

The Capra Company
East Money Hole Reservoir

Hydrology Analysis

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Checked By: David Lounsbury, P.E.

Date: February, 2024

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Section A

Precipitation Data



NOAA Atlas 14, Volume 6, Version 2
Location name: Saint Helena, California, USA*
Latitude: 38.4979°, Longitude: -122.3205°
Elevation: 1242 ft**

* source: ESRI Maps

** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

[PF_tabular](#) | [PF_graphical](#) | [Maps_&_aerials](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.144 (0.128-0.163)	0.175 (0.156-0.199)	0.218 (0.193-0.248)	0.253 (0.222-0.291)	0.303 (0.256-0.362)	0.343 (0.283-0.420)	0.385 (0.309-0.484)	0.430 (0.334-0.559)	0.494 (0.366-0.673)	0.547 (0.390-0.775)
10-min	0.206 (0.183-0.234)	0.251 (0.223-0.286)	0.312 (0.276-0.356)	0.363 (0.318-0.417)	0.434 (0.367-0.519)	0.491 (0.405-0.601)	0.551 (0.442-0.694)	0.616 (0.479-0.801)	0.708 (0.525-0.965)	0.785 (0.560-1.11)
15-min	0.249 (0.222-0.283)	0.304 (0.270-0.345)	0.377 (0.334-0.430)	0.439 (0.385-0.505)	0.525 (0.443-0.628)	0.594 (0.490-0.727)	0.667 (0.535-0.840)	0.745 (0.579-0.968)	0.857 (0.635-1.17)	0.949 (0.677-1.34)
30-min	0.362 (0.322-0.411)	0.441 (0.392-0.502)	0.548 (0.486-0.625)	0.637 (0.559-0.733)	0.762 (0.644-0.912)	0.863 (0.712-1.06)	0.968 (0.777-1.22)	1.08 (0.841-1.41)	1.24 (0.923-1.70)	1.38 (0.983-1.95)
60-min	0.534 (0.475-0.606)	0.651 (0.578-0.739)	0.808 (0.716-0.921)	0.939 (0.824-1.08)	1.12 (0.949-1.34)	1.27 (1.05-1.56)	1.43 (1.14-1.80)	1.60 (1.24-2.07)	1.83 (1.36-2.50)	2.03 (1.45-2.88)
2-hr	0.809 (0.720-0.918)	0.990 (0.880-1.12)	1.23 (1.09-1.40)	1.42 (1.25-1.64)	1.69 (1.43-2.02)	1.90 (1.56-2.32)	2.11 (1.69-2.66)	2.33 (1.81-3.03)	2.63 (1.95-3.59)	2.87 (2.05-4.07)
3-hr	1.04 (0.927-1.18)	1.28 (1.13-1.45)	1.58 (1.40-1.80)	1.83 (1.61-2.10)	2.16 (1.83-2.59)	2.42 (2.00-2.97)	2.68 (2.15-3.38)	2.95 (2.29-3.84)	3.32 (2.46-4.52)	3.60 (2.57-5.10)
6-hr	1.58 (1.41-1.80)	1.94 (1.73-2.21)	2.41 (2.14-2.75)	2.79 (2.45-3.21)	3.28 (2.78-3.93)	3.66 (3.02-4.48)	4.04 (3.24-5.08)	4.42 (3.43-5.74)	4.93 (3.65-6.71)	5.32 (3.79-7.53)
12-hr	2.26 (2.01-2.56)	2.81 (2.50-3.20)	3.52 (3.12-4.01)	4.08 (3.58-4.69)	4.81 (4.07-5.76)	5.36 (4.42-6.57)	5.91 (4.74-7.44)	6.46 (5.02-8.40)	7.18 (5.32-9.78)	7.73 (5.51-10.9)
24-hr	3.18 (2.86-3.61)	4.02 (3.62-4.57)	5.09 (4.57-5.80)	5.94 (5.29-6.81)	7.05 (6.11-8.30)	7.88 (6.71-9.44)	8.70 (7.26-10.6)	9.51 (7.76-11.9)	10.6 (8.34-13.7)	11.4 (8.72-15.2)
2-day	4.18 (3.76-4.74)	5.33 (4.79-6.06)	6.80 (6.09-7.74)	7.96 (7.09-9.12)	9.50 (8.23-11.2)	10.6 (9.07-12.8)	11.8 (9.84-14.4)	12.9 (10.6-16.2)	14.5 (11.4-18.7)	15.6 (11.9-20.8)
3-day	4.87 (4.38-5.53)	6.23 (5.60-7.08)	7.97 (7.15-9.07)	9.36 (8.34-10.7)	11.2 (9.70-13.2)	12.6 (10.7-15.1)	14.0 (11.7-17.1)	15.4 (12.5-19.2)	17.2 (13.6-22.3)	18.6 (14.2-24.8)
4-day	5.42 (4.87-6.14)	6.94 (6.24-7.88)	8.89 (7.97-10.1)	10.4 (9.30-12.0)	12.5 (10.8-14.7)	14.0 (12.0-16.8)	15.6 (13.0-19.0)	17.1 (14.0-21.4)	19.2 (15.1-24.9)	20.8 (15.9-27.7)
7-day	6.68 (6.01-7.58)	8.57 (7.70-9.73)	11.0 (9.82-12.5)	12.8 (11.4-14.7)	15.3 (13.3-18.0)	17.2 (14.6-20.5)	19.0 (15.8-23.2)	20.8 (17.0-26.0)	23.2 (18.3-30.0)	25.0 (19.1-33.3)
10-day	7.53 (6.77-8.54)	9.66 (8.68-11.0)	12.3 (11.1-14.0)	14.4 (12.8-16.5)	17.1 (14.9-20.2)	19.2 (16.3-23.0)	21.1 (17.6-25.8)	23.1 (18.8-28.9)	25.7 (20.2-33.2)	27.6 (21.1-36.8)
20-day	9.86 (8.87-11.2)	12.7 (11.4-14.4)	16.1 (14.5-18.3)	18.8 (16.7-21.5)	22.2 (19.2-26.1)	24.6 (21.0-29.5)	27.0 (22.6-33.0)	29.3 (23.9-36.7)	32.3 (25.5-41.9)	34.5 (26.4-46.0)
30-day	11.9 (10.7-13.6)	15.3 (13.7-17.4)	19.4 (17.4-22.1)	22.5 (20.0-25.8)	26.4 (22.9-31.1)	29.2 (24.9-35.0)	31.9 (26.7-39.0)	34.5 (28.2-43.2)	37.8 (29.8-49.0)	40.2 (30.8-53.7)
45-day	14.5 (13.1-16.5)	18.5 (16.6-21.0)	23.3 (20.9-26.5)	26.9 (23.9-30.8)	31.4 (27.2-36.9)	34.5 (29.4-41.4)	37.5 (31.3-45.9)	40.4 (33.0-50.6)	44.0 (34.7-57.0)	46.6 (35.6-62.1)
60-day	17.3 (15.6-19.7)	21.9 (19.7-24.9)	27.3 (24.5-31.1)	31.4 (27.9-35.9)	36.4 (31.5-42.8)	39.9 (34.0-47.8)	43.2 (36.0-52.8)	46.3 (37.8-58.0)	50.2 (39.6-65.1)	53.0 (40.5-70.7)

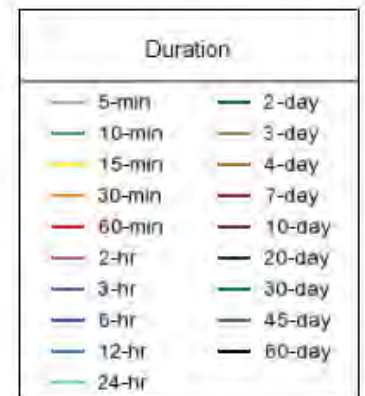
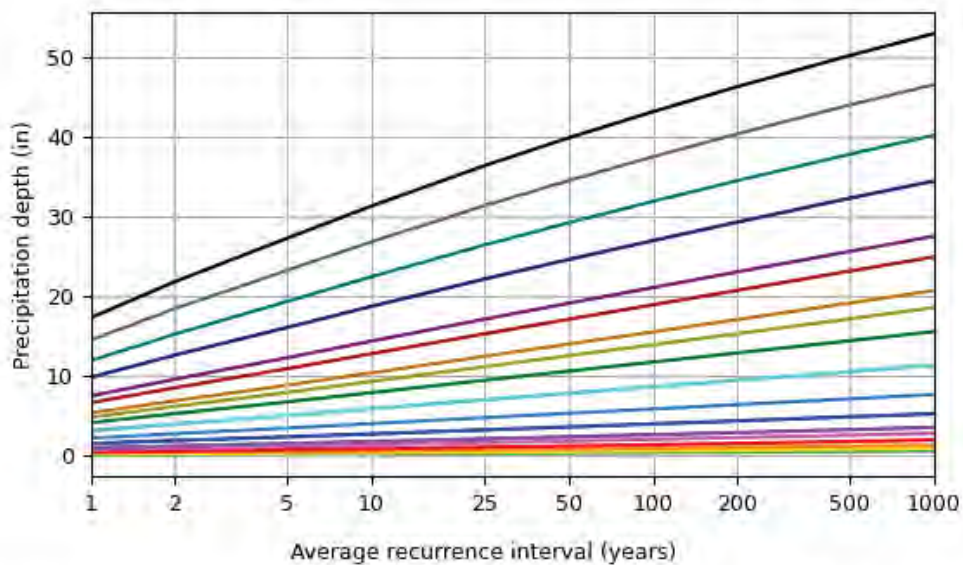
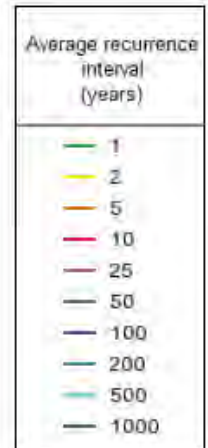
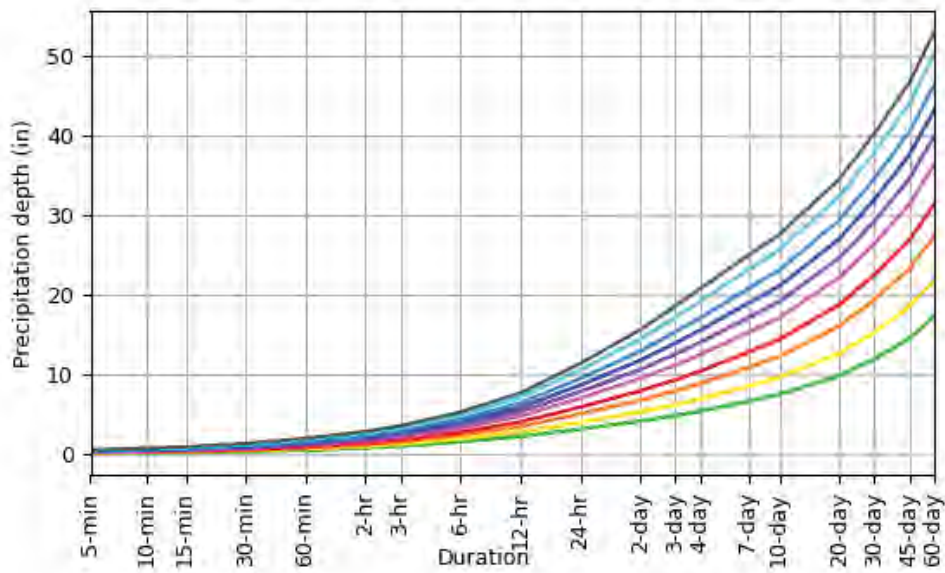
¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).
 Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.
 Please refer to NOAA Atlas 14 document for more information.

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PF graphical

PDS-based depth-duration-frequency (DDF) curves

Latitude: 38.4979°, Longitude: -122.3205°



NOAA Atlas 14, Volume 6, Version 2

Created (GMT): Mon Dec 18 20:49:03 2023

[Back to Top](#)**Maps & aerals****Small scale terrain**

**Large scale terrain****Large scale map****Large scale aerial**



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[National Water Center](#)
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Section B

Spillway Discharge

Hydrology & Hydraulics

Client: The Capra Company
Project Name : East Money Hole Reservoir
Reference : Q:\Drawings\The Capra\CAD\East Money Hole Reservoir Hydrology.dwg

Find: Spillway Discharge

Given:

$$Q = CLH^{3/2}$$

Q = weir flow capacity (cfs)

C = weir coefficient

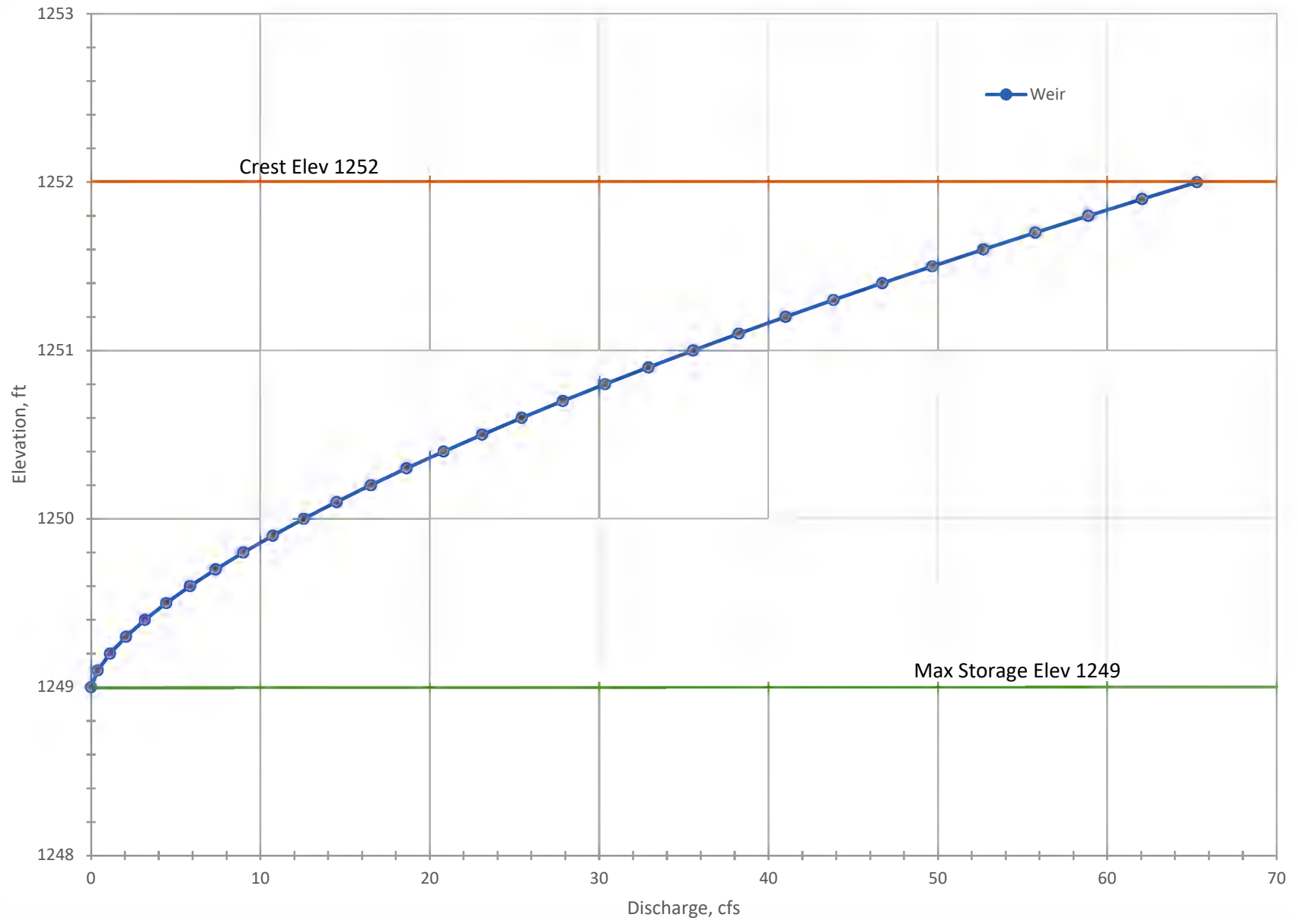
L = length of the weir

H = height of water over inlet crest (ft)

Weir Coefficient, C = 3.2
Pipe Diameter, D = 1.25 ft
Weir Length, L = 3.9 ft

Solution:	Elevation (ft)	Energy Head, H (ft)	Flowrate, Q (cfs)	Flowrate, Q (gpm)
	1249.0	0.0	0.0	-
	1249.1	0.1	0.4	178
	1249.2	0.2	1.1	504
	1249.3	0.3	2.1	927
	1249.4	0.4	3.2	1,427
	1249.5	0.5	4.4	1,994
	1249.6	0.6	5.8	2,621
	1249.7	0.7	7.4	3,303
	1249.8	0.8	9.0	4,036
	1249.9	0.9	10.7	4,816
	1250.0	1.0	12.6	5,640
	1250.1	1.1	14.5	6,507
	1250.2	1.2	16.5	7,414
	1250.3	1.3	18.6	8,360
	1250.4	1.4	20.8	9,343
	1250.5	1.5	23.1	10,362
	1250.6	1.6	25.4	11,415
	1250.7	1.7	27.9	12,502
	1250.8	1.8	30.3	13,621
	1250.9	1.9	32.9	14,771
	1251.0	2.0	35.5	15,953
	1251.1	2.1	38.2	17,164
	1251.2	2.2	41.0	18,405
	1251.3	2.3	43.8	19,674
	1251.4	2.4	46.7	20,970
	1251.5	2.5	49.7	22,295
	1251.6	2.6	52.7	23,646
	1251.7	2.7	55.8	25,023
	1251.8	2.8	58.9	26,426
	1251.9	2.9	62.1	27,854
	1252.0	3.0	65.3	29,307

Spillway Discharge



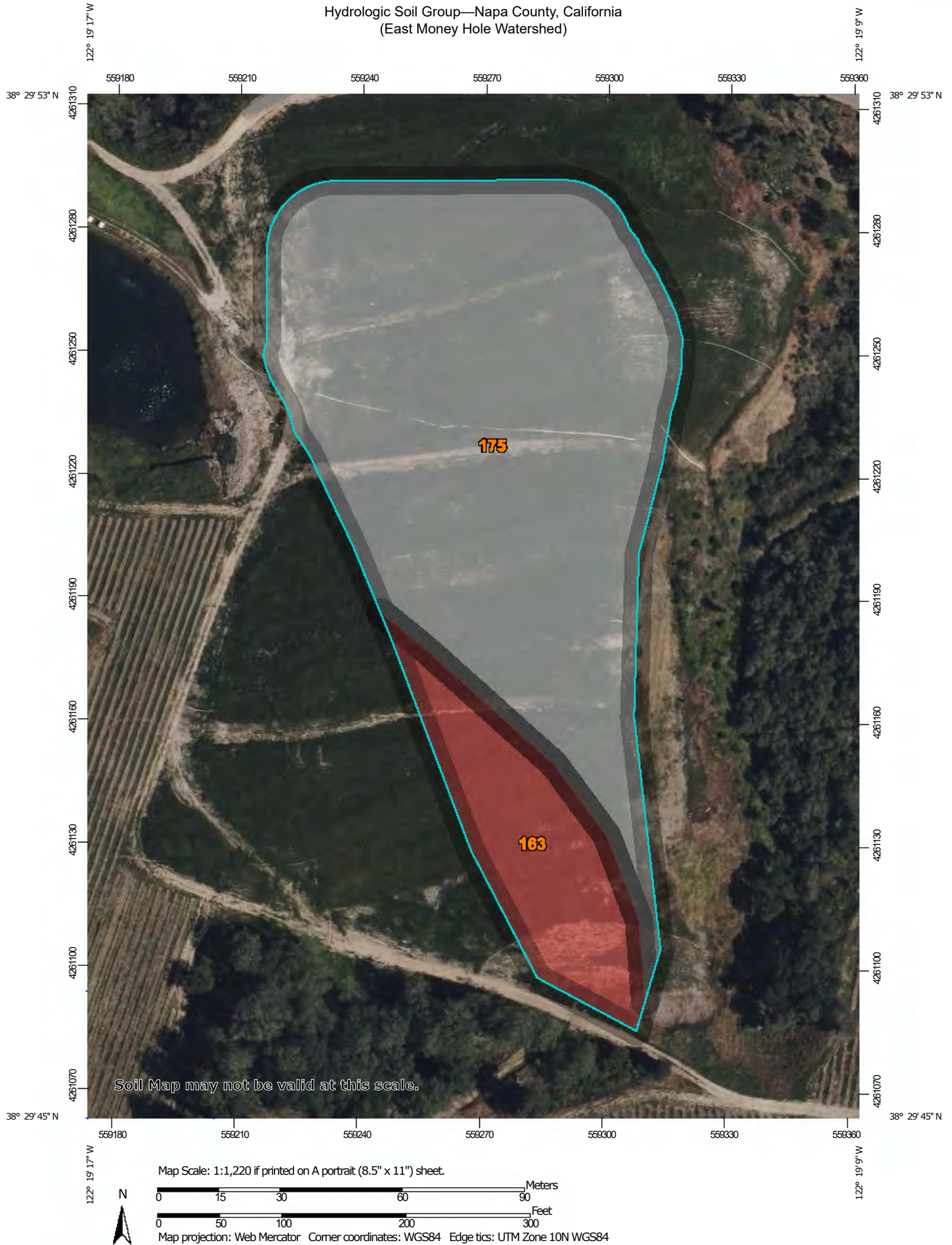
Section C

East Money Hole Reservoir Watershed

C-1

Curve Number

Hydrologic Soil Group—Napa County, California (East Money Hole Watershed)



Hydrologic Soil Group—Napa County, California
(East Money Hole Watershed)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points

 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Napa County, California
 Survey Area Data: Version 16, Sep 11, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 26, 2022—Apr 25, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
163	Maymen-Millsholm-Lodo association, 30-75 percent slopes	D	0.6	17.6%
175	Rock outcrop		2.7	82.4%
Totals for Area of Interest			3.3	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Table 2-2c Runoff curve numbers for other agricultural lands ^{1/}

Cover type	Cover description	Hydrologic condition	Curve numbers for hydrologic soil group			
			A	B	C	D
Pasture, grassland, or range—continuous forage for grazing. ^{2/}		Poor	68	79	86	89
		Fair	49	69	79	84
		Good	39	61	74	80
Meadow—continuous grass, protected from grazing and generally mowed for hay.		—	30	58	71	78
Brush—brush-weed-grass mixture with brush the major element. ^{3/}		Poor	48	67	77	83
		Fair	35	56	70	77
		Good	30 ^{4/}	48	65	73
Woods—grass combination (orchard or tree farm). ^{5/}		Poor	57	73	82	86
		Fair	43	65	76	82
		Good	32	58	72	79
Woods. ^{6/}		Poor	45	66	77	83
		Fair	36	60	73	79
		Good	30 ^{4/}	55	70	77
Farmsteads—buildings, lanes, driveways, and surrounding lots.		—	59	74	82	86

^{1/} Average runoff condition, and $I_a = 0.2S$.

^{2/} *Poor:* <50% ground cover or heavily grazed with no mulch.

Fair: 50 to 75% ground cover and not heavily grazed.

Good: > 75% ground cover and lightly or only occasionally grazed.

^{3/} *Poor:* <50% ground cover.

Fair: 50 to 75% ground cover.

Good: >75% ground cover.

^{4/} Actual curve number is less than 30; use CN = 30 for runoff computations.

^{5/} CN's shown were computed for areas with 50% woods and 50% grass (pasture) cover. Other combinations of conditions may be computed from the CN's for woods and pasture.

^{6/} *Poor:* Forest litter, small trees, and brush are destroyed by heavy grazing or regular burning.

Fair: Woods are grazed but not burned, and some forest litter covers the soil.

Good: Woods are protected from grazing, and litter and brush adequately cover the soil.

East Money RSVR Watershed Flow: (Hydrologic Survey → D)

from google earth + CAD Aerial, mostly grassy area - assume grassland

→ CN = 80

→ scaled to condition III

→ CN = 91

C-2

Time of Concentration

Velocity Method - Shallow Concentrated Flow

* based on Google Profile Flow (TOC Flow Path -

East Money Hole Watershed)

1.) $L = \sim 672 \text{ ft}$

$$S = \frac{1388 - 1250}{672} = 0.215$$

2.) Use figure 15-4 (see attached)

-based off aerial imagery assume short grass pasture

→ velocity, $V = 3.2 \text{ ft/s}$

3.) $t_c = \frac{L}{3600V}$

$$= \frac{672}{3600(3.2)} = 0.06$$

4.) $t_L = t_c \times 0.6 = 0.035 \text{ hr}$

$$= \boxed{2.1 \text{ min}}$$

Figure 15-4 Velocity versus slope for shallow concentrated flow

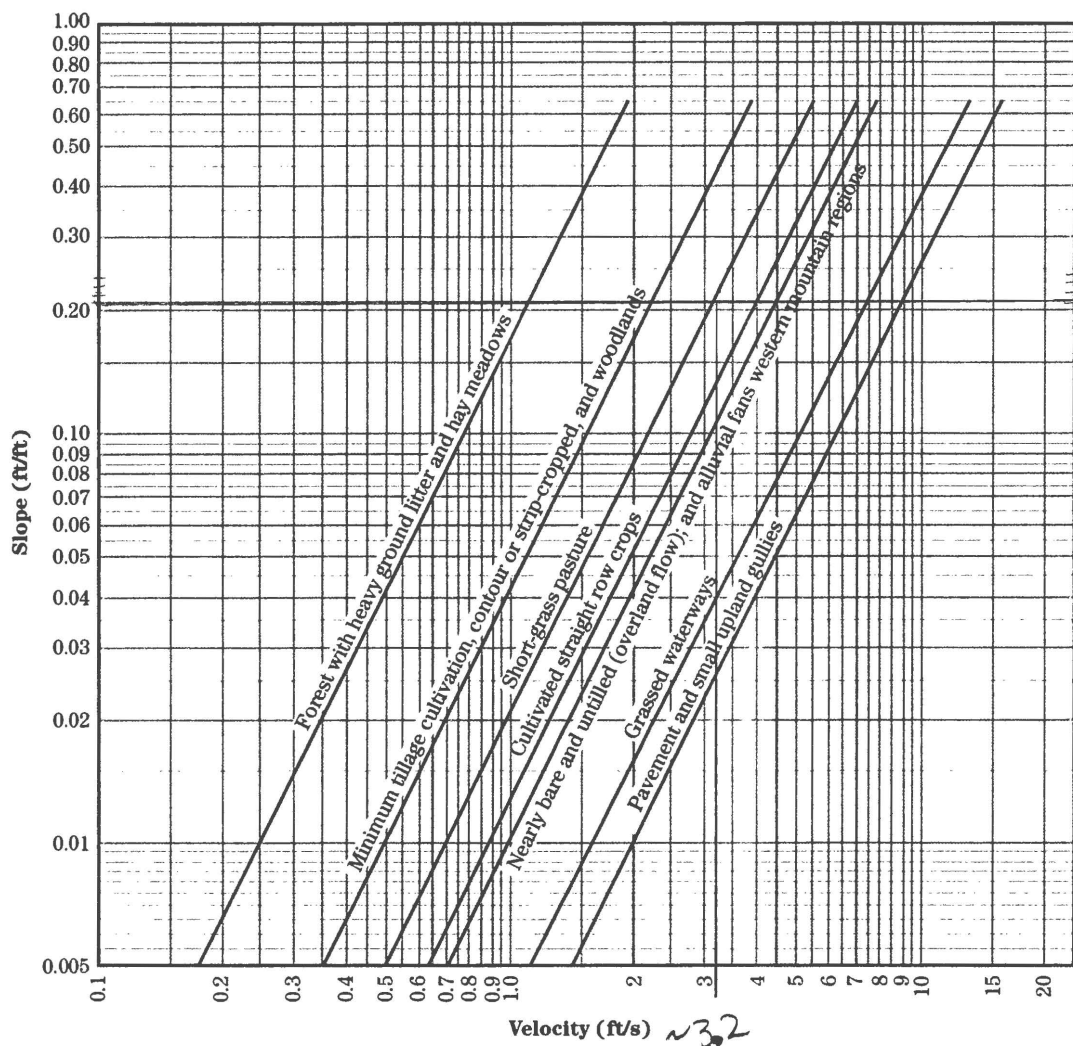


Table 15-3 Equations and assumptions developed from figure 15-4

Flow type	Depth (ft)	Manning's <i>n</i>	Velocity equation (ft/s)
Pavement and small upland gullies	0.2	0.025	$V = 20.328(s)^{0.5}$
Grassed waterways	0.4	0.050	$V = 16.135(s)^{0.5}$
Nearly bare and untilled (overland flow); and alluvial fans in western mountain regions	0.2	0.051	$V = 9.965(s)^{0.5}$
Cultivated straight row crops	0.2	0.058	$V = 8.762(s)^{0.5}$
Short-grass pasture	0.2	0.073	$V = 6.962(s)^{0.5}$
Minimum tillage cultivation, contour or strip-cropped, and woodlands	0.2	0.101	$V = 5.032(s)^{0.5}$
Forest with heavy ground litter and hay meadows	0.2	0.202	$V = 2.516(s)^{0.5}$

C-3

HEC-1 Output

```

1*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1)
*      JUN 1998
*      VERSION 4.1
*
* RUN DATE 19FEB24 TIME 08:56:29
*
*****

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*****
*
* U.S. ARMY CORPS OF ENGINEERS
* HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET
* DAVIS, CALIFORNIA 95616
* (916) 756-1104
*
*****

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

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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE. THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
 NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
 DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
 KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1 HEC-1 INPUT PAGE 1

```

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
1 ID East Money Hole Reservoir 100-year, 4-day storm, 24-HR
2 IT 5 21DEC23 000 300
3 IO 1 2
4 KK Basin
5 KM Compute inflow to reservoir
6 BA 0.005
7 BF 0
8 PH 0.385 0.667 1.43 2.11 2.68 4.04 5.91 8.70
9 PH 11.8 15.6
10 LS 0 91 0
11 UD 0.035
12 KK Route
13 KM Route flow through pipe spillway inlet - 15in diameter (3.9 ft circumference)
14 RS 1 ELEV 1249
15 SV 7.202 8.007 8.863 9.772
16 SE 1249.0 1250.0 1251.0 1252.0
17 SQ 0.0 12.6 35.5 65.3
18 SE 1249.0 1250.0 1251.0 1252.0
19 ZZ

```

```

1*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1)
*      JUN 1998
*      VERSION 4.1
*
* RUN DATE 19FEB24 TIME 08:56:29
*
*****

```

```

*****
*
* U.S. ARMY CORPS OF ENGINEERS
* HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET
* DAVIS, CALIFORNIA 95616
* (916) 756-1104
*
*****

```

East Money Hole Reservoir 100-year, 4-day storm, 24-HR

```

3 IO OUTPUT CONTROL VARIABLES
      IPRNT 1 PRINT CONTROL
      IPLOT 2 PLOT CONTROL
      QSCAL 0. HYDROGRAPH PLOT SCALE

IT HYDROGRAPH TIME DATA
   NMIN 5 MINUTES IN COMPUTATION INTERVAL

```

IDATE 21DEC23 STARTING DATE
 ITIME 0000 STARTING TIME
 NQ 300 NUMBER OF HYDROGRAPH ORDINATES
 NDDATE 22DEC23 ENDING DATE
 NDTIME 0055 ENDING TIME
 ICENT 19 CENTURY MARK

COMPUTATION INTERVAL .08 HOURS
 TOTAL TIME BASE 24.92 HOURS

ENGLISH UNITS
 DRAINAGE AREA SQUARE MILES
 PRECIPITATION DEPTH INCHES
 LENGTH, ELEVATION FEET
 FLOW CUBIC FEET PER SECOND
 STORAGE VOLUME ACRE-FEET
 SURFACE AREA ACRES
 TEMPERATURE DEGREES FAHRENHEIT

*** **

 * *
 4 KK * Basin *
 * *

 Compute inflow to reservoir

SUBBASIN RUNOFF DATA

6 BA SUBBASIN CHARACTERISTICS
 TAREA .00 SUBBASIN AREA
 7 BF BASE FLOW CHARACTERISTICS
 STRTQ .00 INITIAL FLOW
 QRCSN .00 BEGIN BASE FLOW RECESSION
 RTIOR 1.00000 RECESSION CONSTANT

PRECIPITATION DATA

8 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM
 HYDRO-35 TP-40 TP-49
 5-MIN 15-MIN 60-MIN 2-HR 3-HR 6-HR 12-HR 24-HR 2-DAY 4-DAY 7-DAY 10-DAY
 .38 .67 1.43 2.11 2.68 4.04 5.91 8.70 11.80 15.60 .00 .00
 STORM AREA = .00

10 LS SCS LOSS RATE
 STRTL .20 INITIAL ABSTRACTION
 CRVNBR 91.00 CURVE NUMBER
 RTIMP .00 PERCENT IMPERVIOUS AREA

11 UD SCS DIMENSIONLESS UNITGRAPH
 TLAG .04 LAG

WARNING *** TIME INTERVAL IS GREATER THAN .29*LAG

UNIT HYDROGRAPH
 5 END-OF-PERIOD ORDINATES
 29. 8. 2. 0. 0.

HYDROGRAPH AT STATION Basin

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q		DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
21	DEC	0000	1	.00	.00	.00	0.	*	21	DEC	1230	151	.38	.01	.37	12.
21	DEC	0005	2	.01	.01	.00	0.	*	21	DEC	1235	152	.12	.00	.11	7.
21	DEC	0010	3	.01	.01	.00	0.	*	21	DEC	1240	153	.12	.00	.12	5.
21	DEC	0015	4	.01	.01	.00	0.	*	21	DEC	1245	154	.08	.00	.07	3.
21	DEC	0020	5	.01	.01	.00	0.	*	21	DEC	1250	155	.07	.00	.06	3.
21	DEC	0025	6	.01	.01	.00	0.	*	21	DEC	1255	156	.06	.00	.06	2.
21	DEC	0030	7	.02	.02	.00	0.	*	21	DEC	1300	157	.07	.00	.06	2.
21	DEC	0035	8	.02	.02	.00	0.	*	21	DEC	1305	158	.06	.00	.06	2.

21 DEC 0040	9	.02	.02	.00	0.	*	21 DEC 1310	159	.06	.00	.06	2.
21 DEC 0045	10	.02	.02	.00	0.	*	21 DEC 1315	160	.06	.00	.05	2.
21 DEC 0050	11	.02	.02	.00	0.	*	21 DEC 1320	161	.05	.00	.05	2.
21 DEC 0055	12	.02	.02	.00	0.	*	21 DEC 1325	162	.05	.00	.05	2.
21 DEC 0100	13	.02	.02	.00	0.	*	21 DEC 1330	163	.05	.00	.05	2.
21 DEC 0105	14	.02	.02	.00	0.	*	21 DEC 1335	164	.05	.00	.05	2.
21 DEC 0110	15	.02	.02	.00	0.	*	21 DEC 1340	165	.05	.00	.05	2.
21 DEC 0115	16	.02	.02	.00	0.	*	21 DEC 1345	166	.05	.00	.05	2.
21 DEC 0120	17	.02	.02	.00	0.	*	21 DEC 1350	167	.05	.00	.04	2.
21 DEC 0125	18	.02	.02	.00	0.	*	21 DEC 1355	168	.04	.00	.04	2.
21 DEC 0130	19	.02	.01	.00	0.	*	21 DEC 1400	169	.04	.00	.04	2.
21 DEC 0135	20	.02	.01	.00	0.	*	21 DEC 1405	170	.04	.00	.04	2.
21 DEC 0140	21	.02	.01	.00	0.	*	21 DEC 1410	171	.04	.00	.04	2.
21 DEC 0145	22	.02	.01	.00	0.	*	21 DEC 1415	172	.04	.00	.04	2.
21 DEC 0150	23	.02	.01	.00	0.	*	21 DEC 1420	173	.04	.00	.04	2.
21 DEC 0155	24	.02	.01	.00	0.	*	21 DEC 1425	174	.04	.00	.04	2.
21 DEC 0200	25	.02	.01	.01	0.	*	21 DEC 1430	175	.04	.00	.04	1.
21 DEC 0205	26	.02	.01	.01	0.	*	21 DEC 1435	176	.04	.00	.04	1.
21 DEC 0210	27	.02	.01	.01	0.	*	21 DEC 1440	177	.04	.00	.04	1.
21 DEC 0215	28	.02	.01	.01	0.	*	21 DEC 1445	178	.04	.00	.04	1.
21 DEC 0220	29	.02	.01	.01	0.	*	21 DEC 1450	179	.04	.00	.04	1.
21 DEC 0225	30	.02	.01	.01	0.	*	21 DEC 1455	180	.04	.00	.04	1.
21 DEC 0230	31	.02	.01	.01	0.	*	21 DEC 1500	181	.04	.00	.03	1.
21 DEC 0235	32	.02	.01	.01	0.	*	21 DEC 1505	182	.04	.00	.03	1.
21 DEC 0240	33	.02	.01	.01	0.	*	21 DEC 1510	183	.03	.00	.03	1.
21 DEC 0245	34	.02	.01	.01	0.	*	21 DEC 1515	184	.03	.00	.03	1.
21 DEC 0250	35	.02	.01	.01	0.	*	21 DEC 1520	185	.03	.00	.03	1.
21 DEC 0255	36	.02	.01	.01	0.	*	21 DEC 1525	186	.03	.00	.03	1.
21 DEC 0300	37	.02	.01	.01	0.	*	21 DEC 1530	187	.03	.00	.03	1.
21 DEC 0305	38	.02	.01	.01	0.	*	21 DEC 1535	188	.03	.00	.03	1.
21 DEC 0310	39	.02	.01	.01	0.	*	21 DEC 1540	189	.03	.00	.03	1.
21 DEC 0315	40	.02	.01	.01	0.	*	21 DEC 1545	190	.03	.00	.03	1.
21 DEC 0320	41	.02	.01	.01	0.	*	21 DEC 1550	191	.03	.00	.03	1.
21 DEC 0325	42	.02	.01	.01	0.	*	21 DEC 1555	192	.03	.00	.03	1.
21 DEC 0330	43	.02	.01	.01	0.	*	21 DEC 1600	193	.03	.00	.03	1.
21 DEC 0335	44	.02	.01	.01	0.	*	21 DEC 1605	194	.03	.00	.03	1.
21 DEC 0340	45	.02	.01	.01	0.	*	21 DEC 1610	195	.03	.00	.03	1.
21 DEC 0345	46	.02	.01	.01	0.	*	21 DEC 1615	196	.03	.00	.03	1.
21 DEC 0350	47	.02	.01	.01	0.	*	21 DEC 1620	197	.03	.00	.03	1.
21 DEC 0355	48	.02	.01	.01	0.	*	21 DEC 1625	198	.03	.00	.03	1.
21 DEC 0400	49	.02	.01	.01	0.	*	21 DEC 1630	199	.03	.00	.03	1.
21 DEC 0405	50	.02	.01	.01	0.	*	21 DEC 1635	200	.03	.00	.03	1.
21 DEC 0410	51	.02	.01	.01	0.	*	21 DEC 1640	201	.03	.00	.03	1.
21 DEC 0415	52	.02	.01	.01	1.	*	21 DEC 1645	202	.03	.00	.03	1.
21 DEC 0420	53	.02	.01	.01	1.	*	21 DEC 1650	203	.03	.00	.03	1.
21 DEC 0425	54	.02	.01	.01	1.	*	21 DEC 1655	204	.03	.00	.03	1.
21 DEC 0430	55	.02	.01	.01	1.	*	21 DEC 1700	205	.03	.00	.03	1.
21 DEC 0435	56	.02	.01	.01	1.	*	21 DEC 1705	206	.03	.00	.02	1.
21 DEC 0440	57	.02	.01	.01	1.	*	21 DEC 1710	207	.03	.00	.02	1.
21 DEC 0445	58	.02	.01	.01	1.	*	21 DEC 1715	208	.02	.00	.02	1.
21 DEC 0450	59	.02	.01	.01	1.	*	21 DEC 1720	209	.02	.00	.02	1.
21 DEC 0455	60	.02	.01	.01	1.	*	21 DEC 1725	210	.02	.00	.02	1.
21 DEC 0500	61	.02	.01	.01	1.	*	21 DEC 1730	211	.02	.00	.02	1.
21 DEC 0505	62	.02	.01	.02	1.	*	21 DEC 1735	212	.02	.00	.02	1.
21 DEC 0510	63	.02	.01	.02	1.	*	21 DEC 1740	213	.02	.00	.02	1.
21 DEC 0515	64	.02	.01	.02	1.	*	21 DEC 1745	214	.02	.00	.02	1.
21 DEC 0520	65	.02	.01	.02	1.	*	21 DEC 1750	215	.02	.00	.02	1.
21 DEC 0525	66	.02	.01	.02	1.	*	21 DEC 1755	216	.02	.00	.02	1.
21 DEC 0530	67	.02	.01	.02	1.	*	21 DEC 1800	217	.02	.00	.02	1.
21 DEC 0535	68	.02	.01	.02	1.	*	21 DEC 1805	218	.02	.00	.02	1.
21 DEC 0540	69	.02	.01	.02	1.	*	21 DEC 1810	219	.02	.00	.02	1.
21 DEC 0545	70	.02	.01	.02	1.	*	21 DEC 1815	220	.02	.00	.02	1.
21 DEC 0550	71	.02	.00	.02	1.	*	21 DEC 1820	221	.02	.00	.02	1.
21 DEC 0555	72	.02	.00	.02	1.	*	21 DEC 1825	222	.02	.00	.02	1.
21 DEC 0600	73	.02	.00	.02	1.	*	21 DEC 1830	223	.02	.00	.02	1.
21 DEC 0605	74	.02	.00	.02	1.	*	21 DEC 1835	224	.02	.00	.02	1.
21 DEC 0610	75	.02	.00	.02	1.	*	21 DEC 1840	225	.02	.00	.02	1.
21 DEC 0615	76	.02	.00	.02	1.	*	21 DEC 1845	226	.02	.00	.02	1.
21 DEC 0620	77	.02	.00	.02	1.	*	21 DEC 1850	227	.02	.00	.02	1.
21 DEC 0625	78	.02	.00	.02	1.	*	21 DEC 1855	228	.02	.00	.02	1.
21 DEC 0630	79	.02	.00	.02	1.	*	21 DEC 1900	229	.02	.00	.02	1.
21 DEC 0635	80	.02	.00	.02	1.	*	21 DEC 1905	230	.02	.00	.02	1.
21 DEC 0640	81	.02	.00	.02	1.	*	21 DEC 1910	231	.02	.00	.02	1.
21 DEC 0645	82	.02	.00	.02	1.	*	21 DEC 1915	232	.02	.00	.02	1.
21 DEC 0650	83	.02	.00	.02	1.	*	21 DEC 1920	233	.02	.00	.02	1.
21 DEC 0655	84	.02	.00	.02	1.	*	21 DEC 1925	234	.02	.00	.02	1.
21 DEC 0700	85	.02	.00	.02	1.	*	21 DEC 1930	235	.02	.00	.02	1.
21 DEC 0705	86	.02	.00	.02	1.	*	21 DEC 1935	236	.02	.00	.02	1.
21 DEC 0710	87	.02	.00	.02	1.	*	21 DEC 1940	237	.02	.00	.02	1.
21 DEC 0715	88	.02	.00	.02	1.	*	21 DEC 1945	238	.02	.00	.02	1.
21 DEC 0720	89	.02	.00	.02	1.	*	21 DEC 1950	239	.02	.00	.02	1.
21 DEC 0725	90	.02	.00	.02	1.	*	21 DEC 1955	240	.02	.00	.02	1.

DAHRMN PER

[illegible]

[illegible]

[illegible]

18 SE ELEVATION 1249.00 1250.00 1251.00 1252.00

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	7.20	8.01	8.86	9.77
OUTFLOW	.00	12.60	35.50	65.30
ELEVATION	1249.00	1250.00	1251.00	1252.00

HYDROGRAPH AT STATION Route

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
							*								*							
21	DEC	0000	1	0.	7.2	1249.0	*	21	DEC	0820	101	1.	7.3	1249.1	*	21	DEC	1640	201	1.	7.3	1249.1
21	DEC	0005	2	0.	7.2	1249.0	*	21	DEC	0825	102	1.	7.3	1249.1	*	21	DEC	1645	202	1.	7.3	1249.1
21	DEC	0010	3	0.	7.2	1249.0	*	21	DEC	0830	103	1.	7.3	1249.1	*	21	DEC	1650	203	1.	7.3	1249.1
21	DEC	0015	4	0.	7.2	1249.0	*	21	DEC	0835	104	1.	7.3	1249.1	*	21	DEC	1655	204	1.	7.3	1249.1
21	DEC	0020	5	0.	7.2	1249.0	*	21	DEC	0840	105	1.	7.3	1249.1	*	21	DEC	1700	205	1.	7.3	1249.1
21	DEC	0025	6	0.	7.2	1249.0	*	21	DEC	0845	106	1.	7.3	1249.1	*	21	DEC	1705	206	1.	7.3	1249.1
21	DEC	0030	7	0.	7.2	1249.0	*	21	DEC	0850	107	1.	7.3	1249.1	*	21	DEC	1710	207	1.	7.3	1249.1
21	DEC	0035	8	0.	7.2	1249.0	*	21	DEC	0855	108	1.	7.3	1249.1	*	21	DEC	1715	208	1.	7.3	1249.1
21	DEC	0040	9	0.	7.2	1249.0	*	21	DEC	0900	109	1.	7.3	1249.1	*	21	DEC	1720	209	1.	7.3	1249.1
21	DEC	0045	10	0.	7.2	1249.0	*	21	DEC	0905	110	1.	7.3	1249.1	*	21	DEC	1725	210	1.	7.3	1249.1
21	DEC	0050	11	0.	7.2	1249.0	*	21	DEC	0910	111	1.	7.3	1249.1	*	21	DEC	1730	211	1.	7.3	1249.1
21	DEC	0055	12	0.	7.2	1249.0	*	21	DEC	0915	112	1.	7.3	1249.1	*	21	DEC	1735	212	1.	7.3	1249.1
21	DEC	0100	13	0.	7.2	1249.0	*	21	DEC	0920	113	1.	7.3	1249.1	*	21	DEC	1740	213	1.	7.3	1249.1
21	DEC	0105	14	0.	7.2	1249.0	*	21	DEC	0925	114	1.	7.3	1249.1	*	21	DEC	1745	214	1.	7.3	1249.1
21	DEC	0110	15	0.	7.2	1249.0	*	21	DEC	0930	115	1.	7.3	1249.1	*	21	DEC	1750	215	1.	7.3	1249.1
21	DEC	0115	16	0.	7.2	1249.0	*	21	DEC	0935	116	1.	7.3	1249.1	*	21	DEC	1755	216	1.	7.3	1249.1
21	DEC	0120	17	0.	7.2	1249.0	*	21	DEC	0940	117	1.	7.3	1249.1	*	21	DEC	1800	217	1.	7.3	1249.1
21	DEC	0125	18	0.	7.2	1249.0	*	21	DEC	0945	118	1.	7.3	1249.1	*	21	DEC	1805	218	1.	7.3	1249.1
21	DEC	0130	19	0.	7.2	1249.0	*	21	DEC	0950	119	1.	7.3	1249.1	*	21	DEC	1810	219	1.	7.3	1249.1
21	DEC	0135	20	0.	7.2	1249.0	*	21	DEC	0955	120	1.	7.3	1249.1	*	21	DEC	1815	220	1.	7.3	1249.1
21	DEC	0140	21	0.	7.2	1249.0	*	21	DEC	1000	121	1.	7.3	1249.1	*	21	DEC	1820	221	1.	7.3	1249.1
21	DEC	0145	22	0.	7.2	1249.0	*	21	DEC	1005	122	1.	7.3	1249.1	*	21	DEC	1825	222	1.	7.3	1249.1
21	DEC	0150	23	0.	7.2	1249.0	*	21	DEC	1010	123	1.	7.3	1249.1	*	21	DEC	1830	223	1.	7.3	1249.1
21	DEC	0155	24	0.	7.2	1249.0	*	21	DEC	1015	124	1.	7.3	1249.1	*	21	DEC	1835	224	1.	7.3	1249.1
21	DEC	0200	25	0.	7.2	1249.0	*	21	DEC	1020	125	1.	7.3	1249.1	*	21	DEC	1840	225	1.	7.3	1249.1
21	DEC	0205	26	0.	7.2	1249.0	*	21	DEC	1025	126	1.	7.3	1249.1	*	21	DEC	1845	226	1.	7.3	1249.1
21	DEC	0210	27	0.	7.2	1249.0	*	21	DEC	1030	127	1.	7.3	1249.1	*	21	DEC	1850	227	1.	7.3	1249.1
21	DEC	0215	28	0.	7.2	1249.0	*	21	DEC	1035	128	1.	7.3	1249.1	*	21	DEC	1855	228	1.	7.3	1249.1
21	DEC	0220	29	0.	7.2	1249.0	*	21	DEC	1040	129	1.	7.3	1249.1	*	21	DEC	1900	229	1.	7.3	1249.1
21	DEC	0225	30	0.	7.2	1249.0	*	21	DEC	1045	130	1.	7.3	1249.1	*	21	DEC	1905	230	1.	7.3	1249.1
21	DEC	0230	31	0.	7.2	1249.0	*	21	DEC	1050	131	1.	7.3	1249.1	*	21	DEC	1910	231	1.	7.3	1249.1
21	DEC	0235	32	0.	7.2	1249.0	*	21	DEC	1055	132	1.	7.3	1249.1	*	21	DEC	1915	232	1.	7.3	1249.1
21	DEC	0240	33	0.	7.2	1249.0	*	21	DEC	1100	133	1.	7.3	1249.1	*	21	DEC	1920	233	1.	7.3	1249.1
21	DEC	0245	34	0.	7.2	1249.0	*	21	DEC	1105	134	1.	7.3	1249.1	*	21	DEC	1925	234	1.	7.3	1249.1
21	DEC	0250	35	0.	7.2	1249.0	*	21	DEC	1110	135	1.	7.3	1249.1	*	21	DEC	1930	235	1.	7.3	1249.1
21	DEC	0255	36	0.	7.2	1249.0	*	21	DEC	1115	136	1.	7.3	1249.1	*	21	DEC	1935	236	1.	7.3	1249.1
21	DEC	0300	37	0.	7.2	1249.0	*	21	DEC	1120	137	1.	7.3	1249.1	*	21	DEC	1940	237	1.	7.3	1249.1
21	DEC	0305	38	0.	7.2	1249.0	*	21	DEC	1125	138	1.	7.3	1249.1	*	21	DEC	1945	238	1.	7.3	1249.1
21	DEC	0310	39	0.	7.2	1249.0	*	21	DEC	1130	139	2.	7.3	1249.1	*	21	DEC	1950	239	1.	7.3	1249.1
21	DEC	0315	40	0.	7.2	1249.0	*	21	DEC	1135	140	2.	7.3	1249.1	*	21	DEC	1955	240	1.	7.3	1249.1
21	DEC	0320	41	0.	7.2	1249.0	*	21	DEC	1140	141	2.	7.3	1249.1	*	21	DEC	2000	241	1.	7.3	1249.1
21	DEC	0325	42	0.	7.2	1249.0	*	21	DEC	1145	142	2.	7.3	1249.1	*	21	DEC	2005	242	1.	7.3	1249.1
21	DEC	0330	43	0.	7.2	1249.0	*	21	DEC	1150	143	2.	7.3	1249.1	*	21	DEC	2010	243	1.	7.3	1249.1
21	DEC	0335	44	0.	7.2	1249.0	*	21	DEC	1155	144	2.	7.3	1249.1	*	21	DEC	2015	244	1.	7.3	1249.1
21	DEC	0340	45	0.	7.2	1249.0	*	21	DEC	1200	145	2.	7.3	1249.1	*	21	DEC	2020	245	1.	7.3	1249.1
21	DEC	0345	46	0.	7.2	1249.0	*	21	DEC	1205	146	2.	7.3	1249.1	*	21	DEC	2025	246	1.	7.3	1249.1
21	DEC	0350	47	0.	7.2	1249.0	*	21	DEC	1210	147	2.	7.3	1249.1	*	21	DEC	2030	247	1.	7.3	1249.1
21	DEC	0355	48	0.	7.2	1249.0	*	21	DEC	1215	148	2.	7.3	1249.2	*	21	DEC	2035	248	1.	7.3	1249.1
21	DEC	0400	49	0.	7.2	1249.0	*	21	DEC	1220	149	2.	7.3	1249.2	*	21	DEC	2040	249	1.	7.3	1249.1
21	DEC	0405	50	0.	7.2	1249.0	*	21	DEC	1225	150	3.	7.4	1249.2	*	21	DEC	2045	250	1.	7.3	1249.1
21	DEC	0410	51	0.	7.2	1249.0	*	21	DEC	1230	151	3.	7.4	1249.3	*	21	DEC	2050	251	1.	7.3	1249.1
21	DEC	0415	52	0.	7.2	1249.0	*	21	DEC	1235	152	4.	7.4	1249.3	*	21	DEC	2055	252	1.	7.3	1249.1
21	DEC	0420	53	0.	7.2	1249.0	*	21	DEC	1240	153	4.	7.5	1249.3	*	21	DEC	2100	253	1.	7.3	1249.1
21	DEC	0425	54	0.	7.2	1249.0	*	21	DEC	1245	154	4.	7.5	1249.3	*	21	DEC	2105	254	1.	7.3	1249.1
21	DEC	0430	55	0.	7.2	1249.0	*	21	DEC	1250	155	4.	7.5	1249.3	*	21	DEC	2110	255	1.	7.3	1249.1
21	DEC	0435	56	0.	7.2	1249.0	*	21	DEC	1255	156	4.	7.4	1249.3	*	21	DEC	2115	256	1.	7.3	1249.1
21	DEC	0440	57	0.	7.2	1249.0	*	21	DEC	1300	157	4.	7.4	1249.3	*	21	DEC	2120	257	1.	7.3	1249.1
21	DEC	0445	58	0.	7.2	1249.0	*	21	DEC	1305	158	4.	7.4	1249.3	*	21	DEC	2125	258	1.	7.3	1249.1
21	DEC	0450	59	0.	7.2	1249.0	*	21	DEC	1310	159	3.	7.4	1249.3	*	21	DEC	2130	259	1.	7.3	1249.1
21	DEC	0455	60	0.	7.2	1249.0	*	21	DEC	1315	160	3.	7.4	1249.3	*	21	DEC	2135	260	1.	7.3	1249.1
21	DEC	0500	61	0.	7.2	1249.0	*	21	DEC	1320	161	3.	7.4	1249.3	*	21	DEC	2140	261	1.	7.3	1249.1
21	DEC	0505	62	1.	7.2	1249.0	*	21	DEC	1325	162	3.	7.4	1249.2	*	21	DEC	2145	262	1.	7.3	1249.1
21	DEC	0510	63	1.	7.2	1249.0	*	21	DEC	1330	163	3.	7.4	1249.2	*	21	DEC	2150	263	1.	7.2	1249.1
21	DEC	0515	64	1.	7.2	1249.0	*	21	DEC	1335	164	3.	7.4	1249.2	*	21	DEC	2155	264	1.	7.2	1249.1

21 DEC 0520	65	1.	7.2	1249.0	*	21 DEC 1340	165	3.	7.4	1249.2	*	21 DEC 2200	265	1.	7.2	1249.1
21 DEC 0525	66	1.	7.2	1249.0	*	21 DEC 1345	166	3.	7.4	1249.2	*	21 DEC 2205	266	1.	7.2	1249.1
21 DEC 0530	67	1.	7.2	1249.0	*	21 DEC 1350	167	3.	7.4	1249.2	*	21 DEC 2210	267	1.	7.2	1249.1
21 DEC 0535	68	1.	7.2	1249.0	*	21 DEC 1355	168	2.	7.4	1249.2	*	21 DEC 2215	268	1.	7.2	1249.1
21 DEC 0540	69	1.	7.2	1249.0	*	21 DEC 1400	169	2.	7.4	1249.2	*	21 DEC 2220	269	1.	7.2	1249.1
21 DEC 0545	70	1.	7.2	1249.0	*	21 DEC 1405	170	2.	7.3	1249.2	*	21 DEC 2225	270	1.	7.2	1249.1
21 DEC 0550	71	1.	7.2	1249.0	*	21 DEC 1410	171	2.	7.3	1249.2	*	21 DEC 2230	271	1.	7.2	1249.1
21 DEC 0555	72	1.	7.2	1249.0	*	21 DEC 1415	172	2.	7.3	1249.2	*	21 DEC 2235	272	1.	7.2	1249.1
21 DEC 0600	73	1.	7.2	1249.0	*	21 DEC 1420	173	2.	7.3	1249.2	*	21 DEC 2240	273	1.	7.2	1249.1
21 DEC 0605	74	1.	7.2	1249.0	*	21 DEC 1425	174	2.	7.3	1249.2	*	21 DEC 2245	274	1.	7.2	1249.1
21 DEC 0610	75	1.	7.2	1249.0	*	21 DEC 1430	175	2.	7.3	1249.2	*	21 DEC 2250	275	1.	7.2	1249.1
21 DEC 0615	76	1.	7.2	1249.0	*	21 DEC 1435	176	2.	7.3	1249.2	*	21 DEC 2255	276	1.	7.2	1249.1
21 DEC 0620	77	1.	7.2	1249.0	*	21 DEC 1440	177	2.	7.3	1249.1	*	21 DEC 2300	277	1.	7.2	1249.1
21 DEC 0625	78	1.	7.2	1249.1	*	21 DEC 1445	178	2.	7.3	1249.1	*	21 DEC 2305	278	1.	7.2	1249.1
21 DEC 0630	79	1.	7.2	1249.1	*	21 DEC 1450	179	2.	7.3	1249.1	*	21 DEC 2310	279	1.	7.2	1249.1
21 DEC 0635	80	1.	7.2	1249.1	*	21 DEC 1455	180	2.	7.3	1249.1	*	21 DEC 2315	280	1.	7.2	1249.1
21 DEC 0640	81	1.	7.2	1249.1	*	21 DEC 1500	181	2.	7.3	1249.1	*	21 DEC 2320	281	1.	7.2	1249.1
21 DEC 0645	82	1.	7.2	1249.1	*	21 DEC 1505	182	2.	7.3	1249.1	*	21 DEC 2325	282	1.	7.2	1249.1
21 DEC 0650	83	1.	7.2	1249.1	*	21 DEC 1510	183	2.	7.3	1249.1	*	21 DEC 2330	283	1.	7.2	1249.1
21 DEC 0655	84	1.	7.2	1249.1	*	21 DEC 1515	184	2.	7.3	1249.1	*	21 DEC 2335	284	1.	7.2	1249.1
21 DEC 0700	85	1.	7.2	1249.1	*	21 DEC 1520	185	2.	7.3	1249.1	*	21 DEC 2340	285	1.	7.2	1249.1
21 DEC 0705	86	1.	7.2	1249.1	*	21 DEC 1525	186	2.	7.3	1249.1	*	21 DEC 2345	286	1.	7.2	1249.1
21 DEC 0710	87	1.	7.2	1249.1	*	21 DEC 1530	187	2.	7.3	1249.1	*	21 DEC 2350	287	1.	7.2	1249.1
21 DEC 0715	88	1.	7.2	1249.1	*	21 DEC 1535	188	1.	7.3	1249.1	*	21 DEC 2355	288	1.	7.2	1249.1
21 DEC 0720	89	1.	7.2	1249.1	*	21 DEC 1540	189	1.	7.3	1249.1	*	22 DEC 0000	289	1.	7.2	1249.1
21 DEC 0725	90	1.	7.2	1249.1	*	21 DEC 1545	190	1.	7.3	1249.1	*	22 DEC 0005	290	1.	7.2	1249.1
21 DEC 0730	91	1.	7.2	1249.1	*	21 DEC 1550	191	1.	7.3	1249.1	*	22 DEC 0010	291	1.	7.2	1249.1
21 DEC 0735	92	1.	7.2	1249.1	*	21 DEC 1555	192	1.	7.3	1249.1	*	22 DEC 0015	292	1.	7.2	1249.1
21 DEC 0740	93	1.	7.2	1249.1	*	21 DEC 1600	193	1.	7.3	1249.1	*	22 DEC 0020	293	1.	7.2	1249.1
21 DEC 0745	94	1.	7.3	1249.1	*	21 DEC 1605	194	1.	7.3	1249.1	*	22 DEC 0025	294	1.	7.2	1249.1
21 DEC 0750	95	1.	7.3	1249.1	*	21 DEC 1610	195	1.	7.3	1249.1	*	22 DEC 0030	295	1.	7.2	1249.1
21 DEC 0755	96	1.	7.3	1249.1	*	21 DEC 1615	196	1.	7.3	1249.1	*	22 DEC 0035	296	1.	7.2	1249.1
21 DEC 0800	97	1.	7.3	1249.1	*	21 DEC 1620	197	1.	7.3	1249.1	*	22 DEC 0040	297	1.	7.2	1249.1
21 DEC 0805	98	1.	7.3	1249.1	*	21 DEC 1625	198	1.	7.3	1249.1	*	22 DEC 0045	298	1.	7.2	1249.0
21 DEC 0810	99	1.	7.3	1249.1	*	21 DEC 1630	199	1.	7.3	1249.1	*	22 DEC 0050	299	1.	7.2	1249.0
21 DEC 0815	100	1.	7.3	1249.1	*	21 DEC 1635	200	1.	7.3	1249.1	*	22 DEC 0055	300	1.	7.2	1249.0

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW
+	(CFS)	(HR)	6-HR 24-HR 72-HR 24.92-HR
+	4.	12.75	2. 1. 1. 1.
		(CFS)	
		(INCHES)	3.814 7.606 7.606 7.606
		(AC-FT)	1. 2. 2. 2.

PEAK STORAGE	TIME		MAXIMUM AVERAGE STORAGE
+	(AC-FT)	(HR)	6-HR 24-HR 72-HR 24.92-HR
+	7.	12.67	7. 7. 7. 7.

PEAK STAGE	TIME		MAXIMUM AVERAGE STAGE
+	(FEET)	(HR)	6-HR 24-HR 72-HR 24.92-HR
+	1249.32	12.75	1249.16 1249.08 1249.08 1249.08

CUMULATIVE AREA = .00 SQ MI

1													
		(I) INFLOW,	(O) OUTFLOW										
	0.	2.	4.	6.	8.	10.	12.	14.	0.	0.	0.	0.	0.
								(S) STORAGE					
	.0	.0	.0	.0	.0	.0	7.2	7.3	7.4	7.5	.0	.0	.0
DAHRMN PER													
210000 1I													
210005 2I	.	.	.	.	.	.	S	.	.	.	.	.	.
210010 3I	.	.	.	.	.	.	S	.	.	.	.	.	.
210015 4I	.	.	.	.	.	.	S	.	.	.	.	.	.
210020 5I	.	.	.	.	.	.	S	.	.	.	.	.	.
210025 6I	.	.	.	.	.	.	S	.	.	.	.	.	.
210030 7I	.	.	.	.	.	.	S	.	.	.	.	.	.
210035 8I	.	.	.	.	.	.	S	.	.	.	.	.	.
210040 9I	.	.	.	.	.	.	S	.	.	.	.	.	.
210045 10I	.	.	.	.	.	.	S	.	.	.	.	.	.
210050 11I	.	.	.	.	.	.	S	.	.	.	.	.	.
210055 12I	.	.	.	.	.	.	S	.	.	.	.	.	.
210100 13I	.	.	.	.	.	.	S	.	.	.	.	.	.
210105 14I	.	.	.	.	.	.	S	.	.	.	.	.	.
210110 15I	.	.	.	.	.	.	S	.	.	.	.	.	.
210115 16I	.	.	.	.	.	.	S	.	.	.	.	.	.

210120	17I	.	.	.	.	.	S	.	.	.	.	.	.	.
210125	18I	.	.	.	.	.	S	.	.	.	.	.	.	.
210130	19I	.	.	.	.	.	S	.	.	.	.	.	.	.
210135	20OI	.	.	.	.	.	S	.	.	.	.	.	.	.
210140	21OI.	.	.	.	.	.	S	.	.	.	.	.	.	.
210145	22OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210150	23OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210155	24OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210200	25OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210205	26OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210210	27.I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210215	28.I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210220	29.I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210225	30.I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210230	31.I.	.	.	.	.	.	.S	.	.	.	.	.	.	.
210235	32.I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210240	33.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210245	34.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210250	35.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210255	36.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210300	37.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210305	38.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210310	39.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210315	40.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210320	41.OI.	.	.	.	.	.	.S	.	.	.	.	.	.	.
210325	42. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210330	43. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210335	44. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210340	45. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210345	46. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210350	47. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210355	48. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210400	49. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210405	50. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210410	51. I.	.	.	.	.	.	.S	.	.	.	.	.	.	.
210415	52. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210420	53. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210425	54. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210430	55. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210435	56. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210440	57. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210445	58. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210450	59. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210455	60. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210500	61. OI.	.	.	.	.	.	.S	.	.	.	.	.	.	.
210505	62. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210510	63. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210515	64. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210520	65. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210525	66. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210530	67. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210535	68. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210540	69. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210545	70. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210550	71. .I.	.	.	.	.	.	.S	.	.	.	.	.	.	.
210555	72. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210600	73. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210605	74. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210610	75. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210615	76. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210620	77. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210625	78. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210630	79. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210635	80. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210640	81. .OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210645	82. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210650	83. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210655	84. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210700	85. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210705	86. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210710	87. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210715	88. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210720	89. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210725	90. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210730	91. . I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210735	92. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210740	93. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210745	94. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210750	95. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210755	96. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210800	97. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210805	98. I	.	.	.	.	.	.S	.	.	.	.	.	.	.

210810	99.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210815	100.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210820	101.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210825	102.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210830	103.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210835	104.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210840	105.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210845	106.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210850	107.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210855	108.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210900	109.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210905	110.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210910	111.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210915	112.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210920	113.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210925	114.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210930	115.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210935	116.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210940	117.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210945	118.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210950	119.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210955	120.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211000	121.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211005	122.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211010	123.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211015	124.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211020	125.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211025	126.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211030	127.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211035	128.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211040	129.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211045	130.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211050	131.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211055	132.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211100	133.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211105	134.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211110	135.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211115	136.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211120	137.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211125	138.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211130	139.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211135	140.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211140	141.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211145	142.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211150	143.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211155	144.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211200	145.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211205	146.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211210	147.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211215	148.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211220	149.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211225	150.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211230	151.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211235	152.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211240	153.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211245	154.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211250	155.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211255	156.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211300	157.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211305	158.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211310	159.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211315	160.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211320	161.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211325	162.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211330	163.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211335	164.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211340	165.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211345	166.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211350	167.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211355	168.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211400	169.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211405	170.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211410	171.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211415	172.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211420	173.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211425	174.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211430	175.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211435	176.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211440	177.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211445	178.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211450	179.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211455	180.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.

[illegible]

212150	263.	I	.	.	.	.	.	S	.	.	.	.	.	.
212155	264.	I	.	.	.	.	.	S	.	.	.	.	.	.
212200	265.	I	.	.	.	.	.	S	.	.	.	.	.	.
212205	266.	I	.	.	.	.	.	S	.	.	.	.	.	.
212210	267.	I	.	.	.	.	.	S	.	.	.	.	.	.
212215	268.	I	.	.	.	.	.	S	.	.	.	.	.	.
212220	269.	I	.	.	.	.	.	S	.	.	.	.	.	.
212225	270.	I	.	.	.	.	.	S	.	.	.	.	.	.
212230	271.	IO	.	.	.	.	.	S	.	.	.	.	.	.
212235	272.	IO	.	.	.	.	.	S	.	.	.	.	.	.
212240	273.	IO	.	.	.	.	.	S	.	.	.	.	.	.
212245	274.	IO	.	.	.	.	.	S	.	.	.	.	.	.
212250	275.	IO	.	.	.	.	.	S	.	.	.	.	.	.
212255	276.	IO	.	.	.	.	.	S	.	.	.	.	.	.
212300	277.	IO	.	.	.	.	.	S	.	.	.	.	.	.
212305	278.	IO	.	.	.	.	.	S	.	.	.	.	.	.
212310	279.	IO	.	.	.	.	.	S	.	.	.	.	.	.
212315	280.	IO	.	.	.	.	.	S	.	.	.	.	.	.
212320	281.	I	.	.	.	.	.	S	.	.	.	.	.	.
212325	282.	I	.	.	.	.	.	S	.	.	.	.	.	.
212330	283.	I	.	.	.	.	.	S	.	.	.	.	.	.
212335	284.	I	.	.	.	.	.	S	.	.	.	.	.	.
212340	285.	I	.	.	.	.	.	S	.	.	.	.	.	.
212345	286.	I	.	.	.	.	.	S	.	.	.	.	.	.
212350	287.	I	.	.	.	.	.	S	.	.	.	.	.	.
212355	288.	I	.	.	.	.	.	S	.	.	.	.	.	.
220000	289.	I	.	.	.	.	.	S	.	.	.	.	.	.
220005	290.	I	.	.	.	.	.	S	.	.	.	.	.	.
220010	291.	I	.	.	.	.	.	S	.	.	.	.	.	.
220015	292.	I	.	.	.	.	.	S	.	.	.	.	.	.
220020	293.	I	.	.	.	.	.	S	.	.	.	.	.	.
220025	294.	I	.	.	.	.	.	S	.	.	.	.	.	.
220030	295.	I	.	.	.	.	.	S	.	.	.	.	.	.
220035	296.	I	.	.	.	.	.	S	.	.	.	.	.	.
220040	297.	I	.	.	.	.	.	S	.	.	.	.	.	.
220045	298.	I	.	.	.	.	.	S	.	.	.	.	.	.
220050	299.	I	.	.	.	.	.	S	.	.	.	.	.	.
220055	300.	IO	.	.	.	.	.	S	.	.	.	.	.	.

1
1

RUNOFF SUMMARY
 FLOW IN CUBIC FEET PER SECOND
 TIME IN HOURS, AREA IN SQUARE MILES

+	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD			BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
					6-HOUR	24-HOUR	72-HOUR			
+	HYDROGRAPH AT									
+		Basin	12.	12.50	2.	1.	1.	.00		
+	ROUTED TO									
+		Route	4.	12.75	2.	1.	1.	.00	1249.32	12.75

*** NORMAL END OF HEC-1 ***

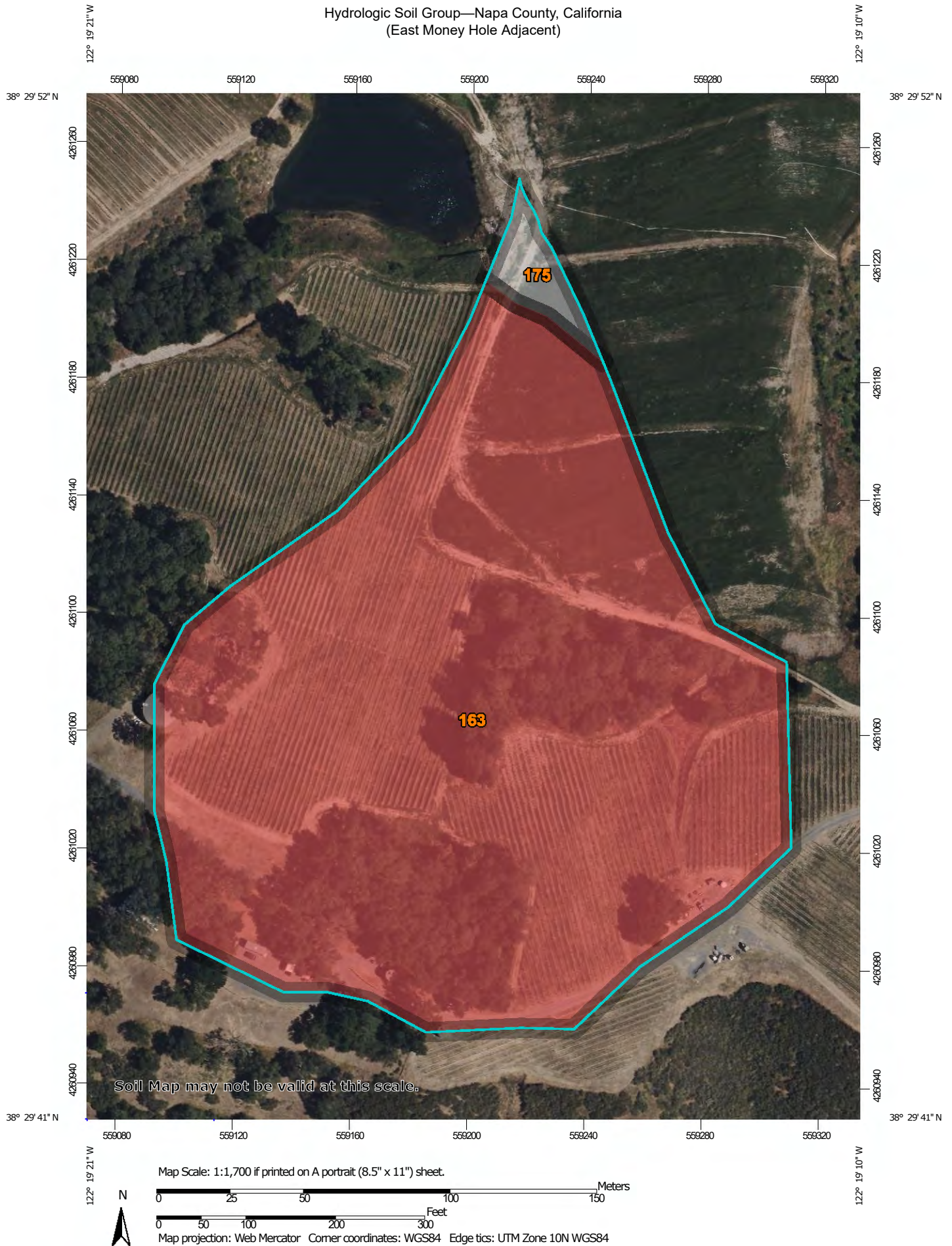
Section D

Adjacent Watershed

D-1

Curve Number

Hydrologic Soil Group—Napa County, California
(East Money Hole Adjacent)



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points

 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Napa County, California
Survey Area Data: Version 16, Sep 11, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 26, 2022—Apr 25, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
163	Maymen-Millsholm-Lodo association, 30-75 percent slopes	D	8.9	97.8%
175	Rock outcrop		0.2	2.2%
Totals for Area of Interest			9.1	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Table 2-2c Runoff curve numbers for other agricultural lands ^{1/}

Cover description		Curve numbers for hydrologic soil group			
Cover type	Hydrologic condition	A	B	C	D
Pasture, grassland, or range—continuous forage for grazing. ^{2/}	Poor	68	79	86	89
	Fair	49	69	79	84
	Good	39	61	74	80
Meadow—continuous grass, protected from grazing and generally mowed for hay.	—	30	58	71	78
Brush—brush-weed-grass mixture with brush the major element. ^{3/}	Poor	48	67	77	83
	Fair	35	56	70	77
	Good	30 ^{4/}	48	65	73
Woods—grass combination (orchard or tree farm). ^{5/}	Poor	57	73	82	86
	Fair	43	65	76	82
	Good	32	58	72	79
Woods. ^{6/}	Poor	45	66	77	83
	Fair	36	60	73	79
	Good	30 ^{4/}	55	70	77
Farmsteads—buildings, lanes, driveways, and surrounding lots.	—	59	74	82	86

¹ Average runoff condition, and $I_a = 0.2S$.² *Poor*: <50% ground cover or heavily grazed with no mulch.*Fair*: 50 to 75% ground cover and not heavily grazed.*Good*: > 75% ground cover and lightly or only occasionally grazed.³ *Poor*: <50% ground cover.*Fair*: 50 to 75% ground cover.*Good*: >75% ground cover.⁴ Actual curve number is less than 30; use CN = 30 for runoff computations.⁵ CN's shown were computed for areas with 50% woods and 50% grass (pasture) cover. Other combinations of conditions may be computed from the CN's for woods and pasture.⁶ *Poor*: Forest litter, small trees, and brush are destroyed by heavy grazing or regular burning.*Fair*: Woods are grazed but not burned, and some forest litter covers the soil.*Good*: Woods are protected from grazing, and litter and brush adequately cover the soil.

Adjacent watershed Flow : CN - 79 (Hydrologic survey is D)

- scale up to condition III

→ CN = 91

D-2

Time of Concentration

Velocity Method - Shallow Concentrated Flow

* base on google Profile Flow (TOC Flow Path - Adjacent Watershed)

1) $L = \sim 974 \text{ ft}$ (remove 75 ft flat portion)

$$S = \frac{1476 - 1251}{974} = 0.23$$

2) Use Figure 15-4 (see attached)

→ based off aerial imagery assume cultivated straight row crops

→ velocity, $v = 4.25 \text{ ft/s}$

3) $t_c = \frac{L}{3600v}$

$$t_c = \frac{974}{3600(4.25)} = 0.0637$$

4) $t_L = t_c \times 0.6 = 0.0637 \times 0.6 = 0.038 \text{ hr}$

$$= \boxed{2.3 \text{ min}}$$

Figure 15-4 Velocity versus slope for shallow concentrated flow

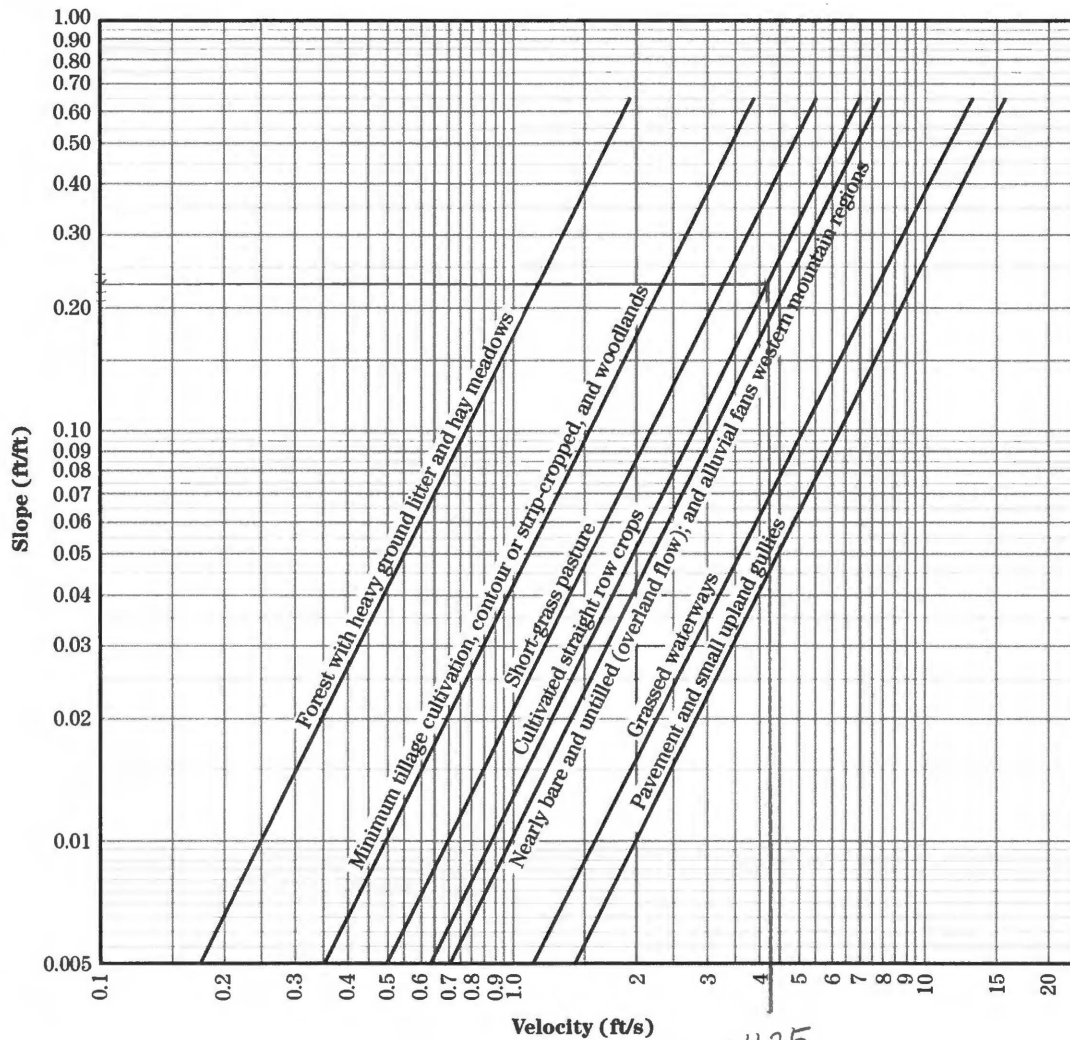


Table 15-3 Equations and assumptions developed from figure 15-4

Flow type	Depth (ft)	Manning's <i>n</i>	Velocity equation (ft/s)
Pavement and small upland gullies	0.2	0.025	$V = 20.328(s)^{0.5}$
Grassed waterways	0.4	0.050	$V = 16.135(s)^{0.5}$
Nearly bare and untilled (overland flow); and alluvial fans in western mountain regions	0.2	0.051	$V = 9.965(s)^{0.5}$
Cultivated straight row crops	0.2	0.058	$V = 8.762(s)^{0.5}$
Short-grass pasture	0.2	0.073	$V = 6.962(s)^{0.5}$
Minimum tillage cultivation, contour or strip-cropped, and woodlands	0.2	0.101	$V = 5.032(s)^{0.5}$
Forest with heavy ground litter and hay meadows	0.2	0.202	$V = 2.516(s)^{0.5}$

D-3

HEC-1 Output

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1*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1)
*   JUN 1998
*   VERSION 4.1
*
* RUN DATE 19FEB24 TIME 08:56:10
*
*****

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*****
*
* U.S. ARMY CORPS OF ENGINEERS
* HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET
* DAVIS, CALIFORNIA 95616
* (916) 756-1104
*
*****

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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE. THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
 NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
 DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
 KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1 HEC-1 INPUT PAGE 1

```

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
1 ID East Money Hole Reservoir 100-year, 4-day storm, 24-HR
2 IT 5 21DEC23 000 300
3 IO 1 2
4 KK Basin
5 KM Compute inflow to reservoir
6 BA 0.014
7 BF 0
8 PH 0.385 0.667 1.43 2.11 2.68 4.04 5.91 8.70
9 PH 11.8 15.6
10 LS 0 91 0
11 UD 0.038
12 KK Route
13 KM Route flow through pipe spillway inlet - 15in diameter (3.9 ft circumference)
14 RS 1 ELEV 1249
15 SV 7.202 8.007 8.863 9.772
16 SE 1249.0 1250.0 1251.0 1252.0
17 SQ 0.0 12.6 35.5 65.3
18 SE 1249.0 1250.0 1251.0 1252.0
19 ZZ

```

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1*****
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* FLOOD HYDROGRAPH PACKAGE (HEC-1)
*   JUN 1998
*   VERSION 4.1
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* (916) 756-1104
*
*****

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East Money Hole Reservoir 100-year, 4-day storm, 24-HR

```

3 IO OUTPUT CONTROL VARIABLES
      IPRNT 1 PRINT CONTROL
      IPLOT 2 PLOT CONTROL
      QSCAL 0. HYDROGRAPH PLOT SCALE

IT HYDROGRAPH TIME DATA
   NMIN 5 MINUTES IN COMPUTATION INTERVAL

```

IDATE 21DEC23 STARTING DATE
 ITIME 0000 STARTING TIME
 NQ 300 NUMBER OF HYDROGRAPH ORDINATES
 NDDATE 22DEC23 ENDING DATE
 NDTIME 0055 ENDING TIME
 ICENT 19 CENTURY MARK

COMPUTATION INTERVAL .08 HOURS
 TOTAL TIME BASE 24.92 HOURS

ENGLISH UNITS

DRAINAGE AREA SQUARE MILES
 PRECIPITATION DEPTH INCHES
 LENGTH, ELEVATION FEET
 FLOW CUBIC FEET PER SECOND
 STORAGE VOLUME ACRE-FEET
 SURFACE AREA ACRES
 TEMPERATURE DEGREES FAHRENHEIT

*** **

 * *
 4 KK * Basin *
 * *

Compute inflow to reservoir

SUBBASIN RUNOFF DATA

6 BA SUBBASIN CHARACTERISTICS
 TAREA .01 SUBBASIN AREA
 7 BF BASE FLOW CHARACTERISTICS
 STRTQ .00 INITIAL FLOW
 QRCSN .00 BEGIN BASE FLOW RECESSION
 RTIOR 1.00000 RECESSION CONSTANT

PRECIPITATION DATA

8 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM
 HYDRO-35 TP-40 TP-49
 5-MIN 15-MIN 60-MIN 2-HR 3-HR 6-HR 12-HR 24-HR 2-DAY 4-DAY 7-DAY 10-DAY
 .38 .67 1.43 2.11 2.68 4.04 5.91 8.70 11.80 15.60 .00 .00

STORM AREA = .01

10 LS SCS LOSS RATE
 STRTL .20 INITIAL ABSTRACTION
 CRVNBR 91.00 CURVE NUMBER
 RTIMP .00 PERCENT IMPERVIOUS AREA

11 UD SCS DIMENSIONLESS UNITGRAPH
 TLAG .04 LAG

WARNING *** TIME INTERVAL IS GREATER THAN .29*LAG

UNIT HYDROGRAPH
 5 END-OF-PERIOD ORDINATES

81. 23. 4. 1. 0.

HYDROGRAPH AT STATION Basin

*
 *
 DA MON HRMN ORD RAIN LOSS EXCESS COMP Q * DA MON HRMN ORD RAIN LOSS EXCESS COMP Q
 *
 21 DEC 0000 1 .00 .00 .00 0. * 21 DEC 1230 151 .38 .01 .37 34.
 21 DEC 0005 2 .01 .01 .00 0. * 21 DEC 1235 152 .12 .00 .11 18.
 21 DEC 0010 3 .01 .01 .00 0. * 21 DEC 1240 153 .12 .00 .12 14.
 21 DEC 0015 4 .01 .01 .00 0. * 21 DEC 1245 154 .08 .00 .07 9.
 21 DEC 0020 5 .01 .01 .00 0. * 21 DEC 1250 155 .07 .00 .06 7.
 21 DEC 0025 6 .01 .01 .00 0. * 21 DEC 1255 156 .06 .00 .06 6.
 21 DEC 0030 7 .02 .02 .00 0. * 21 DEC 1300 157 .07 .00 .06 7.
 21 DEC 0035 8 .02 .02 .00 0. * 21 DEC 1305 158 .06 .00 .06 7.

21 DEC 0040	9	.02	.02	.00	0.	*	21 DEC 1310	159	.06	.00	.06	6.
21 DEC 0045	10	.02	.02	.00	0.	*	21 DEC 1315	160	.06	.00	.05	6.
21 DEC 0050	11	.02	.02	.00	0.	*	21 DEC 1320	161	.05	.00	.05	6.
21 DEC 0055	12	.02	.02	.00	0.	*	21 DEC 1325	162	.05	.00	.05	5.
21 DEC 0100	13	.02	.02	.00	0.	*	21 DEC 1330	163	.05	.00	.05	5.
21 DEC 0105	14	.02	.02	.00	0.	*	21 DEC 1335	164	.05	.00	.05	5.
21 DEC 0110	15	.02	.02	.00	0.	*	21 DEC 1340	165	.05	.00	.05	5.
21 DEC 0115	16	.02	.02	.00	0.	*	21 DEC 1345	166	.05	.00	.05	5.
21 DEC 0120	17	.02	.02	.00	0.	*	21 DEC 1350	167	.05	.00	.04	5.
21 DEC 0125	18	.02	.02	.00	0.	*	21 DEC 1355	168	.04	.00	.04	5.
21 DEC 0130	19	.02	.01	.00	0.	*	21 DEC 1400	169	.04	.00	.04	5.
21 DEC 0135	20	.02	.01	.00	0.	*	21 DEC 1405	170	.04	.00	.04	5.
21 DEC 0140	21	.02	.01	.00	0.	*	21 DEC 1410	171	.04	.00	.04	4.
21 DEC 0145	22	.02	.01	.00	0.	*	21 DEC 1415	172	.04	.00	.04	4.
21 DEC 0150	23	.02	.01	.00	0.	*	21 DEC 1420	173	.04	.00	.04	4.
21 DEC 0155	24	.02	.01	.00	1.	*	21 DEC 1425	174	.04	.00	.04	4.
21 DEC 0200	25	.02	.01	.01	1.	*	21 DEC 1430	175	.04	.00	.04	4.
21 DEC 0205	26	.02	.01	.01	1.	*	21 DEC 1435	176	.04	.00	.04	4.
21 DEC 0210	27	.02	.01	.01	1.	*	21 DEC 1440	177	.04	.00	.04	4.
21 DEC 0215	28	.02	.01	.01	1.	*	21 DEC 1445	178	.04	.00	.04	4.
21 DEC 0220	29	.02	.01	.01	1.	*	21 DEC 1450	179	.04	.00	.04	4.
21 DEC 0225	30	.02	.01	.01	1.	*	21 DEC 1455	180	.04	.00	.04	4.
21 DEC 0230	31	.02	.01	.01	1.	*	21 DEC 1500	181	.04	.00	.03	4.
21 DEC 0235	32	.02	.01	.01	1.	*	21 DEC 1505	182	.04	.00	.03	4.
21 DEC 0240	33	.02	.01	.01	1.	*	21 DEC 1510	183	.03	.00	.03	4.
21 DEC 0245	34	.02	.01	.01	1.	*	21 DEC 1515	184	.03	.00	.03	4.
21 DEC 0250	35	.02	.01	.01	1.	*	21 DEC 1520	185	.03	.00	.03	4.
21 DEC 0255	36	.02	.01	.01	1.	*	21 DEC 1525	186	.03	.00	.03	4.
21 DEC 0300	37	.02	.01	.01	1.	*	21 DEC 1530	187	.03	.00	.03	3.
21 DEC 0305	38	.02	.01	.01	1.	*	21 DEC 1535	188	.03	.00	.03	3.
21 DEC 0310	39	.02	.01	.01	1.	*	21 DEC 1540	189	.03	.00	.03	3.
21 DEC 0315	40	.02	.01	.01	1.	*	21 DEC 1545	190	.03	.00	.03	3.
21 DEC 0320	41	.02	.01	.01	1.	*	21 DEC 1550	191	.03	.00	.03	3.
21 DEC 0325	42	.02	.01	.01	1.	*	21 DEC 1555	192	.03	.00	.03	3.
21 DEC 0330	43	.02	.01	.01	1.	*	21 DEC 1600	193	.03	.00	.03	3.
21 DEC 0335	44	.02	.01	.01	1.	*	21 DEC 1605	194	.03	.00	.03	3.
21 DEC 0340	45	.02	.01	.01	1.	*	21 DEC 1610	195	.03	.00	.03	3.
21 DEC 0345	46	.02	.01	.01	1.	*	21 DEC 1615	196	.03	.00	.03	3.
21 DEC 0350	47	.02	.01	.01	1.	*	21 DEC 1620	197	.03	.00	.03	3.
21 DEC 0355	48	.02	.01	.01	1.	*	21 DEC 1625	198	.03	.00	.03	3.
21 DEC 0400	49	.02	.01	.01	1.	*	21 DEC 1630	199	.03	.00	.03	3.
21 DEC 0405	50	.02	.01	.01	1.	*	21 DEC 1635	200	.03	.00	.03	3.
21 DEC 0410	51	.02	.01	.01	1.	*	21 DEC 1640	201	.03	.00	.03	3.
21 DEC 0415	52	.02	.01	.01	1.	*	21 DEC 1645	202	.03	.00	.03	3.
21 DEC 0420	53	.02	.01	.01	1.	*	21 DEC 1650	203	.03	.00	.03	3.
21 DEC 0425	54	.02	.01	.01	1.	*	21 DEC 1655	204	.03	.00	.03	3.
21 DEC 0430	55	.02	.01	.01	1.	*	21 DEC 1700	205	.03	.00	.03	3.
21 DEC 0435	56	.02	.01	.01	2.	*	21 DEC 1705	206	.03	.00	.02	3.
21 DEC 0440	57	.02	.01	.01	2.	*	21 DEC 1710	207	.03	.00	.02	3.
21 DEC 0445	58	.02	.01	.01	2.	*	21 DEC 1715	208	.02	.00	.02	3.
21 DEC 0450	59	.02	.01	.01	2.	*	21 DEC 1720	209	.02	.00	.02	3.
21 DEC 0455	60	.02	.01	.01	2.	*	21 DEC 1725	210	.02	.00	.02	3.
21 DEC 0500	61	.02	.01	.01	2.	*	21 DEC 1730	211	.02	.00	.02	3.
21 DEC 0505	62	.02	.01	.02	2.	*	21 DEC 1735	212	.02	.00	.02	3.
21 DEC 0510	63	.02	.01	.02	2.	*	21 DEC 1740	213	.02	.00	.02	3.
21 DEC 0515	64	.02	.01	.02	2.	*	21 DEC 1745	214	.02	.00	.02	3.
21 DEC 0520	65	.02	.01	.02	2.	*	21 DEC 1750	215	.02	.00	.02	3.
21 DEC 0525	66	.02	.01	.02	2.	*	21 DEC 1755	216	.02	.00	.02	3.
21 DEC 0530	67	.02	.01	.02	2.	*	21 DEC 1800	217	.02	.00	.02	3.
21 DEC 0535	68	.02	.01	.02	2.	*	21 DEC 1805	218	.02	.00	.02	2.
21 DEC 0540	69	.02	.01	.02	2.	*	21 DEC 1810	219	.02	.00	.02	2.
21 DEC 0545	70	.02	.01	.02	2.	*	21 DEC 1815	220	.02	.00	.02	2.
21 DEC 0550	71	.02	.00	.02	2.	*	21 DEC 1820	221	.02	.00	.02	2.
21 DEC 0555	72	.02	.00	.02	2.	*	21 DEC 1825	222	.02	.00	.02	2.
21 DEC 0600	73	.02	.00	.02	2.	*	21 DEC 1830	223	.02	.00	.02	2.
21 DEC 0605	74	.02	.00	.02	2.	*	21 DEC 1835	224	.02	.00	.02	2.
21 DEC 0610	75	.02	.00	.02	2.	*	21 DEC 1840	225	.02	.00	.02	2.
21 DEC 0615	76	.02	.00	.02	2.	*	21 DEC 1845	226	.02	.00	.02	2.
21 DEC 0620	77	.02	.00	.02	2.	*	21 DEC 1850	227	.02	.00	.02	2.
21 DEC 0625	78	.02	.00	.02	2.	*	21 DEC 1855	228	.02	.00	.02	2.
21 DEC 0630	79	.02	.00	.02	2.	*	21 DEC 1900	229	.02	.00	.02	2.
21 DEC 0635	80	.02	.00	.02	2.	*	21 DEC 1905	230	.02	.00	.02	2.
21 DEC 0640	81	.02	.00	.02	2.	*	21 DEC 1910	231	.02	.00	.02	2.
21 DEC 0645	82	.02	.00	.02	2.	*	21 DEC 1915	232	.02	.00	.02	2.
21 DEC 0650	83	.02	.00	.02	2.	*	21 DEC 1920	233	.02	.00	.02	2.
21 DEC 0655	84	.02	.00	.02	2.	*	21 DEC 1925	234	.02	.00	.02	2.
21 DEC 0700	85	.02	.00	.02	2.	*	21 DEC 1930	235	.02	.00	.02	2.
21 DEC 0705	86	.02	.00	.02	2.	*	21 DEC 1935	236	.02	.00	.02	2.
21 DEC 0710	87	.02	.00	.02	2.	*	21 DEC 1940	237	.02	.00	.02	2.
21 DEC 0715	88	.02	.00	.02	2.	*	21 DEC 1945	238	.02	.00	.02	2.
21 DEC 0720	89	.02	.00	.02	2.	*	21 DEC 1950	239	.02	.00	.02	2.
21 DEC 0725	90	.02	.00	.02	2.	*	21 DEC 1955	240	.02	.00	.02	2.

DAHRMN PER

[illegible]

[illegible]

[illegible]

18 SE ELEVATION 1249.00 1250.00 1251.00 1252.00

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	7.20	8.01	8.86	9.77
OUTFLOW	.00	12.60	35.50	65.30
ELEVATION	1249.00	1250.00	1251.00	1252.00

HYDROGRAPH AT STATION Route

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
							*								*							
21	DEC	0000	1	0.	7.2	1249.0	*	21	DEC	0820	101	2.	7.3	1249.2	*	21	DEC	1640	201	3.	7.4	1249.3
21	DEC	0005	2	0.	7.2	1249.0	*	21	DEC	0825	102	2.	7.3	1249.2	*	21	DEC	1645	202	3.	7.4	1249.3
21	DEC	0010	3	0.	7.2	1249.0	*	21	DEC	0830	103	2.	7.4	1249.2	*	21	DEC	1650	203	3.	7.4	1249.3
21	DEC	0015	4	0.	7.2	1249.0	*	21	DEC	0835	104	2.	7.4	1249.2	*	21	DEC	1655	204	3.	7.4	1249.2
21	DEC	0020	5	0.	7.2	1249.0	*	21	DEC	0840	105	2.	7.4	1249.2	*	21	DEC	1700	205	3.	7.4	1249.2
21	DEC	0025	6	0.	7.2	1249.0	*	21	DEC	0845	106	2.	7.4	1249.2	*	21	DEC	1705	206	3.	7.4	1249.2
21	DEC	0030	7	0.	7.2	1249.0	*	21	DEC	0850	107	2.	7.4	1249.2	*	21	DEC	1710	207	3.	7.4	1249.2
21	DEC	0035	8	0.	7.2	1249.0	*	21	DEC	0855	108	2.	7.4	1249.2	*	21	DEC	1715	208	3.	7.4	1249.2
21	DEC	0040	9	0.	7.2	1249.0	*	21	DEC	0900	109	2.	7.4	1249.2	*	21	DEC	1720	209	3.	7.4	1249.2
21	DEC	0045	10	0.	7.2	1249.0	*	21	DEC	0905	110	3.	7.4	1249.2	*	21	DEC	1725	210	3.	7.4	1249.2
21	DEC	0050	11	0.	7.2	1249.0	*	21	DEC	0910	111	3.	7.4	1249.2	*	21	DEC	1730	211	3.	7.4	1249.2
21	DEC	0055	12	0.	7.2	1249.0	*	21	DEC	0915	112	3.	7.4	1249.2	*	21	DEC	1735	212	3.	7.4	1249.2
21	DEC	0100	13	0.	7.2	1249.0	*	21	DEC	0920	113	3.	7.4	1249.2	*	21	DEC	1740	213	3.	7.4	1249.2
21	DEC	0105	14	0.	7.2	1249.0	*	21	DEC	0925	114	3.	7.4	1249.2	*	21	DEC	1745	214	3.	7.4	1249.2
21	DEC	0110	15	0.	7.2	1249.0	*	21	DEC	0930	115	3.	7.4	1249.2	*	21	DEC	1750	215	3.	7.4	1249.2
21	DEC	0115	16	0.	7.2	1249.0	*	21	DEC	0935	116	3.	7.4	1249.2	*	21	DEC	1755	216	3.	7.4	1249.2
21	DEC	0120	17	0.	7.2	1249.0	*	21	DEC	0940	117	3.	7.4	1249.2	*	21	DEC	1800	217	3.	7.4	1249.2
21	DEC	0125	18	0.	7.2	1249.0	*	21	DEC	0945	118	3.	7.4	1249.2	*	21	DEC	1805	218	3.	7.4	1249.2
21	DEC	0130	19	0.	7.2	1249.0	*	21	DEC	0950	119	3.	7.4	1249.2	*	21	DEC	1810	219	3.	7.4	1249.2
21	DEC	0135	20	0.	7.2	1249.0	*	21	DEC	0955	120	3.	7.4	1249.2	*	21	DEC	1815	220	3.	7.4	1249.2
21	DEC	0140	21	0.	7.2	1249.0	*	21	DEC	1000	121	3.	7.4	1249.2	*	21	DEC	1820	221	3.	7.4	1249.2
21	DEC	0145	22	0.	7.2	1249.0	*	21	DEC	1005	122	3.	7.4	1249.2	*	21	DEC	1825	222	3.	7.4	1249.2
21	DEC	0150	23	0.	7.2	1249.0	*	21	DEC	1010	123	3.	7.4	1249.2	*	21	DEC	1830	223	3.	7.4	1249.2
21	DEC	0155	24	0.	7.2	1249.0	*	21	DEC	1015	124	3.	7.4	1249.3	*	21	DEC	1835	224	3.	7.4	1249.2
21	DEC	0200	25	0.	7.2	1249.0	*	21	DEC	1020	125	3.	7.4	1249.3	*	21	DEC	1840	225	3.	7.4	1249.2
21	DEC	0205	26	0.	7.2	1249.0	*	21	DEC	1025	126	3.	7.4	1249.3	*	21	DEC	1845	226	3.	7.4	1249.2
21	DEC	0210	27	0.	7.2	1249.0	*	21	DEC	1030	127	3.	7.4	1249.3	*	21	DEC	1850	227	3.	7.4	1249.2
21	DEC	0215	28	0.	7.2	1249.0	*	21	DEC	1035	128	3.	7.4	1249.3	*	21	DEC	1855	228	3.	7.4	1249.2
21	DEC	0220	29	0.	7.2	1249.0	*	21	DEC	1040	129	3.	7.4	1249.3	*	21	DEC	1900	229	3.	7.4	1249.2
21	DEC	0225	30	0.	7.2	1249.0	*	21	DEC	1045	130	4.	7.4	1249.3	*	21	DEC	1905	230	2.	7.4	1249.2
21	DEC	0230	31	0.	7.2	1249.0	*	21	DEC	1050	131	4.	7.4	1249.3	*	21	DEC	1910	231	2.	7.4	1249.2
21	DEC	0235	32	0.	7.2	1249.0	*	21	DEC	1055	132	4.	7.4	1249.3	*	21	DEC	1915	232	2.	7.4	1249.2
21	DEC	0240	33	1.	7.2	1249.0	*	21	DEC	1100	133	4.	7.4	1249.3	*	21	DEC	1920	233	2.	7.4	1249.2
21	DEC	0245	34	1.	7.2	1249.0	*	21	DEC	1105	134	4.	7.4	1249.3	*	21	DEC	1925	234	2.	7.4	1249.2
21	DEC	0250	35	1.	7.2	1249.0	*	21	DEC	1110	135	4.	7.5	1249.3	*	21	DEC	1930	235	2.	7.4	1249.2
21	DEC	0255	36	1.	7.2	1249.1	*	21	DEC	1115	136	4.	7.5	1249.3	*	21	DEC	1935	236	2.	7.4	1249.2
21	DEC	0300	37	1.	7.2	1249.1	*	21	DEC	1120	137	4.	7.5	1249.3	*	21	DEC	1940	237	2.	7.4	1249.2
21	DEC	0305	38	1.	7.2	1249.1	*	21	DEC	1125	138	4.	7.5	1249.3	*	21	DEC	1945	238	2.	7.4	1249.2
21	DEC	0310	39	1.	7.2	1249.1	*	21	DEC	1130	139	4.	7.5	1249.3	*	21	DEC	1950	239	2.	7.4	1249.2
21	DEC	0315	40	1.	7.3	1249.1	*	21	DEC	1135	140	4.	7.5	1249.3	*	21	DEC	1955	240	2.	7.4	1249.2
21	DEC	0320	41	1.	7.3	1249.1	*	21	DEC	1140	141	4.	7.5	1249.4	*	21	DEC	2000	241	2.	7.4	1249.2
21	DEC	0325	42	1.	7.3	1249.1	*	21	DEC	1145	142	5.	7.5	1249.4	*	21	DEC	2005	242	2.	7.4	1249.2
21	DEC	0330	43	1.	7.3	1249.1	*	21	DEC	1150	143	5.	7.5	1249.4	*	21	DEC	2010	243	2.	7.3	1249.2
21	DEC	0335	44	1.	7.3	1249.1	*	21	DEC	1155	144	5.	7.5	1249.4	*	21	DEC	2015	244	2.	7.3	1249.2
21	DEC	0340	45	1.	7.3	1249.1	*	21	DEC	1200	145	5.	7.5	1249.4	*	21	DEC	2020	245	2.	7.3	1249.2
21	DEC	0345	46	1.	7.3	1249.1	*	21	DEC	1205	146	5.	7.5	1249.4	*	21	DEC	2025	246	2.	7.3	1249.2
21	DEC	0350	47	1.	7.3	1249.1	*	21	DEC	1210	147	5.	7.5	1249.4	*	21	DEC	2030	247	2.	7.3	1249.2
21	DEC	0355	48	1.	7.3	1249.1	*	21	DEC	1215	148	6.	7.6	1249.4	*	21	DEC	2035	248	2.	7.3	1249.2
21	DEC	0400	49	1.	7.3	1249.1	*	21	DEC	1220	149	6.	7.6	1249.5	*	21	DEC	2040	249	2.	7.3	1249.2
21	DEC	0405	50	1.	7.3	1249.1	*	21	DEC	1225	150	7.	7.7	1249.6	*	21	DEC	2045	250	2.	7.3	1249.2
21	DEC	0410	51	1.	7.3	1249.1	*	21	DEC	1230	151	9.	7.8	1249.7	*	21	DEC	2050	251	2.	7.3	1249.2
21	DEC	0415	52	1.	7.3	1249.1	*	21	DEC	1235	152	11.	7.9	1249.9	*	21	DEC	2055	252	2.	7.3	1249.2
21	DEC	0420	53	1.	7.3	1249.1	*	21	DEC	1240	153	11.	7.9	1249.9	*	21	DEC	2100	253	2.	7.3	1249.2
21	DEC	0425	54	1.	7.3	1249.1	*	21	DEC	1245	154	11.	7.9	1249.9	*	21	DEC	2105	254	2.	7.3	1249.2
21	DEC	0430	55	1.	7.3	1249.1	*	21	DEC	1250	155	11.	7.9	1249.9	*	21	DEC	2110	255	2.	7.3	1249.2
21	DEC	0435	56	1.	7.3	1249.1	*	21	DEC	1255	156	11.	7.9	1249.8	*	21	DEC	2115	256	2.	7.3	1249.2
21	DEC	0440	57	1.	7.3	1249.1	*	21	DEC	1300	157	10.	7.9	1249.8	*	21	DEC	2120	257	2.	7.3	1249.2
21	DEC	0445	58	1.	7.3	1249.1	*	21	DEC	1305	158	10.	7.8	1249.8	*	21	DEC	2125	258	2.	7.3	1249.2
21	DEC	0450	59	1.	7.3	1249.1	*	21	DEC	1310	159	10.	7.8	1249.8	*	21	DEC	2130	259	2.	7.3	1249.2
21	DEC	0455	60	1.	7.3	1249.1	*	21	DEC	1315	160	9.	7.8	1249.7	*	21	DEC	2135	260	2.	7.3	1249.2
21	DEC	0500	61	1.	7.3	1249.1	*	21	DEC	1320	161	9.	7.8	1249.7	*	21	DEC	2140	261	2.	7.3	1249.2
21	DEC	0505	62	1.	7.3	1249.1	*	21	DEC	1325	162	8.	7.7	1249.7	*	21	DEC	2145	262	2.	7.3	1249.2
21	DEC	0510	63	1.	7.3	1249.1	*	21	DEC	1330	163	8.	7.7	1249.6	*	21	DEC	2150	263	2.	7.3	1249.2
21	DEC	0515	64	1.	7.3	1249.1	*	21	DEC	1335	164	8.	7.7	1249.6	*	21	DEC	2155	264	2.	7.3	1249.2

21 DEC 0520	65	1.	7.3	1249.1	*	21 DEC 1340	165	8.	7.7	1249.6	*	21 DEC 2200	265	2.	7.3	1249.2
21 DEC 0525	66	2.	7.3	1249.1	*	21 DEC 1345	166	7.	7.7	1249.6	*	21 DEC 2205	266	2.	7.3	1249.2
21 DEC 0530	67	2.	7.3	1249.1	*	21 DEC 1350	167	7.	7.7	1249.6	*	21 DEC 2210	267	2.	7.3	1249.2
21 DEC 0535	68	2.	7.3	1249.1	*	21 DEC 1355	168	7.	7.6	1249.5	*	21 DEC 2215	268	2.	7.3	1249.2
21 DEC 0540	69	2.	7.3	1249.1	*	21 DEC 1400	169	7.	7.6	1249.5	*	21 DEC 2220	269	2.	7.3	1249.2
21 DEC 0545	70	2.	7.3	1249.1	*	21 DEC 1405	170	6.	7.6	1249.5	*	21 DEC 2225	270	2.	7.3	1249.2
21 DEC 0550	71	2.	7.3	1249.1	*	21 DEC 1410	171	6.	7.6	1249.5	*	21 DEC 2230	271	2.	7.3	1249.2
21 DEC 0555	72	2.	7.3	1249.1	*	21 DEC 1415	172	6.	7.6	1249.5	*	21 DEC 2235	272	2.	7.3	1249.2
21 DEC 0600	73	2.	7.3	1249.1	*	21 DEC 1420	173	6.	7.6	1249.5	*	21 DEC 2240	273	2.	7.3	1249.2
21 DEC 0605	74	2.	7.3	1249.1	*	21 DEC 1425	174	6.	7.6	1249.5	*	21 DEC 2245	274	2.	7.3	1249.2
21 DEC 0610	75	2.	7.3	1249.1	*	21 DEC 1430	175	6.	7.6	1249.4	*	21 DEC 2250	275	2.	7.3	1249.2
21 DEC 0615	76	2.	7.3	1249.1	*	21 DEC 1435	176	5.	7.5	1249.4	*	21 DEC 2255	276	2.	7.3	1249.2
21 DEC 0620	77	2.	7.3	1249.1	*	21 DEC 1440	177	5.	7.5	1249.4	*	21 DEC 2300	277	2.	7.3	1249.2
21 DEC 0625	78	2.	7.3	1249.1	*	21 DEC 1445	178	5.	7.5	1249.4	*	21 DEC 2305	278	2.	7.3	1249.2
21 DEC 0630	79	2.	7.3	1249.1	*	21 DEC 1450	179	5.	7.5	1249.4	*	21 DEC 2310	279	2.	7.3	1249.2
21 DEC 0635	80	2.	7.3	1249.1	*	21 DEC 1455	180	5.	7.5	1249.4	*	21 DEC 2315	280	2.	7.3	1249.2
21 DEC 0640	81	2.	7.3	1249.1	*	21 DEC 1500	181	5.	7.5	1249.4	*	21 DEC 2320	281	2.	7.3	1249.2
21 DEC 0645	82	2.	7.3	1249.1	*	21 DEC 1505	182	5.	7.5	1249.4	*	21 DEC 2325	282	2.	7.3	1249.2
21 DEC 0650	83	2.	7.3	1249.1	*	21 DEC 1510	183	5.	7.5	1249.4	*	21 DEC 2330	283	2.	7.3	1249.2
21 DEC 0655	84	2.	7.3	1249.2	*	21 DEC 1515	184	5.	7.5	1249.4	*	21 DEC 2335	284	2.	7.3	1249.2
21 DEC 0700	85	2.	7.3	1249.2	*	21 DEC 1520	185	4.	7.5	1249.4	*	21 DEC 2340	285	2.	7.3	1249.2
21 DEC 0705	86	2.	7.3	1249.2	*	21 DEC 1525	186	4.	7.5	1249.3	*	21 DEC 2345	286	2.	7.3	1249.2
21 DEC 0710	87	2.	7.3	1249.2	*	21 DEC 1530	187	4.	7.5	1249.3	*	21 DEC 2350	287	2.	7.3	1249.2
21 DEC 0715	88	2.	7.3	1249.2	*	21 DEC 1535	188	4.	7.5	1249.3	*	21 DEC 2355	288	2.	7.3	1249.2
21 DEC 0720	89	2.	7.3	1249.2	*	21 DEC 1540	189	4.	7.5	1249.3	*	22 DEC 0000	289	2.	7.3	1249.2
21 DEC 0725	90	2.	7.3	1249.2	*	21 DEC 1545	190	4.	7.5	1249.3	*	22 DEC 0005	290	2.	7.3	1249.2
21 DEC 0730	91	2.	7.3	1249.2	*	21 DEC 1550	191	4.	7.4	1249.3	*	22 DEC 0010	291	2.	7.3	1249.1
21 DEC 0735	92	2.	7.3	1249.2	*	21 DEC 1555	192	4.	7.4	1249.3	*	22 DEC 0015	292	2.	7.3	1249.1
21 DEC 0740	93	2.	7.3	1249.2	*	21 DEC 1600	193	4.	7.4	1249.3	*	22 DEC 0020	293	2.	7.3	1249.1
21 DEC 0745	94	2.	7.3	1249.2	*	21 DEC 1605	194	4.	7.4	1249.3	*	22 DEC 0025	294	2.	7.3	1249.1
21 DEC 0750	95	2.	7.3	1249.2	*	21 DEC 1610	195	4.	7.4	1249.3	*	22 DEC 0030	295	2.	7.3	1249.1
21 DEC 0755	96	2.	7.3	1249.2	*	21 DEC 1615	196	4.	7.4	1249.3	*	22 DEC 0035	296	2.	7.3	1249.1
21 DEC 0800	97	2.	7.3	1249.2	*	21 DEC 1620	197	3.	7.4	1249.3	*	22 DEC 0040	297	2.	7.3	1249.1
21 DEC 0805	98	2.	7.3	1249.2	*	21 DEC 1625	198	3.	7.4	1249.3	*	22 DEC 0045	298	2.	7.3	1249.1
21 DEC 0810	99	2.	7.3	1249.2	*	21 DEC 1630	199	3.	7.4	1249.3	*	22 DEC 0050	299	2.	7.3	1249.1
21 DEC 0815	100	2.	7.3	1249.2	*	21 DEC 1635	200	3.	7.4	1249.3	*	22 DEC 0055	300	2.	7.3	1249.1

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW
			6-HR 24-HR 72-HR 24.92-HR
+	(CFS)	(HR)	
+	11.	12.75	6. 3. 3. 3.
	(INCHES)		3.814 7.606 7.606 7.606
	(AC-FT)		3. 6. 6. 6.

PEAK STORAGE	TIME		MAXIMUM AVERAGE STORAGE
			6-HR 24-HR 72-HR 24.92-HR
+	(AC-FT)	(HR)	
+	8.	12.75	8. 7. 7. 7.

PEAK STAGE	TIME		MAXIMUM AVERAGE STAGE
			6-HR 24-HR 72-HR 24.92-HR
+	(FEET)	(HR)	
+	1249.90	12.75	1249.46 1249.23 1249.22 1249.22

CUMULATIVE AREA = .01 SQ MI

1							STATION	Route								
			(I) INFLOW,	(O) OUTFLOW												
			0.	4.	8.	12.	16.	20.	24.	28.	32.	36.	0.	0.	0.	
										(S) STORAGE						
DAHRMN PER			.0	.0	.0	.0	.0	.0	7.2	7.4	7.6	7.8	8.0	.0	.0	.0
210000	1I								S							
210005	2I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210010	3I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210015	4I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210020	5I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210025	6I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210030	7I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210035	8I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210040	9I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210045	10I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210050	11I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210055	12I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210100	13I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210105	14I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210110	15I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210115	16I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.

210120	17I	.	.	.	.	.	S	.	.	.	.	.	.	.
210125	18OI	.	.	.	.	.	S	.	.	.	.	.	.	.
210130	19OI	.	.	.	.	.	S	.	.	.	.	.	.	.
210135	20OI	.	.	.	.	.	S	.	.	.	.	.	.	.
210140	21OI.	.	.	.	.	.	S	.	.	.	.	.	.	.
210145	22OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210150	23OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210155	24.I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210200	25.I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210205	26.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210210	27.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210215	28.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210220	29.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210225	30.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210230	31.OI	.	.	.	.	.	S	.	.	.	.	.	.	.
210235	32.OI	.	.	.	.	.	S	.	.	.	.	.	.	.
210240	33.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210245	34.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210250	35. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210255	36. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210300	37. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210305	38. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210310	39. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210315	40. OI	.	.	.	.	.	S	.	.	.	.	.	.	.
210320	41. OI.	.	.	.	.	.	S	.	.	.	.	.	.	.
210325	42. OI	.	.	.	.	.	S	.	.	.	.	.	.	.
210330	43. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210335	44. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210340	45. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210345	46. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210350	47. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210355	48. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210400	49. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210405	50. I	.	.	.	.	.	S	.	.	.	.	.	.	.
210410	51. .I.	.	.	.	.	.	S	.	.	.	.	.	.	.
210415	52. OI	.	.	.	.	.	S	.	.	.	.	.	.	.
210420	53. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210425	54. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210430	55. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210435	56. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210440	57. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210445	58. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210450	59. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210455	60. OI	.	.	.	.	.	S	.	.	.	.	.	.	.
210500	61. .OI	.	.	.	.	.	S	.	.	.	.	.	.	.
210505	62. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210510	63. I	.	.	.	.	.	S	.	.	.	.	.	.	.
210515	64. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210520	65. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210525	66. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210530	67. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210535	68. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210540	69. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210545	70. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210550	71. .OI.	.	.	.	.	.	S	.	.	.	.	.	.	.
210555	72. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210600	73. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210605	74. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210610	75. OI	.	.	.	.	.	S	.	.	.	.	.	.	.
210615	76. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210620	77. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210625	78. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210630	79. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210635	80. I	.	.	.	.	.	S	.	.	.	.	.	.	.
210640	81. .I.	.	.	.	.	.	S	.	.	.	.	.	.	.
210645	82. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210650	83. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210655	84. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210700	85. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210705	86. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210710	87. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210715	88. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210720	89. I	.	.	.	.	.	S	.	.	.	.	.	.	.
210725	90. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210730	91. .OI	.	.	.	.	.	S	.	.	.	.	.	.	.
210735	92. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210740	93. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210745	94. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210750	95. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210755	96. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210800	97. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210805	98. I	.	.	.	.	.	S	.	.	.	.	.	.	.

210810	99.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210815	100.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210820	101.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210825	102.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210830	103.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210835	104.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210840	105.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210845	106.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210850	107.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210855	108.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210900	109.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210905	110.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210910	111.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210915	112.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210920	113.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210925	114.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210930	115.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210935	116.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210940	117.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210945	118.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210950	119.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
210955	120.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211000	121.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211005	122.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211010	123.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211015	124.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211020	125.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211025	126.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211030	127.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211035	128.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211040	129.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211045	130.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211050	131.	O.I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211055	132.	O.I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211100	133.	O.I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211105	134.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211110	135.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211115	136.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211120	137.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211125	138.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211130	139.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211135	140.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211140	141.	O.I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211145	142.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211150	143.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211155	144.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211200	145.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211205	146.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211210	147.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211215	148.	O	.	.	I	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211220	149.	O	.	.	I	.	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211225	150.	O	.	.	.	I	.	.	.	S	.	.	.	.	.	.	.	.	.	.
211230	151.	O.	.	.	.	.	.	.	.	I.	.	S	.	.	.	.	.	.	.	.
211235	152.	.	.	0	.	.	I	.	.	.	.	S	.	.	.	.	.	.	.	.
211240	153.	.	.	0	.	I	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211245	154.	.	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211250	155.	I.	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211255	156.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211300	157.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211305	158.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211310	159.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211315	160.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211320	161.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211325	162.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211330	163.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211335	164.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211340	165.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211345	166.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211350	167.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211355	168.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211400	169.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211405	170.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211410	171.	I.	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211415	172.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211420	173.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211425	174.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211430	175.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211435	176.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211440	177.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211445	178.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211450	179.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.
211455	180.	I	.	0	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.	.

[illegible]

212150	263.	I	.	.	.	.	.	S	.	.	.	.	.	.
212155	264.	I	.	.	.	.	.	S	.	.	.	.	.	.
212200	265.	I	.	.	.	.	.	S	.	.	.	.	.	.
212205	266.	I	.	.	.	.	.	S	.	.	.	.	.	.
212210	267.	I	.	.	.	.	.	S	.	.	.	.	.	.
212215	268.	I	.	.	.	.	.	S	.	.	.	.	.	.
212220	269.	I	.	.	.	.	.	S	.	.	.	.	.	.
212225	270.	I	.	.	.	.	.	S	.	.	.	.	.	.
212230	271.	I	.	.	.	.	.	S	.	.	.	.	.	.
212235	272.	I	.	.	.	.	.	S	.	.	.	.	.	.
212240	273.	I	.	.	.	.	.	S	.	.	.	.	.	.
212245	274.	I	.	.	.	.	.	S	.	.	.	.	.	.
212250	275.	I	.	.	.	.	.	S	.	.	.	.	.	.
212255	276.	I	.	.	.	.	.	S	.	.	.	.	.	.
212300	277.	I	.	.	.	.	.	S	.	.	.	.	.	.
212305	278.	I	.	.	.	.	.	S	.	.	.	.	.	.
212310	279.	I	.	.	.	.	.	S	.	.	.	.	.	.
212315	280.	I	.	.	.	.	.	S	.	.	.	.	.	.
212320	281.	I	.	.	.	.	.	S	.	.	.	.	.	.
212325	282.	I	.	.	.	.	.	S	.	.	.	.	.	.
212330	283.	I	.	.	.	.	.	S	.	.	.	.	.	.
212335	284.	I	.	.	.	.	.	S	.	.	.	.	.	.
212340	285.	I	.	.	.	.	.	S	.	.	.	.	.	.
212345	286.	I	.	.	.	.	.	S	.	.	.	.	.	.
212350	287.	I	.	.	.	.	.	S	.	.	.	.	.	.
212355	288.	I	.	.	.	.	.	S	.	.	.	.	.	.
220000	289.	I	.	.	.	.	.	S	.	.	.	.	.	.
220005	290.	I	.	.	.	.	.	S	.	.	.	.	.	.
220010	291.	I	.	.	.	.	.	S	.	.	.	.	.	.
220015	292.	I	.	.	.	.	.	S	.	.	.	.	.	.
220020	293.	I	.	.	.	.	.	S	.	.	.	.	.	.
220025	294.	I	.	.	.	.	.	S	.	.	.	.	.	.
220030	295.	IO	.	.	.	.	.	S	.	.	.	.	.	.
220035	296.	IO	.	.	.	.	.	S	.	.	.	.	.	.
220040	297.	I	.	.	.	.	.	S	.	.	.	.	.	.
220045	298.	I	.	.	.	.	.	S	.	.	.	.	.	.
220050	299.	I	.	.	.	.	.	S	.	.	.	.	.	.
220055	300.	IO	.	.	.	.	.	S	.	.	.	.	.	.

1
1

RUNOFF SUMMARY
 FLOW IN CUBIC FEET PER SECOND
 TIME IN HOURS, AREA IN SQUARE MILES

+	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD			BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
					6-HOUR	24-HOUR	72-HOUR			
+	HYDROGRAPH AT									
+		Basin	34.	12.50	6.	3.	3.	.01		
+	ROUTED TO									
+		Route	11.	12.75	6.	3.	3.	.01	1249.90	12.75

*** NORMAL END OF HEC-1 ***

Section E

Combined Watershed

Section E-1

HEC-1 Output

1*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1) *
* JUN 1998 *
* VERSION 4.1 *
*
* RUN DATE 19FEB24 TIME 08:55:52 *
*

*
* U.S. ARMY CORPS OF ENGINEERS *
* HYDROLOGIC ENGINEERING CENTER *
* 609 SECOND STREET *
* DAVIS, CALIFORNIA 95616 *
* (916) 756-1104 *
*

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

```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1 HEC-1 INPUT PAGE 1

LINE	ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
1	ID East Money Hole Reservoir 100-year, 4-day storm, 24-HR
2	IT 5 21DEC23 000 300
3	IO 1 2
4	KK Basin
5	KM Compute inflow to reservoir
6	BA 0.019
7	BF 0
8	PH 0.385 0.667 1.43 2.11 2.68 4.04 5.91 8.70
9	PH 11.8 15.6
10	LS 0 91 0
11	UD 0.038
12	KK Route
13	KM Route flow through pipe spillway inlet - 15in diameter (3.9 ft circumference)
14	RS 1 ELEV 1249
15	SV 7.202 8.007 8.863 9.772
16	SE 1249.0 1250.0 1251.0 1252.0
17	SQ 0.0 12.6 35.5 65.3
18	SE 1249.0 1250.0 1251.0 1252.0
19	ZZ

1*****
*
* FLOOD HYDROGRAPH PACKAGE (HEC-1) *
* JUN 1998 *
* VERSION 4.1 *
*
* RUN DATE 19FEB24 TIME 08:55:52 *
*

*
* U.S. ARMY CORPS OF ENGINEERS *
* HYDROLOGIC ENGINEERING CENTER *
* 609 SECOND STREET *
* DAVIS, CALIFORNIA 95616 *
* (916) 756-1104 *
*

East Money Hole Reservoir 100-year, 4-day storm, 24-HR

3 IO OUTPUT CONTROL VARIABLES
IPRNT 1 PRINT CONTROL
IPLOT 2 PLOT CONTROL
QSCAL 0. HYDROGRAPH PLOT SCALE

IT HYDROGRAPH TIME DATA
NMIN 5 MINUTES IN COMPUTATION INTERVAL

IDATE 21DEC23 STARTING DATE
ITIME 0000 STARTING TIME
NQ 300 NUMBER OF HYDROGRAPH ORDINATES
NDDATE 22DEC23 ENDING DATE
NDTIME 0055 ENDING TIME
ICENT 19 CENTURY MARK

COMPUTATION INTERVAL .08 HOURS
TOTAL TIME BASE 24.92 HOURS

ENGLISH UNITS

DRAINAGE AREA SQUARE MILES
PRECIPITATION DEPTH INCHES
LENGTH, ELEVATION FEET
FLOW CUBIC FEET PER SECOND
STORAGE VOLUME ACRE-Feet
SURFACE AREA ACRES
TEMPERATURE DEGREES FAHRENHEIT

*** **

* *
4 KK * Basin *
* *

Compute inflow to reservoir

SUBBASIN RUNOFF DATA

6 BA SUBBASIN CHARACTERISTICS
TAREA .02 SUBBASIN AREA
7 BF BASE FLOW CHARACTERISTICS
STRTO .00 INITIAL FLOW
QRCSN .00 BEGIN BASE FLOW RECESSION
RTIOR 1.00000 RECESSION CONSTANT

PRECIPITATION DATA

8 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM
..... HYDRO-35 TP-40 TP-49
5-MIN 15-MIN 60-MIN 2-HR 3-HR 6-HR 12-HR 24-HR 2-DAY 4-DAY 7-DAY 10-DAY
.38 .67 1.43 2.11 2.68 4.04 5.91 8.70 11.80 15.60 .00 .00

STORM AREA = .02

10 LS SCS LOSS RATE
STRTO .20 INITIAL ABSTRACTION
CRVNB 91.00 CURVE NUMBER
RTIMP .00 PERCENT IMPERVIOUS AREA

11 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .04 LAG

WARNING *** TIME INTERVAL IS GREATER THAN .29*LAG

UNIT HYDROGRAPH
5 END-OF-PERIOD ORDINATES
109. 31. 6. 1. 0.

HYDROGRAPH AT STATION Basin

DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q		DA	MON	HRMN	ORD	RAIN	LOSS	EXCESS	COMP Q
21	DEC	0000	1	.00	.00	.00	0.	*	21	DEC	1230	151	.38	.01	.37	46.
21	DEC	0005	2	.01	.01	.00	0.	*	21	DEC	1235	152	.12	.00	.11	25.
21	DEC	0010	3	.01	.01	.00	0.	*	21	DEC	1240	153	.12	.00	.12	19.
21	DEC	0015	4	.01	.01	.00	0.	*	21	DEC	1245	154	.08	.00	.07	13.
21	DEC	0020	5	.01	.01	.00	0.	*	21	DEC	1250	155	.07	.00	.06	10.
21	DEC	0025	6	.01	.01	.00	0.	*	21	DEC	1255	156	.06	.00	.06	9.
21	DEC	0030	7	.02	.02	.00	0.	*	21	DEC	1300	157	.07	.00	.06	9.
21	DEC	0035	8	.02	.02	.00	0.	*	21	DEC	1305	158	.06	.00	.06	9.

21 DEC 0040	9	.02	.02	.00	0.	*	21 DEC 1310	159	.06	.00	.06	8.
21 DEC 0045	10	.02	.02	.00	0.	*	21 DEC 1315	160	.06	.00	.05	8.
21 DEC 0050	11	.02	.02	.00	0.	*	21 DEC 1320	161	.05	.00	.05	8.
21 DEC 0055	12	.02	.02	.00	0.	*	21 DEC 1325	162	.05	.00	.05	7.
21 DEC 0100	13	.02	.02	.00	0.	*	21 DEC 1330	163	.05	.00	.05	7.
21 DEC 0105	14	.02	.02	.00	0.	*	21 DEC 1335	164	.05	.00	.05	7.
21 DEC 0110	15	.02	.02	.00	0.	*	21 DEC 1340	165	.05	.00	.05	7.
21 DEC 0115	16	.02	.02	.00	0.	*	21 DEC 1345	166	.05	.00	.05	7.
21 DEC 0120	17	.02	.02	.00	0.	*	21 DEC 1350	167	.05	.00	.04	7.
21 DEC 0125	18	.02	.02	.00	0.	*	21 DEC 1355	168	.04	.00	.04	6.
21 DEC 0130	19	.02	.01	.00	0.	*	21 DEC 1400	169	.04	.00	.04	6.
21 DEC 0135	20	.02	.01	.00	0.	*	21 DEC 1405	170	.04	.00	.04	6.
21 DEC 0140	21	.02	.01	.00	1.	*	21 DEC 1410	171	.04	.00	.04	6.
21 DEC 0145	22	.02	.01	.00	1.	*	21 DEC 1415	172	.04	.00	.04	6.
21 DEC 0150	23	.02	.01	.00	1.	*	21 DEC 1420	173	.04	.00	.04	6.
21 DEC 0155	24	.02	.01	.00	1.	*	21 DEC 1425	174	.04	.00	.04	6.
21 DEC 0200	25	.02	.01	.01	1.	*	21 DEC 1430	175	.04	.00	.04	6.
21 DEC 0205	26	.02	.01	.01	1.	*	21 DEC 1435	176	.04	.00	.04	6.
21 DEC 0210	27	.02	.01	.01	1.	*	21 DEC 1440	177	.04	.00	.04	5.
21 DEC 0215	28	.02	.01	.01	1.	*	21 DEC 1445	178	.04	.00	.04	5.
21 DEC 0220	29	.02	.01	.01	1.	*	21 DEC 1450	179	.04	.00	.04	5.
21 DEC 0225	30	.02	.01	.01	1.	*	21 DEC 1455	180	.04	.00	.04	5.
21 DEC 0230	31	.02	.01	.01	1.	*	21 DEC 1500	181	.04	.00	.03	5.
21 DEC 0235	32	.02	.01	.01	1.	*	21 DEC 1505	182	.04	.00	.03	5.
21 DEC 0240	33	.02	.01	.01	1.	*	21 DEC 1510	183	.03	.00	.03	5.
21 DEC 0245	34	.02	.01	.01	1.	*	21 DEC 1515	184	.03	.00	.03	5.
21 DEC 0250	35	.02	.01	.01	1.	*	21 DEC 1520	185	.03	.00	.03	5.
21 DEC 0255	36	.02	.01	.01	1.	*	21 DEC 1525	186	.03	.00	.03	5.
21 DEC 0300	37	.02	.01	.01	1.	*	21 DEC 1530	187	.03	.00	.03	5.
21 DEC 0305	38	.02	.01	.01	1.	*	21 DEC 1535	188	.03	.00	.03	4.
21 DEC 0310	39	.02	.01	.01	1.	*	21 DEC 1540	189	.03	.00	.03	4.
21 DEC 0315	40	.02	.01	.01	1.	*	21 DEC 1545	190	.03	.00	.03	4.
21 DEC 0320	41	.02	.01	.01	2.	*	21 DEC 1550	191	.03	.00	.03	4.
21 DEC 0325	42	.02	.01	.01	2.	*	21 DEC 1555	192	.03	.00	.03	4.
21 DEC 0330	43	.02	.01	.01	2.	*	21 DEC 1600	193	.03	.00	.03	4.
21 DEC 0335	44	.02	.01	.01	2.	*	21 DEC 1605	194	.03	.00	.03	4.
21 DEC 0340	45	.02	.01	.01	2.	*	21 DEC 1610	195	.03	.00	.03	4.
21 DEC 0345	46	.02	.01	.01	2.	*	21 DEC 1615	196	.03	.00	.03	4.
21 DEC 0350	47	.02	.01	.01	2.	*	21 DEC 1620	197	.03	.00	.03	4.
21 DEC 0355	48	.02	.01	.01	2.	*	21 DEC 1625	198	.03	.00	.03	4.
21 DEC 0400	49	.02	.01	.01	2.	*	21 DEC 1630	199	.03	.00	.03	4.
21 DEC 0405	50	.02	.01	.01	2.	*	21 DEC 1635	200	.03	.00	.03	4.
21 DEC 0410	51	.02	.01	.01	2.	*	21 DEC 1640	201	.03	.00	.03	4.
21 DEC 0415	52	.02	.01	.01	2.	*	21 DEC 1645	202	.03	.00	.03	4.
21 DEC 0420	53	.02	.01	.01	2.	*	21 DEC 1650	203	.03	.00	.03	4.
21 DEC 0425	54	.02	.01	.01	2.	*	21 DEC 1655	204	.03	.00	.03	4.
21 DEC 0430	55	.02	.01	.01	2.	*	21 DEC 1700	205	.03	.00	.03	4.
21 DEC 0435	56	.02	.01	.01	2.	*	21 DEC 1705	206	.03	.00	.02	4.
21 DEC 0440	57	.02	.01	.01	2.	*	21 DEC 1710	207	.03	.00	.02	4.
21 DEC 0445	58	.02	.01	.01	2.	*	21 DEC 1715	208	.02	.00	.02	4.
21 DEC 0450	59	.02	.01	.01	2.	*	21 DEC 1720	209	.02	.00	.02	4.
21 DEC 0455	60	.02	.01	.01	2.	*	21 DEC 1725	210	.02	.00	.02	4.
21 DEC 0500	61	.02	.01	.01	2.	*	21 DEC 1730	211	.02	.00	.02	4.
21 DEC 0505	62	.02	.01	.02	2.	*	21 DEC 1735	212	.02	.00	.02	4.
21 DEC 0510	63	.02	.01	.02	2.	*	21 DEC 1740	213	.02	.00	.02	3.
21 DEC 0515	64	.02	.01	.02	2.	*	21 DEC 1745	214	.02	.00	.02	3.
21 DEC 0520	65	.02	.01	.02	2.	*	21 DEC 1750	215	.02	.00	.02	3.
21 DEC 0525	66	.02	.01	.02	2.	*	21 DEC 1755	216	.02	.00	.02	3.
21 DEC 0530	67	.02	.01	.02	2.	*	21 DEC 1800	217	.02	.00	.02	3.
21 DEC 0535	68	.02	.01	.02	2.	*	21 DEC 1805	218	.02	.00	.02	3.
21 DEC 0540	69	.02	.01	.02	2.	*	21 DEC 1810	219	.02	.00	.02	3.
21 DEC 0545	70	.02	.01	.02	2.	*	21 DEC 1815	220	.02	.00	.02	3.
21 DEC 0550	71	.02	.00	.02	2.	*	21 DEC 1820	221	.02	.00	.02	3.
21 DEC 0555	72	.02	.00	.02	3.	*	21 DEC 1825	222	.02	.00	.02	3.
21 DEC 0600	73	.02	.00	.02	3.	*	21 DEC 1830	223	.02	.00	.02	3.
21 DEC 0605	74	.02	.00	.02	3.	*	21 DEC 1835	224	.02	.00	.02	3.
21 DEC 0610	75	.02	.00	.02	3.	*	21 DEC 1840	225	.02	.00	.02	3.
21 DEC 0615	76	.02	.00	.02	3.	*	21 DEC 1845	226	.02	.00	.02	3.
21 DEC 0620	77	.02	.00	.02	3.	*	21 DEC 1850	227	.02	.00	.02	3.
21 DEC 0625	78	.02	.00	.02	3.	*	21 DEC 1855	228	.02	.00	.02	3.
21 DEC 0630	79	.02	.00	.02	3.	*	21 DEC 1900	229	.02	.00	.02	3.
21 DEC 0635	80	.02	.00	.02	3.	*	21 DEC 1905	230	.02	.00	.02	3.
21 DEC 0640	81	.02	.00	.02	3.	*	21 DEC 1910	231	.02	.00	.02	3.
21 DEC 0645	82	.02	.00	.02	3.	*	21 DEC 1915	232	.02	.00	.02	3.
21 DEC 0650	83	.02	.00	.02	3.	*	21 DEC 1920	233	.02	.00	.02	3.
21 DEC 0655	84	.02	.00	.02	3.	*	21 DEC 1925	234	.02	.00	.02	3.
21 DEC 0700	85	.02	.00	.02	3.	*	21 DEC 1930	235	.02	.00	.02	3.
21 DEC 0705	86	.02	.00	.02	3.	*	21 DEC 1935	236	.02	.00	.02	3.
21 DEC 0710	87	.02	.00	.02	3.	*	21 DEC 1940	237	.02	.00	.02	3.
21 DEC 0715	88	.02	.00	.02	3.	*	21 DEC 1945	238	.02	.00	.02	3.
21 DEC 0720	89	.02	.00	.02	3.	*	21 DEC 1950	239	.02	.00	.02	3.
21 DEC 0725	90	.02	.00	.02	3.	*	21 DEC 1955	240	.02	.00	.02	3.

CUMULATIVE AREA = .02 SQ MI

	(0) OUTFLOW												(L) PRECIP,			(X) EXCESS		
	0.	10.	20.	30.	40.	50.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
DAHRMN PER	.0	.0	.0	.0	.0	.0	.0	.0	.4	.3	.2	.1	.0					

[illegible]

[illegible]

[illegible]

18 SE ELEVATION 1249.00 1250.00 1251.00 1252.00

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	7.20	8.01	8.86	9.77
OUTFLOW	.00	12.60	35.50	65.30
ELEVATION	1249.00	1250.00	1251.00	1252.00

HYDROGRAPH AT STATION Route

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
							*								*							
21	DEC	0000	1	0.	7.2	1249.0	*	21	DEC	0820	101	3.	7.4	1249.2	*	21	DEC	1640	201	4.	7.5	1249.4
21	DEC	0005	2	0.	7.2	1249.0	*	21	DEC	0825	102	3.	7.4	1249.2	*	21	DEC	1645	202	4.	7.5	1249.3
21	DEC	0010	3	0.	7.2	1249.0	*	21	DEC	0830	103	3.	7.4	1249.3	*	21	DEC	1650	203	4.	7.5	1249.3
21	DEC	0015	4	0.	7.2	1249.0	*	21	DEC	0835	104	3.	7.4	1249.3	*	21	DEC	1655	204	4.	7.5	1249.3
21	DEC	0020	5	0.	7.2	1249.0	*	21	DEC	0840	105	3.	7.4	1249.3	*	21	DEC	1700	205	4.	7.5	1249.3
21	DEC	0025	6	0.	7.2	1249.0	*	21	DEC	0845	106	3.	7.4	1249.3	*	21	DEC	1705	206	4.	7.5	1249.3
21	DEC	0030	7	0.	7.2	1249.0	*	21	DEC	0850	107	3.	7.4	1249.3	*	21	DEC	1710	207	4.	7.5	1249.3
21	DEC	0035	8	0.	7.2	1249.0	*	21	DEC	0855	108	3.	7.4	1249.3	*	21	DEC	1715	208	4.	7.5	1249.3
21	DEC	0040	9	0.	7.2	1249.0	*	21	DEC	0900	109	3.	7.4	1249.3	*	21	DEC	1720	209	4.	7.5	1249.3
21	DEC	0045	10	0.	7.2	1249.0	*	21	DEC	0905	110	3.	7.4	1249.3	*	21	DEC	1725	210	4.	7.5	1249.3
21	DEC	0050	11	0.	7.2	1249.0	*	21	DEC	0910	111	3.	7.4	1249.3	*	21	DEC	1730	211	4.	7.5	1249.3
21	DEC	0055	12	0.	7.2	1249.0	*	21	DEC	0915	112	4.	7.4	1249.3	*	21	DEC	1735	212	4.	7.4	1249.3
21	DEC	0100	13	0.	7.2	1249.0	*	21	DEC	0920	113	4.	7.4	1249.3	*	21	DEC	1740	213	4.	7.4	1249.3
21	DEC	0105	14	0.	7.2	1249.0	*	21	DEC	0925	114	4.	7.4	1249.3	*	21	DEC	1745	214	4.	7.4	1249.3
21	DEC	0110	15	0.	7.2	1249.0	*	21	DEC	0930	115	4.	7.4	1249.3	*	21	DEC	1750	215	4.	7.4	1249.3
21	DEC	0115	16	0.	7.2	1249.0	*	21	DEC	0935	116	4.	7.4	1249.3	*	21	DEC	1755	216	4.	7.4	1249.3
21	DEC	0120	17	0.	7.2	1249.0	*	21	DEC	0940	117	4.	7.4	1249.3	*	21	DEC	1800	217	4.	7.4	1249.3
21	DEC	0125	18	0.	7.2	1249.0	*	21	DEC	0945	118	4.	7.5	1249.3	*	21	DEC	1805	218	4.	7.4	1249.3
21	DEC	0130	19	0.	7.2	1249.0	*	21	DEC	0950	119	4.	7.5	1249.3	*	21	DEC	1810	219	4.	7.4	1249.3
21	DEC	0135	20	0.	7.2	1249.0	*	21	DEC	0955	120	4.	7.5	1249.3	*	21	DEC	1815	220	4.	7.4	1249.3
21	DEC	0140	21	0.	7.2	1249.0	*	21	DEC	1000	121	4.	7.5	1249.3	*	21	DEC	1820	221	4.	7.4	1249.3
21	DEC	0145	22	0.	7.2	1249.0	*	21	DEC	1005	122	4.	7.5	1249.3	*	21	DEC	1825	222	4.	7.4	1249.3
21	DEC	0150	23	0.	7.2	1249.0	*	21	DEC	1010	123	4.	7.5	1249.3	*	21	DEC	1830	223	4.	7.4	1249.3
21	DEC	0155	24	0.	7.2	1249.0	*	21	DEC	1015	124	4.	7.5	1249.3	*	21	DEC	1835	224	4.	7.4	1249.3
21	DEC	0200	25	0.	7.2	1249.0	*	21	DEC	1020	125	4.	7.5	1249.4	*	21	DEC	1840	225	3.	7.4	1249.3
21	DEC	0205	26	0.	7.2	1249.0	*	21	DEC	1025	126	5.	7.5	1249.4	*	21	DEC	1845	226	3.	7.4	1249.3
21	DEC	0210	27	0.	7.2	1249.0	*	21	DEC	1030	127	5.	7.5	1249.4	*	21	DEC	1850	227	3.	7.4	1249.3
21	DEC	0215	28	0.	7.2	1249.0	*	21	DEC	1035	128	5.	7.5	1249.4	*	21	DEC	1855	228	3.	7.4	1249.3
21	DEC	0220	29	1.	7.2	1249.0	*	21	DEC	1040	129	5.	7.5	1249.4	*	21	DEC	1900	229	3.	7.4	1249.3
21	DEC	0225	30	1.	7.2	1249.0	*	21	DEC	1045	130	5.	7.5	1249.4	*	21	DEC	1905	230	3.	7.4	1249.3
21	DEC	0230	31	1.	7.2	1249.0	*	21	DEC	1050	131	5.	7.5	1249.4	*	21	DEC	1910	231	3.	7.4	1249.3
21	DEC	0235	32	1.	7.2	1249.1	*	21	DEC	1055	132	5.	7.5	1249.4	*	21	DEC	1915	232	3.	7.4	1249.3
21	DEC	0240	33	1.	7.2	1249.1	*	21	DEC	1100	133	5.	7.5	1249.4	*	21	DEC	1920	233	3.	7.4	1249.3
21	DEC	0245	34	1.	7.3	1249.1	*	21	DEC	1105	134	5.	7.5	1249.4	*	21	DEC	1925	234	3.	7.4	1249.3
21	DEC	0250	35	1.	7.3	1249.1	*	21	DEC	1110	135	5.	7.5	1249.4	*	21	DEC	1930	235	3.	7.4	1249.3
21	DEC	0255	36	1.	7.3	1249.1	*	21	DEC	1115	136	5.	7.5	1249.4	*	21	DEC	1935	236	3.	7.4	1249.3
21	DEC	0300	37	1.	7.3	1249.1	*	21	DEC	1120	137	6.	7.6	1249.4	*	21	DEC	1940	237	3.	7.4	1249.3
21	DEC	0305	38	1.	7.3	1249.1	*	21	DEC	1125	138	6.	7.6	1249.5	*	21	DEC	1945	238	3.	7.4	1249.3
21	DEC	0310	39	1.	7.3	1249.1	*	21	DEC	1130	139	6.	7.6	1249.5	*	21	DEC	1950	239	3.	7.4	1249.3
21	DEC	0315	40	1.	7.3	1249.1	*	21	DEC	1135	140	6.	7.6	1249.5	*	21	DEC	1955	240	3.	7.4	1249.3
21	DEC	0320	41	1.	7.3	1249.1	*	21	DEC	1140	141	6.	7.6	1249.5	*	21	DEC	2000	241	3.	7.4	1249.3
21	DEC	0325	42	1.	7.3	1249.1	*	21	DEC	1145	142	6.	7.6	1249.5	*	21	DEC	2005	242	3.	7.4	1249.3
21	DEC	0330	43	1.	7.3	1249.1	*	21	DEC	1150	143	6.	7.6	1249.5	*	21	DEC	2010	243	3.	7.4	1249.2
21	DEC	0335	44	1.	7.3	1249.1	*	21	DEC	1155	144	7.	7.6	1249.5	*	21	DEC	2015	244	3.	7.4	1249.2
21	DEC	0340	45	1.	7.3	1249.1	*	21	DEC	1200	145	7.	7.6	1249.5	*	21	DEC	2020	245	3.	7.4	1249.2
21	DEC	0345	46	1.	7.3	1249.1	*	21	DEC	1205	146	7.	7.6	1249.6	*	21	DEC	2025	246	3.	7.4	1249.2
21	DEC	0350	47	1.	7.3	1249.1	*	21	DEC	1210	147	7.	7.7	1249.6	*	21	DEC	2030	247	3.	7.4	1249.2
21	DEC	0355	48	1.	7.3	1249.1	*	21	DEC	1215	148	8.	7.7	1249.6	*	21	DEC	2035	248	3.	7.4	1249.2
21	DEC	0400	49	1.	7.3	1249.1	*	21	DEC	1220	149	9.	7.7	1249.7	*	21	DEC	2040	249	3.	7.4	1249.2
21	DEC	0405	50	1.	7.3	1249.1	*	21	DEC	1225	150	10.	7.8	1249.8	*	21	DEC	2045	250	3.	7.4	1249.2
21	DEC	0410	51	2.	7.3	1249.1	*	21	DEC	1230	151	12.	8.0	1250.0	*	21	DEC	2050	251	3.	7.4	1249.2
21	DEC	0415	52	2.	7.3	1249.1	*	21	DEC	1235	152	16.	8.1	1250.1	*	21	DEC	2055	252	3.	7.4	1249.2
21	DEC	0420	53	2.	7.3	1249.1	*	21	DEC	1240	153	17.	8.2	1250.2	*	21	DEC	2100	253	3.	7.4	1249.2
21	DEC	0425	54	2.	7.3	1249.1	*	21	DEC	1245	154	17.	8.2	1250.2	*	21	DEC	2105	254	3.	7.4	1249.2
21	DEC	0430	55	2.	7.3	1249.1	*	21	DEC	1250	155	16.	8.1	1250.1	*	21	DEC	2110	255	3.	7.4	1249.2
21	DEC	0435	56	2.	7.3	1249.1	*	21	DEC	1255	156	15.	8.1	1250.1	*	21	DEC	2115	256	3.	7.4	1249.2
21	DEC	0440	57	2.	7.3	1249.1	*	21	DEC	1300	157	14.	8.1	1250.1	*	21	DEC	2120	257	3.	7.4	1249.2
21	DEC	0445	58	2.	7.3	1249.1	*	21	DEC	1305	158	13.	8.0	1250.0	*	21	DEC	2125	258	3.	7.4	1249.2
21	DEC	0450	59	2.	7.3	1249.1	*	21	DEC	1310	159	12.	8.0	1250.0	*	21	DEC	2130	259	3.	7.4	1249.2
21	DEC	0455	60	2.	7.3	1249.1	*	21	DEC	1315	160	12.	8.0	1250.0	*	21	DEC	2135	260	3.	7.4	1249.2
21	DEC	0500	61	2.	7.3	1249.1	*	21	DEC	1320	161	12.	7.9	1249.9	*	21	DEC	2140	261	3.	7.4	1249.2
21	DEC	0505	62	2.	7.3	1249.2	*	21	DEC	1325	162	11.	7.9	1249.9	*	21	DEC	2145	262	3.	7.4	1249.2
21	DEC	0510	63	2.	7.3	1249.2	*	21	DEC	1330	163	11.	7.9	1249.9	*	21	DEC	2150	263	3.	7.4	1249.2
21	DEC	0515	64	2.	7.3	1249.2	*	21	DEC	1335	164	10.	7.9	1249.8	*	21	DEC	2155	264	3.	7.4	1249.2

21 DEC 0520	65	2.	7.3	1249.2	*	21 DEC 1340	165	10.	7.8	1249.8	*	21 DEC 2200	265	3.	7.4	1249.2
21 DEC 0525	66	2.	7.3	1249.2	*	21 DEC 1345	166	10.	7.8	1249.8	*	21 DEC 2205	266	3.	7.4	1249.2
21 DEC 0530	67	2.	7.3	1249.2	*	21 DEC 1350	167	9.	7.8	1249.7	*	21 DEC 2210	267	3.	7.4	1249.2
21 DEC 0535	68	2.	7.3	1249.2	*	21 DEC 1355	168	9.	7.8	1249.7	*	21 DEC 2215	268	3.	7.4	1249.2
21 DEC 0540	69	2.	7.3	1249.2	*	21 DEC 1400	169	9.	7.8	1249.7	*	21 DEC 2220	269	3.	7.4	1249.2
21 DEC 0545	70	2.	7.3	1249.2	*	21 DEC 1405	170	9.	7.8	1249.7	*	21 DEC 2225	270	3.	7.4	1249.2
21 DEC 0550	71	2.	7.3	1249.2	*	21 DEC 1410	171	8.	7.7	1249.7	*	21 DEC 2230	271	3.	7.4	1249.2
21 DEC 0555	72	2.	7.3	1249.2	*	21 DEC 1415	172	8.	7.7	1249.6	*	21 DEC 2235	272	3.	7.4	1249.2
21 DEC 0600	73	2.	7.3	1249.2	*	21 DEC 1420	173	8.	7.7	1249.6	*	21 DEC 2240	273	3.	7.4	1249.2
21 DEC 0605	74	2.	7.3	1249.2	*	21 DEC 1425	174	8.	7.7	1249.6	*	21 DEC 2245	274	3.	7.4	1249.2
21 DEC 0610	75	2.	7.4	1249.2	*	21 DEC 1430	175	7.	7.7	1249.6	*	21 DEC 2250	275	3.	7.4	1249.2
21 DEC 0615	76	2.	7.4	1249.2	*	21 DEC 1435	176	7.	7.7	1249.6	*	21 DEC 2255	276	3.	7.4	1249.2
21 DEC 0620	77	2.	7.4	1249.2	*	21 DEC 1440	177	7.	7.7	1249.6	*	21 DEC 2300	277	3.	7.4	1249.2
21 DEC 0625	78	2.	7.4	1249.2	*	21 DEC 1445	178	7.	7.6	1249.5	*	21 DEC 2305	278	3.	7.4	1249.2
21 DEC 0630	79	2.	7.4	1249.2	*	21 DEC 1450	179	7.	7.6	1249.5	*	21 DEC 2310	279	3.	7.4	1249.2
21 DEC 0635	80	2.	7.4	1249.2	*	21 DEC 1455	180	7.	7.6	1249.5	*	21 DEC 2315	280	3.	7.4	1249.2
21 DEC 0640	81	2.	7.4	1249.2	*	21 DEC 1500	181	6.	7.6	1249.5	*	21 DEC 2320	281	3.	7.4	1249.2
21 DEC 0645	82	3.	7.4	1249.2	*	21 DEC 1505	182	6.	7.6	1249.5	*	21 DEC 2325	282	3.	7.4	1249.2
21 DEC 0650	83	3.	7.4	1249.2	*	21 DEC 1510	183	6.	7.6	1249.5	*	21 DEC 2330	283	3.	7.4	1249.2
21 DEC 0655	84	3.	7.4	1249.2	*	21 DEC 1515	184	6.	7.6	1249.5	*	21 DEC 2335	284	3.	7.4	1249.2
21 DEC 0700	85	3.	7.4	1249.2	*	21 DEC 1520	185	6.	7.6	1249.5	*	21 DEC 2340	285	3.	7.4	1249.2
21 DEC 0705	86	3.	7.4	1249.2	*	21 DEC 1525	186	6.	7.6	1249.5	*	21 DEC 2345	286	3.	7.4	1249.2
21 DEC 0710	87	3.	7.4	1249.2	*	21 DEC 1530	187	6.	7.6	1249.5	*	21 DEC 2350	287	3.	7.4	1249.2
21 DEC 0715	88	3.	7.4	1249.2	*	21 DEC 1535	188	6.	7.6	1249.4	*	21 DEC 2355	288	3.	7.4	1249.2
21 DEC 0720	89	3.	7.4	1249.2	*	21 DEC 1540	189	5.	7.6	1249.4	*	22 DEC 0000	289	3.	7.4	1249.2
21 DEC 0725	90	3.	7.4	1249.2	*	21 DEC 1545	190	5.	7.5	1249.4	*	22 DEC 0005	290	3.	7.4	1249.2
21 DEC 0730	91	3.	7.4	1249.2	*	21 DEC 1550	191	5.	7.5	1249.4	*	22 DEC 0010	291	3.	7.4	1249.2
21 DEC 0735	92	3.	7.4	1249.2	*	21 DEC 1555	192	5.	7.5	1249.4	*	22 DEC 0015	292	3.	7.4	1249.2
21 DEC 0740	93	3.	7.4	1249.2	*	21 DEC 1600	193	5.	7.5	1249.4	*	22 DEC 0020	293	3.	7.4	1249.2
21 DEC 0745	94	3.	7.4	1249.2	*	21 DEC 1605	194	5.	7.5	1249.4	*	22 DEC 0025	294	3.	7.4	1249.2
21 DEC 0750	95	3.	7.4	1249.2	*	21 DEC 1610	195	5.	7.5	1249.4	*	22 DEC 0030	295	3.	7.4	1249.2
21 DEC 0755	96	3.	7.4	1249.2	*	21 DEC 1615	196	5.	7.5	1249.4	*	22 DEC 0035	296	2.	7.4	1249.2
21 DEC 0800	97	3.	7.4	1249.2	*	21 DEC 1620	197	5.	7.5	1249.4	*	22 DEC 0040	297	2.	7.4	1249.2
21 DEC 0805	98	3.	7.4	1249.2	*	21 DEC 1625	198	5.	7.5	1249.4	*	22 DEC 0045	298	2.	7.4	1249.2
21 DEC 0810	99	3.	7.4	1249.2	*	21 DEC 1630	199	5.	7.5	1249.4	*	22 DEC 0050	299	2.	7.3	1249.2
21 DEC 0815	100	3.	7.4	1249.2	*	21 DEC 1635	200	4.	7.5	1249.4	*	22 DEC 0055	300	2.	7.3	1249.2

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.92-HR
+	(CFS)	(HR)				
+	17.	12.67	8.	4.	4.	4.
		(INCHES)	3.815	7.606	7.606	7.606
		(AC-FT)	4.	8.	8.	8.

PEAK STORAGE	TIME		MAXIMUM AVERAGE STORAGE			
			6-HR	24-HR	72-HR	24.92-HR
+	(AC-FT)	(HR)				
+	8.	12.67	8.	7.	7.	7.

PEAK STAGE	TIME		MAXIMUM AVERAGE STAGE			
			6-HR	24-HR	72-HR	24.92-HR
+	(FEET)	(HR)				
+	1250.19	12.67	1249.61	1249.31	1249.30	1249.30

CUMULATIVE AREA = .02 SQ MI

1	STATION Route											
	0.	10.	(I) INFLOW,	(O) OUTFLOW	20.	30.	40.	50.	0.	0.	0.	0.
	.0	.0	.0	.0	.0	.0	.0	.0	7.2	7.6	8.0	8.4
											.0	.0
												.0
DAHRMN PER												
210000	1I								S			
210005	2I	.	.	.	.	.	.	.	S	.	.	.
210010	3I	.	.	.	.	.	.	.	S	.	.	.
210015	4I	.	.	.	.	.	.	.	S	.	.	.
210020	5I	.	.	.	.	.	.	.	S	.	.	.
210025	6I	.	.	.	.	.	.	.	S	.	.	.
210030	7I	.	.	.	.	.	.	.	S	.	.	.
210035	8I	.	.	.	.	.	.	.	S	.	.	.
210040	9I	.	.	.	.	.	.	.	S	.	.	.
210045	10I	.	.	.	.	.	.	.	S	.	.	.
210050	11I	.	.	.	.	.	.	.	S	.	.	.
210055	12I	.	.	.	.	.	.	.	S	.	.	.
210100	13I	.	.	.	.	.	.	.	S	.	.	.
210105	14I	.	.	.	.	.	.	.	S	.	.	.
210110	15I	.	.	.	.	.	.	.	S	.	.	.
210115	16I	.	.	.	.	.	.	.	S	.	.	.

210120	17I	.	.	.	.	.	S	.	.	.	.	.	.	.
210125	18I	.	.	.	.	.	S	.	.	.	.	.	.	.
210130	19I	.	.	.	.	.	S	.	.	.	.	.	.	.
210135	20I	.	.	.	.	.	S	.	.	.	.	.	.	.
210140	21OI.	.	.	.	.	.	S	.	.	.	.	.	.	.
210145	22OI	.	.	.	.	.	S	.	.	.	.	.	.	.
210150	23OI	.	.	.	.	.	S	.	.	.	.	.	.	.
210155	24OI	.	.	.	.	.	S	.	.	.	.	.	.	.
210200	25OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210205	26OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210210	27OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210215	28OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210220	29.I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210225	30.I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210230	31.I.	.	.	.	.	.	.S	.	.	.	.	.	.	.
210235	32.I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210240	33.I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210245	34.I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210250	35.I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210255	36.I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210300	37.I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210305	38.I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210310	39.I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210315	40.I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210320	41.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210325	42.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210330	43.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210335	44.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210340	45.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210345	46.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210350	47.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210355	48.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210400	49.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210405	50.OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210410	51. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210415	52. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210420	53. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210425	54. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210430	55. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210435	56. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210440	57. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210445	58. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210450	59. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210455	60. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210500	61. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210505	62. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210510	63. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210515	64. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210520	65. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210525	66. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210530	67. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210535	68. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210540	69. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210545	70. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210550	71. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210555	72. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210600	73. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210605	74. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210610	75. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210615	76. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210620	77. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210625	78. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210630	79. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210635	80. OI	.	.	.	.	.	.S	.	.	.	.	.	.	.
210640	81. OI.	.	.	.	.	.	.S	.	.	.	.	.	.	.
210645	82. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210650	83. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210655	84. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210700	85. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210705	86. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210710	87. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210715	88. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210720	89. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210725	90. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210730	91. .I.	.	.	.	.	.	.S	.	.	.	.	.	.	.
210735	92. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210740	93. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210745	94. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210750	95. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210755	96. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210800	97. I	.	.	.	.	.	.S	.	.	.	.	.	.	.
210805	98. I	.	.	.	.	.	.S	.	.	.	.	.	.	.

210810	99.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210815	100.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210820	101.	I.	.	.	.	.	.	.	.	S.	.	.	.	.	.	.	.
210825	102.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210830	103.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210835	104.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210840	105.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210845	106.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210850	107.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210855	108.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210900	109.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210905	110.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210910	111.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210915	112.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210920	113.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210925	114.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210930	115.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210935	116.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210940	117.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210945	118.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210950	119.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
210955	120.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211000	121.	OI.	.	.	.	.	.	.	.	S.	.	.	.	.	.	.	.
211005	122.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211010	123.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211015	124.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211020	125.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211025	126.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211030	127.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211035	128.	I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211040	129.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211045	130.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211050	131.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211055	132.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211100	133.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211105	134.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211110	135.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211115	136.	O I	.	.	.	.	.	.	.	S.	.	.	.	.	.	.	.
211120	137.	OI	.	.	.	.	.	.	.	S.	.	.	.	.	.	.	.
211125	138.	OI	.	.	.	.	.	.	.	S.	.	.	.	.	.	.	.
211130	139.	OI	.	.	.	.	.	.	.	S.	.	.	.	.	.	.	.
211135	140.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211140	141.	OI.	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211145	142.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211150	143.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211155	144.	O I.	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211200	145.	OI	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211205	146.	O I.	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211210	147.	O I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211215	148.	O . I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211220	149.	O . I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211225	150.	O . I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211230	151.	O . I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211235	152.	O . I	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211240	153.	O I.	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211245	154.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211250	155.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211255	156.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211300	157.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211305	158.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211310	159.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211315	160.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211320	161.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211325	162.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211330	163.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211335	164.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211340	165.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211345	166.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211350	167.	I O.	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211355	168.	I O.	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211400	169.	I O.	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211405	170.	I O.	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211410	171.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211415	172.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211420	173.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211425	174.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211430	175.	IO	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211435	176.	IO	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211440	177.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211445	178.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211450	179.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.
211455	180.	I O	.	.	.	.	.	.	.	S	.	.	.	.	.	.	.

[illegible]

212150	263.	I	.	.	.	.	.	S	.	.	.	.	.	.
212155	264.	I	.	.	.	.	.	S	.	.	.	.	.	.
212200	265.	I	.	.	.	.	.	S	.	.	.	.	.	.
212205	266.	I	.	.	.	.	.	S	.	.	.	.	.	.
212210	267.	I	.	.	.	.	.	S	.	.	.	.	.	.
212215	268.	I	.	.	.	.	.	S	.	.	.	.	.	.
212220	269.	I	.	.	.	.	.	S	.	.	.	.	.	.
212225	270.	I	.	.	.	.	.	S	.	.	.	.	.	.
212230	271.	I	.	.	.	.	.	S	.	.	.	.	.	.
212235	272.	I	.	.	.	.	.	S	.	.	.	.	.	.
212240	273.	I	.	.	.	.	.	S	.	.	.	.	.	.
212245	274.	I	.	.	.	.	.	S	.	.	.	.	.	.
212250	275.	I	.	.	.	.	.	S	.	.	.	.	.	.
212255	276.	I	.	.	.	.	.	S	.	.	.	.	.	.
212300	277.	I	.	.	.	.	.	S	.	.	.	.	.	.
212305	278.	I	.	.	.	.	.	S	.	.	.	.	.	.
212310	279.	I	.	.	.	.	.	S	.	.	.	.	.	.
212315	280.	I	.	.	.	.	.	S	.	.	.	.	.	.
212320	281.	I	.	.	.	.	.	S	.	.	.	.	.	.
212325	282.	I	.	.	.	.	.	S	.	.	.	.	.	.
212330	283.	I	.	.	.	.	.	S	.	.	.	.	.	.
212335	284.	I	.	.	.	.	.	S	.	.	.	.	.	.
212340	285.	I	.	.	.	.	.	S	.	.	.	.	.	.
212345	286.	I	.	.	.	.	.	S	.	.	.	.	.	.
212350	287.	I	.	.	.	.	.	S	.	.	.	.	.	.
212355	288.	I	.	.	.	.	.	S	.	.	.	.	.	.
220000	289.	IO	.	.	.	.	.	S	.	.	.	.	.	.
220005	290.	IO	.	.	.	.	.	S	.	.	.	.	.	.
220010	291.	IO	.	.	.	.	.	S	.	.	.	.	.	.
220015	292.	IO	.	.	.	.	.	S	.	.	.	.	.	.
220020	293.	IO	.	.	.	.	.	S	.	.	.	.	.	.
220025	294.	IO	.	.	.	.	.	S	.	.	.	.	.	.
220030	295.	IO	.	.	.	.	.	S	.	.	.	.	.	.
220035	296.	I	.	.	.	.	.	S	.	.	.	.	.	.
220040	297.	I	.	.	.	.	.	S	.	.	.	.	.	.
220045	298.	I	.	.	.	.	.	S	.	.	.	.	.	.
220050	299.	I	.	.	.	.	.	S	.	.	.	.	.	.
220055	300.	I	.	.	.	.	.	S	.	.	.	.	.	.

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RUNOFF SUMMARY
 FLOW IN CUBIC FEET PER SECOND
 TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD			BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+					6-HOUR	24-HOUR	72-HOUR			
+	HYDROGRAPH AT									
		Basin	46.	12.50	8.	4.	4.	.02		
+	ROUTED TO									
		Route	17.	12.67	8.	4.	4.	.02		
+									1250.19	12.67

*** NORMAL END OF HEC-1 ***