
PRELIMINARY ENGINEERING REPORT

INVESTIGATING THE FEASIBILITY OF
CONSTRUCTING RAW WATER
IMPOUNDMENTS DOWNSTREAM OF MEADOW
PARK LAKE

FOR

CITY OF CROSSVILLE

DECEMBER 2001

PREPARED BY

LD&A

Lamar Dunn & Associates, Inc.

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www.ldassoc.com

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TABLE OF CONTENTS

| SECTION | DESCRIPTION |
|-----------------|---------------------------------|
| I | INTRODUCTION |
| II | STATEMENT OF WATER DEMAND |
| III | ALTERNATE ONE DESCRIPTION |
| IV | ALTERNATE TWO DESCRIPTION |
| V | OPINION OF PROBABLE COST |
| VI | CONCLUSIONS AND RECOMMENDATIONS |
| APPENDIX | |
| A | |
| B | |

INTRODUCTION

I

SECTION I

INTRODUCTION

The City of Crossville is the central water provider for most of Cumberland County. It provides water to the citizens of Crossville as well as some outside the City. The City also provides water to utility districts for resale. Therefore, as the City investigates the long-term water needs, that investigation must also include the needs of the utility district as well.

The State Legislature established a water authority for Cumberland County. The members of the Authority include the utility districts; however, the City is currently not a member. There has been no evidence of the authority developing plans for providing a raw water source. Therefore, the City, at this point in time, has no choice other than plan for a long-term situation of providing water to the Districts.

In 1998, the City had a water Master Plan prepared. The Master Plan established projected water needs, identified weak areas in the City's distribution system, and discussed an option for augmenting the current raw water supply. Several months after the City's Master Plan was published, the U. S Army Corps of Engineers published a Regional Water Supply Study for Cumberland County. That study was intended only to be a "screening of options" type report.

Since 1998, the City has had a report prepared which estimated the cost of obtaining a water source from the Tennessee River. In 2001, the City's engineering department located two potential sites for the construction of dams downstream of the current Meadow Park Lake dam. The engineering department established the height of the proposed structures and calculated the watershed areas and the storage volume of each of the two proposed impoundments. Figure I-1 is information provided by the City. The City authorized Lamar Dunn & Associates, Inc. to develop the safe yield of these proposed impoundments as well as estimates of construction cost. The City Council clearly instructed that the scope of services not include environmental evaluations of the projects.

STATEMENT OF WATER DEMAND

II

SECTION II

STATEMENT OF WATER DEMAND

Crossville and Cumberland County have enjoyed rapid growth in recent years. The industrial and commercial base has expanded as well as the residential base. The following figures (II-1, II-2, II-3, and II-4) reflect the projected future demands for raw/treated water.

Previous work has established the safe yield of Lake Holiday at six (6) million gallons per day (MGD) and Meadow Park Lake at 3.6 MGD.

The original Lake Holiday Water Treatment Plant was constructed in 1968 and expanded in 1975. The 1975 design capacity was 3.0 MGD. Recently, the plant has been expanded again to produce 4.0 MGD.

Currently, there is a water treatment plant at Meadow Park Lake whose design capacity is 2.0 MGD. The original plant at Meadow Park Lake was constructed in 1937. The City has a new replacement treatment plant under construction at Meadow Park Lake. The new plant should be operational in 2002 with a design capacity of 3.5 MGD.

The two City facilities will have a combined total production capacity of 7.5 MGD. If one assumes a 5% growth rate and an average daily demand of 7.5 MGD the current raw water facilities should be adequate until slightly past 2015 (See Figure II-1).

However, the treatment capacity for a peak day may be reached around 2010 (See Figure II-2).

As the projected demands are reviewed for the City alone (without the utility district), it can be seen that these facilities will reach the capacity in 2017. Therefore, it is incumbent on the City to be prepared with a new water source before that date, even if the utility districts find sources of their own (See Figures II-3 and II-4).

FIGURE II - 1
City of Crossville Water Demand Projections
City Customers & Utility Districts

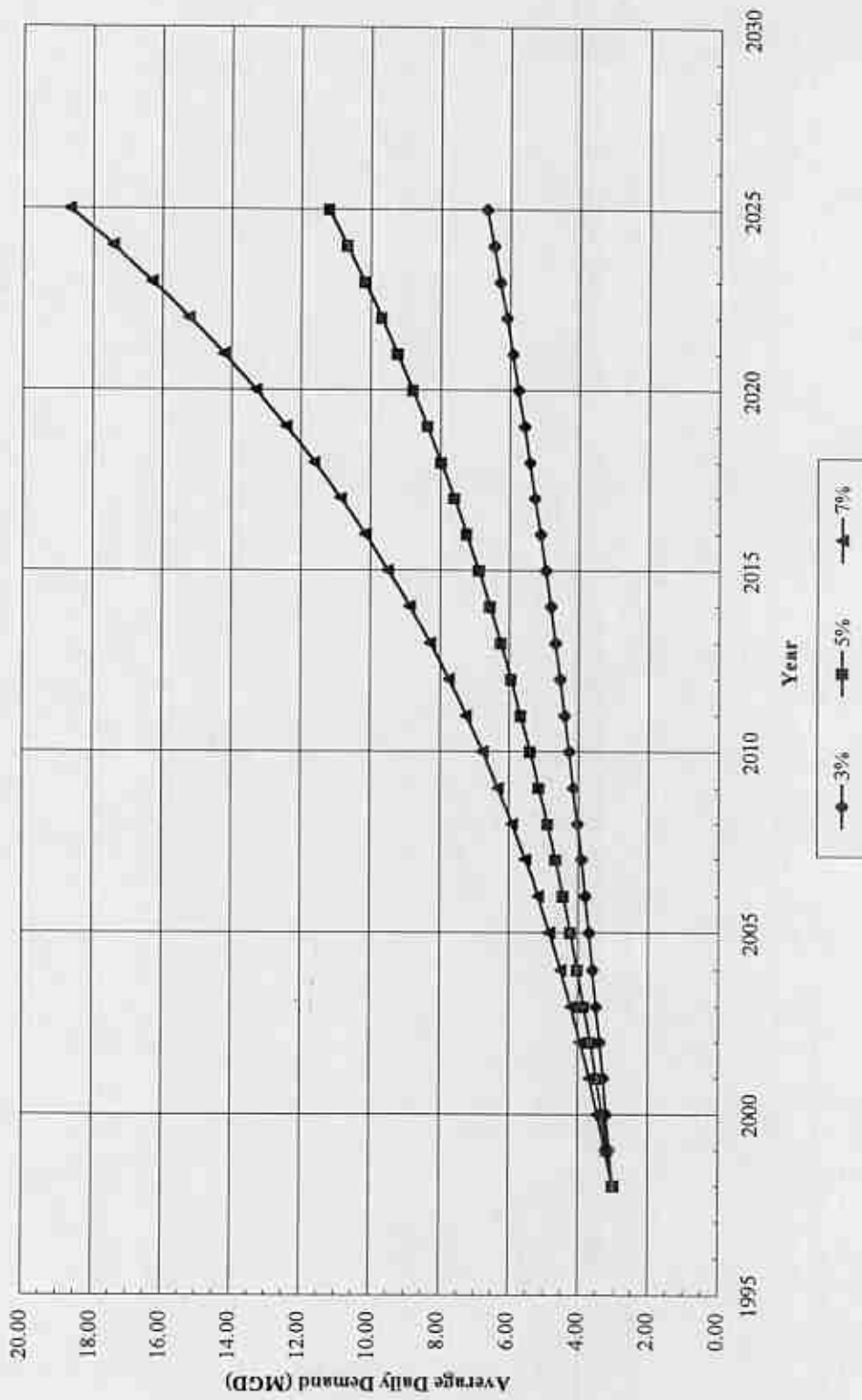


FIGURE II - 2
City of Crossville Water Demand Projections
City Customers & Utility Districts

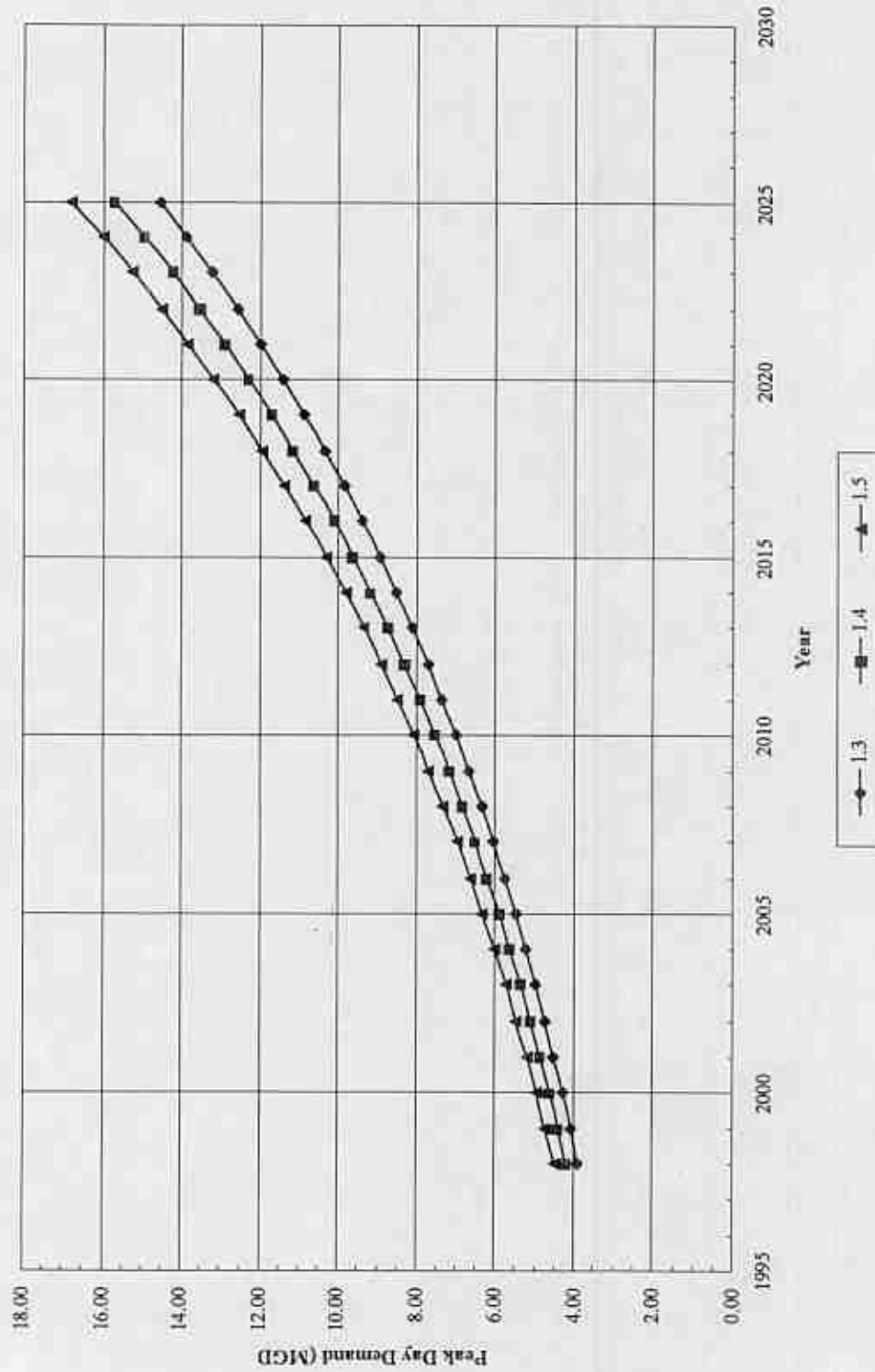


FIGURE II - 3
City of Crossville Projected Water Demand
City Customers Only

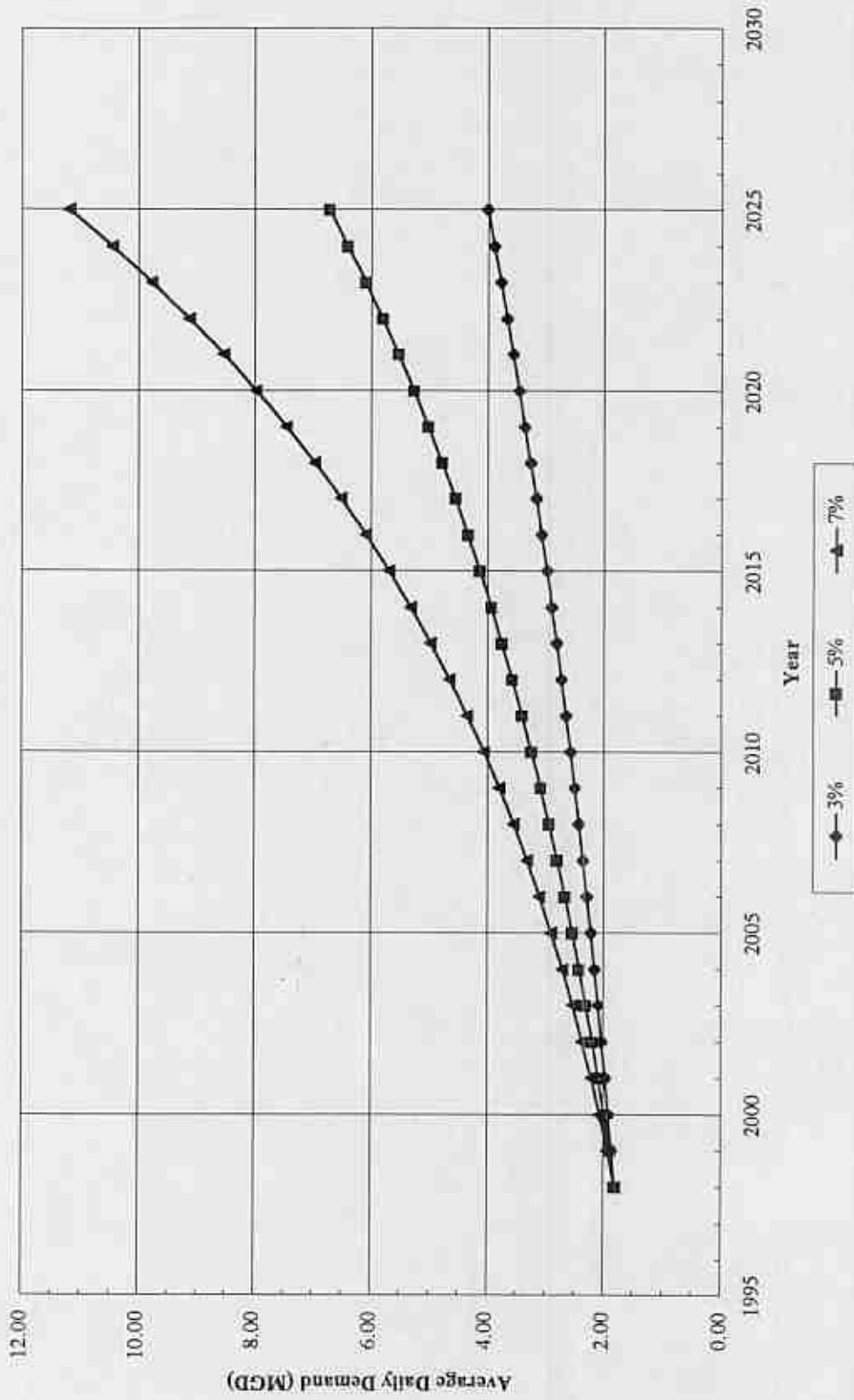
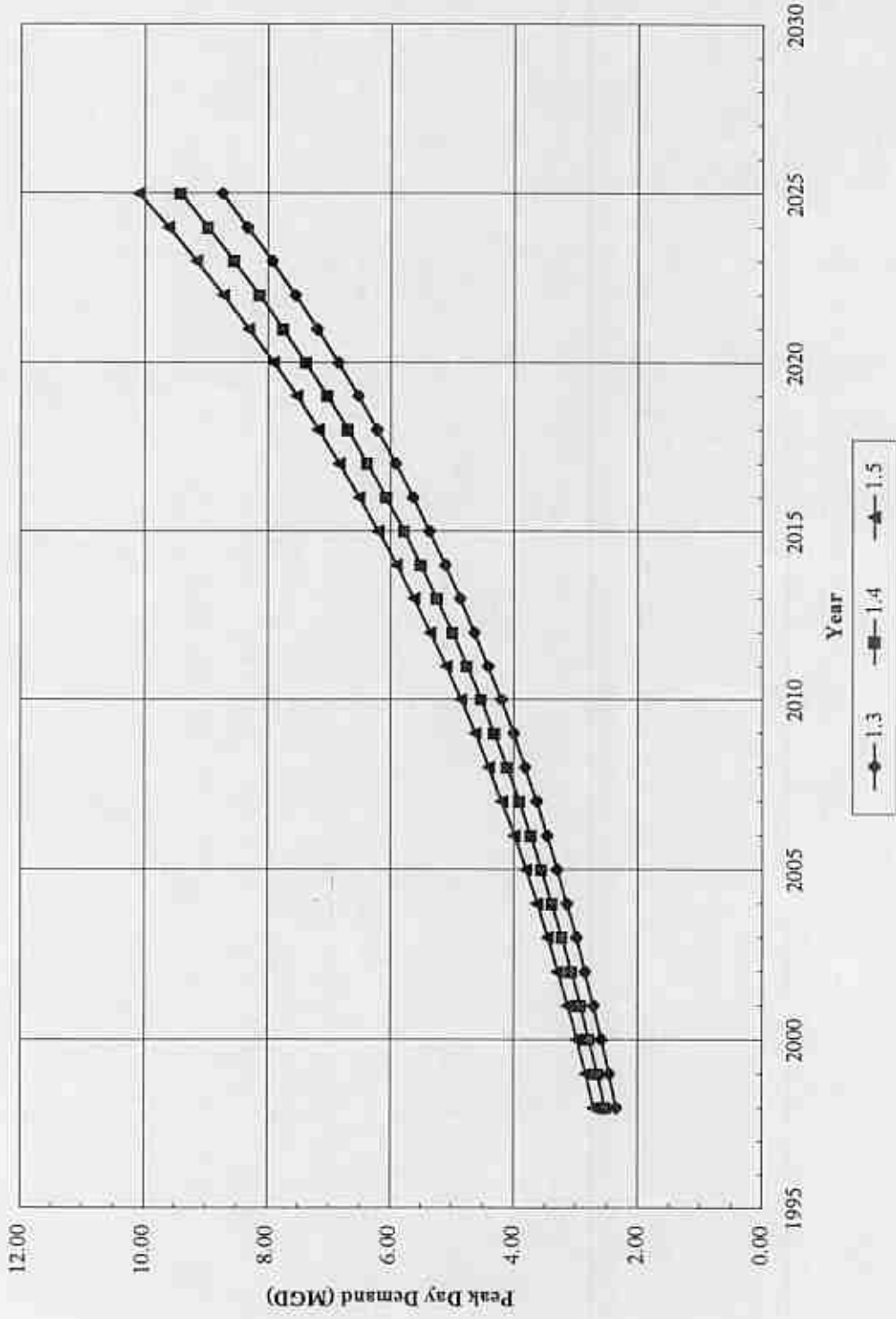


FIGURE II - 4
City of Crossville Water Demand Projections
City Customers Only



ALTERNATE ONE DESCRIPTION

III

SECTION III

ALTERNATE ONE

The City proposed that the safe yield of an impoundment be investigated which would be located downstream of the current Meadow Park Lake. The proposed structure would be higher than the current dam; thus backing water over the existing reservoir in addition to the area downstream of the current dam. Figure III-1 shows the alternate proposed by the City.

The City calculated the current water shed to contain 3,300 acres and the new impoundment would add another 1,070 acres. With a new structure retaining water to an elevation of 1,820, approximately 4,000 million gallons of raw water could be stored.

The staff at Lamar Dunn & Associates, Inc. used a software package developed by the U.S. Army Corps of Engineers to perform the computer investigation of the proposed new reservoir. Print-outs of the computer analysis are displayed in Appendix A.

The Corps of Engineers rejected a similar option in their 1998 study.

It is projected that with the proposed new impoundment a safe yield totaling 8.0 MGD could be expected. The safe yield calculations include anticipated continual discharge of 4.0 cfs for environmental reasons.

However, since environmental considerations were not within the scope of this study, no representations are being made as to the probability of securing the necessary permits to construct the proposed facility.

Project cost estimates are included in Section V. There has been no geotechnical investigation of the site; however, for the purpose of this study, it is assumed that the area would in fact "hold water". The proposed structure is approximately 1,000 feet long and approximately 85 feet high. There are two basic approaches to building this dam. The first is to build a structure of concrete, and the second is to construct it of earth.

As a dam design is being contemplated, methods must be reviewed as to how to pass the maximum probable storm through a spillway or construct a facility with enough storage to retain the entire flood from that storm. It is not considered practical to attempt to store that volume at this location; therefore, a spillway of sufficient size must be designed. Due to the terrain, it is considered impractical to have a "by-pass type" spillway. The design should accommodate the spillway over the dam; thus dictating a concrete spillway. A combination earth-fill dam and concrete dam might be considered. If an earth-fill dam is constructed, an adequate volume of earth must be available with the proper characteristics. A dense clay would be required. It is not known where the closest source of suitable clay material might exist. For the purposes of this investigation, it will be assumed that suitable clay is readily available.

The impounding structure whose estimate of cost is shown in Section V is one with a 150 feet concrete spillway section and 850 feet of earth-fill structure. If suitable earth material is not readily available, its cost will be significantly more.

ALTERNATE TWO DESCRIPTION

IV

SECTION IV
ALTERNATE TWO

In addition to the project described in Section III, the City proposed another alternate. This proposal would be to move farther downstream from Alternate One and construct a dam which would be totally independent of the current Meadow Park Lake (See Figure IV-1). This proposed impoundment would have a watershed of 2,830 acres and would retain 3,629 million gallons of water. The proposed structure is essentially the same as Alternate One.

The methods of investigating the safe yield of the proposed reservoir are identical to those employed with Alternate One. The computer print-outs from this investigation are in Appendix B.

The estimated safe yield of this proposed alternate is also 8.0 MGD. The projected estimates of cost are shown in Section V, along with the estimates for Alternate One.

The issues of spillway, environment, and availability of materials for construction are identical to Alternate One. However, due to the terrain, a second low dam will be required to minimize the area to be flooded, which adds to the cost.

OPINION OF PROBABLE COST



SECTION V

OPINION OF PROBABLE COST

The level of cost estimate for this study is very preliminary, and is developed without detailed survey information for volumes of materials, nor geotechnical data. The two alternates are shown side by side since they are similar.

| TABLE V-1 OPINION OF PROBABLE COST | | |
|---------------------------------------|-------------------------|-------------------------|
| ITEM | ALTERNATE I | ALTERNATE II |
| Land Acquisition | \$ 300,000.00 | \$ 500,000.00 |
| Geotechnical Investigation | \$ 100,000.00 | \$ 100,000.00 |
| Dam Construction | \$ 12,000,000.00 | \$ 12,225,000.00 |
| Environmental Permitting | \$ 200,000.00 | \$ 200,000.00 |
| Intake | \$ 500,000.00 | \$ 500,000.00 |
| Raw Water Piping | \$ 1,400,000.00 | \$ 2,100,000.00 |
| Contingency Including Engineering | \$ 4,400,000.00 | \$ 4,700,000.00 |
| Total Estimated Cost | \$ 18,900,000.00 | \$ 20,325,000.00 |

*CONCLUSIONS AND
RECOMMENDATIONS*

VI

SECTION VI

CONCLUSIONS AND RECOMMENDATIONS

Crossville and Cumberland County are located in a geographical area which does not have an abundant amount of water resources. The current treatment capacities (upon completion of the new Meadow Park Plant will be adequate for less than ten years of projected growth. In order to increase the raw water resources locally, a dam would be required which will necessitate considerable environmental work for permitting.

The two alternate proposals only increase the safe yield slightly more than 100% of the current Meadow Park Lake. If raw water resources are to be developed, they should look at approximately fifty (50) years rather than ten (10) to fifteen (15) years.

A possible way to extend the safe yield of these reservoirs would be to implement water harvesting as the Corps of Engineers suggested in their report. If the City wishes to pursue one of the alternates, it should be Alternate One. The initial action to implement either alternative would be to have the environmental permitting completed before other action begins.

APPENDIX A



ALTERNATE NO. 1 - EXPANSION OF EXISTING LAKE AT NWSE =1820.00'
 DRY ELEV.= 1755'

1922-1927 DROUGHT (INITIAL API = 2.06)

4 MGD WITHDRAWAL

| START DATE | INITIAL API | POOL ELEV. (FEET) | EVAP LOSS (FEET) | START ELEV. (FEET) | LOW ELEV. (FEET) | LOW DATE | END ELEV. (FEET) | END API |
|------------|-------------|-------------------|------------------|--------------------|------------------|-----------|------------------|---------|
| 17-Jun-21 | 2.06 | 1820.00 | 2.00 | 1818.00 | 1815.80 | 13-Nov-21 | 1820.00 | 2.56 |
| 17-Jun-22 | 2.56 | 1820.00 | 2.00 | 1818.00 | 1817.90 | 16-Nov-21 | 1820.00 | 2.49 |
| 17-Jun-23 | 2.49 | 1820.00 | 2.00 | 1818.00 | 1816.90 | 1-Jun-24 | 1819.70 | 1.21 |
| 17-Jun-24 | 1.21 | 1819.70 | 2.00 | 1817.70 | 1813.40 | 4-Dec-24 | 1817.10 | 0.319 |
| 17-Jun-25 | 0.319 | 1817.10 | 2.00 | 1815.10 | 1811.80 | 12-Oct-25 | 1814.60 | 2.44 |
| 17-Jun-26 | 2.44 | 1814.60 | 2.00 | 1812.60 | 1812.60 | 17-Jun-26 | 1820.10 | 3.47 |
| 17-Jun-27 | 3.47 | 1820.10 | 2.00 | 1818.10 | 1817.40 | 15-Nov-27 | 1820.10 | |

6 MGD WITHDRAWAL

| START DATE | INITIAL API | POOL ELEV. (FEET) | EVAP LOSS (FEET) | START ELEV. (FEET) | LOW ELEV. (FEET) | LOW | END ELEV. (FEET) | END API |
|------------|-------------|-------------------|------------------|--------------------|------------------|-----|------------------|---------|
| 17-Jun-21 | 2.06 | 1820.00 | 2.00 | 1818.00 | | | 1820.00 | 2.56 |
| 17-Jun-22 | 2.56 | 1820.00 | 2.00 | 1818.00 | | | 1820.00 | 2.49 |
| 17-Jun-23 | 2.49 | 1820.00 | 2.00 | 1818.00 | | | 1817.10 | 1.21 |
| 17-Jun-24 | 1.21 | 1817.10 | 2.00 | 1815.10 | | | 1817.10 | 0.319 |
| 17-Jun-25 | 0.319 | 1810.10 | 2.00 | 1808.10 | | | 1810.10 | 2.44 |
| 17-Jun-26 | 2.44 | 1802.10 | 2.00 | 1800.00 | | | 1802.10 | 3.47 |
| 17-Jun-27 | 3.47 | 1814.80 | 2.00 | 1812.80 | | | 1814.80 | |

Appendix A

8 MGD WITHDRAWAL

| START DATE | INITIAL API | POOL ELEV. (FEET) | EVAP LOSS (FEET) | START ELEV. (FEET) | LOW ELEV. (FEET) | LOW DATE | END ELEV. (FEET) | END API |
|------------|-------------|-------------------|------------------|--------------------|------------------|-----------|------------------|---------|
| 17-Jun-21 | 2.06 | 1820.00 | 2.00 | 1818.00 | 1811.00 | 3-Jan-22 | 1819.40 | 2.56 |
| 17-Jun-22 | 2.56 | 1819.40 | 2.00 | 1817.40 | 1815.10 | 1-Dec-22 | 1819.20 | 2.49 |
| 17-Jun-23 | 2.49 | 1819.20 | 2.00 | 1817.20 | 1811.40 | 18-Feb-24 | 1812.10 | 1.21 |
| 17-Jun-24 | 1.21 | 1812.10 | 2.00 | 1810.10 | 1798.00 | 17-Jun-25 | 1798.00 | 0.319 |
| 17-Jun-25 | 0.319 | 1798.00 | 2.00 | 1796.00 | 1772.90 | 17-Jun-26 | 1772.90 | 2.44 |
| 17-Jun-26 | 2.44 | 1772.90 | 2.00 | 1770.90 | 1762.40 | 9-Nov-26 | 1796.90 | 3.47 |
| 17-Jun-27 | 3.47 | 1796.90 | 2.00 | 1794.90 | 1786.40 | 15-Nov-27 | 1800.00 | |

ALTERNATE NO. 1 - EXPANSION OF EXISTING LAKE AT NWSE =1820.00'
 DRY ELEV. = 1755'

1940-1942 DROUGHT (INITIAL API = 2.43)

8 MGD WITHDRAWAL

| START DATE | INITIAL API | POOL ELEV. (FEET) | EVAP LOSS (FEET) | START ELEV. (FEET) | LOW ELEV. (FEET) | LOW DATE | END ELEV. (FEET) | END API |
|------------|-------------|-------------------|------------------|--------------------|------------------|-----------|------------------|---------|
| 21-Apr-39 | 2.43 | 1820.00 | 2.00 | 1818.00 | 1805.90 | 09-Feb-40 | 1809.60 | 2.28 |
| 21-Apr-40 | 2.28 | 1809.60 | 2.00 | 1807.60 | 1788.00 | 03-Apr-41 | 1792.90 | 1.38 |
| 21-Apr-41 | 1.38 | 1792.90 | 2.00 | 1790.90 | 1766.10 | 22-Nov-41 | 1774.60 | 0.913 |
| 21-Apr-42 | 0.913 | 1774.60 | 2.00 | 1772.60 | 1763.80 | 07-Jun-42 | 1794.10 | |

1952-1954 DROUGHT (INITIAL API = 2.92)

8 MGD WITHDRAWAL

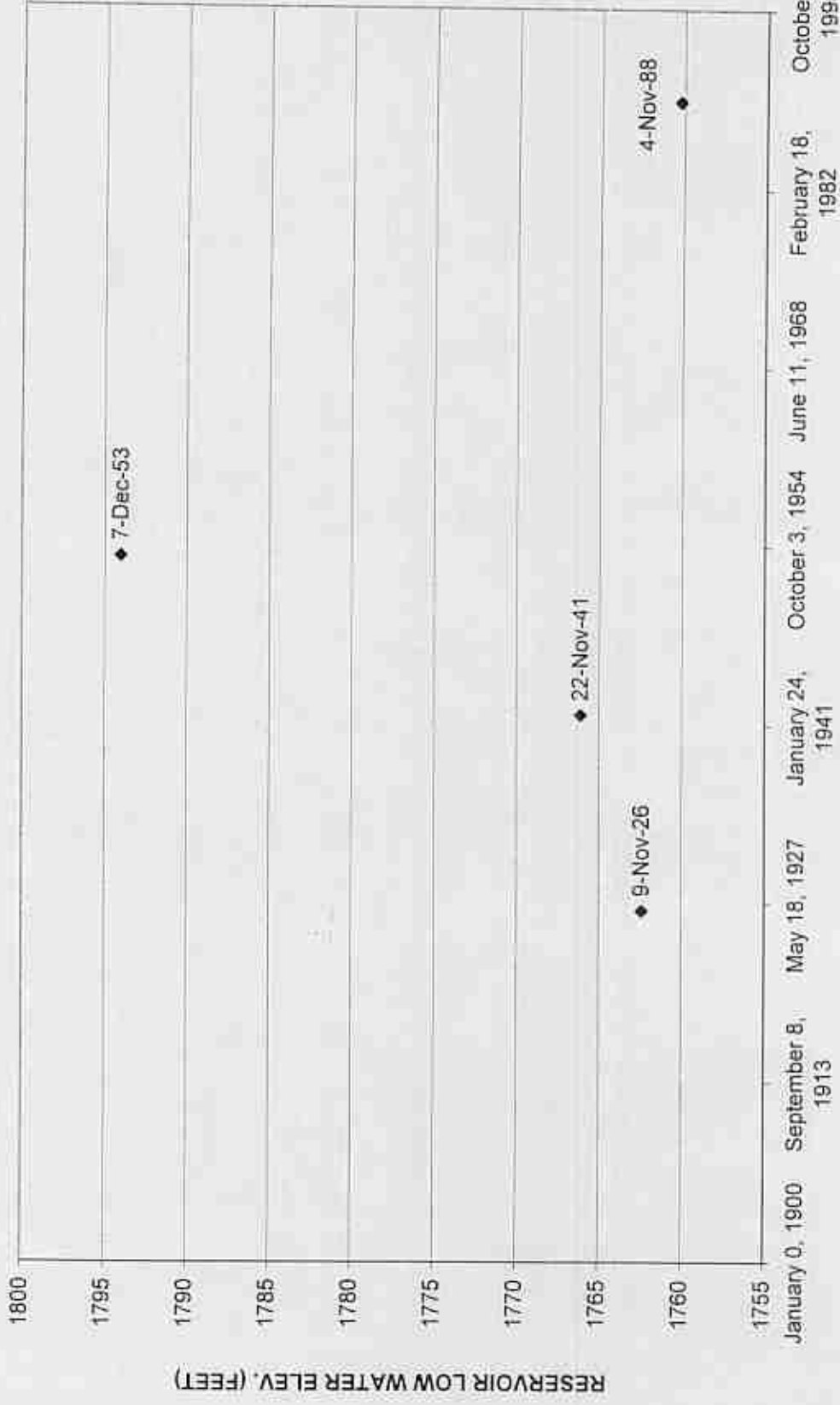
| START DATE | INITIAL API | POOL ELEV. (FEET) | EVAP LOSS (FEET) | START ELEV. (FEET) | LOW ELEV. (FEET) | LOW DATE | END ELEV. (FEET) | END API |
|------------|-------------|-------------------|------------------|--------------------|------------------|-----------|------------------|---------|
| 26-Apr-51 | 2.92 | 1820.00 | 2.00 | 1818.00 | 1809.70 | 03-Oct-51 | 1817.20 | 1.28 |
| 26-Apr-52 | 1.28 | 1817.20 | 2.00 | 15.20 | 1804.00 | 04-Dec-52 | 1807.40 | 1.65 |
| 26-Apr-53 | 1.65 | 1807.40 | 2.00 | 1805.40 | 1794.00 | 07-Dec-53 | 1806.40 | |

1986-1988 DROUGHT (INITIAL API = 1.30)

8 MGD WITHDRAWAL

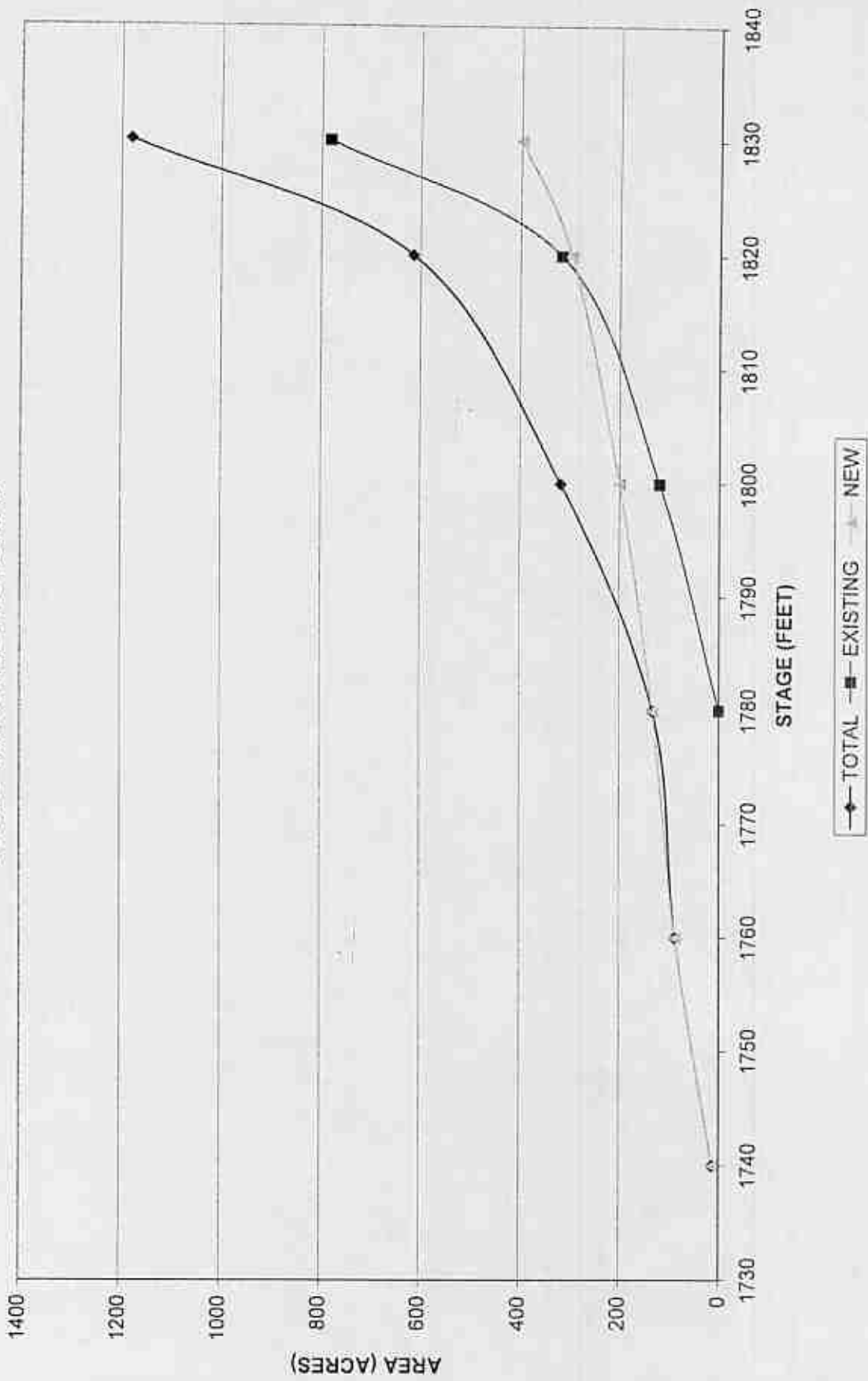
| START DATE | INITIAL API | POOL ELEV. (FEET) | EVAP LOSS (FEET) | START ELEV. (FEET) | LOW ELEV. (FEET) | LOW DATE | END ELEV. (FEET) | END API |
|------------|-------------|-------------------|------------------|--------------------|------------------|-----------|------------------|---------|
| 02-Mar-85 | 1.30 | 1820.00 | 2.00 | 1818.00 | 1808.30 | 14-Feb-86 | 1809.30 | 1.77 |
| 02-Mar-86 | 1.77 | 1809.30 | 2.00 | 1807.30 | 1796.60 | 06-Nov-86 | 1802.30 | 2.35 |
| 02-Mar-87 | 2.35 | 1802.90 | 2.00 | 1800.90 | 1787.40 | 01-Mar-88 | 1787.40 | 0.992 |
| 02-Mar-88 | 0.992 | 1787.40 | 2.00 | 1785.40 | 1760.20 | 04-Nov-88 | 1787.20 | |

ALTERNATE NO. 1
 EXPANSION OF MEADOW PARK LAKE AT NWSE=1820'



DATE OF LOW WATER (HEC1 MODEL RESULTS)

ALTERNATE NO. 1
STAGE - AREA RELATIONSHIPS



FLOOD HYDROGRAPH PACKAGE (HEC-1)
 MAY 1991
 VERSION 4.0.1E
 RUN DATE 11/23/01 TIME 10:08:31

U.S. ARMY CORPS OF ENGINEERS
 HYDROLOGIC ENGINEERING CENTER
 609 SECOND STREET
 DAVIS, CALIFORNIA 95616
 (916) 551-1748

```

X   X   XXXXXXX   XXXX   X
X   X   X   X   X   X   XX
X   X   X   X   X   X   X
XXXXXXX XXXX X   XXXXX X
X   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 HEC1AW.
 THE DEFINITIONS OF VARIABLES -ETIME- AND -RTION- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
 THE DEFINITION OF -AHEMCK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
 MEM OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE, SINGLE EVENT DAMAGE CALCULATION, DSS-WRITE STACK FREQUENCY,
 DSS-READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
 KINEMATIC WAVES NEW FINITE DIFFERENCE ALGORITHM

1 HEC-1 INPUT PAGE 1

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LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10.....11.....12.....13.....14.....15.....16.....
1 ID CUMBERLAND COUNTY, TN WATER SUPPLY STUDY
2 ID MEADOW PARK LAKE
3 ID ALTERNATE NO. 1 - LAKE EXPANSION AT ELEV. 1820.00
4 ID YIELD ANALYSIS
5 IT 1440 17JUN21 0100 364
6 IG 5
7 JF 2
8 KK SCB1
9 KM
10 KG 2
11 KA 5.78
12 ZR *PI B=MEADOW C=PRECIP-INC F=BAS-AVG
13 ZA B=MEADOW C=API F=COMPUTED
... LIST ...
14 LA 2.06 2.94 1.1 1.2 2.38 1.0 APIRITZ.CSV SURFRO.CSV GRWCT1.CSV
15 UC 200 471 1.008
16 OC 0.76 0.76
17 KK SUB2
18 KM RAIN ON THE POOL
19 KC 2
20 KA 1.35
21 OC 1.0 1.0
22 LS 99 99
23 KK COMB1
24 KM COMBINE SUB1 AND SUB2
25 KC 2
26 MC 2
27 KK DAM
28 MO 2
29 KM
30 KP 2
31 KS 1 ELEV 1818.0
32 SA 0 99 123 718 814 1180
33 SE 1740 1760 1780 1800 1820 1830
34 SS 1820.0 180 3.0 1.5
35 ST 1826.0 800 3.0 1.5
36 *S 1838.0 2.18 .4 .5
37 SL 1735.0 0.10 .6 .5
38 MP 1756 0.10 1753
39 ZZ
    
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FLOOD HYDROGRAPH PACKAGE (HEC-1)
 MAY 1991
 VERSION 4.0.1E
 RUN DATE 11/23/01 TIME 10:08:31

U.S. ARMY CORPS OF ENGINEERS
 HYDROLOGIC ENGINEERING CENTER
 609 SECOND STREET
 DAVIS, CALIFORNIA 95616
 (916) 551-1748

CUMBERLAND COUNTY, TN WATER SUPPLY STUDY
 MEADOW PARK LAKE
 ALTERNATE NO. 1 - LAKE EXPANSION AT ELEV. 1820.00
 YIELD ANALYSIS

```

4 10 OUTPUT CONTROL VARIABLES
IPRNT 5 PRINT CONTROL
IPLOT 0 PLOT CONTROL
QSCALE 0 HYDROGRAPH PLOT SCALE

17 HYDROGRAPH TIME DATA
NMIN 1440 MINUTES IN COMPUTATION INTERVAL
IDATE 17JUN21 STARTING DATE
ITIME 0100 STARTING TIME
NQ 364 NUMBER OF HYDROGRAPH ORDINATES
NDATE 17JUN22 ENDING DATE
NDTIME 0100 ENDING TIME
ICENT 13 CENTURY MARK

COMPUTATION INTERVAL 24.00 HOURS
    
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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

JF MULTI-PLAN OPTION
 MPLAN 2 NUMBER OF PLANS

JK MULTI-RATIO OPTION
 RATIO OF RUNOFF
 1.00

 # KK SUB1

10 KG OUTPUT CONTROL VARIABLES
 IPRINT 2 PRINT CONTROL
 IPLOT 0 PLOT CONTROL
 DSCALE 0 HYDROGRAPH PLOT SCALE

-----DSS-----OPEN: Existing File Opened. File: COWN.DSS
 Unit: 11 DSS Version: 8-04
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 -----DSS-----IREAD Unit 11 Vers: 10: //MEADOW/PRECIP-INC/01JAN1921/1DAY/BAS-AVG/
 -----DSS-----IREAD Unit 11 Vers: 9: //MEADOW/PRECIP-INC/01JAN1922/1DAY/BAS-AVG/

***** WARNING: RUNTIME - MISSING PRECIPITATION IN DSS FILE - READ AND INTERPOLATED VALUES SET TO ZERO *****

API LOSS RATE
 Initial API Value - 2.000
 API Decay Rate - 0.940
 Surface Runoff Ratio - 1.180
 Groundwater Runoff Ratio - 1.000
 Initial Base Flow Multiplier - 2.30
 Precipitation Multiplier - 1.00
 Runoff Index Table - APIRITZ.CSV
 Surface Runoff Table - SURRND.CSV
 Groundwater Runoff Table - GWRPTI.CSV

API GROUNDWATER UNIT HYDROGRAPH
 Time to Peak (hours) - 6.000 (Adjusted to nearest time interval)
 Hydrograph Base (hours) - 471.000
 Peak Flow (cfs) - 32.8
 Rate of Decay - 1.0000
 No. of UC Ordinates - 28

| | | | | | | | | | |
|----|-----|-----|-----|-----|-----|-----|----|----|----|
| 0. | 28. | 21. | 18. | 15. | 12. | 10. | 8. | 6. | 5. |
| 4. | 1. | 7. | 2. | 7. | 1. | 1. | 1. | 1. | 1. |

SUBBASIN RUNOFF DATA

11 SA SUBBASIN CHARACTERISTICS
 TAREA 5.78 SUBBASIN AREA

PRECIPITATION DATA

2 PE STORM 60.43 BASIN TOTAL PRECIPITATION

2 PT INCREMENTAL PRECIPITATION PATTERN

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| 0.00 | 0.27 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.17 | 0.18 | 0.27 | 0.45 | 0.18 | 0.08 | 0.08 | 0.08 | 0.11 | 0.09 |
| 0.00 | 0.00 | 0.42 | 0.36 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.17 | 0.15 |
| 0.00 | 0.29 | 1.28 | 0.88 | 0.24 | 0.21 | 0.19 | 0.14 | 0.09 | 0.39 | 0.28 |
| 0.03 | 0.00 | 0.53 | 0.45 | 0.12 | 0.10 | 0.09 | 0.03 | 0.08 | 0.08 | 0.30 |
| 0.13 | 0.11 | 0.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 0.84 |
| 0.82 | 0.82 | 0.80 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 0.32 |
| 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.03 | 0.14 | 0.17 | 0.06 | 0.02 | 0.02 | 0.00 | 0.00 | 0.18 | 0.18 |
| 0.00 | 0.02 | 0.29 | 0.22 | 0.02 | 0.45 | 0.27 | 0.00 | 0.24 | 0.23 | 0.00 |
| 0.35 | 0.31 | 0.09 | 0.09 | 0.05 | 0.05 | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.04 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.19 | 0.14 | 0.00 | 0.00 | 0.33 | 0.74 | 0.42 | 0.03 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.18 | 0.17 | 0.02 | 0.03 | 0.15 | 0.98 | 0.00 |
| 0.78 | 0.19 | 0.52 | 0.30 | 0.40 | 0.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 |
| 0.02 | 0.04 | 0.35 | 0.36 | 0.24 | 0.00 | 0.00 | 0.19 | 0.17 | 0.18 | 0.00 |
| 0.15 | 0.00 | 0.20 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.34 | 0.28 | 0.00 | 0.05 | 0.11 | 0.04 | 0.00 | 0.00 | 0.00 |
| 0.22 | 0.00 | 0.00 | 0.00 | 0.11 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.68 | 0.04 | 0.00 | 0.00 | 0.08 | 0.07 | 0.14 | 0.42 | 0.24 | 0.22 | 0.00 |
| 0.18 | 0.00 | 0.27 | 0.28 | 0.05 | 0.33 | 0.48 | 0.37 | 0.29 | 0.00 | 0.00 |
| 0.05 | 0.00 | 0.00 | 0.16 | 0.14 | 0.00 | 0.00 | 0.00 | 0.10 | 0.00 | 0.00 |
| 0.00 | 0.11 | 0.20 | 0.18 | 0.03 | 0.03 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.31 | 0.98 | 0.81 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.21 | 0.18 | 0.00 | 0.05 | 0.10 | 0.05 | 0.25 | 1.28 | 0.14 | 0.02 | 0.00 |
| 0.01 | 0.00 | 0.35 | 0.29 | 0.14 | 0.92 | 0.67 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.73 | 0.04 | 0.00 | 0.00 | 0.15 | 0.17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.20 | 0.42 | 0.00 | 0.00 | 1.00 | 0.84 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.25 | 0.37 | 0.13 | 0.00 | 0.42 | 0.35 | 0.29 | 0.25 | 0.00 | 0.00 |
| 0.00 | 0.04 | 0.70 | 0.00 | 0.06 | 0.78 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 |
| 0.00 | 0.00 | 0.48 | 0.33 | 1.24 | 1.11 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.76 | 0.41 | 0.83 | 0.45 | 0.00 | 0.00 | 0.07 | 0.18 | 0.08 | 0.01 | 0.00 |
| 0.00 | 0.00 | 0.11 | 0.15 | 0.37 | 0.30 | 0.03 | 0.22 | 0.68 | 0.40 | 0.00 |
| 0.08 | 0.07 | 0.00 | 0.12 | 0.14 | 0.00 | 0.00 | 0.00 | 0.36 | 1.01 | 0.00 |
| 0.60 | 0.31 | 0.28 | 0.01 | 0.37 | 0.31 | 0.00 | 0.42 | 0.43 | 0.00 | 0.00 |
| 0.03 | 0.04 | 0.21 | | | | | | | | |

HYDROGRAPH AT STATION SUB1
PLAN 1, RATIO = 1.00

Table with 15 columns: DA, MO, HRMN, ORD, FLOW. It contains two main data blocks: one for the period from June 17 to July 16, and another from July 17 to March 19. Each entry includes a date, time, order number, and flow rate.

PEAK FLOW TIME 10-DAY MAXIMUM AVERAGE FLOW 365-DAY

Summary table with 4 columns: (CFS), (HR), (CFS), (INCHES), (C-FE), (CFS), (C-FE). Values include peak flow of 172 CFS at 01:00, 10-day max of 57 CFS, and 365-day max of 123 CFS.

CUMULATIVE AREA = 3.79 SQ MI

PLAN 2 INPUT DATA FOR STATION SUB1 ARE SAME AS FOR PLAN 1

17 SK

```

*****
*          *
*   SUB2   *
*          *
*****
    
```

19 RD

```

OUTPUT CONTROL VARIABLES
IFRNT      2 PRINT CONTROL
IPLOT      0 PLOT CONTROL
QSCALE    01 HYDROGRAPH PLOT SCALE
    
```

SUBBASIN RUNOFF DATA

20 RA

```

SUBBASIN CHARACTERISTICS
TAREA     1.05 SUBBASIN AREA
    
```

PRECIPITATION DATA

12 RB

STORM 60.65 BASIN TOTAL PRECIPITATION

12 RC

INCREMENTAL PRECIPITATION PATTERN

| | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|
| 0.00 | 0.27 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.17 | 0.15 | 0.27 | 0.45 | 0.18 | 0.00 | 0.00 | 0.11 | 0.09 | |
| 0.00 | 0.00 | 0.42 | 0.36 | 0.09 | 0.00 | 0.01 | 0.00 | 0.17 | 0.15 | |
| 0.00 | 0.29 | 1.29 | 0.88 | 0.24 | 0.21 | 0.19 | 0.16 | 0.20 | 0.28 | |
| 0.03 | 0.00 | 0.53 | 0.45 | 0.12 | 0.10 | 0.00 | 0.03 | 0.28 | 0.20 | |
| 0.13 | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | |
| 0.02 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 | 0.11 | |
| 0.09 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 0.07 | 0.14 | 0.17 | 0.06 | 0.02 | 0.02 | 0.00 | 0.18 | 0.15 | |
| 0.00 | 0.00 | 0.28 | 0.22 | 0.02 | 0.45 | 0.37 | 0.00 | 0.24 | 0.33 | |
| 0.15 | 0.31 | 0.09 | 0.00 | 0.05 | 0.00 | 0.00 | 0.06 | 0.05 | 0.00 | |
| 0.00 | 0.00 | 0.06 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 0.19 | 0.16 | 0.00 | 0.00 | 0.33 | 0.74 | 0.42 | 0.03 | 0.00 | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.18 | 0.17 | 0.02 | 0.03 | 0.15 | 0.16 | |
| 0.18 | 0.19 | 0.52 | 0.30 | 0.40 | 0.33 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.02 | 0.04 | 0.25 | 0.16 | 0.24 | 0.00 | 0.00 | 0.19 | 0.17 | 0.18 | |
| 0.15 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 0.00 | 0.34 | 0.29 | 0.00 | 0.00 | 0.11 | 0.04 | 0.00 | 0.28 | |
| 0.32 | 0.00 | 0.00 | 0.00 | 0.11 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.09 | 0.54 | 0.00 | 0.00 | 0.09 | 0.07 | 0.16 | 0.42 | 0.24 | 0.22 | |
| 0.18 | 0.00 | 0.27 | 0.28 | 0.05 | 0.53 | 0.48 | 0.37 | 0.29 | 0.05 | |
| 0.05 | 0.00 | 0.00 | 0.18 | 0.14 | 0.00 | 0.00 | 0.00 | 0.10 | 0.09 | |
| 0.00 | 0.11 | 0.40 | 0.19 | 0.03 | 0.03 | 0.01 | 0.01 | 0.20 | 0.00 | |
| 0.00 | 0.31 | 0.98 | 0.61 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 | |
| 0.21 | 0.19 | 0.00 | 0.05 | 0.10 | 0.00 | 1.75 | 1.31 | 0.14 | 0.32 | |
| 0.01 | 0.00 | 0.35 | 0.20 | 0.14 | 0.02 | 0.07 | 0.00 | 0.00 | 0.11 | |
| 0.73 | 0.04 | 0.00 | 0.00 | 0.13 | 0.17 | 0.03 | 0.00 | 0.00 | 0.00 | |
| 0.00 | 0.00 | 0.00 | 0.42 | 0.00 | 0.00 | 1.00 | 0.84 | 0.00 | 0.00 | |
| 0.00 | 0.25 | 0.37 | 0.13 | 0.00 | 0.42 | 0.35 | 0.29 | 0.25 | 0.00 | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.78 | 0.05 | 0.00 | 0.03 | 0.03 | |
| 0.00 | 0.00 | 0.40 | 0.33 | 1.26 | 1.11 | 0.04 | 0.00 | 0.04 | 0.24 | |
| 0.76 | 0.41 | 0.33 | 0.45 | 0.00 | 0.00 | 0.07 | 0.15 | 0.09 | 0.01 | |
| 0.00 | 0.00 | 0.11 | 0.15 | 0.37 | 0.10 | 0.03 | 0.22 | 0.08 | 0.42 | |
| 0.08 | 0.07 | 0.00 | 0.12 | 0.11 | 0.00 | 0.00 | 0.00 | 0.26 | 1.01 | |
| 0.00 | 0.31 | 0.24 | 0.01 | 0.37 | 0.31 | 0.00 | 0.42 | 0.43 | 0.00 | |
| 0.03 | 0.00 | 0.01 | | | | | | | | |

22 RD

```

SCS LOSS RATE
STRIL     0.00 INITIAL ABSTRACTION
CNUMBER   99.00 CURVE NUMBER
HTIMP     99.00 PERCENT IMPERVIOUS AREA
    
```

21 RC

```

CLARK UNITGRAPH
TC        1.00 TIME OF CONCENTRATION
R         1.00 STORAGE COEFFICIENT
    
```

SYNTHETIC ACCUMULATED-AREA VS. TIME CURVE WILL BE USED

N INCREASED TO MINIMUM OF 0.5

*****DBS**** ERRORS: FATAL ERROR - NUMBER OF VALUES TO STORE IS LESS THAN 1
 NVALS: 0
 Pathname: ///AS1//DATA/COMPUTED/

```

UNIT HYDROGRAPH PARAMETERS
CLARK TC= 24.00 HR, R= 12.00 HR
SNYDER TP= 18.00 HR, CP= 0.10
    
```

UNIT HYDROGRAPH
 2 END-OF-PERIOD ORDINATES

14. 18.

HYDROGRAPH AT STATION SUB2

| DA | MON | HRMM | ORD | RAIN | LOSS | EXCESS | COMP Q | DA | MON | HRMM | ORD | RAIN | LOSS | EXCESS | COMP Q |
|----|-----|------|-----|------|------|--------|--------|----|-----|------|-----|------|------|--------|--------|
| 17 | JUN | 0100 | 1 | 0.00 | 0.00 | 0.00 | 0. | 17 | DEC | 0100 | 184 | 0.14 | 0.03 | 0.14 | 0. |
| 18 | JUN | 0100 | 2 | 0.00 | 0.00 | 0.00 | 0. | 18 | DEC | 0100 | 185 | 0.28 | 0.00 | 0.28 | 0. |
| 19 | JUN | 0100 | 3 | 0.27 | 0.00 | 0.27 | 4. | 19 | DEC | 0100 | 186 | 0.00 | 0.00 | 0.00 | 4. |
| 20 | JUN | 0100 | 4 | 0.23 | 0.00 | 0.23 | 7. | 20 | DEC | 0100 | 187 | 0.05 | 0.00 | 0.05 | 1. |
| 21 | JUN | 0100 | 5 | 0.00 | 0.00 | 0.00 | 3. | 21 | DEC | 0100 | 188 | 0.11 | 0.00 | 0.11 | 2. |
| 22 | JUN | 0100 | 6 | 0.00 | 0.00 | 0.00 | 0. | 22 | DEC | 0100 | 189 | 0.00 | 0.00 | 0.00 | 2. |
| 23 | JUN | 0100 | 7 | 0.00 | 0.00 | 0.00 | 0. | 23 | DEC | 0100 | 190 | 0.00 | 0.00 | 0.00 | 1. |
| 24 | JUN | 0100 | 8 | 0.00 | 0.00 | 0.00 | 0. | 24 | DEC | 0100 | 191 | 0.38 | 0.00 | 0.38 | 5. |
| 25 | JUN | 0100 | 9 | 0.00 | 0.00 | 0.00 | 0. | 25 | DEC | 0100 | 192 | 0.32 | 0.00 | 0.32 | 10. |
| 26 | JUN | 0100 | 10 | 0.00 | 0.00 | 0.00 | 0. | 26 | DEC | 0100 | 193 | 0.00 | 0.00 | 0.00 | 5. |
| 27 | JUN | 0100 | 11 | 0.00 | 0.00 | 0.00 | 0. | 27 | DEC | 0100 | 194 | 0.00 | 0.00 | 0.00 | 0. |

Table with columns: Date, Time, Value 1, Value 2, Value 3, Value 4. Rows range from 22 OCT 0100 to 18 DEC 0100.

Table with columns: Date, Time, Value 1, Value 2, Value 3, Value 4. Rows range from 27 APR 0100 to 17 JUN 0100.

TOTAL RAINFALL = 60.65, TOTAL LOSS = 0.00, TOTAL EXCESS = 60.64
PEAK FLOW TIME: 36.6192.00
MAXIMUM AVERAGE FLOW: 10-DAY, 30-DAY, 90-DAY, 365.0-DAY
CIRCULATIVE AREA = 1.05 SQ MI

HYDROGRAPH AT STATION SUB2
PLAN 1, RATIO = 1.00

Hydrograph table with columns: DA, MON, HR:MM, ORD, FLOW. Multiple columns showing flow data for various dates from 17 JUN 0100 to 21 JAN 0100.

| DATE | TIME | FLOW | DATE | TIME | FLOW | DATE | TIME | FLOW |
|-------------|------|------|-------------|------|------|-------------|------|------|
| 22 JUL 0100 | 36 | 16. | 22 OCT 0100 | 128 | 0. | 22 JAN 0100 | 220 | 5. |
| 23 JUL 0100 | 37 | 6. | 23 OCT 0100 | 129 | 0. | 23 JAN 0100 | 221 | 5. |
| 24 JUL 0100 | 38 | 4. | 24 OCT 0100 | 130 | 0. | 24 JAN 0100 | 222 | 1. |
| 25 JUL 0100 | 39 | 5. | 25 OCT 0100 | 131 | 0. | 25 JAN 0100 | 223 | 1. |
| 26 JUL 0100 | 40 | 6. | 26 OCT 0100 | 132 | 0. | 26 JAN 0100 | 224 | 1. |
| 27 JUL 0100 | 41 | 8. | 27 OCT 0100 | 133 | 0. | 27 JAN 0100 | 225 | 2. |
| 28 JUL 0100 | 42 | 4. | 28 OCT 0100 | 134 | 5. | 28 JAN 0100 | 226 | 4. |
| 29 JUL 0100 | 43 | 0. | 29 OCT 0100 | 135 | 2. | 29 JAN 0100 | 227 | 2. |
| 30 JUL 0100 | 44 | 7. | 30 OCT 0100 | 136 | 0. | 30 JAN 0100 | 228 | 0. |
| 31 JUL 0100 | 45 | 14. | 31 OCT 0100 | 137 | 5. | 31 JAN 0100 | 229 | 0. |
| 1 AUG 0100 | 46 | 8. | 1 NOV 0100 | 138 | 15. | 1 FEB 0100 | 230 | 0. |
| 2 AUG 0100 | 47 | 3. | 2 NOV 0100 | 139 | 16. | 2 FEB 0100 | 231 | 3. |
| 3 AUG 0100 | 48 | 1. | 3 NOV 0100 | 140 | 6. | 3 FEB 0100 | 232 | 1. |
| 4 AUG 0100 | 49 | 0. | 4 NOV 0100 | 141 | 0. | 4 FEB 0100 | 233 | 2. |
| 5 AUG 0100 | 50 | 8. | 5 NOV 0100 | 142 | 0. | 5 FEB 0100 | 234 | 6. |
| 6 AUG 0100 | 51 | 10. | 6 NOV 0100 | 143 | 0. | 6 FEB 0100 | 235 | 7. |
| 7 AUG 0100 | 52 | 4. | 7 NOV 0100 | 144 | 0. | 7 FEB 0100 | 236 | 3. |
| 8 AUG 0100 | 53 | 3. | 8 NOV 0100 | 145 | 0. | 8 FEB 0100 | 237 | 1. |
| 9 AUG 0100 | 54 | 2. | 9 NOV 0100 | 146 | 3. | 9 FEB 0100 | 238 | 2. |
| 10 AUG 0100 | 55 | 0. | 10 NOV 0100 | 147 | 5. | 10 FEB 0100 | 239 | 0. |
| 11 AUG 0100 | 56 | 0. | 11 NOV 0100 | 148 | 3. | 11 FEB 0100 | 240 | 0. |
| 12 AUG 0100 | 57 | 0. | 12 NOV 0100 | 149 | 1. | 12 FEB 0100 | 241 | 0. |
| 13 AUG 0100 | 58 | 0. | 13 NOV 0100 | 150 | 2. | 13 FEB 0100 | 242 | 0. |
| 14 AUG 0100 | 59 | 0. | 14 NOV 0100 | 151 | 10. | 14 FEB 0100 | 243 | 4. |
| 15 AUG 0100 | 60 | 0. | 15 NOV 0100 | 152 | 8. | 15 FEB 0100 | 244 | 18. |
| 16 AUG 0100 | 61 | 13. | 16 NOV 0100 | 153 | 13. | 16 FEB 0100 | 245 | 22. |
| 17 AUG 0100 | 62 | 25. | 17 NOV 0100 | 154 | 10. | 17 FEB 0100 | 246 | 5. |
| 18 AUG 0100 | 63 | 12. | 18 NOV 0100 | 155 | 12. | 18 FEB 0100 | 247 | 0. |
| 19 AUG 0100 | 64 | 0. | 19 NOV 0100 | 156 | 10. | 19 FEB 0100 | 248 | 0. |
| 20 AUG 0100 | 65 | 0. | 20 NOV 0100 | 157 | 10. | 20 FEB 0100 | 249 | 0. |
| 21 AUG 0100 | 66 | 0. | 21 NOV 0100 | 158 | 5. | 21 FEB 0100 | 250 | 1. |
| 22 AUG 0100 | 67 | 0. | 22 NOV 0100 | 159 | 0. | 22 FEB 0100 | 251 | 2. |
| 23 AUG 0100 | 68 | 0. | 23 NOV 0100 | 160 | 0. | 23 FEB 0100 | 252 | 4. |
| 24 AUG 0100 | 69 | 5. | 24 NOV 0100 | 161 | 0. | 24 FEB 0100 | 253 | 6. |
| 25 AUG 0100 | 70 | 10. | 25 NOV 0100 | 162 | 1. | 25 FEB 0100 | 254 | 3. |
| 26 AUG 0100 | 71 | 6. | 26 NOV 0100 | 163 | 1. | 26 FEB 0100 | 255 | 1. |
| 27 AUG 0100 | 72 | 3. | 27 NOV 0100 | 164 | 5. | 27 FEB 0100 | 256 | 2. |
| 28 AUG 0100 | 73 | 1. | 28 NOV 0100 | 165 | 13. | 28 FEB 0100 | 257 | 7. |
| 29 AUG 0100 | 74 | 0. | 29 NOV 0100 | 166 | 11. | 1 MAR 0100 | 258 | 20. |
| 30 AUG 0100 | 75 | 0. | 30 NOV 0100 | 167 | 3. | 2 MAR 0100 | 259 | 18. |
| 31 AUG 0100 | 76 | 0. | 1 DEC 0100 | 168 | 0. | 3 MAR 0100 | 260 | 20. |
| 1 SEP 0100 | 77 | 1. | 2 DEC 0100 | 169 | 3. | 4 MAR 0100 | 261 | 2. |
| 2 SEP 0100 | 78 | 1. | 3 DEC 0100 | 170 | 5. | 5 MAR 0100 | 262 | 0. |
| 3 SEP 0100 | 79 | 0. | 4 DEC 0100 | 171 | 3. | 6 MAR 0100 | 263 | 0. |
| 4 SEP 0100 | 80 | 0. | 5 DEC 0100 | 172 | 3. | 7 MAR 0100 | 264 | 1. |
| 5 SEP 0100 | 81 | 0. | 6 DEC 0100 | 173 | 2. | 8 MAR 0100 | 265 | 9. |
| 6 SEP 0100 | 82 | 0. | 7 DEC 0100 | 174 | 0. | 9 MAR 0100 | 266 | 6. |
| 7 SEP 0100 | 83 | 0. | 8 DEC 0100 | 175 | 0. | 10 MAR 0100 | 267 | 15. |
| 8 SEP 0100 | 84 | 2. | 9 DEC 0100 | 176 | 0. | 11 MAR 0100 | 268 | 22. |
| 9 SEP 0100 | 85 | 4. | 10 DEC 0100 | 177 | 0. | 12 MAR 0100 | 269 | 10. |
| 10 SEP 0100 | 86 | 3. | 11 DEC 0100 | 178 | 0. | 13 MAR 0100 | 270 | 0. |
| 11 SEP 0100 | 87 | 1. | 12 DEC 0100 | 179 | 0. | 14 MAR 0100 | 271 | 7. |
| 12 SEP 0100 | 88 | 1. | 13 DEC 0100 | 180 | 0. | 15 MAR 0100 | 272 | 12. |
| 13 SEP 0100 | 89 | 0. | 14 DEC 0100 | 181 | 0. | 16 MAR 0100 | 273 | 18. |
| 14 SEP 0100 | 90 | 7. | 15 DEC 0100 | 182 | 0. | 17 MAR 0100 | 274 | 0. |
| 15 SEP 0100 | 91 | 5. | 16 DEC 0100 | 183 | 0. | 18 MAR 0100 | 275 | 0. |
| 16 SEP 0100 | 92 | 2. | 17 DEC 0100 | 184 | 5. | 19 MAR 0100 | 276 | 2. |

| PEAK FLOW | TIME | MAXIMUM | AVERAGE |
|-----------|---------|------------------------------|---------|
| (CFS) | (HR) | 10-DAY | 30-DAY |
| 38 | 4192.00 | 14. | 9. |
| | | 0.830 | 0.861 |
| | | 270. | 532. |
| | | 1313. | 3196. |
| | | CUMULATIVE AREA = 1.05 SQ MI | |

PLAN 2 INPUT DATA FOR STATION 8282 ARE SAME AS FOR PLAN 1

23 NR COMB1

25 NO OUTPUT CONTROL VARIABLES
 IFPRINT 2 PRINT CONTROL
 IFLOT 0 PLOT CONTROL
 QSCL 0 HYDROGRAPH PLOT SCALE

26 NC HYDROGRAPH COMBINATION
 ICMN 2 NUMBER OF HYDROGRAPHS TO COMBINE

HYDROGRAPH AT STATION COMB1
 SUM OF 2 HYDROGRAPHS
 PLAN 1, RATIO = 1.00

| DA | MON | HR | ORD | FLOW | DA | MON | HR | ORD | FLOW | DA | MON | HR | ORD | FLOW |
|----|-----|------|-----|------|----|-----|------|-----|------|----|-----|------|-----|------|
| 17 | JUN | 0100 | 1 | 15. | 17 | SEP | 0100 | 81 | 0. | 18 | DEC | 0100 | 185 | 23. |
| 18 | JUN | 0100 | 2 | 11. | 18 | SEP | 0100 | 84 | 4. | 19 | DEC | 0100 | 186 | 12. |
| 19 | JUN | 0100 | 3 | 13. | 19 | SEP | 0100 | 85 | 8. | 20 | DEC | 0100 | 187 | 3. |
| 20 | JUN | 0100 | 4 | 18. | 20 | SEP | 0100 | 86 | 5. | 21 | DEC | 0100 | 188 | 5. |
| 21 | JUN | 0100 | 5 | 11. | 21 | SEP | 0100 | 87 | 7. | 22 | DEC | 0100 | 189 | 4. |
| 22 | JUN | 0100 | 6 | 6. | 22 | SEP | 0100 | 88 | 13. | 23 | DEC | 0100 | 190 | 2. |
| 23 | JUN | 0100 | 7 | 5. | 23 | SEP | 0100 | 89 | 6. | 24 | DEC | 0100 | 191 | 21. |
| 24 | JUN | 0100 | 8 | 4. | 24 | SEP | 0100 | 90 | 4. | 25 | DEC | 0100 | 192 | 28. |
| 25 | JUN | 0100 | 9 | 3. | 25 | SEP | 0100 | 91 | 8. | 26 | DEC | 0100 | 193 | 20. |

| DATE | TIME | FLOW (CFS) | INCHES | FEET | DATE | TIME | FLOW (CFS) | INCHES | FEET |
|-------------|------|------------|--------|------|-------------|------|------------|--------|------|
| 26 JUN 0100 | 10 | 2. | | | 26 SEP 0100 | 102 | 11. | | |
| 27 JUN 0100 | 11 | 2. | | | 27 SEP 0100 | 103 | 12. | | |
| 28 JUN 0100 | 12 | 2. | | | 28 SEP 0100 | 104 | 8. | | |
| 29 JUN 0100 | 13 | 4. | | | 29 SEP 0100 | 105 | 7. | | |
| 30 JUN 0100 | 14 | 6. | | | 30 SEP 0100 | 106 | 2. | | |
| 1 JUL 0100 | 15 | 7. | | | 1 OCT 0100 | 107 | 5. | | |
| 2 JUL 0100 | 16 | 11. | | | 2 OCT 0100 | 108 | 1. | | |
| 3 JUL 0100 | 17 | 11. | | | 3 OCT 0100 | 109 | 2. | | |
| 4 JUL 0100 | 18 | 4. | | | 4 OCT 0100 | 110 | 7. | | |
| 5 JUL 0100 | 19 | 1. | | | 5 OCT 0100 | 111 | 1. | | |
| 6 JUL 0100 | 20 | 3. | | | 6 OCT 0100 | 112 | 0. | | |
| 7 JUL 0100 | 21 | 4. | | | 7 OCT 0100 | 113 | 0. | | |
| 8 JUL 0100 | 22 | 7. | | | 8 OCT 0100 | 114 | 1. | | |
| 9 JUL 0100 | 23 | 0. | | | 9 OCT 0100 | 115 | 2. | | |
| 10 JUL 0100 | 24 | 7. | | | 10 OCT 0100 | 116 | 1. | | |
| 11 JUL 0100 | 25 | 13. | | | 11 OCT 0100 | 117 | 0. | | |
| 12 JUL 0100 | 26 | 8. | | | 12 OCT 0100 | 118 | 0. | | |
| 13 JUL 0100 | 27 | 3. | | | 13 OCT 0100 | 119 | 0. | | |
| 14 JUL 0100 | 28 | 1. | | | 14 OCT 0100 | 120 | 0. | | |
| 15 JUL 0100 | 29 | 1. | | | 15 OCT 0100 | 121 | 0. | | |
| 16 JUL 0100 | 30 | 4. | | | 16 OCT 0100 | 122 | 0. | | |
| 17 JUL 0100 | 31 | 5. | | | 17 OCT 0100 | 123 | 0. | | |
| 18 JUL 0100 | 32 | 2. | | | 18 OCT 0100 | 124 | 0. | | |
| 19 JUL 0100 | 33 | 5. | | | 19 OCT 0100 | 125 | 0. | | |
| 20 JUL 0100 | 34 | 34. | | | 20 OCT 0100 | 126 | 0. | | |
| 21 JUL 0100 | 35 | 43. | | | 21 OCT 0100 | 127 | 0. | | |
| 22 JUL 0100 | 36 | 42. | | | 22 OCT 0100 | 128 | 0. | | |
| 23 JUL 0100 | 37 | 19. | | | 23 OCT 0100 | 129 | 0. | | |
| 24 JUL 0100 | 38 | 17. | | | 24 OCT 0100 | 130 | 0. | | |
| 25 JUL 0100 | 39 | 14. | | | 25 OCT 0100 | 131 | 0. | | |
| 26 JUL 0100 | 40 | 14. | | | 26 OCT 0100 | 132 | 0. | | |
| 27 JUL 0100 | 41 | 16. | | | 27 OCT 0100 | 133 | 2. | | |
| 28 JUL 0100 | 42 | 12. | | | 28 OCT 0100 | 134 | 1. | | |
| 29 JUL 0100 | 43 | 7. | | | 29 OCT 0100 | 135 | 2. | | |
| 30 JUL 0100 | 44 | 13. | | | 30 OCT 0100 | 136 | 0. | | |
| 1 AUG 0100 | 45 | 23. | | | 31 OCT 0100 | 137 | 5. | | |
| 2 AUG 0100 | 46 | 18. | | | 1 NOV 0100 | 138 | 16. | | |
| 3 AUG 0100 | 47 | 11. | | | 2 NOV 0100 | 139 | 20. | | |
| 4 AUG 0100 | 48 | 8. | | | 3 NOV 0100 | 140 | 11. | | |
| 5 AUG 0100 | 49 | 6. | | | 4 NOV 0100 | 141 | 4. | | |
| 6 AUG 0100 | 50 | 10. | | | 5 NOV 0100 | 142 | 3. | | |
| 7 AUG 0100 | 51 | 16. | | | 6 NOV 0100 | 143 | 2. | | |
| 8 AUG 0100 | 52 | 12. | | | 7 NOV 0100 | 144 | 2. | | |
| 9 AUG 0100 | 53 | 8. | | | 8 NOV 0100 | 145 | 1. | | |
| 10 AUG 0100 | 54 | 5. | | | 9 NOV 0100 | 146 | 4. | | |
| 11 AUG 0100 | 55 | 3. | | | 10 NOV 0100 | 147 | 6. | | |
| 12 AUG 0100 | 56 | 2. | | | 11 NOV 0100 | 148 | 4. | | |
| 13 AUG 0100 | 57 | 2. | | | 12 NOV 0100 | 149 | 1. | | |
| 14 AUG 0100 | 58 | 1. | | | 13 NOV 0100 | 150 | 1. | | |
| 15 AUG 0100 | 59 | 1. | | | 14 NOV 0100 | 151 | 12. | | |
| 16 AUG 0100 | 60 | 1. | | | 15 NOV 0100 | 152 | 20. | | |
| 17 AUG 0100 | 61 | 20. | | | 16 NOV 0100 | 153 | 15. | | |
| 18 AUG 0100 | 62 | 43. | | | 17 NOV 0100 | 154 | 19. | | |
| 19 AUG 0100 | 63 | 39. | | | 18 NOV 0100 | 155 | 25. | | |
| 20 AUG 0100 | 64 | 8. | | | 19 NOV 0100 | 156 | 24. | | |
| 21 AUG 0100 | 65 | 6. | | | 20 NOV 0100 | 157 | 31. | | |
| 22 AUG 0100 | 66 | 5. | | | 21 NOV 0100 | 158 | 22. | | |
| 23 AUG 0100 | 67 | 4. | | | 22 NOV 0100 | 159 | 11. | | |
| 24 AUG 0100 | 68 | 3. | | | 23 NOV 0100 | 160 | 9. | | |
| 25 AUG 0100 | 69 | 6. | | | 24 NOV 0100 | 161 | 7. | | |
| 26 AUG 0100 | 70 | 14. | | | 25 NOV 0100 | 162 | 6. | | |
| 27 AUG 0100 | 71 | 10. | | | 26 NOV 0100 | 163 | 5. | | |
| 28 AUG 0100 | 72 | 6. | | | 27 NOV 0100 | 164 | 11. | | |
| 29 AUG 0100 | 73 | 4. | | | 28 NOV 0100 | 165 | 34. | | |
| 30 AUG 0100 | 74 | 2. | | | 29 NOV 0100 | 166 | 36. | | |
| 1 SEP 0100 | 75 | 2. | | | 30 NOV 0100 | 167 | 14. | | |
| 2 SEP 0100 | 76 | 2. | | | 1 DEC 0100 | 168 | 8. | | |
| 3 SEP 0100 | 77 | 2. | | | 2 DEC 0100 | 169 | 10. | | |
| 4 SEP 0100 | 78 | 1. | | | 3 DEC 0100 | 170 | 11. | | |
| 5 SEP 0100 | 79 | 1. | | | 4 DEC 0100 | 171 | 10. | | |
| 6 SEP 0100 | 80 | 1. | | | 5 DEC 0100 | 172 | 9. | | |
| 7 SEP 0100 | 81 | 0. | | | 6 DEC 0100 | 173 | 5. | | |
| 8 SEP 0100 | 82 | 0. | | | 7 DEC 0100 | 174 | 3. | | |
| 9 SEP 0100 | 83 | 1. | | | 8 DEC 0100 | 175 | 2. | | |
| 10 SEP 0100 | 84 | 3. | | | 9 DEC 0100 | 176 | 2. | | |
| 11 SEP 0100 | 85 | 5. | | | 10 DEC 0100 | 177 | 1. | | |
| 12 SEP 0100 | 86 | 4. | | | 11 DEC 0100 | 178 | 1. | | |
| 13 SEP 0100 | 87 | 1. | | | 12 DEC 0100 | 179 | 1. | | |
| 14 SEP 0100 | 88 | 1. | | | 13 DEC 0100 | 180 | 1. | | |
| 15 SEP 0100 | 89 | 0. | | | 14 DEC 0100 | 181 | 1. | | |
| 16 SEP 0100 | 90 | 0. | | | 15 DEC 0100 | 182 | 0. | | |
| 17 SEP 0100 | 91 | 5. | | | 16 DEC 0100 | 183 | 0. | | |
| 18 SEP 0100 | 92 | 2. | | | 17 DEC 0100 | 184 | 12. | | |

| PEAK FLOW | TIME | 10-DAY | MAXIMUM AVERAGE FLOW | 30-DAY | 90-DAY | 180-DAY |
|-----------|---------|----------|----------------------|--------|--------|---------|
| (CFS) | (HR) | (CFS) | (CFS) | (CFS) | (CFS) | (CFS) |
| 210. | 6192.00 | 69. | 47. | 39. | 19. | |
| | | (INCHES) | 3.764 | 7.675 | 19.351 | 35.450 |
| | | (AG-FT) | 1371. | 2796. | 7049. | 12913. |

CUMULATIVE AREA = 6.93 SQ MI

```

*****
27 KK      DQM
*****

28 NO      OUTPUT CONTROL VARIABLES
          IPRINT      2      PRINT CONTROL
          IPLOT       0      PLOT CONTROL
          OSCAL       0.      HYDROGRAPH PLOT SCALE

HYDROGRAPH ROUTING DATA

29 KK      NO ROUTING

```


Altitude

*** ** ** ** **

30 WF PLAN 2 FOR STATION DAM

*** REC-1 ERROR *** INVALID CARD IDENTIFICATION CODE OR CARD OUT OF SEQUENCE
CARD NO. 3E *5 11735.0 2.18 .6 .5

HYDROGRAPH ROUTING DATA

Table with columns for station number, parameter name, and values. Includes sections for STORAGE ROUTING, LOW-LEVEL OUTLET, SPILLWAY, PUMPING DATA, and TOP OF DAM.

COMPUTED STORAGE-ELEVATION DATA

Table with columns for STORAGE, ELEVATION and values.

COMPUTED OUTFLOW-ELEVATION DATA

(EXCLUDING FLOW OVER DAM)

Table with columns for OUTFLOW, ELEVATION and values.

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

(INCLUDING FLOW OVER DAM)

Table with columns for STORAGE, OUTFLOW, ELEVATION and values.

LOW LEVEL OUTLET

HYDROGRAPH AT STATION DAM
PLAN 2, RATIO = 1.00

Large data table with columns: DA, MON, HHMM, ORD, PUMP Q, OUTFLOW, STORAGE, STAGE. Contains multiple rows of time-series data.

| NOV 0100 | 141 | 6. | 4. | 14044.1 | 1816.1 | * | 18 MAY 0100 | 324 | 6. | 42. | 14437.7 | 1820.2 |
|-------------|-----|----|----|---------|--------|---|-------------|-----|----|-----|---------|--------|
| 5 NOV 0100 | 142 | 6. | 4. | 14039.4 | 1816.1 | * | 7 MAY 0100 | 325 | 6. | 56. | 14444.8 | 1820.2 |
| 6 NOV 0100 | 143 | 6. | 4. | 14035.1 | 1816.0 | * | 8 MAY 0100 | 326 | 6. | 46. | 14430.2 | 1820.2 |
| 7 NOV 0100 | 144 | 6. | 4. | 13997.0 | 1816.0 | * | 9 MAY 0100 | 327 | 6. | 29. | 14394.4 | 1820.1 |
| 8 NOV 0100 | 145 | 6. | 4. | 13976.2 | 1816.0 | * | 10 MAY 0100 | 328 | 6. | 16. | 14364.2 | 1820.1 |
| 9 NOV 0100 | 146 | 6. | 4. | 13962.5 | 1815.8 | * | 11 MAY 0100 | 329 | 6. | 23. | 14348.6 | 1820.1 |
| 10 NOV 0100 | 147 | 6. | 4. | 13951.6 | 1815.9 | * | 12 MAY 0100 | 330 | 6. | 6. | 14341.0 | 1820.0 |
| 11 NOV 0100 | 148 | 6. | 4. | 13940.2 | 1815.9 | * | 13 MAY 0100 | 331 | 6. | 6. | 14332.2 | 1820.0 |
| 12 NOV 0100 | 149 | 6. | 4. | 13924.1 | 1815.9 | * | 14 MAY 0100 | 332 | 6. | 55. | 14321.3 | 1820.0 |
| 13 NOV 0100 | 150 | 6. | 4. | 13907.6 | 1815.8 | * | 15 MAY 0100 | 333 | 6. | 4. | 14308.6 | 1820.0 |
| 14 NOV 0100 | 151 | 6. | 4. | 13891.8 | 1815.8 | * | 16 MAY 0100 | 334 | 6. | 4. | 14295.8 | 1820.0 |
| 15 NOV 0100 | 152 | 6. | 4. | 13912.3 | 1815.8 | * | 17 MAY 0100 | 335 | 6. | 4. | 14282.4 | 1819.9 |
| 16 NOV 0100 | 153 | 6. | 4. | 13925.8 | 1815.9 | * | 18 MAY 0100 | 336 | 6. | 4. | 14261.9 | 1819.9 |
| 17 NOV 0100 | 154 | 6. | 4. | 13938.7 | 1815.9 | * | 19 MAY 0100 | 337 | 6. | 4. | 14248.2 | 1820.0 |
| 18 NOV 0100 | 155 | 6. | 4. | 13962.1 | 1815.9 | * | 20 MAY 0100 | 338 | 6. | 4. | 14235.2 | 1820.0 |
| 19 NOV 0100 | 156 | 6. | 4. | 13990.2 | 1816.0 | * | 21 MAY 0100 | 339 | 6. | 4. | 14225.2 | 1820.0 |
| 20 NOV 0100 | 157 | 6. | 4. | 14023.3 | 1816.0 | * | 22 MAY 0100 | 340 | 6. | 4. | 14216.2 | 1820.0 |
| 21 NOV 0100 | 158 | 6. | 4. | 14054.1 | 1816.1 | * | 23 MAY 0100 | 341 | 6. | 16. | 14206.2 | 1820.1 |
| 22 NOV 0100 | 159 | 6. | 4. | 14085.4 | 1816.1 | * | 24 MAY 0100 | 342 | 6. | 24. | 14196.4 | 1820.1 |
| 23 NOV 0100 | 160 | 6. | 4. | 14067.7 | 1816.1 | * | 25 MAY 0100 | 343 | 6. | 20. | 14185.2 | 1820.1 |
| 24 NOV 0100 | 161 | 6. | 4. | 14058.8 | 1816.1 | * | 26 MAY 0100 | 344 | 6. | 13. | 14175.4 | 1820.1 |
| 25 NOV 0100 | 162 | 6. | 4. | 14051.1 | 1816.1 | * | 27 MAY 0100 | 345 | 6. | 9. | 14164.0 | 1820.0 |
| 26 NOV 0100 | 163 | 6. | 4. | 14041.9 | 1816.1 | * | 28 MAY 0100 | 346 | 6. | 7. | 14152.4 | 1820.0 |
| 27 NOV 0100 | 164 | 6. | 4. | 14037.2 | 1816.1 | * | 29 MAY 0100 | 347 | 6. | 5. | 14145.4 | 1820.0 |
| 28 NOV 0100 | 165 | 6. | 4. | 14031.1 | 1816.1 | * | 30 MAY 0100 | 348 | 6. | 4. | 14134.3 | 1820.0 |
| 29 NOV 0100 | 166 | 6. | 4. | 14109.7 | 1816.2 | * | 31 MAY 0100 | 349 | 6. | 4. | 14120.3 | 1820.0 |
| 30 NOV 0100 | 167 | 6. | 4. | 14137.9 | 1816.2 | * | 1 JUN 0100 | 350 | 6. | 4. | 14109.2 | 1820.0 |
| 1 DEC 0100 | 168 | 6. | 4. | 14138.9 | 1816.2 | * | 2 JUN 0100 | 351 | 6. | 5. | 14124.3 | 1820.0 |
| 2 DEC 0100 | 169 | 6. | 4. | 14135.7 | 1816.2 | * | 3 JUN 0100 | 352 | 6. | 32. | 14102.8 | 1820.1 |
| 3 DEC 0100 | 170 | 6. | 4. | 14135.3 | 1816.1 | * | 4 JUN 0100 | 353 | 6. | 50. | 14127.9 | 1820.2 |
| 4 DEC 0100 | 171 | 6. | 4. | 14135.4 | 1816.2 | * | 5 JUN 0100 | 354 | 6. | 39. | 14117.2 | 1820.2 |
| 5 DEC 0100 | 172 | 6. | 4. | 14133.3 | 1816.2 | * | 6 JUN 0100 | 355 | 6. | 27. | 14091.2 | 1820.1 |
| 6 DEC 0100 | 173 | 6. | 4. | 14126.8 | 1816.2 | * | 7 JUN 0100 | 356 | 6. | 21. | 14077.3 | 1820.1 |
| 7 DEC 0100 | 174 | 6. | 4. | 14133.8 | 1816.2 | * | 8 JUN 0100 | 357 | 6. | 21. | 14079.0 | 1820.1 |
| 8 DEC 0100 | 175 | 6. | 4. | 14097.7 | 1816.2 | * | 9 JUN 0100 | 358 | 6. | 21. | 14077.4 | 1820.1 |
| 9 DEC 0100 | 176 | 6. | 4. | 14080.7 | 1816.2 | * | 10 JUN 0100 | 359 | 6. | 19. | 14071.3 | 1820.1 |
| 10 DEC 0100 | 177 | 6. | 4. | 14062.0 | 1816.1 | * | 11 JUN 0100 | 360 | 6. | 20. | 14061.0 | 1820.1 |
| 11 DEC 0100 | 178 | 6. | 4. | 14044.3 | 1816.1 | * | 12 JUN 0100 | 361 | 6. | 26. | 14058.4 | 1820.1 |
| 12 DEC 0100 | 179 | 6. | 4. | 14025.3 | 1816.1 | * | 13 JUN 0100 | 362 | 6. | 19. | 14054.2 | 1820.1 |
| 13 DEC 0100 | 180 | 6. | 4. | 14006.0 | 1816.0 | * | 14 JUN 0100 | 363 | 6. | 12. | 14054.2 | 1820.1 |
| 14 DEC 0100 | 181 | 6. | 4. | 13986.3 | 1816.0 | * | 15 JUN 0100 | 364 | 6. | 8. | 14040.4 | 1820.0 |
| 15 DEC 0100 | 182 | 6. | 4. | 13966.3 | 1815.8 | * | 16 JUN 0100 | 365 | 6. | 5. | 14028.8 | 1820.0 |
| 16 DEC 0100 | 183 | 6. | 4. | 13946.5 | 1815.9 | * | 17 JUN 0100 | 366 | 6. | 4. | 14017.8 | 1820.0 |

PEAK OUTFLOW IS 125, AT TIME 7608.00 HOURS

***** PUMP FLOW HYDROGRAPH *****

| PEAK FLOW (CFS) | TIME (HR) | 10-DAY MAXIMUM AVERAGE FLOW (CFS) | 30-DAY MAXIMUM AVERAGE FLOW (CFS) | 90-DAY MAXIMUM AVERAGE FLOW (CFS) | 365-DAY MAXIMUM AVERAGE FLOW (CFS) |
|-----------------|-----------|-----------------------------------|-----------------------------------|-----------------------------------|------------------------------------|
| 125 | 7608.00 | 40 | 40 | 26 | 10 |
| | | (INCHES) | (INCHES) | (INCHES) | (INCHES) |
| | | 1190 | 4684 | 1984 | 7228 |

***** OUTFLOW HYDROGRAPH *****

| PEAK FLOW (CFS) | TIME (HR) | 10-DAY MAXIMUM AVERAGE FLOW (CFS) | 30-DAY MAXIMUM AVERAGE FLOW (CFS) | 90-DAY MAXIMUM AVERAGE FLOW (CFS) | 365-DAY MAXIMUM AVERAGE FLOW (CFS) |
|-----------------|-----------|-----------------------------------|-----------------------------------|-----------------------------------|------------------------------------|
| 125 | 7608.00 | 40 | 40 | 26 | 10 |
| | | (INCHES) | (INCHES) | (INCHES) | (INCHES) |
| | | 1190 | 4684 | 1984 | 7228 |

| PEAK STORAGE (AC-FT) | TIME (HR) | 10-DAY MAXIMUM AVERAGE STORAGE (AC-FT) | 30-DAY MAXIMUM AVERAGE STORAGE (AC-FT) | 90-DAY MAXIMUM AVERAGE STORAGE (AC-FT) | 365-DAY MAXIMUM AVERAGE STORAGE (AC-FT) |
|----------------------|-----------|--|--|--|---|
| 16547 | 7608.00 | 16449 | 14412 | 14377 | 12086 |

| PEAK STAGE (FEET) | TIME (HR) | 10-DAY MAXIMUM AVERAGE STAGE (FEET) | 30-DAY MAXIMUM AVERAGE STAGE (FEET) | 90-DAY MAXIMUM AVERAGE STAGE (FEET) | 365-DAY MAXIMUM AVERAGE STAGE (FEET) |
|-------------------|-----------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|
| 1820.37 | 7608.00 | 1820.31 | 1820.15 | 1820.08 | 1817.90 |

CUMULATIVE AREA = 6.83 SQ MI

Handwritten notes:
 16,500 ACFT) 43,100 FT²
 = 718, 740, 600 FT² @ 7.48'
 = 5.376 Bill SAC.

PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
 FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES
 TIME TO PEAK IN HOURS

| OPERATION | STATION | AREA | PLAN | RATIO | 1 | 1.00 |
|---------------|---------|------|------|-------|---------|------|
| HYDROGRAPH AT | SUB1 | 5.78 | 1 | FLOW | 172. | |
| | | | 2 | TIME | 6192.00 | |
| HYDROGRAPH AT | SUB2 | 1.05 | 1 | FLOW | 38. | |
| | | | 2 | TIME | 6192.00 | |
| 2 COMBINED AT | COMB1 | 6.83 | 1 | FLOW | 210. | |
| | | | 2 | TIME | 6192.00 | |
| PUMP FLOW TO | | 6.83 | 1 | FLOW | 0. | |
| | | | 2 | TIME | 6192.00 | |

HYDROGRAPH AT

| | | | | |
|---------------------------|------|---|-------|---------|
| DAM | 0.83 | 1 | FLOW | 210. |
| | | | TIME | 4192.00 |
| | | 2 | FLOW | 125. |
| | | | TIME | 7608.00 |
| ** PEAK STAGES IN FEET ** | | | | |
| | | 1 | STAGE | 0.83 |
| | | | TIME | 0.00 |
| | | 2 | STAGE | 1970.37 |
| | | | TIME | 7608.00 |

| | | | | | | | |
|--------------|-----------|---------------|----------------|------------|----------|-------------|---------|
| PLAN 2 | ELEVATION | INITIAL VALUE | SPILLWAY CREST | TOP OF DAM | | | |
| | STORAGE | 1618.00 | 1820.00 | 1828.00 | | | |
| | OUTFLOW | 15124. | 18318. | 20812. | | | |
| | | 4. | 4. | 7941. | | | |
| | RATIO | MAXIMUM | MAXIMUM | MAXIMUM | DURATION | TIME OF | TIME OF |
| | OF | RESERVOIR | DEPTH | STORAGE | OVER TOP | MAX OUTFLOW | FAILURE |
| | PKT | W.S.ELEV | OVER DAM | AC-FT | HOURS | HOURS | HOURS |
| | 1.00 | 1820.37 | 0.00 | 18547. | 125. | 0.00 | 7608.00 |
| | | | | | | | 0.00 |

*** 1 ERROR(S) DETECTED BY REC-1 ***

APPENDIX B

B

ALTERNATE NO. 2 - NEW LAKE AT NWSE =1176.00'
DRY ELEV.= 1688'

1922-1927 DROUGHT (INITIAL API = 2.06)

4 MGD WITHDRAWAL

| START DATE | INITIAL API | POOL ELEV. (FEET) | EVAP LOSS (FEET) | START ELEV. (FEET) | LOW ELEV. (FEET) | LOW DATE | END ELEV. (FEET) | END API |
|------------|-------------|-------------------|------------------|--------------------|------------------|-----------|------------------|---------|
| 17-Jun-21 | 2.06 | 1760.00 | 2.00 | 1758.00 | 1752.20 | 3-Jan-23 | 1759.90 | 2.56 |
| 17-Jun-22 | 2.56 | 1759.90 | 2.00 | 1757.90 | 1756.20 | 1-Dec-22 | 1759.60 | 2.49 |
| 17-Jun-23 | 2.49 | 1759.60 | 2.00 | 1757.60 | 1753.40 | 4-Dec-23 | 1753.80 | 1.21 |
| 17-Jun-24 | 1.21 | 1573.80 | 2.00 | 1751.80 | 1742.40 | 5-Dec-24 | 1742.50 | 0.319 |
| 17-Jun-25 | 0.319 | 1742.50 | 2.00 | 1740.50 | 1726.40 | 17-Jun-26 | 1726.40 | 2.44 |
| 17-Jun-26 | 2.44 | 1726.40 | 2.00 | 1724.40 | 1720.20 | 8-Nov-26 | 1743.60 | 3.47 |
| 17-Jun-27 | 3.47 | 1743.60 | 2.00 | 1741.60 | 1736.10 | 14-Nov-27 | 1746.50 | |

6 MGD WITHDRAWAL

| START DATE | INITIAL API | POOL ELEV. (FEET) | EVAP LOSS (FEET) | START ELEV. (FEET) | LOW ELEV. (FEET) | LOW DATE | END ELEV. (FEET) | END API |
|------------|-------------|-------------------|------------------|--------------------|------------------|-----------|------------------|---------|
| 17-Jun-21 | 2.06 | 1760.00 | 2.00 | 1758.00 | 1748.20 | 13-Feb-22 | 1754.60 | 2.56 |
| 17-Jun-22 | 2.56 | 1754.60 | 2.00 | 1752.60 | 1747.40 | 1-Dec-22 | 1749.10 | 2.49 |
| 17-Jun-23 | 2.49 | 1749.10 | 2.00 | 1747.10 | 1730.90 | 17-Jun-24 | 1730.90 | 1.21 |
| 17-Jun-24 | 1.21 | 1730.90 | 2.00 | 1728.90 | 1684.90 | 17-Jun-25 | DRY | 0.319 |
| 17-Jun-25 | 0.319 | DRY | 2.00 | DRY | DRY | DRY | DRY | 2.44 |
| 17-Jun-26 | 2.44 | DRY | 2.00 | DRY | DRY | DRY | DRY | 3.47 |
| 17-Jun-27 | 3.47 | DRY | 2.00 | DRY | DRY | DRY | DRY | |

5 MGD WITHDRAWAL

| START DATE | INITIAL API | POOL ELEV. (FEET) | EVAP LOSS (FEET) | START ELEV. (FEET) | LOW ELEV. (FEET) | LOW DATE | END ELEV. (FEET) | END API |
|------------|-------------|-------------------|------------------|--------------------|------------------|-----------|------------------|---------|
| 17-Jun-21 | 2.06 | 1760.00 | 2.00 | 1758.00 | 1752.90 | 3-Jan-22 | 1759.30 | 2.56 |
| 17-Jun-22 | 2.56 | 1759.30 | 2.00 | 1757.30 | 1754.30 | 30-Nov-22 | 1756.90 | 2.49 |
| 17-Jun-23 | 2.49 | 1756.90 | 2.00 | 1754.90 | 1747.40 | 24-May-24 | 1747.40 | 1.21 |
| 17-Jun-24 | 1.21 | 1747.40 | 2.00 | 1745.40 | 1726.20 | 17-Jun-25 | 17262.00 | 0.319 |
| 17-Jun-25 | 0.319 | 1726.20 | 2.00 | 1724.20 | 1684.00 | 10-May-26 | DRY | 2.44 |
| 17-Jun-26 | 2.44 | DRY | 2.00 | DRY | DRY | DRY | DRY | 3.47 |
| 17-Jun-27 | 3.47 | DRY | 2.00 | DRY | DRY | DRY | DRY | |

4.5 MGD WITHDRAWAL

| START DATE | INITIAL API | POOL ELEV. (FEET) | EVAP LOSS (FEET) | START ELEV. (FEET) | LOW ELEV. (FEET) | LOW DATE | END ELEV. (FEET) | END API |
|------------|-------------|-------------------|------------------|--------------------|------------------|-----------|------------------|---------|
| 17-Jun-21 | 2.06 | 1760.00 | 2.00 | 1758.00 | 1751.30 | 3-Jan-22 | 1758.60 | 2.56 |
| 17-Jun-22 | 2.56 | 1758.60 | 2.00 | 1756.60 | 1754.20 | 20-Nov-22 | 1757.50 | 2.49 |
| 17-Jun-23 | 2.49 | 1757.50 | 2.00 | 1755.50 | 1749.80 | 23-May-24 | 1749.80 | 1.21 |
| 17-Jun-24 | 1.21 | 1749.80 | 2.00 | 1747.80 | 1733.80 | 17-Jun-25 | 1733.80 | 0.319 |
| 17-Jun-25 | 0.319 | 1733.80 | 2.00 | 1731.80 | 1703.80 | 15-Jun-26 | 1704.80 | 2.44 |
| 17-Jun-26 | 2.44 | 1704.80 | 2.00 | 1702.80 | 1692.60 | 9-Nov-26 | 1734.70 | 3.47 |
| 17-Jun-27 | 3.47 | 1739.70 | 2.00 | 1732.70 | 1723.20 | 15-Nov-27 | 1737.70 | |

ALTERNATE NO. 2 - NEW LAKE AT NWSE =1176.00'
DRY ELEV.= 1688'

1940-1942 DROUGHT (INITIAL API = 2.43)

4.5 MGD WITHDRAWAL

| START DATE | INITIAL API | POOL ELEV. (FEET) | EVAP LOSS (FEET) | START ELEV. (FEET) | LOW ELEV. (FEET) | LOW DATE | END ELEV. (FEET) | END API |
|------------|-------------|-------------------|------------------|--------------------|------------------|-----------|------------------|---------|
| 21-Apr-39 | 2.43 | 1760.00 | 2.00 | 1758.00 | 1746.40 | 08-Feb-40 | 1749.60 | 2.28 |
| 21-Apr-40 | 2.28 | 1749.60 | 2.00 | 1747.60 | 1727.70 | 04-Mar-41 | 1732.20 | 1.38 |
| 21-Apr-41 | 1.38 | 1732.20 | 2.00 | 1730.20 | 1700.50 | 27-Jan-42 | 1715.00 | 0.913 |
| 21-Apr-42 | 0.913 | 1715.00 | 2.00 | 1713.00 | 1703.80 | 07-Jun-42 | 1734.00 | |

1952-1954 DROUGHT (INITIAL API = 2.92)

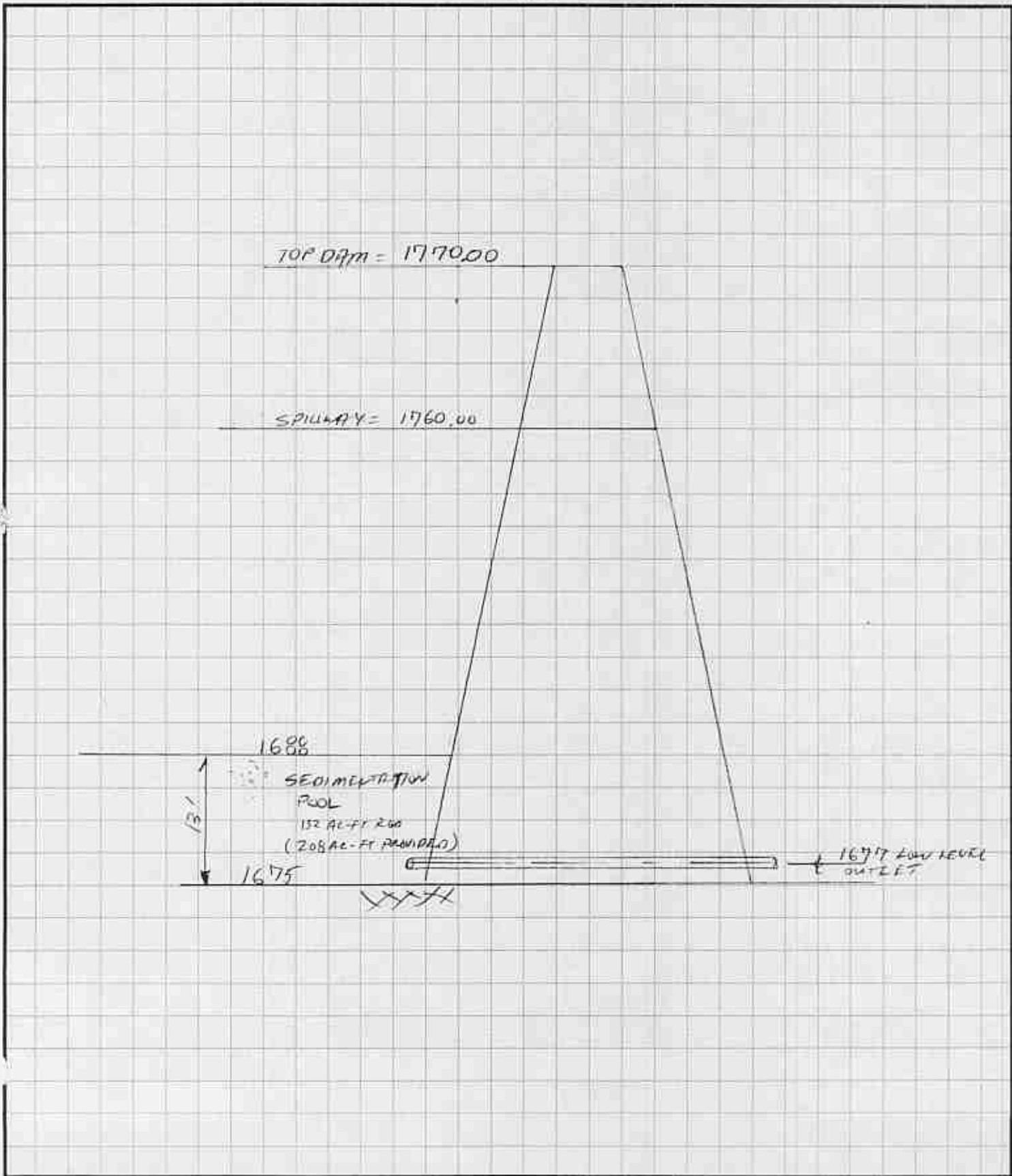
4.5 MGD WITHDRAWAL

| START DATE | INITIAL API | POOL ELEV. (FEET) | EVAP LOSS (FEET) | START ELEV. (FEET) | LOW ELEV. (FEET) | LOW DATE | END ELEV. (FEET) | END API |
|------------|-------------|-------------------|------------------|--------------------|------------------|-----------|------------------|---------|
| 26-Apr-51 | 2.92 | 1760.00 | 2.00 | 1758.00 | 1750.10 | 30-Oct-51 | 1756.60 | 1.28 |
| 26-Apr-52 | 1.28 | 1756.60 | 2.00 | 1754.60 | 1743.10 | 07-Jan-53 | 1746.50 | 1.65 |
| 26-Apr-53 | 1.65 | 1746.50 | 2.00 | 1744.50 | 1732.00 | 08-Dec-53 | 1744.80 | |

1986-1988 DROUGHT (INITIAL API = 1.30)

4.5 MGD WITHDRAWAL

| START DATE | INITIAL API | POOL ELEV. (FEET) | EVAP LOSS (FEET) | START ELEV. (FEET) | LOW ELEV. (FEET) | LOW DATE | END ELEV. (FEET) | END API |
|------------|-------------|-------------------|------------------|--------------------|------------------|-----------|------------------|---------|
| 02-Mar-85 | 1.30 | 1760.00 | 2.00 | 1758.00 | 1748.40 | 02-Feb-86 | 1749.30 | 1.77 |
| 02-Mar-86 | 1.77 | 1749.30 | 2.00 | 1797.30 | 1736.10 | 11-Oct-86 | 1742.40 | 2.35 |
| 02-Mar-87 | 2.35 | 1742.40 | 2.00 | 1740.40 | 1721.80 | 24-Dec-87 | 1725.90 | 0.992 |
| 02-Mar-88 | 0.992 | 1725.90 | 2.00 | 1723.90 | 1697.30 | 04-Nov-88 | 1726.90 | |



$$\begin{aligned} \text{SED} &= 0.5 \frac{\text{ACRE-FT}}{\text{mi}^2 \text{-YR}} \times 6 \text{ YEARS (DAM LIFE)} \times \frac{2830 \text{ ACRES}}{610 \text{ AC/mi}^2} \\ &= 132 \text{ ACRE-FT} \end{aligned}$$

FLOOD HYDROGRAPH PACKAGE (HEC-1)
 MAY 1991
 VERSION 4.0.1E
 RUN DATE 11/27/01 TIME 17:19:00

U.S. ARMY CORPS OF ENGINEERS
 HYDROLOGIC ENGINEERING CENTER
 609 SECOND STREET
 DAVIS, CALIFORNIA 95616
 (916) 551-1746

```

X   X XXXXXX XXXXX   X
X   X X   X   X   X   XX
X   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
X   X XXXXXX XXXXX   XXX
    
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1G, HEC1D, AND HEC1M.

THE DEFINITIONS OF VARIABLES -RTIME- AND -RTIGH- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE. THE DEFINITION OF -AMTK- ON MM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION. NEW OPTIONS: DANBREAK OUTFLOW SUBMERGENCE, SINGLE EVENT DAMAGE CALCULATION, DSRWRITE STAGE FREQUENCY, DSRWRITE TIME SERIES AT DESIRED CALCULATION INTERVAL, LOSS RATE-GREEN AND AMPY INFILTRATION. KINEMATIC WAVE, NEW FINITE DIFFERENCE ALGORITHM.

HEC-1 INPUT

```

LINE  ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
1     ID  CUMBERLAND COUNTY, TN WATER SUPPLY STUDY
2     ID  HEADOW PARK LAKE
3     ID  ALTERNATE NO. 2 - NEW LAKE EXPANSION AT ELEV. 1760.00
4     ID  YIELD ANALYSIS
5     IT  1440 17JUN21  0100  366
6     IO  5
7     JP  3
8     KK  SUB1
9     KM
10    MO  2
11    BA  3.72
12    ZP  =F1 B=HEADOW C=RECTIP-INC F=GRS-AVG
13    ZA  B=HEADOW C=API F=COMPUTED
14    LA  1.06 0.94 1.1 1.0 2.30 1.0 APIR12.CSV SURTR0.CSV GWR0T1.CSV
15    LG  300 471 1.009
16    UC  0.76 0.76
17    KV  SUB2
18    KH  RAIN ON THE POOL
19    KO  2
20    BA  0.702
21    UC  1.0 1.0
22    LS  99 99
23    KK  COMB1
24    KH  COMBINE SUB1 AND SUB2
25    ED  2
26    HC  2
27    KR  DAM
28    RO  2
29    RN
30    KP  2
31    RE  1 ELEV 1758.0
32    SA  0 15 45 90 205 449 756
33    SE  1675 1685 1700 1720 1740 1760 1785
34    SS  1760.0 180 3.0 1.5
35    ST  1770.0 300 1.0 1.5
36    *S  1735.0 2.18 .5
37    SL  1470.0 0.10 .4 10
38    WE  1603 6.20 1666
39
    
```

BA_{TOT} = 3.72 + 0.702 = 4.422 mi²

FLOOD HYDROGRAPH PACKAGE (HEC-1)
 MAY 1991
 VERSION 4.0.1E
 RUN DATE 11/27/01 TIME 17:19:00

U.S. ARMY CORPS OF ENGINEERS
 HYDROLOGIC ENGINEERING CENTER
 609 SECOND STREET
 DAVIS, CALIFORNIA 95616
 (916) 551-1746

CUMBERLAND COUNTY, TN WATER SUPPLY STUDY
 HEADOW PARK LAKE
 ALTERNATE NO. 2 - NEW LAKE EXPANSION AT ELEV. 1760.00

YIELD ANALYSIS

0 TO OUTPUT CONTROL VARIABLES
 IPRT 5 PRINT CONTROL
 IPLOT 0 PLOT CONTROL
 QSCALE 0 HYDROGRAPH PLOT SCALE

11 HYDROGRAPH TIME DATA
 MMIN 1440 MINUTES IN COMPUTATION INTERVAL
 IDATE 17JUN21 STARTING DATE
 ITIME 0100 STARTING TIME
 NO 366 NUMBER OF HYDROGRAPH ORDINATES
 HDATE 17JUN22 ENDING DATE
 NDTIME 0100 ENDING TIME
 ICENT 19 CENTURY MARK

COMPUTATION INTERVAL 24.00 HOURS
 TOTAL TIME BASE 8760.00 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

12 MULTI-PLAN OPTION
 NPLAN 2 NUMBER OF PLANS

13 MULTI-RATIO OPTION
 RATIOS OF RUNOFF 1.00

8 WK

 SUB1

10 80 OUTPUT CONTROL VARIABLES
 IPRT 2 PRINT CONTROL
 IPLOT 0 PLOT CONTROL
 QSCALE 0 HYDROGRAPH PLOT SCALE

-----DSS---ZOPEN: Existing File Opened. File: C:\MS\ESS
 Unit: 71; DSS Version: 6-08

-----DSS---ZREAD Unit 71; Vers. 10; //HEADON/PRECIP-1PC/01JAN1921/1DAY/BAS-AVG/
 -----DSS---ZREAD Unit 71; Vers. 10; //HEADON/PRECIP-1PC/01JAN1921/1DAY/BAS-AVG/
 -----DSS---ZREAD Unit 71; Vers. 9; //HEADON/PRECIP-1PC/01JAN1922/1DAY/BAS-AVG/

***** WARNING: RTIME - MISSING PRECIPITATION IN DSS FILE - READ AND INTERPOLATED VALUES SET TO ZERO *****

API LOSS RATE

Initial API Value - 2.660
 API Decay Rate - 0.940
 Surface Runoff Ratio - 1.100
 Groundwater Runoff Ratio - 1.000
 Initial Base Flow Multiplier - 2.00
 Precipitation Multiplier - 1.00
 Runoff Index Table - APIRIT2.CSV
 Surface Runoff Table - SURPRO.CSV
 Groundwater Runoff Table - GWR0T1.CSV

API GROUNDWATER UNIT HYDROGRAPH

Time to Peak (Hours) - 9.000 (Adjusted to nearest time interval)
 Hydrograph Base (Hours) - 471.000
 Peak Flow (cfs) - 21.1
 Rate of decay - 1.0090
 No. of US Ordinates - 20

| | | | | | | | | | |
|----|-----|-----|-----|-----|----|----|----|----|----|
| 0. | 14. | 15. | 12. | 10. | 8. | 6. | 5. | 4. | 3. |
| 3. | 2. | 2. | 1. | 1. | 1. | 1. | 1. | 0. | 0. |

SUBBASIN RUNOFF DATA

11 8A SUBBASIN CHARACTERISTICS
 TAREA 3.72 SUBBASIN AREA

PRECIPITATION DATA

12 8B STORM 40.45 BASIN TOTAL PRECIPITATION

12 8C INCREMENTAL PRECIPITATION PATTERN

| | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|
| 0.00 | 0.21 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.17 | 0.15 | 0.07 | 0.45 | 0.18 | 0.00 | 0.00 | 0.11 | 0.08 | |
| 0.00 | 0.00 | 0.42 | 0.36 | 0.00 | 0.00 | 0.01 | 0.00 | 0.17 | 0.15 | |

| A112.out | | | | | | | | | |
|----------|------|------|------|------|------|------|------|------|------|
| 0.00 | 0.29 | 1.28 | 0.88 | 0.24 | 0.21 | 0.19 | 0.16 | 0.30 | 0.28 |
| 0.03 | 0.00 | 0.53 | 0.45 | 0.12 | 0.10 | 0.00 | 0.03 | 0.39 | 0.30 |
| 0.13 | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 |
| 0.82 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.39 | 0.32 | 0.11 |
| 0.09 | 0.00 | 0.00 | 0.00 | 0.01 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.03 | 0.14 | 0.17 | 0.04 | 0.02 | 0.02 | 0.00 | 0.18 | 0.15 |
| 0.00 | 0.02 | 0.28 | 0.22 | 0.02 | 0.45 | 0.37 | 0.00 | 0.24 | 0.33 |
| 0.35 | 0.31 | 0.09 | 0.00 | 0.05 | 0.01 | 0.00 | 0.66 | 0.05 | 0.00 |
| 0.00 | 0.00 | 0.06 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.19 | 0.16 | 0.00 | 0.00 | 0.33 | 0.74 | 0.42 | 0.03 | 0.00 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.19 | 0.17 | 0.02 | 0.03 | 0.15 | 0.56 |
| 0.38 | 0.19 | 0.52 | 0.30 | 0.80 | 0.33 | 0.00 | 0.00 | 0.00 | 0.02 |
| 0.02 | 0.04 | 0.35 | 0.56 | 0.74 | 0.00 | 0.00 | 0.19 | 0.17 | 0.18 |
| 0.15 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.34 | 0.29 | 0.00 | 0.05 | 0.11 | 0.06 | 0.00 | 0.38 |
| 0.32 | 0.00 | 0.00 | 0.00 | 0.11 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.44 | 0.54 | 0.00 | 0.00 | 0.00 | 0.07 | 0.16 | 0.42 | 0.24 | 0.22 |
| 0.16 | 0.00 | 0.27 | 0.28 | 0.03 | 0.53 | 0.48 | 0.17 | 0.29 | 0.05 |
| 0.05 | 0.00 | 0.00 | 0.14 | 0.14 | 0.00 | 0.00 | 0.00 | 0.10 | 0.09 |
| 0.00 | 0.11 | 0.30 | 0.19 | 0.03 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 |
| 0.00 | 0.31 | 0.99 | 0.61 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 |
| 0.21 | 0.10 | 0.00 | 0.05 | 0.10 | 0.05 | 1.35 | 1.31 | 0.14 | 0.02 |
| 0.01 | 0.00 | 0.35 | 0.29 | 0.14 | 0.92 | 0.67 | 0.00 | 0.00 | 0.11 |
| 0.73 | 0.34 | 0.00 | 0.00 | 0.15 | 0.17 | 0.03 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.50 | 0.42 | 0.00 | 0.00 | 1.00 | 0.64 | 0.00 | 0.00 |
| 0.00 | 0.25 | 0.37 | 0.13 | 0.00 | 0.42 | 0.35 | 0.29 | 0.25 | 0.00 |
| 0.00 | 0.44 | 0.55 | 0.00 | 0.86 | 0.78 | 0.05 | 0.00 | 0.03 | 0.03 |
| 0.00 | 0.00 | 0.40 | 0.33 | 1.26 | 1.11 | 0.04 | 0.00 | 0.04 | 0.35 |
| 0.75 | 0.41 | 0.33 | 0.45 | 0.00 | 0.00 | 0.01 | 0.15 | 0.09 | 0.01 |
| 0.00 | 0.00 | 0.11 | 0.15 | 0.37 | 0.30 | 0.03 | 0.22 | 0.68 | 0.42 |
| 0.04 | 0.07 | 0.04 | 0.12 | 0.11 | 0.00 | 0.00 | 0.00 | 0.36 | 1.01 |
| 0.40 | 0.31 | 0.26 | 0.01 | 0.37 | 0.31 | 0.00 | 0.42 | 0.43 | 0.46 |
| 0.01 | 0.04 | 0.01 | | | | | | | |

14 LE EXPONENTIAL LOSS RATE
 STRX 0.00 INITIAL VALUE OF LOSS COEFFICIENT
 DLTRX 0.00 INITIAL LOSS
 RTIOL 0.00 LOSS COEFFICIENT REVERSION CONSTANT
 ERAIN 0.00 EXPONENT OF PRECIPITATION
 RTIMP 1.00 PERCENT IMPERVIOUS AREA

16 UC CLARK UNITGRAPH
 TC 0.74 TIME OF CONCENTRATION
 R 0.74 STORAGE COEFFICIENT

SYNTHETIC ACCUMULATED-AREA VS. TIME CURVE WILL BE USED

...

INCREASED TO MINIMUM OF 0.3
 ---DS--WRITE Unit 71c Vers. 59: //HEADON/AFI/CLARK1921/IDAY/COMPUTED/
 ---DS--WRITE Unit 71c Vers. 62: //HEADON/AFI/CLARK1922/IDAY/COMPUTED/

UNIT HYDROGRAPH PARAMETERS
 CLARK TC= 24.00 HR. R= 12.00 HR
 SUTER TP= 18.86 HR. CP= 0.50

UNIT HYDROGRAPH
 3 END-OF-PERIOD COORDINATES

59. 10.

HYDROGRAPH AT STATION SUB1

| DA | MON | HRMM | ORD | RAIN | LOSS | EXCESS | COMP Q | DA | MON | HRMM | ORD | RAIN | LOSS | EXCESS | COMP Q |
|----|-----|------|-----|------|------|--------|--------|----|-----|------|-----|------|------|--------|--------|
| 17 | JUN | 0100 | 1 | 0.00 | 0.00 | 0.00 | 9. | 17 | DEC | 0100 | 184 | 0.34 | 0.25 | 0.09 | 5. |
| 18 | JUN | 0100 | 2 | 0.00 | 0.00 | 0.00 | 7. | 18 | DEC | 0100 | 183 | 0.28 | 0.22 | 0.06 | 8. |
| 19 | JUN | 0100 | 3 | 0.27 | 0.27 | 0.00 | 6. | 19 | DEC | 0100 | 186 | 0.00 | 0.00 | 0.00 | 5. |
| 20 | JUN | 0100 | 4 | 0.23 | 0.23 | 0.00 | 4. | 20 | DEC | 0100 | 187 | 0.05 | 0.05 | 0.00 | 2. |
| 21 | JUN | 0100 | 5 | 0.00 | 0.00 | 0.00 | 5. | 21 | DEC | 0100 | 188 | 0.11 | 0.10 | 0.00 | 1. |
| 22 | JUN | 0100 | 6 | 0.00 | 0.00 | 0.00 | 4. | 22 | DEC | 0100 | 189 | 0.06 | 0.06 | 0.00 | 1. |
| 23 | JUN | 0100 | 7 | 0.00 | 0.00 | 0.00 | 3. | 23 | DEC | 0100 | 190 | 0.00 | 0.00 | 0.00 | 1. |
| 24 | JUN | 0100 | 8 | 0.00 | 0.00 | 0.00 | 3. | 24 | DEC | 0100 | 191 | 0.38 | 0.20 | 0.18 | 10. |
| 25 | JUN | 0100 | 9 | 0.00 | 0.00 | 0.00 | 2. | 25 | DEC | 0100 | 192 | 0.32 | 0.18 | 0.14 | 18. |
| 26 | JUN | 0100 | 10 | 0.00 | 0.00 | 0.00 | 7. | 26 | DEC | 0100 | 193 | 0.00 | 0.00 | 0.00 | 10. |
| 27 | JUN | 0100 | 11 | 0.00 | 0.00 | 0.00 | 1. | 27 | DEC | 0100 | 194 | 0.00 | 0.00 | 0.00 | 2. |
| 28 | JUN | 0100 | 12 | 0.00 | 0.00 | 0.00 | 1. | 28 | DEC | 0100 | 195 | 0.00 | 0.00 | 0.00 | 2. |
| 29 | JUN | 0100 | 13 | 0.17 | 0.17 | 0.00 | 1. | 29 | DEC | 0100 | 196 | 0.11 | 0.11 | 0.00 | 2. |
| 30 | JUN | 0100 | 14 | 0.15 | 0.15 | 0.00 | 1. | 30 | DEC | 0100 | 197 | 0.09 | 0.09 | 0.00 | 1. |
| 1 | JUL | 0100 | 15 | 0.27 | 0.27 | 0.00 | 1. | 31 | DEC | 0100 | 198 | 0.00 | 0.00 | 0.00 | 1. |
| 2 | JUL | 0100 | 16 | 0.45 | 0.44 | 0.00 | 1. | 1 | JAN | 0100 | 199 | 0.00 | 0.00 | 0.00 | 1. |
| 3 | JUL | 0100 | 17 | 0.16 | 0.16 | 0.00 | 2. | 2 | JAN | 0100 | 200 | 0.00 | 0.00 | 0.00 | 1. |
| 4 | JUL | 0100 | 18 | 0.00 | 0.00 | 0.00 | 1. | 3 | JAN | 0100 | 201 | 0.00 | 0.00 | 0.00 | 1. |
| 5 | JUL | 0100 | 19 | 0.00 | 0.00 | 0.00 | 1. | 4 | JAN | 0100 | 202 | 0.68 | 0.35 | 0.33 | 17. |
| 6 | JUL | 0100 | 20 | 0.11 | 0.11 | 0.00 | 1. | 5 | JAN | 0100 | 203 | 0.34 | 0.23 | 0.11 | 35. |
| 7 | JUL | 0100 | 21 | 0.09 | 0.09 | 0.00 | 1. | 6 | JAN | 0100 | 204 | 0.00 | 0.00 | 0.00 | 21. |
| 8 | JUL | 0100 | 22 | 0.00 | 0.00 | 0.00 | 0. | 7 | JAN | 0100 | 205 | 0.00 | 0.00 | 0.00 | 5. |
| 9 | JUL | 0100 | 23 | 0.00 | 0.00 | 0.00 | 0. | 8 | JAN | 0100 | 206 | 0.08 | 0.08 | 0.00 | 8. |
| 10 | JUL | 0100 | 24 | 0.42 | 0.42 | 0.00 | 0. | 9 | JAN | 0100 | 207 | 0.07 | 0.07 | 0.00 | 3. |
| 11 | JUL | 0100 | 25 | 0.36 | 0.36 | 0.00 | 1. | 10 | JAN | 0100 | 208 | 0.14 | 0.14 | 0.02 | 4. |
| 12 | JUL | 0100 | 26 | 0.00 | 0.00 | 0.00 | 1. | 11 | JAN | 0100 | 209 | 0.42 | 0.21 | 0.21 | 14. |
| 13 | JUL | 0100 | 27 | 0.00 | 0.00 | 0.00 | 1. | 12 | JAN | 0100 | 210 | 0.04 | 0.11 | 0.13 | 21. |
| 14 | JUL | 0100 | 28 | 0.01 | 0.01 | 0.00 | 1. | 13 | JAN | 0100 | 211 | 0.22 | 0.11 | 0.11 | 16. |
| 15 | JUL | 0100 | 29 | 0.00 | 0.00 | 0.00 | 1. | 14 | JAN | 0100 | 212 | 0.18 | 0.10 | 0.08 | 13. |
| 16 | JUL | 0100 | 30 | 0.17 | 0.17 | 0.00 | 1. | 15 | JAN | 0100 | 213 | 0.00 | 0.00 | 0.00 | 7. |

| | | | | | | | | | | | | | | | | |
|----|-----|------|-----|------|------|------|-----|---|----|-----|------|-----|------|------|------|-----|
| 17 | JUL | 0100 | 31 | 0.15 | 0.15 | 0.00 | 1. | * | 16 | JAN | 0100 | 214 | 0.27 | 0.12 | 0.15 | 10. |
| 18 | JUL | 0100 | 32 | 0.00 | 0.00 | 0.00 | 0. | * | 17 | JAN | 0100 | 215 | 0.28 | 0.12 | 0.16 | 19. |
| 19 | JUL | 0100 | 33 | 0.29 | 0.29 | 0.00 | 0. | * | 18 | JAN | 0100 | 216 | 0.05 | 0.05 | 0.00 | 11. |
| 20 | JUL | 0100 | 34 | 1.28 | 1.10 | 0.17 | 9. | * | 19 | JAN | 0100 | 217 | 0.53 | 0.18 | 0.37 | 21. |
| 21 | JUL | 0100 | 35 | 0.88 | 0.72 | 0.16 | 21. | * | 20 | JAN | 0100 | 218 | 0.48 | 0.15 | 0.33 | 40. |
| 22 | JUL | 0100 | 36 | 0.24 | 0.24 | 0.00 | 17. | * | 21 | JAN | 0100 | 219 | 0.37 | 0.14 | 0.24 | 36. |
| 23 | JUL | 0100 | 37 | 0.21 | 0.21 | 0.00 | 8. | * | 22 | JAN | 0100 | 220 | 0.29 | 0.12 | 0.17 | 27. |
| 24 | JUL | 0100 | 38 | 0.19 | 0.19 | 0.00 | 7. | * | 23 | JAN | 0100 | 221 | 0.01 | 0.01 | 0.00 | 15. |
| 25 | JUL | 0100 | 39 | 0.16 | 0.16 | 0.00 | 6. | * | 24 | JAN | 0100 | 222 | 0.05 | 0.05 | 0.00 | 5. |
| 26 | JUL | 0100 | 40 | 0.39 | 0.29 | 0.00 | 5. | * | 25 | JAN | 0100 | 223 | 0.00 | 0.00 | 0.00 | 4. |
| 27 | JUL | 0100 | 41 | 0.28 | 0.28 | 0.00 | 5. | * | 26 | JAN | 0100 | 224 | 0.05 | 0.05 | 0.00 | 3. |
| 28 | JUL | 0100 | 42 | 0.03 | 0.03 | 0.00 | 5. | * | 27 | JAN | 0100 | 225 | 0.16 | 0.10 | 0.06 | 6. |
| 29 | JUL | 0100 | 43 | 0.00 | 0.00 | 0.00 | 4. | * | 28 | JAN | 0100 | 226 | 0.14 | 0.09 | 0.05 | 8. |
| 30 | JUL | 0100 | 44 | 0.53 | 0.33 | 0.00 | 4. | * | 29 | JAN | 0100 | 227 | 0.00 | 0.00 | 0.00 | 4. |
| 31 | JUL | 0100 | 45 | 0.45 | 0.45 | 0.00 | 4. | * | 30 | JAN | 0100 | 228 | 0.00 | 0.00 | 0.00 | 1. |
| 1 | AUG | 0100 | 46 | 0.12 | 0.12 | 0.00 | 7. | * | 31 | JAN | 0100 | 229 | 0.00 | 0.00 | 0.00 | 1. |
| 2 | AUG | 0100 | 47 | 0.10 | 0.10 | 0.00 | 5. | * | 1 | FEB | 0100 | 230 | 0.10 | 0.10 | 0.00 | 1. |
| 3 | AUG | 0100 | 48 | 0.00 | 0.00 | 0.00 | 5. | * | 2 | FEB | 0100 | 231 | 0.09 | 0.08 | 0.00 | 1. |
| 4 | AUG | 0100 | 49 | 0.03 | 0.03 | 0.00 | 3. | * | 3 | FEB | 0100 | 232 | 0.00 | 0.00 | 0.00 | 1. |
| 5 | AUG | 0100 | 50 | 0.39 | 0.39 | 0.00 | 3. | * | 4 | FEB | 0100 | 233 | 0.11 | 0.11 | 0.00 | 1. |
| 6 | AUG | 0100 | 51 | 0.30 | 0.30 | 0.00 | 4. | * | 5 | FEB | 0100 | 234 | 0.30 | 0.10 | 0.10 | 7. |
| 7 | AUG | 0100 | 52 | 0.13 | 0.13 | 0.00 | 4. | * | 6 | FEB | 0100 | 235 | 0.18 | 0.14 | 0.04 | 9. |
| 8 | AUG | 0100 | 53 | 0.11 | 0.11 | 0.00 | 3. | * | 7 | FEB | 0100 | 236 | 0.03 | 0.03 | 0.00 | 3. |
| 9 | AUG | 0100 | 54 | 0.09 | 0.09 | 0.00 | 2. | * | 8 | FEB | 0100 | 237 | 0.03 | 0.02 | 0.00 | 1. |
| 10 | AUG | 0100 | 55 | 0.00 | 0.00 | 0.00 | 2. | * | 9 | FEB | 0100 | 238 | 0.01 | 0.01 | 0.00 | 1. |
| 11 | AUG | 0100 | 56 | 0.00 | 0.00 | 0.00 | 1. | * | 10 | FEB | 0100 | 239 | 0.01 | 0.01 | 0.00 | 1. |
| 12 | AUG | 0100 | 57 | 0.00 | 0.00 | 0.00 | 1. | * | 11 | FEB | 0100 | 240 | 0.00 | 0.00 | 0.00 | 0. |
| 13 | AUG | 0100 | 58 | 0.00 | 0.00 | 0.00 | 1. | * | 12 | FEB | 0100 | 241 | 0.05 | 0.00 | 0.00 | 0. |
| 14 | AUG | 0100 | 59 | 0.00 | 0.00 | 0.00 | 1. | * | 13 | FEB | 0100 | 242 | 0.00 | 0.00 | 0.00 | 0. |
| 15 | AUG | 0100 | 60 | 0.00 | 0.00 | 0.00 | 1. | * | 14 | FEB | 0100 | 243 | 0.31 | 0.18 | 0.13 | 7. |
| 16 | AUG | 0100 | 61 | 0.84 | 0.84 | 0.00 | 4. | * | 15 | FEB | 0100 | 244 | 0.90 | 0.33 | 0.45 | 41. |
| 17 | AUG | 0100 | 62 | 0.82 | 0.73 | 0.09 | 18. | * | 16 | FEB | 0100 | 245 | 0.61 | 0.27 | 0.44 | 61. |
| 18 | AUG | 0100 | 63 | 0.02 | 0.02 | 0.00 | 11. | * | 17 | FEB | 0100 | 246 | 0.00 | 0.00 | 0.00 | 0. |
| 19 | AUG | 0100 | 64 | 0.00 | 0.00 | 0.00 | 5. | * | 18 | FEB | 0100 | 247 | 0.00 | 0.00 | 0.00 | 0. |
| 20 | AUG | 0100 | 65 | 0.00 | 0.00 | 0.00 | 4. | * | 19 | FEB | 0100 | 248 | 0.90 | 0.00 | 0.00 | 5. |
| 21 | AUG | 0100 | 66 | 0.00 | 0.00 | 0.00 | 3. | * | 20 | FEB | 0100 | 249 | 0.00 | 0.00 | 0.00 | 4. |
| 22 | AUG | 0100 | 67 | 0.00 | 0.00 | 0.00 | 3. | * | 21 | FEB | 0100 | 250 | 0.08 | 0.07 | 0.01 | 4. |
| 23 | AUG | 0100 | 68 | 0.00 | 0.00 | 0.00 | 2. | * | 22 | FEB | 0100 | 251 | 0.07 | 0.07 | 0.00 | 3. |
| 24 | AUG | 0100 | 69 | 0.38 | 0.38 | 0.00 | 2. | * | 23 | FEB | 0100 | 252 | 0.21 | 0.15 | 0.06 | 5. |
| 25 | AUG | 0100 | 70 | 0.32 | 0.32 | 0.00 | 2. | * | 24 | FEB | 0100 | 253 | 0.18 | 0.10 | 0.08 | 6. |
| 26 | AUG | 0100 | 71 | 0.11 | 0.11 | 0.00 | 2. | * | 25 | FEB | 0100 | 254 | 0.00 | 0.00 | 0.00 | 6. |
| 27 | AUG | 0100 | 72 | 0.09 | 0.09 | 0.00 | 2. | * | 26 | FEB | 0100 | 255 | 0.05 | 0.05 | 0.00 | 2. |
| 28 | AUG | 0100 | 73 | 0.00 | 0.00 | 0.00 | 2. | * | 27 | FEB | 0100 | 256 | 0.10 | 0.10 | 0.00 | 1. |
| 29 | AUG | 0100 | 74 | 0.05 | 0.05 | 0.00 | 1. | * | 28 | FEB | 0100 | 257 | 0.05 | 0.05 | 0.00 | 1. |
| 30 | AUG | 0100 | 75 | 0.00 | 0.00 | 0.00 | 1. | * | 1 | MAR | 0100 | 258 | 0.35 | 0.27 | 0.08 | 10. |
| 31 | AUG | 0100 | 76 | 0.01 | 0.01 | 0.00 | 1. | * | 2 | MAR | 0100 | 259 | 0.31 | 0.24 | 0.07 | 11. |
| 1 | SEP | 0100 | 77 | 0.03 | 0.03 | 0.00 | 1. | * | 3 | MAR | 0100 | 260 | 0.14 | 0.09 | 0.05 | 6. |
| 2 | SEP | 0100 | 78 | 0.01 | 0.01 | 0.00 | 1. | * | 4 | MAR | 0100 | 261 | 0.02 | 0.02 | 0.00 | 1. |
| 3 | SEP | 0100 | 79 | 0.00 | 0.00 | 0.00 | 0. | * | 5 | MAR | 0100 | 262 | 0.01 | 0.01 | 0.00 | 0. |
| 4 | SEP | 0100 | 80 | 0.00 | 0.00 | 0.00 | 0. | * | 6 | MAR | 0100 | 263 | 0.00 | 0.00 | 0.00 | 0. |
| 5 | SEP | 0100 | 81 | 0.00 | 0.00 | 0.00 | 0. | * | 7 | MAR | 0100 | 264 | 0.35 | 0.13 | 0.21 | 16. |
| 6 | SEP | 0100 | 82 | 0.00 | 0.00 | 0.00 | 0. | * | 8 | MAR | 0100 | 265 | 0.29 | 0.12 | 0.17 | 22. |
| 7 | SEP | 0100 | 83 | 0.03 | 0.03 | 0.00 | 0. | * | 9 | MAR | 0100 | 266 | 0.14 | 0.09 | 0.05 | 17. |
| 8 | SEP | 0100 | 84 | 0.12 | 0.12 | 0.00 | 0. | * | 10 | MAR | 0100 | 267 | 0.32 | 0.21 | 0.12 | 47. |
| 9 | SEP | 0100 | 85 | 0.17 | 0.17 | 0.00 | 0. | * | 11 | MAR | 0100 | 268 | 0.47 | 0.18 | 0.29 | 69. |
| 10 | SEP | 0100 | 86 | 0.06 | 0.06 | 0.00 | 0. | * | 12 | MAR | 0100 | 269 | 0.00 | 0.00 | 0.00 | 36. |
| 11 | SEP | 0100 | 87 | 0.02 | 0.02 | 0.00 | 0. | * | 13 | MAR | 0100 | 270 | 0.30 | 0.20 | 0.10 | 9. |
| 12 | SEP | 0100 | 88 | 0.02 | 0.02 | 0.00 | 0. | * | 14 | MAR | 0100 | 271 | 0.14 | 0.09 | 0.05 | 8. |
| 13 | SEP | 0100 | 89 | 0.00 | 0.00 | 0.00 | 0. | * | 15 | MAR | 0100 | 272 | 0.73 | 0.18 | 0.55 | 34. |
| 14 | SEP | 0100 | 90 | 0.18 | 0.18 | 0.00 | 0. | * | 16 | MAR | 0100 | 273 | 0.54 | 0.18 | 0.36 | 55. |
| 15 | SEP | 0100 | 91 | 0.15 | 0.15 | 0.00 | 0. | * | 17 | MAR | 0100 | 274 | 0.00 | 0.00 | 0.00 | 27. |
| 16 | SEP | 0100 | 92 | 0.00 | 0.00 | 0.00 | 0. | * | 18 | MAR | 0100 | 275 | 0.00 | 0.00 | 0.00 | 8. |
| 17 | SEP | 0100 | 93 | 0.02 | 0.02 | 0.00 | 0. | * | 19 | MAR | 0100 | 276 | 0.15 | 0.10 | 0.06 | 8. |
| 18 | SEP | 0100 | 94 | 0.28 | 0.28 | 0.00 | 0. | * | 20 | MAR | 0100 | 277 | 0.17 | 0.10 | 0.07 | 11. |
| 19 | SEP | 0100 | 95 | 0.22 | 0.22 | 0.00 | 0. | * | 21 | MAR | 0100 | 278 | 0.07 | 0.03 | 0.04 | 7. |
| 20 | SEP | 0100 | 96 | 0.02 | 0.02 | 0.00 | 0. | * | 22 | MAR | 0100 | 279 | 0.00 | 0.00 | 0.00 | 0. |
| 21 | SEP | 0100 | 97 | 0.45 | 0.45 | 0.00 | 0. | * | 23 | MAR | 0100 | 280 | 0.30 | 0.20 | 0.10 | 2. |
| 22 | SEP | 0100 | 98 | 0.37 | 0.36 | 0.00 | 1. | * | 24 | MAR | 0100 | 281 | 0.00 | 0.00 | 0.00 | 2. |
| 23 | SEP | 0100 | 99 | 0.00 | 0.00 | 0.00 | 1. | * | 25 | MAR | 0100 | 282 | 0.00 | 0.00 | 0.00 | 2. |
| 24 | SEP | 0100 | 100 | 0.24 | 0.24 | 0.00 | 1. | * | 26 | MAR | 0100 | 283 | 0.00 | 0.00 | 0.00 | 1. |
| 25 | SEP | 0100 | 101 | 0.11 | 0.11 | 0.00 | 1. | * | 27 | MAR | 0100 | 284 | 0.50 | 0.27 | 0.27 | 15. |
| 26 | SEP | 0100 | 102 | 0.31 | 0.31 | 0.00 | 1. | * | 28 | MAR | 0100 | 285 | 0.42 | 0.21 | 0.22 | 26. |
| 27 | SEP | 0100 | 103 | 0.31 | 0.31 | 0.00 | 1. | * | 29 | MAR | 0100 | 286 | 0.00 | 0.00 | 0.00 | 15. |
| 28 | SEP | 0100 | 104 | 0.09 | 0.09 | 0.00 | 2. | * | 30 | MAR | 0100 | 287 | 0.00 | 0.00 | 0.00 | 4. |
| 29 | SEP | 0100 | 105 | 0.00 | 0.00 | 0.00 | 1. | * | 1 | APR | 0100 | 288 | 1.00 | 0.37 | 0.67 | 36. |
| 30 | SEP | 0100 | 106 | 0.05 | 0.05 | 0.00 | 1. | * | 2 | APR | 0100 | 289 | 0.84 | 0.20 | 0.54 | 68. |
| 1 | OCT | 0100 | 107 | 0.03 | 0.03 | 0.00 | 1. | * | 3 | APR | 0100 | 290 | 0.00 | 0.00 | 0.00 | 38. |
| 2 | OCT | 0100 | 108 | 0.00 | 0.00 | 0.00 | 1. | * | 4 | APR | 0100 | 291 | 0.00 | 0.00 | 0.00 | 9. |
| 3 | OCT | 0100 | 109 | 0.06 | 0.06 | 0.00 | 0. | * | 5 | APR | 0100 | 292 | 0.00 | 0.00 | 0.00 | 7. |
| 4 | OCT | 0100 | 110 | 0.03 | 0.03 | 0.00 | 0. | * | 6 | APR | 0100 | 293 | 0.25 | 0.17 | 0.09 | 10. |
| 5 | OCT | 0100 | 111 | 0.00 | 0.00 | 0.00 | 0. | * | 7 | APR | 0100 | 294 | 0.37 | 0.19 | 0.18 | 19. |
| 6 | OCT | 0100 | 112 | 0.00 | 0.00 | 0.00 | 0. | * | 8 | APR | 0100 | 295 | 0.13 | 0.13 | 0.00 | 15. |
| 7 | OCT | 0100 | 113 | 0.00 | 0.00 | 0.00 | 0. | * | 9 | APR | 0100 | 296 | 0.00 | 0.00 | 0.00 | 3. |
| 8 | OCT | 0100 | 114 | 0.08 | 0.08 | 0.00 | 0. | * | 10 | APR | 0100 | 297 | 0.42 | 0.27 | 0.15 | 11. |
| 9 | OCT | 0100 | 115 | 0.00 | 0.00 | 0.00 | 0. | * | 11 | APR | 0100 | 298 | 0.35 | 0.19 | 0.16 | 21. |
| 10 | OCT | 0100 | 116 | 0.00 | 0.00 | 0.00 | 0. | * | 12 | APR | 0100 | 299 | 0.29 | 0.18 | 0.12 | 19. |
| 11 | OCT | 0100 | 117 | 0.00 | 0.00 | 0.00 | 0. | * | 13 | APR | 0100 | 300 | 0.25 | 0.16 | 0.08 | 15. |
| 12 | OCT | 0100 | 118 | 0.00 | 0.00 | 0.00 | 0. | * | 14 | APR | 0100 | 301 | 0.00 | 0.00 | 0.00 | 9. |
| 13 | OCT | 0100 | 119 | 0.00 | 0.00 | 0.00 | 0. | * | 15 | APR | 0100 | 302 | 0.00 | 0.00 | 0.00 | 4. |
| 14 | OCT | 0100 | 120 | 0.00 | 0.00 | 0.00 | 0. | * | 16 | APR | 0100 | 303 | 0.64 | 0.24 | 0.30 | 19. |
| 15 | OCT | 0100 | 121 | 0.00 | 0.00 | 0.00 | 0. | * | 17 | APR | 0100 | 304 | 0.55 | 0.24 | 0.21 | 27. |
| 16 | OCT | 0100 | 122 | 0.00 | 0.00 | 0.00 | 0. | * | 18 | APR | 0100 | 305 | 0.00 | 0.00 | 0.00 | 23. |
| 17 | OCT | 0100 | 123 | 0.00 | 0.00 | 0.00 | 0. | * | 19 | APR | 0 | | | | | |

ALL2.CUT

| DATE | TIME | FLOW (CFS) | FLOW (MGD) | DATE | TIME | FLOW (CFS) | FLOW (MGD) |
|-------------|------|------------|------------|-------------|------|------------|------------|
| 7 JUL 0100 | 21 | 1. | 0. | 7 JAN 0100 | 205 | 5. | 0. |
| 8 JUL 0100 | 22 | 0. | 0. | 8 JAN 0100 | 206 | 4. | 0. |
| 9 JUL 0100 | 23 | 0. | 0. | 9 JAN 0100 | 207 | 3. | 0. |
| 10 JUL 0100 | 24 | 0. | 0. | 10 JAN 0100 | 208 | 4. | 0. |
| 11 JUL 0100 | 25 | 1. | 0. | 11 JAN 0100 | 209 | 14. | 0. |
| 12 JUL 0100 | 26 | 3. | 0. | 12 JAN 0100 | 210 | 21. | 0. |
| 13 JUL 0100 | 27 | 1. | 0. | 13 JAN 0100 | 211 | 16. | 0. |
| 14 JUL 0100 | 28 | 1. | 0. | 14 JAN 0100 | 212 | 13. | 0. |
| 15 JUL 0100 | 29 | 1. | 0. | 15 JAN 0100 | 213 | 7. | 0. |
| 16 JUL 0100 | 30 | 1. | 0. | 16 JAN 0100 | 214 | 10. | 0. |
| 17 JUL 0100 | 31 | 1. | 0. | 17 JAN 0100 | 215 | 19. | 0. |
| 18 JUL 0100 | 32 | 0. | 0. | 18 JAN 0100 | 216 | 11. | 0. |
| 19 JUL 0100 | 33 | 0. | 0. | 19 JAN 0100 | 217 | 21. | 0. |
| 20 JUL 0100 | 34 | 9. | 0. | 20 JAN 0100 | 218 | 40. | 0. |
| 21 JUL 0100 | 35 | 21. | 0. | 21 JAN 0100 | 219 | 35. | 0. |
| 22 JUL 0100 | 36 | 17. | 0. | 22 JAN 0100 | 220 | 27. | 0. |
| 23 JUL 0100 | 37 | 8. | 0. | 23 JAN 0100 | 221 | 15. | 0. |
| 24 JUL 0100 | 38 | 7. | 0. | 24 JAN 0100 | 222 | 5. | 0. |
| 25 JUL 0100 | 39 | 6. | 0. | 25 JAN 0100 | 223 | 4. | 0. |
| 26 JUL 0100 | 40 | 5. | 0. | 26 JAN 0100 | 224 | 3. | 0. |
| 27 JUL 0100 | 41 | 5. | 0. | 27 JAN 0100 | 225 | 6. | 0. |
| 28 JUL 0100 | 42 | 5. | 0. | 28 JAN 0100 | 226 | 8. | 0. |
| 29 JUL 0100 | 43 | 4. | 0. | 29 JAN 0100 | 227 | 4. | 0. |
| 30 JUL 0100 | 44 | 4. | 0. | 30 JAN 0100 | 228 | 1. | 0. |
| 31 JUL 0100 | 45 | 6. | 0. | 31 JAN 0100 | 229 | 1. | 0. |
| 1 AUG 0100 | 46 | 7. | 0. | 1 FEB 0100 | 230 | 1. | 0. |
| 2 AUG 0100 | 47 | 5. | 0. | 2 FEB 0100 | 231 | 1. | 0. |
| 3 AUG 0100 | 48 | 4. | 0. | 3 FEB 0100 | 232 | 11. | 0. |
| 4 AUG 0100 | 49 | 3. | 0. | 4 FEB 0100 | 233 | 1. | 0. |
| 5 AUG 0100 | 50 | 3. | 0. | 5 FEB 0100 | 234 | 7. | 0. |
| 6 AUG 0100 | 51 | 4. | 0. | 6 FEB 0100 | 235 | 9. | 0. |
| 7 AUG 0100 | 52 | 4. | 0. | 7 FEB 0100 | 236 | 3. | 0. |
| 8 AUG 0100 | 53 | 3. | 0. | 8 FEB 0100 | 237 | 1. | 0. |
| 9 AUG 0100 | 54 | 2. | 0. | 9 FEB 0100 | 238 | 1. | 0. |
| 10 AUG 0100 | 55 | 2. | 0. | 10 FEB 0100 | 239 | 1. | 0. |
| 11 AUG 0100 | 56 | 1. | 0. | 11 FEB 0100 | 240 | 0. | 0. |
| 12 AUG 0100 | 57 | 1. | 0. | 12 FEB 0100 | 241 | 0. | 0. |
| 13 AUG 0100 | 58 | 1. | 0. | 13 FEB 0100 | 242 | 0. | 0. |
| 14 AUG 0100 | 59 | 1. | 0. | 14 FEB 0100 | 243 | 7. | 0. |
| 15 AUG 0100 | 60 | 5. | 0. | 15 FEB 0100 | 244 | 41. | 0. |
| 16 AUG 0100 | 61 | 4. | 0. | 16 FEB 0100 | 245 | 41. | 0. |
| 17 AUG 0100 | 62 | 12. | 0. | 17 FEB 0100 | 246 | 31. | 0. |
| 18 AUG 0100 | 63 | 11. | 0. | 18 FEB 0100 | 247 | 7. | 0. |
| 19 AUG 0100 | 64 | 9. | 0. | 19 FEB 0100 | 248 | 5. | 0. |
| 20 AUG 0100 | 65 | 4. | 0. | 20 FEB 0100 | 249 | 4. | 0. |
| 21 AUG 0100 | 66 | 7. | 0. | 21 FEB 0100 | 250 | 4. | 0. |
| 22 AUG 0100 | 67 | 2. | 0. | 22 FEB 0100 | 251 | 7. | 0. |
| 23 AUG 0100 | 68 | 2. | 0. | 23 FEB 0100 | 252 | 5. | 0. |
| 24 AUG 0100 | 69 | 2. | 0. | 24 FEB 0100 | 253 | 9. | 0. |
| 25 AUG 0100 | 70 | 1. | 0. | 25 FEB 0100 | 254 | 6. | 0. |
| 26 AUG 0100 | 71 | 3. | 0. | 26 FEB 0100 | 255 | 2. | 0. |
| 27 AUG 0100 | 72 | 2. | 0. | 27 FEB 0100 | 256 | 1. | 0. |
| 28 AUG 0100 | 73 | 2. | 0. | 28 FEB 0100 | 257 | 1. | 0. |
| 29 AUG 0100 | 74 | 1. | 0. | 1 MAR 0100 | 258 | 30. | 0. |
| 30 AUG 0100 | 75 | 11. | 0. | 2 MAR 0100 | 259 | 111. | 0. |
| 31 AUG 0100 | 76 | 1. | 0. | 3 MAR 0100 | 260 | 69. | 0. |
| 1 SEP 0100 | 77 | 1. | 0. | 4 MAR 0100 | 261 | 13. | 0. |
| 2 SEP 0100 | 78 | 1. | 0. | 5 MAR 0100 | 262 | 9. | 0. |
| 3 SEP 0100 | 79 | 0. | 0. | 6 MAR 0100 | 263 | 7. | 0. |
| 4 SEP 0100 | 80 | 0. | 0. | 7 MAR 0100 | 264 | 16. | 0. |
| 5 SEP 0100 | 81 | 0. | 0. | 8 MAR 0100 | 265 | 25. | 0. |
| 6 SEP 0100 | 82 | 0. | 0. | 9 MAR 0100 | 266 | 17. | 0. |
| 7 SEP 0100 | 83 | 0. | 0. | 10 MAR 0100 | 267 | 43. | 0. |
| 8 SEP 0100 | 84 | 0. | 0. | 11 MAR 0100 | 268 | 48. | 0. |
| 9 SEP 0100 | 85 | 0. | 0. | 12 MAR 0100 | 269 | 36. | 0. |
| 10 SEP 0100 | 86 | 0. | 0. | 13 MAR 0100 | 270 | 9. | 0. |
| 11 SEP 0100 | 87 | 0. | 0. | 14 MAR 0100 | 271 | 9. | 0. |
| 12 SEP 0100 | 88 | 0. | 0. | 15 MAR 0100 | 272 | 34. | 0. |
| 13 SEP 0100 | 89 | 0. | 0. | 16 MAR 0100 | 273 | 55. | 0. |
| 14 SEP 0100 | 90 | 0. | 0. | 17 MAR 0100 | 274 | 29. | 0. |
| 15 SEP 0100 | 91 | 0. | 0. | 18 MAR 0100 | 275 | 8. | 0. |
| 16 SEP 0100 | 92 | 0. | 0. | 19 MAR 0100 | 276 | 9. | 0. |

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| PEAK FLOW | TIME | MAXIMUM AVERAGE FLOW | | | | |
|-----------|---------|----------------------|------------|--------|---------|--------|
| (CFS) | (HR) | 10-DAY | 30-DAY | 90-DAY | 365-DAY | |
| 111. | 8193.00 | (CFS) | 37. | 25. | 21. | 8. |
| | | (INCHES) | 1.695 | 1.459 | 1.825 | 30.873 |
| | | (AC-FT) | 733. | 1490. | 1695. | 6125. |
| | | CUMULATIVE AREA = | 3.73 SQ MI | | | |

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PLAN 2 INPUT DATA FOR STATION SOME ARE SAME AS FOR PLAN 1

IT BR SUBS

19 KO OUTPUT CONTROL VARIABLES
IPRNT 2 PRINT CONTROL
IPLOT 0 PLOT CONTROL
QSCALE 0. HYDROGRAPH PLOT SCALE

SUBBASIN RUNOFF DATA

20 BA SUBBASIN CHARACTERISTICS
TAREA 0.75 SUBBASIN AREA
SNAP 2000000.00 NORMAL ANNUAL PRECIPITATION
RATIO 0.00 RATIO OF HYDROGRAPH

PRECIPITATION DATA

12 PB STORM 60.69 BASIN TOTAL PRECIPITATION

12 PI INCREMENTAL PRECIPITATION PATTERN

| | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 0.00 | 0.27 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | 0.17 | 0.15 | 0.27 | 0.45 | 0.19 | 0.00 | 0.00 | 0.11 | 0.09 | | |
| 0.00 | 0.00 | 0.42 | 0.36 | 0.00 | 0.00 | 0.01 | 0.00 | 0.17 | 0.15 | | |
| 0.00 | 0.29 | 1.28 | 0.68 | 0.24 | 0.21 | 0.19 | 0.16 | 0.30 | 0.28 | | |
| 0.03 | 0.00 | 0.53 | 0.45 | 0.12 | 0.10 | 0.00 | 0.03 | 0.38 | 0.30 | | |
| 0.13 | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.94 | | |
| 0.42 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.32 | 0.11 | | |
| 0.09 | 0.00 | 0.00 | 0.00 | 0.01 | 0.03 | 0.01 | 0.38 | 0.32 | 0.11 | | |
| 0.00 | 0.03 | 0.14 | 0.17 | 0.04 | 0.02 | 0.02 | 0.00 | 0.00 | 0.00 | | |
| 0.00 | 0.02 | 0.28 | 0.72 | 0.42 | 0.45 | 0.17 | 0.00 | 0.16 | 0.15 | | |
| 0.35 | 1.11 | 0.09 | 0.00 | 0.00 | 0.05 | 0.00 | 0.06 | 0.05 | 0.00 | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 0.00 | 0.19 | 0.16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.16 | 0.17 | 0.00 | 0.00 | 0.15 | 0.04 | | |
| 0.38 | 0.19 | 0.92 | 0.30 | 0.40 | 0.33 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 0.02 | 0.04 | 0.35 | 0.56 | 0.24 | 0.00 | 0.00 | 0.19 | 0.17 | 0.18 | | |
| 0.15 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 0.00 | 0.00 | 0.14 | 0.28 | 0.00 | 0.00 | 0.11 | 0.06 | 0.00 | 0.39 | | |
| 0.32 | 0.00 | 0.00 | 0.00 | 0.11 | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 0.48 | 0.34 | 0.00 | 0.00 | 0.00 | 0.07 | 0.16 | 0.42 | 0.24 | 0.22 | | |
| 0.19 | 0.00 | 0.27 | 0.29 | 0.05 | 0.53 | 0.48 | 0.37 | 0.29 | 0.05 | | |
| 0.05 | 0.00 | 0.00 | 0.16 | 0.14 | 0.00 | 0.00 | 0.00 | 0.10 | 0.09 | | |
| 0.00 | 0.11 | 0.30 | 0.18 | 0.03 | 0.03 | 0.01 | 0.01 | 0.00 | 0.00 | | |
| 0.00 | 0.31 | 0.00 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 | | |
| 0.21 | 0.18 | 0.00 | 0.55 | 0.10 | 0.01 | 1.31 | 1.31 | 0.14 | 0.00 | | |
| 0.01 | 0.00 | 0.35 | 0.29 | 0.14 | 0.02 | 0.07 | 0.00 | 0.00 | 0.11 | | |
| 0.72 | 0.37 | 0.00 | 0.00 | 0.15 | 0.17 | 0.03 | 0.00 | 0.00 | 0.00 | | |
| 0.00 | 0.00 | 0.00 | 0.42 | 0.00 | 0.00 | 1.02 | 0.84 | 0.00 | 0.00 | | |
| 0.00 | 0.29 | 0.37 | 0.13 | 0.00 | 0.42 | 0.35 | 0.29 | 0.25 | 0.00 | | |
| 0.00 | 0.44 | 0.55 | 0.00 | 0.00 | 0.78 | 0.05 | 0.00 | 0.07 | 0.03 | | |
| 0.00 | 0.00 | 0.40 | 0.33 | 1.24 | 1.11 | 0.04 | 0.00 | 0.04 | 0.33 | | |
| 0.74 | 0.41 | 0.53 | 0.45 | 0.00 | 0.00 | 0.07 | 0.15 | 0.09 | 0.01 | | |
| 0.00 | 0.00 | 0.11 | 0.15 | 0.37 | 0.30 | 0.03 | 0.22 | 0.68 | 0.42 | | |
| 0.08 | 0.01 | 0.00 | 0.12 | 0.11 | 0.00 | 0.00 | 0.00 | 0.36 | 1.01 | | |
| 0.40 | 0.31 | 0.28 | 0.01 | 0.37 | 0.31 | 0.00 | 0.42 | 0.43 | 0.00 | | |
| 0.03 | 0.04 | 0.01 | | | | | | | | | |

22 LS SCS LOSS RATE
SYTR 0.02 INITIAL ABSTRACTION
CRVNR 99.00 CURVE NUMBER
RTIMP 99.00 PERCENT IMPERVIOUS AREA

21 UC CLARK UNITGRAPH
TC 1.00 TIME OF CONCENTRATION
K 1.00 STORAGE COEFFICIENT

SYNTHETIC ACCUMULATED-AREA VS. TIME CURVE WILL BE USED

INCREASED TO MINIMUM OF 0.5

*****ES**** ZSRIS: FATAL ERROR - NUMBER OF VALUES TO STORE IS LESS THAN 1
VALS 0
#NAME: ///API//IDAY/COMPUTED/

UNIT HYDROGRAPH PARAMETERS
CLARK TC= 24.00 HR. P= 12.00 HR
SKYER TP= 19.66 HR. CP= 0.50

UNIT HYDROGRAPH
2 END-OF-PERIOD ORDINATES

0. 2.

HYDROGRAPH AT STATION SUBS

| DA | MON | HRMN | ORD | RAIN | LOSS | EXCESS | COMP | Q | DA | MON | HRMN | ORD | RAIN | LOSS | EXCESS | COMP | Q |
|----|-----|------|-----|------|------|--------|------|---|----|-----|------|-----|------|------|--------|------|---|
| 17 | JUN | 0100 | 1 | 0.00 | 0.00 | 0.00 | 0. | . | 17 | DEC | 0100 | 184 | 0.34 | 0.00 | 0.34 | 2. | . |
| 18 | JUN | 0100 | 2 | 0.00 | 0.00 | 0.00 | 0. | . | 18 | DEC | 0100 | 185 | 0.28 | 0.00 | 0.28 | 4. | . |
| 19 | JUN | 0100 | 3 | 0.21 | 0.00 | 0.21 | 3. | . | 19 | DEC | 0100 | 186 | 0.00 | 0.00 | 0.00 | 3. | . |
| 20 | JUN | 0100 | 4 | 0.23 | 0.00 | 0.23 | 3. | . | 20 | DEC | 0100 | 187 | 0.05 | 0.00 | 0.05 | 1. | . |
| 21 | JUN | 0100 | 5 | 0.00 | 0.00 | 0.00 | 2. | . | 21 | DEC | 0100 | 188 | 0.11 | 0.00 | 0.11 | 2. | . |
| 22 | JUN | 0100 | 6 | 0.00 | 0.00 | 0.00 | 0. | . | 22 | DEC | 0100 | 189 | 0.04 | 0.00 | 0.04 | 2. | . |

| | | | | | | | | | | | | |
|-------------|-----|------|------|------|-----|---|-------------|-----|------|------|------|-----|
| 22 JUN 0100 | 7 | 0.00 | 0.00 | 0.00 | 0. | * | A112.out | 190 | 0.00 | 0.00 | 0.00 | 3. |
| 23 JUN 0100 | 8 | 0.00 | 0.00 | 0.00 | 0. | * | 23 DEC 0100 | 191 | 0.38 | 0.00 | 0.38 | 4. |
| 24 JUN 0100 | 9 | 0.00 | 0.00 | 0.00 | 0. | * | 24 DEC 0100 | 192 | 0.22 | 0.00 | 0.22 | 7. |
| 25 JUN 0100 | 10 | 0.00 | 0.00 | 0.00 | 0. | * | 25 DEC 0100 | 193 | 0.00 | 0.00 | 0.00 | 3. |
| 26 JUN 0100 | 11 | 0.00 | 0.00 | 0.00 | 0. | * | 26 DEC 0100 | 194 | 0.00 | 0.00 | 0.00 | 0. |
| 27 JUN 0100 | 12 | 0.00 | 0.00 | 0.00 | 0. | * | 27 DEC 0100 | 195 | 0.00 | 0.00 | 0.00 | 0. |
| 28 JUN 0100 | 13 | 0.17 | 0.00 | 0.17 | 0. | * | 28 DEC 0100 | 196 | 0.11 | 0.00 | 0.11 | 1. |
| 29 JUN 0100 | 14 | 0.15 | 0.00 | 0.15 | 0. | * | 29 DEC 0100 | 197 | 0.09 | 0.00 | 0.09 | 2. |
| 30 JUN 0100 | 15 | 0.27 | 0.00 | 0.27 | 0. | * | 30 DEC 0100 | 198 | 0.00 | 0.00 | 0.00 | 1. |
| 1 JUL 0100 | 16 | 0.45 | 0.00 | 0.45 | 0. | * | 1 JAN 0100 | 199 | 0.00 | 0.00 | 0.00 | 0. |
| 2 JUL 0100 | 17 | 0.18 | 0.00 | 0.18 | 0. | * | 2 JAN 0100 | 200 | 0.00 | 0.00 | 0.00 | 0. |
| 3 JUL 0100 | 18 | 0.00 | 0.00 | 0.00 | 0. | * | 3 JAN 0100 | 201 | 0.00 | 0.00 | 0.00 | 0. |
| 4 JUL 0100 | 19 | 0.00 | 0.00 | 0.00 | 0. | * | 4 JAN 0100 | 202 | 0.68 | 0.00 | 0.68 | 6. |
| 5 JUL 0100 | 20 | 0.11 | 0.00 | 0.11 | 0. | * | 5 JAN 0100 | 203 | 0.59 | 0.00 | 0.59 | 11. |
| 6 JUL 0100 | 21 | 0.29 | 0.00 | 0.29 | 0. | * | 6 JAN 0100 | 204 | 0.00 | 0.00 | 0.00 | 5. |
| 7 JUL 0100 | 22 | 0.00 | 0.00 | 0.00 | 0. | * | 7 JAN 0100 | 205 | 0.00 | 0.00 | 0.00 | 0. |
| 8 JUL 0100 | 23 | 0.00 | 0.00 | 0.00 | 0. | * | 8 JAN 0100 | 206 | 0.00 | 0.00 | 0.00 | 1. |
| 9 JUL 0100 | 24 | 0.42 | 0.00 | 0.42 | 0. | * | 9 JAN 0100 | 207 | 0.07 | 0.00 | 0.07 | 1. |
| 10 JUL 0100 | 25 | 0.34 | 0.00 | 0.34 | 0. | * | 10 JAN 0100 | 208 | 0.14 | 0.00 | 0.14 | 2. |
| 11 JUL 0100 | 26 | 0.00 | 0.00 | 0.00 | 0. | * | 11 JAN 0100 | 209 | 0.42 | 0.00 | 0.42 | 5. |
| 12 JUL 0100 | 27 | 0.00 | 0.00 | 0.00 | 0. | * | 12 JAN 0100 | 210 | 0.24 | 0.00 | 0.24 | 4. |
| 13 JUL 0100 | 28 | 0.01 | 0.00 | 0.01 | 0. | * | 13 JAN 0100 | 211 | 0.22 | 0.00 | 0.22 | 4. |
| 14 JUL 0100 | 29 | 0.00 | 0.00 | 0.00 | 0. | * | 14 JAN 0100 | 212 | 0.18 | 0.00 | 0.18 | 6. |
| 15 JUL 0100 | 30 | 0.17 | 0.00 | 0.17 | 0. | * | 15 JAN 0100 | 213 | 0.00 | 0.00 | 0.00 | 2. |
| 16 JUL 0100 | 31 | 0.15 | 0.00 | 0.15 | 0. | * | 16 JAN 0100 | 214 | 0.27 | 0.00 | 0.27 | 3. |
| 17 JUL 0100 | 32 | 0.00 | 0.00 | 0.00 | 0. | * | 17 JAN 0100 | 215 | 0.28 | 0.00 | 0.28 | 5. |
| 18 JUL 0100 | 33 | 0.29 | 0.00 | 0.29 | 0. | * | 18 JAN 0100 | 216 | 0.05 | 0.00 | 0.05 | 3. |
| 19 JUL 0100 | 34 | 1.28 | 0.00 | 1.28 | 15. | * | 19 JAN 0100 | 217 | 0.03 | 0.00 | 0.03 | 0. |
| 20 JUL 0100 | 35 | 0.00 | 0.00 | 0.00 | 20. | * | 20 JAN 0100 | 218 | 0.48 | 0.00 | 0.48 | 0. |
| 21 JUL 0100 | 36 | 0.24 | 0.00 | 0.24 | 11. | * | 21 JAN 0100 | 219 | 0.37 | 0.00 | 0.37 | 4. |
| 22 JUL 0100 | 37 | 0.21 | 0.00 | 0.21 | 4. | * | 22 JAN 0100 | 220 | 0.29 | 0.00 | 0.29 | 6. |
| 23 JUL 0100 | 38 | 0.19 | 0.00 | 0.19 | 0. | * | 23 JAN 0100 | 221 | 0.05 | 0.00 | 0.05 | 2. |
| 24 JUL 0100 | 39 | 0.16 | 0.00 | 0.16 | 0. | * | 24 JAN 0100 | 222 | 0.05 | 0.00 | 0.05 | 1. |
| 25 JUL 0100 | 40 | 0.30 | 0.00 | 0.30 | 4. | * | 25 JAN 0100 | 223 | 0.00 | 0.00 | 0.00 | 0. |
| 26 JUL 0100 | 41 | 0.28 | 0.00 | 0.28 | 5. | * | 26 JAN 0100 | 224 | 0.00 | 0.00 | 0.00 | 0. |
| 27 JUL 0100 | 42 | 0.03 | 0.00 | 0.03 | 0. | * | 27 JAN 0100 | 225 | 0.14 | 0.00 | 0.14 | 3. |
| 28 JUL 0100 | 43 | 0.00 | 0.00 | 0.00 | 0. | * | 28 JAN 0100 | 226 | 0.00 | 0.00 | 0.00 | 0. |
| 29 JUL 0100 | 44 | 0.53 | 0.00 | 0.53 | 5. | * | 29 JAN 0100 | 227 | 0.00 | 0.00 | 0.00 | 0. |
| 30 JUL 0100 | 45 | 0.45 | 0.00 | 0.45 | 9. | * | 30 JAN 0100 | 228 | 0.00 | 0.00 | 0.00 | 0. |
| 1 AUG 0100 | 46 | 0.12 | 0.00 | 0.12 | 2. | * | 31 JAN 0100 | 229 | 0.00 | 0.00 | 0.00 | 0. |
| 2 AUG 0100 | 47 | 0.10 | 0.00 | 0.10 | 2. | * | 1 FEB 0100 | 230 | 0.10 | 0.00 | 0.10 | 1. |
| 3 AUG 0100 | 48 | 0.00 | 0.00 | 0.00 | 1. | * | 2 FEB 0100 | 231 | 0.09 | 0.00 | 0.09 | 2. |
| 4 AUG 0100 | 49 | 0.03 | 0.00 | 0.03 | 0. | * | 3 FEB 0100 | 232 | 0.00 | 0.00 | 0.00 | 1. |
| 5 AUG 0100 | 50 | 0.39 | 0.00 | 0.39 | 4. | * | 4 FEB 0100 | 233 | 0.21 | 0.00 | 0.21 | 1. |
| 6 AUG 0100 | 51 | 0.39 | 0.00 | 0.39 | 6. | * | 5 FEB 0100 | 234 | 0.30 | 0.00 | 0.30 | 4. |
| 7 AUG 0100 | 52 | 0.13 | 0.00 | 0.13 | 4. | * | 6 FEB 0100 | 235 | 0.18 | 0.00 | 0.18 | 3. |
| 8 AUG 0100 | 53 | 0.11 | 0.00 | 0.11 | 2. | * | 7 FEB 0100 | 236 | 0.03 | 0.00 | 0.03 | 2. |
| 9 AUG 0100 | 54 | 0.00 | 0.00 | 0.00 | 1. | * | 8 FEB 0100 | 237 | 0.03 | 0.00 | 0.03 | 1. |
| 10 AUG 0100 | 55 | 0.00 | 0.00 | 0.00 | 0. | * | 9 FEB 0100 | 238 | 0.01 | 0.00 | 0.01 | 0. |
| 11 AUG 0100 | 56 | 0.00 | 0.00 | 0.00 | 0. | * | 10 FEB 0100 | 239 | 0.01 | 0.00 | 0.01 | 0. |
| 12 AUG 0100 | 57 | 0.00 | 0.00 | 0.00 | 0. | * | 11 FEB 0100 | 240 | 0.00 | 0.00 | 0.00 | 0. |
| 13 AUG 0100 | 58 | 0.00 | 0.00 | 0.00 | 0. | * | 12 FEB 0100 | 241 | 0.00 | 0.00 | 0.00 | 0. |
| 14 AUG 0100 | 59 | 0.00 | 0.00 | 0.00 | 0. | * | 13 FEB 0100 | 242 | 0.00 | 0.00 | 0.00 | 0. |
| 15 AUG 0100 | 60 | 0.00 | 0.00 | 0.00 | 0. | * | 14 FEB 0100 | 243 | 0.31 | 0.00 | 0.31 | 12. |
| 16 AUG 0100 | 61 | 0.94 | 0.00 | 0.94 | 9. | * | 15 FEB 0100 | 244 | 0.99 | 0.00 | 0.99 | 15. |
| 17 AUG 0100 | 62 | 0.82 | 0.00 | 0.82 | 17. | * | 16 FEB 0100 | 245 | 0.61 | 0.00 | 0.61 | 8. |
| 18 AUG 0100 | 63 | 0.02 | 0.00 | 0.02 | 0. | * | 17 FEB 0100 | 246 | 0.00 | 0.00 | 0.00 | 0. |
| 19 AUG 0100 | 64 | 0.00 | 0.00 | 0.00 | 0. | * | 18 FEB 0100 | 247 | 0.00 | 0.00 | 0.00 | 0. |
| 20 AUG 0100 | 65 | 0.00 | 0.00 | 0.00 | 0. | * | 19 FEB 0100 | 248 | 0.00 | 0.00 | 0.00 | 0. |
| 21 AUG 0100 | 66 | 0.00 | 0.00 | 0.00 | 0. | * | 20 FEB 0100 | 249 | 0.00 | 0.00 | 0.00 | 0. |
| 22 AUG 0100 | 67 | 0.00 | 0.00 | 0.00 | 0. | * | 21 FEB 0100 | 250 | 0.08 | 0.00 | 0.08 | 1. |
| 23 AUG 0100 | 68 | 0.00 | 0.00 | 0.00 | 0. | * | 22 FEB 0100 | 251 | 0.07 | 0.00 | 0.07 | 1. |
| 24 AUG 0100 | 69 | 0.38 | 0.00 | 0.38 | 4. | * | 23 FEB 0100 | 252 | 0.21 | 0.00 | 0.21 | 3. |
| 25 AUG 0100 | 70 | 0.32 | 0.00 | 0.32 | 7. | * | 24 FEB 0100 | 253 | 0.18 | 0.00 | 0.18 | 4. |
| 26 AUG 0100 | 71 | 0.11 | 0.00 | 0.11 | 4. | * | 25 FEB 0100 | 254 | 0.00 | 0.00 | 0.00 | 2. |
| 27 AUG 0100 | 72 | 0.09 | 0.00 | 0.09 | 2. | * | 26 FEB 0100 | 255 | 0.05 | 0.00 | 0.05 | 1. |
| 28 AUG 0100 | 73 | 0.00 | 0.00 | 0.00 | 1. | * | 27 FEB 0100 | 256 | 0.10 | 0.00 | 0.10 | 1. |
| 29 AUG 0100 | 74 | 0.00 | 0.00 | 0.00 | 0. | * | 28 FEB 0100 | 257 | 0.05 | 0.00 | 0.05 | 1. |
| 30 AUG 0100 | 75 | 0.00 | 0.00 | 0.00 | 0. | * | 1 MAR 0100 | 258 | 1.35 | 0.00 | 1.35 | 13. |
| 31 AUG 0100 | 76 | 0.01 | 0.00 | 0.01 | 0. | * | 2 MAR 0100 | 259 | 1.31 | 0.00 | 1.31 | 25. |
| 1 SEP 0100 | 77 | 0.03 | 0.00 | 0.03 | 0. | * | 3 MAR 0100 | 260 | 0.14 | 0.00 | 0.14 | 14. |
| 2 SEP 0100 | 78 | 0.01 | 0.00 | 0.01 | 0. | * | 4 MAR 0100 | 261 | 0.02 | 0.00 | 0.02 | 1. |
| 3 SEP 0100 | 79 | 0.00 | 0.00 | 0.00 | 0. | * | 5 MAR 0100 | 262 | 0.01 | 0.00 | 0.01 | 0. |
| 4 SEP 0100 | 80 | 0.00 | 0.00 | 0.00 | 0. | * | 6 MAR 0100 | 263 | 0.00 | 0.00 | 0.00 | 0. |
| 5 SEP 0100 | 81 | 0.00 | 0.00 | 0.00 | 0. | * | 7 MAR 0100 | 264 | 0.35 | 0.00 | 0.35 | 3. |
| 6 SEP 0100 | 82 | 0.00 | 0.00 | 0.00 | 0. | * | 8 MAR 0100 | 265 | 0.29 | 0.00 | 0.29 | 6. |
| 7 SEP 0100 | 83 | 0.03 | 0.00 | 0.03 | 0. | * | 9 MAR 0100 | 266 | 0.14 | 0.00 | 0.14 | 4. |
| 8 SEP 0100 | 84 | 0.14 | 0.00 | 0.14 | 2. | * | 10 MAR 0100 | 267 | 0.92 | 0.00 | 0.92 | 10. |
| 9 SEP 0100 | 85 | 0.17 | 0.00 | 0.17 | 3. | * | 11 MAR 0100 | 268 | 0.67 | 0.00 | 0.67 | 15. |
| 10 SEP 0100 | 86 | 0.06 | 0.00 | 0.06 | 2. | * | 12 MAR 0100 | 269 | 0.00 | 0.00 | 0.00 | 0. |
| 11 SEP 0100 | 87 | 0.02 | 0.00 | 0.02 | 1. | * | 13 MAR 0100 | 270 | 0.00 | 0.00 | 0.00 | 0. |
| 12 SEP 0100 | 88 | 0.02 | 0.00 | 0.02 | 0. | * | 14 MAR 0100 | 271 | 0.11 | 0.00 | 0.11 | 1. |
| 13 SEP 0100 | 89 | 0.00 | 0.00 | 0.00 | 0. | * | 15 MAR 0100 | 272 | 0.73 | 0.00 | 0.73 | 8. |
| 14 SEP 0100 | 90 | 0.18 | 0.00 | 0.18 | 0. | * | 16 MAR 0100 | 273 | 0.54 | 0.00 | 0.54 | 12. |
| 15 SEP 0100 | 91 | 0.75 | 0.00 | 0.75 | 3. | * | 17 MAR 0100 | 274 | 0.00 | 0.00 | 0.00 | 0. |
| 16 SEP 0100 | 92 | 0.00 | 0.00 | 0.00 | 1. | * | 18 MAR 0100 | 275 | 0.00 | 0.00 | 0.00 | 0. |
| 17 SEP 0100 | 93 | 0.02 | 0.00 | 0.02 | 0. | * | 19 MAR 0100 | 276 | 0.15 | 0.00 | 0.15 | 1. |
| 18 SEP 0100 | 94 | 0.28 | 0.00 | 0.28 | 3. | * | 20 MAR 0100 | 277 | 0.27 | 0.00 | 0.27 | 3. |
| 19 SEP 0100 | 95 | 0.22 | 0.00 | 0.22 | 5. | * | 21 MAR 0100 | 278 | 0.03 | 0.00 | 0.03 | 2. |
| 20 SEP 0100 | 96 | 0.02 | 0.00 | 0.02 | 2. | * | 22 MAR 0100 | 279 | 0.00 | 0.00 | 0.00 | 0. |
| 21 SEP 0100 | 97 | 0.45 | 0.00 | 0.45 | 4. | * | 23 MAR 0100 | 280 | 0.00 | 0.00 | 0.00 | 0. |
| 22 SEP 0100 | 98 | 0.37 | 0.00 | 0.37 | 8. | * | 24 MAR 0100 | 281 | 0.00 | 0.00 | 0.00 | 0. |
| 23 SEP 0100 | 99 | 0.00 | 0.00 | 0.00 | 3. | * | 25 MAR 0100 | 282 | 0.00 | 0.00 | 0.00 | 0. |
| 24 SEP 0100 | 100 | 0.24 | 0.00 | 0.24 | 2. | * | 26 MAR 0100 | 283 | 0.00 | 0.00 | 0.00 | 0. |
| 25 SEP 0100 | 101 | 0.33 | 0.00 | 0.33 | 5. | * | 27 MAR 0100 | 284 | 0.50 | 0.00 | 0.50 | 6. |
| 26 SEP 0100 | 102 | 0.05 | 0.00 | 0.05 | 0. | * | 28 MAR 0100 | 285 | 0.42 | 0.00 | 0.42 | 8. |
| 27 SEP 0100 | 103 | 0.31 | 0.00 | 0.31 | 6. | * | 29 MAR 0100 | 286 | 0.00 | 0.00 | 0.00 | 4. |
| 28 SEP 0100 | 104 | 0.09 | 0.00 | 0.09 | 4. | * | 30 MAR 0100 | 287 | 0.00 | 0.00 | 0.00 | 0. |
| 29 SEP 0100 | 105 | 0.00 | 0.00 | 0.00 | 1. | * | 31 MAR 0100 | 288 | 1.00 | 0.00 | 1.00 | 9. |

| DATE | TIME | INCHES | AC-FT | 10-DAY | 30-DAY | 90-DAY | 180-DAY | STATION |
|--------|------|--------|-------|--------|--------|--------|---------|-----------------|
| 30 SEP | 0100 | 108 | 0.05 | 0.00 | 0.05 | 1. | .. | Alt2.out |
| 1 OCT | 0100 | 107 | 0.05 | 0.00 | 0.05 | 1. | .. | 1 APR 0100 289 |
| 2 OCT | 0100 | 108 | 0.00 | 0.00 | 0.00 | 2. | .. | 2 APR 0100 290 |
| 3 OCT | 0100 | 109 | 0.08 | 0.00 | 0.06 | 1. | .. | 3 APR 0100 291 |
| 4 OCT | 0100 | 110 | 0.05 | 0.00 | 0.05 | 1. | .. | 4 APR 0100 292 |
| 5 OCT | 0100 | 111 | 0.00 | 0.00 | 0.00 | 0. | .. | 5 APR 0100 293 |
| 6 OCT | 0100 | 112 | 0.00 | 0.00 | 0.00 | 0. | .. | 6 APR 0100 294 |
| 7 OCT | 0100 | 113 | 0.00 | 0.00 | 0.00 | 0. | .. | 7 APR 0100 295 |
| 8 OCT | 0100 | 114 | 0.06 | 0.00 | 0.06 | 1. | .. | 8 APR 0100 296 |
| 9 OCT | 0100 | 115 | 0.06 | 0.00 | 0.06 | 1. | .. | 9 APR 0100 297 |
| 10 OCT | 0100 | 116 | 0.00 | 0.00 | 0.00 | 1. | .. | 10 APR 0100 298 |
| 11 OCT | 0100 | 117 | 0.00 | 0.00 | 0.00 | 0. | .. | 11 APR 0100 299 |
| 12 OCT | 0100 | 118 | 0.00 | 0.00 | 0.00 | 0. | .. | 12 APR 0100 300 |
| 13 OCT | 0100 | 119 | 0.00 | 0.00 | 0.00 | 0. | .. | 13 APR 0100 301 |
| 14 OCT | 0100 | 120 | 0.00 | 0.00 | 0.00 | 0. | .. | 14 APR 0100 302 |
| 15 OCT | 0100 | 121 | 0.00 | 0.00 | 0.00 | 0. | .. | 15 APR 0100 303 |
| 16 OCT | 0100 | 122 | 0.00 | 0.00 | 0.00 | 0. | .. | 16 APR 0100 304 |
| 17 OCT | 0100 | 123 | 0.00 | 0.00 | 0.00 | 0. | .. | 17 APR 0100 305 |
| 18 OCT | 0100 | 124 | 0.00 | 0.00 | 0.00 | 0. | .. | 18 APR 0100 306 |
| 19 OCT | 0100 | 125 | 0.00 | 0.00 | 0.00 | 0. | .. | 19 APR 0100 307 |
| 20 OCT | 0100 | 126 | 0.00 | 0.00 | 0.00 | 0. | .. | 20 APR 0100 308 |
| 21 OCT | 0100 | 127 | 0.00 | 0.00 | 0.00 | 0. | .. | 21 APR 0100 309 |
| 22 OCT | 0100 | 128 | 0.00 | 0.00 | 0.00 | 0. | .. | 22 APR 0100 310 |
| 23 OCT | 0100 | 129 | 0.00 | 0.00 | 0.00 | 0. | .. | 23 APR 0100 311 |
| 24 OCT | 0100 | 130 | 0.00 | 0.00 | 0.00 | 0. | .. | 24 APR 0100 312 |
| 25 OCT | 0100 | 131 | 0.00 | 0.00 | 0.00 | 0. | .. | 25 APR 0100 313 |
| 26 OCT | 0100 | 132 | 0.00 | 0.00 | 0.00 | 0. | .. | 26 APR 0100 314 |
| 27 OCT | 0100 | 133 | 0.19 | 0.00 | 0.19 | 2. | .. | 27 APR 0100 315 |
| 28 OCT | 0100 | 134 | 0.16 | 0.00 | 0.16 | 3. | .. | 28 APR 0100 316 |
| 29 OCT | 0100 | 135 | 0.00 | 0.00 | 0.00 | 2. | .. | 29 APR 0100 317 |
| 30 OCT | 0100 | 136 | 0.00 | 0.00 | 0.00 | 0. | .. | 30 APR 0100 318 |
| 31 OCT | 0100 | 137 | 0.11 | 0.00 | 0.11 | 3. | .. | 1 MAY 0100 319 |
| 1 NOV | 0100 | 138 | 0.74 | 0.00 | 0.74 | 10. | .. | 2 MAY 0100 320 |
| 2 NOV | 0100 | 139 | 0.42 | 0.00 | 0.42 | 11. | .. | 3 MAY 0100 321 |
| 3 NOV | 0100 | 140 | 0.03 | 0.00 | 0.03 | 4. | .. | 4 MAY 0100 322 |
| 4 NOV | 0100 | 141 | 0.00 | 0.00 | 0.00 | 0. | .. | 5 MAY 0100 323 |
| 5 NOV | 0100 | 142 | 0.00 | 0.00 | 0.00 | 0. | .. | 6 MAY 0100 324 |
| 6 NOV | 0100 | 143 | 0.00 | 0.00 | 0.00 | 0. | .. | 7 MAY 0100 325 |
| 7 NOV | 0100 | 144 | 0.00 | 0.00 | 0.00 | 0. | .. | 8 MAY 0100 326 |
| 8 NOV | 0100 | 145 | 0.00 | 0.00 | 0.00 | 0. | .. | 9 MAY 0100 327 |
| 9 NOV | 0100 | 146 | 0.18 | 0.00 | 0.18 | 2. | .. | 10 MAY 0100 328 |
| 10 NOV | 0100 | 147 | 0.17 | 0.00 | 0.17 | 2. | .. | 11 MAY 0100 329 |
| 11 NOV | 0100 | 148 | 0.02 | 0.00 | 0.02 | 0. | .. | 12 MAY 0100 330 |
| 12 NOV | 0100 | 149 | 0.03 | 0.00 | 0.03 | 0. | .. | 13 MAY 0100 331 |
| 13 NOV | 0100 | 150 | 0.15 | 0.00 | 0.15 | 2. | .. | 14 MAY 0100 332 |
| 14 NOV | 0100 | 151 | 0.56 | 0.00 | 0.56 | 7. | .. | 15 MAY 0100 333 |
| 15 NOV | 0100 | 152 | 0.38 | 0.00 | 0.38 | 6. | .. | 16 MAY 0100 334 |
| 16 NOV | 0100 | 153 | 0.19 | 0.00 | 0.19 | 2. | .. | 17 MAY 0100 335 |
| 17 NOV | 0100 | 154 | 0.52 | 0.00 | 0.52 | 7. | .. | 18 MAY 0100 336 |
| 18 NOV | 0100 | 155 | 0.30 | 0.00 | 0.30 | 4. | .. | 19 MAY 0100 337 |
| 19 NOV | 0100 | 156 | 0.40 | 0.00 | 0.40 | 5. | .. | 20 MAY 0100 338 |
| 20 NOV | 0100 | 157 | 0.33 | 0.00 | 0.33 | 4. | .. | 21 MAY 0100 339 |
| 21 NOV | 0100 | 158 | 0.00 | 0.00 | 0.00 | 0. | .. | 22 MAY 0100 340 |
| 22 NOV | 0100 | 159 | 0.00 | 0.00 | 0.00 | 0. | .. | 23 MAY 0100 341 |
| 23 NOV | 0100 | 160 | 0.00 | 0.00 | 0.00 | 0. | .. | 24 MAY 0100 342 |
| 24 NOV | 0100 | 161 | 0.02 | 0.00 | 0.02 | 0. | .. | 25 MAY 0100 343 |
| 25 NOV | 0100 | 162 | 0.02 | 0.00 | 0.02 | 0. | .. | 26 MAY 0100 344 |
| 26 NOV | 0100 | 163 | 0.04 | 0.00 | 0.04 | 1. | .. | 27 MAY 0100 345 |
| 27 NOV | 0100 | 164 | 0.35 | 0.00 | 0.35 | 4. | .. | 28 MAY 0100 346 |
| 28 NOV | 0100 | 165 | 0.56 | 0.00 | 0.56 | 6. | .. | 29 MAY 0100 347 |
| 29 NOV | 0100 | 166 | 0.24 | 0.00 | 0.24 | 3. | .. | 30 MAY 0100 348 |
| 30 NOV | 0100 | 167 | 0.00 | 0.00 | 0.00 | 0. | .. | 1 JUN 0100 349 |
| 1 DEC | 0100 | 168 | 0.00 | 0.00 | 0.00 | 0. | .. | 2 JUN 0100 350 |
| 2 DEC | 0100 | 169 | 0.29 | 0.00 | 0.29 | 2. | .. | 3 JUN 0100 351 |
| 3 DEC | 0100 | 170 | 0.17 | 0.00 | 0.17 | 2. | .. | 4 JUN 0100 352 |
| 4 DEC | 0100 | 171 | 0.18 | 0.00 | 0.18 | 2. | .. | 5 JUN 0100 353 |
| 5 DEC | 0100 | 172 | 0.15 | 0.00 | 0.15 | 2. | .. | 6 JUN 0100 354 |
| 6 DEC | 0100 | 173 | 0.00 | 0.00 | 0.00 | 0. | .. | 7 JUN 0100 355 |
| 7 DEC | 0100 | 174 | 0.00 | 0.00 | 0.00 | 0. | .. | 8 JUN 0100 356 |
| 8 DEC | 0100 | 175 | 0.01 | 0.00 | 0.01 | 0. | .. | 9 JUN 0100 357 |
| 9 DEC | 0100 | 176 | 0.00 | 0.00 | 0.00 | 0. | .. | 10 JUN 0100 358 |
| 10 DEC | 0100 | 177 | 0.00 | 0.00 | 0.00 | 0. | .. | 11 JUN 0100 359 |
| 11 DEC | 0100 | 178 | 0.00 | 0.00 | 0.00 | 0. | .. | 12 JUN 0100 360 |
| 12 DEC | 0100 | 179 | 0.00 | 0.00 | 0.00 | 0. | .. | 13 JUN 0100 361 |
| 13 DEC | 0100 | 180 | 0.00 | 0.00 | 0.00 | 0. | .. | 14 JUN 0100 362 |
| 14 DEC | 0100 | 181 | 0.00 | 0.00 | 0.00 | 0. | .. | 15 JUN 0100 363 |
| 15 DEC | 0100 | 182 | 0.00 | 0.00 | 0.00 | 0. | .. | 16 JUN 0100 364 |
| 16 DEC | 0100 | 183 | 0.00 | 0.00 | 0.00 | 0. | .. | 17 JUN 0100 365 |

TOTAL RAINFALL = 60.65, TOTAL LOSS = 0.00, TOTAL EXCESS = 60.64
 PEAK FLOW TIME 10-DAY MAXIMUM AVERAGE FLOW 30-DAY 90-DAY 180-DAY
 (CFS) (HR) (CFS) # # # #
 25. 6192.00 (INCHES) 4.030 9.961 23.450 60.643
 (AC-FT) 100. 368. 875. 2264.
 CUMULATIVE AREA = 9.75 SQ MI

HYDROGRAPH AT STATION SUB2
 PLAN 1. RATIO = 1.00

| DA | MON | HRMN | CRD | FLOW | DA | MON | HRMN | CRD | FLOW | DA | MON | HRMN | CRD | FLOW | DA | MON | HRMN | CRD | FLOW |
|----|-----|------|-----|------|----|-----|------|-----|------|----|-----|------|-----|------|----|-----|------|-----|------|
| 17 | JUN | 0100 | 1 | 0. | 17 | SEP | 0100 | 93 | 0. | 18 | DEC | 0100 | 185 | 6. | 25 | MAR | 0100 | 277 | 3. |
| 18 | JUN | 0100 | 2 | 0. | 18 | SEP | 0100 | 94 | 3. | 19 | DEC | 0100 | 186 | 3. | 21 | MAR | 0100 | 278 | 2. |
| 19 | JUN | 0100 | 3 | 1. | 19 | SEP | 0100 | 95 | 5. | 20 | DEC | 0100 | 187 | 1. | 22 | MAR | 0100 | 279 | 0. |
| 20 | JUN | 0100 | 4 | 2. | 20 | SEP | 0100 | 96 | 2. | 21 | DEC | 0100 | 188 | 2. | 23 | MAR | 0100 | 280 | 0. |
| 21 | JUN | 0100 | 5 | 2. | 21 | SEP | 0100 | 97 | 4. | 22 | DEC | 0100 | 189 | 2. | 24 | MAR | 0100 | 281 | 0. |
| 22 | JUN | 0100 | 6 | 0. | 22 | SEP | 0100 | 98 | 8. | 23 | DEC | 0100 | 190 | 1. | 25 | MAR | 0100 | 282 | 0. |
| 23 | JUN | 0100 | 7 | 0. | 23 | SEP | 0100 | 99 | 3. | 24 | DEC | 0100 | 191 | 4. | 26 | MAR | 0100 | 283 | 0. |
| 24 | JUN | 0100 | 8 | 0. | 24 | SEP | 0100 | 100 | 2. | 25 | DEC | 0100 | 192 | 3. | 27 | MAR | 0100 | 284 | 5. |
| 25 | JUN | 0100 | 9 | 0. | 25 | SEP | 0100 | 101 | 5. | 26 | DEC | 0100 | 193 | 3. | 28 | MAR | 0100 | 285 | 9. |
| 26 | JUN | 0100 | 10 | 2. | 26 | SEP | 0100 | 102 | 6. | 27 | DEC | 0100 | 194 | 0. | 29 | MAR | 0100 | 286 | 4. |
| 27 | JUN | 0100 | 11 | 0. | 27 | SEP | 0100 | 103 | 6. | 28 | DEC | 0100 | 195 | 0. | 30 | MAR | 0100 | 287 | 0. |
| 28 | JUN | 0100 | 12 | 0. | 28 | SEP | 0100 | 104 | 4. | 29 | DEC | 0100 | 196 | 1. | 31 | MAR | 0100 | 288 | 8. |
| 29 | JUN | 0100 | 13 | 2. | 29 | SEP | 0100 | 105 | 1. | 30 | DEC | 0100 | 197 | 2. | 1 | APR | 0100 | 289 | 17. |
| 30 | JUN | 0100 | 14 | 3. | 30 | SEP | 0100 | 106 | 1. | 31 | DEC | 0100 | 198 | 1. | 2 | APR | 0100 | 290 | 8. |
| 1 | JUL | 0100 | 15 | 4. | 1 | OCT | 0100 | 107 | 1. | 1 | JAN | 0100 | 199 | 0. | 3 | APR | 0100 | 291 | 0. |
| 2 | JUL | 0100 | 16 | 7. | 2 | OCT | 0100 | 108 | 0. | 2 | JAN | 0100 | 200 | 0. | 4 | APR | 0100 | 292 | 0. |
| 3 | JUL | 0100 | 17 | 6. | 3 | OCT | 0100 | 109 | 1. | 3 | JAN | 0100 | 201 | 0. | 5 | APR | 0100 | 293 | 2. |
| 4 | JUL | 0100 | 18 | 2. | 4 | OCT | 0100 | 110 | 1. | 4 | JAN | 0100 | 202 | 6. | 6 | APR | 0100 | 294 | 6. |
| 5 | JUL | 0100 | 19 | 0. | 5 | OCT | 0100 | 111 | 0. | 5 | JAN | 0100 | 203 | 11. | 7 | APR | 0100 | 295 | 5. |
| 6 | JUL | 0100 | 20 | 1. | 6 | OCT | 0100 | 112 | 0. | 6 | JAN | 0100 | 204 | 5. | 8 | APR | 0100 | 296 | 1. |
| 7 | JUL | 0100 | 21 | 2. | 7 | OCT | 0100 | 113 | 0. | 7 | JAN | 0100 | 205 | 0. | 9 | APR | 0100 | 297 | 4. |
| 8 | JUL | 0100 | 22 | 1. | 8 | OCT | 0100 | 114 | 1. | 8 | JAN | 0100 | 206 | 1. | 10 | APR | 0100 | 298 | 7. |
| 9 | JUL | 0100 | 23 | 0. | 9 | OCT | 0100 | 115 | 1. | 9 | JAN | 0100 | 207 | 1. | 11 | APR | 0100 | 299 | 4. |
| 10 | JUL | 0100 | 24 | 4. | 10 | OCT | 0100 | 116 | 1. | 10 | JAN | 0100 | 208 | 2. | 12 | APR | 0100 | 300 | 8. |
| 11 | JUL | 0100 | 25 | 7. | 11 | OCT | 0100 | 117 | 5. | 11 | JAN | 0100 | 209 | 5. | 13 | APR | 0100 | 301 | 2. |
| 12 | JUL | 0100 | 26 | 1. | 12 | OCT | 0100 | 118 | 0. | 12 | JAN | 0100 | 210 | 5. | 14 | APR | 0100 | 302 | 0. |
| 13 | JUL | 0100 | 27 | 5. | 13 | OCT | 0100 | 119 | 5. | 13 | JAN | 0100 | 211 | 4. | 15 | APR | 0100 | 303 | 6. |
| 14 | JUL | 0100 | 28 | 0. | 14 | OCT | 0100 | 120 | 2. | 14 | JAN | 0100 | 212 | 4. | 16 | APR | 0100 | 304 | 12. |
| 15 | JUL | 0100 | 29 | 0. | 15 | OCT | 0100 | 121 | 0. | 15 | JAN | 0100 | 213 | 2. | 17 | APR | 0100 | 305 | 5. |
| 16 | JUL | 0100 | 30 | 2. | 16 | OCT | 0100 | 122 | 0. | 16 | JAN | 0100 | 214 | 7. | 18 | APR | 0100 | 306 | 8. |
| 17 | JUL | 0100 | 31 | 3. | 17 | OCT | 0100 | 123 | 0. | 17 | JAN | 0100 | 215 | 2. | 19 | APR | 0100 | 307 | 15. |
| 18 | JUL | 0100 | 32 | 1. | 18 | OCT | 0100 | 124 | 0. | 18 | JAN | 0100 | 216 | 3. | 20 | APR | 0100 | 308 | 6. |
| 19 | JUL | 0100 | 33 | 3. | 19 | OCT | 0100 | 125 | 0. | 19 | JAN | 0100 | 217 | 3. | 21 | APR | 0100 | 309 | 0. |
| 20 | JUL | 0100 | 34 | 15. | 20 | OCT | 0100 | 126 | 0. | 20 | JAN | 0100 | 218 | 9. | 22 | APR | 0100 | 310 | 0. |
| 21 | JUL | 0100 | 35 | 20. | 21 | OCT | 0100 | 127 | 0. | 21 | JAN | 0100 | 219 | 0. | 23 | APR | 0100 | 311 | 1. |
| 22 | JUL | 0100 | 36 | 11. | 22 | OCT | 0100 | 128 | 0. | 22 | JAN | 0100 | 220 | 0. | 24 | APR | 0100 | 312 | 0. |
| 23 | JUL | 0100 | 37 | 4. | 23 | OCT | 0100 | 129 | 0. | 23 | JAN | 0100 | 221 | 3. | 25 | APR | 0100 | 313 | 0. |
| 24 | JUL | 0100 | 38 | 4. | 24 | OCT | 0100 | 130 | 0. | 24 | JAN | 0100 | 222 | 1. | 26 | APR | 0100 | 314 | 4. |
| 25 | JUL | 0100 | 39 | 3. | 25 | OCT | 0100 | 131 | 0. | 25 | JAN | 0100 | 223 | 0. | 27 | APR | 0100 | 315 | 7. |
| 26 | JUL | 0100 | 40 | 4. | 26 | OCT | 0100 | 132 | 0. | 26 | JAN | 0100 | 224 | 0. | 28 | APR | 0100 | 316 | 15. |
| 27 | JUL | 0100 | 41 | 5. | 27 | OCT | 0100 | 133 | 3. | 27 | JAN | 0100 | 225 | 2. | 29 | APR | 0100 | 317 | 22. |
| 28 | JUL | 0100 | 42 | 3. | 28 | OCT | 0100 | 134 | 3. | 28 | JAN | 0100 | 226 | 2. | 30 | APR | 0100 | 318 | 13. |
| 29 | JUL | 0100 | 43 | 0. | 29 | OCT | 0100 | 135 | 2. | 29 | JAN | 0100 | 227 | 1. | 1 | MAY | 0100 | 319 | 0. |
| 30 | JUL | 0100 | 44 | 5. | 30 | OCT | 0100 | 136 | 0. | 30 | JAN | 0100 | 228 | 0. | 2 | MAY | 0100 | 320 | 0. |
| 31 | JUL | 0100 | 45 | 9. | 31 | OCT | 0100 | 137 | 1. | 31 | JAN | 0100 | 229 | 0. | 3 | MAY | 0100 | 321 | 4. |
| 1 | AUG | 0100 | 46 | 5. | 1 | NOV | 0100 | 138 | 10. | 1 | FEB | 0100 | 230 | 1. | 4 | MAY | 0100 | 322 | 10. |
| 2 | AUG | 0100 | 47 | 3. | 2 | NOV | 0100 | 139 | 11. | 2 | FEB | 0100 | 231 | 2. | 5 | MAY | 0100 | 323 | 11. |
| 3 | AUG | 0100 | 48 | 1. | 3 | NOV | 0100 | 140 | 4. | 3 | FEB | 0100 | 232 | 7. | 6 | MAY | 0100 | 324 | 9. |
| 4 | AUG | 0100 | 49 | 0. | 4 | NOV | 0100 | 141 | 0. | 4 | FEB | 0100 | 233 | 1. | 7 | MAY | 0100 | 325 | 9. |
| 5 | AUG | 0100 | 50 | 4. | 5 | NOV | 0100 | 142 | 0. | 5 | FEB | 0100 | 234 | 4. | 8 | MAY | 0100 | 326 | 4. |
| 6 | AUG | 0100 | 51 | 4. | 6 | NOV | 0100 | 143 | 0. | 6 | FEB | 0100 | 235 | 3. | 9 | MAY | 0100 | 327 | 0. |
| 7 | AUG | 0100 | 52 | 4. | 7 | NOV | 0100 | 144 | 0. | 7 | FEB | 0100 | 236 | 2. | 10 | MAY | 0100 | 328 | 1. |
| 8 | AUG | 0100 | 53 | 2. | 8 | NOV | 0100 | 145 | 0. | 8 | FEB | 0100 | 237 | 1. | 11 | MAY | 0100 | 329 | 2. |
| 9 | AUG | 0100 | 54 | 1. | 9 | NOV | 0100 | 146 | 2. | 9 | FEB | 0100 | 238 | 0. | 12 | MAY | 0100 | 330 | 2. |
| 10 | AUG | 0100 | 55 | 0. | 10 | NOV | 0100 | 147 | 3. | 10 | FEB | 0100 | 239 | 0. | 13 | MAY | 0100 | 331 | 1. |
| 11 | AUG | 0100 | 56 | 0. | 11 | NOV | 0100 | 148 | 3. | 11 | FEB | 0100 | 240 | 0. | 14 | MAY | 0100 | 332 | 0. |
| 12 | AUG | 0100 | 57 | 0. | 12 | NOV | 0100 | 149 | 0. | 12 | FEB | 0100 | 241 | 0. | 15 | MAY | 0100 | 333 | 0. |
| 13 | AUG | 0100 | 58 | 0. | 13 | NOV | 0100 | 150 | 2. | 13 | FEB | 0100 | 242 | 0. | 16 | MAY | 0100 | 334 | 1. |
| 14 | AUG | 0100 | 59 | 0. | 14 | NOV | 0100 | 151 | 7. | 14 | FEB | 0100 | 243 | 3. | 17 | MAY | 0100 | 335 | 2. |
| 15 | AUG | 0100 | 60 | 0. | 15 | NOV | 0100 | 152 | 9. | 15 | FEB | 0100 | 244 | 12. | 18 | MAY | 0100 | 336 | 5. |
| 16 | AUG | 0100 | 61 | 9. | 16 | NOV | 0100 | 153 | 3. | 16 | FEB | 0100 | 245 | 15. | 19 | MAY | 0100 | 337 | 6. |
| 17 | AUG | 0100 | 62 | 17. | 17 | NOV | 0100 | 154 | 7. | 17 | FEB | 0100 | 246 | 6. | 20 | MAY | 0100 | 338 | 7. |
| 18 | AUG | 0100 | 63 | 0. | 18 | NOV | 0100 | 155 | 0. | 18 | FEB | 0100 | 247 | 0. | 21 | MAY | 0100 | 339 | 2. |
| 19 | AUG | 0100 | 64 | 0. | 19 | NOV | 0100 | 156 | 7. | 19 | FEB | 0100 | 248 | 0. | 22 | MAY | 0100 | 340 | 0. |
| 20 | AUG | 0100 | 65 | 0. | 20 | NOV | 0100 | 157 | 7. | 20 | FEB | 0100 | 249 | 0. | 23 | MAY | 0100 | 341 | 10. |
| 21 | AUG | 0100 | 66 | 0. | 21 | NOV | 0100 | 158 | 1. | 21 | FEB | 0100 | 250 | 1. | 24 | MAY | 0100 | 342 | 5. |
| 22 | AUG | 0100 | 67 | 0. | 22 | NOV | 0100 | 159 | 2. | 22 | FEB | 0100 | 251 | 1. | 25 | MAY | 0100 | 343 | 1. |
| 23 | AUG | 0100 | 68 | 0. | 23 | NOV | 0100 | 160 | 0. | 23 | FEB | 0100 | 252 | 3. | 26 | MAY | 0100 | 344 | 1. |
| 24 | AUG | 0100 | 69 | 4. | 24 | NOV | 0100 | 161 | 0. | 24 | FEB | 0100 | 253 | 4. | 27 | MAY | 0100 | 345 | 1. |
| 25 | AUG | 0100 | 70 | 7. | 25 | NOV | 0100 | 162 | 0. | 25 | FEB | 0100 | 254 | 2. | 28 | MAY | 0100 | 346 | 2. |
| 26 | AUG | 0100 | 71 | 4. | 26 | NOV | 0100 | 163 | 1. | 26 | FEB | 0100 | 255 | 1. | 29 | MAY | 0100 | 347 | 1. |
| 27 | AUG | 0100 | 72 | 2. | 27 | NOV | 0100 | 164 | 4. | 27 | FEB | 0100 | 256 | 1. | 30 | MAY | 0100 | 348 | 0. |
| 28 | AUG | 0100 | 73 | 1. | 28 | NOV | 0100 | 165 | 3. | 28 | FEB | 0100 | 257 | 1. | 31 | MAY | 0100 | 349 | 0. |
| 29 | AUG | 0100 | 74 | 0. | 29 | NOV | 0100 | 166 | 7. | 1 | MAR | 0100 | 258 | 13. | 1 | JUN | 0100 | 350 | 3. |
| 30 | AUG | 0100 | 75 | 0. | 30 | NOV | 0100 | 167 | 2. | 2 | MAR | 0100 | 259 | 25. | 2 | JUN | 0100 | 351 | 13. |
| 31 | AUG | 0100 | 76 | 0. | 1 | DEC | 0100 | 168 | 0. | 3 | MAR | 0100 | 260 | 14. | 3 | JUN | 0100 | 352 | 15. |
| 1 | SEP | 0100 | 77 | 0. | 2 | DEC | 0100 | 169 | 2. | 4 | MAR | 0100 | 261 | 1. | 4 | JUN | 0100 | 353 | 9. |
| 2 | SEP | 0100 | 78 | 0. | 3 | DEC | 0100 | 170 | 3. | 5 | MAR | 0100 | 262 | 0. | 5 | JUN | 0100 | 354 | 5. |
| 3 | SEP | 0100 | 79 | 0. | 4 | DEC | 0100 | 171 | 3. | 6 | MAR | 0100 | 263 | 0. | 6 | JUN | 0100 | 355 | 3. |
| 4 | SEP | 0100 | 80 | 0. | 5 | DEC | 0100 | 172 | 3. | 7 | MAR | 0100 | 264 | 2. | 7 | JUN | 0100 | 356 | 4. |
| 5 | SEP | 0100 | 81 | 0. | 6 | DEC | 0100 | 173 | 1. | 8 | MAR | 0100 | 265 | 0. | 8 | JUN | 0100 | 357 | 6. |
| 6 | SEP | 0100 | 82 | 0. | 7 | DEC | 0100 | 174 | 0. | 9 | MAR | 0100 | 266 | 4. | 9 | JUN | 0100 | 358 | 3. |
| 7 | SEP | 0100 | 83 | 0. | 8 | | | | | | | | | | | | | | |

| PEAK FLOW | TIME | 10-DAY | | MAXIMUM AVERAGE FLOW | | 365.0-DAY | |
|-----------|---------|----------|------|----------------------|--------|-----------|--------|
| (CFS) | (HR) | | | 10-DAY | 90-DAY | | |
| 25. | 6192.00 | (CFS) | 9. | 4,830 | 9,961 | 23,450 | 60,645 |
| | | (INCHES) | 189. | 368. | 870. | 2244. | |

CUMULATIVE AREA = 0.70 SQ MI

PLAN 2 INPUT DATA FOR STATION SUB2 ARE SAME AS FOR PLAN 1

23 WK

COMB1

25 KO

OUTPUT CONTROL VARIABLES

IPRNT 2 PRINT CONTROL
 IPLOT 0 PLOT CONTROL
 DICAL 0 HYDROGRAPH PLOT SCALE

26 WC

HYDROGRAPH COMBINATIONS

ICOMB 2 NUMBER OF HYDROGRAPHS TO COMBINE

HYDROGRAPH AT STATION COMB1
 SUM OF 2 HYDROGRAPHS
 PLAN 1, RATIO = 1.00

| DA | MON | HRMM | ORD | FLOW | DA | MON | HRMM | ORD | FLOW | DA | MON | HRMM | ORD | FLOW |
|----|-----|------|-----|------|----|-----|------|-----|------|----|-----|------|-----|------|
| 17 | JUN | 0100 | 1 | 2. | 17 | SEP | 0100 | 83 | 0. | 18 | DEC | 0100 | 185 | 15. |
| 18 | JUN | 0100 | 2 | 3. | 18 | SEP | 0100 | 84 | 3. | 19 | DEC | 0100 | 186 | 8. |
| 19 | JUN | 0100 | 3 | 4. | 19 | SEP | 0100 | 85 | 5. | 20 | DEC | 0100 | 187 | 2. |
| 20 | JUN | 0100 | 4 | 10. | 20 | SEP | 0100 | 86 | 2. | 21 | DEC | 0100 | 188 | 3. |
| 21 | JUN | 0100 | 5 | 7. | 21 | SEP | 0100 | 87 | 3. | 22 | DEC | 0100 | 189 | 3. |
| 22 | JUN | 0100 | 6 | 4. | 22 | SEP | 0100 | 88 | 9. | 23 | DEC | 0100 | 190 | 2. |
| 23 | JUN | 0100 | 7 | 3. | 23 | SEP | 0100 | 89 | 4. | 24 | DEC | 0100 | 191 | 13. |
| 24 | JUN | 0100 | 8 | 2. | 24 | SEP | 0100 | 100 | 3. | 25 | DEC | 0100 | 192 | 25. |
| 25 | JUN | 0100 | 9 | 2. | 25 | SEP | 0100 | 101 | 6. | 26 | DEC | 0100 | 193 | 13. |
| 26 | JUN | 0100 | 10 | 2. | 26 | SEP | 0100 | 102 | 7. | 27 | DEC | 0100 | 194 | 2. |
| 27 | JUN | 0100 | 11 | 1. | 27 | SEP | 0100 | 103 | 8. | 28 | DEC | 0100 | 195 | 2. |
| 28 | JUN | 0100 | 12 | 1. | 28 | SEP | 0100 | 104 | 5. | 29 | DEC | 0100 | 196 | 7. |
| 29 | JUN | 0100 | 13 | 2. | 29 | SEP | 0100 | 105 | 2. | 30 | DEC | 0100 | 197 | 3. |
| 30 | JUN | 0100 | 14 | 8. | 30 | SEP | 0100 | 106 | 1. | 31 | DEC | 0100 | 198 | 2. |
| 1 | JUL | 0100 | 15 | 5. | 1 | OCT | 0100 | 107 | 2. | 1 | JAN | 0100 | 199 | 1. |
| 2 | JUL | 0100 | 16 | 8. | 2 | OCT | 0100 | 108 | 1. | 2 | JAN | 0100 | 200 | 1. |
| 3 | JUL | 0100 | 17 | 8. | 3 | OCT | 0100 | 109 | 1. | 3 | JAN | 0100 | 201 | 1. |
| 4 | JUL | 0100 | 18 | 2. | 4 | OCT | 0100 | 110 | 1. | 4 | JAN | 0100 | 202 | 23. |
| 5 | JUL | 0100 | 19 | 1. | 5 | OCT | 0100 | 111 | 1. | 5 | JAN | 0100 | 203 | 47. |
| 6 | JUL | 0100 | 20 | 2. | 6 | OCT | 0100 | 112 | 0. | 6 | JAN | 0100 | 204 | 28. |
| 7 | JUL | 0100 | 21 | 2. | 7 | OCT | 0100 | 113 | 0. | 7 | JAN | 0100 | 205 | 5. |
| 8 | JUL | 0100 | 22 | 1. | 8 | OCT | 0100 | 114 | 1. | 8 | JAN | 0100 | 206 | 3. |
| 9 | JUL | 0100 | 23 | 0. | 9 | OCT | 0100 | 115 | 1. | 9 | JAN | 0100 | 207 | 2. |
| 10 | JUL | 0100 | 24 | 8. | 10 | OCT | 0100 | 116 | 1. | 10 | JAN | 0100 | 208 | 6. |
| 11 | JUL | 0100 | 25 | 0. | 11 | OCT | 0100 | 117 | 0. | 11 | JAN | 0100 | 209 | 19. |
| 12 | JUL | 0100 | 26 | 5. | 12 | OCT | 0100 | 118 | 0. | 12 | JAN | 0100 | 210 | 27. |
| 13 | JUL | 0100 | 27 | 1. | 13 | OCT | 0100 | 119 | 0. | 13 | JAN | 0100 | 211 | 30. |
| 14 | JUL | 0100 | 28 | 1. | 14 | OCT | 0100 | 120 | 0. | 14 | JAN | 0100 | 212 | 17. |
| 15 | JUL | 0100 | 29 | 1. | 15 | OCT | 0100 | 121 | 0. | 15 | JAN | 0100 | 213 | 8. |
| 16 | JUL | 0100 | 30 | 2. | 16 | OCT | 0100 | 122 | 0. | 16 | JAN | 0100 | 214 | 13. |
| 17 | JUL | 0100 | 31 | 4. | 17 | OCT | 0100 | 123 | 0. | 17 | JAN | 0100 | 215 | 24. |
| 18 | JUL | 0100 | 32 | 2. | 18 | OCT | 0100 | 124 | 0. | 18 | JAN | 0100 | 216 | 13. |
| 19 | JUL | 0100 | 33 | 3. | 19 | OCT | 0100 | 125 | 0. | 19 | JAN | 0100 | 217 | 26. |
| 20 | JUL | 0100 | 34 | 24. | 20 | OCT | 0100 | 126 | 0. | 20 | JAN | 0100 | 218 | 49. |
| 21 | JUL | 0100 | 35 | 41. | 21 | OCT | 0100 | 127 | 0. | 21 | JAN | 0100 | 219 | 43. |
| 22 | JUL | 0100 | 36 | 28. | 22 | OCT | 0100 | 128 | 0. | 22 | JAN | 0100 | 220 | 33. |
| 23 | JUL | 0100 | 37 | 12. | 23 | OCT | 0100 | 129 | 0. | 23 | JAN | 0100 | 221 | 18. |
| 24 | JUL | 0100 | 38 | 11. | 24 | OCT | 0100 | 130 | 0. | 24 | JAN | 0100 | 222 | 5. |
| 25 | JUL | 0100 | 39 | 9. | 25 | OCT | 0100 | 131 | 0. | 25 | JAN | 0100 | 223 | 3. |
| 26 | JUL | 0100 | 40 | 9. | 26 | OCT | 0100 | 132 | 0. | 26 | JAN | 0100 | 224 | 3. |
| 27 | JUL | 0100 | 41 | 11. | 27 | OCT | 0100 | 133 | 2. | 27 | JAN | 0100 | 225 | 7. |
| 28 | JUL | 0100 | 42 | 8. | 28 | OCT | 0100 | 134 | 3. | 28 | JAN | 0100 | 226 | 11. |
| 29 | JUL | 0100 | 43 | 4. | 29 | OCT | 0100 | 135 | 2. | 29 | JAN | 0100 | 227 | 5. |
| 30 | JUL | 0100 | 44 | 9. | 30 | OCT | 0100 | 136 | 0. | 30 | JAN | 0100 | 228 | 1. |
| 31 | JUL | 0100 | 45 | 15. | 31 | OCT | 0100 | 137 | 3. | 31 | JAN | 0100 | 229 | 1. |
| 1 | AUG | 0100 | 46 | 12. | 1 | NOV | 0100 | 138 | 11. | 1 | FEB | 0100 | 230 | 2. |
| 2 | AUG | 0100 | 47 | 7. | 2 | NOV | 0100 | 139 | 13. | 2 | FEB | 0100 | 231 | 3. |
| 3 | AUG | 0100 | 48 | 5. | 3 | NOV | 0100 | 140 | 7. | 3 | FEB | 0100 | 232 | 1. |
| 4 | AUG | 0100 | 49 | 4. | 4 | NOV | 0100 | 141 | 2. | 4 | FEB | 0100 | 233 | 2. |
| 5 | AUG | 0100 | 50 | 7. | 5 | NOV | 0100 | 142 | 2. | 5 | FEB | 0100 | 234 | 11. |
| 6 | AUG | 0100 | 51 | 10. | 6 | NOV | 0100 | 143 | 1. | 6 | FEB | 0100 | 235 | 14. |
| 7 | AUG | 0100 | 52 | 8. | 7 | NOV | 0100 | 144 | 1. | 7 | FEB | 0100 | 236 | 5. |
| 8 | AUG | 0100 | | | | | | | | 8 | AUG | 0100 | 237 | 14. |
| 9 | AUG | 0100 | | | | | | | | 9 | AUG | 0100 | 238 | 9. |
| 10 | AUG | 0100 | | | | | | | | 10 | AUG | 0100 | 239 | 5. |

| | | | | | A112.out | | | | | | |
|-------------|----|-----|-------------|-----|----------|-------------|-----|------|-------------|-----|-----|
| 8 AUG 0100 | 53 | 5. | 11 NOV 0100 | 145 | 2. | 8 FEB 0100 | 237 | 2. | 11 MAY 0100 | 329 | 4. |
| 9 AUG 0100 | 54 | 4. | 10 NOV 0100 | 146 | 2. | 9 FEB 0100 | 238 | 1. | 12 MAY 0100 | 330 | 7. |
| 10 AUG 0100 | 55 | 2. | 10 NOV 0100 | 147 | 4. | 10 FEB 0100 | 239 | 1. | 13 MAY 0100 | 331 | 5. |
| 11 AUG 0100 | 56 | 1. | 11 NOV 0100 | 148 | 2. | 11 FEB 0100 | 240 | 1. | 14 MAY 0100 | 332 | 3. |
| 12 AUG 0100 | 57 | 1. | 12 NOV 0100 | 149 | 1. | 12 FEB 0100 | 241 | 0. | 15 MAY 0100 | 333 | 2. |
| 13 AUG 0100 | 58 | 1. | 13 NOV 0100 | 150 | 3. | 13 FEB 0100 | 242 | 0. | 16 MAY 0100 | 334 | 3. |
| 14 AUG 0100 | 59 | 1. | 14 NOV 0100 | 151 | 3. | 14 FEB 0100 | 243 | 10. | 17 MAY 0100 | 335 | 4. |
| 15 AUG 0100 | 60 | 1. | 15 NOV 0100 | 152 | 13. | 15 FEB 0100 | 244 | 53. | 18 MAY 0100 | 336 | 8. |
| 16 AUG 0100 | 61 | 13. | 16 NOV 0100 | 153 | 10. | 16 FEB 0100 | 245 | 78. | 19 MAY 0100 | 337 | 11. |
| 17 AUG 0100 | 62 | 20. | 17 NOV 0100 | 154 | 13. | 17 FEB 0100 | 246 | 38. | 20 MAY 0100 | 338 | 8. |
| 18 AUG 0100 | 63 | 19. | 18 NOV 0100 | 155 | 17. | 18 FEB 0100 | 247 | 7. | 21 MAY 0100 | 339 | 6. |
| 19 AUG 0100 | 64 | 3. | 19 NOV 0100 | 156 | 16. | 19 FEB 0100 | 248 | 5. | 22 MAY 0100 | 340 | 22. |
| 20 AUG 0100 | 65 | 4. | 20 NOV 0100 | 157 | 70. | 20 FEB 0100 | 249 | 4. | 23 MAY 0100 | 341 | 33. |
| 21 AUG 0100 | 66 | 3. | 21 NOV 0100 | 158 | 14. | 21 FEB 0100 | 250 | 5. | 24 MAY 0100 | 342 | 18. |
| 22 AUG 0100 | 67 | 3. | 22 NOV 0100 | 159 | 7. | 22 FEB 0100 | 251 | 5. | 25 MAY 0100 | 343 | 4. |
| 23 AUG 0100 | 68 | 2. | 23 NOV 0100 | 160 | 4. | 23 FEB 0100 | 252 | 8. | 26 MAY 0100 | 344 | 7. |
| 24 AUG 0100 | 69 | 5. | 24 NOV 0100 | 161 | 5. | 24 FEB 0100 | 253 | 13. | 27 MAY 0100 | 345 | 6. |
| 25 AUG 0100 | 70 | 9. | 25 NOV 0100 | 162 | 4. | 25 FEB 0100 | 254 | 9. | 28 MAY 0100 | 346 | 6. |
| 26 AUG 0100 | 71 | 7. | 26 NOV 0100 | 163 | 4. | 26 FEB 0100 | 255 | 2. | 29 MAY 0100 | 347 | 4. |
| 27 AUG 0100 | 72 | 4. | 27 NOV 0100 | 164 | 7. | 27 FEB 0100 | 256 | 3. | 30 MAY 0100 | 348 | 1. |
| 28 AUG 0100 | 73 | 3. | 28 NOV 0100 | 165 | 22. | 28 FEB 0100 | 257 | 2. | 31 MAY 0100 | 349 | 2. |
| 29 AUG 0100 | 74 | 1. | 29 NOV 0100 | 166 | 23. | 1 MAR 0100 | 258 | 83. | 1 JUN 0100 | 350 | 5. |
| 30 AUG 0100 | 75 | 1. | 30 NOV 0100 | 167 | 9. | 2 MAR 0100 | 259 | 178. | 2 JUN 0100 | 351 | 30. |
| 31 AUG 0100 | 76 | 1. | 1 DEC 0100 | 168 | 5. | 3 MAR 0100 | 260 | 83. | 3 JUN 0100 | 352 | 57. |
| 1 SEP 0100 | 77 | 1. | 2 DEC 0100 | 169 | 6. | 4 MAR 0100 | 261 | 15. | 4 JUN 0100 | 353 | 33. |
| 2 SEP 0100 | 78 | 1. | 3 DEC 0100 | 170 | 7. | 5 MAR 0100 | 262 | 9. | 5 JUN 0100 | 354 | 20. |
| 3 SEP 0100 | 79 | 1. | 4 DEC 0100 | 171 | 7. | 6 MAR 0100 | 263 | 7. | 6 JUN 0100 | 355 | 14. |
| 4 SEP 0100 | 80 | 0. | 5 DEC 0100 | 172 | 4. | 7 MAR 0100 | 264 | 20. | 7 JUN 0100 | 356 | 16. |
| 5 SEP 0100 | 81 | 0. | 6 DEC 0100 | 173 | 6. | 8 MAR 0100 | 265 | 31. | 8 JUN 0100 | 357 | 21. |
| 6 SEP 0100 | 82 | 0. | 7 DEC 0100 | 174 | 2. | 9 MAR 0100 | 266 | 21. | 9 JUN 0100 | 358 | 13. |
| 7 SEP 0100 | 83 | 0. | 8 DEC 0100 | 175 | 1. | 10 MAR 0100 | 267 | 51. | 10 JUN 0100 | 359 | 16. |
| 8 SEP 0100 | 84 | 2. | 9 DEC 0100 | 176 | 1. | 11 MAR 0100 | 268 | 84. | 11 JUN 0100 | 360 | 24. |
| 9 SEP 0100 | 85 | 3. | 10 DEC 0100 | 177 | 1. | 12 MAR 0100 | 269 | 42. | 12 JUN 0100 | 361 | 19. |
| 10 SEP 0100 | 86 | 2. | 11 DEC 0100 | 178 | 1. | 13 MAR 0100 | 270 | 9. | 13 JUN 0100 | 362 | 8. |
| 11 SEP 0100 | 87 | 0. | 12 DEC 0100 | 179 | 1. | 14 MAR 0100 | 271 | 9. | 14 JUN 0100 | 363 | 3. |
| 12 SEP 0100 | 88 | 0. | 13 DEC 0100 | 180 | 0. | 15 MAR 0100 | 272 | 42. | 15 JUN 0100 | 364 | 5. |
| 13 SEP 0100 | 89 | 0. | 14 DEC 0100 | 181 | 0. | 16 MAR 0100 | 273 | 67. | 16 JUN 0100 | 365 | 4. |
| 14 SEP 0100 | 90 | 2. | 15 DEC 0100 | 182 | 0. | 17 MAR 0100 | 274 | 34. | 17 JUN 0100 | 366 | 3. |
| 15 SEP 0100 | 91 | 3. | 16 DEC 0100 | 183 | 0. | 18 MAR 0100 | 275 | 8. | | | |
| 16 SEP 0100 | 92 | 1. | 17 DEC 0100 | 184 | 0. | 19 MAR 0100 | 276 | 10. | | | |

| PEAK FLOW (CFS) | TIME (HR) | MAXIMUM AVERAGE FLOW | | | | |
|--------------------|--------------|------------------------------|--------|--------|---------|--------|
| | | 10-DAY | 30-DAY | 90-DAY | 360-DAY | |
| | | (CFS) | (CFS) | (CFS) | (CFS) | |
| 136. | 6132:00 | 45. | 30. | 26. | 12. | |
| | | (INCHES) | 7.768 | 7.484 | 19.373 | 25.388 |
| | | (AC-FT) | 886. | 1612. | 4567. | 8309. |
| | | CUMULATIVE AREA = 4.42 SQ MI | | | | |

HYDROGRAPH AT STATION COHE1
SUM OF 2 HYDROGRAPHS
PLAN 2, RATIO = 1.00

| DA | MCN | HRMM | GRD | FLOW | DA | MCN | HRMM | GRD | FLOW | DA | MCN | HRMM | GRD | FLOW | DA | MCN | HRMM | GRD | FLOW |
|-------------|-----|------|-------------|------|----|-------------|------|-----|-------------|-----|-----|------|-----|------|----|-----|------|-----|------|
| 17 JUN 0100 | 1 | 9. | 17 SEP 0100 | 93 | 0. | 18 DEC 0100 | 185 | 15. | 20 MAR 0100 | 277 | 14. | | | | | | | | |
| 18 JUN 0100 | 2 | 7. | 18 SEP 0100 | 94 | 1. | 19 DEC 0100 | 186 | 8. | 21 MAR 0100 | 278 | 8. | | | | | | | | |
| 19 JUN 0100 | 3 | 8. | 19 SEP 0100 | 95 | 2. | 20 DEC 0100 | 187 | 2. | 22 MAR 0100 | 279 | 3. | | | | | | | | |
| 20 JUN 0100 | 4 | 10. | 20 SEP 0100 | 96 | 2. | 21 DEC 0100 | 188 | 1. | 23 MAR 0100 | 280 | 2. | | | | | | | | |
| 21 JUN 0100 | 5 | 7. | 21 SEP 0100 | 97 | 5. | 22 DEC 0100 | 189 | 3. | 24 MAR 0100 | 281 | 2. | | | | | | | | |
| 22 JUN 0100 | 6 | 8. | 22 SEP 0100 | 98 | 8. | 23 DEC 0100 | 190 | 2. | 25 MAR 0100 | 282 | 7. | | | | | | | | |
| 23 JUN 0100 | 7 | 3. | 23 SEP 0100 | 99 | 4. | 24 DEC 0100 | 191 | 13. | 26 MAR 0100 | 283 | 1. | | | | | | | | |
| 24 JUN 0100 | 8 | 3. | 24 SEP 0100 | 100 | 3. | 25 DEC 0100 | 192 | 21. | 27 MAR 0100 | 284 | 19. | | | | | | | | |
| 25 JUN 0100 | 9 | 2. | 25 SEP 0100 | 101 | 6. | 26 DEC 0100 | 193 | 13. | 28 MAR 0100 | 285 | 78. | | | | | | | | |
| 26 JUN 0100 | 10 | 2. | 26 SEP 0100 | 102 | 7. | 27 DEC 0100 | 194 | 2. | 29 MAR 0100 | 286 | 19. | | | | | | | | |
| 27 JUN 0100 | 12 | 1. | 27 SEP 0100 | 103 | 8. | 28 DEC 0100 | 195 | 2. | 30 MAR 0100 | 287 | 4. | | | | | | | | |
| 28 JUN 0100 | 11 | 1. | 28 SEP 0100 | 104 | 5. | 29 DEC 0100 | 196 | 3. | 31 MAR 0100 | 288 | 48. | | | | | | | | |
| 29 JUN 0100 | 13 | 3. | 29 SEP 0100 | 105 | 2. | 30 DEC 0100 | 197 | 3. | 1 APR 0100 | 289 | 88. | | | | | | | | |
| 30 JUN 0100 | 14 | 4. | 30 SEP 0100 | 106 | 1. | 31 DEC 0100 | 198 | 2. | 2 APR 0100 | 290 | 48. | | | | | | | | |
| 1 JUL 0100 | 15 | 5. | 1 OCT 0100 | 107 | 2. | 1 JAN 0100 | 199 | 1. | 3 APR 0100 | 291 | 8. | | | | | | | | |
| 2 JUL 0100 | 16 | 8. | 2 OCT 0100 | 108 | 1. | 2 JAN 0100 | 200 | 1. | 4 APR 0100 | 292 | 7. | | | | | | | | |
| 3 JUL 0100 | 17 | 8. | 3 OCT 0100 | 109 | 1. | 3 JAN 0100 | 201 | 1. | 5 APR 0100 | 293 | 12. | | | | | | | | |
| 4 JUL 0100 | 18 | 3. | 4 OCT 0100 | 110 | 1. | 4 JAN 0100 | 202 | 23. | 6 APR 0100 | 294 | 25. | | | | | | | | |
| 5 JUL 0100 | 18 | 1. | 5 OCT 0100 | 111 | 1. | 5 JAN 0100 | 203 | 47. | 7 APR 0100 | 295 | 30. | | | | | | | | |
| 6 JUL 0100 | 20 | 2. | 6 OCT 0100 | 112 | 0. | 6 JAN 0100 | 204 | 78. | 8 APR 0100 | 296 | 6. | | | | | | | | |
| 7 JUL 0100 | 21 | 2. | 7 OCT 0100 | 113 | 0. | 7 JAN 0100 | 205 | 5. | 9 APR 0100 | 297 | 15. | | | | | | | | |
| 8 JUL 0100 | 22 | 1. | 8 OCT 0100 | 114 | 1. | 8 JAN 0100 | 206 | 5. | 10 APR 0100 | 298 | 29. | | | | | | | | |
| 9 JUL 0100 | 23 | 0. | 9 OCT 0100 | 115 | 1. | 9 JAN 0100 | 207 | 5. | 11 APR 0100 | 299 | 25. | | | | | | | | |
| 10 JUL 0100 | 24 | 4. | 10 OCT 0100 | 116 | 1. | 10 JAN 0100 | 208 | 4. | 12 APR 0100 | 300 | 21. | | | | | | | | |
| 11 JUL 0100 | 25 | 8. | 11 OCT 0100 | 117 | 0. | 11 JAN 0100 | 209 | 19. | 13 APR 0100 | 301 | 12. | | | | | | | | |
| 12 JUL 0100 | 26 | 5. | 12 OCT 0100 | 118 | 0. | 12 JAN 0100 | 210 | 27. | 14 APR 0100 | 302 | 4. | | | | | | | | |
| 13 JUL 0100 | 27 | 1. | 13 OCT 0100 | 119 | 0. | 13 JAN 0100 | 211 | 20. | 15 APR 0100 | 303 | 25. | | | | | | | | |
| 14 JUL 0100 | 28 | 1. | 14 OCT 0100 | 120 | 0. | 14 JAN 0100 | 212 | 17. | 16 APR 0100 | 304 | 48. | | | | | | | | |
| 15 JUL 0100 | 29 | 1. | 15 OCT 0100 | 121 | 0. | 15 JAN 0100 | 213 | 9. | 17 APR 0100 | 305 | 29. | | | | | | | | |
| 16 JUL 0100 | 30 | 2. | 16 OCT 0100 | 122 | 0. | 16 JAN 0100 | 214 | 13. | 18 APR 0100 | 306 | 42. | | | | | | | | |
| 17 JUL 0100 | 31 | 4. | 17 OCT 0100 | 123 | 0. | 17 JAN 0100 | 215 | 24. | 19 APR 0100 | 307 | 78. | | | | | | | | |
| 18 JUL 0100 | 32 | 2. | 18 OCT 0100 | 124 | 0. | 18 JAN 0100 | 216 | 15. | 20 APR 0100 | 308 | 45. | | | | | | | | |
| 19 JUL 0100 | 33 | 1. | 19 OCT 0100 | 125 | 0. | 19 JAN 0100 | 217 | 26. | 21 APR 0100 | 309 | 10. | | | | | | | | |
| 20 JUL 0100 | 34 | 24. | 20 OCT 0100 | 126 | 0. | 20 JAN 0100 | 218 | 49. | 22 APR 0100 | 310 | 9. | | | | | | | | |
| 21 JUL 0100 | 35 | 41. | 21 OCT 0100 | 127 | 0. | 21 JAN 0100 | 219 | 47. | 23 APR 0100 | 311 | 7. | | | | | | | | |

| DATE | TIME | FLOW | DATE | TIME | FLOW | DATE | TIME | FLOW | | | | | | | | |
|------|----------|------|------|------|-------------|------|------|------|-------------|-----|-----|---|-------------|-----|-----|---|
| 22 | JUL 0100 | 36 | 28 | • | 22 OCT 0100 | 128 | 8 | • | 22 JAN 0100 | 220 | 37 | • | 24 APR 0100 | 312 | 5 | • |
| 23 | JUL 0100 | 37 | 17 | • | 23 OCT 0100 | 129 | 8 | • | 23 JAN 0100 | 221 | 18 | • | 25 APR 0100 | 313 | 5 | • |
| 24 | JUL 0100 | 38 | 11 | • | 24 OCT 0100 | 130 | 8 | • | 24 JAN 0100 | 222 | 8 | • | 26 APR 0100 | 314 | 14 | • |
| 25 | JUL 0100 | 29 | 9 | • | 25 OCT 0100 | 131 | 8 | • | 25 JAN 0100 | 223 | 5 | • | 27 APR 0100 | 315 | 22 | • |
| 26 | JUL 0100 | 40 | 9 | • | 26 OCT 0100 | 132 | 8 | • | 26 JAN 0100 | 224 | 3 | • | 28 APR 0100 | 316 | 63 | • |
| 27 | JUL 0100 | 41 | 11 | • | 27 OCT 0100 | 133 | 2 | • | 27 JAN 0100 | 225 | 7 | • | 29 APR 0100 | 317 | 110 | • |
| 28 | JUL 0100 | 42 | 8 | • | 28 OCT 0100 | 134 | 3 | • | 28 JAN 0100 | 226 | 11 | • | 30 APR 0100 | 318 | 64 | • |
| 29 | JUL 0100 | 43 | 4 | • | 29 OCT 0100 | 135 | 2 | • | 29 JAN 0100 | 227 | 3 | • | 1 MAY 0100 | 319 | 12 | • |
| 30 | JUL 0100 | 44 | 9 | • | 30 OCT 0100 | 136 | 0 | • | 30 JAN 0100 | 228 | 1 | • | 2 MAY 0100 | 320 | 10 | • |
| 31 | JUL 0100 | 45 | 15 | • | 31 OCT 0100 | 137 | 7 | • | 31 JAN 0100 | 229 | 1 | • | 3 MAY 0100 | 321 | 14 | • |
| 1 | AUG 0100 | 46 | 12 | • | 1 NOV 0100 | 138 | 11 | • | 1 FEB 0100 | 230 | 2 | • | 4 MAY 0100 | 322 | 47 | • |
| 2 | AUG 0100 | 47 | 7 | • | 2 NOV 0100 | 139 | 13 | • | 2 FEB 0100 | 231 | 3 | • | 5 MAY 0100 | 323 | 52 | • |
| 3 | AUG 0100 | 48 | 5 | • | 3 NOV 0100 | 140 | 7 | • | 3 FEB 0100 | 232 | 1 | • | 6 MAY 0100 | 324 | 98 | • |
| 4 | AUG 0100 | 49 | 4 | • | 4 NOV 0100 | 141 | 2 | • | 4 FEB 0100 | 233 | 2 | • | 7 MAY 0100 | 325 | 60 | • |
| 5 | AUG 0100 | 50 | 7 | • | 5 NOV 0100 | 142 | 2 | • | 5 FEB 0100 | 234 | 11 | • | 8 MAY 0100 | 326 | 24 | • |
| 6 | AUG 0100 | 51 | 10 | • | 6 NOV 0100 | 143 | 2 | • | 6 FEB 0100 | 235 | 14 | • | 9 MAY 0100 | 327 | 3 | • |
| 7 | AUG 0100 | 52 | 8 | • | 7 NOV 0100 | 144 | 1 | • | 7 FEB 0100 | 236 | 3 | • | 10 MAY 0100 | 328 | 8 | • |
| 8 | AUG 0100 | 53 | 5 | • | 8 NOV 0100 | 145 | 1 | • | 8 FEB 0100 | 237 | 2 | • | 11 MAY 0100 | 329 | 0 | • |
| 9 | AUG 0100 | 54 | 4 | • | 9 NOV 0100 | 146 | 2 | • | 9 FEB 0100 | 238 | 1 | • | 12 MAY 0100 | 330 | 7 | • |
| 10 | AUG 0100 | 55 | 2 | • | 10 NOV 0100 | 147 | 4 | • | 10 FEB 0100 | 239 | 1 | • | 13 MAY 0100 | 331 | 5 | • |
| 11 | AUG 0100 | 56 | 1 | • | 11 NOV 0100 | 148 | 21 | • | 11 FEB 0100 | 240 | 1 | • | 14 MAY 0100 | 332 | 3 | • |
| 12 | AUG 0100 | 57 | 1 | • | 12 NOV 0100 | 149 | 1 | • | 12 FEB 0100 | 241 | 0 | • | 15 MAY 0100 | 333 | 2 | • |
| 13 | AUG 0100 | 58 | 1 | • | 13 NOV 0100 | 150 | 2 | • | 13 FEB 0100 | 242 | 0 | • | 16 MAY 0100 | 334 | 3 | • |
| 14 | AUG 0100 | 59 | 1 | • | 14 NOV 0100 | 151 | 8 | • | 14 FEB 0100 | 243 | 10 | • | 17 MAY 0100 | 335 | 6 | • |
| 15 | AUG 0100 | 60 | 1 | • | 15 NOV 0100 | 152 | 13 | • | 15 FEB 0100 | 244 | 53 | • | 18 MAY 0100 | 336 | 8 | • |
| 16 | AUG 0100 | 61 | 13 | • | 16 NOV 0100 | 153 | 10 | • | 16 FEB 0100 | 245 | 76 | • | 19 MAY 0100 | 337 | 11 | • |
| 17 | AUG 0100 | 62 | 28 | • | 17 NOV 0100 | 154 | 13 | • | 17 FEB 0100 | 246 | 36 | • | 20 MAY 0100 | 338 | 8 | • |
| 18 | AUG 0100 | 63 | 13 | • | 18 NOV 0100 | 155 | 17 | • | 18 FEB 0100 | 247 | 7 | • | 21 MAY 0100 | 339 | 6 | • |
| 19 | AUG 0100 | 64 | 5 | • | 19 NOV 0100 | 156 | 16 | • | 19 FEB 0100 | 248 | 5 | • | 22 MAY 0100 | 340 | 22 | • |
| 20 | AUG 0100 | 65 | 4 | • | 20 NOV 0100 | 157 | 20 | • | 20 FEB 0100 | 249 | 4 | • | 23 MAY 0100 | 341 | 35 | • |
| 21 | AUG 0100 | 66 | 3 | • | 21 NOV 0100 | 158 | 14 | • | 21 FEB 0100 | 250 | 5 | • | 24 MAY 0100 | 342 | 19 | • |
| 22 | AUG 0100 | 67 | 3 | • | 22 NOV 0100 | 159 | 7 | • | 22 FEB 0100 | 251 | 3 | • | 25 MAY 0100 | 343 | 9 | • |
| 23 | AUG 0100 | 68 | 2 | • | 23 NOV 0100 | 160 | 6 | • | 23 FEB 0100 | 252 | 9 | • | 26 MAY 0100 | 344 | 7 | • |
| 24 | AUG 0100 | 69 | 5 | • | 24 NOV 0100 | 161 | 5 | • | 24 FEB 0100 | 253 | 17 | • | 27 MAY 0100 | 345 | 6 | • |
| 25 | AUG 0100 | 70 | 9 | • | 25 NOV 0100 | 162 | 4 | • | 25 FEB 0100 | 254 | 8 | • | 28 MAY 0100 | 346 | 8 | • |
| 26 | AUG 0100 | 71 | 7 | • | 26 NOV 0100 | 163 | 4 | • | 26 FEB 0100 | 255 | 2 | • | 29 MAY 0100 | 347 | 4 | • |
| 27 | AUG 0100 | 72 | 4 | • | 27 NOV 0100 | 164 | 7 | • | 27 FEB 0100 | 256 | 3 | • | 30 MAY 0100 | 348 | 3 | • |
| 28 | AUG 0100 | 73 | 3 | • | 28 NOV 0100 | 165 | 22 | • | 28 FEB 0100 | 257 | 2 | • | 31 MAY 0100 | 349 | 2 | • |
| 29 | AUG 0100 | 74 | 1 | • | 29 NOV 0100 | 166 | 23 | • | 1 MAR 0100 | 258 | 62 | • | 1 JUN 0100 | 350 | 5 | • |
| 30 | AUG 0100 | 75 | 1 | • | 30 NOV 0100 | 167 | 9 | • | 2 MAR 0100 | 259 | 135 | • | 2 JUN 0100 | 351 | 32 | • |
| 31 | AUG 0100 | 76 | 1 | • | 1 DEC 0100 | 168 | 5 | • | 3 MAR 0100 | 260 | 92 | • | 3 JUN 0100 | 352 | 52 | • |
| 1 | SEP 0100 | 77 | 1 | • | 2 DEC 0100 | 169 | 6 | • | 4 MAR 0100 | 261 | 15 | • | 4 JUN 0100 | 353 | 72 | • |
| 2 | SEP 0100 | 78 | 1 | • | 3 DEC 0100 | 170 | 7 | • | 5 MAR 0100 | 262 | 9 | • | 5 JUN 0100 | 354 | 26 | • |
| 3 | SEP 0100 | 79 | 1 | • | 4 DEC 0100 | 171 | 7 | • | 6 MAR 0100 | 263 | 7 | • | 6 JUN 0100 | 355 | 14 | • |
| 4 | SEP 0100 | 80 | 0 | • | 5 DEC 0100 | 172 | 6 | • | 7 MAR 0100 | 264 | 28 | • | 7 JUN 0100 | 356 | 16 | • |
| 5 | SEP 0100 | 81 | 0 | • | 6 DEC 0100 | 173 | 4 | • | 8 MAR 0100 | 265 | 31 | • | 8 JUN 0100 | 357 | 21 | • |
| 6 | SEP 0100 | 82 | 0 | • | 7 DEC 0100 | 174 | 2 | • | 9 MAR 0100 | 266 | 21 | • | 9 JUN 0100 | 358 | 19 | • |
| 7 | SEP 0100 | 83 | 0 | • | 8 DEC 0100 | 175 | 1 | • | 10 MAR 0100 | 267 | 33 | • | 10 JUN 0100 | 359 | 18 | • |
| 8 | SEP 0100 | 84 | 2 | • | 9 DEC 0100 | 176 | 1 | • | 11 MAR 0100 | 268 | 94 | • | 11 JUN 0100 | 360 | 26 | • |
| 9 | SEP 0100 | 85 | 3 | • | 10 DEC 0100 | 177 | 1 | • | 12 MAR 0100 | 269 | 42 | • | 12 JUN 0100 | 361 | 19 | • |
| 10 | SEP 0100 | 86 | 3 | • | 11 DEC 0100 | 178 | 1 | • | 13 MAR 0100 | 270 | 9 | • | 13 JUN 0100 | 362 | 6 | • |
| 11 | SEP 0100 | 87 | 1 | • | 12 DEC 0100 | 179 | 1 | • | 14 MAR 0100 | 271 | 9 | • | 14 JUN 0100 | 363 | 7 | • |
| 12 | SEP 0100 | 88 | 0 | • | 13 DEC 0100 | 180 | 0 | • | 15 MAR 0100 | 272 | 42 | • | 15 JUN 0100 | 364 | 6 | • |
| 13 | SEP 0100 | 89 | 0 | • | 14 DEC 0100 | 181 | 0 | • | 16 MAR 0100 | 273 | 87 | • | 16 JUN 0100 | 365 | 4 | • |
| 14 | SEP 0100 | 90 | 2 | • | 15 DEC 0100 | 182 | 0 | • | 17 MAR 0100 | 274 | 34 | • | 17 JUN 0100 | 366 | 3 | • |
| 15 | SEP 0100 | 91 | 3 | • | 16 DEC 0100 | 183 | 0 | • | 18 MAR 0100 | 275 | 8 | • | | | | |
| 16 | SEP 0100 | 92 | 1 | • | 17 DEC 0100 | 184 | 8 | • | 19 MAR 0100 | 276 | 10 | • | | | | |

Att2.out

| PEAK FLOW | TIME | | MAXIMUM AVERAGE FLOW | | | |
|-------------------|---------|----------|----------------------|--------|--------|---------|
| (CFS) | (HR) | | 10-DAY | 30-DAY | 90-DAY | 365-DAY |
| 136 | 6192.00 | (CFS) | 45 | 30 | 25 | 12 |
| | | (INCHES) | 3.766 | 7.656 | 19.373 | 35.568 |
| | | (AC-FT) | 889 | 1812 | 4597 | 8389 |
| CUMULATIVE AREA > | | | 4.42 SQ MI | | | |

27 PX

 * * * * *
 * * * * *
 * * * * *

28 KO
 OUTPUT CONTROL VARIABLES
 IPRINT 2 PRINT CONTROL
 IPLOT 0 PLOT CONTROL
 QCAL 0 HYDROGRAPH PLOT SCALE

HYDROGRAPH ROUTING DATA
 29 RB NO ROUTING

HYDROGRAPH AT STATION DAN
 FLAG 1. RATIO = 1.00

Alc21out

| DA | MON | HRMM | ORD | FLOW | DA | MON | HRMM | ORD | FLOW | DA | MON | HRMM | ORD | FLOW | DA | MON | HRMM | ORD | FLOW |
|----|-----|------|-----|------|----|-----|------|-----|------|----|-----|------|-----|------|----|-----|------|-----|------|
| 17 | JUN | 0100 | 1 | 9. | 17 | SEP | 0100 | 83 | 5. | 18 | DEC | 0100 | 185 | 15. | 20 | MAR | 0100 | 231 | 14. |
| 18 | JUN | 0100 | 2 | 7. | 18 | SEP | 0100 | 84 | 3. | 18 | DEC | 0100 | 186 | 8. | 21 | MAR | 0100 | 232 | 9. |
| 19 | JUN | 0100 | 3 | 8. | 19 | SEP | 0100 | 85 | 5. | 20 | DEC | 0100 | 187 | 21. | 22 | MAR | 0100 | 233 | 3. |
| 20 | JUN | 0100 | 4 | 10. | 20 | SEP | 0100 | 86 | 2. | 21 | DEC | 0100 | 188 | 3. | 23 | MAR | 0100 | 234 | 2. |
| 21 | JUN | 0100 | 5 | 7. | 21 | SEP | 0100 | 87 | 5. | 22 | DEC | 0100 | 189 | 3. | 24 | MAR | 0100 | 235 | 2. |
| 22 | JUN | 0100 | 6 | 4. | 22 | SEP | 0100 | 88 | 8. | 23 | DEC | 0100 | 190 | 2. | 25 | MAR | 0100 | 236 | 2. |
| 23 | JUN | 0100 | 7 | 3. | 23 | SEP | 0100 | 89 | 4. | 24 | DEC | 0100 | 191 | 13. | 26 | MAR | 0100 | 237 | 1. |
| 24 | JUN | 0100 | 8 | 3. | 24 | SEP | 0100 | 90 | 2. | 25 | DEC | 0100 | 192 | 25. | 27 | MAR | 0100 | 238 | 19. |
| 25 | JUN | 0100 | 9 | 2. | 25 | SEP | 0100 | 91 | 6. | 26 | DEC | 0100 | 193 | 13. | 28 | MAR | 0100 | 239 | 16. |
| 26 | JUN | 0100 | 10 | 2. | 26 | SEP | 0100 | 92 | 7. | 27 | DEC | 0100 | 194 | 7. | 29 | MAR | 0100 | 240 | 19. |
| 27 | JUN | 0100 | 11 | 1. | 27 | SEP | 0100 | 93 | 8. | 28 | DEC | 0100 | 195 | 7. | 30 | MAR | 0100 | 241 | 4. |
| 28 | JUN | 0100 | 12 | 1. | 28 | SEP | 0100 | 94 | 5. | 29 | DEC | 0100 | 196 | 7. | 31 | MAR | 0100 | 242 | 46. |
| 29 | JUN | 0100 | 13 | 1. | 29 | SEP | 0100 | 95 | 2. | 30 | DEC | 0100 | 197 | 3. | 1 | APR | 0100 | 243 | 86. |
| 30 | JUN | 0100 | 14 | 4. | 30 | SEP | 0100 | 96 | 1. | 31 | DEC | 0100 | 198 | 2. | 2 | APR | 0100 | 244 | 46. |
| 1 | JUL | 0100 | 15 | 5. | 1 | OCT | 0100 | 97 | 2. | 1 | JAN | 0100 | 199 | 1. | 3 | APR | 0100 | 245 | 8. |
| 2 | JUL | 0100 | 16 | 8. | 2 | OCT | 0100 | 98 | 1. | 2 | JAN | 0100 | 200 | 1. | 4 | APR | 0100 | 246 | 7. |
| 3 | JUL | 0100 | 17 | 8. | 3 | OCT | 0100 | 99 | 1. | 3 | JAN | 0100 | 201 | 1. | 5 | APR | 0100 | 247 | 12. |
| 4 | JUL | 0100 | 18 | 3. | 4 | OCT | 0100 | 100 | 1. | 4 | JAN | 0100 | 202 | 23. | 6 | APR | 0100 | 248 | 25. |
| 5 | JUL | 0100 | 19 | 1. | 5 | OCT | 0100 | 101 | 1. | 5 | JAN | 0100 | 203 | 47. | 7 | APR | 0100 | 249 | 20. |
| 6 | JUL | 0100 | 20 | 2. | 6 | OCT | 0100 | 102 | 0. | 6 | JAN | 0100 | 204 | 28. | 8 | APR | 0100 | 250 | 6. |
| 7 | JUL | 0100 | 21 | 2. | 7 | OCT | 0100 | 103 | 0. | 7 | JAN | 0100 | 205 | 5. | 9 | APR | 0100 | 251 | 15. |
| 8 | JUL | 0100 | 22 | 1. | 8 | OCT | 0100 | 104 | 1. | 8 | JAN | 0100 | 206 | 5. | 10 | APR | 0100 | 252 | 28. |
| 9 | JUL | 0100 | 23 | 0. | 9 | OCT | 0100 | 105 | 1. | 9 | JAN | 0100 | 207 | 3. | 11 | APR | 0100 | 253 | 25. |
| 10 | JUL | 0100 | 24 | 4. | 10 | OCT | 0100 | 106 | 1. | 10 | JAN | 0100 | 208 | 8. | 12 | APR | 0100 | 254 | 21. |
| 11 | JUL | 0100 | 25 | 5. | 11 | OCT | 0100 | 107 | 0. | 11 | JAN | 0100 | 209 | 19. | 13 | APR | 0100 | 255 | 12. |
| 12 | JUL | 0100 | 26 | 5. | 12 | OCT | 0100 | 108 | 0. | 12 | JAN | 0100 | 210 | 27. | 14 | APR | 0100 | 256 | 4. |
| 13 | JUL | 0100 | 27 | 1. | 13 | OCT | 0100 | 109 | 0. | 13 | JAN | 0100 | 211 | 20. | 15 | APR | 0100 | 257 | 23. |
| 14 | JUL | 0100 | 28 | 1. | 14 | OCT | 0100 | 110 | 0. | 14 | JAN | 0100 | 212 | 17. | 16 | APR | 0100 | 258 | 48. |
| 15 | JUL | 0100 | 29 | 1. | 15 | OCT | 0100 | 111 | 0. | 15 | JAN | 0100 | 213 | 9. | 17 | APR | 0100 | 259 | 27. |
| 16 | JUL | 0100 | 30 | 3. | 16 | OCT | 0100 | 112 | 0. | 16 | JAN | 0100 | 214 | 17. | 18 | APR | 0100 | 260 | 42. |
| 17 | JUL | 0100 | 31 | 4. | 17 | OCT | 0100 | 113 | 0. | 17 | JAN | 0100 | 215 | 24. | 19 | APR | 0100 | 261 | 75. |
| 18 | JUL | 0100 | 32 | 2. | 18 | OCT | 0100 | 114 | 0. | 18 | JAN | 0100 | 216 | 13. | 20 | APR | 0100 | 262 | 45. |
| 19 | JUL | 0100 | 33 | 3. | 19 | OCT | 0100 | 115 | 0. | 19 | JAN | 0100 | 217 | 24. | 21 | APR | 0100 | 263 | 10. |
| 20 | JUL | 0100 | 34 | 24. | 20 | OCT | 0100 | 116 | 0. | 20 | JAN | 0100 | 218 | 49. | 22 | APR | 0100 | 264 | 6. |
| 21 | JUL | 0100 | 35 | 41. | 21 | OCT | 0100 | 117 | 0. | 21 | JAN | 0100 | 219 | 43. | 23 | APR | 0100 | 265 | 7. |
| 22 | JUL | 0100 | 36 | 28. | 22 | OCT | 0100 | 118 | 0. | 22 | JAN | 0100 | 220 | 33. | 24 | APR | 0100 | 266 | 5. |
| 23 | JUL | 0100 | 37 | 12. | 23 | OCT | 0100 | 119 | 0. | 23 | JAN | 0100 | 221 | 19. | 25 | APR | 0100 | 267 | 4. |
| 24 | JUL | 0100 | 38 | 11. | 24 | OCT | 0100 | 120 | 0. | 24 | JAN | 0100 | 222 | 6. | 26 | APR | 0100 | 268 | 14. |
| 25 | JUL | 0100 | 39 | 9. | 25 | OCT | 0100 | 121 | 0. | 25 | JAN | 0100 | 223 | 5. | 27 | APR | 0100 | 269 | 22. |
| 26 | JUL | 0100 | 40 | 9. | 26 | OCT | 0100 | 122 | 0. | 26 | JAN | 0100 | 224 | 3. | 28 | APR | 0100 | 270 | 63. |
| 27 | JUL | 0100 | 41 | 11. | 27 | OCT | 0100 | 123 | 2. | 27 | JAN | 0100 | 225 | 7. | 29 | APR | 0100 | 271 | 110. |
| 28 | JUL | 0100 | 42 | 8. | 28 | OCT | 0100 | 124 | 3. | 28 | JAN | 0100 | 226 | 11. | 30 | APR | 0100 | 272 | 64. |
| 29 | JUL | 0100 | 43 | 4. | 29 | OCT | 0100 | 125 | 2. | 29 | JAN | 0100 | 227 | 5. | 1 | MAY | 0100 | 273 | 12. |
| 30 | JUL | 0100 | 44 | 9. | 30 | OCT | 0100 | 126 | 0. | 30 | JAN | 0100 | 228 | 1. | 2 | MAY | 0100 | 274 | 10. |
| 31 | JUL | 0100 | 45 | 15. | 31 | OCT | 0100 | 127 | 3. | 31 | JAN | 0100 | 229 | 11. | 3 | MAY | 0100 | 275 | 16. |
| 1 | AUG | 0100 | 46 | 17. | 1 | NOV | 0100 | 128 | 11. | 1 | FEB | 0100 | 230 | 4. | 4 | MAY | 0100 | 276 | 67. |
| 2 | AUG | 0100 | 47 | 7. | 2 | NOV | 0100 | 129 | 13. | 2 | FEB | 0100 | 231 | 3. | 5 | MAY | 0100 | 277 | 32. |
| 3 | AUG | 0100 | 48 | 5. | 3 | NOV | 0100 | 130 | 7. | 3 | FEB | 0100 | 232 | 1. | 6 | MAY | 0100 | 278 | 16. |
| 4 | AUG | 0100 | 49 | 4. | 4 | NOV | 0100 | 131 | 2. | 4 | FEB | 0100 | 233 | 7. | 7 | MAY | 0100 | 279 | 40. |
| 5 | AUG | 0100 | 50 | 7. | 5 | NOV | 0100 | 132 | 2. | 5 | FEB | 0100 | 234 | 11. | 8 | MAY | 0100 | 280 | 24. |
| 6 | AUG | 0100 | 51 | 16. | 6 | NOV | 0100 | 133 | 1. | 6 | FEB | 0100 | 235 | 14. | 9 | MAY | 0100 | 281 | 9. |
| 7 | AUG | 0100 | 52 | 9. | 7 | NOV | 0100 | 134 | 1. | 7 | FEB | 0100 | 236 | 9. | 10 | MAY | 0100 | 282 | 6. |
| 8 | AUG | 0100 | 53 | 5. | 8 | NOV | 0100 | 135 | 2. | 8 | FEB | 0100 | 237 | 2. | 11 | MAY | 0100 | 283 | 7. |
| 9 | AUG | 0100 | 54 | 4. | 9 | NOV | 0100 | 136 | 2. | 9 | FEB | 0100 | 238 | 1. | 12 | MAY | 0100 | 284 | 3. |
| 10 | AUG | 0100 | 55 | 2. | 10 | NOV | 0100 | 137 | 4. | 10 | FEB | 0100 | 239 | 1. | 13 | MAY | 0100 | 285 | 5. |
| 11 | AUG | 0100 | 56 | 1. | 11 | NOV | 0100 | 138 | 2. | 11 | FEB | 0100 | 240 | 1. | 14 | MAY | 0100 | 286 | 3. |
| 12 | AUG | 0100 | 57 | 1. | 12 | NOV | 0100 | 139 | 1. | 12 | FEB | 0100 | 241 | 0. | 15 | MAY | 0100 | 287 | 2. |
| 13 | AUG | 0100 | 58 | 1. | 13 | NOV | 0100 | 140 | 2. | 13 | FEB | 0100 | 242 | 0. | 16 | MAY | 0100 | 288 | 3. |
| 14 | AUG | 0100 | 59 | 1. | 14 | NOV | 0100 | 141 | 8. | 14 | FEB | 0100 | 243 | 10. | 17 | MAY | 0100 | 289 | 4. |
| 15 | AUG | 0100 | 60 | 1. | 15 | NOV | 0100 | 142 | 13. | 15 | FEB | 0100 | 244 | 38. | 18 | MAY | 0100 | 290 | 84. |
| 16 | AUG | 0100 | 61 | 13. | 16 | NOV | 0100 | 143 | 10. | 16 | FEB | 0100 | 245 | 74. | 19 | MAY | 0100 | 291 | 11. |
| 17 | AUG | 0100 | 62 | 28. | 17 | NOV | 0100 | 144 | 13. | 17 | FEB | 0100 | 246 | 16. | 20 | MAY | 0100 | 292 | 5. |
| 18 | AUG | 0100 | 63 | 19. | 18 | NOV | 0100 | 145 | 17. | 18 | FEB | 0100 | 247 | 7. | 21 | MAY | 0100 | 293 | 6. |
| 19 | AUG | 0100 | 64 | 5. | 19 | NOV | 0100 | 146 | 14. | 19 | FEB | 0100 | 248 | 5. | 22 | MAY | 0100 | 294 | 22. |
| 20 | AUG | 0100 | 65 | 4. | 20 | NOV | 0100 | 147 | 20. | 20 | FEB | 0100 | 249 | 8. | 23 | MAY | 0100 | 295 | 33. |
| 21 | AUG | 0100 | 66 | 3. | 21 | NOV | 0100 | 148 | 14. | 21 | FEB | 0100 | 250 | 5. | 24 | MAY | 0100 | 296 | 19. |
| 22 | AUG | 0100 | 67 | 1. | 22 | NOV | 0100 | 149 | 7. | 22 | FEB | 0100 | 251 | 3. | 25 | MAY | 0100 | 297 | 9. |
| 23 | AUG | 0100 | 68 | 2. | 23 | NOV | 0100 | 150 | 6. | 23 | FEB | 0100 | 252 | 8. | 26 | MAY | 0100 | 298 | 7. |
| 24 | AUG | 0100 | 69 | 5. | 24 | NOV | 0100 | 151 | 5. | 24 | FEB | 0100 | 253 | 13. | 27 | MAY | 0100 | 299 | 5. |
| 25 | AUG | 0100 | 70 | 9. | 25 | NOV | 0100 | 152 | 4. | 25 | FEB | 0100 | 254 | 8. | 28 | MAY | 0100 | 300 | 6. |
| 26 | AUG | 0100 | 71 | 7. | 26 | NOV | 0100 | 153 | 4. | 26 | FEB | 0100 | 255 | 2. | 29 | MAY | 0100 | 301 | 4. |
| 27 | AUG | 0100 | 72 | 4. | 27 | NOV | 0100 | 154 | 7. | 27 | FEB | 0100 | 256 | 3. | 30 | MAY | 0100 | 302 | 1. |
| 28 | AUG | 0100 | 73 | 1. | 28 | NOV | 0100 | 155 | 22. | 28 | FEB | 0100 | 257 | 2. | 31 | MAY | 0100 | 303 | 2. |
| 29 | AUG | 0100 | 74 | 1. | 29 | NOV | 0100 | 156 | 23. | 29 | FEB | 0100 | 258 | 63. | 1 | JUN | 0100 | 304 | 5. |
| 30 | AUG | 0100 | 75 | 1. | 30 | NOV | 0100 | 157 | 9. | 30 | FEB | 0100 | 259 | 136. | 2 | JUN | 0100 | 305 | 32. |
| 31 | AUG | 0100 | 76 | 1. | 1 | DEC | 0100 | 158 | 5. | 1 | MAR | 0100 | 260 | 89. | 3 | JUN | 0100 | 306 | 52. |
| 1 | SEP | 0100 | 77 | 1. | 2 | DEC | 0100 | 159 | 6. | 2 | MAR | 0100 | 261 | 15. | 4 | JUN | 0100 | 307 | 33. |
| 2 | SEP | 0100 | 78 | 1. | 3 | DEC | 0100 | 160 | 7. | 3 | MAR | 0100 | 262 | 9. | 5 | JUN | 0100 | 308 | 20. |
| 3 | SEP | 0100 | 79 | 1. | 4 | DEC | 0100 | 161 | 7. | 4 | MAR | 0100 | 263 | 7. | 6 | JUN | 0100 | 309 | 14. |
| 4 | SEP | 0100 | 80 | 0. | 5 | DEC | 0100 | 162 | 6. | 5 | MAR | 0100 | 264 | 20. | 7 | JUN | 0100 | 310 | 16. |
| 5 | SEP | 0100 | 81 | 0. | 6 | DEC | 0100 | 163 | 4. | 6 | MAR | 0100 | 265 | 31. | 8 | JUN | 0100 | 311 | 21. |
| 6 | SEP | 0100 | 82 | 0. | 7 | DEC | 0100 | 164 | 2. | 7 | MAR | 0100 | 266 | 21. | 9 | JUN | | | |

| (CFS) | (HR) | (CFS) | 10-DAY | 30-DAY | 90-DAY | 365.0-DAY |
|-------------------|---------|----------|------------|--------|--------|-----------|
| 136. | 4192.00 | 45. | 30. | 26. | 12. | |
| | | (INCHES) | 3.766 | 7.898 | 18.373 | 35.588 |
| | | (AC-FT) | 889. | 1812. | 4987. | 8389. |
| CUMULATIVE AREA = | | | 4.42 SQ MI | | | |

Alt2.mat

*** ** ** ** **

20 KF PLAN 2 PDM STATION DAM

** REC-1 ERROR 1 *** INVALID CARD IDENTIFICATION CODE OR CARD OUT OF SEQUENCE

CARD NO. 3E *S 11335.0 2.18 .6 .5

HYDROGRAPH ROUTING DATA

| | | | | | | | | | |
|-------|--------------------|---------|-------------------------------------|---------|---------|---------|---------|---------|--|
| 31 BA | STORAGE ROUTING | | | | | | | | |
| | NRTP | 1 | NUMBER OF SUBREACHES | | | | | | |
| | ITTP | ELEV | TYPE OF INITIAL CONDITION | | | | | | |
| | NRVIC | 1789.00 | INITIAL CONDITION | | | | | | |
| | X | 0.00 | WORKING W AND D COEFFICIENT | | | | | | |
| 32 SA | AREA | 0.0 | 15.0 | 45.0 | 92.0 | 205.0 | 448.0 | 756.0 | |
| 33 SE | ELEVATION | 1675.00 | 1680.00 | 1700.00 | 1720.00 | 1740.00 | 1760.00 | 1780.00 | |
| 37 SL | LOW-LEVEL OUTLET | | | | | | | | |
| | ELEV | 1577.00 | ELEVATION AT CENTER OF OUTLET | | | | | | |
| | AREA | 0.10 | CROSS-SECTIONAL AREA | | | | | | |
| | COCL | 0.60 | COEFFICIENT | | | | | | |
| | EXPL | 0.50 | EXPONENT OF HEAD | | | | | | |
| 34 SS | SPILLWAY | | | | | | | | |
| | CREL | 1760.00 | SPILLWAY CREST ELEVATION | | | | | | |
| | SPWID | 180.00 | SPILLWAY WIDTH | | | | | | |
| | COEW | 3.00 | WEIR COEFFICIENT | | | | | | |
| | EXPW | 1.50 | EXPONENT OF HEAD | | | | | | |
| 38 WF | PUMPING DATA | | | | | | | | |
| | PUMP ON ELEVATION | 1689.0 | | | | | | | |
| | PUMPING RATE | 6. | | | | | | | |
| | PUMP OFF ELEVATION | 1682.0 | | | | | | | |
| | INTAD | | PUMP FLOW HYDROGRAPH IDENTIFICATION | | | | | | |
| 35 ST | TOP OF DAM | | | | | | | | |
| | TOREL | 1770.00 | ELEVATION AT TOP OF DAM | | | | | | |
| | DAMWID | 800.00 | DAM WIDTH | | | | | | |
| | COGD | 3.00 | WEIR COEFFICIENT | | | | | | |
| | EXPD | 1.50 | EXPONENT OF HEAD | | | | | | |

= (11,218 AC-FT) (43,580 $\frac{FT^2}{AC}$) (7.481 CFS/FT)

= 3655 MILLION GAL

COMPUTED STORAGE-ELEVATION DATA

| | | | | | | | |
|-----------|---------|---------|---------|---------|---------|----------|----------|
| STORAGE | 0.00 | 25.00 | 598.21 | 1940.49 | 4836.04 | 11218.63 | 23136.08 |
| ELEVATION | 1675.00 | 1680.00 | 1700.00 | 1720.00 | 1740.00 | 1760.00 | 1780.00 |

COMPUTED OUTFLOW-ELEVATION DATA

(EXCLUDING ELONG OVER DAM)

| | | | | | | | | | | |
|-----------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|
| OUTFLOW | 0.00 | 0.00 | 0.23 | 0.25 | 0.29 | 0.36 | 0.47 | 0.66 | 1.15 | 4.38 |
| ELEVATION | 1675.00 | 1677.00 | 1677.19 | 1677.26 | 1677.37 | 1677.56 | 1677.94 | 1678.90 | 1682.73 | 1700.00 |
| OUTFLOW | 52.70 | 390.83 | 1308.97 | 2095.71 | 4042.03 | 10437.32 | 16571.38 | 24733.97 | 35216.91 | 48307.91 |
| ELEVATION | 1760.00 | 1760.00 | 1761.80 | 1763.20 | 1765.00 | 1767.20 | 1769.80 | 1772.80 | 1776.20 | 1780.00 |

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

(INCLUDING ELONG OVER DAM)

| | | | | | | | | | | |
|-----------|----------|----------|----------|-----------|----------|----------|----------|----------|----------|----------|
| STORAGE | 0.00 | 1.00 | 2.11 | 2.31 | 2.65 | 3.34 | 5.06 | 11.84 | 25.00 | 70.11 |
| OUTFLOW | 0.00 | 0.00 | 0.23 | 0.25 | 0.28 | 0.36 | 0.47 | 0.66 | 0.83 | 1.15 |
| ELEVATION | 1675.00 | 1677.00 | 1677.19 | 1677.26 | 1677.37 | 1677.56 | 1677.94 | 1678.90 | 1680.00 | 1682.73 |
| STORAGE | 598.21 | 1940.49 | 4836.04 | 11218.63 | 11308.73 | 11582.15 | 12048.59 | 12724.98 | 13634.84 | 14810.18 |
| OUTFLOW | 2.31 | 3.19 | 3.82 | 4.38 | 5.71 | 7.90 | 10.68 | 14.03 | 18.06 | 22.76 |
| ELEVATION | 1760.00 | 1720.00 | 1740.00 | 1760.00 | 1765.00 | 1768.00 | 1769.80 | 1772.20 | 1775.00 | 1767.20 |
| STORAGE | 16291.68 | 18129.95 | 20386.70 | 23136.08 | | | | | | |
| OUTFLOW | 16571.34 | 17704.61 | 18098.05 | 131685.45 | | | | | | |
| ELEVATION | 1769.80 | 1772.80 | 1776.00 | 1780.00 | | | | | | |

HYDROGRAPH AT STATION DAM

PLAN 2, RATIO = 1.00

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| | | | | | | | | | | | | | | | |
|----|-----|------|----|----|----|---------|--------|----|-----|------|-----|----|----|--------|--------|
| 17 | JUN | 0100 | 1 | .0 | 4. | 10348.4 | 1758.4 | 17 | DEC | 0100 | 184 | 6. | 6. | 8297.4 | 1732.7 |
| 18 | JUN | 0100 | 2 | .6 | 4. | 10343.9 | 1758.0 | 18 | DEC | 0100 | 185 | 6. | 6. | 8299.2 | 1732.7 |
| 19 | JUN | 0100 | 3 | .6 | 4. | 10339.2 | 1758.0 | 19 | DEC | 0100 | 186 | 6. | 4. | 8300.9 | 1732.7 |
| 20 | JUN | 0100 | 4 | .6 | 4. | 10335.7 | 1758.0 | 20 | DEC | 0100 | 187 | 6. | 4. | 8299.4 | 1732.6 |
| 21 | JUN | 0100 | 5 | .6 | 4. | 10332.3 | 1758.0 | 21 | DEC | 0100 | 188 | 6. | 4. | 8319.1 | 1732.6 |
| 22 | JUN | 0100 | 6 | .6 | 4. | 10322.6 | 1757.9 | 22 | DEC | 0100 | 189 | 6. | 4. | 8280.7 | 1732.5 |
| 23 | JUN | 0100 | 7 | .6 | 4. | 10309.0 | 1757.9 | 23 | DEC | 0100 | 190 | 6. | 4. | 8244.1 | 1732.5 |
| 24 | JUN | 0100 | 8 | .6 | 4. | 10294.0 | 1757.9 | 24 | DEC | 0100 | 191 | 6. | 4. | 8218.4 | 1732.5 |
| 25 | JUN | 0100 | 9 | .6 | 4. | 10278.0 | 1757.9 | 25 | DEC | 0100 | 192 | 6. | 4. | 8255.7 | 1732.5 |
| 26 | JUN | 0100 | 10 | .6 | 4. | 10261.0 | 1757.8 | 26 | DEC | 0100 | 193 | 6. | 4. | 8212.6 | 1732.6 |
| 27 | JUN | 0100 | 11 | .6 | 4. | 10243.3 | 1757.7 | 27 | DEC | 0100 | 194 | 6. | 4. | 8267.5 | 1732.6 |
| 28 | JUN | 0100 | 12 | .6 | 4. | 10225.0 | 1757.7 | 28 | DEC | 0100 | 195 | 6. | 4. | 8251.5 | 1732.5 |
| 29 | JUN | 0100 | 13 | .6 | 4. | 10206.0 | 1757.7 | 29 | DEC | 0100 | 196 | 6. | 4. | 8235.8 | 1732.5 |
| 30 | JUN | 0100 | 14 | .6 | 4. | 10193.7 | 1757.6 | 30 | DEC | 0100 | 197 | 6. | 4. | 8211.7 | 1732.4 |
| 1 | JUL | 0100 | 15 | .6 | 4. | 10181.4 | 1757.6 | 1 | DEC | 0100 | 198 | 6. | 4. | 8206.1 | 1732.4 |
| 2 | JUL | 0100 | 16 | .6 | 4. | 10172.9 | 1757.6 | 2 | JAN | 0100 | 199 | 6. | 4. | 8198.1 | 1732.3 |
| 3 | JUL | 0100 | 17 | .6 | 4. | 10164.9 | 1757.6 | 3 | JAN | 0100 | 200 | 6. | 4. | 8189.2 | 1732.3 |
| 4 | JUL | 0100 | 18 | .6 | 4. | 10156.4 | 1757.5 | 4 | JAN | 0100 | 201 | 6. | 4. | 8190.3 | 1732.3 |
| 5 | JUL | 0100 | 19 | .6 | 4. | 10139.4 | 1757.5 | 5 | JAN | 0100 | 202 | 6. | 4. | 8191.5 | 1732.2 |
| 6 | JUL | 0100 | 20 | .6 | 4. | 10121.2 | 1757.5 | 6 | JAN | 0100 | 203 | 6. | 4. | 8202.2 | 1732.4 |
| 7 | JUL | 0100 | 21 | .6 | 4. | 10104.8 | 1757.4 | 7 | JAN | 0100 | 204 | 6. | 4. | 8253.6 | 1732.5 |
| 8 | JUL | 0100 | 22 | .6 | 4. | 10087.5 | 1757.4 | 8 | JAN | 0100 | 205 | 6. | 4. | 8263.4 | 1732.6 |
| 9 | JUL | 0100 | 23 | .6 | 4. | 10069.3 | 1757.3 | 9 | JAN | 0100 | 206 | 6. | 4. | 8252.2 | 1732.5 |
| 10 | JUL | 0100 | 24 | .6 | 4. | 10052.2 | 1757.3 | 10 | JAN | 0100 | 207 | 6. | 4. | 8289.9 | 1732.5 |
| 11 | JUL | 0100 | 25 | .6 | 4. | 10034.2 | 1757.3 | 11 | JAN | 0100 | 208 | 6. | 4. | 8230.7 | 1732.5 |
| 12 | JUL | 0100 | 26 | .6 | 4. | 10016.8 | 1757.2 | 12 | JAN | 0100 | 209 | 6. | 4. | 8214.0 | 1732.5 |
| 13 | JUL | 0100 | 27 | .6 | 4. | 10002.1 | 1757.2 | 13 | JAN | 0100 | 210 | 6. | 4. | 8260.0 | 1732.5 |
| 14 | JUL | 0100 | 28 | .6 | 4. | 9993.8 | 1757.2 | 14 | JAN | 0100 | 211 | 6. | 4. | 8285.9 | 1732.6 |
| 15 | JUL | 0100 | 29 | .6 | 4. | 9984.8 | 1757.1 | 15 | JAN | 0100 | 212 | 6. | 4. | 8301.2 | 1732.7 |
| 16 | JUL | 0100 | 30 | .6 | 4. | 9968.8 | 1757.1 | 16 | JAN | 0100 | 213 | 6. | 4. | 8305.8 | 1732.7 |
| 17 | JUL | 0100 | 31 | .6 | 4. | 9952.8 | 1757.0 | 17 | JAN | 0100 | 214 | 6. | 4. | 8306.0 | 1732.7 |
| 18 | JUL | 0100 | 32 | .6 | 4. | 9936.7 | 1757.0 | 18 | JAN | 0100 | 215 | 6. | 4. | 8322.2 | 1732.7 |
| 19 | JUL | 0100 | 33 | .6 | 4. | 9920.9 | 1757.0 | 19 | JAN | 0100 | 216 | 6. | 4. | 8338.5 | 1732.8 |
| 20 | JUL | 0100 | 34 | .6 | 4. | 9904.8 | 1757.0 | 20 | JAN | 0100 | 217 | 6. | 4. | 8356.3 | 1732.8 |
| 21 | JUL | 0100 | 35 | .6 | 4. | 9888.2 | 1757.1 | 21 | JAN | 0100 | 218 | 6. | 4. | 8412.5 | 1732.8 |
| 22 | JUL | 0100 | 36 | .6 | 4. | 9871.5 | 1757.1 | 22 | JAN | 0100 | 219 | 6. | 4. | 8482.8 | 1732.9 |
| 23 | JUL | 0100 | 37 | .6 | 4. | 9854.7 | 1757.1 | 23 | JAN | 0100 | 220 | 6. | 4. | 8537.1 | 1732.9 |
| 24 | JUL | 0100 | 38 | .6 | 4. | 9838.6 | 1757.1 | 24 | JAN | 0100 | 221 | 6. | 4. | 8586.9 | 1733.0 |
| 25 | JUL | 0100 | 39 | .6 | 4. | 9822.9 | 1757.2 | 25 | JAN | 0100 | 222 | 6. | 4. | 8570.1 | 1733.0 |
| 26 | JUL | 0100 | 40 | .6 | 4. | 9807.4 | 1757.2 | 26 | JAN | 0100 | 223 | 6. | 4. | 8589.1 | 1733.0 |
| 27 | JUL | 0100 | 41 | .6 | 4. | 9792.2 | 1757.2 | 27 | JAN | 0100 | 224 | 6. | 4. | 8547.4 | 1733.0 |
| 28 | JUL | 0100 | 42 | .6 | 4. | 9777.4 | 1757.2 | 28 | JAN | 0100 | 225 | 6. | 4. | 8537.4 | 1733.0 |
| 29 | JUL | 0100 | 43 | .6 | 4. | 9762.3 | 1757.2 | 29 | JAN | 0100 | 226 | 6. | 4. | 8534.7 | 1733.0 |
| 30 | JUL | 0100 | 44 | .6 | 4. | 9747.4 | 1757.2 | 30 | JAN | 0100 | 227 | 6. | 4. | 8530.0 | 1733.0 |
| 31 | JUL | 0100 | 45 | .6 | 4. | 9732.9 | 1757.2 | 31 | JAN | 0100 | 228 | 6. | 4. | 8516.2 | 1733.0 |
| 1 | AUG | 0100 | 46 | .6 | 4. | 9718.6 | 1757.2 | 1 | FEB | 0100 | 229 | 6. | 4. | 8499.3 | 1733.0 |
| 2 | AUG | 0100 | 47 | .6 | 4. | 9704.9 | 1757.2 | 2 | FEB | 0100 | 230 | 6. | 4. | 8480.8 | 1733.0 |
| 3 | AUG | 0100 | 48 | .6 | 4. | 9691.4 | 1757.2 | 3 | FEB | 0100 | 231 | 6. | 4. | 8464.8 | 1733.1 |
| 4 | AUG | 0100 | 49 | .6 | 4. | 9678.2 | 1757.2 | 4 | FEB | 0100 | 232 | 6. | 4. | 8448.3 | 1733.1 |
| 5 | AUG | 0100 | 50 | .6 | 4. | 9665.0 | 1757.2 | 5 | FEB | 0100 | 233 | 6. | 4. | 8430.8 | 1733.0 |
| 6 | AUG | 0100 | 51 | .6 | 4. | 9652.3 | 1757.1 | 6 | FEB | 0100 | 234 | 6. | 4. | 8412.2 | 1733.0 |
| 7 | AUG | 0100 | 52 | .6 | 4. | 9639.3 | 1757.1 | 7 | FEB | 0100 | 235 | 6. | 4. | 8423.9 | 1733.0 |
| 8 | AUG | 0100 | 53 | .6 | 4. | 9626.9 | 1757.1 | 8 | FEB | 0100 | 236 | 6. | 4. | 8424.2 | 1733.0 |
| 9 | AUG | 0100 | 54 | .6 | 4. | 9614.1 | 1757.1 | 9 | FEB | 0100 | 237 | 6. | 4. | 8416.4 | 1733.0 |
| 10 | AUG | 0100 | 55 | .6 | 4. | 9601.7 | 1757.0 | 10 | FEB | 0100 | 238 | 6. | 4. | 8402.7 | 1732.9 |
| 11 | AUG | 0100 | 56 | .6 | 4. | 9589.2 | 1757.0 | 11 | FEB | 0100 | 239 | 6. | 4. | 8374.2 | 1732.9 |
| 12 | AUG | 0100 | 57 | .6 | 4. | 9577.3 | 1756.9 | 12 | FEB | 0100 | 240 | 6. | 4. | 8355.1 | 1732.9 |
| 13 | AUG | 0100 | 58 | .6 | 4. | 9565.7 | 1756.9 | 13 | FEB | 0100 | 241 | 6. | 4. | 8329.6 | 1732.8 |
| 14 | AUG | 0100 | 59 | .6 | 4. | 9554.8 | 1756.9 | 14 | FEB | 0100 | 242 | 6. | 4. | 8312.8 | 1732.7 |
| 15 | AUG | 0100 | 60 | .6 | 4. | 9544.5 | 1756.9 | 15 | FEB | 0100 | 243 | 6. | 4. | 8302.2 | 1732.7 |
| 16 | AUG | 0100 | 61 | .6 | 4. | 9534.8 | 1756.8 | 16 | FEB | 0100 | 244 | 6. | 4. | 8246.1 | 1732.6 |
| 17 | AUG | 0100 | 62 | .6 | 4. | 9525.5 | 1756.8 | 17 | FEB | 0100 | 245 | 6. | 4. | 8233.2 | 1732.6 |
| 18 | AUG | 0100 | 63 | .6 | 4. | 9516.9 | 1756.8 | 18 | FEB | 0100 | 246 | 6. | 4. | 8243.9 | 1732.4 |
| 19 | AUG | 0100 | 64 | .6 | 4. | 9508.8 | 1756.8 | 19 | FEB | 0100 | 247 | 6. | 4. | 8255.9 | 1732.4 |
| 20 | AUG | 0100 | 65 | .6 | 4. | 9501.3 | 1756.8 | 20 | FEB | 0100 | 248 | 6. | 4. | 8257.5 | 1732.4 |
| 21 | AUG | 0100 | 66 | .6 | 4. | 9494.3 | 1756.8 | 21 | FEB | 0100 | 249 | 6. | 4. | 8246.8 | 1732.4 |
| 22 | AUG | 0100 | 67 | .6 | 4. | 9487.1 | 1756.8 | 22 | FEB | 0100 | 250 | 6. | 4. | 8235.4 | 1732.3 |
| 23 | AUG | 0100 | 68 | .6 | 4. | 9480.1 | 1756.8 | 23 | FEB | 0100 | 251 | 6. | 4. | 8224.2 | 1732.3 |
| 24 | AUG | 0100 | 69 | .6 | 4. | 9473.9 | 1756.7 | 24 | FEB | 0100 | 252 | 6. | 4. | 8213.0 | 1732.3 |
| 25 | AUG | 0100 | 70 | .6 | 4. | 9467.6 | 1756.7 | 25 | FEB | 0100 | 253 | 6. | 4. | 8202.2 | 1732.3 |
| 26 | AUG | 0100 | 71 | .6 | 4. | 9461.7 | 1756.7 | 26 | FEB | 0100 | 254 | 6. | 4. | 8191.4 | 1732.3 |
| 27 | AUG | 0100 | 72 | .6 | 4. | 9456.0 | 1756.7 | 27 | FEB | 0100 | 255 | 6. | 4. | 8180.5 | 1732.3 |
| 28 | AUG | 0100 | 73 | .6 | 4. | 9450.6 | 1756.6 | 28 | FEB | 0100 | 256 | 6. | 4. | 8169.0 | 1732.2 |
| 29 | AUG | 0100 | 74 | .6 | 4. | 9445.3 | 1756.6 | 29 | FEB | 0100 | 257 | 6. | 4. | 8157.7 | 1732.2 |
| 30 | AUG | 0100 | 75 | .6 | 4. | 9440.3 | 1756.6 | 30 | FEB | 0100 | 258 | 6. | 4. | 8146.0 | 1732.2 |
| 31 | AUG | 0100 | 76 | .6 | 4. | 9435.4 | 1756.5 | 1 | MAR | 0100 | 259 | 6. | 4. | 8134.7 | 1732.2 |
| 1 | SEP | 0100 | 77 | .6 | 4. | 9430.7 | 1756.5 | 2 | MAR | 0100 | 260 | 6. | 4. | 8123.0 | 1732.2 |
| 2 | SEP | 0100 | 78 | .6 | 4. | 9426.2 | 1756.4 | 3 | MAR | 0100 | 261 | 6. | 4. | 8111.8 | 1732.2 |
| 3 | SEP | 0100 | 79 | .6 | 4. | 9421.8 | 1756.4 | 4 | MAR | 0100 | 262 | 6. | 4. | 8100.9 | 1732.2 |
| 4 | SEP | 0100 | 80 | .6 | 4. | 9417.6 | 1756.4 | 5 | MAR | 0100 | 263 | 6. | 4. | 8089.7 | 1732.2 |
| 5 | SEP | 0100 | 81 | .6 | 4. | 9413.6 | 1756.3 | 6 | MAR | 0100 | 264 | 6. | 4. | 8078.1 | 1732.2 |
| 6 | SEP | 0100 | 82 | .6 | 4. | 9409.7 | 1756.2 | 7 | MAR | 0100 | 265 | 6. | 4. | 8066.8 | 1732.2 |
| 7 | SEP | 0100 | 83 | .6 | 4. | 9405.7 | 1756.2 | 8 | MAR | 0100 | 266 | 6. | 4. | 8055.1 | 1732.2 |
| 8 | SEP | 0100 | 84 | .6 | 4. | 9401.9 | 1756.1 | 9 | MAR | 0100 | 267 | 6. | 4. | 8043.0 | 1732.2 |
| 9 | SEP | 0100 | 85 | .6 | 4. | 9398.2 | 1756.1 | 10 | MAR | 0100 | 268 | 6. | 4. | 8031.2 | 1732.2 |
| 10 | SEP | 0100 | 86 | .6 | 4. | 9394.6 | 1756.1 | 11 | MAR | 0100 | 269 | 6. | 4. | 8019.0 | 1732.2 |
| 11 | SEP | 0100 | 87 | .6 | 4. | 9391.2 | 1756.0 | 12 | MAR | 0100 | 270 | 6. | 4. | 8007.0 | 1732.2 |
| 12 | SEP | 0100 | 88 | .6 | 4. | 9387.8 | 1756.0 | 13 | MAR | 0100 | 271 | 6. | 4. | 8000.1 | 1732.2 |
| 13 | SEP | 0100 | 89 | .6 | 4. | 9384.6 | 1755.9 | 14 | MAR | 0100 | 272 | 6. | 4. | 7993.7 | 1732.1 |
| 14 | SEP | 0100 | 90 | .6 | 4. | 9381.6 | 1755.9 | 15 | MAR | 0100 | 273 | 6. | 4. | 7987.0 | 1732.1 |
| 15 | SEP | 0100 | 91 | .6 | 4. | 9378.9 | 1755.9 | 16 | MAR | 0100 | 274 | 6. | 4. | 7980.3 | 1732.1 |
| 16 | SEP | 0100 | 92 | .6 | 4. | 9376.4 | 1755.8 | 17 | MAR | 0100 | 275 | 6. | 4. | 7974.0 | 1732.1 |
| 17 | SEP | 0100 | 93 | .6 | 4. | 9374.1 | 1755.7 | 18 | MAR | 0100 | 276 | 6. | 4. | 7968.1 | 1732.1 |
| 18 | SEP | 0100 | 94 | .6 | 4. | 9371.9 | 1755.7 | 19 | | | | | | | |

| DATE | TIME | GAUGE | WATER | TEMP. | WIND | DIR. | REL. HUM. | BAR. | WIND | DIR. | REL. HUM. | BAR. | | |
|-------------|------|-------|-------|--------|--------|------|-----------|------|-------------|------|-----------|------|---------|--------|
| 23 SEP 0100 | 99 | 61 | 41 | 8356.5 | 1755.5 | * | | | 25 MAR 0100 | 282 | 61 | 41 | 8491.1 | 1755.9 |
| 24 SEP 0100 | 100 | 61 | 41 | 8342.7 | 1755.5 | * | | | 26 MAR 0100 | 283 | 61 | 41 | 8473.4 | 1755.8 |
| 25 SEP 0100 | 101 | 61 | 41 | 8330.8 | 1755.5 | * | | | 27 MAR 0100 | 284 | 61 | 41 | 8453.1 | 1755.8 |
| 26 SEP 0100 | 102 | 61 | 41 | 8323.3 | 1755.8 | * | | | 28 MAR 0100 | 285 | 61 | 41 | 8507.4 | 1755.9 |
| 27 SEP 0100 | 103 | 61 | 41 | 8317.4 | 1755.4 | * | | | 29 MAR 0100 | 286 | 61 | 41 | 8541.4 | 1756.0 |
| 28 SEP 0100 | 104 | 61 | 41 | 8309.6 | 1755.4 | * | | | 30 MAR 0100 | 287 | 61 | 41 | 8543.6 | 1756.0 |
| 29 SEP 0100 | 105 | 61 | 41 | 8298.2 | 1755.4 | * | | | 31 MAR 0100 | 288 | 61 | 41 | 8571.4 | 1756.1 |
| 30 SEP 0100 | 106 | 61 | 41 | 8279.0 | 1755.3 | * | | | 1 APR 0100 | 289 | 61 | 41 | 8689.1 | 1756.4 |
| 1 OCT 0100 | 107 | 61 | 41 | 8262.5 | 1755.3 | * | | | 2 APR 0100 | 290 | 61 | 41 | 8789.5 | 1756.4 |
| 2 OCT 0100 | 108 | 61 | 41 | 8247.4 | 1755.2 | * | | | 3 APR 0100 | 291 | 61 | 41 | 8822.4 | 1756.7 |
| 3 OCT 0100 | 109 | 61 | 41 | 8225.1 | 1755.2 | * | | | 4 APR 0100 | 292 | 61 | 41 | 8817.7 | 1756.7 |
| 4 OCT 0100 | 110 | 61 | 41 | 8207.1 | 1755.1 | * | | | 5 APR 0100 | 293 | 61 | 41 | 8876.3 | 1756.7 |
| 5 OCT 0100 | 111 | 61 | 41 | 8188.7 | 1755.1 | * | | | 6 APR 0100 | 294 | 61 | 41 | 8832.0 | 1756.7 |
| 6 OCT 0100 | 112 | 61 | 41 | 8170.2 | 1755.0 | * | | | 7 APR 0100 | 295 | 61 | 41 | 8855.0 | 1756.8 |
| 7 OCT 0100 | 113 | 61 | 41 | 8149.1 | 1755.0 | * | | | 8 APR 0100 | 296 | 61 | 41 | 8859.6 | 1756.8 |
| 8 OCT 0100 | 114 | 61 | 41 | 8129.5 | 1754.9 | * | | | 9 APR 0100 | 297 | 61 | 41 | 8840.2 | 1756.8 |
| 9 OCT 0100 | 115 | 61 | 41 | 8111.1 | 1754.9 | * | | | 10 APR 0100 | 298 | 61 | 41 | 8881.5 | 1756.9 |
| 10 OCT 0100 | 116 | 61 | 41 | 8092.5 | 1754.8 | * | | | 11 APR 0100 | 299 | 61 | 41 | 8863.8 | 1756.9 |
| 11 OCT 0100 | 117 | 61 | 41 | 8072.7 | 1754.8 | * | | | 12 APR 0100 | 300 | 61 | 41 | 8916.4 | 1757.0 |
| 12 OCT 0100 | 118 | 61 | 41 | 8052.3 | 1754.7 | * | | | 13 APR 0100 | 301 | 61 | 41 | 8949.6 | 1757.0 |
| 13 OCT 0100 | 119 | 61 | 41 | 8031.9 | 1754.7 | * | | | 14 APR 0100 | 302 | 61 | 41 | 8944.7 | 1757.0 |
| 14 OCT 0100 | 120 | 61 | 41 | 8011.4 | 1754.4 | * | | | 15 APR 0100 | 303 | 61 | 41 | 8982.3 | 1757.0 |
| 15 OCT 0100 | 121 | 61 | 41 | 7991.0 | 1754.6 | * | | | 16 APR 0100 | 304 | 61 | 41 | 8983.3 | 1757.2 |
| 16 OCT 0100 | 122 | 61 | 41 | 7970.6 | 1754.5 | * | | | 17 APR 0100 | 305 | 61 | 41 | 8988.2 | 1757.2 |
| 17 OCT 0100 | 123 | 61 | 41 | 7950.0 | 1754.5 | * | | | 18 APR 0100 | 306 | 61 | 41 | 9016.8 | 1757.4 |
| 18 OCT 0100 | 124 | 61 | 41 | 7929.5 | 1754.4 | * | | | 19 APR 0100 | 307 | 61 | 41 | 9024.0 | 1757.7 |
| 19 OCT 0100 | 125 | 61 | 41 | 7909.0 | 1754.4 | * | | | 20 APR 0100 | 308 | 61 | 41 | 9034.0 | 1757.9 |
| 20 OCT 0100 | 126 | 61 | 41 | 7888.4 | 1754.3 | * | | | 21 APR 0100 | 309 | 61 | 41 | 9037.1 | 1758.0 |
| 21 OCT 0100 | 127 | 61 | 41 | 7868.1 | 1754.2 | * | | | 22 APR 0100 | 310 | 61 | 41 | 9034.1 | 1758.0 |
| 22 OCT 0100 | 128 | 61 | 41 | 7847.4 | 1754.2 | * | | | 23 APR 0100 | 311 | 61 | 41 | 9028.6 | 1757.9 |
| 23 OCT 0100 | 129 | 61 | 41 | 7827.1 | 1754.1 | * | | | 24 APR 0100 | 312 | 61 | 41 | 9019.1 | 1757.9 |
| 24 OCT 0100 | 130 | 61 | 41 | 7806.4 | 1754.1 | * | | | 25 APR 0100 | 313 | 61 | 41 | 9027.5 | 1757.9 |
| 25 OCT 0100 | 131 | 61 | 41 | 7786.1 | 1754.0 | * | | | 26 APR 0100 | 314 | 61 | 41 | 9034.2 | 1757.9 |
| 26 OCT 0100 | 132 | 61 | 41 | 7765.7 | 1754.0 | * | | | 27 APR 0100 | 315 | 61 | 41 | 90315.0 | 1757.9 |
| 27 OCT 0100 | 133 | 61 | 41 | 7747.1 | 1753.9 | * | | | 28 APR 0100 | 316 | 61 | 41 | 9032.4 | 1758.1 |
| 28 OCT 0100 | 134 | 61 | 41 | 7727.1 | 1753.9 | * | | | 29 APR 0100 | 317 | 61 | 41 | 9033.6 | 1758.4 |
| 29 OCT 0100 | 135 | 61 | 41 | 7716.7 | 1753.8 | * | | | 30 APR 0100 | 318 | 61 | 41 | 9042.8 | 1758.4 |
| 30 OCT 0100 | 136 | 61 | 41 | 7697.4 | 1753.8 | * | | | 1 MAY 0100 | 319 | 61 | 41 | 9036.2 | 1758.5 |
| 31 OCT 0100 | 137 | 61 | 41 | 7680.1 | 1753.7 | * | | | 2 MAY 0100 | 320 | 61 | 41 | 9033.9 | 1758.5 |
| 1 NOV 0100 | 138 | 61 | 41 | 7663.3 | 1753.7 | * | | | 3 MAY 0100 | 321 | 61 | 41 | 9044.6 | 1758.5 |
| 2 NOV 0100 | 139 | 61 | 41 | 7647.4 | 1753.7 | * | | | 4 MAY 0100 | 322 | 61 | 41 | 9046.4 | 1758.5 |
| 3 NOV 0100 | 140 | 61 | 41 | 7631.1 | 1753.7 | * | | | 5 MAY 0100 | 323 | 61 | 41 | 9043.7 | 1758.5 |
| 4 NOV 0100 | 141 | 61 | 41 | 7614.8 | 1753.7 | * | | | 6 MAY 0100 | 324 | 61 | 41 | 9031.5 | 1758.4 |
| 5 NOV 0100 | 142 | 61 | 41 | 7598.2 | 1753.6 | * | | | 7 MAY 0100 | 325 | 61 | 41 | 9037.0 | 1758.5 |
| 6 NOV 0100 | 143 | 61 | 41 | 7581.5 | 1753.6 | * | | | 8 MAY 0100 | 326 | 61 | 41 | 9028.7 | 1758.6 |
| 7 NOV 0100 | 144 | 61 | 41 | 7564.5 | 1753.5 | * | | | 9 MAY 0100 | 327 | 61 | 41 | 9036.0 | 1758.6 |
| 8 NOV 0100 | 145 | 61 | 41 | 7547.9 | 1753.5 | * | | | 10 MAY 0100 | 328 | 61 | 41 | 9034.6 | 1758.6 |
| 9 NOV 0100 | 146 | 61 | 41 | 7531.4 | 1753.4 | * | | | 11 MAY 0100 | 329 | 61 | 41 | 9029.2 | 1758.6 |
| 10 NOV 0100 | 147 | 61 | 41 | 7514.7 | 1753.4 | * | | | 12 MAY 0100 | 330 | 61 | 41 | 9023.2 | 1758.6 |
| 11 NOV 0100 | 148 | 61 | 41 | 7498.1 | 1753.4 | * | | | 13 MAY 0100 | 331 | 61 | 41 | 9014.3 | 1758.5 |
| 12 NOV 0100 | 149 | 61 | 41 | 7481.3 | 1753.3 | * | | | 14 MAY 0100 | 332 | 61 | 41 | 9001.6 | 1758.5 |
| 13 NOV 0100 | 150 | 61 | 41 | 7464.4 | 1753.3 | * | | | 15 MAY 0100 | 333 | 61 | 41 | 8998.3 | 1758.5 |
| 14 NOV 0100 | 151 | 61 | 41 | 7447.1 | 1753.2 | * | | | 16 MAY 0100 | 334 | 61 | 41 | 8975.8 | 1758.4 |
| 15 NOV 0100 | 152 | 61 | 41 | 7430.2 | 1753.2 | * | | | 17 MAY 0100 | 335 | 61 | 41 | 8985.0 | 1758.4 |
| 16 NOV 0100 | 153 | 61 | 41 | 7413.1 | 1753.2 | * | | | 18 MAY 0100 | 336 | 61 | 41 | 8947.6 | 1758.4 |
| 17 NOV 0100 | 154 | 61 | 41 | 7396.2 | 1753.2 | * | | | 19 MAY 0100 | 337 | 61 | 41 | 8945.4 | 1758.4 |
| 18 NOV 0100 | 155 | 61 | 41 | 7379.1 | 1753.3 | * | | | 20 MAY 0100 | 338 | 61 | 41 | 8943.4 | 1758.4 |
| 19 NOV 0100 | 156 | 61 | 41 | 7361.5 | 1753.3 | * | | | 21 MAY 0100 | 339 | 61 | 41 | 8936.1 | 1758.4 |
| 20 NOV 0100 | 157 | 61 | 41 | 7344.2 | 1753.3 | * | | | 22 MAY 0100 | 340 | 61 | 41 | 8942.1 | 1758.4 |
| 21 NOV 0100 | 158 | 61 | 41 | 7327.2 | 1753.4 | * | | | 23 MAY 0100 | 341 | 61 | 41 | 8937.2 | 1758.5 |
| 22 NOV 0100 | 159 | 61 | 41 | 7310.4 | 1753.4 | * | | | 24 MAY 0100 | 342 | 61 | 41 | 8936.2 | 1758.5 |
| 23 NOV 0100 | 160 | 61 | 41 | 7293.2 | 1753.4 | * | | | 25 MAY 0100 | 343 | 61 | 41 | 8932.7 | 1758.5 |
| 24 NOV 0100 | 161 | 61 | 41 | 7275.7 | 1753.3 | * | | | 26 MAY 0100 | 344 | 61 | 41 | 8927.5 | 1758.5 |
| 25 NOV 0100 | 162 | 61 | 41 | 7258.1 | 1753.3 | * | | | 27 MAY 0100 | 345 | 61 | 41 | 8939.5 | 1758.5 |
| 26 NOV 0100 | 163 | 61 | 41 | 7240.8 | 1753.2 | * | | | 28 MAY 0100 | 346 | 61 | 41 | 8949.7 | 1758.5 |
| 27 NOV 0100 | 164 | 61 | 41 | 7223.4 | 1753.2 | * | | | 29 MAY 0100 | 347 | 61 | 41 | 8948.0 | 1758.5 |
| 28 NOV 0100 | 165 | 61 | 41 | 7206.1 | 1753.3 | * | | | 30 MAY 0100 | 348 | 61 | 41 | 8955.0 | 1758.4 |
| 29 NOV 0100 | 166 | 61 | 41 | 7188.4 | 1753.3 | * | | | 31 MAY 0100 | 349 | 61 | 41 | 8949.7 | 1758.4 |
| 30 NOV 0100 | 167 | 61 | 41 | 7171.4 | 1753.4 | * | | | 1 JUN 0100 | 350 | 61 | 41 | 8936.1 | 1758.4 |
| 1 DEC 0100 | 168 | 61 | 41 | 7154.0 | 1753.3 | * | | | 2 JUN 0100 | 351 | 61 | 41 | 8952.0 | 1758.4 |
| 2 DEC 0100 | 169 | 61 | 41 | 7136.9 | 1753.3 | * | | | 3 JUN 0100 | 352 | 61 | 41 | 8933.8 | 1758.4 |
| 3 DEC 0100 | 170 | 61 | 41 | 7119.7 | 1753.3 | * | | | 4 JUN 0100 | 353 | 61 | 41 | 8936.6 | 1758.7 |
| 4 DEC 0100 | 171 | 61 | 41 | 7102.3 | 1753.3 | * | | | 5 JUN 0100 | 354 | 61 | 41 | 8906.8 | 1758.8 |
| 5 DEC 0100 | 172 | 61 | 41 | 7084.7 | 1753.3 | * | | | 6 JUN 0100 | 355 | 61 | 41 | 8918.5 | 1758.8 |
| 6 DEC 0100 | 173 | 61 | 41 | 7067.3 | 1753.2 | * | | | 7 JUN 0100 | 356 | 61 | 41 | 8924.4 | 1758.8 |
| 7 DEC 0100 | 174 | 61 | 41 | 7049.7 | 1753.2 | * | | | 8 JUN 0100 | 357 | 61 | 41 | 8941.1 | 1758.8 |
| 8 DEC 0100 | 175 | 61 | 41 | 7032.7 | 1753.1 | * | | | 9 JUN 0100 | 358 | 61 | 41 | 8953.3 | 1758.9 |
| 9 DEC 0100 | 176 | 61 | 41 | 7015.7 | 1753.1 | * | | | 10 JUN 0100 | 359 | 61 | 41 | 8940.3 | 1758.9 |
| 10 DEC 0100 | 177 | 61 | 41 | 6998.1 | 1753.0 | * | | | 11 JUN 0100 | 360 | 61 | 41 | 8938.4 | 1758.9 |
| 11 DEC 0100 | 178 | 61 | 41 | 6980.1 | 1753.0 | * | | | 12 JUN 0100 | 361 | 61 | 41 | 8922.1 | 1760.0 |
| 12 DEC 0100 | 179 | 61 | 41 | 6962.8 | 1752.9 | * | | | 13 JUN 0100 | 362 | 61 | 41 | 8920.7 | 1760.0 |
| 13 DEC 0100 | 180 | 61 | 41 | 6944.8 | 1752.9 | * | | | 14 JUN 0100 | 363 | 61 | 41 | 8920.6 | 1760.0 |
| 14 DEC 0100 | 181 | 61 | 41 | 6926.8 | 1752.8 | * | | | 15 JUN 0100 | 364 | 61 | 41 | 8919.2 | 1759.9 |
| 15 DEC 0100 | 182 | 61 | 41 | 6908.8 | 1752.7 | * | | | 16 JUN 0100 | 365 | 61 | 41 | 8918.6 | 1759.9 |
| 16 DEC 0100 | 183 | 61 | 41 | 6890.8 | 1752.7 | * | | | 17 JUN 0100 | 366 | 61 | 41 | 8916.9 | 1759.9 |

AK OUTFLOW IS 4. AT TIME 664.00 HOURS

PUMP FLOW HYDROGRAPH *****

| PUMP FLOW (CFS) | TIME (HRS) | MAXIMUM AVERAGE FLOW | | | |
|--------------------|---------------|----------------------|--------|--------|---------|
| | | 10-DAY | 30-DAY | 90-DAY | 365-DAY |
| 6. | 24.00 | 6. | 6. | 6. | 6. |
| (CFS) | | (CFS) | (CFS) | (CFS) | (CFS) |
| (INCHES) | | 0.322 | 1.568 | 4.895 | 13.015 |
| (AC-FE) | | 123. | 363. | 1107. | 4482. |

***** OUTFLOW HYDROGRAPH *****

| PEAK FLOW (CFS) | TIME (HR) | MAXIMUM AVERAGE FLOW | | | |
|--------------------|--------------|----------------------|--------|--------|-----------|
| | | 10-DAY | 30-DAY | 60-DAY | 183.0-DAY |
| 4. | 8664.00 | 4. | 4. | 4. | 4. |
| (INCHES) | | 0.349 | 1.104 | 3.288 | 13.108 |
| (AC-FT) | | 87. | 260. | 775. | 3089. |

| PEAK STORAGE (AC-FT) | TIME (HR) | MAXIMUM AVERAGE STORAGE | | | |
|-------------------------|--------------|-------------------------|--------|--------|-----------|
| | | 10-DAY | 30-DAY | 60-DAY | 183.0-DAY |
| 11288. | 8664.00 | 11177. | 11055. | 10494. | 9426. |

| PEAK STAGE (FEET) | TIME (HR) | MAXIMUM AVERAGE STAGE | | | |
|----------------------|--------------|-----------------------|---------|---------|-----------|
| | | 10-DAY | 30-DAY | 60-DAY | 183.0-DAY |
| 1759.98 | 8664.00 | 1759.91 | 1759.63 | 1758.31 | 1755.85 |

CUMULATIVE AREA = 4.42 SQ MI

PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
 FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES
 TIME TO PEAK IN HOURS

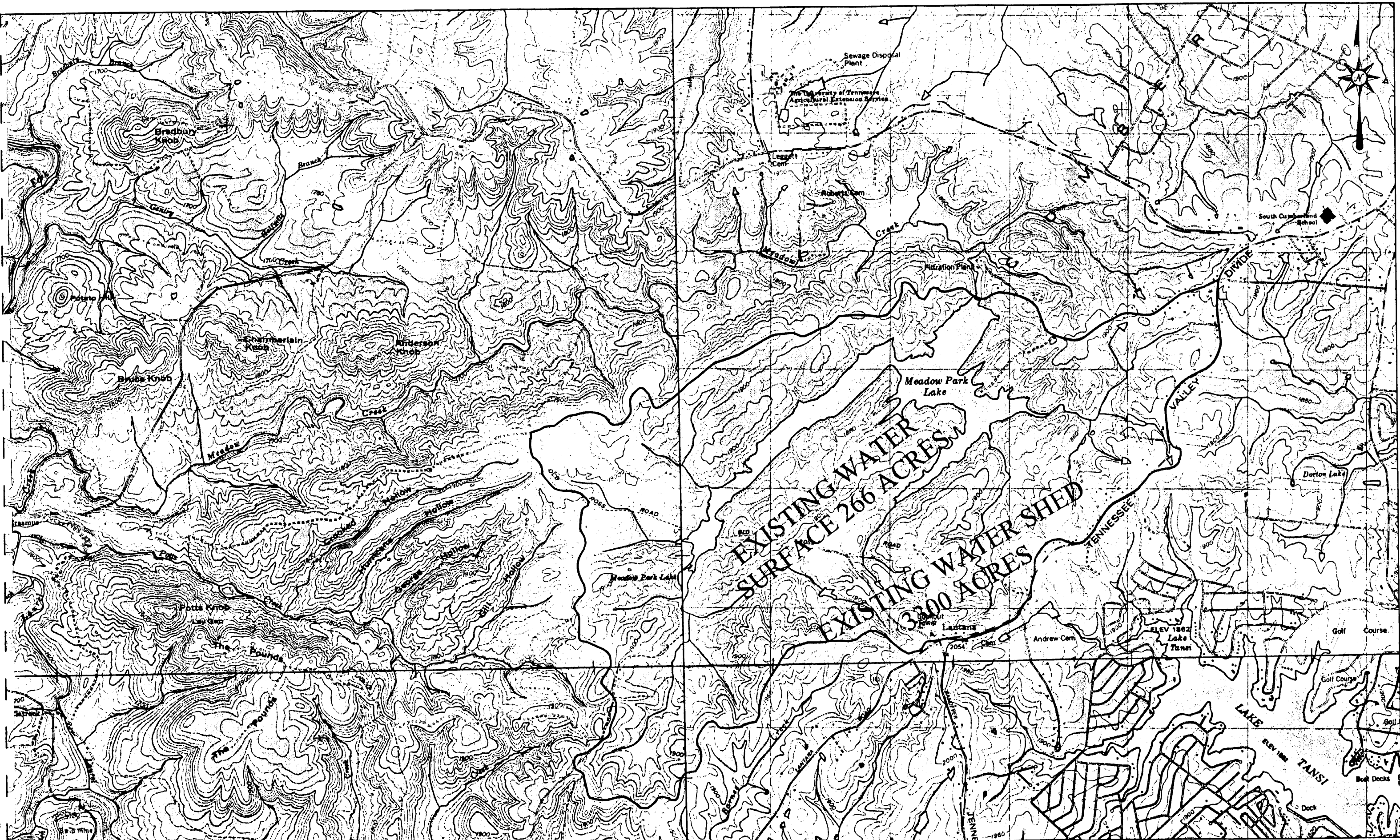
| DESCRIPTION | STATION | AREA | PLAN | RATIO | RATIOS APPLIED TO FLOWS | | |
|---------------------------|---------|------|------|-------|-------------------------|---------|---------|
| | | | | | 1 | 2 | |
| HYDROGRAPH AT | SUB1 | 3.72 | 1 | FLOW | 111. | | |
| | | | | | TIME | 4192.00 | |
| | | | | | 2 | FLOW | 111. |
| | | | | | | TIME | 4192.00 |
| HYDROGRAPH AT | SUB2 | 0.70 | 1 | FLOW | 25. | | |
| | | | | | TIME | 4192.00 | |
| | | | | | 2 | FLOW | 25. |
| | | | | | | TIME | 4192.00 |
| COMBINED AT | COMB1 | 4.42 | 1 | FLOW | 136. | | |
| | | | | | TIME | 4192.00 | |
| | | | | | 2 | FLOW | 136. |
| | | | | | | TIME | 4192.00 |
| PIKE FLOW TO | | 4.42 | 1 | FLOW | 0. | | |
| | | | | | TIME | 0.00 | |
| | | | | | 2 | FLOW | 0. |
| | | | | | | TIME | 24.00 |
| HYDROGRAPH AT | DAM | 4.42 | 1 | FLOW | 136. | | |
| | | | | | TIME | 4192.00 | |
| | | | | | 2 | FLOW | 0. |
| | | | | | | TIME | 8664.00 |
| ** PEAK STAGES IN FEET ** | | | | | | | |
| | | | | | 0.00 | | |
| | | | | | 0.00 | | |
| | | | | | 1759.98 | | |
| | | | | | 8664.00 | | |

PLAN 2

| | ELEVATION | INITIAL VALUE | SPILLWAY CREST | TOP OF DAM |
|---------|-----------|---------------|----------------|------------|
| STORAGE | | 1759.00 | 1760.00 | 1770.00 |
| OUTFLOW | | 10349. | 11219. | 16410. |
| | | 4. | 4. | 17281. |

| RATIO OF PMF | MAXIMUM RESERVOIR W.S.ELEV | MAXIMUM DEPTH OVER DAM | MAXIMUM STORAGE AC-FT | MAXIMUM OUTFLOW CFS | DURATION OVER TOP HOURS | TIME OF MAX OUTFLOW HOURS | TIME OF FAILURE HOURS |
|--------------|----------------------------|------------------------|-----------------------|---------------------|-------------------------|---------------------------|-----------------------|
| 1.00 | 1759.98 | 0.00 | 11204. | 4. | 0.00 | 8664.00 | 0.00 |

1 ERROR(S) DETECTED BY REC-1. ***



XIST.DWG 1:1.18

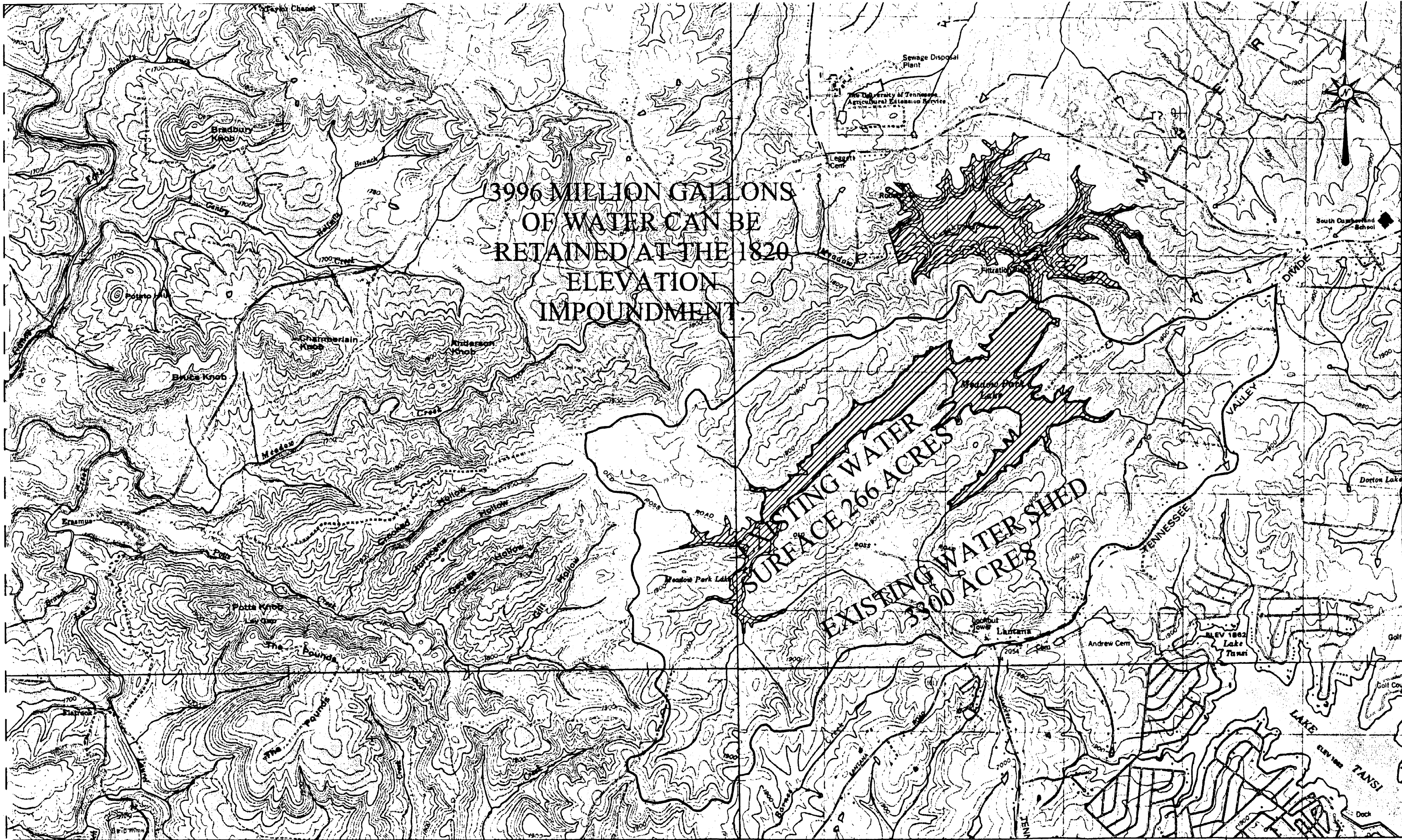
LD&A

Corporate Office: 3305 Maloney Road, Knoxville, TN 37920
 Lamar Dunn & Associates Inc.
 Tri-Cities Office: 4718 Lake Park Dr., Suite 4, Johnson City, TN 37615

CITY OF CROSSVILLE
 CUMBERLAND COUNTY, TENNESSEE

PRELIMINARY ENGINEERING REPORT FEASIBILITY OF CONSTRUCTION
 IMPOUNDMENTS DOWNSTREAM OF MEADOW PARK LAKE
 FIGURE I-1 EXISTING MEADOW PARK LAKE AREA

| | | |
|--------------------|---------------|----------------------------|
| DESIGNED BY CLD | CHECKED BY | SCALE NO SCALE |
| DRAWN BY RJS | DATE 11-01 | FILE NO. COCO05SE06WD11 |



3996 MILLION GALLONS
 OF WATER CAN BE
 RETAINED AT THE 1820
 ELEVATION
 IMPOUNDMENT

EXISTING WATER
 SURFACE 266 ACRES

EXISTING WATER SHED
 3,300 ACRES

820.DWG 1:1.18

LD & A

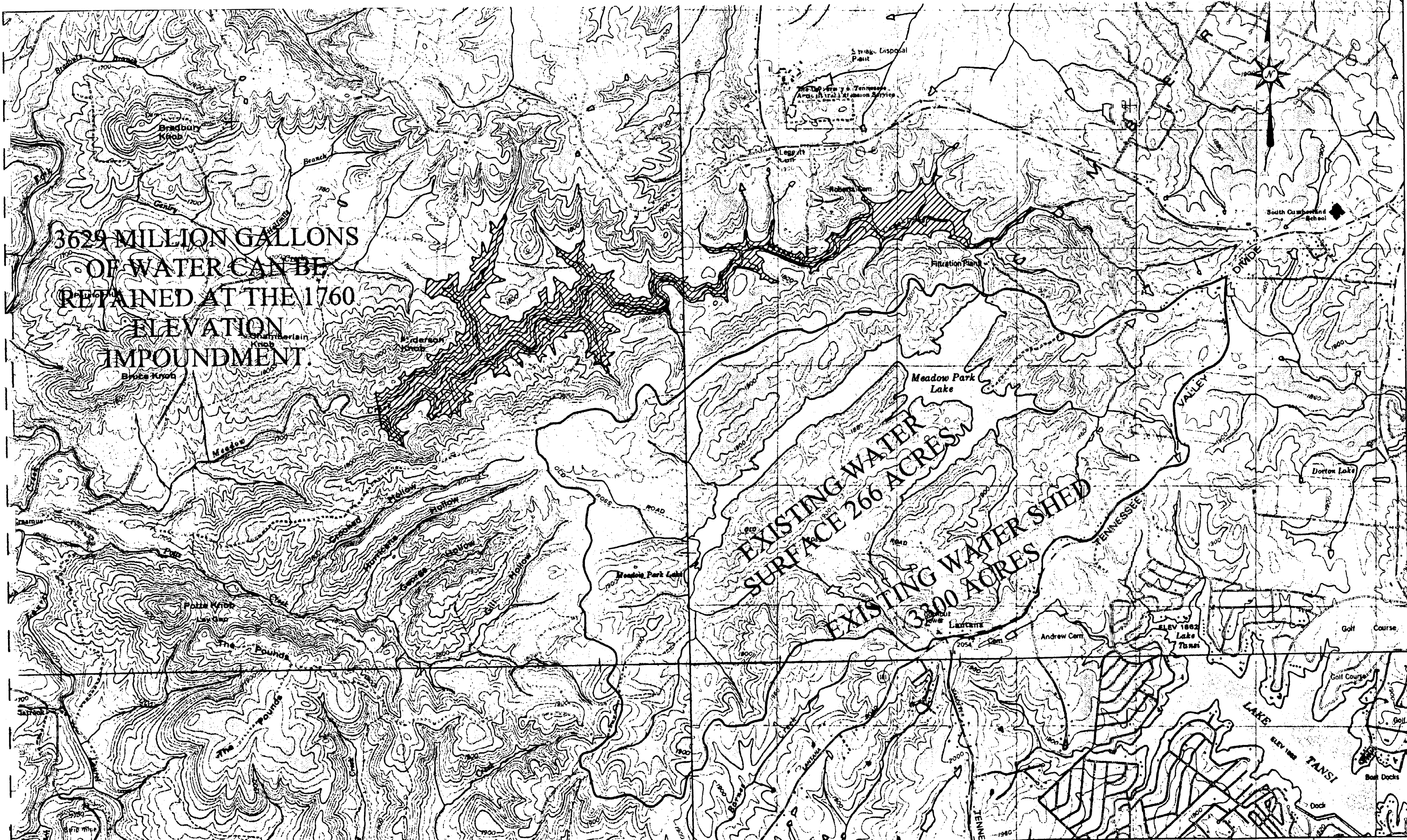
Corporate Office:
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 Knoxville, TN 37920

Lamar Dunn & Associates Inc.
 Tri-Cities Office:
 4718 Lake Park Dr., Suite 4
 Johnson City, TN. 37615

CITY OF CROSSVILLE
 CUMBERLAND COUNTY, TENNESSEE

PRELIMINARY ENGINEERING REPORT FEASIBILITY OF CONSTRUCTION
 IMPOUNDMENTS DOWNSTREAM OF MEADOW PARK LAKE
 FIGURE III-1 - ALTERNATE ONE

| | | |
|--------------------|---------------|----------------------------|
| DESIGNED BY CLD | CHECKED BY | SCALE NO SCALE |
| DRAWN BY RJS | DATE 11-01 | FILE NO. COC005SE06WD11 |



3629 MILLION GALLONS
 OF WATER CAN BE
 RETAINED AT THE 1760
 ELEVATION
 IMPOUNDMENT.

EXISTING WATER
 SURFACE 266 ACRES
 EXISTING WATER SHED
 3300 ACRES

760.DWG 1:1.18

LD&A
 Lamar Dunn & Associates Inc.
 Corporate Office:
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CITY OF CROSSVILLE
 CUMBERLAND COUNTY, TENNESSEE

PRELIMINARY ENGINEERING REPORT FEASIBILITY OF CONSTRUCTION
 IMPOUNDMENTS DOWNSTREAM OF MEADOW PARK LAKE
 FIGURE IV-1 - ALTERNATE TWO

| | | |
|--------------------|---------------|----------------------------|
| DESIGNED BY CLD | CHECKED BY | SCALE NO SCALE |
| DRAWN BY RJS | DATE 11-01 | FILE NO. COC005SE06WD11 |