

ROSEVILLE HYDROLOGY

PREPARED FOR THE  
CITY OF ROSEVILLE

SEPTEMBER 1986



Submitted Item C

# ROSEVILLE HYDROLOGY

## NOLTE AND ASSOCIATES

SEPTEMBER 1986

### OVERVIEW

The 500-, 100-, 50-, and 10-year design storms were evaluated from frequency analyses of measured precipitation data. Precipitation losses representative of existing and expected future land use conditions for each return period were deducted from the design storm to compute increments of runoff. These increments were multiplied by an appropriate unit hydrograph developed by the kinematic wave method to compute the flood corresponding to a 500-, 100-, 50-, or 10-year, 24-hour design storm. The unit hydrographs were calibrated by reconstitution on five recorded storms. Loss rates were calibrated using a flood frequency analysis of historical flood peaks on Arcade Creek, southwest of Roseville. The resulting peak flow rates for existing land use are shown in Table 1.

### RAINFALL-RUNOFF MODEL

#### a) Rainfall

Precipitation depths for the 100-year, 24-hour storm and the design storm pattern were taken from the report entitled, "Flood Analysis of the Roseville Basin" (Reference 1). The design storm was converted from hourly values to 15-minute values. The National Weather Service gage at Sacramento City (Reference 2) was used to find the ratio of the 500-, 50-, and 10-year, 24-hour precipitation depth to the 100-year, 24-hour precipitation depth for the 76 years of record analyzed.

Since the 500-year, 24-hour precipitation value is not included in Reference 2, it was calculated from Reference 2 frequency statistics using the methods recommended in Water Resources Council Bulletin 17B and a Log Pearson Type III Distribution (Reference 3).

The resulting 24-hour precipitation depths and ratios for the Sacramento gage are shown below:

<u>Return Period (yrs)</u>	<u>24-Hr Precipitation (in)</u>	<u>Ratio to 100-yr</u>
500	4.86	1.19
100	4.09	1.00
50	3.75	0.917
10	2.89	0.707

The ratios were applied to the 100-year, 24-hour precipitation depths from Reference 1 to obtain 10-, 50-, and 500-year precipitation depths for the Roseville area.

## b) Loss Rates

The infiltration losses were based on the U. S. Soil Conservation Service curve number method (Reference 4) using soil type, ground cover, and antecedent moisture conditions to determine loss rates (Table 2). Because a higher curve number gives more runoff and less infiltration, different antecedent moisture conditions and, therefore, different curve numbers were used for the 10-, 50-, 100-, and 500-year return period storms. Table 3 shows how the curve number varies for different antecedent moisture conditions.

Soil type and future land use for all streams studied, except Pleasant Grove Creek and South Branch Pleasant Grove Creek, were taken from Reference 1. For Pleasant Grove Creek and South Branch Pleasant Grove Creek, present land use was determined from U. S. Geological Survey 7-1/2 Minute-Series Topographic Maps and aerial photographs. Future land use was taken from Placer County and City of Roseville land use zone maps. Soil type was determined from the U. S. Soil Conservation Service "Soil Survey of Placer County" (Reference 5). The precipitation depth, curve number, and corresponding infiltration loss for each stream and return period for present land use are shown in Table 4.

## c) Kinematic Wave Method

The kinematic wave method in the U. S. Army Corps of Engineers' HEC-1 computer program (Reference 6) was used to generate and route unit hydrographs for the streams in this study. A description of the kinematic wave method appears in the HEC-1 User's Manual. The method uses basin and channel characteristics in the equations of motion to transform rainfall excess into subbasin outflow. Three conceptual elements are used in determining subbasin runoff: overland flow planes, collector channels, and a main channel. The characteristics describing the overland flow elements consist of drainage area, overland flow length, slope, and roughness factor N. Recommended values for N appear in Table 5. In this study, an N value of 0.1 was used for heavily urbanized areas, 0.2 for partially urbanized areas, and 0.3 for unurbanized areas. Characteristics defining the collector channels and main channel consist of drainage area, length, slope, roughness (Manning's "n"), shape, width, and side slope. The average characteristics for the streams studied (Table 6) were estimated from U.S. Geological Survey 7-1/2 Minute-Series Topographic Maps and field observations.

## d) Unit Hydrographs

To obtain unit hydrographs using the kinematic wave method, 0.25 inches of rainfall in fifteen minutes with no losses were applied to the drainage basins. The resulting hydrographs were routed and added using kinematic wave routing. Due to an inconsistency in the HEC-1 program, the volumes of the runoff hydrographs were slightly less than 0.25 inches. Each of the ordinates in the hydrographs were multiplied by an appropriate factor to obtain a volume of 0.25 inches. The 0.25-inch hydrographs were then converted to unit hydrographs by multiplying each ordinate in the hydrograph by four.

### e) Design Flow Hydrographs

The design flow hydrographs were found by convoluting rainfall excess with the unit hydrograph for the location of interest. Different unit hydrographs were used for each of the locations listed in Table 1. The 100-year, 24-hour design flow for the locations listed below are plotted in Figures 2 through 8. The figures show the coincidence in flood peaks for tributary streams.

Strap Ravine and Linda Creek at confluence	Figure 1
Linda Creek and Cirby Creek at confluence	Figure 2
Cirby Creek and Dry Creek at confluence	Figure 3
Secret Ravine and Miners Ravine at confluence	Figure 4
Antelope Creek, Miners Ravine, and Dry Creek at confluence	Figure 5
Dry Creek downstream of corporate boundary	Figure 6
South Branch Pleasant Grove Creek and Pleasant Grove Creek	Figure 7

### CALIBRATION

#### a) Stream Gages

Stream flow data were collected for three gages near the study area: Arcade Creek near Del Paso Heights, Dry Creek at Roseville, and Linda Creek at Roseville.

The Arcade Creek gage, operated by the U. S. Geological Survey from water year 1964 to water year 1978, has fifteen years of good streamflow data. Although Arcade Creek does not flow through Roseville, it was used in the calibration because of the quality and accessibility of its streamflow data. Arcade Creek also shows the effects of urbanization.

The Dry Creek gage was operated by the California Department of Water Resources from water year 1967 to water year 1983. The records are missing or in error for water years 1976, 1977, 1982, and 1983. The Dry Creek gage data is not as reliable as the Arcade Creek gage data.

The Linda Creek gage is unrated except in Reference 1. An analysis of the gage data indicated that the data and the rating are inaccurate; consequently, the Linda Creek gage was not used in the calibration.

## b) N Value Calibration

Reconstitution of the following storms was used to calibrate roughness factor N in the overland flow computations.

Arcade Creek	February 5-6, 1972 November 3-5, 1972 November 11-12, 1972
Dry Creek	December 20-22, 1982 March 12-14, 1983

The results of these reconstitutions are shown in Figures 8 through 12.

## c) Antecedent Moisture Condition Calibration

A frequency analysis was performed on peak streamflow data for Arcade Creek using a Log Pearson Type III Distribution (Reference 3). The curve number in the rainfall-runoff model for each exceedance probability was adjusted until the peak flow in the rainfall-runoff model was close to the peak flow value in the frequency analysis. The calibrated curve number was compared to the curve number at antecedent moisture condition 2, which was estimated from the land use and soil type (Table 2). Table 3 was used to find the antecedent moisture condition for the calibrated curve number. The results of the calibration are shown below:

Exceedance Probability	Return Period (yrs)	Antecedent Moisture Condition
.002	500	2.7
.01	100	2.6
.02	50	2.5
.10	10	2.3

Curve numbers for the remaining streams were estimated based on land use and soil type for antecedent moisture condition 2. In accordance with the figures shown in Table 3, they were then adjusted to the curve number appropriate for a particular return period.

## d) Comparison with Dry Creek Gage

Two frequency analyses were completed for Dry Creek. One of the analyses omitted the questionable data from 1982 and 1983; the other analysis was performed using the California Department of Water Resources peak flow estimates for 1982 and 1983. The years of missing record, 1976 and 1977, were omitted from both analyses. Since 1976 and 1977 were dry years, the frequency analyses probably would have resulted in peak flow estimates higher for the high-return-period floods than for those without these years of missing record.

### e) Other Studies

The most recent study on the Dry Creek basin, which includes Secret Ravine, Antelope Creek, Miners Ravine, Strap Ravine, Cirby Creek, and Linda Creek, was performed concurrently with this study by the Sacramento District of the U.S. Army Corps of Engineers. A coordination meeting attended by the representatives of the Corps of Engineers, the City of Roseville, and Nolte and Associates was held on June 12, 1986. All attendees agreed that the peak flow rates computed for this study conformed with those computed by the Corps of Engineers within the limits of accuracy expected for hydrologic computations. The City of Roseville agreed to accept the flow rates from this study.

NOTE

Previous studies pertaining to Roseville area streams include the "Flood Analysis of the Roseville Basin" (Reference 1), the Sacramento County Flood Insurance Study (Reference 7), and the previous City of Roseville Flood Insurance Study (Reference 8). Comparisons of flow rates from the studies mentioned above are shown at various exceedance probabilities in Figure 13 for Dry Creek at the gage above Cirby Creek and Figure 14 for Linda Creek above Cirby Creek. Hydrology of the previous City of Roseville Flood Insurance Study was found to be inaccurate when the 1982-1983 storms flooded the city beyond the limits of flooding shown on the Flood Insurance Rate Maps. The 1983 study, "Flood Analysis of the Roseville Basin," was conducted, in part, to develop flow rates to replace those in the previous Flood Insurance Study.

NOTE

The 1983 study included rating the gage on Linda Creek. Our analysis indicated that the Linda Creek gage is not reliable. Since the 1983 study developed unit hydrographs on Strap Ravine, Linda Creek, and Cirby Creek based on inaccurate Linda Creek gage data, the flow rates in the 1983 study on these streams are inconsistently high when compared to flow rates on other streams in the area.

No previous studies were found on the Pleasant Grove Creek watershed.

## REFERENCES

1. Vandivere, William B., and Paskett, Curtis J., "Flood Analysis of the Roseville Basin," Philip Williams and Associates, August 23, 1983
2. California Department of Water Resources, "Rainfall-Depth-Duration-Frequency for California," Sacramento, CA, 1981
3. United States Water Resources Council, "Guidelines for Determining Flood Flow Frequency," Reston, Virginia, 1982
4. United States Department of Agriculture, Soil Conservation Service, "National Engineering Handbook, Section 4 - Hydrology," Washington, DC, 1983
5. United States Department of Agriculture, Soil Conservation Service, "Soil Survey of Placer County, California, Western Part," Washington, DC, 1979
6. United States Army Corps of Engineers Hydrologic Engineering Center Generalized Computer Program, "HEC-1 Flood Hydrograph Package," Users Manual, Input Description, and Program, Davis, CA, September 1981
7. Federal Emergency Management Agency, Flood Insurance Study, Sacramento County, California, Unincorporated Areas, November 1, 1984
8. Federal Emergency Management Agency, Flood Insurance Study, City of Roseville, California, June 15, 1983

TABLE 1

## SUMMARY OF DRAINAGE AREAS AND DISCHARGES

Flooding Source and Location	Drainage Area (Sq.Mi.)	Peak Discharges (cubic feet per second)			
		500-YR	100-YR	50-YR	10-YR
✓ ANTELOPE CREEK					
Upstream of confluence with Miners Ravine	14.89	2720	2070	1740	1130
✓ CIRBY CREEK					
Near Douglas Blvd.	.28	160	130	110	80
Upstream of confluence with Linda Creek	1.90	670	520	450	300
Downstream of confluence with Linda Creek	18.40	3950	3100	2640	1780
Upstream of confluence with Dry Creek	19.30	4020	3160	2690	1810
✓ DRY CREEK					
Downstream of confluence with Miners Ravine and Antelope Creek	57.48	15,590	12,400	10,890	7310
At gage upstream of Douglas Blvd.	58.03	15,640	12,430	10,920	7330
Downstream of confluence with Cirby Creek	77.33	19,870	15,800	13,880	9330
Downstream of Corporate Boundary	80.03	20,290	16,140	14,180	9520
✓ LINDA CREEK					
Old Auburn Road (Corporate Boundary)	10.39	2610	2050	1740	1170
Upstream of confluence with Strap Ravine	11.50	2830	2220	1890	1270
Downstream of confluence with Strap Ravine	15.50	3420	2680	2280	1530
At gage upstream of Oak Ridge Drive	16.26	3500	2740	2330	1530
Upstream of confluence with Cirby Creek	16.50	3510	2750	2340	1580



TABLE 1

## SUMMARY OF DRAINAGE AREAS AND DISCHARGES (Continued)

Flooding Source and Location	Drainage Area (Sq.Mi.)	Peak Discharges (cubic feet per second)			
		500-YR	100-YR	50-YR	10-YR
✓ MINERS RAVINE					
Near Corporate Boundary	18.78	4850	3700	3140	2030
Upstream of confluence with Secret Ravine	19.90	5170	3950	3350	2180
Downstream of confluence with Secret Ravine	42.29	12,290	9370	7940	5130 ✓
✓ PLEASANT GROVE CREEK					
At Corporate Boundary (upstream of confluence of three tributaries)	14.85	3510	2650	2220	1420
Upstream of confluence with South Branch	16.71	3750	2830	2380	1530
✓ SECRET RAVINE					
Upstream of confluence with Miners Ravine	22.39	7360	5620	4880	3190
✓ SOUTH BRANCH PLEASANT GROVE CREEK					
Upstream of Diamond Oaks Golf Course	1.06	280	210	170	110
Downstream of Southern Pacific Railroad	3.24	850	640	540	350
At confluence with right tributary	4.93	1080	820	690	440
Upstream of confluence with Pleasant Grove Creek	6.06	1170	880	740	470
• STRAP RAVINE					
At Corporate Boundary	2.90	520	410	350	240
Upstream of confluence with Linda Creek	4.00	690	540	460	310

**TABLE 2\***  
**SOIL CONSERVATION SERVICE CURVE NUMBERS**  
**FOR ANTECEDENT MOISTURE CONDITION 2**

Land Use	Hydrologic Soil Group		
	B	C	D
Mixed oak and range	46	62	67
Orchard	53	67	71
Range	59	70	74
Mixed oak and low density residential	61	72	76
Agriculture	72	80	82
Mixed agriculture and low density residential	74	82	84
Low density residential	77	83	86
Medium density residential	78	85	88
High density residential	79	86	90
Construction	80	87	90
Commercial	82	88	90

\* Modified Table 9.4, Reference 4

TABLE 3

CURVE NUMBER FOR ANTECEDENT MOISTURE CONDITION (AMC)

AMC 2	AMC 1	AMC 3
2	1	3
86	72	94
85	70	94
84	68	93
83	67	93
82	66	92
81	64	92
80	63	91
79	62	91
78	60	90
77	59	89
76	58	89
75	57	88
74	55	88
73	54	87
72	53	86

TABLE 4

STREAM	-----Return Period (Years)-----											
	500			100			50			10		
	CN	RF	LOSS	CN	RF	LOSS	CN	RF	LOSS	CN	RF	LOSS
Strap Ravine	85	5.50	1.35	84	4.62	1.36	82	4.24	1.46	81	3.26	1.37
Linda Creek	85	5.50	1.35	84	4.62	1.36	82	4.24	1.46	81	3.26	1.37
Cirby Creek	85	5.50	1.35	84	4.62	1.36	82	4.24	1.46	81	3.26	1.37
Secret Ravine	84	5.44	1.42	82	4.57	1.49	81	4.19	1.51	79	3.23	1.47
Miners Ravine	83	5.58	1.51	81	4.69	1.57	79	4.30	1.65	77	3.31	1.58
Antelope Creek	82	5.38	1.57	80	4.52	1.62	78	4.14	1.69	76	3.19	1.59
Dry Creek	89	5.51	1.02	88	4.63	1.06	87	4.25	1.11	85	3.27	1.15
Pleasant Grove Creek	82	5.00	1.53	80	4.20	1.58	78	3.85	1.64	76	2.97	1.54
South Branch Pleasant Grove Creek	82	5.12	1.55	80	4.30	1.59	78	3.94	1.65	76	3.04	1.56

CN = Curve number

RF = Rainfall (inches)

Loss = Infiltration loss (inches)

TABLE 5\*

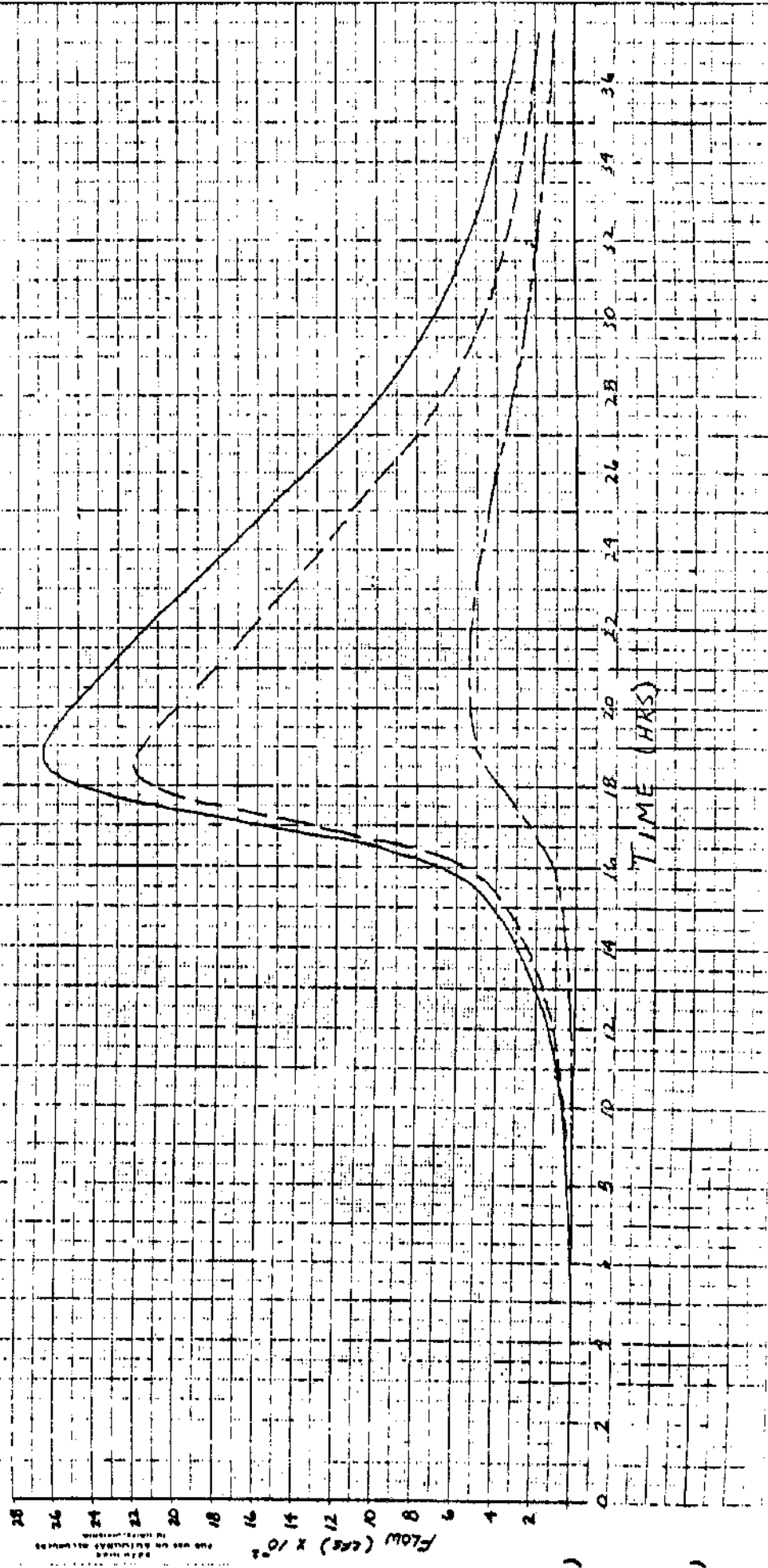
Surface	Average Roughness Factor N
Dense Growth	0.45
Pasture	0.35
Lawns	0.25
Bluegrass Sod	0.35
Short Grass Prairie	0.15
Sparse Vegetation	0.09
Concrete/Asphalt	0.10

\* Reference 5

TABLE 6

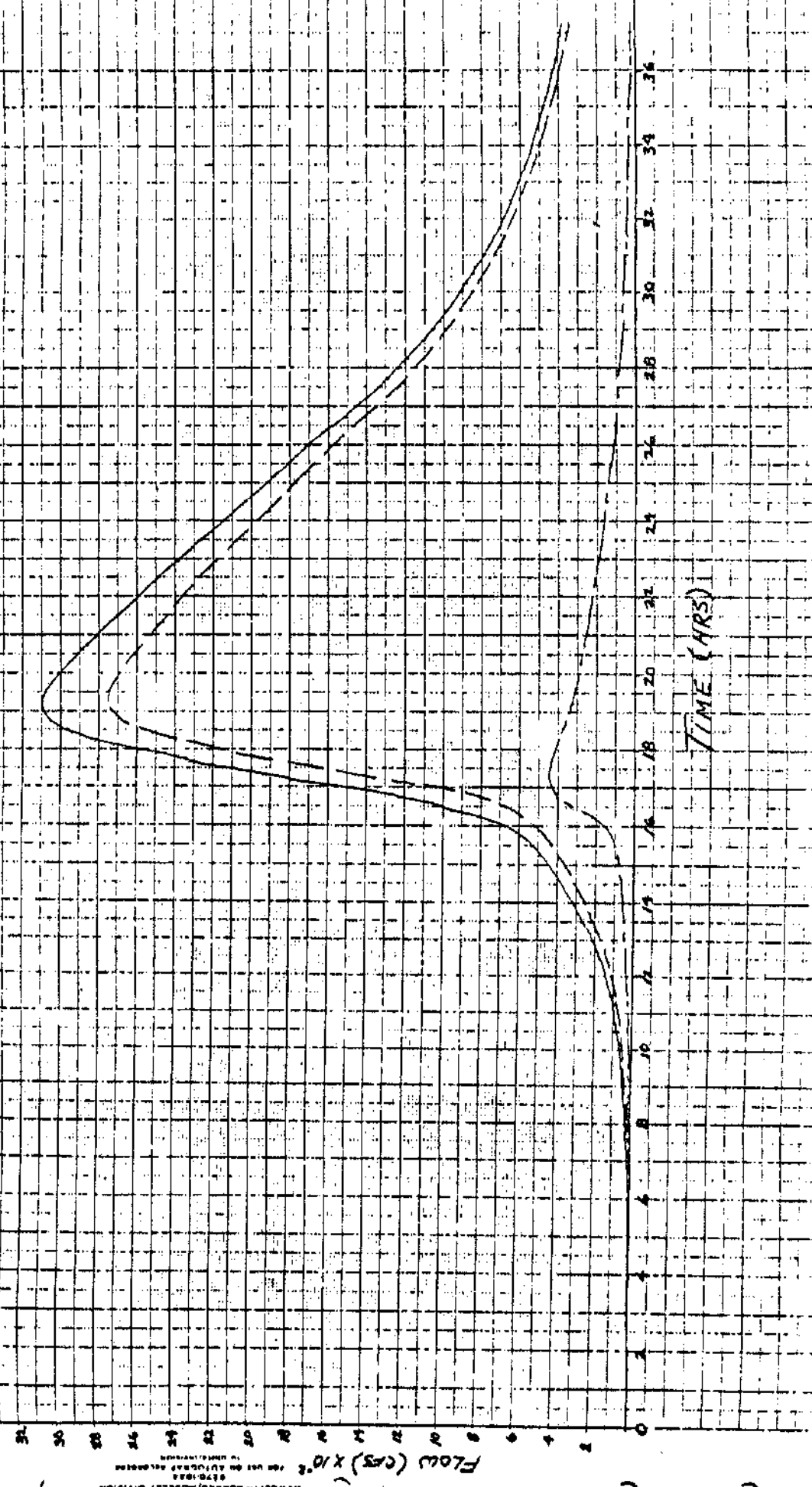
Stream	Total		Average					
	Area (Sq Mi)	Length (Ft)	Slope	Shape	Channel Bottom Width (Ft)	Side Slope	N	n
Strap Ravine	4.00	26,200	.0056	trap.	12	2:1	.3	.050
Linda Creek	16.50	127,700	.0078	"	15	2:1	.3	.050
Cirby Creek	19.30	160,000	.0077	"	12	2:1	.3	.050
Secret Ravine	22.39	177,500	.0141	"	5	3:1	.3	.052
Antelope Creek	14.89	119,570	.0118	"	35	3:1	.3	.040
Miners Ravine	42.59	298,500	.0117	"	10	3:1	.3	.051
Dry Creek	80.03	600,270	.0104	"	15	2:1	.3	.049
South Branch Pleasant Grove	6.06	41,000	.0026	"	6	1:1	.3	.053
Pleasant Grove	22.77	194,500	.0055	"	10	1:1	.3	.053

- - - STRAP RAIVNE 1/3 OF CONFLUENCE WITH LINDA CREEK  
 - - - LINDA CREEK 1/3 OF CONFLUENCE WITH STRAP RAIVNE  
 - - - LINDA CREEK 2/3 OF CONFLUENCE WITH STRAP RAIVNE



Flow (cfs) x 10<sup>3</sup>  
 TIME (HRS)

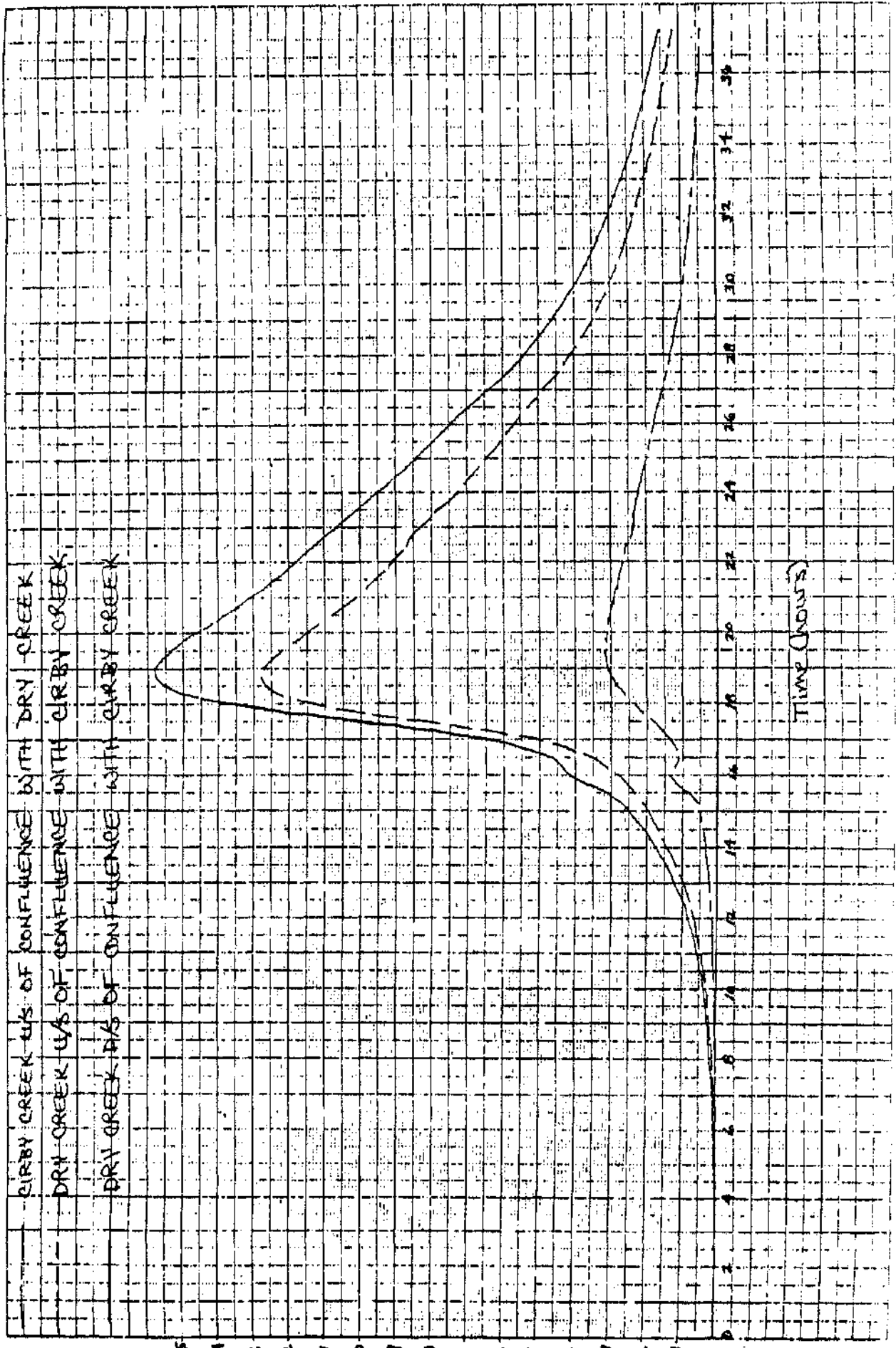
--- CIRBY CREEK W/S OF CONFLUENCE WITH LINDA CREEK  
 - - - LINDA CREEK W/S OF CONFLUENCE WITH CIRBY CREEK  
 - - - CIRBY CREEK D/S OF CONFLUENCE WITH LINDA CREEK



NEWLETT-PACIFIC/ROCKWELL DIVISION  
 4570 BAY  
 FOR USE ON APPROVED CONTRACTS  
 IN WASHINGTON



100000  
0.7 0.5



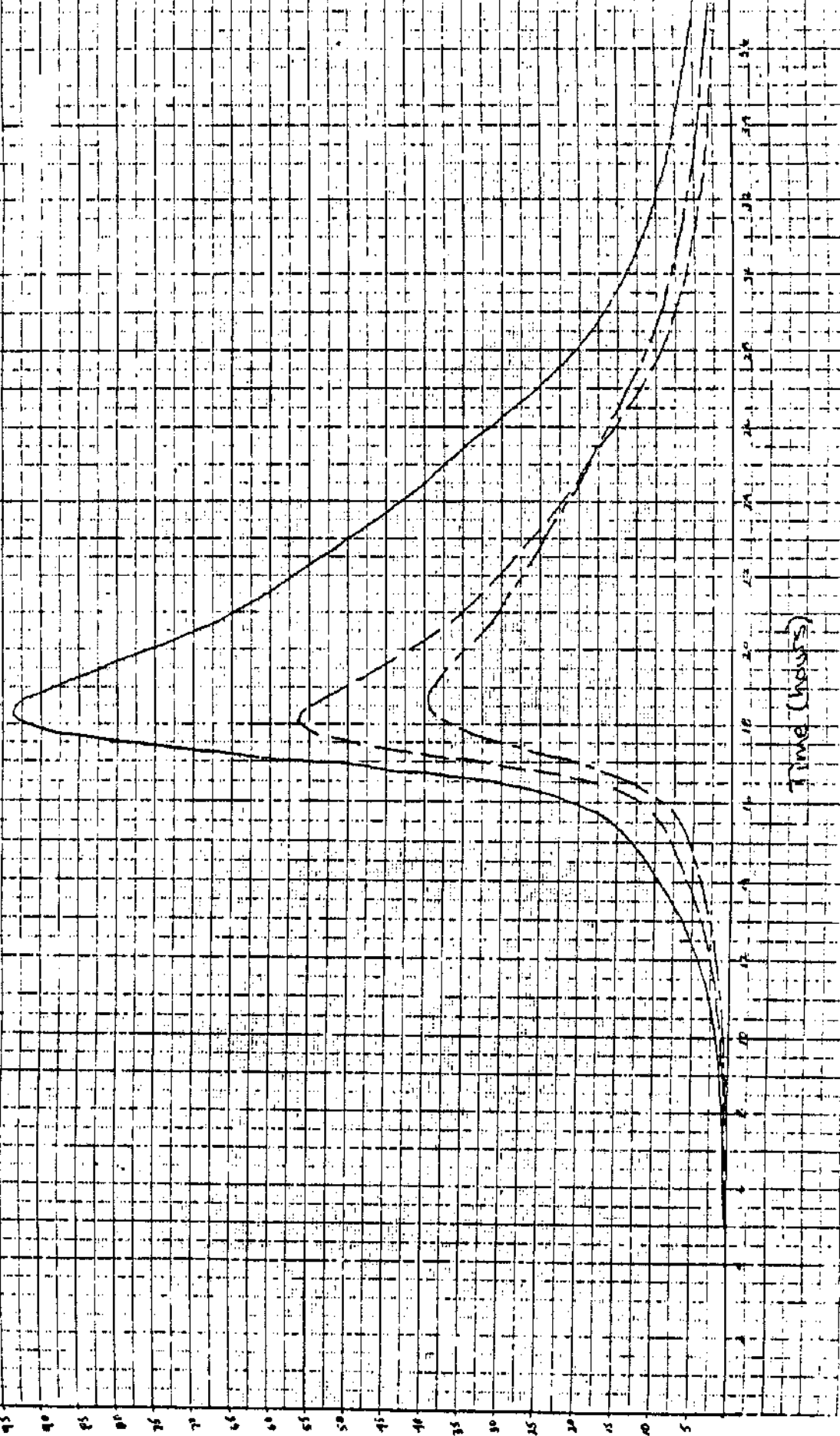
— DRY CREEK W/S OF CONFLUENCE WITH DRY CREEK  
 - - - DRY CREEK W/S OF CONFLUENCE WITH KIRBY CREEK  
 . . . DRY CREEK W/S OF CONFLUENCE WITH KIRBY CREEK

TIME (HOURS)

NEWELL/PACRAN/MOSLEY DIVISION  
STATE OF ARIZONA  
FOR USE ON AUTOMATIC RECORDERS  
10 DASH/INCHES

FLOW (CFS) X 10<sup>3</sup>

MINERS RAVINE VS CONFLUENCE WITH SECRET RAVINE  
 SECRET RAVINE VS CONFLUENCE WITH MINERS RAVINE  
 MINERS RAVINE VS CONFLUENCE WITH SECRET RAVINE



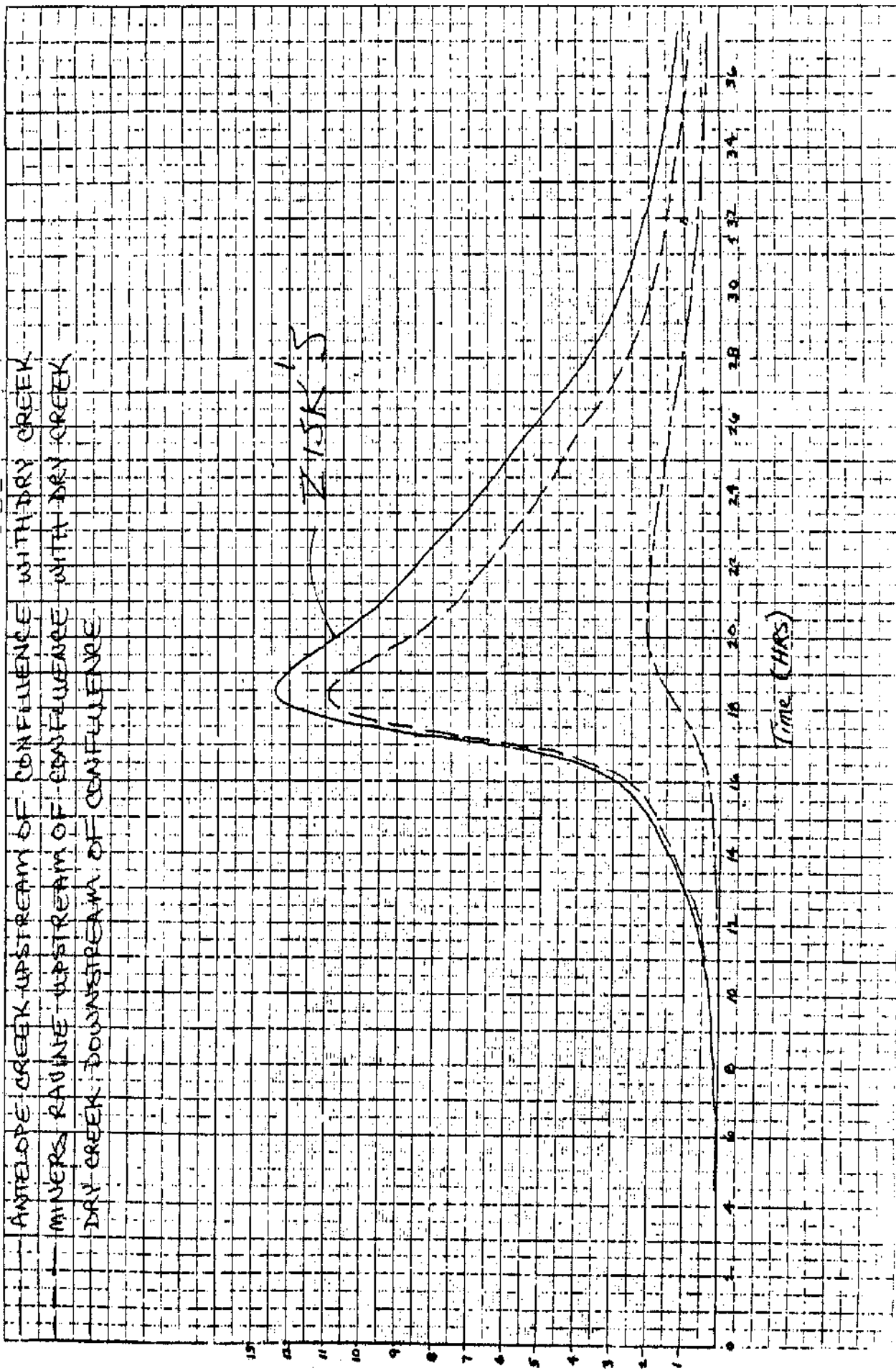
NEWLETT, PACKARD/MOORE DIVISION  
 8270 024  
 THE USE OF THIS REPORT IS RESTRICTED  
 TO THE DIVISION

FLOW (GPM) X 10<sup>2</sup>

Time (hours)

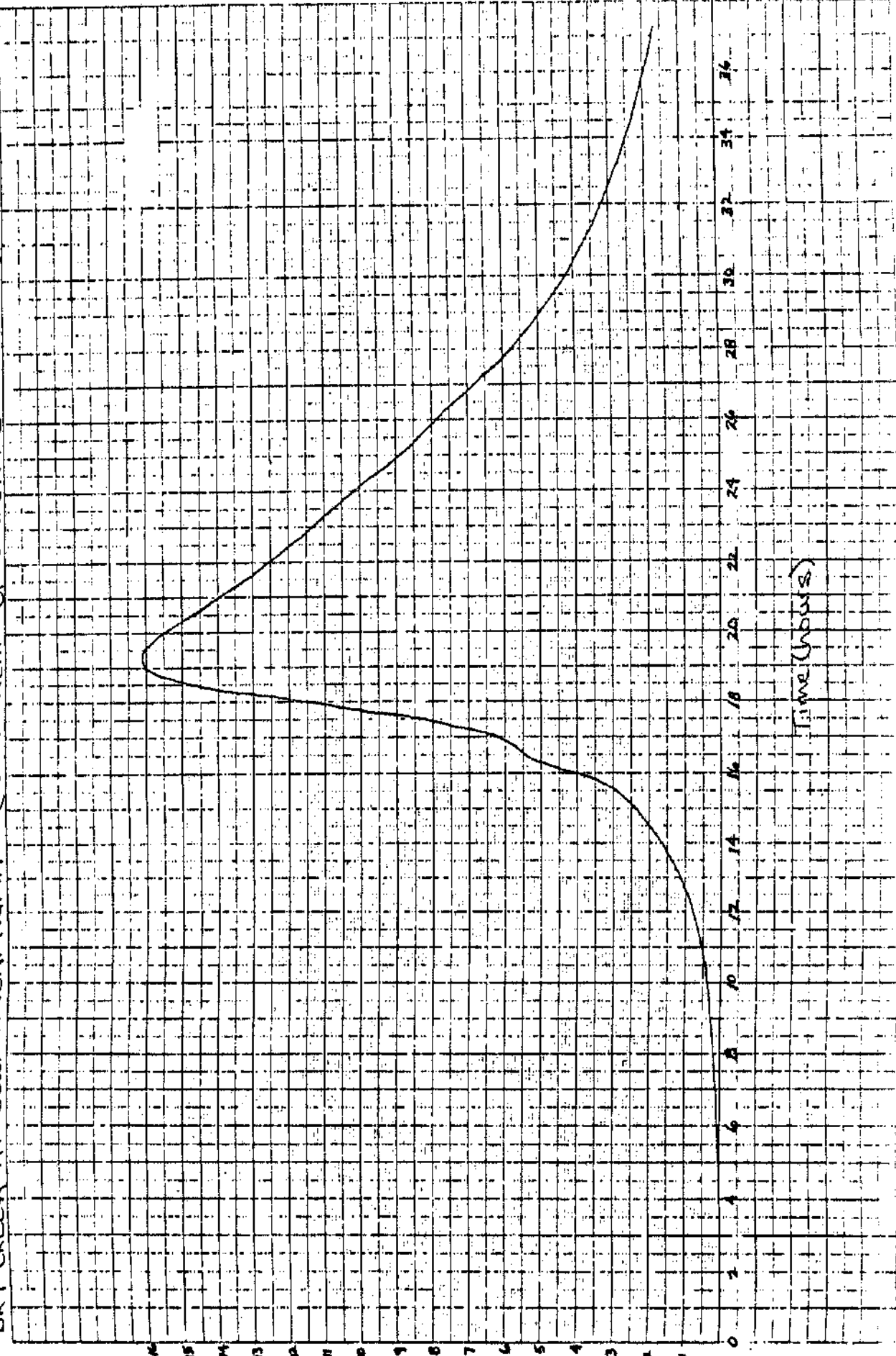
--- ANTELOPE CREEK UPSTREAM OF CONFLUENCE WITH DRY CREEK  
 --- MINERS RAINE UPSTREAM OF CONFLUENCE WITH DRY CREEK  
 --- DRY CREEK DOWNSTREAM OF CONFLUENCE

ZISK'S



NATIONAL REVENUE SERVICE  
 DIVISION OF REVENUE  
 WASHINGTON, D. C. 20548  
 FORM NO. 56 (REV. 1-55)

DRY CREEK AT DOWNSTREAM LIMIT (DOWNSTREAM OF CORPORATE BOUNDARY)



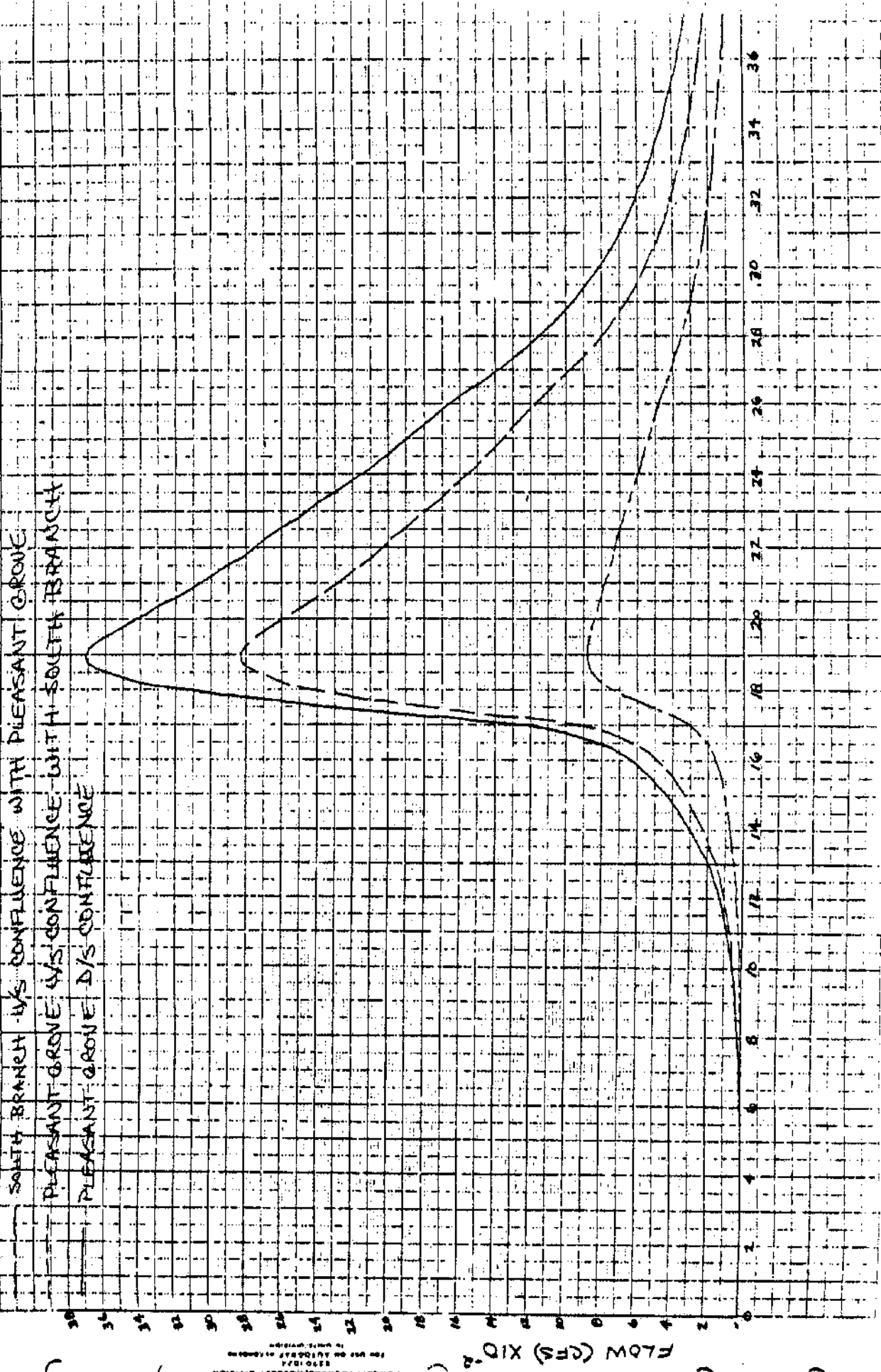
MEMPHIS/PACIFIC/ROCKLET DIVISION  
24 10 1972  
FOR USE ON ALL OTHER PROJECTS  
IN THE DIVISION

FLOW (CFS) X 10<sup>3</sup>

TIME (HOURS)

15 016  
15 017

SOUTH BRANCH W/S CONFLUENCE WITH PLEASANT GROVE  
PLEASANT GROVE W/S CONFLUENCE WITH SOUTH BRANCH  
PLEASANT GROVE D/S CONFLUENCE

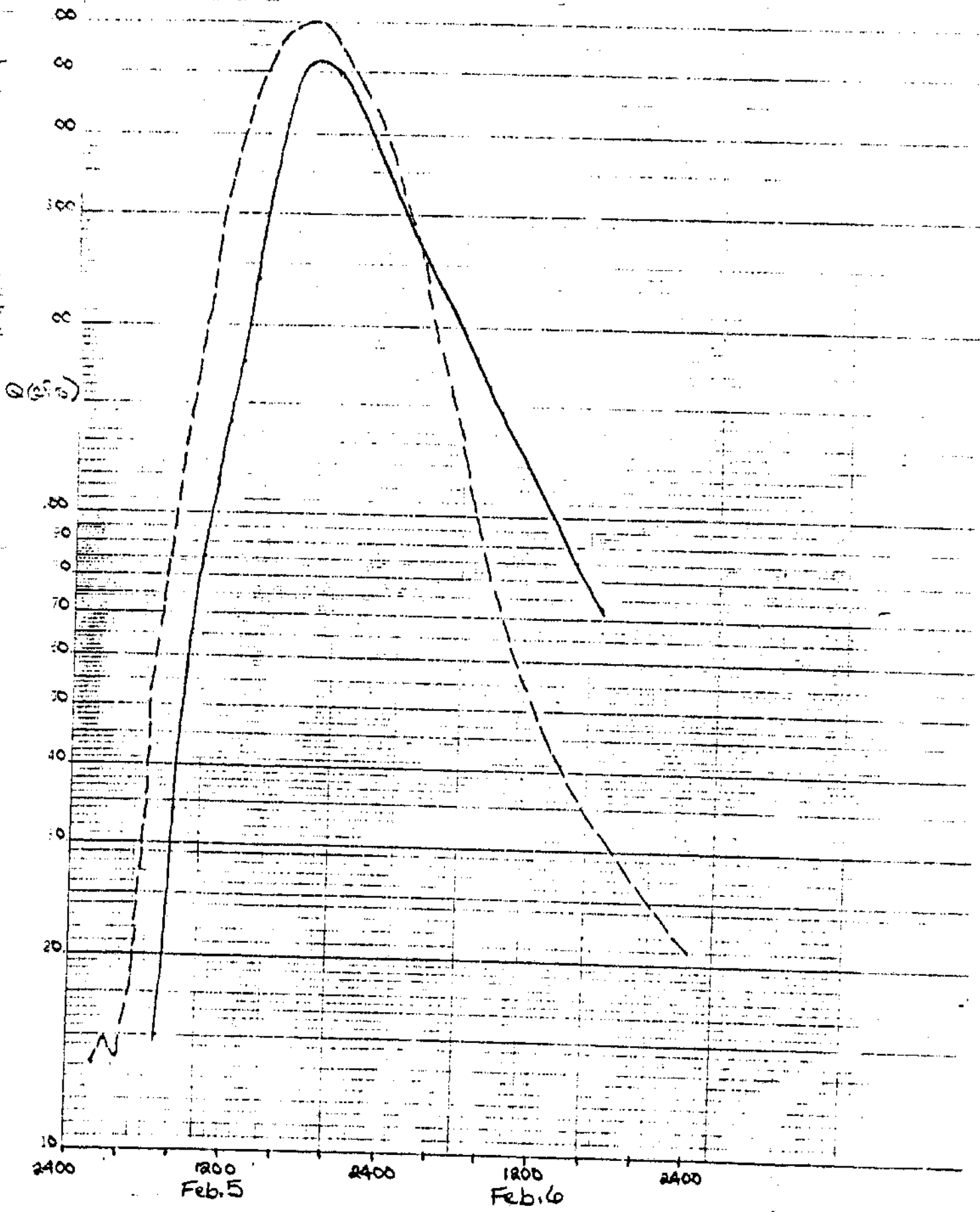


00 ARCADE CREEK NEAR DEL PASO HEIGHTS

00 FEBRUARY 5-6, 1972

00 --- Recorded Streamflow

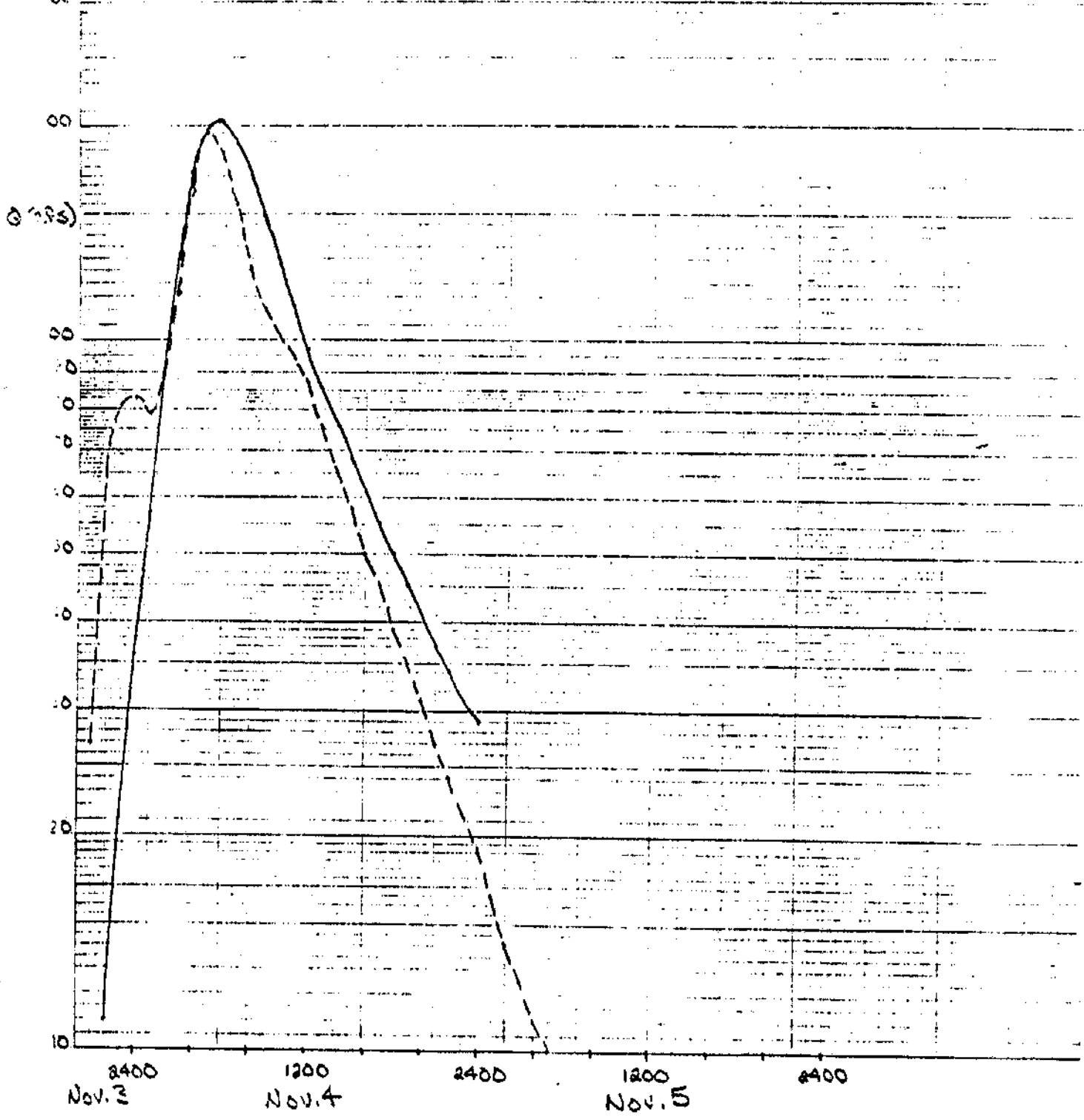
00 ——— HECI Model



ARCADE CREEK NEAR DEL PASO HEIGHTS  
NOVEMBER 3-5, 1972

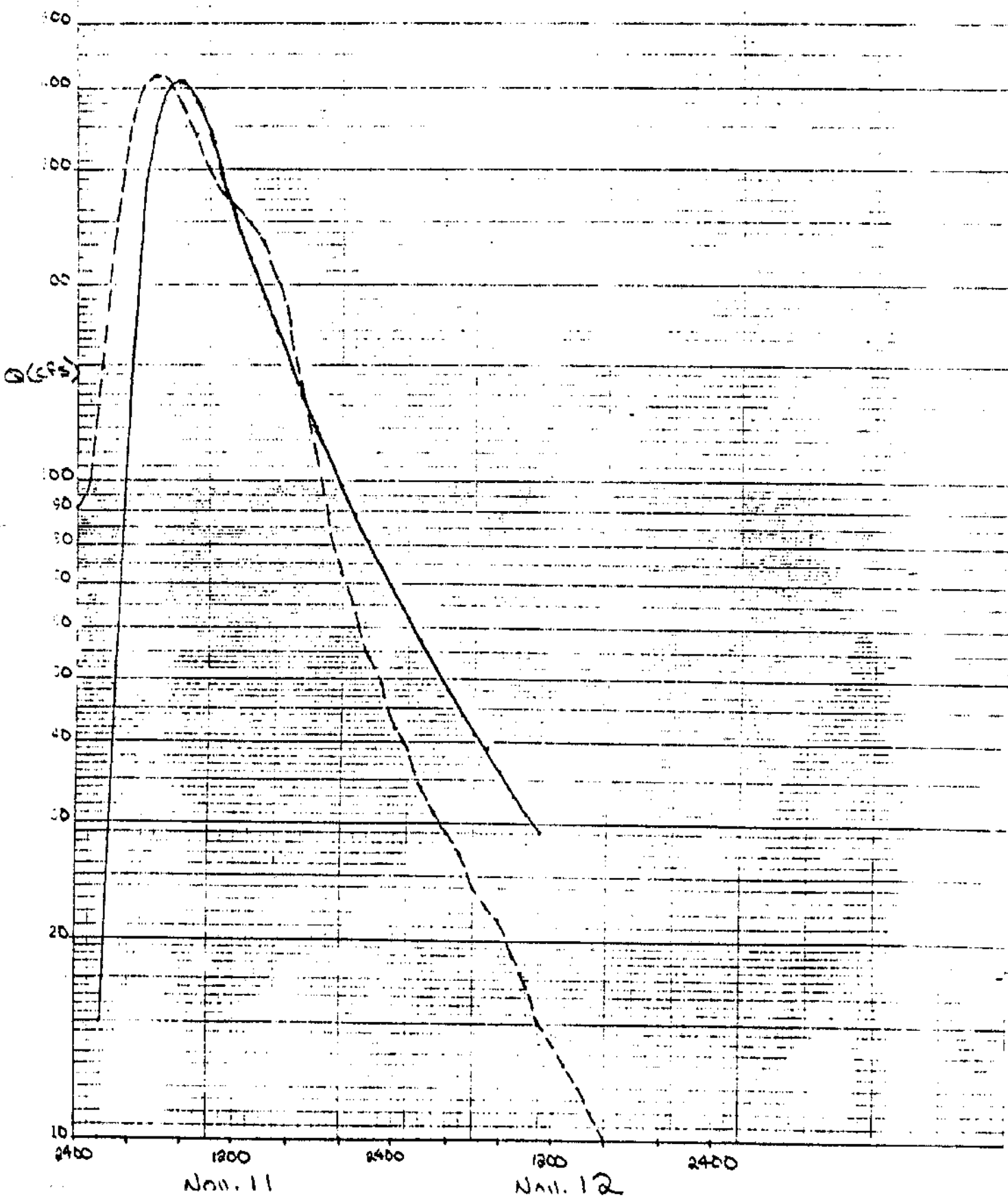
--- Recorded Streamflow

— HEC I Model



ARCADE CREEK NEAR DEL PASO HEIGHTS  
NOVEMBER 11-12, 1972

--- Recorded streamflow  
— HEC I model



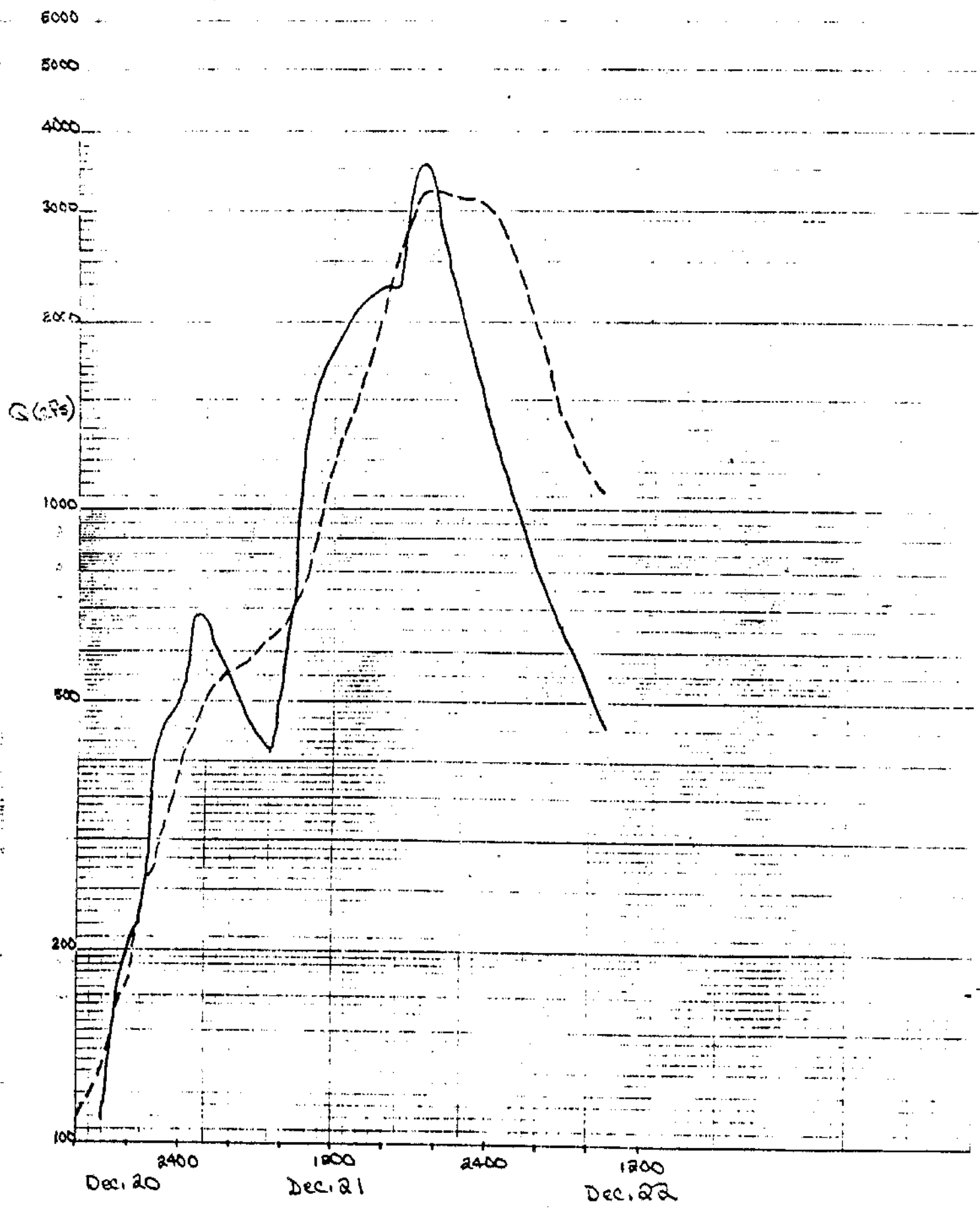


DRY CREEK NEAR ROSEVILLE

DECEMBER 20-22, 1982

--- Recorded streamflow

— HECI Model

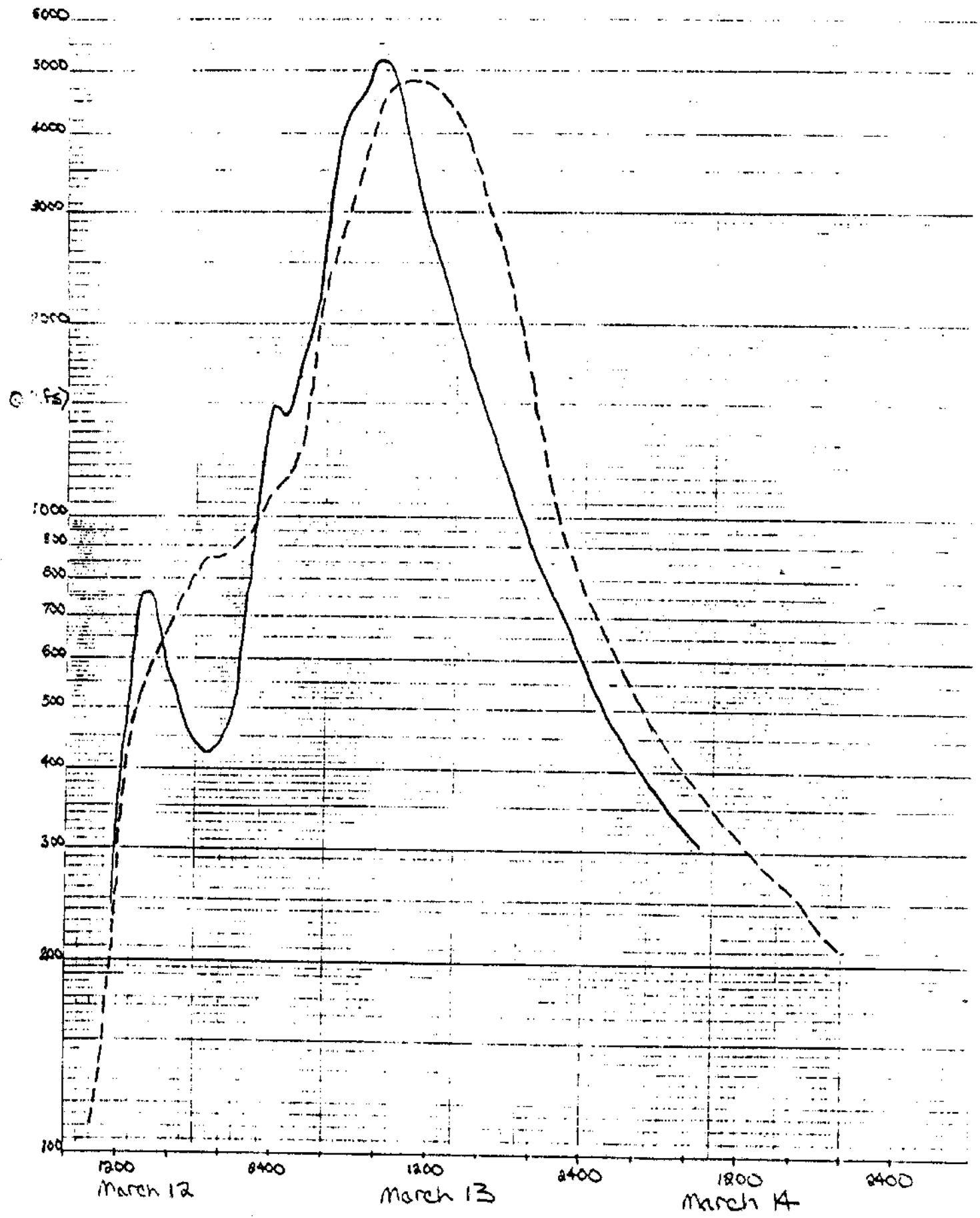


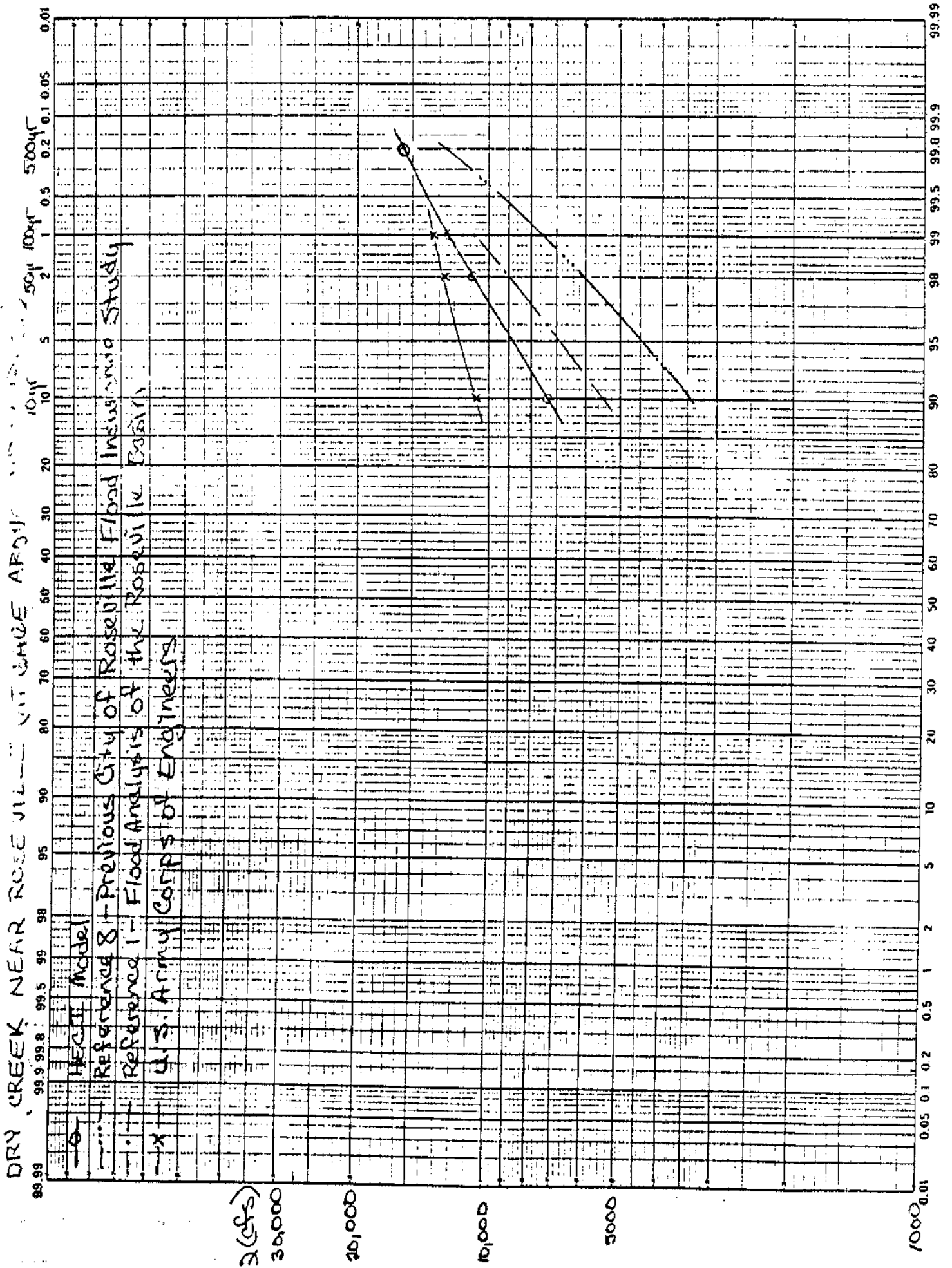
DRY CREEK NEAR ROSEVILLE

MARCH 12-14, 1983

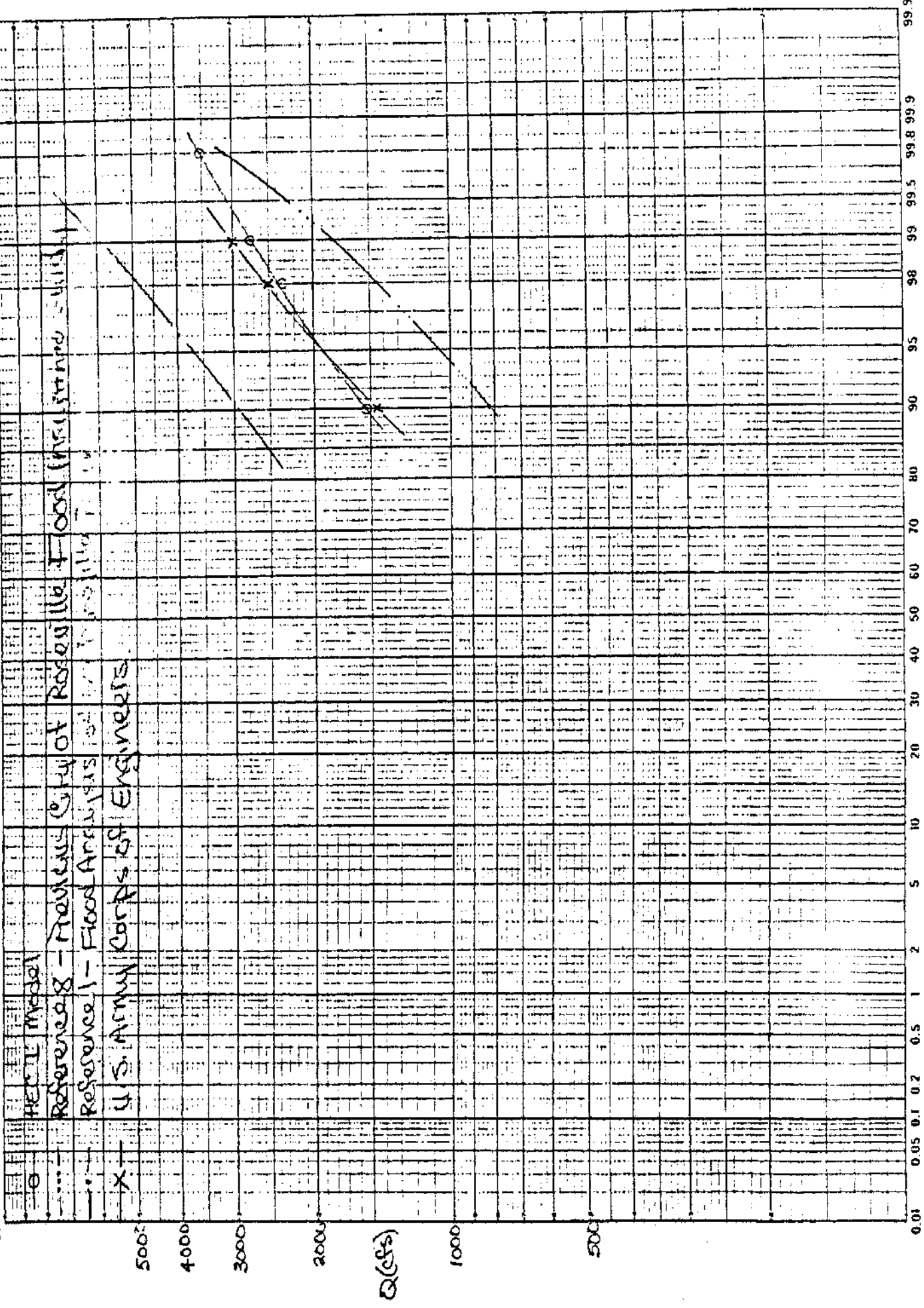
--- Recorded Streamflow

— HECI Model





# LINDA CREEK AT MOUTH (YS OF LINE?)



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*****
* WATER SURFACE PROFILES
* VERSION OF NOVEMBER 1976
* UPDATED APRIL 1980
*
* RUN DATE 03/07/87 TIME 10:10
*****

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*****
* U.S. ARMY CORPS OF ENGINEERS
* THE HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET, SUITE D
* DAVIS, CALIFORNIA 95616
* (916) 440-2105 (FTS) 448-2105
*****

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DRY CREEK DECK #1  
FLOODWAY

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X X XXXXXXXX XXXXX X
X X X X X X X X
X X X X X X X X
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HEC2 RELEASE DATED NOV 16 UPDATED AUG 1981  
 ERROR CORR - 01,02,03,04  
 MODIFICATION - 50,51,52,53,54

T1 ROSEVILLE FIS  
 T2 GEORGE S. NOLTE AND ASSOCIATES  
 T3 DRY CREEK #1 100-YR

J1	ICHECK	INQ	NINW	IOIR	STRT	METRIC	HYINS	IBM	CMNIM	FQ	IIRACE
0.	3.	0.	0.	0.001300	0.0	0.0	0.0	0.	105.000	0.0	15.000

J3 VARIABLE CODES FOR SUMMARY PRINTOUT

QT	MC	ET
160.000	5.000	0.0
20290.000	0.035	0.0
16140.000	0.035	0.0
14180.000	0.100	0.0
9520.000	0.300	0.0
16140.000	8.410	0.0
0.0	0.0	4760.000
0.0	0.0	5240.000

STARTING W.S.-EL. FROM NORMAL DEPTH

GR DATA POINTS FOR XSEC 172 TO XSEC 192 WERE TAKEN

FROM USGS QUAD MAPS AND FIELD OBSERVATIONS.

X1	GR	GR	ET	X1	GR	GR	ET	X1	GR	GR	ET
172.000	10.000	4950.000	5180.000	172.000	10.000	4950.000	5180.000	172.000	10.000	4950.000	5180.000
130.000	3800.000	120.000	4000.000	130.000	3800.000	120.000	4000.000	130.000	3800.000	120.000	4000.000
92.500	5000.000	95.000	5180.000	92.500	5000.000	95.000	5180.000	92.500	5000.000	95.000	5180.000
0.0	0.0	9.100	0.0	0.0	0.0	9.100	0.0	0.0	0.0	9.100	0.0
174.000	10.000	4950.000	5180.000	174.000	10.000	4950.000	5180.000	174.000	10.000	4950.000	5180.000
130.000	3800.000	120.000	4000.000	130.000	3800.000	120.000	4000.000	130.000	3800.000	120.000	4000.000
92.700	5000.000	95.000	5180.000	92.700	5000.000	95.000	5180.000	92.700	5000.000	95.000	5180.000
0.0	0.0	9.100	0.0	0.0	0.0	9.100	0.0	0.0	0.0	9.100	0.0
176.000	10.000	4950.000	5180.000	176.000	10.000	4950.000	5180.000	176.000	10.000	4950.000	5180.000
130.000	3750.000	120.000	3800.000	130.000	3750.000	120.000	3800.000	130.000	3750.000	120.000	3800.000
93.800	5000.000	95.000	5130.000	93.800	5000.000	95.000	5130.000	93.800	5000.000	95.000	5130.000
0.0	0.0	9.100	0.0	0.0	0.0	9.100	0.0	0.0	0.0	9.100	0.0

Flow in CFS  
 WATER SURFACE ELEVATION

X1	178.000	11.000	4950.000	200.000	200.000	U.0	U.0	0.0	U.0
GR	130.000	3650.000	120.000	4050.000	100.000	4650.000	95.000	120.000	4950.000
GR	92.900	5000.000	510.000	5180.000	110.000	5200.000	120.000	0.0	5210.000
GR	130.000	6800.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X1	179.000	36.000	4899.797	75.000	75.000	0.0	0.0	0.0	0.0
X2	0.0	0.0	107.400	0.0	0.0	0.0	0.0	0.0	0.0
BT	36.000	3874.000	114.700	110.400	110.400	4274.000	107.500	107.500	107.500
BT	4474.000	107.200	4674.000	107.500	4674.000	107.500	107.500	107.500	4699.797
BT	107.300	107.300	107.300	107.300	107.300	104.000	4908.000	4908.000	107.300
BT	104.000	4908.098	104.000	4909.297	104.000	4909.297	104.000	104.000	104.000
BT	4950.000	107.300	107.300	104.000	4951.898	107.300	104.000	104.000	4952.000
BT	107.300	104.000	107.400	5048.000	107.500	104.200	5048.098	107.500	104.200
BT	104.200	5049.199	104.200	5049.199	104.200	5049.199	104.200	104.200	5100.000
BT	5090.098	107.500	107.500	107.500	107.500	107.500	107.500	107.500	109.400
BT	107.500	104.200	107.500	107.500	107.500	107.500	107.500	107.500	109.400
BT	109.400	104.200	113.300	121.000	121.000	5574.000	123.300	123.300	123.300
BT	209.400	5274.000	123.900	124.000	5874.000	124.000	124.000	124.000	0.0
GR	114.700	3874.000	110.400	107.400	107.200	4674.000	96.100	96.100	4674.000
GR	104.000	4908.098	104.000	4909.297	104.000	4909.297	104.000	104.000	4908.098
GR	104.000	4951.898	93.100	93.100	93.100	5048.000	104.200	104.200	5048.098
GR	104.200	5049.199	5090.098	5090.098	5090.098	5090.098	104.200	104.200	5090.098
GR	104.200	5091.000	5100.199	5100.199	5100.199	5100.199	109.400	109.400	5174.000
GR	113.300	5274.000	123.300	123.300	123.300	5574.000	124.000	124.000	5174.000
GR	124.000	5874.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0

COOK KILO ROAD

X1	180.000	36.000	4899.797	21.700	21.700	0.0	0.0	0.0	0.0
X2	0.0	0.0	107.400	0.0	0.0	0.0	0.0	0.0	0.0
BT	36.000	3874.000	114.700	110.400	110.400	4274.000	107.500	107.500	107.500
BT	4474.000	107.200	4674.000	107.500	4674.000	107.500	107.500	107.500	4899.797
BT	107.300	107.300	107.300	107.300	107.300	104.000	4908.000	4908.000	107.300
BT	104.000	4908.098	104.000	4909.297	104.000	4909.297	104.000	104.000	104.000
BT	4950.000	107.300	107.300	104.000	4951.898	107.300	104.000	104.000	4952.000
BT	107.300	104.000	107.400	5048.000	107.500	104.200	5048.098	107.500	104.200
BT	104.200	5049.199	104.200	5049.199	104.200	5049.199	104.200	104.200	5100.000
BT	5090.098	107.500	107.500	107.500	107.500	107.500	107.500	107.500	109.400
BT	107.500	104.200	107.500	107.500	107.500	107.500	107.500	107.500	109.400
BT	109.400	104.200	113.300	121.000	121.000	5574.000	123.300	123.300	123.300
BT	209.400	5274.000	123.900	124.000	5874.000	124.000	124.000	124.000	0.0
GR	114.700	3874.000	110.400	107.400	107.200	4674.000	96.100	96.100	4674.000
GR	104.000	4908.098	104.000	4909.297	104.000	4909.297	104.000	104.000	4908.098
GR	104.000	4951.898	93.100	93.100	93.100	5048.000	104.200	104.200	5048.098
GR	104.200	5049.199	5090.098	5090.098	5090.098	5090.098	104.200	104.200	5090.098
GR	104.200	5091.000	5100.199	5100.199	5100.199	5100.199	109.400	109.400	5174.000
GR	113.300	5274.000	123.300	123.300	123.300	5574.000	124.000	124.000	5174.000
GR	124.000	5874.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0

GR	113-300	5274-000	123-300	5574-000	123-700	5674-000	124-000	5774-000
GR	124-000	5674-000	0-0	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	0-0	0-0	0-0	0-0	0-0	5100-000
X1	181-000	11-000	4900-000	5100-000	10-000	0-0	0-0	0-0
GR	130-000	3400-000	120-000	4000-000	100-000	4550-000	95-000	4900-000
GR	93-200	5000-000	95-000	5100-000	110-000	5130-000	120-000	5200-000
GR	130-000	6800-000	0-0	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	9-100	0-0	0-0	0-0	4775-000	5110-000
X1	182-000	11-000	4900-000	5100-000	130-000	0-0	0-0	0-0
GR	130-000	3980-000	120-000	4020-000	100-000	4520-000	95-000	4900-000
GR	93-400	5000-000	95-000	5100-000	110-000	5180-000	120-000	5200-000
GR	130-000	6700-000	0-0	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	9-100	0-0	0-0	0-0	4400-000	5150-000
X1	184-000	10-000	4850-000	5060-000	650-000	650-000	0-0	0-0
GR	130-000	3780-000	120-000	3830-000	100-000	4580-000	96-000	4850-000
GR	94-200	5000-000	100-000	5060-000	120-000	5360-000	130-000	6950-000
X1	186-000	12-000	4900-000	5110-000	580-000	580-000	0-0	0-0
GR	130-000	3300-000	120-000	3340-000	110-000	4300-000	110-000	4550-000
GR	100-000	4590-000	98-000	4900-000	100-000	5110-000	110-000	5160-000
GR	120-000	5250-000	130-000	7100-000	0-0	0-0	0-0	0-0
X1	188-000	10-000	4950-000	5120-000	400-000	400-000	0-0	0-0
GR	130-000	3450-000	120-000	3800-000	100-000	4480-000	100-000	4950-000
GR	95-500	5000-000	100-000	5120-000	120-000	5200-000	130-000	7150-000
X1	190-000	10-000	4900-000	5180-000	400-000	400-000	0-0	0-0
GR	130-000	3400-000	120-000	3550-000	110-000	4500-000	100-000	4900-000
GR	95-700	5000-000	100-000	5180-000	120-000	5300-000	130-000	5750-000
ET	0-0	0-0	9-100	0-0	0-0	0-0	4350-000	5600-000
X1	192-000	17-000	4900-000	5150-000	640-000	640-000	0-0	0-0
GR	130-000	2800-000	120-000	3000-000	120-000	4340-000	115-000	4350-000
GR	110-300	4650-000	100-000	4900-000	100-000	5150-000	100-000	5350-000
GR	110-000	5450-000	111-000	5600-000	105-000	5800-000	110-000	5950-000
GR	120-000	6050-000	130-000	6100-000	0-0	0-0	0-0	0-0
ET	0-0	0-0	9-100	0-0	4870-598	5200-000	4619-398	5300-000
X1	194-000	30-000	4870-699	5074-699	700-000	600-000	0-0	0-0
GR	107-900	4558-898	110-400	4569-898	114-300	4619-199	112-800	4740-797
GR	111-500	4841-297	108-500	4870-699	100-200	4902-500	99-600	4948-898
GR	98-900	4978-098	98-400	4987-500	98-400	5000-000	102-000	5041-699
GR	103-500	5048-598	105-600	5074-699	104-400	5121-699	102-900	5309-699



GR	100.000	5360.500	100.000	5402.878	101.000	5437.500	100.000	5464.098	110.000	5506.598
GR	113.500	5528.199	114.000	5582.000	113.200	5670.398	113.000	5810.297	111.000	5872.598
ET	0.0	0.0	0.0	0.0	0.0	7.100	0.0	5220.000	4136.398	5300.000
X1	196.000	52.000	4845.797	5051.500	329.300	43.200	320.900	0.0	0.0	0.0
GR	111.000	3183.300	110.800	3190.000	109.000	3201.000	113.000	3220.800	115.000	3300.900
GR	115.500	3364.800	114.000	3412.200	114.700	3470.000	113.000	3537.300	115.000	3569.300
GR	115.400	3632.500	115.900	3754.700	119.000	3842.400	120.000	3904.800	125.000	3960.800
GR	122.300	4016.000	121.100	4060.900	123.500	4136.398	123.000	4241.500	123.000	4340.199
GR	119.300	4410.598	116.000	4481.297	115.000	4549.000	114.000	4605.797	115.900	4640.000
GR	114.100	4712.000	112.800	4793.199	110.900	4827.598	108.000	4845.797	104.000	4881.000
GR	101.300	4909.500	104.100	4922.199	102.900	4953.500	100.200	4967.297	98.000	4989.398
GK	98.000	5000.000	98.000	5019.098	100.800	5026.898	102.900	5036.500	103.700	5051.500
GR	105.000	5141.598	103.000	5226.598	103.200	5317.199	103.200	5349.598	103.800	5454.699
GR	109.200	5489.000	114.000	5525.098	115.500	5573.500	114.400	5653.199	114.000	5769.000
GR	115.300	5839.699	114.900	5953.797	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	7.100	4900.000	5170.000	4154.098	5170.000
X1	198.000	51.000	4958.500	5033.297	315.500	502.300	335.000	0.0	0.0	0.0
GR	117.100	3262.800	116.400	3276.500	120.000	3288.300	121.200	3327.800	123.000	3380.100
GR	121.300	3453.800	121.300	3514.000	123.400	3562.000	124.000	3639.000	124.900	3732.900
GR	120.000	3788.200	126.700	3863.900	126.500	3958.000	127.500	4022.400	129.700	4154.098
GR	127.300	4189.797	122.900	4248.297	119.500	4336.000	117.800	4424.098	116.300	4486.699
GR	118.100	4549.898	117.100	4636.699	117.200	4737.398	115.300	4845.797	113.500	4888.000
GR	108.200	4932.098	105.800	4958.500	104.300	4983.500	100.300	4973.000	100.300	5000.000
GR	102.100	5029.398	104.000	5033.297	105.700	5063.699	105.500	5121.297	105.400	5183.000
GR	105.400	5256.199	105.300	5323.000	105.300	5412.898	104.700	5456.598	104.000	5503.898
GR	104.600	5523.098	108.200	5569.699	111.800	5643.598	110.700	5633.000	118.100	5664.500
GR	117.000	5756.898	116.000	5815.699	113.400	5877.098	111.500	5943.297	113.700	5994.000
GR	114.000	6023.598	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	7.100	4900.000	5110.000	4873.098	5150.000
X1	200.000	50.000	4938.199	5043.000	100.000	125.000	110.000	0.0	0.0	0.0
GR	118.000	3274.800	118.000	3299.300	117.000	3403.400	116.000	3451.100	119.400	3487.300
GR	122.100	3540.800	123.000	3600.900	122.900	3675.000	124.100	3747.600	125.000	3817.300
GR	126.200	3882.900	127.300	3949.100	128.000	4026.000	126.300	4067.000	129.200	4100.098
GR	126.200	4230.598	120.500	4279.398	118.200	4336.898	117.500	4411.598	117.000	4452.797
GR	119.000	4464.699	120.300	4549.000	121.100	4625.098	121.700	4659.500	122.700	4706.898
GR	119.400	4770.699	110.300	4808.098	112.800	4873.098	109.800	4910.098	107.800	4930.199
GR	104.700	4946.898	105.900	4964.297	102.900	4974.098	100.500	4979.797	100.500	5000.000
GR	100.500	5027.797	103.300	5031.699	105.300	5043.000	105.900	5086.297	110.000	5132.199
GR	110.000	5214.000	110.000	5288.500	110.000	5370.500	110.000	5472.598	110.000	5543.297
GR	110.000	5405.098	111.700	5623.297	115.100	5605.398	110.500	5727.898	117.200	5770.199
ET	0.0	0.0	0.0	0.0	0.0	7.100	4917.000	5100.000	4439.898	5200.000
X1	201.000	44.000	4940.398	5047.500	75.000	50.000	63.000	0.0	0.0	0.0
GR	119.300	3281.700	118.500	3304.900	120.300	3322.000	119.700	3433.400	118.000	3540.800
GR	120.300	3612.000	121.500	3672.600	123.100	3819.400	125.200	3920.000	126.000	4046.000
GR	126.400	4098.797	124.000	4107.199	141.100	4110.000	141.100	4194.699	123.000	4194.699
GR	122.700	4280.698	122.100	4439.898	121.300	4543.500	120.400	4617.598	119.000	4750.797

GR	112.600	4844.378	112.600	4910.797	108.800	4940.398	102.700	4958.500
GR	100.600	4975.297	100.600	5000.000	100.600	5028.898	103.700	5035.598
GR	107.200	5047.500	114.700	5079.598	115.000	5163.500	114.700	5257.000
GR	114.800	5411.199	115.200	5078.500	116.900	5117.398	116.700	5781.699
GR	116.600	5064.000	116.600	6030.679	116.600	6089.898	0.0	0.0
ET	0.0	0.0	0.0	7.100	4930.000	5100.000	4800.000	5200.000

GR POINTS HAVE BEEN RAISED IN THE R-U-B-X-SEC 202-214

TO THE HEIGHT OF THE DETENTION POND DIKES TO EXCLUDE THE

POND AREA HEFLOW THE TOP OF THE DIKES FROM FLOW CALCULATIONS.

X1	202.000	52.000	66.500	70.000	55.000	0.0	0.0	0.0
GR	119.400	3283.300	120.300	3326.200	120.000	3386.000	119.800	3467.500
GR	124.000	3500.300	126.400	3605.700	120.600	3661.600	121.600	3773.900
ER	123.300	3868.200	124.900	4046.300	125.300	4098.297	124.300	4104.797
GR	160.600	4113.500	124.000	4199.500	123.700	4255.797	122.500	4324.398
GR	122.300	4468.797	120.600	4553.699	121.100	4661.699	120.300	4740.000
GR	119.900	4805.699	119.000	4891.398	113.900	4920.000	108.000	4946.898
GR	106.800	4957.096	102.000	4970.797	100.400	5000.000	100.300	5033.500
GR	103.800	5038.699	107.800	5059.398	114.900	5078.598	115.200	5126.398
GR	115.200	5195.898	115.200	5256.297	115.200	5468.297	115.200	5653.000
GR	115.200	5677.398	116.000	5699.000	115.200	5716.000	117.100	5739.398
GR	116.000	5798.398	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	7.100	4934.699	5176.000	4800.000	5300.500

X1	204.000	47.000	460.900	450.000	440.500	0.0	0.0	0.0
GR	128.200	3297.100	130.100	3345.600	131.000	3417.500	131.600	3497.900
GR	132.500	3575.100	132.400	3785.000	131.600	3902.800	130.900	3982.100
GR	130.100	4130.199	131.800	4258.898	133.800	4303.199	137.500	4362.000
GR	139.900	4412.898	135.500	4607.098	128.600	4693.297	121.400	4729.598
GR	119.400	4768.398	119.700	4896.000	118.000	4934.797	112.800	4946.797
GR	102.400	4967.000	100.600	5000.000	100.600	5021.898	105.800	5032.297
GR	109.400	5050.098	114.800	5082.797	114.800	5101.699	114.600	5188.199
GR	116.600	5235.898	114.600	5274.797	114.600	5288.500	114.600	5300.598
GR	116.600	5326.098	114.600	5721.898	114.600	5752.598	114.600	5761.797
GR	114.300	5773.398	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	7.100	4882.797	5200.000	4851.398	5414.098

X1	206.000	60.000	570.000	573.600	560.000	0.0	0.0	0.0
GR	132.100	3491.300	136.000	3330.200	135.800	3425.900	137.000	3507.900
GR	140.800	3547.200	140.700	3727.900	139.200	3752.800	136.900	3808.900
GR	136.800	3898.300	135.500	4010.300	133.700	4050.900	133.900	4170.098
GR	133.700	4241.199	129.500	4273.699	127.500	4364.098	127.600	4433.898
GR	128.200	4456.500	126.500	4558.598	123.500	4582.797	121.000	4672.297
GR	117.600	4720.199	117.400	4776.398	118.000	4851.398	118.700	4882.898
GR	111.600	4907.598	104.800	4964.000	100.600	4972.699	100.600	5000.000
GR	106.300	5020.797	107.700	5050.598	114.600	5062.197	114.600	5086.098
GR	114.600	5173.898	114.600	5327.098	114.600	5394.598	114.600	5409.098
GR	114.600	5414.098	114.600	5443.000	114.600	5454.797	114.600	5521.199

GR	114.600	5662.558	114.600	5740.199	114.800	5779.199	124.100	5824.199
GR	128.000	5912.000	131.100	6052.098	129.800	6080.500	130.500	6093.598
ET	0.0	0.0	0.0	7.100	4898.598	5270.000	4800.000	5514.898
X1	208.000	63.000	319.900	329.600	319.900	3393.900	0.0	0.0
GR	136.900	3300.100	140.800	3343.300	134.400	3393.900	139.100	3472.800
GR	139.300	3555.400	137.300	3718.600	139.800	3801.900	139.300	3913.300
GR	138.300	3990.900	135.600	4041.600	139.300	4103.598	135.600	4191.797
GR	134.900	4246.098	128.600	4286.600	127.300	4309.297	127.000	4433.797
GR	125.400	4487.500	125.100	4543.199	124.800	4567.000	122.400	4593.797
GR	122.300	4698.297	120.900	4814.000	120.300	4863.398	119.900	4896.699
GR	115.100	4911.398	104.000	4974.298	100.400	4981.598	100.400	5000.000
GR	100.400	5014.000	112.100	5042.297	114.200	5053.000	114.500	5065.797
GR	114.400	5081.398	114.400	5217.500	114.400	5277.199	114.400	5348.297
GR	114.400	5424.398	114.700	5502.898	115.000	5514.898	114.400	5526.699
GR	114.400	5586.199	114.400	5731.000	114.400	5739.797	116.000	5749.898
GR	115.508	5762.797	114.100	5801.398	120.600	5871.598	122.700	5913.797
GR	124.400	5956.598	124.800	5984.297	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	7.100	4940.098	5330.000	4940.098	5450.000
X1	210.000	48.000	320.000	280.000	305.000	0.0	0.0	0.0
GR	141.000	3335.600	141.400	3371.200	142.600	3449.600	142.800	3495.600
GR	140.700	3536.100	138.700	3618.800	138.600	3668.600	136.600	3742.900
GR	135.300	3784.900	133.700	4045.400	133.100	4213.297	131.600	4378.000
GR	124.200	4520.500	124.400	4710.898	122.200	4838.898	121.600	4901.598
GR	123.500	4923.699	107.800	4961.098	102.400	4975.500	100.400	4984.500
GR	100.400	5000.000	105.100	5023.898	107.800	5048.000	110.900	5060.297
GR	115.000	5079.199	108.700	5107.797	108.400	5161.699	107.900	5288.297
GR	107.900	5420.797	109.100	5563.797	115.900	5587.098	115.700	5703.398
GR	116.400	5821.199	117.300	5931.000	120.600	5998.699	122.600	6043.398
GR	126.700	6107.500	133.800	6216.098	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	7.100	4971.000	5330.000	4800.000	5550.000
X1	212.000	64.000	200.000	235.000	254.000	0.0	0.0	0.0
GR	142.400	3224.700	141.100	3309.600	141.200	3364.900	139.600	3421.600
GR	138.400	3460.500	143.500	3547.200	144.400	3599.800	143.900	3691.200
GR	143.600	3764.800	141.700	3891.500	140.900	3960.600	140.600	4018.000
GR	140.300	4108.598	146.500	4173.000	145.000	4222.199	140.000	4285.500
GR	133.900	4359.098	127.400	4514.297	125.300	4618.797	124.900	4696.898
GR	124.700	4750.199	123.900	4886.598	120.200	4918.797	110.900	4953.398
GR	109.300	4971.098	100.600	4970.297	100.600	5000.000	100.600	5019.398
GR	103.100	5038.297	110.800	5075.199	115.300	5089.398	115.300	5101.797
GR	109.400	5119.598	108.000	5280.297	108.000	5499.199	108.000	5544.598
GR	115.400	5566.699	114.200	5744.797	115.800	5785.598	122.100	5791.398
GR	122.300	5864.297	118.500	5912.098	121.200	6109.500	121.200	5937.598
GR	119.400	5943.699	121.900	6048.198	123.900	6139.500	128.700	6185.398
GR	132.900	6232.500	142.300	6283.197	133.900	6295.898	0.0	0.0
ET	0.0	0.0	0.0	7.100	4900.000	5270.000	4700.000	5490.000

XI	214.000	54.000	4754.797	5078.000	226.000	105.000	191.400	0.0	0.0
GR	134.500	3387.700	138.600	3407.100	137.500	3437.500	136.000	135.100	3581.500
GR	136.200	3677.400	132.900	3791.300	133.500	3946.600	131.600	127.200	4176.500
GR	123.500	4235.898	120.200	4271.000	126.900	4339.500	127.700	125.600	4543.797
GR	124.200	4587.699	121.700	4700.277	121.800	4771.797	115.200	110.100	4883.797
GR	111.500	4923.000	111.300	4954.797	103.700	4967.898	102.800	100.800	4980.297
GR	100.800	5018.000	100.800	5016.797	100.500	5030.139	111.300	110.100	5060.398
GR	115.200	5078.000	115.200	5168.500	115.500	5221.277	115.100	114.600	5535.699
GR	129.800	5540.500	129.600	5569.078	116.200	5575.277	129.800	128.700	5617.297
GR	115.200	5624.398	129.900	5629.199	129.300	5670.098	116.200	119.100	5781.000
GR	129.000	5791.500	129.000	5852.797	120.500	5880.898	120.300	121.600	5985.898
GR	122.900	6029.000	127.300	6104.199	131.100	6167.500	134.100	0.0	0.0
NC	0.035	0.040	0.040	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	9.100	0.0	0.0	7.100	4870.000	4800.000	5420.000

XI	216.000	58.000	4219.797	5032.000	75.000	40.000	101.600	0.0	0.0
GR	129.500	3486.100	124.900	3508.600	125.300	3544.400	135.900	134.600	3571.300
GR	123.700	3579.500	124.400	3633.700	125.900	3663.300	124.400	120.300	3720.600
GR	124.200	3747.600	127.700	3790.300	128.000	3837.700	128.900	128.700	3941.600
GR	130.400	3983.200	143.400	3989.300	142.800	4033.600	129.100	128.700	4077.200
GR	126.700	4108.699	124.900	4151.398	121.500	4184.797	116.800	119.700	4243.297
GR	127.900	4310.898	131.260	4363.098	130.900	4434.098	126.600	122.500	4542.699
GR	118.800	4597.500	116.100	4616.598	115.900	4701.199	115.900	112.100	4793.699
GR	109.600	4822.797	112.100	4874.199	112.100	4919.797	115.700	103.000	4964.199
GR	100.900	4982.797	100.900	5000.000	100.900	5014.277	105.500	110.200	5032.000
GR	110.800	5074.078	109.600	5133.797	108.400	5206.078	100.400	108.200	5346.000
GR	107.600	5380.898	109.700	5432.199	109.400	5508.398	112.100	113.900	5650.398
GR	114.300	5715.898	118.200	5778.277	120.600	5822.199	0.0	0.0	0.0
ET	0.0	0.0	9.100	0.0	0.0	7.100	4910.000	4900.000	5390.000

XI	218.000	35.000	4963.000	5040.398	287.700	500.000	626.000	0.0	0.0
GR	109.900	4479.898	111.400	4565.500	109.500	4623.297	113.500	114.000	4715.797
GR	111.000	4759.898	107.600	4821.797	112.300	4864.578	114.400	112.900	4941.699
GR	110.800	4963.600	108.000	4968.398	100.900	4976.000	100.900	100.900	5013.297
GR	107.200	5026.000	111.700	5040.398	112.300	5078.797	110.400	110.100	5236.098
GR	111.700	5308.777	109.600	5370.500	110.500	5444.578	111.300	111.700	5614.699
GR	112.400	5629.000	122.900	5634.578	121.300	5646.699	116.100	116.600	5706.699
GR	131.800	5716.199	139.400	5733.797	116.000	5747.800	119.800	121.900	5811.398
QT	5.000	2000.000	1590.000	1402.000	9420.000	1590.000	0.0	0.0	0.0
ET	0.0	0.0	9.100	0.0	0.0	7.100	4959.000	4850.000	5280.000

XI	220.000	50.000	4959.199	5045.000	570.000	540.000	553.900	0.0	0.0
GR	133.100	3961.300	129.700	3982.000	124.100	4013.200	129.200	129.200	4071.700
GR	124.000	4091.200	126.200	4128.100	129.500	4156.898	131.500	132.500	4277.898
GR	144.300	4285.098	147.500	4308.277	132.600	4315.277	132.500	134.100	4433.797
GR	135.300	4515.000	134.400	4576.277	133.700	4588.277	132.900	125.400	4686.398
GR	121.500	4713.500	118.200	4740.199	121.700	4778.797	124.500	119.700	4886.398
GR	113.100	4938.797	113.300	4959.199	106.200	4965.199	102.900	102.900	5000.000
GR	102.900	5016.500	108.000	5023.398	115.700	5045.000	113.000	111.800	5113.098

GR	110-100	5174-899	113-900	5174-898	112-900	5476-899	113-900	5352-199	113-300	5410-000
GR	114-900	5442-199	114-800	5442-297	113-700	5576-898	114-300	5647-699	114-600	5710-000
GR	114-600	5722-398	112-000	5728-000	116-100	5738-199	116-500	5760-199	119-500	5778-398
ET	0-0	0-0	0-0	0-0	0-0	7-100	4700-000	5240-000	4880-000	5260-000
X1	222-000	26-000	4971-398	5064-199	40-000	310-000	310-000	0-0	0-0	0-0
GR	114-400	4684-398	112-300	4704-500	114-200	4735-199	112-000	4820-199	113-600	4897-898
GR	114-500	4977-297	114-600	4971-398	111-100	4977-500	103-100	4986-797	103-100	5000-000
GR	1-3-104	5015-898	109-600	5036-898	113-600	5056-899	114-200	5064-199	115-700	5071-199
GR	113-800	5092-000	112-100	5182-297	112-200	5230-898	111-200	5263-500	114-500	5324-199
ET	0-0	0-0	0-0	0-0	0-0	7-100	4974-397	5160-000	4798-898	5180-000
X1	224-000	42-000	4974-898	5082-000	214-300	440-000	295-700	0-0	0-0	0-0
GR	124-600	4557-898	122-000	4601-199	116-800	4655-199	113-900	4673-797	119-000	4721-898
GR	122-000	4748-297	125-900	4798-898	124-800	4850-500	122-000	4889-000	120-200	4934-000
GR	118-100	4958-797	116-800	4974-898	108-200	4986-600	103-100	4996-098	103-100	5000-000
GR	103-100	5005-000	104-600	5017-297	101-900	5037-297	104-200	5057-797	108-400	5070-598
GR	114-100	5082-000	113-200	5095-398	117-100	5109-098	114-500	5146-598	116-000	5214-000
GR	116-600	5293-500	114-500	5344-000	122-300	5362-198	122-300	5415-000	121-700	5451-598
GR	123-400	5496-297	122-800	5554-699	123-200	5607-598	123-200	5668-297	124-600	5721-898
GR	127-400	5774-598	127-400	5802-297	143-000	5809-598	142-400	5871-398	127-600	5884-297
GR	127-600	5932-797	127-600	5967-398	0-0	0-0	0-0	0-0	0-0	0-0
NC	0-0	0-0	0-0	0-300	0-500	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	9-100	0-0	0-0	7-100	4940-000	5120-000	4940-000	5120-000

X1	226-000	39-000	4967-098	5117-000	25-000	100-000	50-800	0-0	0-0	0-0
GR	125-300	4562-797	123-400	4606-500	120-500	4643-199	116-800	4669-098	120-400	4714-598
GR	124-000	4751-199	124-000	4801-598	122-900	4801-000	121-600	4928-898	118-700	4951-500
GR	117-100	4967-098	106-700	4975-797	103-400	4989-398	103-400	5007-000	103-400	5016-500
GR	106-100	5019-297	109-700	5048-297	109-600	5062-000	109-400	5089-098	113-800	5111-398
GR	118-600	5117-000	121-100	5140-898	122-800	5174-398	119-300	5246-598	117-100	5313-598
GR	122-300	5339-797	121-900	5383-398	122-800	5431-199	122-300	5494-199	122-400	5547-699
GR	123-100	5592-098	123-400	5646-000	124-300	5716-000	125-300	5785-898	126-300	5836-500
GR	126-300	5883-598	127-500	5946-098	127-500	6000-000	128-100	6028-098	0-0	0-0
NC	0-0	0-0	0-060	0-0	0-0	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	0-0	0-0	0-0	7-110	4928-898	5097-000	0-0	0-0
SB	1-000	1-900	2-600	0-0	85-300	3-000	2250-000	2-500	103-300	103-300

BRIDGE AT ATKINSON STREET

CENTER OF CHANNEL IS AT STA 5013.

X1	230-000	32-000	4765-598	5076-898	53-000	53-000	53-000	0-0	0-0	0-0
X2	0-0	0-0	1-000	121-200	124-000	0-0	0-0	0-0	0-0	0-0
BT	32-000	4549-297	127-400	127-400	4623-500	126-500	126-500	4713-000	125-600	125-600
BT	4821-000	124-500	124-500	4930-699	124-000	124-000	4930-797	124-000	124-000	4930-898
BT	124-000	121-000	4951-098	124-000	121-000	4965-598	121-000	121-600	4973-199	124-000
BT	121-600	4982-598	124-000	121-600	5000-000	124-000	121-600	5011-797	124-000	121-600
BT	5022-000	124-000	121-600	5039-699	124-000	124-000	121-600	5067-098	121-600	5092-500
BT	124-100	121-000	5096-797	124-100	121-600	5096-898	124-100	121-000	5097-000	124-100

BT	124.100	5200.000	124.100	5271.099	124.100	124.100	5398.898	124.100	124.000	124.000
BT	5492.297	124.000	5016.699	124.300	124.300	124.300	124.900	124.900	124.900	5789.797
BT	125.600	125.600	126.100	126.100	126.100	126.100	126.600	126.600	126.600	127.500
BT	127.500	6072.297	127.900	6086.297	128.100	128.100	U.C	U.C	U.C	U.C
GR	127.400	4549.297	128.500	128.500	4623.500	4713.000	4821.000	128.500	128.000	4930.699
GR	121.600	4930.797	118.600	118.600	4930.898	4930.898	4965.598	111.800	109.300	4973.199
GR	103.300	4982.598	103.300	103.300	5000.000	5000.000	5022.000	104.000	104.000	5039.699
GR	104.600	5667.898	112.100	112.100	5692.500	5692.500	5096.898	124.100	124.100	5097.000
GR	124.100	5200.000	124.100	124.000	5291.699	5398.898	5492.297	124.300	124.300	5616.699
GR	124.900	5702.898	125.600	126.100	5789.797	5858.398	5950.199	126.600	127.900	6022.098
GR	127.900	6072.297	128.100	6086.297	U.C	U.C	U.C	U.C	U.C	U.C
NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	9.100	0.0	0.0	7.100	5697.800	4928.898	4920.000	5100.000

KI	231.000	32.000	4965.598	12.000	12.000	12.000	0.0	12.000	0.0	0.0
GR	127.400	4549.297	125.500	123.400	4713.000	4713.000	4821.000	121.400	119.900	4877.000
GR	118.600	4930.898	116.300	111.800	4965.598	4965.598	4965.599	111.700	109.300	4973.199
GR	103.300	4982.598	103.300	103.300	5000.000	5011.797	5022.000	104.000	104.000	5039.699
GR	104.600	5067.000	112.100	116.300	5092.500	5096.898	5096.898	116.200	120.800	5130.898
GR	123.500	5200.000	122.000	122.100	5348.898	5348.898	5492.297	122.600	122.600	5616.699
GR	123.700	5702.898	124.300	125.800	5858.398	5858.398	5950.199	126.100	126.900	6022.098
GR	127.600	6072.297	127.100	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.080	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	8.410	0.0	1.0	0.0	0.0	1.0

K1	239.000	53.000	4876.297	25.000	25.000	31.000	0.0	31.000	0.0	0.0
X2	0.0	0.0	0.0	129.400	129.400	0.0	0.0	0.0	0.0	0.0
BT	53.000	4473.297	131.300	4496.797	131.200	131.200	4555.297	130.800	130.800	4866.000
BT	4645.199	130.300	130.300	130.000	130.000	4830.598	129.800	129.800	129.800	4973.199
BT	129.600	129.600	4866.098	126.100	4866.199	129.600	126.100	4876.297	129.600	5039.699
BT	126.100	4888.699	129.500	4911.199	129.400	126.100	4911.297	129.400	126.100	5097.000
BT	4914.500	129.400	126.100	129.400	126.100	4942.297	129.400	126.100	126.100	4942.398
BT	129.400	126.100	4945.598	126.100	4945.699	129.400	126.100	4971.098	129.400	5039.699
BT	126.100	4971.199	129.400	4973.098	129.400	126.100	4973.199	129.400	126.100	5097.000
BT	5000.000	129.400	126.100	129.400	126.100	5003.297	129.400	126.100	126.100	5003.398
BT	129.400	126.100	5019.098	126.100	5031.199	129.400	126.100	5031.297	129.400	5097.000
BT	126.100	5033.098	129.400	5033.199	129.400	126.100	5046.898	129.400	126.100	5046.898
BT	5049.000	129.400	126.100	129.400	129.400	5059.199	129.400	129.400	129.400	5049.000
BT	129.400	129.400	5049.398	129.400	5074.199	129.400	129.400	5087.500	129.400	5049.000
BT	129.400	5104.598	129.400	129.400	127.200	129.400	527.898	128.800	128.800	5647.797
BT	5354.699	128.900	128.900	128.800	128.800	5462.199	128.800	128.800	128.800	5647.797
BT	128.500	128.500	5725.000	128.800	5801.898	128.900	128.900	5879.598	129.100	5879.598
BT	129.100	5958.398	128.700	6005.277	128.700	128.700	6028.000	129.000	129.000	6028.000
GR	131.300	4673.297	131.200	130.800	4555.297	130.300	4665.199	130.100	130.100	4760.398
GR	129.800	4830.598	129.600	126.100	4866.098	120.200	4866.199	120.500	120.500	4876.297
GR	115.300	4888.699	107.200	126.100	4911.297	126.100	4914.500	107.200	107.200	4914.598
GR	104.200	4942.297	126.100	126.100	4945.598	104.200	4945.699	104.200	104.200	4971.098
GR	126.100	4971.199	126.100	103.400	4973.199	103.400	5000.000	126.100	126.100	5000.098
GR	126.100	5003.297	103.400	103.400	5019.098	109.900	5031.199	126.100	126.100	5031.297
GR	126.100	5033.098	109.400	116.000	5049.000	129.400	5049.000	129.400	129.400	5049.098
GR	129.400	5049.199	129.400	129.400	5049.398	129.400	5074.199	129.400	129.400	5087.500
GR	129.400	5104.598	129.400	128.600	5247.098	128.900	5354.699	128.800	128.800	5429.500

GR	128.800	5540.149	128.500	7647.797	128.800	5725.000	128.900	5801.898	129.100	5879.578
GR	128.700	5958.148	128.900	6005.297	129.000	6028.000	0.0	6.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	7.100	4866.199	5049.199	0.0	0.0

BRIDGE AT SOUTHERN PACIFIC RAILROAD  
CENTER OF CHANNEL IS AT STA 4955.

X1	240.000	53.000	4876.297	5069.078	15.000	15.000	15.000	0.0	0.0	0.0
X2	0.0	0.0	0.0	126.100	129.900	0.0	0.0	0.0	0.0	0.0
BT	51.000	4473.297	131.300	131.300	4496.797	131.200	131.200	4555.297	130.800	130.800
BT	4045.199	130.300	130.300	4760.398	130.000	130.000	4830.598	129.800	129.800	4866.000
BT	129.600	129.600	4866.078	129.600	4866.199	129.400	126.100	126.100	4876.297	129.600
BT	126.100	4888.699	129.500	126.100	4911.199	129.400	126.100	4911.297	129.400	126.100
BT	4914.500	129.400	126.100	4914.598	126.100	126.100	4942.297	129.400	126.100	4942.398
BT	129.400	126.100	4945.598	129.400	4945.699	129.400	129.400	126.100	4971.098	129.400
BT	126.100	4971.199	129.400	126.100	4973.098	129.400	126.100	4973.199	129.400	126.100
BT	5000.600	129.400	126.100	5000.098	129.400	126.100	5003.297	129.400	126.100	5003.398
BT	129.400	126.100	5019.098	129.400	129.400	5031.199	126.100	129.400	5031.297	129.400
BT	126.100	5033.098	129.400	126.100	5033.199	129.400	126.100	5048.898	129.400	126.100
BT	5049.000	129.400	126.100	5069.078	129.400	129.400	5049.199	129.400	5049.297	129.400
BT	129.400	129.400	5074.400	129.400	5074.500	129.400	5074.600	129.400	5081.500	129.400
BT	129.400	5164.598	129.400	129.400	5170.797	129.400	129.400	5247.898	128.800	128.800
BT	5354.699	128.900	128.900	5429.500	128.800	128.800	5540.199	128.800	128.800	5647.797
BT	128.900	128.500	5725.000	128.800	128.800	5601.898	128.900	128.900	5679.598	129.000
BT	129.100	5958.398	128.700	128.700	6005.297	128.700	128.700	6028.000	129.000	129.000
GR	131.300	4473.297	131.200	4496.797	130.000	4555.297	130.300	4645.199	130.000	4760.398
GR	129.800	4830.598	129.600	4866.000	126.100	4866.098	122.200	4866.199	120.500	4876.297
GR	115.300	4888.699	107.200	4911.199	126.100	4911.297	126.100	4914.500	107.200	4914.598
GR	104.200	4942.297	126.100	4942.398	126.100	4945.598	104.200	4945.699	104.200	4971.098
GR	126.100	4971.199	126.100	4973.098	103.400	4973.199	103.400	5000.600	126.100	5000.698
GR	126.100	5003.297	103.400	5003.398	103.800	5019.098	109.900	5031.199	126.100	5031.297
GR	126.100	5033.098	109.900	5033.199	118.000	5048.898	126.100	5049.000	129.400	5049.098
GR	129.400	5049.199	129.400	5049.297	129.400	5049.398	129.400	5074.699	129.400	5081.500
GR	129.400	5164.598	129.400	5170.797	128.800	5247.898	128.800	5354.699	128.800	5429.500
GR	128.800	5540.199	128.800	5647.797	128.800	5725.000	128.400	5801.898	129.100	5879.578
GR	128.700	5958.398	128.900	6005.297	129.000	6028.000	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	7.100	4866.199	5049.000	0.0	0.0

X1	241.000	33.000	4876.297	5068.678	10.000	10.000	10.000	0.0	0.0	0.0
GR	130.300	4473.297	127.900	4496.797	125.900	4555.297	124.900	4645.199	125.000	4760.398
GR	123.200	4830.598	122.200	4866.199	120.500	4876.297	120.400	4876.398	115.300	4888.699
GR	107.200	4911.199	104.200	4942.297	103.400	4971.098	103.400	5000.000	103.800	5019.098
GR	109.900	5033.199	118.000	5048.898	123.900	5074.698	124.000	5074.799	124.300	5087.500
GR	126.900	5104.598	126.300	5170.797	127.300	5247.898	126.400	5354.699	127.100	5429.500
GR	125.700	5540.199	126.400	5647.797	127.300	5725.000	128.200	5801.898	128.200	5879.578
GR	128.200	5958.398	128.500	6005.297	128.300	6028.000	0.0	0.0	0.0	0.0
NC	0.050	0.050	0.040	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	7.100	4866.199	5049.000	4860.000	5079.699

CENTER CHANNEL IS AT STA 4909.

XI	242.000	27.000	4889.797	5056.797	90.000	40.000	83.000	0.0	0.0	0.0
GR	136.000	4533.598	129.400	4597.699	126.600	4625.699	126.600	4727.098	125.800	4821.797
GR	124.800	4839.898	116.400	4889.797	110.600	4912.297	107.900	4950.199	105.100	4967.199
GR	103.900	4988.598	103.900	5000.000	103.900	5013.398	113.100	5028.699	121.800	5042.699
GR	124.800	5056.797	126.400	5079.699	125.100	5103.098	119.400	5124.699	116.400	5162.898
GR	116.400	5369.898	120.000	5607.199	128.700	5714.797	130.600	5829.598	128.800	5899.797
GR	128.100	5965.098	128.100	6012.699	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	9.100	0.0	0.0	8.410	0.0	0.0	4900.000	5105.797

XI	244.000	49.000	4947.297	5105.699	560.000	340.000	517.000	0.0	0.0	0.0
GR	141.500	4287.699	137.500	4307.598	134.300	4343.000	136.400	4363.297	136.400	4408.199
GR	136.100	4496.000	136.600	4533.199	137.900	4601.297	138.400	4643.598	143.900	4653.797
GR	145.400	4670.000	139.100	4686.598	135.800	4703.098	135.800	4749.797	135.800	4770.398
GR	134.800	4826.797	134.800	4848.199	135.800	4863.500	136.600	4891.699	136.900	4917.098
GR	135.500	4926.699	127.900	4947.297	117.500	4970.598	106.700	4982.199	104.800	4990.699
GR	104.800	5009.000	104.800	5009.098	105.200	5026.398	106.100	5048.199	113.900	5078.000
GR	123.200	5101.297	125.800	5105.699	125.800	5121.297	121.100	5131.598	121.600	5187.598
GR	125.600	5196.398	125.600	5204.398	116.300	5220.598	116.900	5267.598	120.500	5379.098
GR	127.400	5591.098	128.800	5614.699	129.800	5666.000	129.400	5713.797	129.200	5810.000
GR	129.100	5859.598	126.400	5894.500	127.700	5902.000	127.900	5912.699	0.0	0.0

XI	246.000	53.000	4951.297	5072.797	260.000	260.000	295.000	0.0	0.0	0.0
GR	149.000	4492.598	138.700	4516.699	135.500	4546.398	133.500	4579.098	134.200	4604.398
GR	137.500	4624.098	141.500	4629.500	137.600	4637.000	138.500	4645.098	137.500	4657.699
GR	139.800	4608.500	142.000	4676.898	142.600	4690.797	138.000	4715.898	136.000	4742.199
GR	143.800	4770.500	136.400	4805.898	134.800	4850.199	137.800	4871.698	138.200	4887.797
GR	106.000	4894.898	140.800	4926.098	130.000	4951.297	116.900	4964.898	106.000	4980.297
GR	119.500	5002.000	106.000	5007.797	106.700	5014.398	106.400	5042.797	113.600	5060.000
GR	126.500	5247.098	126.700	5083.598	127.000	5093.698	126.400	5137.598	127.000	5179.898
GR	129.100	5546.500	131.300	5321.199	125.200	5419.699	125.200	5455.398	126.100	5516.797
GR	127.900	5853.398	127.300	5605.699	131.000	5672.197	130.400	5750.699	129.400	5795.297
GR	126.500	6152.500	127.400	6189.098	127.600	6010.398	128.600	6081.297	129.100	6126.500
NC	0.050	0.050	0.040	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	9.100	0.0	0.0	0.0	0.0	0.0	4900.000	5215.000

XI	248.000	60.000	4948.098	5108.898	180.000	290.000	197.600	0.0	0.0	0.0
GR	139.500	4541.199	138.700	4572.098	138.000	4616.699	136.900	4639.699	137.000	4759.699
GR	136.300	4813.500	135.500	4862.000	136.500	4896.297	138.000	4914.598	135.700	4930.699
GR	132.000	4948.098	115.900	4961.500	108.700	4972.398	106.400	4979.699	166.400	5000.000
GR	106.400	5009.797	107.400	5020.500	108.600	5064.098	106.800	5093.297	110.500	5099.898
GR	114.700	5108.898	117.400	5138.199	124.400	5192.598	121.800	5256.598	123.700	5367.898
GR	125.100	5442.898	123.900	5480.000	113.800	5494.297	109.300	5510.000	109.300	5562.797
GR	111.100	5607.000	113.600	5646.500	120.100	5680.000	128.600	5695.797	127.400	5725.098
GR	129.300	5745.699	130.300	5765.797	129.000	5791.398	129.000	5841.297	130.300	5857.898
GR	128.800	5868.698	129.100	5936.699	128.600	6026.398	128.200	6102.398	128.400	6178.000



GR	129-700	6274-398	129-100	6306-199	131-100	6372-898	130-600	6466-898	131-100	6537-000
GR	130-800	6604-598	130-500	6801-297	132-300	6713-000	132-500	6729-797	129-700	6749-398
GR	127-300	6767-199	130-900	6776-598	135-900	6790-699	133-500	6807-699	134-500	6829-699
ET	0-0	0-0	9-100	0-0	0-0	0-0	0-0	0-0	4900-000	5215-000
X1	250-000	40-000	4917-500	5086-297	114-900	260-000	173-500	0-0	0-0	0-0
GR	139-300	4490-598	137-000	4544-699	136-500	4644-598	135-900	4722-199	135-700	4766-098
GR	134-100	4831-297	134-100	4872-500	133-800	4917-500	124-900	4931-098	117-900	4949-098
GR	108-100	4764-898	107-100	4973-898	107-100	5000-000	107-100	5054-398	110-700	5069-199
GR	118-000	5086-297	117-900	5112-398	119-700	5164-000	121-800	5212-598	122-800	5232-199
GR	121-500	5303-500	121-600	5377-000	123-100	5469-000	124-900	5542-398	123-300	5582-797
GR	127-600	5643-398	129-600	5730-797	133-000	5809-098	135-900	5891-297	136-000	5962-699
GR	135-300	6059-500	135-300	6140-598	135-700	6254-898	136-000	6355-199	135-700	6445-898
GR	136-500	6543-297	136-500	6635-297	136-500	6734-398	137-700	6801-699	139-000	6860-398
ET	0-0	0-0	9-100	0-0	0-0	7-100	4899-199	5120-000	4895-000	5150-000

U/S END OF CULVERTS AT SPR

X1	252-000	41-000	4899-297	5073-797	25-000	110-000	65-500	0-0	0-0	0-0
GR	141-900	4491-898	137-400	4531-898	138-000	4570-797	136-600	4595-500	136-000	4656-000
GR	134-800	4730-797	133-600	4801-199	133-200	4851-898	133-600	4887-598	133-900	4899-297
GR	124-200	4914-398	115-800	4930-797	108-300	4944-000	107-200	4966-699	108-000	5000-000
GR	108-400	5036-297	117-000	5062-898	117-000	5073-797	117-000	5107-098	117-700	5143-898
GR	118-900	5191-297	121-000	5227-297	123-300	5283-199	124-900	5362-898	125-700	5438-898
GR	130-300	5477-797	133-800	5552-898	134-700	5611-098	134-700	5661-500	135-700	5693-699
GR	135-100	5734-297	134-800	5809-699	135-100	5875-199	134-200	5941-098	135-300	6017-199
GR	135-600	6075-797	134-800	6142-500	135-000	6203-699	135-000	6272-297	135-300	6309-699
GR	136-300	6342-297	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
UT	5-000	0-0	10680-000	0-0	0-0	10530-000	0-0	0-0	0-0	0-0
NC	0-0	0-0	0-030	0-0	0-0	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	9-110	0-0	0-0	7-110	4966-297	5020-199	4900-000	5020-199
SB	0-010	2-490	2-600	0-0	40-200	0-0	695-000	0-0	109-000	109-000

U/S END OF CULVERTS AT SPR

CULVERT CONFIGURATION REVISED JAN 1987.

FLOW IS REDUCED TO ACCOUNT FOR FLOW THROUGH

SUBWAY AREA ( SEE SEPARATE PROFILE RUN )

X1	258-000	45-000	4966-500	5020-098	239-000	239-000	239-000	0-0	0-0	0-0
X2	0-0	0-0	1-000	126-300	136-000	0-0	0-0	0-0	0-0	0-0
BT	45-000	4425-699	146-200	146-200	4473-699	143-300	143-300	4544-698	142-900	142-900
BT	4603-898	142-700	142-700	4659-500	142-200	4732-898	4732-898	141-300	141-300	4814-797
BT	139-600	139-600	4865-099	138-300	130-300	4920-398	137-000	137-000	4939-598	136-500
BT	136-500	4948-797	136-200	136-200	4948-898	136-200	136-200	4953-098	136-100	136-100
BT	4966-398	136-100	136-100	4966-500	136-100	117-700	4966-797	136-100	125-900	4973-000
BT	136-100	126-300	4977-398	126-300	125-900	4974-500	136-100	117-700	4980-000	136-100
BT	117-700	4982-098	136-100	135-900	136-500	136-500	126-300	4990-898	136-100	125-900
BT	4993-000	136-100	117-700	4993-500	136-100	117-700	4995-598	136-100	125-900	5060-000

BT	136-100	126-300	5004-398	136-100	125-900	5006-500	136-100	117-700	5007-000	136-100
BT	117-700	5009-098	136-100	125-900	5013-500	136-100	126-300	5017-098	136-100	125-900
BT	5021-000	136-100	117-700	5020-098	136-100	136-100	5030-098	136-100	136-100	5037-000
BT	136-100	136-100	5050-000	136-100	136-100	5051-000	117-600	117-600	5068-098	116-400
BT	116-400	5089-197	116-400	116-400	5113-598	121-900	121-900	5138-098	130-900	130-900
BT	5203-898	132-100	132-100	5285-000	132-100	132-100	0-0	0-0	0-0	0-0
GR	146-200	4425-099	143-300	4473-699	142-700	4544-098	142-700	4603-898	142-200	4659-500
GK	141-300	4732-898	139-600	4814-797	138-300	4865-099	138-300	4920-398	136-500	4939-598
GR	136-200	4948-797	136-200	4948-898	136-100	4953-098	136-100	4966-398	117-700	4966-500
GR	110-200	4968-598	109-000	4973-000	110-200	4977-398	117-700	4979-500	117-700	4980-000
GR	110-200	4982-098	109-000	4986-500	110-200	4990-898	117-700	4993-000	117-700	4993-500
GR	110-200	4995-598	109-000	5000-000	110-200	5004-398	117-700	5006-500	117-700	5007-000
GR	110-200	5009-098	109-000	5013-500	110-200	5017-098	117-700	5026-000	136-100	5020-098
GR	136-100	5030-000	136-100	5037-000	136-100	5050-000	117-600	5051-000	117-600	5068-098
GR	116-400	5089-197	121-900	5113-598	136-900	5138-898	132-100	5203-898	132-700	5285-000
QT	5-000	2000-000	1590-000	1402-000	9420-000	1590-000	0-0	0-0	0-0	0-0
NC	0-0	0-050	0-040	0-0	0-0	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	9-100	0-0	0-0	7-100	4948-699	5100-000	4948-699	5300-000

U/S OF CULVERTS AT MAIN YARD S.P.R.R.

X1	260-000	31-000	4948-797	5042-398	10-000	10-000	18-000	0-0	0-0	0-0
X5	5-000	0-0	133-640	0-0	133-730	0-0	0-0	0-0	0-0	0-0
GR	144-100	4425-099	142-800	4473-699	141-000	4544-098	139-600	4603-898	137-400	4659-500
GR	137-500	4732-898	135-300	4814-797	134-100	4865-099	133-600	4920-398	132-700	4939-598
GR	128-400	4948-797	128-300	4948-898	120-000	4953-098	109-500	4967-000	109-500	5000-000
GR	169-500	5020-500	113-800	5031-500	117-500	5042-297	117-600	5042-398	117-600	5068-098
GR	117-600	5089-197	121-900	5113-598	130-900	5138-898	132-100	5203-898	132-700	5285-000
GR	134-100	5406-598	135-600	5455-000	134-800	5525-500	135-300	5575-199	136-000	5672-098
GR	135-200	5755-398	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
NC	0-050	0-025	0-040	0-0	0-0	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	9-100	0-0	0-0	7-100	4961-797	5106-000	4900-000	5300-000

X1	262-000	19-000	4961-893	5031-500	85-200	45-000	83-500	0-0	0-0	0-0
GR	149-200	4695-797	154-300	4754-500	154-300	4823-398	149-500	4880-297	138-600	4920-199
GR	126-300	4944-598	115-500	4961-898	111-000	4971-598	111-000	5000-000	111-000	5012-598
GK	115-200	5022-898	117-600	5031-500	118-000	5052-199	118-600	5066-500	117-600	5089-598
GR	127-000	5103-898	131-500	5114-598	130-600	5170-098	132-100	5245-398	0-0	0-0
NC	0-100	0-035	0-040	0-0	0-0	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	9-100	0-0	0-0	7-100	4965-600	5206-000	4850-000	5520-000

X1	264-000	28-000	4965-098	5075-000	390-000	290-000	325-000	0-0	0-0	0-0
GR	145-000	4819-099	144-100	4840-699	140-500	4870-598	132-000	4894-297	119-100	4917-398
GR	118-600	4946-098	118-500	4965-098	112-100	4972-098	111-000	4977-598	111-000	5000-000
GR	111-000	5028-500	111-600	5041-500	117-800	5075-000	118-900	5085-398	122-400	5104-500
GR	120-400	5149-297	118-500	5180-898	120-300	5227-297	119-700	5268-000	121-500	5307-898
GR	120-000	5329-797	125-600	5355-199	125-200	5398-598	127-200	5437-898	130-200	5483-598
GR	131-500	5519-898	145-400	5527-199	142-800	5544-398	0-0	0-0	0-0	0-0
NC	0-0	0-0	0-0	0-300	0-500	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	9-100	0-0	0-0	7-100	4958-199	5206-000	4800-000	5625-000

X1	260.000	31.000	4958.297	5025.598	346.100	280.000	312.000	0.0	0.0
GR	141.000	4763.398	198.300	4821.898	127.700	462.297	122.300	120.500	4920.598
GR	117.600	4944.797	117.300	4956.297	111.300	4964.098	110.900	116.900	5000.000
GR	110.900	5013.199	116.100	4953.598	110.300	5037.797	119.000	119.000	5118.797
GR	119.300	5135.199	125.700	5146.699	125.100	5168.197	122.600	124.100	5205.199
GR	120.200	5215.797	120.900	5205.797	123.600	5225.098	120.600	126.900	5419.098
GR	128.100	5483.297	129.300	5531.098	129.600	5575.699	131.300	132.000	5630.598
GR	145.800	5637.500	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	9.100	0.0	0.0	7.100	4939.297	4801.297	5630.000
X1	268.000	28.000	4939.398	5035.898	30.000	4899.000	25.700	0.0	0.0
GR	133.500	4801.199	131.400	4849.297	127.800	4899.000	125.600	123.800	4939.398
GR	117.000	4949.098	112.800	4956.000	111.300	4961.797	111.900	111.900	4982.297
GR	110.900	4985.500	111.000	4900.000	111.000	5021.000	117.800	119.600	5050.000
GR	124.100	5078.699	125.100	5110.500	125.600	5132.297	125.900	125.600	5201.398
GR	124.200	5256.600	123.300	5335.500	124.500	5370.199	127.200	127.800	5451.098
GR	128.700	5503.797	130.200	5575.797	130.800	5671.199	0.0	0.0	0.0
ET	0.0	0.0	9.100	0.0	0.0	7.100	4968.297	4820.000	5660.000
X1	269.000	54.000	4968.398	5055.500	3.000	3.000	3.000	0.0	0.0
X2	0.0	0.0	0.0	127.400	129.300	0.0	0.0	0.0	0.0
BT	54.000	4348.098	148.400	148.400	4392.199	147.800	147.800	146.700	146.700
BT	481.500	140.900	146.900	4539.699	145.800	145.800	4617.699	143.700	4668.000
BT	141.900	141.900	4732.398	138.500	4705.699	135.500	135.500	4837.000	132.800
BT	132.800	4888.398	131.000	131.000	4932.500	130.800	130.800	130.200	130.200
BT	4961.098	130.200	128.300	4961.199	130.200	128.300	4968.398	128.100	4974.098
BT	129.900	128.600	4974.199	129.900	128.600	4975.500	129.900	4975.598	129.900
BT	128.000	4980.199	129.700	127.800	4996.500	129.300	127.400	129.300	127.400
BT	4994.898	129.300	127.400	5000.000	129.300	127.400	5024.000	126.900	5024.098
BT	126.800	126.900	5025.398	128.800	126.900	5025.300	128.800	5030.000	128.700
BT	5045.398	128.400	128.600	126.700	5044.000	128.400	126.500	128.400	126.500
BT	127.800	125.900	5078.699	127.800	125.900	5078.797	127.800	5078.898	127.800
BT	5079.000	5079.000	127.800	5079.000	127.800	127.800	127.800	5078.898	127.800
BT	5074.297	127.800	127.800	5100.699	127.800	127.800	5162.500	127.100	5204.098
BT	127.100	127.100	5250.398	127.500	127.500	5314.297	127.900	127.100	128.600
BT	128.600	5457.797	129.100	129.100	5508.000	129.900	129.900	130.200	130.200
BT	5668.398	130.400	130.400	0.0	0.0	0.0	0.0	0.0	0.0
GR	148.400	4348.098	147.800	4392.199	146.700	4471.500	146.900	145.800	4539.699
GR	143.700	4617.699	141.900	4608.000	138.500	4732.398	135.500	132.800	4837.000
GR	131.000	4888.398	130.800	4932.500	130.200	4961.098	128.300	123.900	4961.199
GR	120.900	4968.398	111.900	4974.098	128.000	4974.199	128.000	111.900	4975.500
GR	111.000	4980.199	111.000	4938.500	127.400	4998.898	127.400	111.000	5000.000
GR	111.000	5024.000	126.900	5024.098	126.900	5024.398	111.000	111.000	5030.000
GR	114.900	5036.199	117.200	5044.000	126.500	5044.098	126.500	117.200	5045.500
GR	117.200	5058.500	123.900	5078.699	125.900	5078.699	127.800	127.800	5078.898
GR	127.800	5079.000	127.800	5079.000	127.800	5079.199	127.800	127.600	5100.699
GR	127.100	5162.500	127.100	5204.098	127.500	5204.398	127.900	128.600	5396.699
GR	129.100	5457.797	129.100	5568.000	130.200	5623.000	130.400	130.200	5660.000
ET	0.0	0.0	9.100	0.0	0.0	7.100	4968.297	4820.000	5660.000



GR	131.800	5027.500	131.100	5652.797	132.000	5700.500	0.0	5945.000	0.0	5200.000	4630.000	0.0	5675.000
ET	0.0	0.0	7.100	0.0	0.0	7.100	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X1	274.000	42.000	4945.098	5054.500	603.900	610.000	590.500	590.500	0.0	0.0	0.0	0.0	0.0
GR	138.500	4602.398	137.300	4641.699	134.400	4673.398	134.400	134.400	0.0	4721.500	132.200	0.0	4749.000
GR	134.300	4767.500	133.500	4795.500	130.800	4835.098	135.600	135.600	0.0	4845.398	137.900	0.0	4852.598
GR	137.900	4869.098	136.200	4877.199	131.000	4887.398	125.300	125.300	0.0	4897.500	121.500	0.0	4921.699
GR	120.800	4945.098	117.000	4951.898	113.000	4972.699	112.700	112.700	0.0	4976.000	123.600	0.0	5000.000
GR	132.700	5012.500	116.700	5019.398	120.800	5036.500	120.600	120.600	0.0	5054.500	120.200	0.0	5069.098
GR	121.100	5101.598	121.400	5158.797	120.500	5207.398	122.400	122.400	0.0	5277.199	125.900	0.0	5335.398
GR	120.300	5379.199	119.900	5417.500	120.000	5456.000	134.800	134.800	0.0	5486.000	134.800	0.0	5525.297
GR	127.100	5561.500	131.600	5591.199	132.200	5616.598	0.0	0.0	0.0	5657.898	0.0	0.0	5669.500
GR	142.400	5673.500	142.400	5720.398	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
QT	5.000	0.0	15800.000	0.0	0.0	15600.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.100	0.300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	9.100	0.0	0.0	7.100	4943.098	4943.098	4700.000	4700.000	4700.000	0.0	5600.000
X1	276.000	40.000	4943.199	5040.297	540.000	530.000	531.900	531.900	0.0	0.0	0.0	0.0	0.0
GR	141.400	4477.699	140.800	4541.898	141.400	4594.297	140.700	140.700	0.0	4643.199	140.200	0.0	4688.500
GR	140.100	4706.398	135.900	4728.598	134.800	4773.098	123.900	123.900	0.0	4826.199	133.200	0.0	4873.199
GR	133.200	4917.500	132.600	4932.199	132.300	4943.199	121.600	121.600	0.0	4951.898	117.700	0.0	4958.199
GR	115.300	4966.898	112.800	4972.699	112.800	5000.000	121.600	121.600	0.0	5018.199	117.100	0.0	5022.699
GR	120.700	5027.199	124.200	5040.297	126.000	5048.199	120.400	120.400	0.0	5068.297	121.200	0.0	5081.699
GR	121.200	5119.500	121.000	5179.898	126.700	5245.699	124.300	124.300	0.0	5282.598	137.700	0.0	5321.699
GR	118.000	5380.098	118.800	5416.699	123.100	5453.699	136.000	136.000	0.0	5479.699	123.700	0.0	5505.098
GR	127.600	5527.398	134.100	5539.199	135.000	5566.598	4930.000	4930.000	0.0	5598.898	136.800	0.0	5655.000
ET	0.0	0.0	0.0	0.0	0.0	7.100	0.0	0.0	0.0	5280.000	0.0	0.0	0.0

NO FLOWWAY HAS BEEN COMPUTED FOR THE REACH BETWEEN X-SEC 278 AND 314 BECAUSE OF THE SPILL ACROSS RIVERSIDE AVENUE.

X1	278.000	52.000	4964.898	5043.297	445.000	530.000	500.000	500.000	0.0	0.0	0.0	0.0	0.0
GR	170.200	4414.098	168.700	4453.398	158.600	4479.797	148.300	148.300	0.0	4489.199	145.700	0.0	4502.699
GR	145.700	4536.098	146.600	4569.898	146.100	4615.199	145.900	145.900	0.0	4665.098	144.800	0.0	4681.297
GR	145.000	4700.500	143.500	4751.500	143.100	4762.698	144.300	144.300	0.0	4776.199	147.200	0.0	4780.699
GR	146.600	4822.398	147.500	4843.000	148.100	4856.297	145.100	145.100	0.0	4885.098	137.500	0.0	4897.898
GR	134.800	4910.797	133.700	4920.797	127.800	4938.398	123.100	123.100	0.0	4945.398	122.900	0.0	4964.898
GR	118.100	4971.199	112.900	4981.398	113.100	5006.000	113.100	113.100	0.0	5014.797	117.400	0.0	5028.797
GR	122.200	5033.000	124.600	5043.297	123.400	5070.598	122.500	122.500	0.0	5096.000	121.000	0.0	5135.797
GR	119.000	5164.297	121.000	5193.699	120.100	5241.297	121.400	121.400	0.0	5281.000	122.800	0.0	5317.398
GR	127.900	5331.699	135.200	5343.398	138.100	5358.000	139.000	139.000	0.0	5361.297	148.000	0.0	5411.598
GR	146.500	5457.500	134.700	5468.797	137.400	5490.500	138.100	138.100	0.0	5502.898	137.500	0.0	5517.898
GR	138.700	5540.500	138.600	5558.898	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.075	0.055	0.040	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	7.100	4620.000	4620.000	0.0	5450.000	0.0	0.0	0.0

X1	280-000	32-000	4955-398	5055-398	586-500	510-000	515-000	0-0	0-0
GR	141-800	4527-297	141-800	4551-199	142-400	4587-000	134-100	133-800	4718-199
GR	131-000	4804-297	131-900	4861-898	131-900	4899-797	131-400	128-900	4965-398
GR	119-900	4974-699	113-600	4981-098	113-600	5000-000	113-600	116-600	5011-699
GR	116-600	5034-500	119-100	5049-797	123-900	5055-398	124-200	124-100	5165-098
GR	123-900	5220-000	123-300	5246-699	125-300	5275-297	128-900	124-100	5360-898
GR	124-400	5416-000	124-500	5470-000	124-500	5512-500	127-200	132-500	5548-398
GR	138-800	5581-000	138-900	5614-098	0-0	0-0	0-0	0-0	0-0
NC	0-0	0-0	0-0	0-300	0-500	0-0	0-0	0-0	0-0
ET	0-0	0-0	0-0	0-0	0-0	7-100	4620-000	0-0	0-0
X1	282-000	41-000	4943-699	5040-199	310-000	370-000	355-000	0-0	0-0
GR	135-500	4563-598	134-500	4602-000	133-400	4652-000	131-500	130-500	4747-699
GR	130-700	4816-500	130-000	4867-598	141-000	4878-199	141-300	129-100	4912-500
GR	128-600	4933-898	127-700	4943-699	120-800	4945-898	116-500	115-100	4975-699
GR	115-100	5000-000	115-100	5018-598	117-700	5021-797	121-300	126-100	5040-199
GR	126-500	5066-699	127-100	5119-098	127-300	5166-199	127-300	128-500	5282-797
GR	128-800	5362-000	128-500	5419-199	127-800	5504-797	127-500	126-300	5653-500
GR	126-400	5693-898	129-600	5707-699	132-400	5722-797	133-600	134-700	5790-699
GR	152-300	5794-898	152-300	5817-898	134-700	5824-098	134-700	135-500	5904-098
GR	135-800	5929-898	0-0	0-0	0-0	0-0	0-0	0-0	0-0
QT	5-000	0-0	0370-000	0-0	0-0	0370-000	0-0	0-0	0-0
ET	0-0	0-0	9-100	0-0	0-0	7-100	4625-000	4500-000	5400-000

FLOW IS REDUCED ASEC 284 TO XSEC 304 TO ACCOUNT FOR  
SPILL ACROSS RIVERSIDE AVENUE.

X1	284-000	27-000	4936-297	5063-297	50-600	70-600	39-200	0-0	0-0
GR	137-300	4471-098	136-600	4516-598	135-400	4578-297	134-500	132-100	4691-398
GR	130-600	4754-898	130-000	4817-598	129-700	4869-500	129-500	128-600	4936-297
GR	122-300	4947-598	116-800	4965-000	115-600	4969-699	115-600	115-300	5000-000
GR	115-300	5021-199	118-900	5032-898	122-800	5051-000	127-000	127-700	5087-699
GR	127-400	5146-699	128-500	5200-398	128-600	5237-199	129-000	129-100	5348-297
GR	128-800	5413-500	128-800	5451-000	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	9-110	0-0	0-0	7-110	4624-000	4550-000	5400-000
X1	289-000	43-000	4948-199	5065-797	21-000	41-000	21-000	0-0	0-0
X2	0-0	0-0	0-0	125-500	129-800	0-0	0-0	0-0	0-0
BT	43-000	4425-898	139-900	4449-398	139-800	139-800	139-800	138-300	138-300
BT	4500-500	136-800	136-800	4629-398	134-400	134-400	4648-398	133-900	4657-000
BT	141-500	141-500	4689-699	141-700	141-700	4705-098	133-400	4752-797	131-900
BT	131-900	4831-098	131-500	131-500	130-400	130-400	130-400	130-000	130-000
BT	4948-199	129-700	129-700	4960-698	129-700	4960-199	129-700	129-500	4960-297
BT	129-700	125-500	4968-000	129-700	125-500	4975-699	125-500	129-800	129-800
BT	125-500	4997-598	129-800	125-500	125-500	4999-898	129-800	129-800	125-500
BT	5025-699	129-800	125-500	5036-199	129-800	125-500	5048-898	125-500	5049-000
BT	129-900	125-500	5049-098	129-900	129-900	5049-199	129-900	129-900	129-900
BT	125-500	5049-398	129-900	129-900	5049-500	129-900	129-900	130-000	130-000

BT	5064.747	130.000	130.000	5094.000	130.200	5148.098	130.500	130.500	5218.898
BT	130.200	130.200	5278.199	130.200	130.200	130.100	130.300	5366.898	130.500
BT	130.500	5401.500	130.800	130.800	5473.058	130.800	5508.098	131.200	131.200
GR	139.700	4425.898	139.800	4449.398	138.500	130.800	4500.500	134.400	4629.398
GR	133.900	4648.398	141.500	4657.000	141.700	133.400	4705.098	131.900	4753.197
GR	131.500	4831.098	130.500	4908.199	130.000	129.700	4948.199	129.700	4960.098
GR	125.500	4960.199	123.800	4960.297	118.900	115.400	4975.699	115.400	4997.500
GR	123.500	5048.898	125.500	5044.000	129.900	129.900	5049.199	129.900	5049.297
GR	129.900	5049.398	129.900	5049.500	130.500	5064.098	5064.797	130.200	5094.000
GR	130.500	5148.098	130.200	5218.098	130.200	130.300	5297.699	130.500	5366.898
GR	130.600	5401.500	130.800	5453.098	131.200	0.0	0.0	0.0	0.0
ET	0.0	0.0	9.100	0.0	0.0	7.100	5400.000	4550.000	5400.000

BRIDGE AT REVERK SIDE AVENUE

X1	290.500	43.000	4948.199	5064.797	76.000	76.000	76.000	0.0	0.0
X2	0.0	0.0	0.0	125.500	129.800	0.0	0.0	0.0	0.0
BT	43.000	4425.898	139.900	139.900	4449.398	139.800	4500.398	138.300	138.300
BT	4560.500	136.800	136.800	4629.398	134.400	134.400	133.900	133.900	4657.000
BT	141.500	141.500	4089.699	141.700	141.700	4705.098	133.400	4753.197	131.900
BT	131.500	4831.098	131.500	131.500	4908.199	130.400	4938.898	130.000	130.000
BT	4948.199	129.700	129.700	4960.098	129.700	129.700	129.700	125.500	4960.297
BT	129.700	125.500	4968.000	129.700	125.500	4975.699	125.500	4997.500	129.800
BT	125.500	4997.598	129.800	125.500	4999.898	129.800	5000.600	129.800	125.500
BT	5025.699	129.800	125.200	5036.199	129.800	125.500	129.900	125.500	5049.000
BT	129.900	125.500	5049.698	129.900	129.900	5049.199	129.900	5049.297	129.900
BT	129.900	5049.398	129.900	129.900	5049.500	129.900	5064.699	130.000	130.000
BT	5064.797	130.000	130.600	5094.000	130.200	130.200	130.300	130.500	5218.898
BT	130.500	5401.500	130.800	130.800	5453.098	130.800	5400.000	4550.000	5400.000
GR	139.900	4425.898	139.800	4449.398	138.500	130.800	4500.500	134.400	4629.398
GR	133.900	4648.398	141.500	4657.000	141.700	133.400	4705.098	131.900	4753.197
GR	131.500	4831.098	130.500	4908.199	130.000	129.700	4948.199	129.700	4960.098
GR	125.500	4960.199	123.800	4960.297	118.900	115.400	4975.699	115.400	4997.500
GR	123.500	5048.898	125.500	5049.000	115.400	115.400	5025.699	119.900	5036.199
GR	129.900	5049.398	129.900	5049.500	129.900	129.900	5049.199	129.900	5049.297
GR	130.500	5148.098	130.200	5218.098	130.200	130.300	5297.699	130.500	5366.898
GR	130.600	5401.500	130.800	5453.098	131.200	0.0	0.0	0.0	0.0
ET	0.0	0.0	9.110	0.0	0.0	7.110	5400.000	4550.000	5400.000

X1	291.000	33.000	4948.199	5064.797	76.000	76.000	76.000	0.0	0.0
GR	138.900	4425.898	139.800	4449.398	138.300	130.800	4500.398	134.400	4629.398
GR	133.700	4648.398	141.500	4657.000	141.700	133.400	4705.098	131.900	4753.197
GR	131.500	4831.098	130.500	4908.199	129.700	129.700	4948.199	129.700	4960.098
GR	123.800	4960.297	116.900	4968.000	115.400	115.400	5000.600	115.400	5025.699
GR	119.900	5036.199	123.500	5048.898	128.100	128.100	5064.797	128.200	5094.000
GR	129.100	5148.098	129.100	5218.098	128.200	127.400	5297.699	127.400	5366.898
GR	129.400	5401.500	129.800	5453.098	130.200	0.0	0.0	0.0	0.0
NC	0.075	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.0	0.0	0.0	0.0	0.0	7.100	5361.797	0.0	0.0

XI	292.000	31.000	4922.898	5055.500	54.600	43.100	47.200	0.0	0.0
GR	142.100	4429.797	141.200	4478.598	130.700	4544.098	137.000	135.500	4625.598
GR	134.100	4630.000	133.500	4750.898	133.500	4745.797	148.800	148.800	4848.898
GR	133.700	4854.098	133.000	4901.098	131.000	4939.297	128.800	124.100	4961.098
GR	116.700	4968.000	115.200	4973.898	115.200	5000.000	115.200	121.500	5037.500
GR	128.000	5055.500	127.600	5089.000	140.600	5119.598	144.100	137.200	5213.199
GR	128.900	5222.199	128.200	5256.500	127.600	5270.398	142.900	141.500	5356.199
GR	126.300	5361.898	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	7.100	4715.000	0.0	0.0

CUNFLUENCE WITH CIRBY CREEK

XI	294.000	28.000	4953.797	5055.000	290.000	180.000	193.600	0.0	0.0
GR	139.200	4587.098	137.100	4631.297	136.200	4678.898	134.200	133.800	4781.297
GR	135.060	4805.098	148.400	4807.500	145.100	4861.098	133.600	133.200	4902.898
GR	132.500	4923.297	130.200	4939.099	125.300	4953.797	118.300	115.300	4971.500
GR	115.300	5000.000	115.400	5020.297	119.300	5029.598	123.300	121.200	5055.000
GR	127.800	5071.500	128.700	5125.199	127.400	5176.398	126.900	124.700	5236.398
GR	126.300	5256.598	127.100	5301.000	127.100	5339.199	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	9.100	0.0	0.0	9.100	0.0	4845.000	5280.800

XI	295.000	26.000	4964.000	5053.777	260.000	49.600	130.000	0.0	0.0
GR	136.700	4517.598	131.900	4536.199	126.900	4551.098	124.600	126.700	4626.598
GR	127.100	4674.598	124.300	4742.598	123.300	4781.099	124.300	114.900	4894.199
GR	114.900	4938.598	124.200	4954.000	117.800	4978.099	114.900	114.900	5000.000
GR	127.500	5018.297	120.600	5024.000	124.800	5034.000	127.700	128.100	5086.500
GR	126.300	5130.098	127.400	5153.500	123.900	5167.297	126.300	126.300	5231.898
GR	126.300	5280.598	0.0	0.0	0.0	0.0	0.0	0.0	0.0
QT	5.000	0.0	5210.000	0.0	0.0	5210.000	0.0	0.0	0.0
NC	0.100	0.070	0.055	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	9.100	0.0	0.0	9.100	0.0	4790.000	5297.000

XI	298.000	27.000	4965.699	5033.898	190.000	140.000	164.300	0.0	0.0
GR	136.300	4567.297	134.600	4616.598	135.000	4672.699	145.000	153.700	4739.398
GR	136.200	4750.098	135.600	4785.199	130.900	4825.199	126.000	126.300	4911.898
GR	126.600	4945.000	125.600	4965.099	120.600	4977.398	115.000	115.600	5000.000
GR	115.600	5019.000	120.600	5026.398	125.100	5033.898	125.900	126.300	5108.000
GR	126.200	5154.500	127.100	5200.098	127.900	5225.098	149.900	144.800	5275.598
GR	127.400	5283.898	128.000	5297.797	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	9.100	0.0	0.0	9.100	0.0	4750.000	5305.000

XI	300.000	26.000	4975.500	5037.199	75.000	60.000	68.100	0.0	0.0
GR	136.000	4608.398	133.800	4696.000	133.500	4739.598	132.900	133.500	4811.199
GR	135.600	4850.797	135.200	4884.898	134.700	4923.398	128.700	126.000	4955.398
GR	125.300	4975.500	119.400	4982.797	115.100	4985.199	115.100	115.100	5028.000
GR	125.000	5037.199	126.000	5071.000	126.000	5101.500	127.400	127.400	5182.398
GR	127.400	5207.797	143.600	5216.698	142.300	5263.297	127.400	128.900	5290.398





BT	129.800	5019.199	132.400	129.800	5030.699	132.400	129.800	5039.098	132.500	129.900
BT	5039.199	132.500	129.900	5040.398	132.500	129.900	5040.398	132.500	129.900	5054.699
BT	132.500	129.900	5071.898	132.600	130.000	130.000	132.600	130.000	5072.098	132.600
BT	132.600	5089.098	132.600	5107.297	132.700	132.700	132.700	5128.898	132.900	132.900
BT	5145.297	133.000	133.000	5171.598	133.200	133.200	5218.797	133.700	133.700	5270.098
BT	133.900	133.900	5301.199	134.800	134.800	134.800	136.200	136.200	5389.699	137.200
BT	137.200	5409.199	137.200	138.400	5410.297	137.900	137.900	0.0	0.0	0.0
GR	144.700	4686.797	137.800	4728.199	138.400	4761.000	138.400	4795.000	135.300	4823.898
GR	134.400	4860.199	133.100	4899.098	133.000	4921.598	132.700	4947.898	130.100	4948.000
GR	128.200	4959.898	117.600	4972.297	129.800	4972.297	129.800	4973.598	117.600	4973.598
GR	117.300	4983.500	117.300	5006.600	117.300	5017.898	129.800	5018.400	129.800	5019.098
GR	117.300	5019.199	122.100	5030.699	125.500	5039.098	129.900	5039.199	129.900	5040.297
GR	125.400	5040.398	128.100	5054.699	128.800	5071.898	130.000	5072.000	132.600	5072.098
GR	132.600	5089.098	132.700	5107.297	132.900	5128.898	133.000	5145.297	133.200	5171.598
GR	133.700	5218.797	133.900	5270.098	134.800	5301.199	136.200	5349.199	137.200	5389.699
GR	138.000	5409.199	137.900	5410.297	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	9.100	0.0	0.0	0.0	0.0	0.0	4765.000	5409.000

BRIDGE AT DARLING MAY

X1	310.000	42.000	4947.898	5072.098	48.000	48.000	48.000	48.000	0.0	0.0
X2	0.0	0.0	0.0	129.700	132.300	0.0	0.0	0.0	0.0	0.0
BT	42.000	4686.797	140.700	149.700	4728.199	137.800	137.800	4761.000	138.400	138.400
BT	4795.000	136.600	136.600	4823.898	135.300	4860.199	4860.199	134.400	134.400	4899.098
BT	133.100	133.100	4921.598	133.000	133.000	132.700	132.700	132.700	4948.000	132.700
BT	136.100	4959.898	132.500	129.900	4972.297	132.400	129.800	4972.297	129.800	129.800
BT	4973.500	132.400	129.800	4973.598	132.400	129.800	4983.500	132.400	129.800	5000.000
BT	132.300	129.700	5017.898	132.400	129.800	5018.000	132.400	129.800	5019.098	132.400
BT	125.800	5019.199	134.400	129.800	5030.699	132.400	129.800	5039.098	129.900	129.900
BT	5039.199	132.500	129.900	5040.297	132.500	129.900	5040.398	132.500	129.900	5054.699
BT	132.500	129.900	5071.898	132.600	130.000	5072.000	132.600	130.000	5072.098	132.600
BT	132.600	5089.098	132.600	5107.297	133.700	133.700	5218.797	133.700	133.700	5270.098
BT	5145.297	133.900	133.900	5171.598	134.800	134.800	5301.199	136.200	5389.699	137.200
BT	133.900	5409.199	137.900	5410.297	0.0	0.0	0.0	0.0	0.0	0.0
GR	144.700	4686.797	137.800	4728.199	138.400	4761.000	138.400	4795.000	135.300	4823.898
GR	134.400	4860.199	133.100	4899.098	133.000	4921.598	132.700	4947.898	130.100	4948.000
GR	128.200	4959.898	117.600	4972.297	129.800	4972.297	129.800	4973.598	117.600	4973.598
GR	117.300	4983.500	117.300	5006.600	117.300	5017.898	129.800	5018.400	129.800	5019.098
GR	117.300	5019.199	122.100	5030.699	125.500	5039.098	129.900	5039.199	129.900	5040.297
GR	125.400	5040.398	128.100	5054.699	128.800	5071.898	130.000	5072.000	132.600	5072.098
GR	132.600	5089.098	132.700	5107.297	132.900	5128.898	133.000	5145.297	133.200	5171.598
GR	133.700	5218.797	133.900	5270.098	134.800	5301.199	136.200	5349.199	137.200	5389.699
GR	138.000	5409.199	137.900	5410.297	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	9.100	0.0	0.0	0.0	0.0	0.0	4765.000	5409.000

X1	311.000	32.000	4947.898	5071.898	24.000	24.000	24.000	24.000	0.0	0.0
GR	139.700	4686.797	136.800	4728.199	136.400	4761.000	136.600	4795.000	135.300	4823.898
GR	134.400	4860.199	132.500	4899.098	132.200	4921.598	129.900	4947.898	129.800	4948.000
GR	128.200	4959.898	117.600	4972.297	117.300	4983.500	117.300	5006.600	117.300	5019.199
GR	122.100	5030.699	125.400	5040.398	128.000	5054.699	128.100	5054.699	128.800	5071.898
GR	132.600	5089.098	132.700	5107.297	132.900	5128.898	133.000	5145.297	133.200	5171.598
GR	133.700	5218.797	133.900	5270.098	134.800	5301.199	136.200	5349.199	137.200	5389.699
GR	138.000	5409.199	137.900	5410.297	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	9.100	0.0	0.0	0.0	0.0	0.0	4765.000	5409.000





03/27/87

10:10

HECZ RELEASE DATED NOV 76 UPDATED AUG 1980  
 LRHM CURR - 010203164  
 MODIFICATION - 51527354

NOTE - RISK AT LEFT BANK  
 DRY CRACKS IN X-SECTION  
 SUMMARY PRINTOUT

INDICATES MESSAGE  
 OF WATER IN STREAM  
 MEAN VELOCITY  
 IN CHANNEL  
 CUMULATIVE VOLUME  
 X-SECTIONAL  
 AREA  
 TOP WIDTH  
 % FLOW IN LEFT  
 OVERBANK  
 ENERGY GRADIENT  
 CHANNEL WATER  
 SURFACE ELEV.

SECNO	KLCH	STCHL	STCMR	ELMIN	VOL	AREA	TOPWID	QLOUP	EG
172-000	0-0	4950-00	5180-00	92-50	0-0	2913-41	442-85	25-98	102-41
172-000	0-0	4950-00	5180-00	92-50	0-0	2543-33	239-18	16-18	103-34
174-000	110-00	4950-00	5180-00	92-70	7-27	2845-23	413-05	25-11	102-55
174-000	110-00	4950-00	5180-00	92-70	6-40	2523-24	293-10	15-38	103-69
176-000	150-00	4950-00	5130-00	93-80	16-12	2292-91	340-00	21-36	102-88
176-000	150-00	4950-00	5130-00	93-80	14-26	2042-75	252-66	22-81	103-85
178-000	200-00	4950-00	5130-00	92-90	25-95	1989-27	250-10	20-41	103-40
178-000	200-00	4950-00	5130-00	92-90	23-72	2078-53	230-10	16-00	104-25
179-000	75-00	4899-80	5100-20	93-10	28-92	1467-69	190-60	0-0	104-09
179-000	75-00	4899-80	5100-20	93-10	26-94	1666-72	193-06	0-0	104-71
180-000	21-70	4899-80	5100-20	93-10	29-67	1530-20	191-38	0-0	104-27
180-000	21-70	4899-80	5100-20	93-10	27-78	1697-81	193-45	0-0	104-82
181-000	10-00	4900-00	5100-00	93-20	30-18	2897-96	305-00	27-69	104-64
181-000	10-00	4900-00	5100-00	93-20	28-26	2481-73	246-61	14-77	105-06
182-000	130-00	4900-00	5100-00	93-40	39-27	3194-98	335-00	30-46	104-79
182-000	130-00	4900-00	5100-00	93-40	36-18	2821-78	277-75	23-05	105-24
184-000	650-00	4850-00	5080-00	94-20	96-01	4687-91	750-18	48-47	105-01
184-000	650-00	4850-00	5080-00	94-20	84-77	3887-52	647-04	43-14	105-47
186-000	580-00	4900-00	5110-00	95-00	152-00	3820-98	567-76	48-32	105-59
186-000	580-00	4900-00	5110-00	95-00	132-79	3324-84	417-09	41-07	106-18
188-000	400-00	4950-00	5120-00	95-50	183-86	2974-99	554-98	44-53	106-11
188-000	400-00	4950-00	5120-00	95-50	159-35	2460-23	339-38	37-18	106-81
190-000	400-00	4900-00	5180-00	95-90	212-01	3155-92	557-47	14-41	106-64
190-000	400-00	4900-00	5180-00	95-90	182-34	2547-79	290-78	1-75	107-42
192-000	640-00	4900-00	5150-00	96-30	266-87	4454-74	694-23	8-49	106-91
192-000	640-00	4900-00	5150-00	96-30	229-16	3878-21	440-54	1-17	107-76

SFLNO	XLCM	SICHL	SICHR	ELMIN	J	VLR	VOL	AREA	IUPRID	ULBHP	EG	LMSEL
194.000	050.00	4876.70	5074.70	98.40	16140.00	10.30	312.76	1020.90	417.24	0.0	108.57	107.15
194.000	050.00	4876.70	5074.70	98.40	16140.00	4.97	270.39	1783.77	320.82	0.0	109.33	107.95
196.000	326.90	4845.80	5051.50	98.60	16140.00	7.02	323.20	2529.82	456.68	0.00	109.57	108.91
196.000	326.90	4845.80	5051.50	98.60	16140.00	7.49	281.62	2335.15	374.30	0.00	110.30	109.53
198.000	335.00	4938.50	5033.30	100.50	16140.00	14.05	342.82	1353.21	252.68	3.88	112.56	109.98
198.000	335.00	4938.50	5033.30	100.30	16140.00	14.18	299.97	1414.12	254.68	4.21	112.57	110.22
200.000	110.00	4938.20	5043.60	100.50	16140.00	14.17	346.35	1319.59	254.30	2.35	113.66	111.00
200.000	110.00	4938.20	5043.60	100.50	16140.00	14.77	303.45	1227.13	210.00	2.18	113.82	110.84
201.000	63.00	4940.40	5047.50	100.60	16140.00	16.10	348.01	1040.95	149.10	0.86	115.34	111.40
201.000	63.00	4940.40	5047.50	100.60	16140.00	15.92	305.07	1060.13	148.80	0.95	115.34	111.49
202.000	55.00	4957.10	5044.30	100.30	16140.00	16.72	349.35	1028.37	131.93	3.71	115.94	111.77
202.000	55.00	4957.10	5044.30	100.30	16140.00	16.05	306.42	1033.38	131.82	3.77	115.94	111.81
204.000	440.50	4934.80	5073.80	100.60	16140.00	9.17	365.31	2113.29	363.72	0.0	118.32	117.14
204.000	440.50	4934.80	5073.80	100.60	16140.00	10.21	320.37	1716.56	232.57	0.0	118.42	116.87
206.000	580.00	4882.90	5050.60	100.60	16140.00	5.85	402.55	350.347	556.45	0.00	119.20	118.77
206.000	580.00	4882.90	5050.60	100.60	16140.00	6.92	349.36	2647.11	317.20	0.00	119.57	116.90
208.000	319.90	4896.70	5053.00	100.40	16140.00	5.28	430.70	4050.04	615.82	0.0	119.44	119.12
208.000	319.90	4896.70	5053.00	100.40	16140.00	6.43	370.26	2992.61	371.68	0.0	119.91	119.37
210.000	305.00	4940.20	5079.20	100.40	16140.00	2.92	463.54	5842.97	509.90	0.00	119.58	119.46
210.000	305.00	4940.20	5079.20	100.40	16140.00	3.68	395.92	4658.21	389.90	0.00	120.14	119.95
212.000	254.00	4971.10	5089.40	100.60	16140.00	2.55	499.52	7153.62	628.79	3.01	119.62	119.54
212.000	254.00	4971.10	5089.40	100.60	16140.00	4.01	421.34	4473.18	359.00	0.00	120.21	120.00
214.000	191.40	4954.80	5078.00	100.80	16140.00	5.15	523.17	4373.65	692.00	20.39	119.76	119.68
214.000	191.40	4954.80	5078.00	100.80	16140.00	6.50	437.03	3094.05	370.00	12.85	120.44	119.92
216.000	101.60	4919.80	5032.00	100.90	16140.00	2.78	535.04	6996.60	620.00	12.92	119.84	119.75
216.000	101.60	4919.80	5032.00	100.90	16140.00	4.74	444.70	4619.47	330.00	8.40	120.56	120.29
218.000	620.00	4963.60	5040.40	100.90	16140.00	4.33	608.43	4795.57	490.00	7.28	120.02	119.82
218.000	620.00	4963.60	5040.40	100.90	16140.00	5.50	493.30	3599.48	330.00	9.29	120.87	120.53
220.000	553.90	4959.20	5045.00	102.90	15900.00	6.08	659.22	3294.49	396.43	7.33	120.42	120.02
220.000	553.90	4959.20	5045.00	102.90	15900.00	6.35	534.76	3001.58	291.00	0.00	121.32	120.85
222.000	310.00	4971.40	5064.20	103.10	15900.00	6.09	682.27	3210.71	380.00	15.36	120.72	120.30
222.000	310.00	4971.40	5064.20	103.10	15900.00	5.90	556.79	3205.01	340.00	13.23	121.61	121.19
224.000	295.70	4974.90	5082.00	101.90	15900.00	8.28	703.44	2239.69	250.13	1.43	121.36	120.42
224.000	295.70	4974.90	5082.00	101.90	15900.00	8.04	577.90	2211.01	185.20	6.00	122.20	121.29
226.000	50.80	4957.10	5117.00	103.40	15760.00	8.73	706.09	1862.92	160.00	1.01	121.57	120.40
226.000	50.80	4957.10	5117.00	103.40	15760.00	8.06	580.63	2029.16	180.00	1.64	122.32	121.32

SECHO	XLCH	STCHL	SFCMR	ELMIN	U	VLM	VOL	ARI	TOPMD	QLUOP	EG	CMSEL
230-000	53-00	4965-60	5096-90	103-30	15960-00	7-31	708-57	2207-71	166-07	6-90	121-88	121-06
230-000	53-00	4965-60	5096-90	103-30	15960-00	6-76	583-31	2319-94	166-14	8-15	122-80	122-10
231-000	12-00	4965-60	5096-90	103-30	15960-00	7-43	709-18	2250-92	180-00	5-05	121-90	121-07
231-000	12-00	4965-60	5096-90	103-30	15960-00	6-93	583-96	2389-65	168-10	5-69	122-82	122-10
239-000	31-00	4876-30	5049-10	103-40	15960-00	7-37	710-74	2165-19	162-93	0-02	121-99	121-14
239-000	31-00	4876-30	5049-10	103-40	15960-00	6-86	585-63	2325-93	159-16	0-0	122-89	122-16
240-000	15-00	4876-30	5049-10	103-40	15960-00	7-26	711-49	2200-62	164-22	0-04	122-18	121-36
240-000	15-00	4876-30	5049-10	103-40	15960-00	6-76	586-53	2364-65	169-27	0-26	123-05	122-34
241-000	10-00	4876-30	5048-90	103-40	15960-00	6-35	712-03	2529-45	195-25	0-04	122-30	121-67
241-000	10-00	4876-30	5048-90	103-40	15960-00	6-00	587-01	2667-38	182-80	0-20	123-15	122-59
242-000	83-00	4889-80	5056-80	103-90	15960-00	7-95	716-40	2066-53	184-11	1-16	122-66	121-68
242-000	83-00	4889-80	5056-80	103-90	15960-00	7-39	591-68	2227-23	181-47	1-65	123-44	122-60
244-000	517-00	4947-30	5105-70	104-80	15960-00	9-19	739-02	1737-51	139-79	0-0	123-73	122-42
244-000	517-00	4947-30	5105-70	104-80	15960-00	8-65	615-90	1644-67	143-36	0-0	124-34	123-18
246-000	295-00	4951-30	5072-80	106-00	15960-00	10-44	750-10	1536-17	120-91	0-0	124-59	122-90
246-000	295-00	4951-30	5072-80	106-00	15960-00	9-97	627-56	1600-46	114-81	0-0	125-10	123-56
248-000	197-60	4948-10	5108-90	106-40	15960-00	9-99	760-85	2974-04	260-61	0-0	124-44	124-44
248-000	197-60	4948-10	5108-90	106-40	15960-00	6-33	637-11	2574-65	163-13	0-0	125-45	124-83
250-000	173-50	4917-50	5086-30	107-10	15960-00	6-43	773-67	2064-25	282-96	0-0	125-12	124-54
250-000	173-50	4917-50	5086-30	107-10	15960-00	6-76	647-38	2449-61	182-23	0-0	125-62	124-93
252-000	65-50	4949-30	5073-80	107-20	15960-00	6-44	778-52	2744-60	236-21	0-0	125-19	124-60
252-000	65-50	4949-30	5073-80	107-20	15960-00	6-50	651-49	2633-36	206-96	0-0	125-69	125-08
258-000	239-00	4966-50	5020-10	109-00	10530-00	9-43	789-15	1133-40	53-66	0-00	133-73	132-35
258-000	239-00	4966-50	5020-10	109-00	10530-00	9-17	661-87	1149-41	53-66	0-00	133-95	132-65
260-000	18-00	4948-80	5042-40	109-50	15960-00	5-54	789-98	3553-87	351-30	0-00	134-62	133-64
260-000	18-00	4948-80	5042-40	109-50	15960-00	6-07	662-63	2955-43	151-30	0-00	134-23	133-73
262-000	83-50	4961-90	5031-50	111-00	15960-00	5-19	795-14	3172-82	315-36	9-12	134-06	133-64
262-000	83-50	4961-90	5031-50	111-00	15960-00	5-79	667-62	2514-73	138-20	0-00	134-30	133-66
264-000	325-00	4965-10	5075-00	111-00	15960-00	4-45	835-86	8179-62	631-46	4-26	134-14	134-07
264-000	325-00	4965-10	5075-00	111-00	15960-00	4-16	690-75	4147-07	235-00	0-00	134-44	134-20
266-000	312-00	4958-30	5025-60	110-90	15960-00	2-59	892-75	8559-70	787-07	5-60	134-16	134-09
266-000	312-00	4958-30	5025-60	110-90	15960-00	4-37	718-24	3958-93	241-80	0-00	134-51	134-26
268-000	25-70	4939-40	5035-90	110-90	15960-00	3-04	899-28	7416-00	828-70	2-11	134-18	134-08
268-000	25-70	4939-40	5035-90	110-90	15960-00	4-93	721-17	3702-72	260-70	0-00	134-55	134-24
269-000	3-00	4968-40	5045-50	111-00	15960-00	2-45	899-73	5541-12	840-00	2-01	134-21	134-06
269-000	3-00	4968-40	5045-50	111-00	15960-00	5-07	721-39	2712-11	231-70	0-00	134-68	134-11

SELENO	ALCH	STCML	STCHR	ELMIN	U	VCH	VOL	AREA	TUPMID	ULUDP	EG	CMSEL
270.000	50.00	4968.40	5045.50	111.00	15960.00	2.44	906.10	5562.62	840.00	2.03	134.24	134.09
276.000	50.00	4968.40	5045.50	111.00	15960.00	4.98	724.53	2746.27	231.70	0.00	134.82	134.26
271.000	29.60	4968.40	5045.50	111.00	15960.00	3.29	910.41	7370.77	840.00	4.40	134.26	134.16
271.000	29.00	4968.40	5045.50	111.00	15960.00	5.32	726.58	3417.57	231.70	0.00	134.90	134.54
272.000	38.90	4968.50	5044.00	111.00	15960.00	3.16	917.08	7534.39	764.34	13.25	134.27	134.18
272.000	38.90	4968.50	5044.00	111.00	15960.00	5.39	729.74	3558.01	231.60	0.00	134.92	134.57
274.000	590.50	4945.10	5054.50	112.70	15960.00	2.05	1035.01	9444.22	882.33	5.19	134.33	134.29
274.000	590.50	4945.10	5054.50	112.70	15960.00	4.56	781.42	3941.60	255.00	0.00	135.14	134.68
276.000	531.90	4943.20	5040.30	112.80	15800.00	2.07	1143.74	8397.88	745.26	0.24	134.38	134.32
276.000	531.90	4943.20	5040.30	112.80	15800.00	4.29	630.16	4057.14	266.90	0.00	135.32	135.07
278.000	500.00	4964.90	5043.30	112.90	15800.00	3.39	1226.62	5479.46	426.87	3.91	134.46	134.32
278.000	500.00	4964.90	5043.30	112.90	15800.00	3.56	884.87	5179.62	350.00	4.47	134.65	134.30
280.000	515.00	4965.40	5055.40	113.60	15800.00	3.71	1292.20	7206.66	955.56	2.68	134.56	134.45
280.000	515.00	4965.40	5055.40	113.60	15800.00	3.77	949.23	7058.33	830.00	4.66	135.55	135.43
282.000	355.00	4943.70	5040.20	115.10	15800.00	4.10	1352.49	7399.58	1143.95	5.34	134.67	134.53
282.000	355.00	4943.70	5040.20	115.10	15800.00	4.02	1008.31	7366.57	941.30	7.37	135.65	135.52
284.000	39.20	4946.30	5063.30	115.30	8370.00	2.69	1360.91	5280.55	776.95	8.42	134.70	134.62
284.000	39.20	4946.30	5063.30	115.30	8370.00	2.37	1017.13	6058.77	775.00	10.26	135.68	135.63
289.000	21.00	4948.20	5064.80	115.40	8370.00	3.06	1363.04	3518.16	723.14	13.63	134.72	134.62
289.000	21.00	4948.20	5064.80	115.40	8370.00	2.46	1014.61	4243.06	725.38	16.24	135.89	135.63
290.000	76.00	4948.20	5064.80	115.40	8370.00	3.00	1369.23	3578.11	725.77	13.87	134.80	134.70
290.000	76.00	4948.20	5064.80	115.40	8370.00	2.44	1027.05	4287.45	729.52	16.40	135.74	135.67
291.000	3.00	4948.20	5064.80	115.40	8370.00	2.94	1364.63	4755.54	726.10	5.92	134.80	134.71
291.000	3.00	4948.20	5064.80	115.40	8370.00	2.59	1027.53	5462.79	728.70	7.67	135.74	135.67
292.000	47.20	4952.90	5055.50	115.20	8370.00	4.25	1373.50	2700.58	417.57	2.25	134.89	134.65
292.000	47.20	4952.90	5055.50	115.20	8370.00	3.86	1031.97	3106.51	420.85	3.79	135.81	135.62
294.000	193.60	4953.80	5055.00	115.30	8370.00	3.21	1367.82	4134.70	554.82	2.14	134.97	134.86
294.000	193.60	4953.80	5055.00	115.30	8370.00	2.91	1048.33	4650.71	537.96	3.06	135.88	135.79
296.000	130.00	4964.00	5053.80	114.90	8370.00	3.08	1399.37	4486.54	435.00	19.41	135.00	134.91
296.000	130.00	4964.00	5053.80	114.90	8370.00	2.62	1061.21	4888.00	435.00	14.52	135.90	135.82
298.000	164.30	4965.70	5033.90	115.60	5210.00	2.13	1415.27	4088.04	451.43	16.56	135.03	134.99
298.000	164.30	4965.70	5033.90	115.60	5210.00	1.93	1078.60	4494.61	452.26	17.52	135.92	135.89
300.000	68.10	4975.50	5037.20	115.16	5210.00	2.48	1420.90	3433.67	442.79	7.74	135.05	134.99
300.000	68.10	4975.50	5037.20	115.16	5210.00	2.24	1064.88	3773.82	500.46	8.89	135.94	135.89
302.000	136.00	4970.10	5031.10	116.90	7670.00	5.90	1429.44	2159.78	389.46	4.06	135.23	134.62
302.000	136.00	4970.10	5031.10	116.90	7670.00	5.18	1094.65	2544.10	474.22	5.33	136.07	135.77



SECNO	XLCH	SILHL	SICHR	ELMIM	N	VCH	VUL	AREA	TUPMID	DLDBP	EG	CMSEL
304-000	84.00	4973.60	5035.80	117.00	11530.00	7.60	1434.97	2635.73	461.77	3.51	135.46	134.86
304-000	84.00	4973.60	5035.80	117.00	11530.00	6.63	1101.14	3084.03	490.56	4.30	136.23	135.80
306-000	255.10	4976.10	5037.90	117.00	12790.00	8.49	1449.13	2498.95	408.95	18.90	136.17	135.39
306-000	255.10	4976.10	5037.90	117.00	12790.00	8.30	1116.05	2328.72	240.00	16.60	137.16	136.39
308-000	64.90	4926.60	5049.40	117.00	12790.00	6.51	1452.67	2904.54	649.65	2.69	136.37	135.81
308-000	64.90	4926.60	5049.40	117.00	12790.00	6.59	1119.12	2274.12	225.05	0.0	137.34	136.72
309-000	10.00	4947.90	5072.10	117.30	12790.00	7.18	1453.25	2156.58	522.80	6.47	136.46	135.80
309-000	10.00	4947.90	5072.10	117.30	12790.00	7.30	1119.59	1859.92	234.48	0.0	137.45	136.69
310-000	48.00	4947.90	5072.10	117.30	12790.00	5.87	1455.90	2644.83	575.83	8.96	137.11	136.68
310-000	48.00	4947.90	5072.10	117.30	12790.00	5.87	1121.92	2363.71	302.52	2.92	138.07	137.60
311-000	24.00	4947.90	5071.90	117.30	12790.00	5.88	1457.51	3193.59	576.39	4.98	137.19	136.74
311-000	24.00	4947.90	5071.90	117.30	12790.00	5.97	1123.28	2568.85	240.07	0.24	138.15	137.65
312-000	40.80	4972.10	5052.90	117.20	12790.00	7.20	1461.11	2523.62	309.57	12.87	137.36	136.71
312-000	40.80	4972.10	5052.90	117.20	12790.00	7.33	1126.11	2181.34	143.80	9.89	138.33	137.60
314-000	510.00	4959.10	5037.10	117.60	12790.00	5.66	1488.17	2298.13	214.82	42.37	138.16	137.66
314-000	510.00	4959.10	5037.10	117.60	12790.00	5.64	1150.78	2189.80	161.12	40.18	139.13	138.60
316-000	380.00	4955.00	5051.20	118.70	12790.00	3.85	1514.00	3639.46	348.66	44.50	138.50	138.28
316-000	380.00	4955.00	5051.20	118.70	12790.00	3.93	1174.50	3256.89	236.79	45.53	139.48	139.23
318-000	335.30	4957.20	5027.50	118.90	12790.00	3.99	1540.66	3289.43	348.23	60.09	138.72	138.46
318-000	335.30	4957.20	5027.50	118.90	12790.00	3.91	1198.53	2990.75	236.50	61.31	139.70	139.41
320-000	323.80	4947.20	5030.30	119.30	12790.00	3.43	1567.57	4006.30	414.67	56.61	138.91	138.72
320-000	323.80	4947.20	5030.30	119.30	12790.00	3.53	1222.35	3462.73	262.46	58.87	139.89	139.67
322-000	223.00	4961.10	5031.10	120.70	12790.00	3.69	1588.33	3675.68	461.97	67.18	139.05	138.84
322-000	223.00	4961.10	5031.10	120.70	12790.00	3.67	1240.79	3325.93	336.20	69.84	140.02	139.79

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DRY CREEK #1 100-YR

SUMMARY PRINTOUT

SECNO	XLCH	STENCL	SSTA	EMUST	SINCR	WIK	DIFEG	EG	U1FMSX	D1FMSP	O1FKMS	CMSEL
172.000	0.0	4760.00	4760.00	5202.84	5240.00	4484.12	0.0	102.41	0.0	0.0	-3.10	101.90
172.000	0.0	4880.82	4880.81	5180.00	5180.00	4396.20	0.93	103.34	0.0	0.80	0.80	102.70
174.000	110.00	4790.00	4790.00	5263.05	5210.00	4471.86	0.0	102.55	0.13	0.0	0.0	102.03
174.000	110.00	4886.90	4886.89	5180.00	5180.00	4387.68	0.93	103.49	0.14	0.81	0.81	102.84
176.000	150.00	4830.00	4830.00	5170.00	5170.00	4482.08	0.0	102.88	0.06	0.0	0.0	102.08
176.000	150.00	4877.34	4877.34	5130.00	5130.00	4384.11	0.96	103.85	0.02	0.78	0.78	102.87
178.000	200.00	4880.00	4880.00	5130.09	5130.10	4402.24	0.0	103.40	0.28	0.0	0.0	102.36
178.000	200.00	4900.00	4900.00	5130.09	5130.10	4376.75	0.85	104.25	0.44	0.94	0.94	103.30
179.000	75.00	0.0	4899.92	5095.54	0.0	2028.27	0.0	104.09	-0.15	0.0	0.0	102.21
179.000	75.00	4899.80	4899.91	5097.87	5100.20	2430.80	0.62	104.71	-0.05	1.04	1.04	103.25
180.000	21.70	0.0	4899.91	5096.27	0.0	2152.80	0.0	104.27	0.32	0.0	0.0	102.54
180.000	21.70	4899.80	4899.90	5098.23	5100.20	2494.95	0.55	104.82	0.16	0.88	0.88	103.42
181.000	10.00	4795.00	4795.00	5100.00	5100.00	4708.52	0.0	104.66	1.63	0.0	0.0	104.17
181.000	10.00	4853.39	4853.39	5100.00	5100.00	4708.52	0.40	105.06	0.98	0.23	0.23	104.40
182.000	130.00	4775.00	4775.00	5110.00	5110.00	4994.91	0.0	104.79	0.21	0.0	0.0	104.38
182.000	130.00	4822.25	4822.25	5100.00	5100.00	4914.05	0.45	105.24	0.33	0.34	0.34	104.73
184.000	650.00	4400.00	4400.00	5130.18	5150.00	7429.44	0.0	105.21	0.63	0.0	0.0	105.01
184.000	650.00	4612.95	4612.95	5060.00	5060.00	6914.05	0.53	105.75	0.75	0.46	0.46	105.47
186.000	580.00	0.0	4508.77	5136.53	0.0	5956.40	0.0	105.59	0.29	0.0	0.0	105.31
186.000	580.00	4692.91	4692.91	5110.00	5110.00	5557.68	0.59	106.18	0.34	0.51	0.51	105.81
188.000	400.00	0.0	4598.65	5153.03	0.0	4176.97	0.0	106.11	0.30	0.0	0.0	105.61
188.000	400.00	4780.62	4780.61	5120.00	5120.00	3869.93	0.78	106.61	0.31	0.52	0.52	106.12
190.000	400.00	0.0	4623.36	5210.83	0.0	4744.05	0.0	106.64	0.56	0.0	0.0	106.17
190.000	400.00	4889.22	4889.21	5180.00	5180.00	4501.73	0.0	107.52	0.67	0.63	0.63	106.79
192.000	640.00	4350.00	4350.00	5419.78	5000.00	6996.01	0.0	107.19	0.80	0.0	0.0	106.97
192.000	640.00	4890.74	4890.74	5331.27	5331.28	6900.49	0.84	108.03	0.96	0.79	0.79	107.76
194.000	650.00	4619.40	4619.40	5300.00	5300.00	2234.64	0.0	108.57	0.19	0.0	0.0	107.15
194.000	650.00	4876.60	4876.60	5260.00	5260.00	2405.91	0.77	109.33	0.19	0.79	0.79	107.95
196.000	326.90	4136.40	4136.40	5300.00	5300.00	3369.60	0.0	109.57	1.76	0.0	0.0	108.91
196.000	326.90	4845.70	4845.70	5220.00	5220.00	3373.67	0.73	110.30	1.59	0.62	0.62	109.53
198.000	335.00	4134.10	4134.10	5170.00	5170.00	1907.32	0.0	112.56	1.04	0.0	0.0	109.98
198.000	335.00	4900.00	4915.31	5170.00	5170.00	2032.39	0.01	112.57	0.68	0.24	0.24	110.22

\* 2000000 110.00 4873.10 4875.70 5120.00 5120.00 5120.00 1957.70 0.0 113.66 1.02 0.0 0.0 111.00

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#	SECNO	XLCH	SIENCL	SSTA	EMST	STEMCK	OLK	DIFEG	EG	DIFMSX	DIFMSP	DIFKMS	CMSEL
*	200.000	110.00	4900.00	4900.00	5110.00	1057.30	0.16	113.82	0.83	-0.15	-0.15	0.15	110.84
*	201.000	63.00	4439.90	4216.12	5065.42	5200.00	0.0	115.34	0.41	0.0	0.0	0.0	111.40
*	201.000	63.00	4917.00	4917.00	5065.80	5100.00	-0.00	115.34	0.65	0.09	0.09	0.09	111.49
*	202.000	55.00	4800.00	4929.71	5061.64	5200.00	0.0	115.94	0.37	0.0	0.0	0.0	111.77
*	202.000	55.00	4930.00	4930.00	5061.82	5100.00	-0.00	115.94	0.32	0.04	0.04	0.04	111.81
*	204.000	440.50	4800.00	4936.78	5300.50	5300.50	0.0	118.32	5.37	0.0	0.0	0.0	117.14
*	204.000	440.50	4934.70	4937.43	5170.00	5170.00	0.11	118.42	5.06	-0.27	-0.27	-0.27	116.87
*	206.000	580.00	4851.40	4857.64	5414.09	5414.10	0.0	119.20	1.63	0.0	0.0	0.0	118.77
*	206.000	580.00	4882.80	4882.79	5200.00	5200.00	0.37	119.57	2.03	0.13	0.13	0.13	118.90
*	208.000	319.90	4800.00	4899.07	5514.89	5514.90	0.0	119.44	0.35	0.0	0.0	0.0	119.12
*	208.000	319.90	4896.60	4898.32	5270.00	5270.00	0.47	119.91	0.47	0.25	0.25	0.25	119.37
*	210.000	305.00	4940.10	4940.09	5450.00	5450.00	0.0	119.58	0.34	0.0	0.0	0.0	119.46
*	210.000	305.00	4940.10	4940.09	5330.00	5330.00	0.55	120.14	0.58	0.49	0.49	0.49	119.95
*	212.000	254.00	4800.00	4921.21	5550.00	5550.00	0.0	119.62	0.08	0.0	0.0	0.0	119.54
*	212.000	254.00	4971.00	4971.00	5330.00	5330.00	0.58	120.21	0.05	0.46	0.46	0.46	120.00
*	214.000	191.40	4700.00	4798.00	5490.00	5490.00	0.0	119.76	-0.06	0.0	0.0	0.0	119.48
*	214.000	191.40	4900.00	4900.00	5270.00	5270.00	0.68	120.44	-0.08	0.44	0.44	0.44	119.92
*	216.000	101.60	4800.00	4800.00	5470.00	5470.00	0.0	119.84	0.28	0.0	0.0	0.0	119.75
*	216.000	101.60	4870.00	4870.00	5200.00	5200.00	0.72	120.56	0.38	0.54	0.54	0.54	120.29
*	218.000	620.00	4900.00	4900.00	5390.00	5390.00	0.0	120.02	0.07	0.0	0.0	0.0	119.82
*	218.000	620.00	4910.00	4910.00	5240.00	5240.00	0.85	120.87	0.23	0.70	0.70	0.70	120.53
*	220.000	553.90	4850.00	4883.57	5280.00	5280.00	0.0	120.42	0.19	0.0	0.0	0.0	120.02
*	220.000	553.90	4959.00	4959.00	5250.00	5250.00	0.90	121.32	0.32	0.83	0.83	0.83	120.85
*	222.000	310.00	4880.00	4880.00	5260.00	5260.00	0.0	120.72	0.28	0.0	0.0	0.0	120.30
*	222.000	310.00	4900.00	4900.00	5240.00	5240.00	0.89	121.61	0.35	0.90	0.90	0.90	121.19
*	224.000	295.70	4790.90	4929.86	5180.00	5180.00	0.0	121.36	0.12	0.0	0.0	0.0	120.42
*	224.000	295.70	4974.80	4974.79	5160.00	5160.00	0.83	122.20	0.09	0.67	0.67	0.67	121.29
*	226.000	50.80	4940.00	4940.00	5120.00	5120.00	0.0	121.57	-0.02	0.0	0.0	0.0	120.40
*	226.000	50.80	4940.00	4940.00	5120.00	5120.00	0.74	122.32	0.04	0.92	0.92	0.92	121.32
*	230.000	53.00	0.0	4930.81	5096.89	0.0	0.0	121.88	0.66	0.0	0.0	0.0	121.06
*	230.000	53.00	4920.90	4930.77	5096.92	5097.00	0.92	122.80	0.78	1.04	1.04	1.04	122.10
*	231.000	12.00	4920.00	4920.00	5100.00	5100.00	0.0	121.90	0.01	0.0	0.0	0.0	121.07
*	231.000	12.00	4928.90	4928.89	5097.00	5097.00	0.92	122.82	0.01	1.03	1.03	1.03	122.10
*	239.000	31.00	0.0	4872.47	5048.94	0.0	0.0	121.99	0.07	0.0	0.0	0.0	121.16
*	239.000	31.00	4876.30	4876.29	5048.95	5049.10	0.91	122.69	0.06	1.02	1.02	1.02	122.16
*	240.000	15.00	0.0	4871.18	5048.94	0.0	0.0	122.18	0.22	0.0	0.0	0.0	121.36

SECNO	ALCH	UNCL	SSTA	ENDST	STEMCR	01K	DIFEG	EG	DIFMSX	DIFMSP	DIFKMS	CMSEL
240-000	15-00	4866-20	4866-20	5048-70	5049-20	1000-72	0-87	123-05	0-18	0-98	0-98	122-34
241-000	10-00	0-0	4869-33	5064-58	0-0	2709-60	0-0	122-30	0-31	0-0	0-0	121-67
241-000	10-00	4866-20	4866-20	5049-00	5049-00	2988-31	0-85	123-15	0-24	0-91	0-91	122-59
242-000	83-00	4800-00	4858-40	5042-51	5079-70	4013-85	0-0	122-66	0-01	0-0	0-0	121-68
242-000	83-00	4865-00	4865-00	5046-46	5056-90	4449-23	0-78	123-44	0-01	0-92	0-92	122-60
244-000	517-00	4900-00	4959-56	5099-35	5105-80	3335-10	0-0	123-73	0-74	0-0	0-0	122-42
244-000	517-00	4947-30	4957-87	5101-25	5105-70	3621-54	0-61	124-34	0-58	0-76	0-76	123-18
246-000	295-00	0-0	4958-67	5079-59	0-0	3048-04	0-0	124-59	0-47	0-0	0-0	122-90
246-000	295-00	4951-30	4957-98	5072-79	5072-80	3209-80	0-52	125-10	0-38	0-66	0-66	123-56
248-000	197-60	4900-00	4954-39	5215-00	5215-00	6003-25	0-0	124-95	1-54	0-0	0-0	124-44
248-000	197-60	4948-10	4954-06	5117-20	5117-20	5763-88	0-69	125-45	1-27	0-39	0-39	124-83
250-000	173-50	4900-00	4932-03	5215-00	5215-00	5290-27	0-0	125-12	0-10	0-0	0-0	124-54
250-000	173-50	4917-50	4931-05	5113-28	5113-29	5083-02	0-50	125-82	0-10	0-39	0-39	124-93
252-000	65-50	4895-00	4913-79	5150-00	5150-00	5143-65	0-0	125-19	0-06	0-0	0-0	124-60
252-000	65-50	4899-20	4913-03	5120-00	5120-00	5195-89	0-51	125-89	0-15	0-48	0-48	125-08
258-000	239-00	4900-00	4966-42	5020-07	5020-20	2579-35	0-0	133-73	7-75	0-0	0-0	132-35
258-000	239-00	4966-30	4966-41	5020-08	5020-20	2635-71	0-22	133-95	7-57	0-30	0-30	132-65
260-000	18-00	4948-70	4948-70	5300-00	5300-00	7769-83	0-0	134-02	1-29	0-0	0-0	133-64
260-000	18-00	4948-70	4948-70	5100-00	5100-00	7114-34	0-21	134-23	1-08	0-09	0-09	133-73
262-000	83-50	4900-00	4930-04	5265-40	5300-00	8622-05	0-0	134-66	-0-00	0-0	0-0	133-64
262-000	83-50	4961-60	4961-79	5100-00	5100-00	7725-54	0-25	134-30	-0-07	0-02	0-02	133-66
264-000	325-00	4850-00	4888-53	5520-00	5520-00	18392-66	0-0	134-14	0-43	0-0	0-0	134-07
264-000	325-00	4965-00	4965-00	5200-00	5200-00	10883-60	0-30	134-44	0-54	0-13	0-13	134-20
266-000	312-00	4800-00	4837-93	5625-00	5625-00	17574-02	0-0	134-16	0-03	0-0	0-0	134-06
266-000	312-00	4958-20	4958-20	5200-00	5200-00	10495-46	0-35	134-51	0-06	0-16	0-16	134-26
268-000	25-70	4801-30	4801-29	5630-00	5630-00	14412-41	0-0	134-18	-0-01	0-0	0-0	134-08
268-000	25-70	4939-30	4939-29	5280-00	5280-00	6916-09	0-37	134-55	-0-02	0-15	0-15	134-24
269-000	3-00	4820-00	4820-00	5660-00	5660-00	6354-69	0-0	134-21	-0-03	0-0	0-0	134-06
269-000	3-00	4968-30	4968-29	5200-00	5200-00	3079-29	0-48	134-68	-0-13	0-05	0-05	134-11
270-000	50-00	4820-00	4820-00	5660-00	5660-00	6343-83	0-0	134-24	0-03	0-0	0-0	134-09
270-000	50-00	4968-30	4968-29	5280-00	5280-00	3149-59	0-58	134-82	0-15	0-17	0-17	134-26
271-000	29-00	4820-00	4820-00	5660-00	5660-00	13400-97	0-0	134-26	0-07	0-0	0-0	134-16
271-000	29-00	4968-30	4968-29	5200-00	5200-00	8397-16	0-64	134-90	0-29	0-38	0-38	134-54
272-000	38-90	4840-00	4840-00	5670-00	5670-00	14304-09	0-0	134-27	0-02	0-0	0-0	134-18
272-000	38-90	4968-40	4968-39	5200-00	5200-00	8489-84	0-65	134-92	0-03	0-39	0-39	134-57
274-000	590-50	4830-00	4722-91	5644-06	5670-00	19397-75	0-0	134-33	0-10	0-0	0-0	134-29

SELBU	ALCH	STEML	SSTA	ENDST	STEMR	OLA	DIFEG	EW	DIFMSX	DIFWSP	DIFKWS	CHSEL
274.000	590.50	4945.00	4945.00	5200.00	5200.00	8917.00	0.8A	135.14	0.30	0.59	0.59	134.88
276.000	531.90	4700.00	4806.90	5546.10	5660.00	17897.00	0.0	134.38	0.03	0.0	0.0	134.32
276.000	531.90	4943.10	4943.09	5210.00	5210.00	8876.03	0.94	135.32	0.20	0.76	0.76	135.07
276.000	500.00	0.0	4915.12	5341.99	0.0	11441.71	0.0	134.46	0.00	0.0	0.0	134.32
276.000	500.00	4930.00	4930.00	5280.00	5280.00	11269.46	0.99	135.45	0.23	0.98	0.98	135.30
280.000	515.00	0.0	4608.43	5563.99	0.0	9998.30	0.0	134.56	0.12	0.0	0.0	134.45
280.000	515.00	4620.00	4620.00	5450.00	5450.00	10191.45	0.99	135.55	0.13	0.98	0.98	135.43
282.000	355.00	0.0	4600.94	5784.68	0.0	9036.84	0.0	134.67	0.09	0.0	0.0	134.53
282.000	355.00	4620.00	4620.00	5600.00	5600.00	9580.76	0.98	135.65	0.09	0.98	0.98	135.52
284.000	39.20	4506.00	4623.05	5400.00	5400.00	7156.51	0.0	134.70	0.09	0.0	0.0	134.62
284.000	39.20	4625.00	4625.00	5400.00	5400.00	8454.05	0.98	135.68	0.11	1.00	1.00	135.63
289.000	21.00	4550.00	4623.22	5400.00	5400.00	2585.56	0.0	134.72	-0.01	0.0	0.0	134.62
289.000	21.00	4624.00	4624.00	5400.00	5400.00	3405.12	0.97	135.69	-0.00	1.01	1.01	135.63
290.000	76.00	4550.00	4620.84	5400.00	5400.00	2648.47	0.0	134.80	0.08	0.0	0.0	134.70
290.000	76.00	4620.00	4620.00	5400.00	5400.00	3448.17	0.94	135.74	0.05	0.97	0.97	135.67
291.000	3.00	4550.00	4620.72	5400.00	5400.00	6352.50	0.0	134.80	0.01	0.0	0.0	134.71
291.000	3.00	4621.00	4621.00	5400.00	5400.00	7500.63	0.94	135.74	0.00	0.96	0.96	135.67
292.000	47.20	0.0	4658.72	5361.90	0.0	4458.05	0.0	134.89	-0.06	0.0	0.0	134.65
292.000	47.20	4666.00	4660.00	5361.79	5361.80	5101.70	0.92	135.81	-0.05	0.97	0.97	135.62
294.000	193.60	0.0	4714.32	5339.20	0.0	6097.50	0.0	134.97	0.21	0.0	0.0	134.86
294.000	193.60	4715.00	4715.00	5339.09	5339.10	6978.27	0.90	135.88	0.17	0.93	0.93	135.79
296.000	130.00	4845.00	4845.00	5280.00	5280.00	6025.12	0.0	135.60	0.05	0.0	0.0	134.91
296.000	130.00	4845.00	4845.00	5280.00	5280.00	6445.53	0.90	135.90	0.04	0.91	0.91	135.82
298.000	164.30	4790.00	4790.38	5297.00	5297.00	4120.10	0.0	135.03	0.08	0.0	0.0	134.99
298.000	164.30	4790.00	4790.00	5297.00	5297.00	4706.18	0.89	135.92	0.07	0.90	0.90	135.89
300.000	68.10	4750.00	4750.00	5305.00	5305.00	3556.23	0.0	135.65	-0.00	0.0	0.0	134.99
300.000	68.10	4750.00	4750.00	5305.00	5305.00	4608.59	0.89	135.94	-0.00	0.90	0.90	135.89
302.000	136.00	0.0	4760.44	5297.70	0.0	2061.67	0.0	135.23	-0.17	0.0	0.0	134.82
302.000	136.00	0.0	4755.11	5297.70	0.0	2439.87	0.84	136.07	-0.12	0.95	0.95	135.77
304.000	84.00	0.0	4763.27	5342.40	0.0	2387.67	0.0	135.46	0.04	0.0	0.0	134.86
304.000	84.00	0.0	4758.00	5342.40	0.0	2847.77	0.77	136.23	0.03	0.94	0.94	135.80
306.000	255.10	0.0	4854.91	5380.40	0.0	2465.26	0.0	136.17	0.54	0.0	0.0	135.39
306.000	255.10	4930.00	4930.00	5170.00	5170.00	2627.99	1.00	137.16	0.59	1.00	1.00	136.39
308.000	64.90	0.0	4739.91	5369.55	0.0	2934.84	0.0	136.37	0.42	0.0	0.0	135.81
308.000	64.90	4926.60	4926.59	5151.04	5151.05	2934.50	0.97	137.34	0.33	0.91	0.91	136.72
309.000	10.00	4765.00	4812.74	5335.54	5409.00	1021.17	0.0	136.46	-0.01	0.0	0.0	135.80

SECNO	XLCM	STENCL	SSTA	EMUST	STENCR	-LIX	DIFEG	EG	DIFWSX	DIFWSP	DIFKWS	CHSEL
309.000	10.00	4947.90	4947.89	5182.38	5182.38	1053.80	0.99	137.45	-0.03	0.89	0.89	136.69
310.000	48.00	4765.00	4793.27	5369.10	5409.00	1318.44	0.0	137.11	0.88	0.0	0.0	136.68
310.000	48.00	4925.25	4925.25	5227.77	5227.78	1375.13	0.96	138.07	0.90	0.91	0.91	137.60
311.000	24.00	4765.00	4792.46	5370.85	5409.00	3413.60	0.0	137.19	0.06	0.0	0.0	136.74
311.000	24.00	4943.98	4943.98	5184.04	5184.05	3500.99	0.96	138.15	0.05	0.91	0.91	137.65
312.000	40.80	0.0	4885.72	5308.48	0.0	3125.03	0.0	137.36	-0.03	0.0	0.0	136.71
312.000	40.80	4930.49	4930.48	5074.29	5074.29	3177.52	0.96	138.33	-0.04	0.90	0.90	137.60
314.000	510.00	0.0	4844.09	5107.93	0.0	3449.12	0.0	138.14	0.95	0.0	0.0	137.66
314.000	510.00	4875.98	4875.97	5037.09	5037.10	3396.12	0.98	139.13	1.00	0.94	0.94	138.60
316.000	380.00	0.0	4784.24	5132.89	0.0	5386.05	0.0	138.50	0.63	0.0	0.0	138.28
316.000	380.00	4823.69	4823.68	5060.47	5060.48	5467.02	0.97	139.48	0.63	0.94	0.94	139.23
318.000	335.30	0.0	4753.73	5101.96	0.0	4928.90	0.0	138.72	0.18	0.0	0.0	138.46
318.000	335.30	4791.00	4791.00	5027.50	5027.50	4803.00	0.98	139.70	0.18	0.95	0.95	139.41
320.000	323.80	0.0	4734.79	5149.46	0.0	5835.90	0.0	138.91	0.26	0.0	0.0	138.72
320.000	323.80	4775.49	4775.49	5037.95	5037.96	5877.62	0.98	139.89	0.26	0.95	0.95	139.67
322.000	223.00	0.0	4637.77	5174.38	0.0	4784.91	0.0	139.05	0.12	0.0	0.0	138.84
322.000	223.00	4695.00	4695.00	5031.20	5031.20	5626.39	0.97	140.62	0.12	0.95	0.95	139.79

SUMMARY OF ERRORS

CAUTION SECNO= 198.000 PROFILE= 1 CRITICAL DEPTH ASSUMED  
 CAUTION SECNO= 198.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY  
 CAUTION SECNO= 200.000 PROFILE= 1 CRITICAL DEPTH ASSUMED  
 CAUTION SECNO= 200.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY  
 CAUTION SECNO= 200.000 PROFILE= 2 CRITICAL DEPTH ASSUMED  
 CAUTION SECNO= 200.000 PROFILE= 2 MINIMUM SPECIFIC ENERGY  
 CAUTION SECNO= 201.000 PROFILE= 1 CRITICAL DEPTH ASSUMED

\* WATER SURFACE PROFILES \*  
 \* VERSION OF NOVEMBER 1976 \*  
 \* UPDATED APRIL 1980 \*  
 \* RUN DATE 02/11/87 TIME 14:38 \*

\* U.S. ARMY CORPS OF ENGINEERS \*  
 \* THE HYDROLOGIC ENGINEERING CENTER \*  
 \* 607 SECOND STREET, SUITE 0 \*  
 \* DAVIS, CALIFORNIA 95616 \*  
 \* (916) 460-2105 (FIS) 448-2105 \*

DRY CREEK DECK #2  
 FLOODWAY

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X X XXXXXX XXXX X
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X1	126-300	32-000	4284-500	377-100	380-000	185-500	0-0	0-0	4107-699
GR	152-500	152-500	4054-200	152-500	4054-200	152-500	151-500	0-0	4107-699
GR	150-300	4170-199	152-800	178-200	4290-199	131-500	131-000	0-0	4340-797
GR	135-500	4342-098	132-700	139-300	4425-398	141-800	137-500	0-0	4515-699
GR	137-000	4594-094	137-200	137-600	4772-777	131-200	134-200	0-0	4896-898
GR	132-100	4936-094	132-500	123-100	4993-078	123-100	123-100	0-0	5021-297
GR	133-700	5109-500	146-800	146-800	5206-073	140-800	149-300	0-0	5269-598
GR	149-100	5280-078	148-100	0-0	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	7-100	0-0	7-100	4540-000	4400-000	0-0	5140-000
X1	328-000	31-000	4354-297	340-000	320-000	335-500	0-0	0-0	0-0
GR	153-300	4062-300	152-400	142-400	4155-199	147-900	147-900	0-0	4224-000
GR	147-300	4250-898	149-400	149-400	4296-199	149-400	149-400	0-0	4344-898
GR	149-500	4357-598	148-500	147-600	4416-898	140-000	144-500	0-0	4509-000
GR	133-700	4561-593	137-200	140-200	4648-393	140-800	138-200	0-0	4709-699
GR	134-200	4571-199	131-200	135-000	4940-079	133-300	123-100	0-0	4987-098
GR	123-100	5000-000	123-100	134-200	5037-078	133-300	136-300	0-0	5141-699
GR	144-100	5207-598	0-0	0-0	0-0	0-0	0-0	0-0	0-0
NC	0-0	0-0	0-300	0-300	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	9-100	0-0	7-100	4660-000	4400-000	0-0	5100-000
X1	333-000	23-000	4946-300	301-000	220-000	207-200	0-0	0-0	0-0
GR	147-000	4204-598	146-900	146-000	4274-297	143-600	142-100	0-0	4579-797
GR	137-200	4600-199	137-800	138-700	4815-500	133-300	131-300	0-0	4927-000
GR	131-300	4946-000	123-600	123-600	5000-000	123-600	131-600	0-0	5028-598
GR	136-000	5084-500	139-900	140-600	5187-598	141-200	144-400	0-0	5344-699
GR	144-400	5367-098	147-400	147-400	5462-199	0-0	0-0	0-0	0-0
ET	0-0	0-0	9-100	0-0	7-100	5670-000	4400-000	0-0	5050-000
X1	342-000	28-000	4758-098	40-000	45-000	41-600	0-0	0-0	0-0
GR	148-500	4192-598	147-000	146-100	4355-797	145-100	145-100	0-0	4625-199
GR	142-000	4403-593	142-800	143-100	4538-797	143-100	138-700	0-0	4641-098
GR	135-700	4652-098	137-800	138-400	4790-898	140-000	140-000	0-0	4914-898
GR	130-500	4946-199	110-300	124-000	4986-297	124-000	124-000	0-0	5012-699
GR	131-000	5035-500	134-800	138-700	5180-797	139-100	141-500	0-0	5280-098
GR	144-100	5148-598	145-300	147-400	5476-297	0-0	0-0	0-0	0-0
NC	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	7-100	0-0	7-100	4650-000	4400-000	0-0	5050-000
X1	342-000	25-000	4926-500	18-000	13-000	13-000	0-0	0-0	0-0
X2	0-0	0-0	0-0	138-400	0-0	0-0	0-0	0-0	0-0
BT	55-300	4148-199	147-300	4231-699	147-700	147-700	146-500	0-0	146-500
BT	139-699	145-200	145-200	143-600	143-600	4580-000	140-700	0-0	6650-199
BT	139-300	139-000	6710-599	138-400	4800-699	138-300	4966-098	0-0	139-800
BT	139-300	4314-598	140-200	4914-699	141-700	141-700	141-300	0-0	141-800
BT	4220-200	141-800	137-900	141-800	137-600	4947-699	141-900	0-0	4958-297
BT	141-300	141-900	4954-398	141-900	4961-199	141-900	4961-297	0-0	141-900
BT	137-200	4961-297	147-400	4997-399	147-400	133-400	147-400	0-0	138-400

BI	4990-297	142-400	136-400	5000-000	142-400	136-400	5014-500	5013-200	142-400	136-400	5015-598
BT	142-400	136-400	5014-500	142-400	136-400	5014-500	142-400	136-400	5014-500	136-400	142-400
BT	138-400	5044-297	142-400	138-400	5044-297	142-400	142-400	138-400	138-400	142-400	142-400
BT	5059-699	142-400	142-400	5059-797	140-900	140-900	140-900	5059-893	140-900	140-900	5060-000
BT	140-900	140-900	5051-000	140-900	140-900	5062-000	140-900	140-900	140-900	5053-000	140-900
BT	140-900	5141-598	140-900	140-900	5226-398	141-200	141-200	5227-500	141-200	141-800	141-800
BT	5126-294	143-300	143-300	5406-199	145-900	145-900	145-900	543-699	147-300	147-300	5554-098
BT	146-900	145-900	5626-598	147-000	147-000	5700-898	147-000	147-000	147-000	147-000	147-000
BT	147-000	5754-373	147-000	147-000	5761-699	147-000	147-000	147-000	147-000	147-000	147-000
BT	5893-297	148-000	148-000	6011-398	148-300	148-300	148-300	0-0	0-0	0-0	0-0
BR	147-000	5141-598	147-000	4211-699	148-500	148-500	4308-898	148-500	148-500	148-500	4479-398
BR	140-000	4988-000	139-000	4650-199	138-400	138-400	4710-699	138-300	139-800	139-800	4866-098
GA	140-000	5716-598	141-700	4916-699	141-800	141-800	4926-193	137-800	136-800	136-800	4926-598
GR	129-500	4947-699	129-500	4958-297	137-900	137-900	4958-398	137-900	129-500	129-500	4961-297
GR	128-300	4987-297	130-500	4987-398	136-600	136-600	4990-199	123-800	123-800	5000-000	5000-000
GR	123-800	5015-500	134-500	5015-598	136-400	136-400	5018-500	123-800	131-900	131-900	5034-297
GR	140-900	5044-297	138-400	5044-398	142-400	142-400	5044-500	142-400	140-900	140-900	5059-297
GR	140-900	5059-698	140-900	5060-000	140-900	140-900	5061-000	140-900	140-900	5063-000	5063-000
GR	140-900	5141-598	141-200	5226-398	141-800	141-800	5227-598	143-300	145-900	145-900	5406-199
GR	147-000	5494-699	146-900	5554-098	147-000	147-000	5626-598	147-400	147-400	147-400	5709-500
GR	147-000	5754-398	147-000	5761-699	147-000	147-000	5837-699	140-000	147-300	147-300	6011-398
ET	0-0	0-0	0-0	0-0	0-0	0-0	7-100	4660-000	4660-000	4660-000	5050-000

SHINDIC AT DOUGLAS BOULEVARD

X1	340-000	55-000	4926-500	5044-398	76-000	76-000	76-000	76-000	76-000	76-000	0-0
X2	0-0	0-0	0-0	138-400	138-400	138-400	138-400	138-400	138-400	138-400	0-0
BT	5398-699	4143-199	144-300	149-300	4231-699	147-100	147-100	4290-000	147-700	146-500	146-500
BT	139-000	139-000	4710-699	138-400	138-400	4800-699	143-600	138-800	140-700	140-700	4650-199
BT	4926-500	141-800	137-800	4926-598	141-800	141-800	4914-699	141-700	141-800	141-800	139-800
BT	141-800	137-800	4959-398	141-900	141-900	4961-199	137-800	142-900	142-900	141-800	4958-297
BT	137-800	4971-297	142-500	138-400	4987-398	142-400	142-400	4979-199	142-400	141-900	141-900
BT	4990-297	138-400	139-500	5000-000	142-400	138-400	5015-500	142-400	138-400	138-400	5015-598
BT	142-400	138-400	5018-198	142-400	138-400	5018-300	142-400	142-400	5014-297	142-400	142-400
BT	5059-699	5044-297	142-400	5059-797	5044-398	142-400	142-400	5044-500	142-400	142-400	142-400
BT	140-900	140-900	5051-000	140-900	140-900	140-900	140-900	5059-893	140-900	140-900	5060-000
BT	140-900	5141-598	140-900	140-900	5226-398	141-200	141-200	5227-598	141-300	141-800	141-800
BT	5326-594	143-300	143-300	5406-199	145-900	145-900	5406-199	147-400	147-400	147-400	5554-098
BT	146-900	145-900	5626-598	147-000	147-000	5700-898	147-000	147-000	147-000	147-000	147-000
BT	147-000	5754-398	147-000	147-000	5761-699	147-000	147-000	147-000	147-000	147-000	147-000
BT	5893-297	148-000	148-000	6011-398	147-300	147-300	147-300	0-0	0-0	0-0	0-0
BR	149-500	4148-199	147-700	4211-699	146-500	146-500	4308-898	146-500	146-500	146-500	4479-398
GR	140-000	4988-000	139-000	4650-199	138-400	138-400	4710-699	138-300	139-800	139-800	4866-098
GR	140-000	5716-598	141-700	4916-699	141-800	141-800	4926-193	137-800	136-800	136-800	4926-598
GR	129-500	4947-699	129-500	4958-297	137-900	137-900	4958-398	137-900	129-500	129-500	4961-297
GR	128-300	4987-297	130-500	4987-398	136-600	136-600	4990-199	123-800	123-800	5000-000	5000-000
GR	123-800	5015-500	134-500	5015-598	136-400	136-400	5018-500	123-800	131-900	131-900	5034-297
GR	140-900	5044-297	138-400	5044-398	142-400	142-400	5044-500	142-400	140-900	140-900	5059-297
GR	140-900	5059-698	140-900	5060-000	140-900	140-900	5061-000	140-900	140-900	5063-000	5063-000
GR	140-900	5141-598	141-200	5226-398	141-800	141-800	5227-598	143-300	145-900	145-900	5406-199
GR	147-000	5494-699	146-900	5554-098	147-000	147-000	5626-598	147-400	147-400	147-400	5709-500
GR	147-000	5754-398	147-000	5761-699	147-000	147-000	5837-699	140-000	147-300	147-300	6011-398
ET	0-0	0-0	0-0	0-0	0-0	0-0	7-100	4660-000	4660-000	4660-000	5050-000

GR	147-300	5554-076	147-000	167-000	167-000	167-000	147-400	5701-076	155-400	5709-500
GR	147-300	5761-699	147-000	147-000	147-000	147-000	147-000	5761-277	147-300	6011-198
AC	0-000	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	5050-000
XL	341-000	35-000	490-297	5034-277	10-000	10-000	19-000	0-0	0-0	0-0
GR	149-300	4146-199	147-000	4231-699	145-800	145-800	144-000	4396-699	143-300	4479-398
GR	139-300	4893-000	137-000	4650-199	135-500	135-500	137-000	4800-699	137-300	4886-098
GR	138-200	4714-598	129-500	4947-699	129-500	129-500	129-500	4961-277	125-100	4787-297
GR	125-100	5000-000	125-100	5015-500	131-900	131-900	131-000	5034-277	139-100	5059-797
GR	140-300	5141-599	141-200	5226-398	141-800	141-800	143-300	5226-598	145-900	5406-199
GR	147-100	5494-699	146-400	5554-699	147-000	147-000	147-400	5570-698	147-400	5709-500
GR	147-100	5754-398	147-100	5761-699	147-600	147-600	148-000	5893-277	146-300	6011-398
ET	0-0	0-0	0-0	0-0	0-0	0-0	0-0	5038-879	4550-000	5050-000
XL	342-000	28-000	4958-297	5038-797	55-000	55-000	32-000	0-0	0-0	0-0
GR	146-700	4145-199	149-500	4183-898	155-500	155-500	155-000	4246-777	147-200	4251-000
GR	147-300	4329-199	146-900	4413-199	143-100	143-100	140-100	4555-076	137-300	4630-000
GR	135-500	4732-598	136-400	4813-297	136-700	136-700	131-000	4943-699	131-000	4958-297
GR	126-000	4982-797	126-000	5000-000	126-000	126-000	137-000	5033-777	152-000	5053-898
GR	121-100	5167-197	139-800	5176-699	140-300	140-300	140-300	5223-500	143-900	5299-398
GR	143-000	5328-000	144-900	5393-000	146-800	146-800	0-0	0-0	0-0	0-0
QC	0-0	0-0	0-0	0-100	0-300	0-300	0-0	0-0	0-0	0-0
ET	0-0	0-0	0-100	0-0	0-0	0-0	0-100	0-0	0-0	0-0
XL	344-000	20-000	4955-797	5039-098	261-400	261-400	260-200	0-0	0-0	0-0
GR	147-300	4132-098	146-500	4210-297	145-700	145-700	141-000	4436-500	137-900	4530-699
GR	136-400	4315-797	137-500	4738-898	137-900	137-900	138-800	4877-699	138-800	4955-797
GR	125-200	4764-000	125-200	5000-000	125-200	125-200	135-200	5039-076	138-800	5112-297
GR	139-300	5175-797	143-000	5226-598	148-700	148-700	148-400	5413-698	148-800	5487-898
ET	0-0	0-0	0-0	0-0	0-0	0-0	0-0	5032-199	0-0	0-0
XL	346-000	28-000	4962-000	4962-000	47-400	47-400	60-300	0-0	0-0	0-0
GR	147-300	4132-398	147-100	4136-098	147-300	147-300	147-300	4204-399	147-300	4210-797
GR	145-000	4315-797	142-800	4410-699	142-800	142-800	142-500	4501-000	142-500	4514-000
GR	136-700	4528-098	136-900	4618-398	137-200	137-200	138-200	4797-699	138-100	4876-297
GR	138-400	4911-699	137-700	4962-000	125-100	125-100	125-100	5000-000	125-100	5011-500
GR	139-300	5032-098	141-700	5120-898	145-400	145-400	143-000	5238-699	149-000	5249-797
GR	149-600	5275-297	149-500	5335-098	149-400	149-400	0-0	0-0	0-0	0-0
ET	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
XL	349-000	44-000	4956-000	4956-000	40-000	40-000	29-000	0-0	0-0	0-0
GR	0-0	0-0	0-0	143-100	146-300	146-300	0-0	0-0	0-0	0-0
GR	44-000	4100-599	147-500	4210-797	147-200	147-200	147-800	4146-076	147-500	147-800
GR	420-598	145-700	4336-598	146-200	144-200	144-200	142-700	147-200	147-200	147-699
GR	145-700	145-700	145-700	146-200	144-200	144-200	142-700	147-200	147-200	147-699
GR	140-500	4231-500	138-300	138-300	4607-297	4607-297	137-400	4926-699	137-400	147-600
GR	4777-000	137-800	137-800	4859-000	138-300	138-300	4905-000	138-500	138-500	4956-000
GR	141-000	141-000	4956-098	141-000	141-000	141-000	141-000	141-000	4957-500	141-000

BT	147-500	5785-577	141-300	146-300	5000-000	146-300	141-300	145-400	142-200
BT	5027-000	142-500	5027-078	142-500	142-500	142-500	142-500	142-500	142-500
BT	143-500	141-700	142-700	5034-699	141-100	142-700	142-700	142-700	142-700
BT	142-700	5734-434	142-700	142-700	5035-000	142-700	142-700	142-700	142-700
BT	5077-500	141-500	141-500	142-700	142-700	142-700	142-700	142-700	142-700
BT	148-000	148-000	148-000	5221-199	148-000	148-000	148-000	148-000	148-000
BT	150-400	5277-199	150-400	149-800	5322-797	149-800	149-800	149-800	149-800
BT	549-000	149-000	0-0	0-0	0-0	0-0	0-0	0-0	0-0
BT	147-500	4100-699	147-800	414-598	164-503	414-598	163-500	147-200	4210-578
BT	147-200	4226-699	147-200	4336-578	144-200	4336-578	147-200	140-800	4503-000
BT	136-300	4523-500	137-600	4692-699	137-600	4692-699	137-600	138-300	4859-000
BT	136-300	4905-000	141-000	4956-098	141-000	4956-098	141-000	137-900	4957-500
BT	124-500	4784-573	124-800	5009-199	124-800	5009-199	135-000	140-200	5027-098
BT	151-700	5027-898	135-000	5034-598	139-000	5034-598	141-100	142-700	5034-797
BT	142-700	5034-898	142-700	5075-098	142-700	5075-098	141-400	142-700	5123-297
BT	148-000	5143-797	148-000	5207-098	148-000	5207-098	148-000	148-000	5265-898
BT	154-000	5279-199	149-800	5381-699	149-800	5381-699	149-000	148-000	5445-000
BT	0-0	0-0	0-0	7-100	0-0	7-100	4700-000	0-0	0-0

SCHMIDT FUJIRIDGE ROYER PARK

X1	150-000	44-000	4950-000	5034-598	5-500	5-500	5-500	0-0	0-0
X2	0-0	0-0	143-100	147-600	0-0	0-0	0-0	0-0	0-0
BT	46-000	4100-699	147-600	147-600	147-600	147-600	147-600	147-600	147-600
BT	4290-599	147-200	147-200	144-200	147-200	147-200	4225-699	147-200	4277-699
BT	142-700	145-700	145-700	144-200	144-200	144-200	142-700	142-700	142-700
BT	140-300	4523-500	140-300	138-300	4607-297	137-600	137-600	137-600	137-600
BT	4777-500	137-000	4859-000	4859-000	138-300	138-300	4905-000	139-500	4956-000
BT	141-000	141-000	141-000	141-000	141-000	141-000	141-000	141-000	141-000
BT	137-600	4984-598	141-000	141-000	146-300	146-300	143-100	145-400	147-200
BT	5027-098	142-503	140-200	5027-098	142-400	140-200	5027-878	141-700	5028-000
BT	143-300	141-700	5034-598	142-700	141-100	142-700	142-700	5034-797	142-700
BT	142-700	5034-898	142-700	142-700	5035-000	142-700	142-700	142-700	142-700
BT	5077-500	141-400	141-400	5123-297	142-700	142-700	5143-797	148-000	5198-797
BT	146-000	148-000	148-000	148-000	148-000	148-000	148-000	148-000	148-000
BT	150-400	5279-199	150-400	150-400	5322-797	149-800	149-800	5265-898	150-400
BT	449-000	149-000	149-000	0-0	0-0	0-0	149-800	149-800	149-800
GR	147-600	4100-699	147-800	4133-598	164-503	4144-898	163-500	147-200	4210-797
GR	147-200	4226-699	147-200	4277-699	144-200	4336-578	142-700	140-800	4503-000
GR	138-300	4523-500	137-600	4607-297	137-600	4692-699	137-600	138-300	4859-000
GR	138-300	4905-000	141-000	4956-000	141-000	4956-098	141-000	137-900	4957-500
GR	124-800	4904-599	124-800	5009-000	124-800	5009-199	135-000	140-200	5027-098
GR	141-700	5027-098	135-000	5028-000	139-000	5034-598	141-100	142-700	5034-797
GR	142-700	5034-898	142-700	5075-098	142-700	5075-098	141-400	142-700	5123-297
GR	149-800	5279-199	149-800	5322-797	149-300	5207-098	148-000	148-000	5265-898
ET	0-0	0-0	0-0	0-0	0-0	7-100	4700-000	0-0	0-0

MI	351-000	4956-000	5034-598	25-000	15-000	25-000	25-000	0-0	0-0	0-0	0-0
GR	147-500	147-800	4133-538	147-800	4144-000	147-800	147-800	147-800	147-800	147-800	147-800
GR	147-200	4276-699	4277-699	147-200	4336-576	147-200	147-200	147-200	147-200	147-200	147-200
GR	137-500	4523-500	4607-297	137-500	4692-599	137-500	137-500	137-500	137-500	137-500	137-500
GR	138-500	4905-000	4956-000	138-500	4956-000	138-500	138-500	138-500	138-500	138-500	138-500
GR	125-200	5009-199	5034-500	134-900	5034-500	139-000	139-000	139-000	139-000	139-000	139-000
GR	143-000	5143-777	148-000	148-000	5198-797	148-000	148-000	148-000	148-000	148-000	148-000
MC	0-040	0-060	0-050	0-050	5322-797	0-0	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	0-0	0-0	7-100	0-0	0-0	0-0	0-0	0-0	0-0

MI	352-000	24-000	4965-000	55-100	180-000	55-100	55-100	55-100	55-100	55-100	55-100
GR	148-500	4090-500	148-500	147-900	4291-797	147-900	147-900	147-900	147-900	147-900	147-900
GR	137-100	4277-297	138-100	138-200	4711-797	138-200	138-200	138-200	138-200	138-200	138-200
GR	139-000	4953-000	4965-000	125-800	4983-098	125-800	125-800	125-800	125-800	125-800	125-800
GR	148-100	5035-898	141-100	143-600	5160-139	143-600	143-600	143-600	143-600	143-600	143-600
GR	150-700	5345-500	151-600	154-600	5612-797	154-600	154-600	154-600	154-600	154-600	154-600
ET	0-0	0-0	9-100	0-0	7-100	0-0	0-0	0-0	0-0	0-0	0-0

PUBLIC LIBRARY

MI	354-000	22-000	4961-898	270-000	280-000	270-000	270-000	270-000	270-000	270-000	270-000
GR	148-700	4115-398	147-900	145-500	4272-737	145-500	145-500	145-500	145-500	145-500	145-500
GR	138-700	4717-797	138-800	139-300	4735-297	139-300	139-300	139-300	139-300	139-300	139-300
GR	139-000	4961-898	127-100	127-300	5000-000	127-300	127-300	127-300	127-300	127-300	127-300
GR	140-500	5100-300	141-700	143-300	5203-199	143-300	143-300	143-300	143-300	143-300	143-300
GR	152-500	5254-500	153-700	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	9-100	0-0	7-100	0-0	0-0	0-0	0-0	0-0	0-0

MICHELLE FOURBIDGE - MJT FUND - WASHED UDF

MI	356-000	29-000	4955-500	300-000	344-700	300-000	300-000	300-000	300-000	300-000	300-000
GR	148-300	4700-777	148-100	146-200	4204-737	146-200	146-200	146-200	146-200	146-200	146-200
GR	145-700	4351-500	145-900	145-900	4394-378	145-900	145-900	145-900	145-900	145-900	145-900
GR	141-700	4567-000	141-900	139-200	4636-098	139-200	139-200	139-200	139-200	139-200	139-200
GR	140-000	4950-507	128-500	128-500	4981-898	128-500	128-500	128-500	128-500	128-500	128-500
GR	146-100	5056-378	146-000	147-600	5076-096	147-600	147-600	147-600	147-600	147-600	147-600
GR	158-000	5405-893	158-600	159-500	5449-199	159-500	159-500	159-500	159-500	159-500	159-500
MC	0-100	0-045	0-040	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	0-0	0-0	7-100	0-0	0-0	0-0	0-0	0-0	0-0

MI	359-000	26-000	4967-898	251-500	490-000	251-500	251-500	251-500	251-500	251-500	251-500
GR	147-100	4469-699	147-100	147-100	4435-500	147-100	147-100	147-100	147-100	147-100	147-100
GR	147-000	4571-500	143-300	148-500	4623-898	148-500	148-500	148-500	148-500	148-500	148-500
GR	139-100	4772-199	140-600	140-600	4815-899	140-600	140-600	140-600	140-600	140-600	140-600
GR	141-000	4767-898	129-100	129-100	5000-000	129-100	129-100	129-100	129-100	129-100	129-100
GR	149-000	5113-078	151-400	150-900	5225-593	150-900	150-900	150-900	150-900	150-900	150-900
GR	160-100	5193-898	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	0-0	0-0	7-100	0-0	0-0	0-0	0-0	0-0	0-0

NUKHE FURNITURE COYER PARK ASSUME WASHED OUT

XI	300-000	36-000	4961-797	5061-199	12-300	60-000	86-000	0-0	0-0	0-0	0-0
GR	146-300	4249-599	146-000	4315-000	146-000	4366-199	146-000	146-800	146-800	4494-500	4421-199
GR	147-100	4477-797	147-400	4488-098	147-000	4533-398	147-000	147-000	147-000	4537-699	4542-398
GR	148-300	4655-398	148-300	4623-398	147-100	4671-199	147-100	147-100	147-100	4700-198	4749-199
GR	143-300	4766-797	140-000	4805-398	140-900	4844-199	140-900	140-900	140-100	4861-078	4897-297
GR	129-500	5027-199	147-200	4925-797	141-100	4961-078	129-500	129-500	129-500	4984-199	5000-000
GR	150-500	5229-699	147-500	5081-098	147-600	5061-199	149-000	149-000	150-600	5129-399	5172-000
MC	0-010	0-045	0-040	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
EF	0-0	0-0	9-100	0-0	0-0	7-100	4950-000	4925-000	4925-000	5085-199	5200-000
XI	152-000	29-000	4952-398	5085-098	330-400	250-000	272-100	0-0	0-0	0-0	0-0
GR	150-000	4370-000	149-800	4395-000	150-000	4565-000	150-000	148-000	148-000	4690-077	4709-000
GR	147-100	4711-078	147-600	4760-598	147-600	4771-199	145-300	145-300	145-300	4879-797	4840-297
GR	143-300	4925-797	141-300	4952-398	129-800	4985-297	129-800	129-800	129-800	5000-000	5039-000
GR	144-000	5085-098	147-700	5166-098	149-900	5177-797	150-600	150-600	150-000	5222-277	5265-898
GR	157-400	5284-199	156-600	5325-098	156-600	5326-398	159-000	159-000	159-800	5367-000	5389-098
GR	159-700	5430-098	159-900	5473-500	161-000	5573-898	161-000	161-000	0-0	5614-098	0-0
EF	0-0	0-0	0-0	0-0	0-0	7-100	4965-000	5073-000	0-0	5073-000	0-0
XI	304-000	21-000	4975-699	5041-797	50-000	40-000	51-300	0-0	0-0	0-0	0-0
GR	148-600	4670-398	148-500	4721-500	146-400	4780-000	146-100	145-900	145-900	4846-398	4920-199
GR	147-100	4979-797	144-700	4975-699	130-300	4994-797	130-300	130-300	130-300	5000-000	5019-000
GR	144-500	5041-797	140-100	5073-000	147-900	5095-098	149-400	149-400	150-600	5102-098	5233-297
GR	142-100	5291-098	156-600	5292-297	158-700	5424-699	158-700	158-700	158-700	5442-000	5581-198
GR	140-700	5626-898	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
EF	0-0	0-0	9-100	0-0	0-0	7-100	4950-000	4900-000	4900-000	5070-000	5100-000
XI	303-000	37-000	4951-297	5068-699	12-000	12-000	12-000	0-0	0-0	0-0	0-0
X2	0-0	0-0	0-0	146-900	149-400	0-0	0-0	0-0	0-0	0-0	0-0
BF	47-000	4320-000	148-000	148-000	4592-000	147-100	147-100	147-100	147-100	4773-000	147-100
BT	147-100	147-100	147-100	4595-000	147-100	4711-199	4595-000	147-100	147-100	147-100	4597-000
BT	146-100	4378-000	146-900	146-900	4924-797	148-100	148-100	4924-898	148-100	4938-699	146-100
BT	4925-000	148-100	148-100	4951-297	148-100	148-100	148-100	148-100	148-100	148-100	148-100
BT	148-100	146-200	4955-000	148-700	146-200	4967-000	148-700	146-200	146-200	4972-000	4951-500
BT	146-100	4972-098	146-800	146-300	4973-398	148-800	148-300	4973-500	148-300	148-300	148-800
BT	5000-000	149-400	146-700	5015-000	149-300	146-800	5028-500	149-200	146-300	149-200	146-300
BT	149-200	146-700	5029-898	149-200	146-700	146-800	149-200	149-200	146-700	149-200	5028-500
BT	140-700	5451-000	149-200	146-700	5068-500	146-900	146-900	146-900	146-900	5068-578	146-900
BT	5068-699	148-900	148-900	5085-000	148-600	148-800	5085-098	148-600	148-600	148-600	5120-000
BT	143-700	148-700	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
GR	148-000	4520-000	147-100	4592-000	147-100	4593-000	147-100	147-100	147-100	4593-000	4595-000
GR	147-100	4596-000	147-100	4597-000	147-100	4597-199	147-000	146-100	146-100	4711-199	4838-699
GR	140-900	4870-000	148-100	4924-797	148-100	4924-699	148-100	148-100	148-100	4925-000	4951-297
GR	146-200	4871-398	140-000	4951-500	133-500	4953-000	131-500	129-500	129-500	4967-000	4972-000
GR	146-100	4772-098	146-100	4973-398	129-500	4773-500	129-500	129-500	129-500	5009-000	5015-000

BRIDGE AT LINCOLN STREET (ASSUME NEW STRUCTURE EXISTS)

GR	132-000	5024-500	146-700	5078-598	5079-893	132-000	5070-000	132-000	5070-000	5070-000
GR	135-000	5053-000	146-500	5068-500	SUBD-573	148-800	148-800	148-800	148-800	148-800
GR	149-000	5035-073	148-700	5120-000	0-0	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	0-0	0-0	7-100	0-0	4920-000	4920-000	4920-000	4920-000
X1	370-000	37-000	4924-797	5068-699	50-700	50-700	50-700	50-700	50-700	50-700
X2	0-0	0-0	0-0	146-900	0-0	0-0	0-0	0-0	0-0	0-0
BT	37-000	4920-000	148-000	148-000	147-100	147-100	147-100	147-100	147-100	147-100
BT	4594-000	147-100	147-100	4595-000	147-100	147-100	4596-000	4597-000	4598-000	4599-000
BT	147-100	147-100	4597-199	147-100	4741-199	147-100	147-100	147-100	147-100	147-100
BT	146-100	4873-000	146-900	146-900	146-100	146-100	146-100	146-100	146-100	146-100
BT	4925-000	148-100	146-200	4951-297	146-200	146-200	4951-308	4952-000	4953-000	4954-000
BT	148-100	146-700	4955-000	148-700	4955-000	148-700	148-700	148-700	148-700	148-700
BT	146-100	4972-078	149-800	146-300	4973-398	146-300	146-300	146-300	146-300	146-300
BT	5030-000	149-500	146-900	5015-000	149-300	146-800	146-800	146-800	146-800	146-800
BT	149-200	146-700	5029-898	149-200	146-700	146-700	146-700	146-700	146-700	146-700
BT	146-700	5053-000	149-200	146-700	5068-500	146-400	146-400	146-400	146-400	146-400
BT	5058-699	148-900	148-900	5085-000	148-800	148-800	5085-070	5086-000	5087-000	5088-000
BT	148-700	148-700	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
BT	148-000	4922-000	147-100	4922-000	147-100	147-100	147-100	147-100	147-100	147-100
GR	147-100	4596-000	147-100	4597-000	147-100	147-100	147-100	147-100	147-100	147-100
GR	146-900	4970-000	148-100	4924-797	146-200	146-200	146-200	146-200	146-200	146-200
GR	136-300	4951-378	136-000	4951-500	133-500	133-500	136-000	136-000	136-000	136-000
GR	156-300	4972-078	146-300	4973-398	129-500	129-500	129-500	129-500	129-500	129-500
GR	132-000	5028-700	146-700	5028-598	146-700	146-700	146-700	146-700	146-700	146-700
GR	146-000	5087-000	142-500	5068-500	146-400	146-400	146-400	146-400	146-400	146-400
ET	0-0	0-0	0-0	5120-000	0-0	0-0	0-0	0-0	0-0	0-0
K1	371-000	17-000	4946-199	5054-199	3-000	3-000	3-000	3-000	3-000	3-000
GR	146-100	4597-297	147-400	4703-398	146-200	146-200	145-000	145-000	145-000	145-000
GR	146-000	4946-297	130-500	4933-598	130-500	130-500	130-500	130-500	130-500	130-500
GR	142-100	5054-199	147-300	5091-699	148-400	148-400	150-600	150-600	150-600	150-600
GR	158-100	5424-199	159-200	5515-098	160-700	160-700	160-600	160-600	160-600	160-600
NC	0-070	0-045	0-055	0-0	0-0	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	9-100	0-0	0-0	0-0	4940-000	4940-000	4940-000	4940-000
X1	372-000	25-000	4926-098	5055-699	31-200	41-000	49-200	49-200	49-200	49-200
GR	147-100	4733-698	145-900	4818-297	146-500	4926-098	135-500	135-500	135-500	135-500
GR	130-500	5000-000	130-500	5020-000	145-400	5055-699	147-000	147-000	147-000	147-000
GR	147-500	5167-697	147-500	5171-000	150-500	5227-197	150-500	150-500	150-500	150-500
GR	144-200	5337-078	154-200	5347-698	159-700	5406-898	159-700	159-700	159-700	159-700
GR	100-400	5466-578	160-400	5482-898	160-800	5568-197	161-900	161-900	161-900	161-900
ET	0-0	0-0	9-100	0-0	0-0	7-100	4900-000	4900-000	4900-000	4900-000



STAK OF LIQUID CLUB

X1	175.000	16.000	4981.797	5035.598	275.000	270.000	225.200	0.0	0.0	0.0
GR	150.000	4546.000	150.000	4550.000	4760.000	4760.000	4760.000	4770.000	4790.000	4790.000
GR	143.500	4881.000	142.200	4883.598	136.000	4714.598	132.600	4714.797	140.500	4987.699
GR	130.500	5000.030	130.500	5017.898	141.800	5035.598	142.200	5104.500	0.0	0.0
MC	0.000	0.065	0.055	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	7.100	4870.000	5045.000	0.0	0.0
X1	378.000	26.000	4961.500	5032.199	245.000	255.000	246.300	0.0	0.0	0.0
GR	172.000	4585.000	152.000	4586.000	150.000	4653.000	148.000	4727.000	4756.000	4756.000
GR	142.400	4914.398	141.400	4916.098	140.100	4933.797	140.000	4934.500	130.500	4987.598
GR	130.500	5000.000	130.500	5012.500	139.200	5032.199	139.800	5071.699	147.100	5066.199
GR	147.100	5073.297	148.500	5101.898	148.500	5116.598	148.800	5158.297	152.400	5163.098
GR	153.500	5211.297	162.900	5249.797	165.600	5317.500	165.600	5449.598	165.600	5382.398
GR	105.000	5412.098	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	7.100	4870.000	5046.598	0.0	0.0
X1	378.000	14.000	4966.797	5046.500	40.000	40.000	41.600	0.0	0.0	0.0
GR	150.100	4587.598	150.100	4588.098	144.400	4812.297	141.000	4726.898	140.500	4966.797
GR	130.700	4982.000	130.700	5000.000	140.700	5019.000	143.100	5046.500	148.000	5087.000
GR	151.300	5137.598	160.900	5244.199	164.700	5327.500	166.600	5429.398	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	7.100	4870.000	5048.797	0.0	0.0
X1	377.000	41.000	4942.398	5048.699	15.000	15.000	10.000	0.0	0.0	0.0
X2	0.0	0.0	0.0	144.700	146.700	0.0	0.0	0.0	0.0	0.0
BT	43.000	4527.598	151.300	4672.699	152.000	4652.000	152.000	4659.398	149.500	469.500
BT	47.000	147.000	47.000	147.000	145.500	145.500	146.200	145.800	145.800	4942.398
BT	145.000	143.000	4742.500	146.200	143.000	4960.000	146.100	146.100	4969.000	146.200
BT	145.200	4769.098	146.200	4998.699	146.200	146.200	146.200	4770.297	146.200	144.200
BT	4979.797	146.400	146.400	4998.699	146.700	144.700	4998.797	146.700	4999.898	144.200
BT	146.700	146.700	5000.000	146.700	146.700	5022.098	147.200	145.200	147.200	147.200
BT	145.200	5024.098	147.200	145.200	5024.199	147.200	145.200	5044.973	145.700	145.700
BT	147.700	147.700	5048.797	147.700	147.700	5048.898	147.700	147.700	5048.899	147.700
BT	147.700	5049.099	147.700	5049.199	147.700	147.700	147.700	147.700	5049.000	147.700
BT	5204.698	153.300	153.300	5248.797	161.200	161.200	5319.797	161.300	5405.199	149.900
BT	162.400	162.400	5454.000	161.700	161.700	5545.500	160.500	160.500	161.400	161.400
BT	161.400	5724.199	160.800	160.800	0.0	0.0	0.0	0.0	0.0	0.0
GR	171.300	4527.598	152.000	4562.000	149.500	4649.398	147.000	4751.199	145.500	4872.699
GR	145.100	4542.297	143.800	4542.398	140.800	4942.500	130.000	4760.000	129.600	4969.000
GR	144.200	4769.098	146.200	4970.199	129.600	4970.297	129.600	4979.797	129.600	4998.699
GR	146.700	4998.699	146.700	4999.898	129.500	5000.000	123.400	5022.198	145.200	5023.000
GR	145.200	5024.098	129.500	5024.199	137.500	5046.898	142.100	5045.000	142.100	5048.500
GR	147.700	5049.099	147.700	5049.199	147.700	5048.797	147.700	5048.898	147.700	5049.000
GR	147.700	5049.199	147.700	5049.199	147.700	5123.898	147.700	5204.698	161.200	5248.797
GR	163.300	5319.797	162.400	5405.199	161.700	5464.000	160.500	5454.500	161.400	5653.297
GR	150.800	5724.199	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	7.100	4870.000	5048.797	0.0	0.0

021000 AF FUEL SUP WOAD

X1	300-000	41-000	4942-398	32-500	12-500	0-0	0-0	0-0	0-0
X2	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
BT	41-000	427-574	151-300	4562-000	152-000	157-000	149-500	149-500	149-500
BT	4731-197	147-000	147-000	145-500	4960-000	4960-000	4960-000	4960-000	4960-000
BT	147-000	143-000	4942-500	143-000	4960-000	145-100	146-200	146-200	146-200
BT	146-000	4969-093	146-200	146-200	4970-199	4970-297	4970-297	4970-297	4970-297
BT	4979-797	146-400	146-400	146-700	146-700	4993-797	4993-898	4993-898	4993-898
BT	146-700	147-000	5000-000	5022-000	147-700	145-200	5023-000	147-700	147-700
BT	145-500	5074-098	147-200	147-200	147-200	5044-098	147-700	145-700	145-700
BT	5057-000	147-700	145-700	145-700	145-700	5044-098	145-700	5044-098	5044-098
BT	147-700	147-700	5048-500	147-700	147-700	147-700	147-700	147-700	147-700
BT	147-700	5049-098	147-700	5048-898	147-700	147-700	5049-000	147-700	147-700
BT	5205-398	153-300	153-300	161-200	161-200	5319-797	161-300	5403-199	5403-199
BT	152-400	162-400	5404-000	161-700	5545-500	160-500	161-300	5403-199	161-300
BT	161-400	5724-199	160-800	0-0	5545-500	160-500	5553-297	161-400	161-400
GR	171-300	4527-593	152-000	4649-398	4649-398	147-000	145-500	4672-699	4672-699
GR	147-800	4942-797	143-800	4942-500	4942-500	130-000	129-600	4969-000	4969-000
GR	144-200	4969-093	144-200	4970-199	4970-297	129-400	129-400	4998-699	4998-699
GR	144-700	4998-797	144-700	4998-898	5000-000	129-400	145-200	5023-000	5023-000
GR	145-200	5024-098	129-400	5044-898	5044-898	147-100	147-100	5048-500	5048-500
GR	145-700	5048-598	147-700	5048-898	5048-898	147-700	147-700	5049-000	5049-000
GR	147-700	5049-098	147-700	5123-898	5123-898	153-300	161-200	5248-797	5248-797
GR	163-300	5319-797	162-400	5464-000	5464-000	160-500	161-400	5653-297	5653-297
GR	160-300	5724-199	0-0	0-0	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	0-0	7-100	7-100	4860-000	0-0	0-0	0-0

X1	391-000	21-000	4942-398	12-000	18-000	0-0	0-0	0-0	0-0
GR	110-100	4527-593	152-000	4649-398	4649-398	145-500	145-000	4872-699	4872-699
GR	139-500	4942-398	139-500	4979-797	4979-797	130-500	130-500	5022-898	5022-898
GR	141-000	5044-797	141-000	5123-898	5123-898	153-300	161-200	5248-797	5248-797
GR	163-300	5319-797	162-400	5464-000	5464-000	159-500	160-400	5653-297	5653-297
GR	139-300	5724-199	0-0	0-0	0-0	0-0	0-0	0-0	0-0
MC	0-110	0-070	0-045	0-0	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	0-0	7-100	7-100	4300-000	0-0	0-0	0-0

X1	392-000	20-000	4933-797	35-000	35-000	0-0	0-0	0-0	0-0
GR	172-000	4509-199	152-900	4645-297	4645-297	144-700	144-600	4753-398	4753-398
GR	144-500	4800-699	140-100	4887-199	4887-199	131-300	131-300	5000-000	5000-000
GR	131-100	5020-699	140-700	5039-398	5039-398	140-600	144-000	5204-297	5204-297
GR	163-100	5257-098	165-100	5319-398	5319-398	160-000	164-500	5443-598	5443-598
MC	0-240	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
ET	0-0	0-0	0-0	7-100	7-100	4995-000	0-0	0-0	0-0

KI	334.000	29.000	4953.000	5046.000	445.000	250.000	171.000	0.0	0.0	4700.000	0.0
GR	171.500	4010.000	146.400	4665.300	146.400	4636.200	146.200	146.200	146.200	4700.000	4700.000
GR	143.200	4808.100	146.400	4953.000	132.000	4953.000	132.000	132.000	132.000	5017.500	5017.500
GR	142.000	5045.000	150.600	5070.300	164.900	5094.100	164.900	164.900	164.900	5190.200	5190.200
GR	166.000	2202.000	165.700	2245.200	165.700	2245.200	165.700	165.700	165.700	5343.300	5343.300
GR	164.200	5166.000	164.200	5402.700	164.200	5402.700	164.200	164.200	164.200	5570.200	5570.200
GR	152.700	5093.000	162.700	5609.500	162.700	5609.500	162.700	162.700	162.700	0.0	0.0
QT	5.000	1550.000	12400.000	10890.000	1310.000	12400.000	1310.000	1310.000	1310.000	0.0	0.0
NC	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	7.100	4900.000	4900.000	4900.000	0.000	0.000

KI	306.000	20.000	4971.300	5046.200	155.000	350.000	209.000	0.0	0.0	4877.000	0.0
GR	152.000	4904.000	152.000	4582.200	147.000	4662.500	146.000	146.000	146.000	4877.000	4877.000
GR	141.700	4947.700	145.000	4971.300	132.000	4907.800	132.000	132.000	132.000	5015.200	5015.200
GR	137.500	5046.200	141.300	5096.300	140.900	5141.000	140.900	140.900	140.900	5258.000	5258.000
GR	164.500	5335.300	162.700	5452.700	161.700	5514.700	160.300	160.300	160.300	5738.800	5738.800
ET	0.000	0.000	0.000	0.000	0.000	7.100	4941.500	4941.500	4941.500	0.000	0.000

KI	346.000	34.000	4943.500	5045.700	307.400	300.000	272.100	0.0	0.0	4671.000	0.0
GR	153.000	4470.100	151.700	4508.300	150.700	4554.600	149.500	149.500	149.500	4671.000	4671.000
GR	146.500	4764.000	146.100	4830.000	146.500	4872.600	145.700	145.700	145.700	4926.100	4926.100
GR	153.100	4943.500	153.600	4961.300	136.400	4979.100	134.500	134.500	134.500	4997.500	4997.500
GR	133.100	5000.000	133.100	5010.700	135.900	5025.300	140.100	140.100	140.100	5045.700	5045.700
GR	143.500	5061.000	143.300	5106.300	143.700	5143.600	143.600	143.600	143.600	5232.100	5232.100
GR	145.400	5261.200	152.000	5282.700	163.600	5307.200	164.300	164.300	164.300	5410.700	5410.700
GR	163.000	5483.800	164.700	5511.800	175.800	5515.100	175.500	175.500	175.500	5544.500	5544.500
GR	163.200	5594.000	163.500	5619.500	161.700	5645.600	161.000	161.000	161.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GR POINTS IN R.O.D. HAVE BEEN RAISED TO EXCLUDE PIT AREA FROM

FROM CALCULATIONS

KI	390.000	25.000	4965.500	5052.000	230.000	460.000	115.000	0.0	0.0	4859.000	0.0
GR	147.000	4710.000	147.500	4787.000	149.000	4836.100	147.000	147.000	147.000	4859.000	4859.000
GR	147.500	4921.000	147.500	4927.500	147.500	4952.700	147.500	147.500	147.500	4970.800	4970.800
GR	144.000	4975.200	134.400	5000.000	134.400	5014.500	134.500	134.500	134.500	5041.000	5041.000
GR	140.500	5052.000	148.500	5055.700	144.100	5065.800	144.100	144.100	144.100	5102.200	5102.200
GR	144.500	5155.000	144.400	5187.100	145.600	5229.500	149.400	149.400	149.400	5280.200	5280.200
NC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GR POINTS HAVE BEEN RAISED IN R.O.D. TO EXCLUDE DEPRESSION AREA

FROM FLOW CALCULATIONS.

X1	372-000	30-000	4961-598	5030-699	334-700	330-000	330-500	0-0	0-0	0-0	0-0
GR	179-000	4676-378	153-600	4730-199	156-200	4739-199	154-700	156-200	156-200	4763-777	4769-898
GR	123-500	4620-093	153-800	4826-000	153-000	4678-000	152-300	148-600	148-600	4711-578	4933-398
GR	140-100	5747-078	144-600	4961-598	137-100	4971-000	134-700	134-700	134-700	4973-378	5000-000
GR	134-700	5023-078	138-500	5026-000	162-100	5010-699	141-200	142-500	142-500	5054-500	5109-898
GR	147-000	5145-797	148-700	5191-199	148-700	5245-297	148-000	148-000	148-000	5297-593	5323-098
GR	148-000	5194-378	148-000	5403-598	148-000	5420-098	148-000	148-000	148-000	5431-699	5520-398
TF	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	5500-000

X1	394-000	27-000	4977-500	5057-098	286-400	295-000	290-000	0-0	0-0	0-0	0-0
GR	162-500	4649-797	159-100	4718-098	156-200	4780-098	154-700	154-700	154-700	4926-078	4864-797
GR	154-700	4681-098	154-600	4932-699	154-600	4443-078	154-900	153-800	153-800	4963-297	4977-500
GR	135-100	4948-098	135-100	5000-000	135-100	5020-598	137-200	140-000	140-000	5034-297	5057-098
GR	141-500	5107-598	141-500	5163-598	148-300	5197-398	140-100	146-600	146-600	5244-398	5296-598
GR	145-600	5350-398	147-900	5395-598	148-200	5451-797	147-100	146-700	146-700	5513-000	5589-598
MC	0-070	0-050	0-050	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
TF	0-0	0-0	0-0	0-0	0-0	7-100	4730-000	4747-098	4747-098	5260-000	5410-000

GR POINTS IN R.O.s. HAVE BEEN RAISED TO EXCLUDE QUARRY PIT AREA

FROM FLOW CALCULATIONS

X1	376-000	28-000	4909-297	5038-098	325-000	280-000	320-000	0-0	0-0	0-0	0-0
GR	146-500	4778-898	146-200	4601-098	145-800	4668-797	146-400	140-100	140-100	4747-098	4775-398
GR	143-500	4646-500	142-500	4895-797	149-500	4917-098	149-500	146-800	146-800	4935-598	4944-398
GR	144-500	4977-297	140-000	4976-699	135-500	4991-000	135-500	135-500	135-500	5000-000	5016-098
GR	140-000	5019-500	141-500	5038-098	145-500	5062-078	145-500	145-500	145-500	5080-078	5175-000
GR	148-200	5193-199	148-500	5243-000	147-800	5260-277	147-800	146-000	146-000	5275-393	5299-898
GR	146-000	5330-893	146-000	5384-699	146-000	5434-098	0-0	0-0	0-0	0-0	0-0
TF	0-0	0-0	0-0	0-0	0-0	8-410	0-0	4058-098	4058-098	5750-000	5750-000

GR POINTS IN R.O.s. HAVE BEEN RAISED TO EXCLUDE QUARRY PIT AREA

FROM FLOW CALCULATIONS.

X1	374-000	21-000	4977-898	5041-199	320-000	210-000	280-000	0-0	0-0	0-0	0-0
GR	149-200	4653-000	149-700	4703-398	143-600	4749-277	143-500	145-600	145-600	4806-000	4856-398
GR	143-900	4903-500	141-700	4939-199	143-000	4975-498	136-700	136-900	136-900	4990-578	5000-000
GR	136-900	5017-000	140-600	5028-898	145-300	5041-199	145-300	142-600	142-600	5077-394	5085-699
GR	148-000	5107-500	146-600	5124-500	146-600	5145-899	146-600	146-600	146-600	5170-500	5225-598
GR	149-500	5261-699	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0

X1	400-000	50-000	4909-898	5017-500	350-000	305-000	300-000	0-0	0-0	0-0	0-0
GR	163-500	4625-300	160-500	4646-200	161-000	4663-500	160-800	163-500	163-500	4808-400	4825-297
GR	163-300	4771-199	165-100	4849-598	165-400	4871-578	165-700	165-700	165-700	4921-578	4954-500
GR	165-700	4906-598	166-800	4936-098	184-800	4943-699	184-800	167-700	167-700	4969-398	4980-297
GR	167-700	4610-599	165-700	4616-398	184-900	4665-699	167-400	180-100	180-100	4932-098	4694-898

WM	165-200	5746-000	165-000	4761-500	168-100	5789-699	170-000	4310-000	145-800	4847-291
GR	141-700	5167-199	142-500	4911-699	142-500	4922-699	141-800	4959-873	139-000	4971-191
GR	136-000	5290-297	138-000	5000-000	148-000	5003-098	148-000	5012-500	148-500	5017-500
GR	144-100	5031-890	144-000	5055-500	148-600	5095-193	148-500	5134-193	150-700	5165-797
GR	151-500	5193-500	154-500	5234-699	159-700	5270-500	171-900	5317-000	178-900	5358-500
GR	184-300	5392-699	191-700	5410-297	198-600	5466-277	187-200	5490-898	186-300	5533-699
GR	195-500	5576-500	190-500	5633-297	177-900	5675-797	176-300	5713-193	172-800	5721-598
GR	173-000	7743-197	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
NC	0-070	0-055	0-060	0-0	0-0	0-0	0-0	0-0	0-0	0-0

X1	402-000	73-000	4934-898	5087-078	310-000	230-000	202-200	0-0	0-0	4297-297
GR	173-300	4170-699	171-500	4210-898	172-500	4232-199	191-100	4244-297	193-500	4427-000
GR	173-800	4306-000	170-100	4326-098	171-000	4377-598	168-000	4411-878	186-500	4627-598
GR	186-300	4488-078	167-000	4496-500	167-500	4537-598	167-500	4595-500	163-700	4776-398
GR	164-300	4573-500	164-300	4692-500	178-300	4711-699	183-100	4728-500	182-000	4876-199
GR	163-000	4781-398	161-200	4801-500	159-800	4817-198	146-000	4836-598	142-600	4985-000
GR	140-300	4909-898	143-800	4934-878	143-800	4947-199	150-700	4970-000	141-600	5069-898
GR	130-000	4976-398	138-800	5000-000	138-800	5006-277	137-900	5025-797	141-100	5182-898
GR	144-800	5087-098	151-100	5103-598	151-600	5123-297	163-100	5155-093	171-500	5191-398
GR	175-000	5232-000	162-000	5282-500	184-000	5311-500	166-500	5352-593	189-700	5463-500
GR	197-500	5375-297	197-500	5428-898	188-100	5432-797	196-300	5466-277	196-300	5540-500
GR	185-400	5473-297	185-500	5501-398	194-200	5508-297	194-200	5531-297	183-400	5540-500
GR	180-700	5589-699	177-700	5650-297	176-600	5677-699	175-900	5686-197	176-000	5859-000
GR	175-000	5726-398	175-100	5766-500	175-300	5814-797	174-000	5852-898	183-500	5946-598
GR	184-300	5786-598	174-100	5892-898	174-100	5910-199	174-100	5940-699	184-600	6059-699
GR	184-600	5977-598	174-100	5985-199	174-600	6010-198	186-700	6021-193	188-200	6059-699
GR	173-800	6067-699	173-500	6097-098	174-100	6114-000	0-0	0-0	0-0	6170-000
ET	0-0	0-0	9-100	0-0	0-0	9-410	0-0	0-0	4740-000	0-0

X1	434-000	51-000	4958-000	5066-797	350-000	150-000	270-000	0-0	0-0	4188-000
GR	178-000	4103-598	177-100	4143-898	175-300	4158-598	195-100	4165-500	200-500	4375-500
GR	186-300	4232-598	174-700	4237-398	174-700	4261-598	197-500	4275-093	196-600	4331-297
GR	177-500	4397-098	178-000	4417-199	178-000	4460-098	196-500	4468-500	196-400	4686-297
GR	169-100	4536-797	158-100	4576-199	156-400	4619-898	157-000	4627-199	157-500	4860-699
GR	149-500	4708-297	170-000	4747-000	163-800	4765-398	148-800	4806-699	143-500	4860-699
GR	143-700	4836-199	141-700	4935-398	144-400	4958-000	138-700	4986-500	116-900	5000-000
GR	138-700	5010-199	165-000	5030-797	153-700	5040-777	160-900	5081-374	171-400	5121-500
GR	173-300	5160-898	175-700	5189-500	179-300	5231-598	181-300	5241-598	140-500	5283-198
GR	189-200	5286-500	186-900	5310-398	180-500	5317-199	179-000	5348-777	175-700	5379-699
GR	177-100	5414-797	177-500	5456-000	178-800	5488-598	175-500	5572-297	176-400	5591-199
GR	175-000	5635-098	186-000	5645-098	186-000	5681-699	174-500	5687-699	174-300	5748-598
GR	174-500	5798-500	185-500	5809-098	184-200	5831-199	174-600	5844-093	176-100	5907-600
GR	176-100	5744-098	173-400	5966-898	174-100	5997-000	0-0	0-0	0-0	0-0
ET	0-0	0-0	9-100	0-0	0-0	0-0	0-0	0-0	4533-590	0-0

X1	406-000	71-000	4940-098	5040-098	290-000	330-000	367-000	0-0	0-0	4198-199
GR	175-900	4049-900	174-500	4102-797	174-700	4130-797	195-700	4140-500	192-400	4360-198
GR	172-900	4208-598	173-800	4267-898	172-700	4308-699	173-200	4349-878	146-600	4451-199
GR	196-800	4377-297	190-800	4414-500	161-400	4418-098	155-700	4436-598	151-200	4607-500
GR	151-300	4460-699	159-700	4474-098	159-900	4533-593	152-100	4587-500	157-600	4607-500
GR	159-000	4511-398	159-000	4655-098	151-600	4656-598	150-700	4687-093	144-300	4698-699



HELZ RELEASE DATED NOV 76 UPDATED AUG 1980  
 ERROR CORR - 01+02+03+04  
 MODIFICATION - 50+51+52+53+54

NOTE- ASTERISK (\*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

DRY CHECK EZ+ 100-YR

SUMMARY PRINTOUT

Flow IN CHS

0

SECTN	ALCH	STUHL	STCHR	ELMIN	WCH	YDL	AREA	TOTD	GRUBP	EG	CMSL
322-000	0+0	4961+10	5031+10	120+70	3+60	0+0	4034+44	266+45	65+44	149+03	136-84
322-000	0+0	4961+10	5031+10	120+70	3+67	0+0	3343+03	336+20	69+82	140+02	139+79
324-000	370+00	4943+90	5022+00	121+30	7+19	29+97	2937+32	674+55	37+67	139+67	136-95
324-000	370+00	4948+90	5022+00	121+30	6+94	26+06	2639+43	447+10	60+00	140+61	139+90
325-000	336+50	4964+50	5038+30	123+10	7+23	50+04	2863+56	665+15	33+64	139+96	139+63
326-000	366+50	4964+50	5038+30	123+10	7+16	46+77	2401+27	393+43	37+25	140+86	140+29
327-000	334+40	4964+30	5037+10	123+10	6+33	74+01	3080+60	562+77	44+02	140+35	139+95
327-000	334+40	4964+50	5037+10	123+10	6+33	68+63	2727+67	496+38	46+15	141+21	140+79
330-000	207+20	4946+00	5028+60	123+60	4+03	94+36	2234+37	486+36	21+37	140+82	140+04
330-000	207+20	4946+00	5028+60	123+60	7+47	83+22	2204+52	303+70	26+69	141+59	140+91
332-000	41+60	4958+10	5035+50	124+00	9+34	95+26	1759+02	343+45	18+05	141+06	139+94
332-000	41+60	4958+10	5035+50	124+00	8+42	83+16	1493+46	365+60	23+67	141+75	140+86
333-000	13+00	4926+50	5044+60	123+80	11+24	96+75	1217+00	347+25	6+50	141+68	139+64
333-000	13+00	4926+50	5044+60	123+80	9+63	85+74	1466+01	372+67	21+18	141+96	140+74
340-000	76+00	4926+50	5044+60	123+80	6+40	99+56	1970+13	507+71	46+77	142+62	142+02
340-000	76+00	4926+50	5044+60	123+80	8+19	86+02	1628+39	384+57	62+85	142+83	142+11
341-000	19+00	4961+30	5034+30	125+10	4+63	100+42	3543+80	546+21	55+68	142+76	142+53
341-000	19+00	4961+30	5034+30	125+10	4+75	87+61	3119+69	374+50	52+62	142+99	142+71
342-000	32+60	4958+30	5038+80	126+00	4+26	104+28	3515+55	494+42	60+89	142+79	142+59
342-000	32+60	4958+30	5038+80	126+00	4+50	92+79	3106+77	373+70	56+17	143+03	142+78
344-000	260+20	4955+80	5039+10	125+20	4+72	125+17	3462+79	550+00	54+61	142+99	142+75
344-000	260+20	4955+80	5039+10	125+20	6+54	109+26	2310+53	332+23	42+12	143+38	142+87
345-000	60+30	4962+00	5032+10	125+10	4+74	129+32	3444+83	673+75	63+92	143+04	142+80
346-000	60+30	4962+00	5032+10	125+10	6+93	112+02	2413+19	352+20	49+50	143+49	142+95
347-000	29+00	4956+00	5034+60	124+80	3+46	132+13	3164+73	667+57	74+57	143+09	142+84
347-000	27+00	4956+00	5034+60	124+80	5+17	113+27	2701+12	336+70	62+28	143+59	143-02

SUCR	MLCH	STCHR	STCHR	ELMIN	J	VCH	VOL	ANLA	TOPR19	QLOUP	EG	CMSEL
350-000	5-50	4970-00	5034-60	124-80	12430-00	3-45	132-53	3167-04	630-20	74-64	143-10	142-85
350-000	5-50	4970-00	5034-60	124-80	12430-00	5-13	116-04	2107-27	130-70	62-51	143-61	143-05
351-000	25-00	4970-00	5034-60	125-20	12430-00	6-48	134-45	3621-03	075-01	62-11	143-13	142-92
351-000	25-00	4970-00	5034-60	125-20	12430-00	6-30	115-32	2303-63	334-70	46-98	143-68	143-21
352-000	48-20	4965-00	5035-40	125-80	12430-00	6-86	139-40	3507-40	740-38	58-98	143-18	142-96
352-000	48-20	4965-00	5035-90	125-80	12430-00	6-79	118-00	2662-32	326-00	45-90	143-78	143-25
354-000	33-50	4961-90	5038-20	127-30	12430-00	6-11	160-37	2700-77	210-00	52-89	143-59	143-20
354-000	33-50	4961-90	5038-70	127-30	12430-00	7-03	133-65	2214-41	300-00	43-16	144-37	143-80
356-000	326-70	4956-50	5045-80	128-50	12430-00	6-03	173-14	2501-97	421-27	45-95	144-10	143-68
356-000	326-70	4956-50	5045-80	128-50	12430-00	6-74	149-24	2117-19	295-90	36-94	144-97	144-41
358-000	395-00	4967-90	5064-00	129-10	12430-00	12-52	194-06	1441-41	320-71	8-56	145-60	143-37
358-000	395-00	4967-90	5064-00	129-10	12430-00	11-73	163-07	1334-65	209-11	5-87	146-39	144-37
360-000	60-00	4961-80	5061-20	129-50	12430-00	10-22	196-88	1800-53	322-16	12-37	145-97	144-54
360-000	60-00	4961-80	5061-20	129-50	12430-00	10-10	165-38	1554-99	106-76	7-62	146-69	145-20
362-000	272-70	4952-40	5085-10	129-80	12430-00	8-90	207-51	1457-27	144-15	0-90	146-80	145-58
362-000	272-70	4952-40	5085-10	129-80	12430-00	8-38	175-20	1490-26	155-20	0-07	147-42	146-33
364-000	51-30	4975-70	5041-80	130-30	12430-00	11-11	209-17	1249-90	126-45	1-77	147-08	145-39
364-000	51-30	4975-70	5041-80	130-30	12430-00	10-77	176-89	1331-19	108-00	1-84	147-69	146-09
369-000	12-00	4951-30	5068-70	129-50	12430-00	7-77	207-57	1592-90	115-59	0-0	147-19	146-25
369-000	12-00	4951-30	5068-70	129-50	12430-00	7-58	177-30	1633-46	117-26	0-0	147-80	146-91
370-000	30-70	4924-80	5068-70	129-50	12430-00	6-52	211-61	1905-33	142-43	0-0	147-36	146-70
370-000	30-70	4924-80	5068-70	129-50	12430-00	6-51	179-36	1907-80	143-80	0-0	148-02	147-37
371-000	3-00	4946-20	5054-20	130-50	12430-00	10-05	211-72	1337-74	257-11	0-51	147-63	146-09
371-000	3-00	4946-20	5054-20	130-50	12430-00	9-51	179-47	1335-35	170-00	0-14	148-25	146-86
372-000	49-20	4926-10	5055-70	130-50	12430-00	8-70	213-30	1500-36	205-00	1-08	147-85	146-69
372-000	49-20	4926-10	5055-70	130-50	12430-00	8-75	161-03	1425-75	129-00	0-0	148-63	147-24
374-000	225-20	4981-80	5035-60	130-50	12430-00	5-65	224-91	3003-82	345-37	51-19	148-41	148-10
374-000	225-20	4981-80	5035-60	130-50	12430-00	7-25	190-09	2083-76	150-00	46-66	149-11	148-50
376-000	246-30	4961-50	5032-20	130-50	12430-00	6-36	240-81	2614-04	350-94	36-87	148-79	148-35
376-000	246-30	4961-50	5032-20	130-50	12430-00	7-56	201-58	1903-04	175-00	28-74	149-64	148-93
378-000	41-60	4964-80	5046-50	130-70	12430-00	6-93	243-16	2476-16	408-13	32-57	148-90	148-35
378-000	41-60	4964-80	5046-50	130-70	12430-00	7-54	203-43	1957-55	176-60	26-30	149-74	149-01
379-000	10-00	4942-40	5048-70	129-40	12430-00	6-80	243-81	2026-64	435-91	17-10	148-97	148-33
379-000	10-00	4942-40	5048-70	129-40	12430-00	6-95	203-72	1526-13	176-80	11-66	149-78	149-06
380-000	32-50	4942-40	5048-70	129-40	12430-00	6-20	245-60	2234-53	461-49	21-12	149-32	148-79
380-000	32-50	4942-40	5048-70	129-40	12430-00	6-65	203-31	1399-00	173-80	13-20	150-13	149-47



STATION NO. / DATE	DISTANCE BETWEEN X-SECTIONS	STATION OF LEFT BANK	STATION OF RIGHT BANK	MIN. ELEV. IN X-SEC.	MEAN V. IN CHAN.	CUMULATIVE VOL. OF WATER IN STREAM	X-SEC. AREA	TOP WIDTH	% OVERFLOW IN LEFT BANK	ELEV. IN GRADIENT	EMSER. SURFACE ELEV.
381+000	18+00	4947+40	5044+90	130+50	5+62	246+26	3012+47	481+27	20+31	149+37	148+99
381+000	18+00	4942+40	5044+97	130+50	6+30	200+07	2442+64	105+00	15+29	150+20	149+85
382+000	15+40	4933+80	5039+40	131+30	5+29	247+17	3827+34	441+72	14+58	149+41	149+08
382+000	15+40	4933+80	5039+40	131+30	6+27	208+04	2447+52	100+00	7+11	150+24	149+89
384+000	373+00	4953+70	5046+70	132+00	9+35	276+19	2407+67	476+07	7+45	150+12	148+88
384+000	373+00	4953+70	5046+70	132+00	9+55	274+17	1346+25	110+00	0+0	151+03	149+64
386+000	209+00	4971+40	5046+30	132+00	5+06	272+99	4326+21	631+71	6+48	150+55	150+27
386+000	209+00	4971+40	5046+30	132+00	5+24	235+76	2064+29	220+00	0+31	151+69	151+12
383+000	272+10	4943+60	5045+80	133+10	5+22	121+50	3970+44	712+85	4+89	150+83	150+52
383+000	292+10	4943+60	5045+80	133+10	5+66	273+64	2597+31	256+50	0+00	151+80	151+40
390+000	315+00	4965+60	5052+10	134+40	6+35	349+02	2874+79	330+30	1+89	151+37	150+91
390+000	315+00	4965+60	5052+10	134+40	6+59	274+53	2191+63	227+31	0+0	152+34	151+81
392+000	318+50	4961+60	5030+70	134+70	5+57	372+28	3222+58	523+55	2+14	151+83	151+52
392+000	318+50	4961+60	5030+70	134+70	5+48	243+57	2776+58	313+17	0+0	152+81	152+47
394+000	290+00	4977+50	5057+10	135+10	4+19	396+10	3852+35	521+42	0+0	152+08	151+89
394+000	290+00	4977+50	5057+10	135+10	4+23	314+71	3505+29	365+77	0+0	153+06	152+85
396+000	320+00	4967+30	5038+10	135+50	4+49	425+07	4620+53	662+90	25+08	152+28	152+13
396+000	320+00	4967+30	5038+10	135+50	4+49	341+01	4135+82	500+00	27+54	153+26	153+08
398+000	280+00	4975+90	5041+20	136+90	4+33	453+35	4484+42	571+90	42+56	152+46	152+31
398+000	280+00	4975+90	5041+20	136+90	4+41	357+03	4149+78	439+42	60+97	153+44	153+27
400+000	160+00	4969+90	5017+50	138+60	5+77	432+43	3015+70	381+21	36+42	152+83	152+53
400+000	160+00	4969+90	5017+50	138+60	5+85	344+12	2820+86	262+40	34+65	153+46	153+46
402+000	282+20	4934+90	5017+10	138+80	4+97	501+01	2717+18	279+60	33+46	153+27	152+93
402+000	282+20	4934+90	5017+10	138+80	5+13	411+40	2700+57	217+20	28+23	154+23	153+85
404+000	270+00	4958+00	5046+80	138+90	4+62	521+70	3041+50	306+47	63+11	153+18	153+52
404+000	270+00	4958+00	5046+80	138+90	4+84	430+48	2870+71	291+70	58+16	154+75	154+45
405+000	367+00	4940+10	5040+10	141+30	3+92	544+97	3399+77	600+66	72+05	154+24	154+04
405+000	367+00	4940+10	5040+10	141+30	4+12	452+57	3201+23	311+92	67+15	155+22	154+98
406+000	402+90	4891+10	5060+20	143+00	4+50	576+27	3659+94	401+14	39+19	154+95	154+68
406+000	402+90	4891+10	5060+20	143+00	4+82	481+75	2819+07	291+80	34+17	155+94	155+63
410+000	202+60	4957+30	5055+80	145+00	5+40	589+11	2563+89	352+71	23+42	155+41	155+03
410+000	202+60	4957+30	5055+80	145+00	5+73	493+60	2350+54	258+40	18+36	156+41	155+96

FLOW IN CHAN. (0)  
 MEAN V. IN CHAN.  
 CUMULATIVE VOL. OF WATER IN STREAM  
 X-SEC. AREA  
 TOP WIDTH  
 % OVERFLOW IN LEFT BANK  
 ELEV. IN GRADIENT  
 EMSER. SURFACE ELEV.

ONY CREEK 22 100-YR

SUMMARY PRINTOUT

SFCRU	KLCH	SEENCE	SSTA	EMOST	STEMCR	ADIK	SIFRW	EV	UJFMSX	DIFMSP	DIFKMS	CMSEL
322-000	0-0	0-0	4637-85	5204-30	0-0	4878-43	0-0	137-01	0-0	0-0	0-0	138-84
322-000	0-0	4675-00	4695-00	5031-20	5031-20	5019-23	0-99	140-02	0-0	0-95	0-95	139-79
324-000	370-00	4470-00	4470-00	5148-55	5251-00	3512-33	0-0	137-47	0-11	0-0	0-0	138-95
324-000	370-00	4575-00	4575-00	5022-09	5022-10	3805-92	0-94	140-61	0-11	0-95	0-95	139-90
325-000	386-50	4447-40	4485-10	5150-45	5300-00	3522-22	0-0	137-70	0-47	0-0	0-0	139-43
326-000	386-50	4645-00	4645-00	5038-39	5038-40	3703-21	0-90	140-86	0-39	0-86	0-86	140-29
328-000	334-40	4400-00	4481-86	5148-00	5148-00	3937-15	0-0	140-15	0-52	0-0	0-0	139-95
328-000	334-40	4540-00	4540-00	5037-20	5037-20	4146-52	0-87	141-21	0-50	0-84	0-84	140-79
330-000	207-20	4400-00	4613-63	5100-00	5100-00	3255-19	0-0	140-82	0-09	0-0	0-0	140-04
330-000	207-20	4660-00	4660-00	5028-70	5028-70	3649-33	0-77	141-59	0-11	0-87	0-87	140-91
332-000	41-60	4400-00	4616-21	5050-00	5050-00	2775-74	0-0	141-06	-0-10	0-0	0-0	139-94
332-000	41-60	4670-00	4670-00	5035-59	5035-60	3217-14	0-69	141-75	-0-05	0-92	0-92	140-86
337-000	13-00	4400-00	4626-99	5044-43	5050-00	945-62	0-0	141-68	-0-10	0-0	0-0	139-84
337-000	13-00	4660-00	4660-00	5044-45	5044-50	1121-83	0-48	141-96	-0-12	1-10	1-10	140-76
340-000	75-00	4400-00	4538-57	5044-49	5050-00	1523-74	0-0	142-02	2-28	0-0	0-0	142-02
340-000	75-00	4660-00	4660-00	5044-49	5044-50	1428-40	0-20	142-83	1-37	0-09	0-09	142-11
341-000	19-00	4400-00	4503-79	5050-00	5050-00	4942-57	0-0	142-76	0-51	0-0	0-0	142-53
341-000	19-00	4670-00	4670-00	5044-50	5044-50	4656-60	0-23	142-99	0-60	0-17	0-17	142-71
342-000	32-60	4400-00	4550-00	5044-42	5050-00	4955-55	0-0	142-79	0-05	0-0	0-0	142-59
342-000	32-60	4655-00	4665-00	5038-89	5038-90	4730-12	0-23	143-03	0-07	0-19	0-19	142-78
344-000	260-20	4400-00	4540-00	5090-00	5090-00	4241-00	0-0	142-99	0-17	0-0	0-0	142-75
344-000	260-20	4700-00	4700-00	5032-20	5032-20	2976-67	0-36	143-33	0-09	0-11	0-11	142-87
346-000	60-30	4700-00	4670-00	5032-20	5032-20	2820-33	0-65	143-04	0-05	0-0	0-0	142-80
346-000	60-30	4700-00	4700-00	5034-70	5034-70	1988-47	0-50	143-49	0-08	0-14	0-14	142-95
349-000	29-00	4400-00	4434-23	5123-82	5034-70	3047-43	0-0	143-07	0-03	0-0	0-0	142-84
349-000	29-00	4700-00	4700-00	5034-70	5034-70	1988-47	0-50	143-59	0-08	0-19	0-19	143-02
350-000	5-50	4400-00	4433-66	5123-86	5034-70	3053-56	0-0	143-10	0-01	0-0	0-0	142-85
350-000	5-50	4700-00	4700-00	5034-70	5034-70	1996-18	0-51	143-61	0-02	0-20	0-20	143-05
351-000	25-00	4400-00	4428-14	5124-15	5034-70	3128-73	0-0	143-13	0-07	0-0	0-0	142-92
351-000	25-00	4700-00	4700-00	5034-70	5034-70	1988-47	0-54	143-68	0-16	0-29	0-29	143-21
352-000	68-50	4400-00	4397-96	5144-35	5034-70	4114-66	0-0	143-18	0-04	0-0	0-0	142-82
352-000	68-50	4710-00	4710-00	5036-00	5036-00	2989-46	0-60	143-73	0-04	0-29	0-29	143-05

354.000 135.50 4540.00 4540.00 5050.00 ✓ 5050.00 3053.47 0.00 143.57 0.24 0.00 0.00 143.20 /

SLNO	XLCH	STEMCL	SSFA	EMDST	STECHK	COIK	LIFLb	CO	DIFFAX	DIFFSP	DIFKMS	CMSEL
344-000	337-70	4700-00	4700-00	5050-00	5050-00	2749-70	0-78	144-37	0-77	0-60	0-60	143-80
350-000	329-70	4630-00	4630-00	5053-27	5150-00	3139-00	0-0	144-10	0-60	0-0	0-0	143-68
350-000	326-70	4750-00	4750-00	5045-00	5045-00	2743-51	0-87	144-97	0-61	0-73	0-73	144-61
351-000	325-00	0-0	4756-00	5056-71	0-0	1654-84	0-0	144-60	-0-31	0-0	0-0	143-37
354-000	325-00	4850-00	4850-00	5059-11	5064-10	1847-81	0-74	140-39	-0-04	1-00	1-00	144-37
360-000	63-00	0-0	4733-35	5055-51	0-0	2182-47	0-0	144-97	1-17	0-0	0-0	144-54
360-000	63-00	4870-00	4870-00	5056-76	5061-30	2255-70	0-72	140-69	0-33	0-66	0-66	145-20
362-000	272-70	4925-00	4925-00	5109-18	5200-00	2424-14	0-0	140-80	1-04	0-0	0-0	145-58
362-000	272-70	4950-00	4950-00	5085-20	5085-20	2697-30	0-62	147-62	1-14	0-75	0-75	146-33
364-000	51-30	0-0	4961-53	5087-98	0-0	2390-68	0-0	147-08	-0-19	0-0	0-0	145-39
364-000	51-30	4965-00	4965-00	5073-00	5073-00	2546-25	0-62	147-69	-0-25	0-70	0-70	146-09
369-000	12-00	4900-00	4951-39	5068-59	5108-00	2404-61	0-0	147-19	0-86	0-0	0-0	146-25
369-000	12-00	4920-00	4951-36	5068-62	5070-00	1871-32	0-62	147-80	0-82	0-66	0-66	146-91
370-000	50-70	4900-00	4924-87	5068-61	5109-00	2416-33	0-0	147-36	0-45	0-0	0-0	146-70
370-000	50-70	4920-00	4924-84	5068-64	5070-00	2141-96	0-67	143-02	0-65	0-67	0-67	147-37
371-000	3-00	0-0	4815-83	5082-96	0-0	2242-84	0-0	147-63	-0-61	0-0	0-0	146-09
371-000	3-00	4940-00	4940-00	5064-00	5064-00	2472-29	0-62	140-25	-0-51	0-77	0-77	146-86
372-000	49-20	4895-00	4895-00	5100-00	5100-00	1343-02	0-0	147-85	0-60	0-0	0-0	146-69
372-000	49-20	4940-00	4940-00	5060-00	5060-00	1927-77	0-58	143-43	0-38	0-55	0-55	147-24
374-000	227-20	4550-00	4749-63	5095-00	5095-00	3557-11	0-0	148-61	1-41	0-0	0-0	148-10
374-000	227-20	4900-00	4900-00	5050-00	5050-00	2819-32	0-70	149-11	1-25	0-60	0-60	148-50
376-000	246-30	0-0	4714-05	5065-03	0-0	3074-60	0-0	141-79	0-27	0-0	0-0	148-35
376-000	246-30	4870-00	4870-00	5045-00	5045-00	2609-09	0-85	149-64	0-44	0-58	0-58	148-93
378-000	61-50	0-0	4668-00	5090-12	0-0	2767-76	0-0	140-90	0-00	0-0	0-0	148-35
378-000	61-60	4870-00	4870-00	5046-59	5046-60	2610-98	0-84	147-74	0-07	0-65	0-65	149-01
379-000	10-00	0-0	4697-08	5133-00	0-0	1157-11	0-0	148-97	-0-02	0-0	0-0	148-33
379-000	10-00	4870-00	4870-00	5048-79	5048-80	1170-35	0-81	147-78	0-05	0-73	0-73	149-06
380-000	37-50	0-0	4678-21	5139-70	0-0	1297-23	0-0	147-32	0-46	0-0	0-0	148-79
380-000	37-50	4870-00	4870-00	5048-79	5048-80	1246-15	0-32	150-13	0-41	0-68	0-68	149-47
381-000	14-00	0-0	4655-16	5136-45	0-0	3647-57	0-0	147-37	0-20	0-0	0-0	148-99
381-000	14-00	4860-00	4860-00	5045-00	5045-00	3343-30	0-82	150-20	0-13	0-66	0-66	149-65
382-000	35-60	0-0	4666-41	5148-14	0-0	4407-18	0-0	149-41	0-09	0-0	0-0	149-08
382-000	35-60	4880-00	4880-00	5060-00	5060-00	4155-66	0-83	150-24	0-34	0-61	0-61	149-69
384-000	373-00	0-0	4639-32	5065-39	0-0	2360-10	0-0	150-12	-0-19	0-0	0-0	148-08
384-000	373-00	4955-00	4955-00	5065-00	5065-00	2321-93	0-91	151-03	-0-04	0-76	0-76	149-64
385-000	209-00	0-0	4612-06	5243-78	0-0	4264-40	0-0	150-55	1-34	0-0	0-0	150-27

SFCN#	ALCH	STCR	SSIA	EMOST	STCR	WIP	DIFLS	...	DIFLSP	DIFKMS	CMSEL
306-000	217-00	4900-00	4900-00	5100-00	5100-00	4076-00	0-95	151-47	0-85	0-85	151-12
339-000	272-10	0-0	4565-11	5277-96	0-0	3035-70	0-0	150-83	0-0	0-0	150-52
384-000	272-10	4943-50	4943-50	5200-00	5200-00	3763-42	0-90	151-80	0-88	0-88	151-40
390-000	315-00	4750-00	4750-00	5280-29	5290-10	2945-01	0-0	151-37	0-0	0-0	150-91
390-000	315-00	4965-60	4965-59	5190-91	5190-91	2927-82	0-97	152-14	0-90	0-90	151-81
392-000	338-50	4800-00	4916-45	5440-00	5440-00	1835-21	0-0	151-93	0-0	0-0	151-52
392-000	338-50	4961-60	4961-59	5274-77	5274-77	3044-80	0-98	152-81	0-95	0-95	152-47
394-000	270-00	4800-00	4978-58	5500-00	5500-00	4842-29	0-0	152-08	0-0	0-0	151-89
394-000	290-00	4977-50	4978-04	5342-80	5342-80	4959-04	0-98	151-06	0-95	0-95	152-05
396-000	320-00	4747-10	4747-09	5410-00	5410-00	4811-14	0-0	152-28	0-0	0-0	152-13
396-000	320-00	4780-00	4780-00	5280-00	5280-00	4696-49	0-98	153-20	0-95	0-95	153-08
399-000	270-00	4658-10	4658-09	5250-00	5250-00	4644-57	0-0	152-46	0-0	0-0	152-31
396-000	270-00	4758-59	4758-58	5198-00	5198-00	4775-09	0-98	153-44	0-96	0-96	153-27
400-000	360-00	0-0	4826-59	5207-80	0-0	3431-70	0-0	152-83	0-0	0-0	152-53
400-000	360-00	4964-50	4864-50	5126-89	5126-90	3544-41	0-97	153-80	0-93	0-93	153-46
402-000	202-20	0-0	4827-38	5126-98	0-0	2909-99	0-0	153-27	0-0	0-0	152-93
402-000	202-20	4809-89	4809-89	5087-09	5087-10	2862-07	0-96	154-23	0-91	0-91	153-85
404-000	270-00	4740-00	4740-00	5046-46	5200-00	3238-04	0-0	153-78	0-0	0-0	153-52
404-000	270-00	4795-04	4795-09	5046-79	5046-90	3237-38	0-97	154-75	0-93	0-93	154-45
406-000	367-00	4533-60	4656-14	5056-80	5200-00	3244-10	0-0	154-24	0-0	0-0	154-04
406-000	367-00	4728-18	4728-17	5040-09	5040-10	3254-03	0-97	155-22	0-95	0-95	154-98
408-000	462-90	4670-80	4702-84	5105-98	5200-00	2898-35	0-0	154-95	0-0	0-0	154-68
408-000	462-90	4766-40	4766-39	5060-20	5060-20	2868-95	0-99	155-94	0-94	0-94	155-63
410-000	272-60	0-0	4844-78	5205-51	0-0	2460-58	0-0	155-41	0-0	0-0	155-03
410-000	202-68	4893-10	4893-09	5151-50	5151-50	2469-87	1-00	156-41	0-93	0-93	155-96

SUMMARY OF ERRORS

CAUTION SFCN# 339-000 PROFILE= 1 BRIDGE DECK DEFINITION ERROR

CAUTION SFCN# 339-000 PROFILE= 2 BRIDGE DECK DEFINITION ERROR

CAUTION SFCN# 370-000 PROFILE= 2 BRIDGE DECK DEFINITION ERROR



DEPARTMENT OF THE ARMY  
SACRAMENTO DISTRICT CORPS OF ENGINEERS  
850 CAPITOL MALL  
SACRAMENTO CALIFORNIA 95814 4794

REPLY TO  
ATTENTION OF

March 16, 1990

Sacramento Basin Branch

Mr. William J. Zisk  
205 Thomas Street  
Roseville, California 95678

Dear Mr. Zisk:

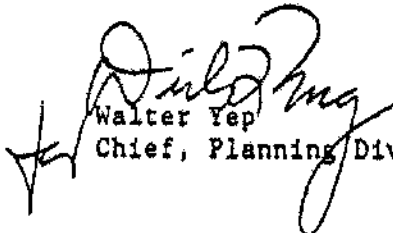
Thank you for your interest in the Dry Creek (Roseville), California, Interim Investigation. This letter is to confirm information you discussed with Bob Verkade of our office last week.

Our hydrology of the Dry Creek Basin considered both the existing and estimated future land use conditions. Our early efforts in the study evaluated 1984 conditions and predicted future with and without project conditions. These flow estimates are subject to change due to land uses having changed since our 1984 projections. In addition, future conditions may be different from the assumptions that we coordinated with local land use planning agencies during the development of our hydrology studies.

Our estimated flows for 1990 conditions in Dry Creek upstream from the confluence with Cirby Creek and for future year 2040 conditions are described on the enclosed Tables 15 and 16 from the Dry Creek Hydrology Office Report, revised April 1988.

If you have any questions, please contact Bob Verkade at 551-1864.

Sincerely,

  
Walter Yep  
Chief, Planning Division

Enclosure

Copy Furnished:

Mr. Frederick L. Barnett, Director of Public Works, 316 Vernon Street,  
Roseville, California 95678 (w/o enclosure)

T A B L E - 15  
 PEAK FLOW DATA SUMMARY  
 PRESENT LAND-USE CONDITIONS - YEAR 1990

UPPER DRY CREEK BASIN CALIFORNIA								
* INDEX * * NO. *	* STREAM LOCATION *	* D.A. * * sq.mi. *	* - - - - F L O O D T Y P E - - - - *					
			* SPF *	* 100-YR *	* 50-YR *	* 25-YR *	* 10-YR *	
			* - - - - - c. f. e. - - - - - *					
* 613540 *	* ANTELOPE CREEK AT * * MOUTH *	* 14.85 *	* 4200 *	* 2550 *	* 2180 *	* 1620 *	* 885 *	* *
* 712920 *	* SECRET RAVINE ABOVE * * SUCKER RAVINE *	* 18.10 *	* 6150 *	* 3660 *	* 3000 *	* 2300 *	* 1100 *	* *
* 613610 *	* SECRET RAVINE AT * * MOUTH *	* 22.00 *	* 6950 *	* 4200 *	* 3500 *	* 2600 *	* 1360 *	* *
* 613611 *	* MINERS RAVINE ABOVE * * SECRET RAVINE *	* 20.05 *	* 7900 *	* 4900 *	* 4180 *	* 3000 *	* 1500 *	* *
* 613541 *	* MINERS RAVINE ABOVE * * ANTELOPE CREEK *	* 42.39 *	* 14400 *	* 8850 *	* 7480 *	* 5300 *	* 2830 *	* *
* *	* MINERS RAVINE BELOW * * ANTELOPE CR. *	* 57.24 *	* 17500 *	* 10700 *	* 9000 *	* 6450 *	* 3450 *	* *
* 611140 *	* DRY CREEK ABOVE * * CIRBY CREEK *	* 58.63 *	* 15800 *	* 9500 *	* 7900 *	* 6200 *	* 4400 *	* *
* 710740 *	* LINDA CREEK AT * * STRAP RAVINE *	* 11.26 *	* 4000 *	* 2550 *	* 2120 *	* 1730 *	* 1280 *	* *
* 710741 *	* STRAP RAVINE AT * * MOUTH *	* 4.02 *	* 1960 *	* 1250 *	* 1080 *	* 825 *	* 430 *	* *
* 611230 *	* LINDA CREEK ABOVE * * CIRBY CREEK *	* 16.40 *	* 4350 *	* 2650 *	* 2250 *	* 1880 *	* 1400 *	* *
* 611231 *	* CIRBY CREEK ABOVE * * LINDA CREEK *	* 2.09 *	* 960 *	* 660 *	* 530 *	* 430 *	* 300 *	* *
* 611141 *	* CIRBY CREEK ABOVE * * DRY CREEK *	* 19.12 *	* 4600 *	* 2980 *	* 2500 *	* 2100 *	* 1620 *	* *
* 611140 *	* DRY CREEK BELOW * * CIRBY CREEK *	* 77.75 *	* 19400 *	* 13700 *	* 11800 *	* 10400 *	* 8300 *	* *
* VERNON *	* DRY CREEK AT VERNON * * STREET BRIDGE *	* 78.20 *	* 17100 *	* 13200 *	* 11600 *	* 10000 *	* 7650 *	* *
* 611030 *	* DRY CREEK AT SEWAGE * * TREATMENT PLANT *	* 79.60 *	* 17000 *	* 13100 *	* 11500 *	* 9900 *	* 7600 *	* *

\* NOTE.: Revised.: January 1988 - This Table is continued on the next page \*

T A B L E - 15 (Cont'd)  
 PEAK FLOW DATA SUMMARY  
 PRESENT LAND-USE CONDITIONS - YEAR 1990

***** * LOWER DRY CREEK BASIN * * CALIFORNIA * *****							
* - - - - F L O O D T Y P E - - - - *							
* INDEX	* STREAM LOCATION	* D.A.	* SPF	*100-YR*	* 50-YR *	* 25-YR *	* 10-YR *
* NO.		* sq.mi	* - - - - - c.f.s. - - - - - *				
*****							
* 511140	* DRY CREEK AT	* 88.40	*14600	*11800	* 10400 *	* 9050 *	* 6950 *
	* SACRAMENTO CO. LINE						
* 512320	* SIERRA CREEK AT	* 3.00	* 1470	* 930	* 790	* 620	* 410
	* MOUTH AT DRY CREEK						
* 513540	* ROBLA CREEK AT WATT	* 1.60	* 1170	* 740	* 620	* 480	* 330
	* AVENUE						
* 591010	* ROBLA CREEK ABOVE	* 5.70	* 2400	* 1530	* 1300	* 1030	* 680
	* MAGPIE CREEK						
* 513410	* NORTH FORK MAGPIE	* 0.90	* 800	* 510	* 425	* 340	* 230
	* CREEK AT WATT AVE						
* 593340	* MAGPIE CREEK AT	* 2.30	* 1500	* 950	* 800	* 640	* 440
	* WATT AVENUER						
* 591011	* MAGPIE CREEK AT	* 8.90	* 4400	* 2800	* 2400	* 1930	* 1330
	* MOUTH ABV.ROBAL CR.						
* 591010	* ROBLA & MAGPIE CR'S	* 14.60	* 6800	* 4350	* 3700	* 3000	* 2000
	* ABOVE DRY CREEK						
* 512110	* DRY CREEK AT Q-STR.	* 97.14	*13000	*10500	* 9350	* 8000	* 6350
	* BLW. SIERRA CREEK						
* 510930	* DRY CREEK ABOVE	* 99.73	*12900	*10400	* 9300	* 7950	* 6270
	* ROBLA & MAGPIE CR'S						
* 590620	* DRY CREEK ABOVE THE	*116.30	*12000	* 9600	* 8600	* 7400	* 5870
	* N.E.M.D. CANAL						
* 590610	* NATOMAS EAST MAIN	* 27.10	* 5450	* 3550	* 2870	* 2150	* 1300
	* CANAL ABOVE DRY CR						
* 590620	* N.E.M.D. CANAL BLW	*143.40	*13100	*10350	* 9230	* 8000	* 6350
	* DRY CREEK						
* 560620	* N.E.M.D. CANAL ABV	*166.00	*13600	*10800	* 9700	* 8500	* 6800
	* ARCADE CR W.PUMP FL.						
	* ARCADE CREEK AT RIO	* 39.58	* 6500	* 5450	* 5050	* 4650	* 4050
	* LINDA BOULEYARD						
* ARCADE	* ARCADE CREEK AT	* 39.58	* 3300	* 3300	* 3300	* 3300	* 3300
	* MOUTH W/FLD.W.OPEN						
	* ARCADE CREEK AT	* 39.58	* 4860	* 4440	* 4240	* 4000	* 3700
	* MOUTH W.FLD W.CLOSED*						
*NATOMAS	* N.E.M.D.CANAL BELOW	*205.58.	*16900	*14100	* 12980	* 11400	* 9310
	* ARCADE CR.F.W.OPEN						
	* N.E.M.D.CANAL BELOW	*205.58	*17700	*14500	* 13200	* 11800	* 9400
	* ARCADE CR F.W CLOSED*						
*****							
* 1./ Assumed no backwater from American and Sacramento Rivers. *							
*****							



T A B L E - 16  
 PEAK FLOW DATA SUMMARY  
 PRE-PROJECT CONDITION - FUTURE LAND-USE CONDITIONS - YEAR 2040

***** UPPER DRY CREEK BASIN CALIFORNIA *****							
* INDEX * * NO. *	* STREAM LOCATION *	* D.A. * * sq.mi *	* - - - - F L O O D T Y P E - - - - *				
			* SPF *	* 100-YR *	* 50-YR *	* 25-YR *	* 10-YR *
			* - - - - c.f.s. - - - - *				
* 613540 *	* ANTELOPE CREEK AT MOUTH *	* 14.85 *	* 4230 *	* 2900 *	* 2460 *	* 2050 *	* 1580 *
* 712920 *	* SECRET RAVINE ABOVE SUCKER RAVINE *	* 18.10 *	* 6200 *	* 4200 *	* 3550 *	* 3000 *	* 2350 *
* 613610 *	* SECRET RAV. AT MOUTH *	* 22.00 *	* 7000 *	* 4800 *	* 4150 *	* 3500 *	* 2800 *
* 613611 *	* MINERS RAVINE ABOVE SECRET RAVINE *	* 20.05 *	* 8000 *	* 5300 *	* 4450 *	* 3700 *	* 2850 *
* 613541 *	* MINERS RAVINE ABOVE ANTELOPE CR. *	* 42.39 *	* 14500 *	* 9900 *	* 8400 *	* 7000 *	* 5400 *
* *	* MINERS RAVINE BELOW ANTELOPE CR. *	* 57.24 *	* 17600 *	* 12000 *	* 10300 *	* 8700 *	* 6900 *
* 611140 *	* DRY CREEK ABOVE CIRBY CREEK *	* 58.63 *	* 16000 *	* 11200 *	* 9700 *	* 8200 *	* 6200 *
* 710740 *	* LINDA CREEK AT STRAP RAVINE *	* 11.26 *	* 4400 *	* 2950 *	* 2450 *	* 1960 *	* 1420 *
* 710741 *	* STRAP RAVINE AT MOUTH *	* 4.02 *	* 1970 *	* 1260 *	* 1120 *	* 890 *	* 610 *
* 611230 *	* LINDA CREEK ABOVE CIRBY CREEK *	* 16.40 *	* 4800 *	* 3100 *	* 2500 *	* 2060 *	* 1560 *
* 611231 *	* CIRBY CREEK ABOVE LINDA CREEK *	* 2.09 *	* 1100 *	* 710 *	* 570 *	* 450 *	* 300 *
* 611141 *	* CIRBY CREEK ABOVE DRY CREEK *	* 19.12 *	* 4800 *	* 2950 *	* 2500 *	* 2140 *	* 1700 *
* 611140 *	* DRY CREEK BELOW CIRBY CREEK *	* 77.75 *	* 20200 *	* 14300 *	* 12200 *	* 10500 *	* 8300 *
* VERNON *	* DRY CREEK AT VERNON STREET BRIDGE *	* 78.20 *	* 17200 *	* 13400 *	* 11800 *	* 10200 *	* 7900 *
* 611030 *	* DRY CREEK AT SEWAGE TREATMENT PLANT *	* 79.60 *	* 17100 *	* 13300 *	* 11750 *	* 10150 *	* 7800 *

\* NOTE.: 1/ Pre-Project Conditions on Dry, Cirby and Linda Creeks. \*

\* 2/ This Table is continued on the next page. \*

T A B L E - 16 (cont'd)  
 PEAK FLOW DATA SUMMARY  
 PRE-PROJECT CONDITION - FUTURE LAND-USE CONDITIONS - YEAR 2040

***** LOWER DRY CREEK BASIN CALIFORNIA *****							
* - - - - F L O O D T Y P E - - - - *							
* INDEX *	* STREAM LOCATION *	* D.A. *	* SPF *	* 100-YR *	* 50-YR *	* 25-YR *	* 10-YR *
* NO. *		* sq.mi *	* c.f.s. * - - - - *				
* 511140 *	* DRY CREEK AT *	* 88.40 *	* 15700 *	* 12000 *	* 10500 *	* 9000 *	* 7000 *
* *	* SACRAMENTO CO. LINE *	* *	* *	* *	* *	* *	* *
* 512320 *	* SIERRA CREEK AT *	* 3.00 *	* 1500 *	* 980 *	* 790 *	* 610 *	* 400 *
* *	* MOUTH *	* *	* *	* *	* *	* *	* *
* 513540 *	* ROBLA CR. AT WATT *	* 1.60 *	* 1150 *	* 750 *	* 610 *	* 480 *	* 315 *
* *	* AVENUE *	* *	* *	* *	* *	* *	* *
* 591010 *	* ROBLA CREEK ABOVE *	* 5.70 *	* 2300 *	* 1520 *	* 1260 *	* 1000 *	* 700 *
* *	* MAGPIE CREEK *	* *	* *	* *	* *	* *	* *
* 513410 *	* NORTH FORK MAGPIE *	* 0.90 *	* 720 *	* 495 *	* 405 *	* 325 *	* 220 *
* *	* CR. AT WATT AVENUE *	* *	* *	* *	* *	* *	* *
* 593340 *	* MAGPIE CREEK AT *	* 2.30 *	* 1400 *	* 940 *	* 760 *	* 600 *	* 415 *
* *	* WATT AVENUE *	* *	* *	* *	* *	* *	* *
* 591011 *	* MAGPIE CREEK ABOVE *	* 8.90 *	* 4600 *	* 2900 *	* 2350 *	* 1860 *	* 1280 *
* *	* MOUTH *	* *	* *	* *	* *	* *	* *
* 591010 *	* ROBLA & MAGPIE CR'S *	* 14.60 *	* 7000 *	* 4650 *	* 3750 *	* 2950 *	* 2000 *
* *	* ABOVE DRY CREEK *	* *	* *	* *	* *	* *	* *
* 512110 *	* DRY CREEK AT Q-STR, *	* 97.34 *	* 15400 *	* 11800 *	* 10400 *	* 9000 *	* 7100 *
* *	* BELOW SIERRA CREEK *	* *	* *	* *	* *	* *	* *
* 510930 *	* DRY CREEK ABV. ROBLA *	* 99.73 *	* 14700 *	* 11600 *	* 10250 *	* 8900 *	* 7050 *
* *	* AND MAGPIE CREEKS *	* *	* *	* *	* *	* *	* *
* 590620 *	* DRY CREEK ABOVE *	* 116.30 *	* 12400 *	* 10400 *	* 9500 *	* 8500 *	* 6750 *
* 1/ *	* NATOMAS EAST MAIN *	* *	* *	* *	* *	* *	* *
* *	* DRAINAGE CANAL *	* *	* *	* *	* *	* *	* *
* 590610 *	* NATOMAS EAST MAIN *	* 27.10 *	* 3900 *	* 3900 *	* 3180 *	* 2450 *	* 1350 *
* 1/ *	* CANAL ABOVE DRY CR. *	* *	* *	* *	* *	* *	* *
* 590620 *	* N.E.M.D. CANAL BLW. *	* 143.40 *	* 14000 *	* 11200 *	* 9800 *	* 8600 *	* 6750 *
* 1/ *	* DRY CREEK *	* *	* *	* *	* *	* *	* *
* 590620 *	* N.E.M.D. CANAL ABV. *	* 166.00 *	* 14460 *	* 11300 *	* 10000 *	* 8800 *	* 7200 *
* 1/ *	* ARCADE CR W. PUMP FLW* *	* *	* *	* *	* *	* *	* *
* ARCADE *	* ARCADE CREEK AT *	* 39.58 *	* 3300 *	* 3300 *	* 3300 *	* 3300 *	* 3300 *
* 1/ *	* MOUTH FLD WLS OPEN *	* *	* *	* *	* *	* *	* *
* *	* ARCADE CREEK AT *	* 39.58 *	* 4860 *	* 4440 *	* 4250 *	* 4020 *	* 3700 *
* *	* MOUTH FLD WLS CLOSED* *	* *	* *	* *	* *	* *	* *
* NATOMAS *	* N.E.M.D. CANAL BLW. *	* 205.58 *	* 17400 *	* 14500 *	* 13300 *	* 11900 *	* 9800 *
* *	* ARCADE CR. F.W. OPEN *	* *	* *	* *	* *	* *	* *
* *	* N.E.M.D. CANAL BLW. *	* 205.58 *	* 18200 *	* 14900 *	* 13490 *	* 12000 *	* 9850 *
* *	* ARCADE CR. F.W. CLSD. *	* *	* *	* *	* *	* *	* *

\*\*\*\*\*

\* Note: 1/ Assumed no Backwater from American and Sacramento Rivers. \*

\* 2/ Pre-Project Conditions on Dry, Cirby, and Linda Creeks. \*

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