED TO 582583	1060.	12.17	174.	57.	45.	1.34
+	HYDROGRAPH AT 209H	75.	12.05	9.	3.	2.	0.08
+	2 COMBINED AT C583	1122.	12.15	183.	59.	48.	1.42
+	ROUTED TO 583584	1108.	12.23	183.	59.	48.	1.42
+	HYDROGRAPH AT 209I	190.	12.02	20.	6.	4.	0.18
+	2 COMBINED AT C584I	1191.	12.20	202.	65.	52.	1.60
+	ROUTED TO C584O	333.	12.88	201.	65.	52.	1.60
+	ROUTED TO 584597	333.	13.05	201.	65.	52.	1.60
+	HYDROGRAPH AT 210L	129.	12.03	14.	4.	3.	0.14
+	2 COMBINED AT C597	340.	12.60	215.	69.	55.	1.74
+	ROUTED TO 597598	340.	12.72	215.	69.	55.	1.74
+	HYDROGRAPH AT 210M	150.	12.05	17.	5.	4.	0.16
+	2 COMBINED AT C598	403.	12.20	231.	73.	59.	1.90
+	HYDROGRAPH AT 210N	45.	12.02	4.	1.	1.	0.05
+	4 COMBINED AT C599I	1640.	12.13	787.	271.	218.	7.13
+	ROUTED TO C599O	770.	15.08	664.	271.	218.	7.13
+	ROUTED TO 599608	770.	15.13	664.	271.	218.	7.13
+	HYDROGRAPH AT 211K	117.	12.00	13.	4.	3.	0.10
+	2 COMBINED AT C608L	771.	15.13	666.	274.	221.	7.24
+	HYDROGRAPH AT 211G	7.	12.07	2.	1.	0.	0.01
+	ROUTED TO 604606	7.	12.25	2.	1.	0.	0.01
+	HYDROGRAPH AT 211I	41.	12.03	6.	2.	1.	0.04
+	2 COMBINED AT C606R	46.	12.05	7.	2.	2.	0.05
+	HYDROGRAPH AT 211H	80.	12.02	8.	2.	2.	0.07
+	ROUTED TO C605O	80.	12.02	8.	2.	2.	0.07
+	2 COMBINED AT C606	125.	12.02	15.	5.	4.	0.12
+	ROUTED TO 606607	124.	12.07	15.	5.	4.	0.12
+	HYDROGRAPH AT 211J	17.	12.02	2.	1.	1.	0.01
+	2 COMBINED AT C607	140.	12.05	18.	5.	4.	0.14
+	ROUTED TO 607608	139.	12.08	18.	5.	4.	0.14
+	2 COMBINED AT C608	772.	15.13	677.	279.	225.	7.37
+	ROUTED TO 608613	772.	15.17	677.	279.	225.	7.37
+	HYDROGRAPH AT 211M	94.	12.02	12.	4.	3.	0.08
+	ROUTED TO 610611	94.	12.05	12.	4.	3.	0.08

+	HYDROGRAPH AT	211N	24.	12.00	3.	1.	1.	0.02
+	2 COMBINED AT	C611R	117.	12.03	15.	5.	4.	0.10
+	HYDROGRAPH AT	211O	48.	12.02	6.	2.	2.	0.04
+	ROUTED TO	C609O	39.	12.08	6.	2.	2.	0.04
+	ROUTED TO	609611	39.	12.10	6.	2.	1.	0.04
+	2 COMBINED AT	C611I	154.	12.03	21.	7.	5.	0.14
+	ROUTED TO	C611O	111.	12.18	21.	7.	5.	0.14
+	DIVERSION TO	D611R	111.	12.18	21.	7.	5.	0.14
+	HYDROGRAPH AT	D611L	0.	0.02	0.	0.	0.	0.14
+	ROUTED TO	611612	0.	0.02	0.	0.	0.	0.14
+	HYDROGRAPH AT	211P	41.	12.00	5.	2.	1.	0.03
+	2 COMBINED AT	C612	41.	12.00	5.	2.	1.	0.17
+	2 COMBINED AT	C613	772.	15.17	679.	280.	226.	7.55
+	ROUTED TO	613621	772.	15.18	679.	280.	226.	7.55
+	HYDROGRAPH AT	211L	98.	12.02	12.	4.	3.	0.10
+	2 COMBINED AT	C621L	850.	12.08	686.	284.	229.	7.64
+	HYDROGRAPH AT	211Q	24.	12.00	3.	1.	1.	0.02
+	ROUTED TO	616617	24.	12.03	3.	1.	1.	0.02
+	HYDROGRAPH AT	211R	94.	12.02	11.	3.	3.	0.08
+	2 COMBINED AT	C617L	117.	12.02	14.	4.	3.	0.10
+	HYDROGRAPH AT	211U	22.	12.08	5.	2.	1.	0.03
+	DIVERSION TO	D614R	15.	12.08	3.	1.	1.	0.03
+	HYDROGRAPH AT	D614L	7.	12.08	2.	1.	0.	0.03
+	2 COMBINED AT	C617	124.	12.02	15.	5.	4.	0.13
+	ROUTED TO	617618	122.	12.08	15.	5.	4.	0.13
+	HYDROGRAPH AT	211S	47.	12.05	6.	2.	1.	0.05
+	2 COMBINED AT	C618I	167.	12.07	21.	7.	5.	0.18
+	ROUTED TO	C618O	151.	12.15	15.	6.	5.	0.18
+	HYDROGRAPH AT	BB614R	15.	12.08	3.	1.	1.	0.03
+	ROUTED TO	614615	15.	12.13	3.	1.	1.	0.03
+	HYDROGRAPH AT	211V	6.	12.03	1.	0.	0.	0.00
+	2 COMBINED AT	C615	19.	12.10	4.	1.	1.	0.03
+	DIVERSION TO	D615R	6.	12.10	1.	0.	0.	0.03
+	HYDROGRAPH AT	D615L	13.	12.10	3.	1.	1.	0.03
+	ROUTED TO	615618	13.	12.12	3.	1.	1.	0.03

+	2 COMBINED AT	C618	165.	12.15	18.	7.	6.	0.19
+	ROUTED TO	618619	158.	12.25	18.	7.	6.	0.19
+	HYDROGRAPH AT	211T	80.	12.02	11.	4.	3.	0.07
+	2 COMBINED AT	C619L	189.	12.23	29.	11.	9.	0.26
+	HYDROGRAPH AT	BB615R	6.	12.10	1.	0.	0.	0.03
+	ROUTED TO	615619	6.	12.22	1.	0.	0.	0.03
+	2 COMBINED AT	C619I	195.	12.23	30.	11.	9.	0.25
+	ROUTED TO	C619O	157.	12.35	30.	11.	9.	0.25
+	DIVERSION TO	D619L	0.	0.02	0.	0.	0.	0.25
+	HYDROGRAPH AT	D619R	157.	12.35	30.	11.	9.	0.25
+	ROUTED TO	619620	157.	12.37	30.	11.	9.	0.25
+	HYDROGRAPH AT	BB619L	0.	0.02	0.	0.	0.	0.25
+	ROUTED TO	619620	0.	0.02	0.	0.	0.	0.25
+	HYDROGRAPH AT	211W	38.	12.00	5.	2.	1.	0.03
+	3 COMBINED AT	C620R	166.	12.33	35.	12.	11.	0.28
+	HYDROGRAPH AT	BB611R	111.	12.18	21.	7.	5.	0.14
+	ROUTED TO	611620	111.	12.20	21.	7.	5.	0.14
+	2 COMBINED AT	C620	273.	12.30	56.	19.	16.	0.42
+	ROUTED TO	620621	273.	12.33	56.	19.	16.	0.42
+	2 COMBINED AT	C621	1073.	12.08	734.	302.	244.	7.93
+	ROUTED TO	621622	1051.	12.22	733.	302.	244.	7.93
+	HYDROGRAPH AT	211X	215.	12.07	33.	11.	9.	0.21
+	2 COMBINED AT	C622R	1208.	12.20	756.	311.	252.	8.14
+	HYDROGRAPH AT	211A	145.	12.03	16.	5.	4.	0.14
+	ROUTED TO	C600O	143.	12.07	16.	5.	4.	0.14
+	ROUTED TO	600601	140.	12.13	16.	5.	4.	0.14
+	HYDROGRAPH AT	211B	114.	12.02	12.	4.	3.	0.11
+	2 COMBINED AT	C601	245.	12.05	28.	8.	7.	0.25
+	ROUTED TO	601602	241.	12.10	28.	8.	7.	0.25
+	HYDROGRAPH AT	211C	46.	12.03	6.	2.	2.	0.04
+	2 COMBINED AT	C602L	283.	12.08	34.	10.	8.	0.30
+	HYDROGRAPH AT	211D	55.	12.07	8.	3.	2.	0.07
+	2 COMBINED AT	C602	338.	12.08	43.	13.	10.	0.37
+	ROUTED TO	602603	333.	12.15	43.	13.	10.	0.37
+	HYDROGRAPH AT	211E	167.	12.03	21.	7.	5.	0.16

+	2 COMBINED AT	C603	473.	12.10	64.	19.	16.	0.52
+	ROUTED TO	603622	465.	12.18	64.	19.	16.	0.52
+	HYDROGRAPH AT	211F	113.	12.05	18.	6.	5.	0.11
+	2 COMBINED AT	C622L	558.	12.15	81.	25.	20.	0.63
+	2 COMBINED AT	C622	1731.	12.18	825.	334.	270.	8.78
+	ROUTED TO	622549	1708.	12.30	824.	334.	270.	8.78
+	HYDROGRAPH AT	211Y	96.	12.05	14.	4.	4.	0.09
+	2 COMBINED AT	C549R	1757.	12.28	832.	338.	273.	8.87
+	2 COMBINED AT	C549	2432.	12.28	1132.	442.	357.	13.06
+	ROUTED TO	549626	2406.	12.40	1131.	442.	357.	13.06
+	HYDROGRAPH AT	211Z	76.	12.05	10.	3.	2.	0.08
+	2 COMBINED AT	C626C	2427.	12.38	1135.	444.	359.	13.14
+	HYDROGRAPH AT	211AA	34.	12.05	5.	2.	1.	0.03
+	ROUTED TO	625626	33.	12.12	5.	2.	1.	0.03
+	HYDROGRAPH AT	211AB	51.	12.00	7.	2.	2.	0.04
+	ROUTED TO	623624	51.	12.00	7.	2.	2.	0.04
+	HYDROGRAPH AT	211AC	32.	12.03	4.	1.	1.	0.03
+	2 COMBINED AT	C624	83.	12.02	11.	3.	3.	0.07
+	ROUTED TO	624626	82.	12.05	11.	3.	3.	0.07
+	HYDROGRAPH AT	211AD	49.	12.02	7.	2.	2.	0.04
+	2 COMBINED AT	C626R	131.	12.03	17.	5.	4.	0.11
+	3 COMBINED AT	C626	2481.	12.38	1145.	450.	364.	13.28
+	ROUTED TO	626627	2477.	12.40	1145.	450.	364.	13.28
+	HYDROGRAPH AT	211AE	38.	12.02	5.	1.	1.	0.03
+	2 COMBINED AT	C627	2484.	12.40	1147.	452.	365.	13.32
+	HYDROGRAPH AT	211AF	65.	12.00	8.	3.	2.	0.05

*** NORMAL END OF HEC-1 ***