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Site: Industriplex
Location: C-4
Office: 33592

HEC-1

100 Year, 24 Hour Storm

(Routing Watershed 7 Through 8)

1

****

FLOOD HYDROGRAPH PACKAGE HEC-1 (IBM XT 512K VERSION) -FEB 1,1985
U.S. ARMY CORPS OF ENGINEERS, THE HYDROLOGIC ENGINEERING CENTER, 609 SECOND STREET, DAVIS, CA. 95616

****

THIS HEC-1 VERSION CONTAINS ALL OPTIONS EXCEPT ECONOMICS, AND THE NUMBER OF PLANS ARE REDUCED TO 3

1 HEC-1 INPUT PAGE 1

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LINE          ID.......1.......2.......3...  ..4.......5.......6.......7.......8.......9......10

  1           ID        READING SUBWATERSHEDS
  2           ID        DETAILED STORAGE AND STREAM NETWORK
  3           ID        EXISTING CONDITIONS - 100 YR, 24 HR STORM
              *DIAGRAM
  4           IT      15 28FEB91     100      97
  5           IO       5

  6           KK   SUB7A
  7           KO       4
  8           KM        SCS RUNOFF CALCULATION
  9           BA   0.133
 10           PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
 11           LS             77
 12           UD     0.3

 13           KK   7ASWP
 14           KO       1
 15           KM        STORAGE ROUTING THROUGH 7A
 16           RS       1    ELEV     110
 17           SA    0.80    1.94    4.34   11.31   18.24
 18           SE     110     111     112     113     114
 19           SL   110.0    3.53     0.6     0.5
 20           SS   113.9       0       0     1.5

 21           KK   SUB7B
 22           KO       4
 23           KM        SCS RUNOFF CALCULATION
 24           BA   0.116
 25           PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
 26           LS             77
 27           UD     0.5

 28           KK     7AB
 29           KM        COMBINE HYDROGRAPHS FOR 7A & 7B
 30           HC       2

 31           KK   7BSWP
 32           KO       1
 33           KM        STORAGE ROUTING THROUGH 7B
 34           RS       1    ELEV     103
 35           SA    0.26    0.65    2.16    3.58    5.77
 36           SE     103     104     106     108     109
 37           SL     101    1.77     0.6     0.5
 38           SS   105.9       0       0     1.5

 39           KK   SUB7C
 40           KO       4
```

```
 41          KM        SCS RUNOFF CALCULATION
 42          BA   0.053
 43          PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
 44          LS             77
 45          UD    0.25
1                                        HEC-1 INPUT                                          PAGE  2

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 46          KK     7BC
 47          KM        COMBINE HYDROGRAPHS FOR 7B & 7C
 48          HC       2

 49          KK   7CHNL
 50          KO       1
 51          KM        STORAGE ROUTING THROUGH 7C
 52          RS       1    STOR       0
 53          RC   0.080   0.030   0.080     400  0.0285      98
 54          RX       0      10      20      30      40      50      60      70
 55          RY      99    98.5      98      96      96      98    98.5      99

 56          KK   SUB7D
 57          KO       4
 58          KM        SCS RUNOFF CALCULATION
 59          BA   0.104
 60          PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
 61          LS             77
 62          UD     0.4

 63          KK   7DSWP
 64          KO       1
 65          KM        STORAGE ROUTING THROUGH 7D
 66          RS       1    ELEV    88.8
 67          SA    0.57    1.42    2.49    3.86
 68          SE      88      90      92      94
 69          SL    90.6    4.91     0.6     0.5
 70          SS      92      10     3.0     1.5

 71          KK   SUB7E
 72          KO       4
 73          KM        SCS RUNOFF CALCULATION
 74          BA   0.046
 75          PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
 76          LS             77
 77          UD    0.14

 78          KK    7CDE
 79          KM        COMBINE HYDROGRAPHS FOR 7C, 7D, & 7E
 80          HC       3

 81          KK   7ECHN
 82          KO       1
 83          KM        STORAGE ROUTING THROUGH 7CDE
 84          RS       1    STOR       0
 85          RC    0.08    0.03    0.08    7600   0.002      93
 86          RX       0       5      10      16      24      30      35      40
 87          RY      94    93.5      93      88      88      93    93.5      94
1                                        HEC-1 INPUT                                          PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 88          KK   SUB7F
 89          KO       4
 90          KM        SCS RUNOFF CALCULATION
```

```
 91          BA   0.206
 92          PH             0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
 93          LS            77
 94          UD     0.3

 95          KK    7EF
 96          KM        COMBINE HYDROGRAPHS FOR 7E & 7F
 97          HC       2

 98          KK   7FCHNL
 99          KO       1
100          KM        STORAGE ROUTING THROUGH 7F
101          RS       1    STOR       0
102          RC    0.08    0.03    0.08     500   0.003      90
103          RX       0       5      10      16      24      30      35      40
104          RY      90    90.5      90      86      86      90    90.5      91

105          KK   SUB7G
106          KO       4
107          KM        SCS RUNOFF CALCULATION
108          BA   0.063
109          PH             0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
110          LS            77
111          UD     0.3

112          KK    7FG
113          KM        COMBINE HYDROGRAPHS FOR 7F & 7G
114          HC       2

115          KK   7GSWP
116          KO       1
117          KM        STORAGE ROUTING THROUGH 7G
118          RS       1    ELEV      85
119          SA       0    0.57    2.53    5.15
120          SE      85      86      87      88
121          SL    85.8   16.25     0.6     0.5
122          SS      88       0       0     1.5

123          KK   SUB7H
124          KO       4
125          KM        SCS RUNOFF CALCULATION
126          BA   0.186
127          PH             0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
128          LS            77
129          UD     0.3
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

130          KK    7GH
131          KM        COMBINE HYDROGRAPHS FOR 7G & 7H
132          HC       2

133          KK   7HSWP
134          KO       1
135          KM        STORAGE ROUTING THROUGH 7H
136          RS       1    ELEV      84
137          SA    0.39    3.08    9.24   15.26
138          SE      84      86      87      88
139          SS      84      10     3.0     1.5

140          KK   SUB8A
141          KO       4
142          KM        SCS RUNOFF CALCULATION
143          BA   0.076
```

```
144        PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
145        LS             74
146        UD    0.23

147        KK    7H8A
148        KM        COMBINE HYDROGRAPHS FOR 7H & 8A
149        HC       2

150        KK   8ASWP
151        KO       1
152        KM        STORAGE ROUTING THROUGH 8A SWAMP
153        RS       1    ELEV      78
154        SA       0    2.42    5.19    9.82
155        SE      78      80      82      84
156        SL   78.85    28.3     0.6     0.5
157        SS    83.9       0       0     1.5

158        KK   SUB8B
159        KO       4
160        KM        SCS RUNOFF CALCULATION
161        BA   0.332
162        PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
163        LS             74
164        UD     0.4

165        KK     8AB
166        KM        COMBINE HYDROGRAPHS FOR 8A & 8B
167        HC       2

168        KK   8BSWP
169        KO       1
170        KM        STORAGE ROUTING THROUGH 8B
171        RS       1    STOR       0
172        RC    0.08    0.03    0.08    1200   0.003      82
173        RX       0       5      10      20      25      35      40      45
174        RY      84      83      82      75      75      82      83      84
```



```
LINE       ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

175        KK   SUB8C
176        KO       4
177        KM        SCS RUNOFF CALCULATION
178        BA   0.116
179        PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
180        LS             74
181        UD    0.26

182        KK    8BC
183        KM        COMBINE HYDROGRAPHS FOR 8B & 8C
184        HC       2

185        KK   8CSWP
186        KO       1
187        KM        STORAGE ROUTING THROUGH 8C
188        RS       1    ELEV      64
189        SA    1.12    1.91    3.28    5.70    8.79   11.08
190        SE      64      66      68      70      72      74
191        SS      64      12     3.0     1.5

192        KK   SUB6A
193        KO       4
194        KM        SCS RUNOFF CALCULATION
195        BA   0.096
196        PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
```

```
197          LS              72
198          UD     0.5

199          KK   6ASWP
200          KO       1
201          KM        STORAGE ROUTING THROUGH 6A
202          RS       1    ELEV      82
203          SA    0.10    1.16    3.98    7.54
204          SE      82      84      85      86
205          SL      85    4.50     0.6     0.5
206          SS    85.9       0       0     1.5

207          KK   SUB6B
208          KO       4
209          KM        SCS RUNOFF CALCULATION
210          BA   0.176
211          PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
212          LS              72
213          UD     0.2

214          KK    6AB
215          KM        COMBINE HYDROGRAPHS FOR 6A & 6B
216          HC       2
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


217          KK   6BSWP
218          KO       1
219          KM        STORAGE ROUTING THROUGH 6B
220          RS       1    ELEV    79.5
221          SA    9.64   23.83   37.42
222          SE      79      80      82
223          SL    79.5    0.79     0.6     0.5
224          SL    80.6    11.3     0.6     0.5
225          SS    81.9       0     3.0     1.5

226          KK   SUB6D
227          KO       4
228          KM        SCS RUNOFF CALCULATION
229          BA   0.421
230          PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
231          LS              72
232          UD    0.50

233          KK   6DSWP
234          KO       1
235          KM        STORAGE ROUTING THROUGH 6D
236          RS       1    ELEV      80
237          SA    1.54    14.4
238          SE      80      90
239          SL      80   12.57     0.6     0.5
240          SS      90       0     3.0     1.5

241          KK   SUB6C
242          KO       4
243          KM        SCS RUNOFF CALCULATION
244          BA   0.234
245          PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
246          LS              72
247          UD     0.3

248          KK    6BCD
249          KM        COMBINE HYDROGRAPHS FOR 6B,6C & 6D
250          HC       3
```

```
251          KK   6CSWP
252          KO       1
253          KM        STORAGE ROUTING THROUGH 6C
254          RS       1    ELEV    74.5
255          SA       0    2.33   12.55   24.40   33.53
256          SE    74.5      76      78      80      82
257          SL    74.5   19.64     0.6     0.5
258          SS    81.9       0       0     1.5
259          ZZ
```

1

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE     (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.     (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    6      SUB7A
               V
               V
   13      7ASWP
               .
               .
   21          .       SUB7B
               .           .
               .           .
   28        7AB............
               V
               V
   31      7BSWP
               .
               .
   39          .       SUB7C
               .           .
               .           .
   46        7BC............
               V
               V
   49      7CHNL
               .
               .
   56          .       SUB7D
               .           V
               .           V
   63          .       7DSWP
               .           .
               .           .
   71          .           .       SUB7E
               .           .           .
               .           .           .
   78       7CDE........................
               V
               V
   81      7ECHN
               .
               .
   88          .       SUB7F
               .           .
               .           .
   95       7EF ............
               V
               V
   98      7FCHN
               .
               .
  105          .       SUB7G
```

```
                .           .
                .           .
112          7FG ............
                V
                V
 15         7GSWP
                .
                .
123             .       SUB7H
                .           .
                .           .
130          7GH ............
                V
                V
133         7HSWP
                .
                .
140             .       SUB8A
                .           .
                .           .
147          7H8A............
                V
                V
150         8ASWP
                .
                .
158             .       SUB8B
                .           .
                .           .
165           8AB............
                V
                V
 8          8BSWP
                .
                .
175             .       SUB8C
                .           .
                .           .
182           8BC ............
                V
                V
185         8CSWP
                .
                .
192             .       SUB6A
                .           V
                .           V
199             .       6ASWP
                .           .
                .           .
207             .           .       SUB6B
                .           .           .
                .           .           .
214             .        6AB ............
                .           V
                .           V
217             .       6BSWP
                .           .
                .           .
226             .           .       SUB6D
                .           .           V
                .           .           V
233             .           .       6DSWP
                .           .           .
                .           .           .
241             .           .           .       SUB6C
```

```
                .          .          .          .
                .          .          .          .
  248           .        6BCD.......................
                .          V
                .          V
  251           .        6CSWP

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1                                                                    ****
                          FLOOD HYDROGRAPH PACKAGE HEC-1 (IBM XT 512K VERSION) -FEB 1,1985
              U.S. ARMY CORPS OF ENGINEERS, THE HYDROLOGIC ENGINEERING CENTER, 609 SECOND STREET, DAVIS, CA. 95616
                                                                     ****



                          READING SUBWATERSHEDS
                          DETAILED STORAGE AND STREAM NETWORK
                          EXISTING CONDITIONS - 100 YR, 24 HR STORM

  5 IO          OUTPUT CONTROL VARIABLES
                      IPRNT           5  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE

    IT          HYDROGRAPH TIME DATA
                       NMIN          15  MINUTES IN COMPUTATION INTERVAL
                      IDATE     28FEB91  STARTING DATE
                      ITIME        0100  STARTING TIME
                         NQ          97  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE      1MAR91  ENDING DATE
                     NDTIME        0100  ENDING TIME

                 COMPUTATION INTERVAL     .25 HOURS
                      TOTAL TIME BASE   24.00 HOURS

        ENGLISH UNITS


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


          **************
          *            *
  6 KK    *     SUB7A  *
          *            *
          **************

  7 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           4  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                          SCS RUNOFF CALCULATION

             SUBBASIN RUNOFF DATA

  9 BA          SUBBASIN CHARACTERISTICS
                      TAREA         .13  SUBBASIN AREA

                PRECIPITATION DATA

 10 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......  ............... TP-40 ...............  ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00
```

```
                                        STORM AREA =     .13

 11 LS          SCS LOSS RATE
                      STRTL         .60  INITIAL ABSTRACTION
                     CRVNBR       77.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

 12 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .30  LAG

                                                  ***

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

                                                UNIT HYDROGRAPH
                                            8 END-OF-PERIOD ORDINATES
              97.      144.       63.       25.        9.        4.        1.        0.


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


          **************
          *            *
 13 KK    *     7ASWP  *
          *            *
          **************

 14 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 7A

             HYDROGRAPH ROUTING DATA

 16 RS          STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC      110.00  INITIAL CONDITION
                          X         .00 WORKING R AND D COEFFICIENT

 17 SA               AREA          .8       1.9       4.3      11.3      18.2

 18 SE          ELEVATION      110.00    111.00    112.00    113.00    114.00

 19 SL          LOW-LEVEL OUTLET
                      ELEVL      110.00  ELEVATION AT CENTER OF OUTLET
                      CAREA        3.53  CROSS-SECTIONAL AREA
                       COQL         .60  COEFFICIENT
                       EXPL         .50  EXPONENT OF HEAD

 20 SS          SPILLWAY
                       CREL      113.90  SPILLWAY CREST ELEVATION
                      SPWID         .00  SPILLWAY WIDTH
                       COQW         .00  WEIR COEFFICIENT
                       EXPW        1.50  EXPONENT OF HEAD

                                                  ***

                                        COMPUTED STORAGE-ELEVATION DATA

          STORAGE        .00      1.33      4.39     11.94     26.58
        ELEVATION     110.00    111.00    112.00    113.00    114.00
```

COMPUTED OUTFLOW-ELEVATION DATA

OUTFLOW	.00	17.07	18.18	19.46	20.92	22.62	24.63	27.02	29.93	33.55
ELEVATION	110.00	111.01	111.15	111.31	111.52	111.77	112.10	112.53	113.11	113.90

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	1.33	1.63	2.03	2.61	3.48	4.39	4.86	7.53	11.94
OUTFLOW	.00	16.99	18.18	19.46	20.92	22.62	24.02	24.63	27.02	29.42
ELEVATION	110.00	111.00	111.15	111.31	111.52	111.77	112.00	112.10	112.53	113.00
STORAGE	13.17	24.79	26.58							
OUTFLOW	29.93	33.55	33.97							
ELEVATION	113.11	113.90	114.00							

HYDROGRAPH AT STATION 7ASWP

DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE
28 FEB 0100	1	0.	.0	110.0	28 FEB 0915	34	1.	.0	110.0	28 FEB 1730	67	29.	10.9	112.9
28 FEB 0115	2	0.	.0	110.0	28 FEB 0930	35	1.	.1	110.1	28 FEB 1745	68	29.	10.6	112.9
28 FEB 0130	3	0.	.0	110.0	28 FEB 0945	36	1.	.1	110.1	28 FEB 1800	69	29.	10.2	112.8
28 FEB 0145	4	0.	.0	110.0	28 FEB 1000	37	2.	.1	110.1	28 FEB 1815	70	28.	9.9	112.8
28 FEB 0200	5	0.	.0	110.0	28 FEB 1015	38	2.	.2	110.1	28 FEB 1830	71	28.	9.6	112.7
28 FEB 0215	6	0.	.0	110.0	28 FEB 1030	39	3.	.2	110.1	28 FEB 1845	72	28.	9.2	112.7
28 FEB 0230	7	0.	.0	110.0	28 FEB 1045	40	3.	.2	110.2	28 FEB 1900	73	28.	8.9	112.7
28 FEB 0245	8	0.	.0	110.0	28 FEB 1100	41	4.	.3	110.2	28 FEB 1915	74	28.	8.5	11
28 FEB 0300	9	0.	.0	110.0	28 FEB 1115	42	5.	.4	110.3	28 FEB 1930	75	27.	8.1	11
28 FEB 0315	10	0.	.0	110.0	28 FEB 1130	43	6.	.4	110.3	28 FEB 1945	76	27.	7.7	112.
28 FEB 0330	11	0.	.0	110.0	28 FEB 1145	44	7.	.5	110.4	28 FEB 2000	77	27.	7.3	112.5
28 FEB 0345	12	0.	.0	110.0	28 FEB 1200	45	8.	.6	110.5	28 FEB 2015	78	27.	7.0	112.4
28 FEB 0400	13	0.	.0	110.0	28 FEB 1215	46	10.	.8	110.6	28 FEB 2030	79	26.	6.6	112.4
28 FEB 0415	14	0.	.0	110.0	28 FEB 1230	47	12.	1.0	110.7	28 FEB 2045	80	26.	6.2	112.3
28 FEB 0430	15	0.	.0	110.0	28 FEB 1245	48	17.	1.3	111.0	28 FEB 2100	81	25.	5.8	112.3
28 FEB 0445	16	0.	.0	110.0	28 FEB 1300	49	19.	2.0	111.3	28 FEB 2115	82	25.	5.4	112.2
28 FEB 0500	17	0.	.0	110.0	28 FEB 1315	50	23.	4.0	111.9	28 FEB 2130	83	25.	5.0	112.1
28 FEB 0515	18	0.	.0	110.0	28 FEB 1330	51	27.	7.1	112.5	28 FEB 2145	84	24.	4.7	112.1
28 FEB 0530	19	0.	.0	110.0	28 FEB 1345	52	28.	9.9	112.8	28 FEB 2200	85	24.	4.3	112.0
28 FEB 0545	20	0.	.0	110.0	28 FEB 1400	53	29.	11.5	113.0	28 FEB 2215	86	23.	4.0	111.9
28 FEB 0600	21	0.	.0	110.0	28 FEB 1415	54	30.	12.4	113.0	28 FEB 2230	87	23.	3.6	111.8
28 FEB 0615	22	0.	.0	110.0	28 FEB 1430	55	30.	12.9	113.1	28 FEB 2245	88	22.	3.3	111.7
28 FEB 0630	23	0.	.0	110.0	28 FEB 1445	56	30.	13.0	113.1	28 FEB 2300	89	22.	2.9	111.6
28 FEB 0645	24	0.	.0	110.0	28 FEB 1500	57	30.	13.1	113.1	28 FEB 2315	90	21.	2.6	111.5
28 FEB 0700	25	0.	.0	110.0	28 FEB 1515	58	30.	13.0	113.1	28 FEB 2330	91	20.	2.3	111.4
28 FEB 0715	26	0.	.0	110.0	28 FEB 1530	59	30.	12.9	113.1	28 FEB 2345	92	19.	2.0	111.3
28 FEB 0730	27	0.	.0	110.0	28 FEB 1545	60	30.	12.8	113.1	1 MAR 0000	93	19.	1.7	111.2
28 FEB 0745	28	0.	.0	110.0	28 FEB 1600	61	30.	12.6	113.1	1 MAR 0015	94	18.	1.5	111.1
28 FEB 0800	29	0.	.0	110.0	28 FEB 1615	62	30.	12.4	113.0	1 MAR 0030	95	16.	1.2	110.9
28 FEB 0815	30	0.	.0	110.0	28 FEB 1630	63	29.	12.1	113.0	1 MAR 0045	96	13.	1.1	110.8
28 FEB 0830	31	0.	.0	110.0	28 FEB 1645	64	29.	11.8	113.0	1 MAR 0100	97	12.	.9	110.7
28 FEB 0845	32	0.	.0	110.0	28 FEB 1700	65	29.	11.5	113.0					
28 FEB 0900	33	0.	.0	110.0	28 FEB 1715	66	29.	11.2	112.9					

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW (CFS) 6-HR	24-HR	72-HR	24.00-HR
+ 30.	14.00	29.	14.	14.	14.

```
                    (INCHES)     2.025       3.855       3.855       3.855
                     (AC-FT)      14.         27.         27.         27.

PEAK STORAGE   TIME                        MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     24.00-HR
  AC-FT)      (HR)
     13.     14.00                    11.          4.          4.          4.

 PEAK STAGE    TIME                        MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     24.00-HR
+  (FEET)      (HR)
   113.10     14.00                 112.91      111.24      111.24      111.24

                    CUMULATIVE AREA =     .13 SQ MI


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          *            *
  21 KK   *     SUB7B  *
          *            *
          **************

  22 KO         OUTPUT CONTROL VARIABLES
                      IPRNT           4  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

             SUBBASIN RUNOFF DATA

  24 BA         SUBBASIN CHARACTERISTICS
                      TAREA         .12  SUBBASIN AREA

                PRECIPITATION DATA

  25 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                   STORM AREA =     .12

  26 LS         SCS LOSS RATE
                      STRTL         .60  INITIAL ABSTRACTION
                     CRVNBR       77.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

  27 UD         SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .50  LAG

                                                        ***

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

                                                   UNIT HYDROGRAPH
                                              12 END-OF-PERIOD ORDINATES
              28.       84.       84.       51.       25.       13.        7.        4.        2.        1.
               1.        0.
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*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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          *            *
 31 KK    *     7BSWP  *
          *            *
          **************

 32 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 7B

             HYDROGRAPH ROUTING DATA

 34 RS          STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        ELEV  TYPE OF INITIAL CONDITION
                      RSVRIC      103.00  INITIAL CONDITION
                           X         .00 WORKING R AND D COEFFICIENT

 35 SA                AREA          .3       .6      2.2      3.6      5.8

 36 SE          ELEVATION      103.00    104.00    106.00    108.00    109.00

 37 SL          LOW-LEVEL OUTLET
                      ELEVL      101.00  ELEVATION AT CENTER OF OUTLET
                      CAREA        1.77  CROSS-SECTIONAL AREA
                       COQL         .60  COEFFICIENT
                       EXPL         .50  EXPONENT OF HEAD

 38 SS          SPILLWAY
                       CREL      105.90  SPILLWAY CREST ELEVATION
                      SPWID         .00  SPILLWAY WIDTH
                       COQW         .00  WEIR COEFFICIENT
                       EXPW        1.50  EXPONENT OF HEAD

                                                    ***

                                        COMPUTED STORAGE-ELEVATION DATA

          STORAGE        .00       .44      3.10      8.78     13.42
        ELEVATION     103.00    104.00    106.00    108.00    109.00

                                        COMPUTED OUTFLOW-ELEVATION DATA

          OUTFLOW        .00     12.55     13.10     13.69     14.35     15.07     15.86     16.75     17.74     18.85
        ELEVATION     103.00    103.17    103.36    103.58    103.84    104.13    104.47    104.87    105.34    105.90


                                      COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE        .00       .05       .12       .21       .34       .44       .53       .81      1.23      1.88
          OUTFLOW      12.05     12.55     13.10     13.69     14.35     14.75     15.07     15.86     16.75     17.74
        ELEVATION     103.00    103.17    103.36    103.58    103.84    104.00    104.13    104.47    104.87    105.34

          STORAGE       2.89      3.10      8.78     13.42
          OUTFLOW      18.85     19.05     22.53     24.09
        ELEVATION     105.90    106.00    108.00    109.00
*************************************************************************************************************************************

                                        HYDROGRAPH AT STATION    7BSWP
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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	12.	.0	103.0	28	FEB	0915	34	11.	-.1	103.0	28	FEB	1730	67	27.	20.7	110.6
	FEB	0115	2	11.	-.1	103.0	28	FEB	0930	35	11.	-.1	103.0	28	FEB	1745	68	27.	21.0	110.6
	FEB	0130	3	11.	-.1	103.0	28	FEB	0945	36	11.	-.1	103.0	28	FEB	1800	69	27.	21.3	110.7
28	FEB	0145	4	11.	-.1	103.0	28	FEB	1000	37	11.	-.1	103.0	28	FEB	1815	70	27.	21.6	110.8
28	FEB	0200	5	11.	-.1	103.0	28	FEB	1015	38	11.	-.1	103.0	28	FEB	1830	71	27.	21.8	110.8
28	FEB	0215	6	11.	-.1	103.0	28	FEB	1030	39	11.	-.1	103.0	28	FEB	1845	72	27.	22.0	110.9
28	FEB	0230	7	11.	-.1	103.0	28	FEB	1045	40	11.	-.1	103.0	28	FEB	1900	73	27.	22.2	110.9
28	FEB	0245	8	11.	-.1	103.0	28	FEB	1100	41	11.	-.1	103.0	28	FEB	1915	74	27.	22.5	111.0
28	FEB	0300	9	11.	-.1	103.0	28	FEB	1115	42	11.	-.1	103.0	28	FEB	1930	75	27.	22.6	111.0
28	FEB	0315	10	11.	-.1	103.0	28	FEB	1130	43	11.	-.1	103.0	28	FEB	1945	76	27.	22.8	111.0
28	FEB	0330	11	11.	-.1	103.0	28	FEB	1145	44	12.	.0	103.0	28	FEB	2000	77	27.	23.0	111.1
28	FEB	0345	12	11.	-.1	103.0	28	FEB	1200	45	12.	.0	103.1	28	FEB	2015	78	27.	23.1	111.1
28	FEB	0400	13	11.	-.1	103.0	28	FEB	1215	46	13.	.2	103.5	28	FEB	2030	79	27.	23.2	111.1
28	FEB	0415	14	11.	-.1	103.0	28	FEB	1230	47	15.	.4	104.0	28	FEB	2045	80	27.	23.3	111.1
28	FEB	0430	15	11.	-.1	103.0	28	FEB	1245	48	16.	.8	104.5	28	FEB	2100	81	27.	23.4	111.2
28	FEB	0445	16	11.	-.1	103.0	28	FEB	1300	49	17.	1.5	105.1	28	FEB	2115	82	27.	23.5	111.2
28	FEB	0500	17	11.	-.1	103.0	28	FEB	1315	50	19.	2.8	105.8	28	FEB	2130	83	28.	23.6	111.2
28	FEB	0515	18	11.	-.1	103.0	28	FEB	1330	51	20.	5.1	106.7	28	FEB	2145	84	28.	23.6	111.2
28	FEB	0530	19	11.	-.1	103.0	28	FEB	1345	52	22.	8.0	107.7	28	FEB	2200	85	28.	23.7	111.2
28	FEB	0545	20	11.	-.1	103.0	28	FEB	1400	53	23.	10.6	108.4	28	FEB	2215	86	28.	23.7	111.2
28	FEB	0600	21	11.	-.1	103.0	28	FEB	1415	54	24.	12.6	108.8	28	FEB	2230	87	28.	23.7	111.2
28	FEB	0615	22	11.	-.1	103.0	28	FEB	1430	55	24.	14.1	109.1	28	FEB	2245	88	28.	23.8	111.2
28	FEB	0630	23	11.	-.1	103.0	28	FEB	1445	56	25.	15.2	109.4	28	FEB	2300	89	28.	23.7	111.2
28	FEB	0645	24	11.	-.1	103.0	28	FEB	1500	57	25.	16.0	109.6	28	FEB	2315	90	28.	23.7	111.2
28	FEB	0700	25	11.	-.1	103.0	28	FEB	1515	58	25.	16.8	109.7	28	FEB	2330	91	28.	23.7	111.2
28	FEB	0715	26	11.	-.1	103.0	28	FEB	1530	59	25.	17.4	109.9	28	FEB	2345	92	28.	23.6	111.2
28	FEB	0730	27	11.	-.1	103.0	28	FEB	1545	60	26.	18.0	110.0	1	MAR	0000	93	27.	23.6	111.2
28	FEB	0745	28	11.	-.1	103.0	28	FEB	1600	61	26.	18.5	110.1	1	MAR	0015	94	27.	23.5	111.2
28	FEB	0800	29	11.	-.1	103.0	28	FEB	1615	62	26.	18.9	110.2	1	MAR	0030	95	27.	23.3	111.1
	FEB	0815	30	11.	-.1	103.0	28	FEB	1630	63	26.	19.4	110.3	1	MAR	0045	96	27.	23.2	111.1
	FEB	0830	31	11.	-.1	103.0	28	FEB	1645	64	26.	19.7	110.4	1	MAR	0100	97	27.	23.0	111.1
28	FEB	0845	32	11.	-.1	103.0	28	FEB	1700	65	26.	20.1	110.4							
28	FEB	0900	33	11.	-.1	103.0	28	FEB	1715	66	26.	20.4	110.5							

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
		(CFS)				
28.	21.75		27.	19.	19.	19.
		(INCHES)	1.024	2.795	2.795	2.795
		(AC-FT)	14.	37.	37.	37.

PEAK STORAGE (AC-FT)	TIME (HR)	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	24.00-HR
24.	21.75	23.	10.	10.	10.

PEAK STAGE (FEET)	TIME (HR)	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	24.00-HR
111.23	21.75	111.15	106.72	106.72	106.72

CUMULATIVE AREA = .25 SQ MI

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          **************
          *            *
 39 KK    *     SUB7C  *
          *            *
          **************

 40 KO        OUTPUT CONTROL VARIABLES
                    IPRNT           4  PRINT CONTROL
                    IPLOT           0  PLOT CONTROL
                    QSCAL          0.  HYDROGRAPH PLOT SCALE
                             SCS RUNOFF CALCULATION

            SUBBASIN RUNOFF DATA

 42 BA        SUBBASIN CHARACTERISTICS
                    TAREA         .05  SUBBASIN AREA

              PRECIPITATION DATA

 43 PH                            DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
              ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
              5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                   STORM AREA =     .05

 44 LS        SCS LOSS RATE
                    STRTL         .60  INITIAL ABSTRACTION
                   CRVNBR       77.00  CURVE NUMBER
                    RTIMP         .00  PERCENT IMPERVIOUS AREA

 45 UD        SCS DIMENSIONLESS UNITGRAPH
                     TLAG         .25  LAG

                                                          ***

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

                                                     UNIT HYDROGRAPH
                                                 7 END-OF-PERIOD ORDINATES
            52.       56.       19.        7.        2.        1.        0.


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


          **************
          *            *
 49 KK    *     7CHNL  *
          *            *
          **************

 50 KO        OUTPUT CONTROL VARIABLES
                    IPRNT           1  PRINT CONTROL
                    IPLOT           0  PLOT CONTROL
                    QSCAL          0.  HYDROGRAPH PLOT SCALE
                             STORAGE ROUTING THROUGH 7C

            HYDROGRAPH ROUTING DATA

 52 RS        STORAGE ROUTING
                    NSTPS           1  NUMBER OF SUBREACHES
                     ITYP        STOR  TYPE OF INITIAL CONDITION
                   RSVRIC         .00  INITIAL CONDITION
                        X         .00 WORKING R AND D COEFFICIENT
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53 RC          NORMAL DEPTH CHANNEL ROUTING
                     ANL        .080  LEFT OVERBANK N-VALUE
                    ANCH        .030  MAIN CHANNEL N-VALUE
                     ANR        .080  RIGHT OVERBANK N-VALUE
                   RLNTH        400.  REACH LENGTH
                     SEL       .0285  ENERGY SLOPE
                   ELMAX        98.0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                   CROSS-SECTION DATA
                        --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
55 RY        ELEVATION    99.00    98.50    98.00    96.00    96.00    98.00    98.50    99.00
54 RX        DISTANCE       .00    10.00    20.00    30.00    40.00    50.00    60.00    70.00

                                                  ***

                                   COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE       .00      .01      .02      .03      .05      .06      .08      .09      .11      .13
          OUTFLOW       .00     2.00     6.48    13.01    21.49    31.89    44.21    58.51    74.81    93.17
        ELEVATION     96.00    96.11    96.21    96.32    96.42    96.53    96.63    96.74    96.84    96.95

          STORAGE       .15      .17      .19      .21      .24      .26      .28      .31      .34      .37
          OUTFLOW    113.65   136.29   161.16   188.33   217.84   249.76   284.15   321.07   360.59   402.75
        ELEVATION     97.05    97.16    97.26    97.37    97.47    97.58    97.68    97.79    97.89    98.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN        0. TO      403.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

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                                   HYDROGRAPH AT STATION    7CHNL

*****************************************************************************************************************
                                        *                                        *
DA MON HRMN ORD  OUTFLOW  STORAGE  STAGE * DA MON HRMN ORD  OUTFLOW  STORAGE  STAGE * DA MON HRMN ORD  OUTFLOW  STORAGE  STAGE
                                        *                                        *
28 FEB 0100  1      0.       .0   96.0 * 28 FEB 0915  34     12.       .0   96.3 * 28 FEB 1730  67     32.       .1   96.5
28 FEB 0115  2     19.       .0   96.4 * 28 FEB 0930  35     12.       .0   96.3 * 28 FEB 1745  68     32.       .1   96.5
28 FEB 0130  3      5.       .0   96.2 * 28 FEB 0945  36     12.       .0   96.3 * 28 FEB 1800  69     32.       .1   96.5
28 FEB 0145  4     15.       .0   96.3 * 28 FEB 1000  37     12.       .0   96.3 * 28 FEB 1815  70     31.       .1   96.5
28 FEB 0200  5      8.       .0   96.2 * 28 FEB 1015  38     12.       .0   96.3 * 28 FEB 1830  71     31.       .1   96.5
28 FEB 0215  6     13.       .0   96.3 * 28 FEB 1030  39     13.       .0   96.3 * 28 FEB 1845  72     31.       .1   96.5
28 FEB 0230  7     10.       .0   96.3 * 28 FEB 1045  40     13.       .0   96.3 * 28 FEB 1900  73     31.       .1   96.5
28 FEB 0245  8     12.       .0   96.3 * 28 FEB 1100  41     14.       .0   96.3 * 28 FEB 1915  74     31.       .1   96.5
28 FEB 0300  9     10.       .0   96.3 * 28 FEB 1115  42     14.       .0   96.3 * 28 FEB 1930  75     31.       .1   96.5
28 FEB 0315 10     11.       .0   96.3 * 28 FEB 1130  43     15.       .0   96.3 * 28 FEB 1945  76     30.       .1   96.5
28 FEB 0330 11     11.       .0   96.3 * 28 FEB 1145  44     16.       .0   96.4 * 28 FEB 2000  77     30.       .1   96.5
28 FEB 0345 12     11.       .0   96.3 * 28 FEB 1200  45     18.       .0   96.4 * 28 FEB 2015  78     30.       .1   96.5
28 FEB 0400 13     11.       .0   96.3 * 28 FEB 1215  46     21.       .0   96.4 * 28 FEB 2030  79     30.       .1   96.5
28 FEB 0415 14     11.       .0   96.3 * 28 FEB 1230  47     26.       .1   96.5 * 28 FEB 2045  80     30.       .1   96.5
28 FEB 0430 15     11.       .0   96.3 * 28 FEB 1245  48     31.       .1   96.5 * 28 FEB 2100  81     30.       .1   96.5
28 FEB 0445 16     11.       .0   96.3 * 28 FEB 1300  49     47.       .1   96.6 * 28 FEB 2115  82     30.       .1   96.5
28 FEB 0500 17     11.       .0   96.3 * 28 FEB 1315  50     90.       .1   96.9 * 28 FEB 2130  83     30.       .1   96.5
28 FEB 0515 18     11.       .0   96.3 * 28 FEB 1330  51     99.       .1   97.0 * 28 FEB 2145  84     30.       .1   96.5
28 FEB 0530 19     11.       .0   96.3 * 28 FEB 1345  52     69.       .1   96.8 * 28 FEB 2200  85     30.       .1   96.5
28 FEB 0545 20     11.       .0   96.3 * 28 FEB 1400  53     55.       .1   96.7 * 28 FEB 2215  86     30.       .1   96.5
28 FEB 0600 21     11.       .0   96.3 * 28 FEB 1415  54     45.       .1   96.6 * 28 FEB 2230  87     30.       .1   96.5
28 FEB 0615 22     11.       .0   96.3 * 28 FEB 1430  55     40.       .1   96.6 * 28 FEB 2245  88     30.       .1   96.5
28 FEB 0630 23     11.       .0   96.3 * 28 FEB 1445  56     37.       .1   96.6 * 28 FEB 2300  89     30.       .1   96.5
28 FEB 0645 24     11.       .0   96.3 * 28 FEB 1500  57     36.       .1   96.6 * 28 FEB 2315  90     30.       .1   96.5
28 FEB 0700 25     11.       .0   96.3 * 28 FEB 1515  58     35.       .1   96.6 * 28 FEB 2330  91     30.       .1   96.5
28 FEB 0715 26     11.       .0   96.3 * 28 FEB 1530  59     35.       .1   96.5 * 28 FEB 2345  92     30.       .1   96.5
28 FEB 0730 27     11.       .0   96.3 * 28 FEB 1545  60     34.       .1   96.5 *  1 MAR 0000  93     30.       .1   96.5
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28 FEB 0745  28     11.      .0    96.3 * 28 FEB 1600  61     34.      .1    96.5 *  1 MAR 0015  94     30.      .1    96.5
28 FEB 0800  29     11.      .0    96.3 * 28 FEB 1615  62     33.      .1    96.5 *  1 MAR 0030  95     30.      .1    96.5
28 FEB 0815  30     11.      .0    96.3 * 28 FEB 1630  63     33.      .1    96.5 *  1 MAR 0045  96     29.      .1    9
28 FEB 0830  31     11.      .0    96.3 * 28 FEB 1645  64     32.      .1    96.5 *  1 MAR 0100  97     29.      .1    9
28 FEB 0845  32     11.      .0    96.3 * 28 FEB 1700  65     32.      .1    96.5 *
28 FEB 0900  33     11.      .0    96.3 * 28 FEB 1715  66     32.      .1    96.5 *
                                        *                                        *
*****************************************************************************************************************************

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     24.00-HR
+  (CFS)       (HR)
                            (CFS)
+     99.     12.50                 42.         24.         24.         24.
                         (INCHES)  1.292       3.000       3.000       3.000
                          (AC-FT)  21.         48.         48.         48.

 PEAK STORAGE  TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     24.00-HR
+ (AC-FT)      (HR)
      0.     12.50                  0.          0.          0.          0.

 PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     24.00-HR
+  (FEET)      (HR)
    96.98     12.50                96.60       96.43       96.43       96.43

                         CUMULATIVE AREA =     .30 SQ MI


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            **************
            *            *
  56 KK     *     SUB7D  *
            *            *
            **************

  57 KO          OUTPUT CONTROL VARIABLES
                       IPRNT          4  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                                 SCS RUNOFF CALCULATION

              SUBBASIN RUNOFF DATA

  59 BA          SUBBASIN CHARACTERISTICS
                       TAREA        .10  SUBBASIN AREA

                 PRECIPITATION DATA

  60 PH                                 DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                   STORM AREA =     .10

  61 LS          SCS LOSS RATE
                       STRTL        .60  INITIAL ABSTRACTION
                      CRVNBR      77.00  CURVE NUMBER
                       RTIMP        .00  PERCENT IMPERVIOUS AREA
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 62 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG         .40  LAG

                                                                  ***

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

                                                        UNIT HYDROGRAPH
                                                   10 END-OF-PERIOD ORDINATES
              42.       96.       72.       32.       15.        7.        3.        1.        1.        0.


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


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          *            *
 63 KK    *     7DSWP  *
          *            *
          **************

 64 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 7D

            HYDROGRAPH ROUTING DATA

 66 RS          STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        ELEV  TYPE OF INITIAL CONDITION
                      RSVRIC       88.80  INITIAL CONDITION
                          X         .00 WORKING R AND D COEFFICIENT

 67 SA                AREA          .6       1.4       2.5       3.9

 68 SE          ELEVATION       88.00     90.00     92.00     94.00

 69 SL          LOW-LEVEL OUTLET
                      ELEVL       90.60  ELEVATION AT CENTER OF OUTLET
                      CAREA        4.91  CROSS-SECTIONAL AREA
                       COQL         .60  COEFFICIENT
                       EXPL         .50  EXPONENT OF HEAD

 70 SS          SPILLWAY
                       CREL       92.00  SPILLWAY CREST ELEVATION
                      SPWID       10.00  SPILLWAY WIDTH
                       COQW        3.00  WEIR COEFFICIENT
                       EXPW        1.50  EXPONENT OF HEAD

                                                                  ***

                                                COMPUTED STORAGE-ELEVATION DATA

          STORAGE        .00      1.93      5.79     12.09
        ELEVATION      88.00     90.00     92.00     94.00

                                                COMPUTED OUTFLOW-ELEVATION DATA

          OUTFLOW        .00       .00     24.70     25.11     25.55     25.99     26.46     26.94     27.44     27.96
        ELEVATION      88.00     90.60     91.69     91.73     91.77     91.81     91.85     91.90     91.95     92.00

          OUTFLOW      30.29     32.92     36.97     42.70     50.41     60.37     72.86     88.17    106.59    128.42
        ELEVATION      92.12     92.21     92.34     92.49     92.67     92.88     93.12     93.38     93.68     94.00
```

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	1.93	2.86	5.05	5.14	5.23	5.33	5.43	5.54	5.66
OUTFLOW	.00	.00	.00	24.70	25.11	25.55	25.99	26.46	26.94	27.44
ELEVATION	88.00	90.00	90.60	91.69	91.73	91.77	91.81	91.85	91.90	91.95
STORAGE	5.79	6.08	6.33	6.66	7.08	7.59	8.22	8.96	9.84	10.88
OUTFLOW	27.96	30.29	32.92	36.97	42.70	50.41	60.37	72.86	88.17	106.59
ELEVATION	92.00	92.12	92.21	92.34	92.49	92.67	92.88	93.12	93.38	93.68
STORAGE	12.09									
OUTFLOW	128.42									
ELEVATION	94.00									

HYDROGRAPH AT STATION 7DSWP

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.6	88.6	28	FEB	0915	34	0.	.6	88.6	28	FEB	1730	67	19.	4.5	91.4
28	FEB	0115	2	0.	.6	88.6	28	FEB	0930	35	0.	.6	88.7	28	FEB	1745	68	17.	4.4	91.4
28	FEB	0130	3	0.	.6	88.6	28	FEB	0945	36	0.	.7	88.7	28	FEB	1800	69	16.	4.2	91.3
28	FEB	0145	4	0.	.6	88.6	28	FEB	1000	37	0.	.7	88.7	28	FEB	1815	70	14.	4.1	91.2
28	FEB	0200	5	0.	.6	88.6	28	FEB	1015	38	0.	.8	88.8	28	FEB	1830	71	13.	4.0	91.2
28	FEB	0215	6	0.	.6	88.6	28	FEB	1030	39	0.	.8	88.9	28	FEB	1845	72	12.	4.0	91.1
28	FEB	0230	7	0.	.6	88.6	28	FEB	1045	40	0.	.9	88.9	28	FEB	1900	73	12.	3.9	91
28	FEB	0245	8	0.	.6	88.6	28	FEB	1100	41	0.	1.0	89.0	28	FEB	1915	74	11.	3.8	91
28	FEB	0300	9	0.	.6	88.6	28	FEB	1115	42	0.	1.1	89.1	28	FEB	1930	75	10.	3.8	91
28	FEB	0315	10	0.	.6	88.6	28	FEB	1130	43	0.	1.2	89.3	28	FEB	1945	76	10.	3.7	91.0
28	FEB	0330	11	0.	.6	88.6	28	FEB	1145	44	0.	1.4	89.4	28	FEB	2000	77	9.	3.7	91.0
28	FEB	0345	12	0.	.6	88.6	28	FEB	1200	45	0.	1.6	89.6	28	FEB	2015	78	8.	3.6	91.0
28	FEB	0400	13	0.	.6	88.6	28	FEB	1215	46	0.	1.8	89.8	28	FEB	2030	79	8.	3.6	90.9
28	FEB	0415	14	0.	.6	88.6	28	FEB	1230	47	0.	2.1	90.1	28	FEB	2045	80	7.	3.5	90.9
28	FEB	0430	15	0.	.6	88.6	28	FEB	1245	48	0.	2.5	90.4	28	FEB	2100	81	7.	3.5	90.9
28	FEB	0445	16	0.	.6	88.6	28	FEB	1300	49	3.	3.2	90.8	28	FEB	2115	82	7.	3.5	90.9
28	FEB	0500	17	0.	.6	88.6	28	FEB	1315	50	17.	4.3	91.3	28	FEB	2130	83	6.	3.4	90.9
28	FEB	0515	18	0.	.6	88.6	28	FEB	1330	51	32.	6.2	92.2	28	FEB	2145	84	6.	3.4	90.9
28	FEB	0530	19	0.	.6	88.6	28	FEB	1345	52	56.	8.0	92.8	28	FEB	2200	85	6.	3.4	90.9
28	FEB	0545	20	0.	.6	88.6	28	FEB	1400	53	69.	8.7	93.0	28	FEB	2215	86	6.	3.4	90.9
28	FEB	0600	21	0.	.6	88.6	28	FEB	1415	54	69.	8.8	93.1	28	FEB	2230	87	6.	3.4	90.8
28	FEB	0615	22	0.	.6	88.6	28	FEB	1430	55	64.	8.4	92.9	28	FEB	2245	88	5.	3.3	90.8
28	FEB	0630	23	0.	.6	88.6	28	FEB	1445	56	56.	7.9	92.8	28	FEB	2300	89	5.	3.3	90.8
28	FEB	0645	24	0.	.6	88.6	28	FEB	1500	57	48.	7.4	92.6	28	FEB	2315	90	5.	3.3	90.8
28	FEB	0700	25	0.	.6	88.6	28	FEB	1515	58	42.	7.0	92.5	28	FEB	2330	91	5.	3.3	90.8
28	FEB	0715	26	0.	.6	88.6	28	FEB	1530	59	37.	6.6	92.3	28	FEB	2345	92	5.	3.3	90.8
28	FEB	0730	27	0.	.6	88.6	28	FEB	1545	60	33.	6.3	92.2	1	MAR	0000	93	5.	3.3	90.8
28	FEB	0745	28	0.	.6	88.6	28	FEB	1600	61	30.	6.0	92.1	1	MAR	0015	94	5.	3.3	90.8
28	FEB	0800	29	0.	.6	88.6	28	FEB	1615	62	28.	5.7	92.0	1	MAR	0030	95	5.	3.3	90.8
28	FEB	0815	30	0.	.6	88.6	28	FEB	1630	63	27.	5.5	91.9	1	MAR	0045	96	5.	3.3	90.8
28	FEB	0830	31	0.	.6	88.6	28	FEB	1645	64	25.	5.2	91.8	1	MAR	0100	97	4.	3.3	90.8
28	FEB	0845	32	0.	.6	88.6	28	FEB	1700	65	24.	5.0	91.6							
28	FEB	0900	33	0.	.6	88.6	28	FEB	1715	66	21.	4.7	91.5							

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 69.	13.25		32.	10.	10.	10.
		(INCHES)	2.894	3.490	3.490	3.490

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                    (AC-FT)       16.        19.        19.        19.

PEAK STORAGE   TIME                        MAXIMUM AVERAGE STORAGE
                                   6-HR       24-HR      72-HR     24.00-HR
   (C-FT)      (HR)
      9.      13.25                 6.         3.         3.         3.

 PEAK STAGE    TIME                        MAXIMUM AVERAGE STAGE
                                   6-HR       24-HR      72-HR     24.00-HR
+   (FEET)     (HR)
    93.05     13.25               91.97      90.12      90.12      90.12

                    CUMULATIVE AREA =     .10 SQ MI
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          **************
          *            *
 71 KK    *     SUB7E  *
          *            *
          **************

 72 KO        OUTPUT CONTROL VARIABLES
                    IPRNT          4  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL         0.  HYDROGRAPH PLOT SCALE
                             SCS RUNOFF CALCULATION

            SUBBASIN RUNOFF DATA

 74 BA        SUBBASIN CHARACTERISTICS
                    TAREA        .05  SUBBASIN AREA

              PRECIPITATION DATA

 75 PH                             DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
              ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
              5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                STORM AREA =     .05

 76 LS        SCS LOSS RATE
                    STRTL        .60  INITIAL ABSTRACTION
                   CRVNBR      77.00  CURVE NUMBER
                    RTIMP        .00  PERCENT IMPERVIOUS AREA

 77 UD        SCS DIMENSIONLESS UNITGRAPH
                     TLAG        .14  LAG

                                                     ***

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

                                                UNIT HYDROGRAPH
                                            5 END-OF-PERIOD ORDINATES
            83.       28.        6.        1.        0.
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          **************
          *            *
81 KK     *     7ECHN  *
          *            *
          **************

82 KO          OUTPUT CONTROL VARIABLES
                     IPRNT          1  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE
                              STORAGE ROUTING THROUGH 7CDE

             HYDROGRAPH ROUTING DATA

84 RS          STORAGE ROUTING
                     NSTPS          1  NUMBER OF SUBREACHES
                      ITYP       STOR  TYPE OF INITIAL CONDITION
                    RSVRIC        .00  INITIAL CONDITION
                         X        .00 WORKING R AND D COEFFICIENT

85 RC          NORMAL DEPTH CHANNEL ROUTING
                       ANL       .080  LEFT OVERBANK N-VALUE
                      ANCH       .030  MAIN CHANNEL N-VALUE
                       ANR       .080  RIGHT OVERBANK N-VALUE
                     RLNTH      7600.  REACH LENGTH
                       SEL      .0020  ENERGY SLOPE
                     ELMAX       93.0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                   CROSS-SECTION DATA
                        --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
87 RY       ELEVATION    94.00    93.50    93.00    88.00    88.00    93.00    93.50    94.00
86 RX       DISTANCE       .00     5.00    10.00    16.00    24.00    30.00    35.00    40.00

                                                  ***

                                   COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE       .00      .38      .79     1.23     1.70     2.20     2.73     3.28     3.87     4.48
          OUTFLOW       .00     1.92     6.11    12.07    19.64    28.75    39.36    51.47    65.08    80.21
        ELEVATION     88.00    88.26    88.53    88.79    89.05    89.32    89.58    89.84    90.11    90.37

          STORAGE      5.12     5.79     6.50     7.23     7.98     8.77     9.59    10.43    11.31    12.21
          OUTFLOW     96.87   115.10   134.92   156.35   179.44   204.21   230.70   258.94   288.96   320.80
        ELEVATION     90.63    90.89    91.16    91.42    91.68    91.95    92.21    92.47    92.74    93.00

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                                   HYDROGRAPH AT STATION    7ECHN

*****************************************************************************************************************
                                          *                                        *
DA MON HRMN ORD  OUTFLOW  STORAGE   STAGE * DA MON HRMN ORD  OUTFLOW  STORAGE   STAGE * DA MON HRMN ORD  OUTFLOW  STORAGE   STAGE
                                          *                                        *
28 FEB 0100  1      0.       .0    88.0 * 28 FEB 0915  34      11.      1.2    88.8 * 28 FEB 1730  67      60.      3.7    90.0
28 FEB 0115  2      1.       .2    88.1 * 28 FEB 0930  35      12.      1.2    88.8 * 28 FEB 1745  68      58.      3.6    90.0
28 FEB 0130  3      2.       .4    88.3 * 28 FEB 0945  36      12.      1.2    88.8 * 28 FEB 1800  69      56.      3.5    89.9
28 FEB 0145  4      4.       .5    88.4 * 28 FEB 1000  37      12.      1.2    88.8 * 28 FEB 1815  70      54.      3.4    89.9
28 FEB 0200  5      5.       .7    88.5 * 28 FEB 1015  38      13.      1.3    88.8 * 28 FEB 1830  71      52.      3.3    8
28 FEB 0215  6      6.       .8    88.5 * 28 FEB 1030  39      13.      1.3    88.8 * 28 FEB 1845  72      50.      3.2    8.
28 FEB 0230  7      7.       .9    88.6 * 28 FEB 1045  40      14.      1.3    88.8 * 28 FEB 1900  73      49.      3.2    89.6
28 FEB 0245  8      8.       .9    88.6 * 28 FEB 1100  41      14.      1.4    88.9 * 28 FEB 1915  74      48.      3.1    89.8
28 FEB 0300  9      9.      1.0    88.6 * 28 FEB 1115  42      15.      1.4    88.9 * 28 FEB 1930  75      47.      3.1    89.7
28 FEB 0315 10      9.      1.0    88.7 * 28 FEB 1130  43      16.      1.5    88.9 * 28 FEB 1945  76      45.      3.0    89.7
28 FEB 0330 11     10.      1.1    88.7 * 28 FEB 1145  44      17.      1.5    89.0 * 28 FEB 2000  77      44.      2.9    89.7
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28 FEB 0345	12	10.	1.1	88.7 *	28 FEB 1200	45	18.	1.6	89.0 *	28 FEB 2015	78	43.	2.9	89.7
28 FEB 0400	13	10.	1.1	88.7 *	28 FEB 1215	46	20.	1.7	89.1 *	28 FEB 2030	79	42.	2.9	89.6
28 FEB 0415	14	10.	1.1	88.7 *	28 FEB 1230	47	24.	2.0	89.2 *	28 FEB 2045	80	42.	2.8	89.6
28 FEB 0430	15	11.	1.1	88.7 *	28 FEB 1245	48	30.	2.3	89.4 *	28 FEB 2100	81	41.	2.8	89.6
FEB 0445	16	11.	1.1	88.7 *	28 FEB 1300	49	43.	2.9	89.7 *	28 FEB 2115	82	40.	2.8	89.6
FEB 0500	17	11.	1.1	88.7 *	28 FEB 1315	50	82.	4.6	90.4 *	28 FEB 2130	83	40.	2.8	89.6
28 FEB 0515	18	11.	1.1	88.7 *	28 FEB 1330	51	130.	6.3	91.1 *	28 FEB 2145	84	40.	2.7	89.6
28 FEB 0530	19	11.	1.1	88.7 *	28 FEB 1345	52	148.	6.9	91.3 *	28 FEB 2200	85	39.	2.7	89.6
28 FEB 0545	20	11.	1.1	88.7 *	28 FEB 1400	53	149.	7.0	91.3 *	28 FEB 2215	86	39.	2.7	89.6
28 FEB 0600	21	11.	1.1	88.7 *	28 FEB 1415	54	143.	6.8	91.3 *	28 FEB 2230	87	38.	2.7	89.6
28 FEB 0615	22	11.	1.1	88.7 *	28 FEB 1430	55	133.	6.4	91.1 *	28 FEB 2245	88	38.	2.7	89.5
28 FEB 0630	23	11.	1.1	88.7 *	28 FEB 1445	56	122.	6.0	91.0 *	28 FEB 2300	89	38.	2.7	89.5
28 FEB 0645	24	11.	1.1	88.7 *	28 FEB 1500	57	111.	5.6	90.8 *	28 FEB 2315	90	38.	2.6	89.5
28 FEB 0700	25	11.	1.1	88.7 *	28 FEB 1515	58	101.	5.3	90.7 *	28 FEB 2330	91	37.	2.6	89.5
28 FEB 0715	26	11.	1.1	88.7 *	28 FEB 1530	59	93.	5.[illegible]	90.6 *	28 FEB 2345	92	37.	2.6	89.5
28 FEB 0730	27	11.	1.1	88.7 *	28 FEB 1545	60	86.	4.7	90.5 *	1 MAR 0000	93	37.	2.6	89.5
28 FEB 0745	28	11.	1.1	88.7 *	28 FEB 1600	61	80.	4.5	90.4 *	1 MAR 0015	94	37.	2.6	89.5
28 FEB 0800	29	11.	1.1	88.7 *	28 FEB 1615	62	75.	4.3	90.3 *	1 MAR 0030	95	36.	2.6	89.5
28 FEB 0815	30	11.	1.1	88.7 *	28 FEB 1630	63	71.	4.1	90.2 *	1 MAR 0045	96	36.	2.6	89.5
28 FEB 0830	31	11.	1.2	88.7 *	28 FEB 1645	64	68.	4.0	90.2 *	1 MAR 0100	97	36.	2.6	89.5
28 FEB 0845	32	11.	1.2	88.7 *	28 FEB 1700	65	66.	3.9	90.1 *					
28 FEB 0900	33	11.	1.2	88.8 *	28 FEB 1715	66	63.	3.8	90.1 *					
				*					*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 149.	13.00		87.	38.	38.	38.
		(INCHES)	1.798	3.108	3.108	3.108
		(AC-FT)	43.	75.	75.	75.

STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
7.	13.00	5.	2.	2.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)				
91.33	13.00	90.44	89.38	89.38	89.38

CUMULATIVE AREA = .45 SQ MI

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              **************
              *            *
  88 KK       *    SUB7F   *
              *            *
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  89 KO          OUTPUT CONTROL VARIABLES
                       IPRNT          4  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

              SUBBASIN RUNOFF DATA

  91 BA          SUBBASIN CHARACTERISTICS
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                TAREA          .21  SUBBASIN AREA

          PRECIPITATION DATA

 92 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
          ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
          5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
            .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                STORM AREA =     .21

 93 LS    SCS LOSS RATE
                STRTL          .60  INITIAL ABSTRACTION
               CRVNBR        77.00  CURVE NUMBER
                RTIMP          .00  PERCENT IMPERVIOUS AREA

 94 UD    SCS DIMENSIONLESS UNITGRAPH
                 TLAG          .30  LAG

                                                    ***

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

                                                UNIT HYDROGRAPH
                                            8 END-OF-PERIOD ORDINATES
          150.      223.      98.      38.      14.       6.       2.       1.


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


        **************
        *            *
 98 KK  *     7FCHN  *     L
        *            *
        **************

 99 KO    OUTPUT CONTROL VARIABLES
                IPRNT           1  PRINT CONTROL
                IPLOT           0  PLOT CONTROL
                QSCAL          0.  HYDROGRAPH PLOT SCALE
                         STORAGE ROUTING THROUGH 7F

          HYDROGRAPH ROUTING DATA

101 RS    STORAGE ROUTING
                NSTPS           1  NUMBER OF SUBREACHES
                 ITYP        STOR  TYPE OF INITIAL CONDITION
               RSVRIC         .00  INITIAL CONDITION
                    X         .00 WORKING R AND D COEFFICIENT

102 RC    NORMAL DEPTH CHANNEL ROUTING
                  ANL        .080  LEFT OVERBANK N-VALUE
                 ANCH        .030  MAIN CHANNEL N-VALUE
                  ANR        .080  RIGHT OVERBANK N-VALUE
                RLNTH        500.  REACH LENGTH
                  SEL       .0030  ENERGY SLOPE
                ELMAX        90.0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                      CROSS-SECTION DATA
                        --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
104 RY    ELEVATION     90.00     90.50     90.00     86.00     86.00     90.00     90.50     91.00
103 RX    DISTANCE        .00      5.00     10.00     16.00     24.00     30.00     35.00     40.00

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COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	.02	.04	.06	.09	.12	.14	.17	.20	.24
OUTFLOW	.00	1.63	5.20	10.32	16.84	24.71	33.90	44.41	56.26	69.44
ELEVATION	86.00	86.21	86.42	86.63	86.84	87.05	87.26	87.47	87.68	87.89
STORAGE	.27	.30	.34	.38	.42	.46	.50	.55	.60	.64
OUTFLOW	83.98	99.91	117.25	136.02	156.26	177.99	201.24	226.04	252.43	280.43
ELEVATION	88.11	88.32	88.53	88.74	88.95	89.16	89.37	89.58	89.79	90.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 2. TO 280.
THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

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HYDROGRAPH AT STATION 7FCHN

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DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE
28 FEB 0100	1	0.	.0	86.0	28 FEB 0915	34	14.	.1	86.7	28 FEB 1730	67	81.	.3	88.1
28 FEB 0115	2	0.	.0	86.1	28 FEB 0930	35	15.	.1	86.8	28 FEB 1745	68	78.	.3	88.0
28 FEB 0130	3	1.	.0	86.2	28 FEB 0945	36	16.	.1	86.8	28 FEB 1800	69	75.	.2	88.0
28 FEB 0145	4	3.	.0	86.3	28 FEB 1000	37	17.	.1	86.8	28 FEB 1815	70	72.	.2	87.9
28 FEB 0200	5	5.	.0	86.4	28 FEB 1015	38	18.	.1	86.9	28 FEB 1830	71	70.	.2	87.9
28 FEB 0215	6	6.	.0	86.5	28 FEB 1030	39	20.	.1	86.9	28 FEB 1845	72	68.	.2	87.9
28 FEB 0230	7	7.	.1	86.5	28 FEB 1045	40	22.	.1	87.0	28 FEB 1900	73	66.	.2	87.8
28 FEB 0245	8	8.	.1	86.5	28 FEB 1100	41	24.	.1	87.0	28 FEB 1915	74	63.	.2	87.8
FEB 0300	9	9.	.1	86.6	28 FEB 1115	42	27.	.1	87.1	28 FEB 1930	75	61.	.2	87.8
FEB 0315	10	9.	.1	86.6	28 FEB 1130	43	30.	.1	87.2	28 FEB 1945	76	58.	.2	87.7
28 FEB 0330	11	10.	.1	86.6	28 FEB 1145	44	33.	.1	87.3	28 FEB 2000	77	57.	.2	87.7
28 FEB 0345	12	10.	.1	86.6	28 FEB 1200	45	37.	.2	87.3	28 FEB 2015	78	55.	.2	87.7
28 FEB 0400	13	10.	.1	86.6	28 FEB 1215	46	46.	.2	87.5	28 FEB 2030	79	54.	.2	87.6
28 FEB 0415	14	10.	.1	86.6	28 FEB 1230	47	63.	.2	87.8	28 FEB 2045	80	53.	.2	87.6
28 FEB 0430	15	10.	.1	86.6	28 FEB 1245	48	85.	.3	88.1	28 FEB 2100	81	52.	.2	87.6
28 FEB 0445	16	11.	.1	86.6	28 FEB 1300	49	140.	.4	88.8	28 FEB 2115	82	51.	.2	87.6
28 FEB 0500	17	11.	.1	86.6	28 FEB 1315	50	310.	.7	90.2	28 FEB 2130	83	50.	.2	87.6
28 FEB 0515	18	11.	.1	86.6	28 FEB 1330	51	430.	.9	91.1	28 FEB 2145	84	50.	.2	87.6
28 FEB 0530	19	11.	.1	86.6	28 FEB 1345	52	359.	.8	90.6	28 FEB 2200	85	49.	.2	87.6
28 FEB 0545	20	11.	.1	86.6	28 FEB 1400	53	286.	.7	90.0	28 FEB 2215	86	49.	.2	87.5
28 FEB 0600	21	11.	.1	86.6	28 FEB 1415	54	243.	.6	89.7	28 FEB 2230	87	48.	.2	87.5
28 FEB 0615	22	11.	.1	86.6	28 FEB 1430	55	200.	.5	89.4	28 FEB 2245	88	48.	.2	87.5
28 FEB 0630	23	11.	.1	86.6	28 FEB 1445	56	176.	.5	89.1	28 FEB 2300	89	47.	.2	87.5
28 FEB 0645	24	11.	.1	86.6	28 FEB 1500	57	157.	.4	89.0	28 FEB 2315	90	47.	.2	87.5
28 FEB 0700	25	11.	.1	86.6	28 FEB 1515	58	143.	.4	88.8	28 FEB 2330	91	46.	.2	87.5
28 FEB 0715	26	11.	.1	86.6	28 FEB 1530	59	130.	.4	88.7	28 FEB 2345	92	46.	.2	87.5
28 FEB 0730	27	11.	.1	86.6	28 FEB 1545	60	120.	.3	88.6	1 MAR 0000	93	45.	.2	87.5
28 FEB 0745	28	11.	.1	86.6	28 FEB 1600	61	112.	.3	88.5	1 MAR 0015	94	45.	.2	87.5
28 FEB 0800	29	11.	.1	86.7	28 FEB 1615	62	105.	.3	88.4	1 MAR 0030	95	45.	.2	87.5
28 FEB 0815	30	11.	.1	86.7	28 FEB 1630	63	98.	.3	88.3	1 MAR 0045	96	44.	.2	87.5
28 FEB 0830	31	12.	.1	86.7	28 FEB 1645	64	93.	.3	88.2	1 MAR 0100	97	44.	.2	87.5
28 FEB 0845	32	12.	.1	86.7	28 FEB 1700	65	89.	.3	88.2					
28 FEB 0900	33	13.	.1	86.7	28 FEB 1715	66	85.	.3	88.1					

****

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
		(CFS)				
430.	12.50		155.	60.	60.	60.
		(INCHES)	2.197	3.376	3.376	3.376

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                    (AC-FT)      77.       118.       118.       118.

 PEAK STORAGE   TIME                      MAXIMUM AVERAGE STORAGE
                                    6-HR       24-HR       72-HR     24.00-HR
+  (AC-FT)      (HR)
       1.      12.50                 0.          0.          0.          0.

  PEAK STAGE    TIME                       MAXIMUM AVERAGE STAGE
                                    6-HR       24-HR       72-HR     24.00-HR
+   (FEET)      (HR)
    91.13      12.50               88.81       87.48       87.48       87.48

                    CUMULATIVE AREA =     .66 SQ MI


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          *            *
 105 KK   *     SUB7G  *
          *            *
          **************

 106 KO         OUTPUT CONTROL VARIABLES
                     IPRNT          4  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE
                             SCS RUNOFF CALCULATION

             SUBBASIN RUNOFF DATA

 108 BA         SUBBASIN CHARACTERISTICS
                     TAREA        .06  SUBBASIN AREA

                PRECIPITATION DATA

 109 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                   STORM AREA =     .06

 110 LS         SCS LOSS RATE
                     STRTL        .60  INITIAL ABSTRACTION
                    CRVNBR      77.00  CURVE NUMBER
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

 111 UD         SCS DIMENSIONLESS UNITGRAPH
                      TLAG        .30  LAG

                                                        ***

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

                                                   UNIT HYDROGRAPH
                                              8 END-OF-PERIOD ORDINATES
             46.       68.       30.       12.        4.        2.        1.        0.


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          *            *
115 KK    *     7GSWP  *
          *            *
          **************

116 KO         OUTPUT CONTROL VARIABLES
                     IPRNT           1  PRINT CONTROL
                     IPLOT           0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE
                              STORAGE ROUTING THROUGH 7G

            HYDROGRAPH ROUTING DATA

118 RS         STORAGE ROUTING
                     NSTPS           1  NUMBER OF SUBREACHES
                      ITYP        ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC      85.00  INITIAL CONDITION
                          X        .00 WORKING R AND D COEFFICIENT

119 SA               AREA         .0       .6      2.5      5.2

120 SE         ELEVATION      85.00    86.00    87.00    88.00

121 SL         LOW-LEVEL OUTLET
                     ELEVL      85.80  ELEVATION AT CENTER OF OUTLET
                     CAREA      16.25  CROSS-SECTIONAL AREA
                      COQL        .60  COEFFICIENT
                      EXPL        .50  EXPONENT OF HEAD

122 SS         SPILLWAY
                      CREL      88.00  SPILLWAY CREST ELEVATION
                     SPWID        .00  SPILLWAY WIDTH
                      COQW        .00  WEIR COEFFICIENT
                      EXPW       1.50  EXPONENT OF HEAD

                                                  ***

                                        COMPUTED STORAGE-ELEVATION DATA

          STORAGE       .00      .19     1.62     5.39
        ELEVATION     85.00    86.00    87.00    88.00

                                        COMPUTED OUTFLOW-ELEVATION DATA

          OUTFLOW       .00      .00   109.32   110.22   111.14   112.08   113.03   114.00   114.98   115.98
        ELEVATION     85.00    85.80    87.75    87.79    87.82    87.85    87.89    87.93    87.96    88.00


                                       COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE       .00      .10      .19     1.62     4.21     4.36     4.51     4.67     4.84     5.01
          OUTFLOW       .00      .00    34.97    85.66   109.32   110.22   111.14   112.08   113.03   114.00
        ELEVATION     85.00    85.80    86.00    87.00    87.75    87.79    87.82    87.85    87.89    87.93

          STORAGE      5.19     5.39
          OUTFLOW    114.98   115.98
        ELEVATION     87.96    88.00

   WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN        0. TO       35.
               THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
               THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

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HYDROGRAPH AT STATION 7GSWP

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	ST.
28	FEB	0100	1	0.	.0	85.0	28	FEB	0915	34	14.	.1	85.9	28	FEB	1730	67	146.	11.2	89.1
28	FEB	0115	2	0.	.0	85.0	28	FEB	0930	35	15.	.1	85.9	28	FEB	1745	68	140.	10.0	88.9
28	FEB	0130	3	0.	.0	85.2	28	FEB	0945	36	17.	.1	85.9	28	FEB	1800	69	134.	8.9	88.7
28	FEB	0145	4	0.	.1	85.6	28	FEB	1000	37	18.	.1	85.9	28	FEB	1815	70	128.	7.8	88.5
28	FEB	0200	5	4.	.1	85.8	28	FEB	1015	38	20.	.1	85.9	28	FEB	1830	71	123.	6.8	88.3
28	FEB	0215	6	6.	.1	85.8	28	FEB	1030	39	22.	.2	85.9	28	FEB	1845	72	118.	5.8	88.1
28	FEB	0230	7	7.	.1	85.8	28	FEB	1045	40	25.	.2	85.9	28	FEB	1900	73	113.	4.9	87.9
28	FEB	0245	8	8.	.1	85.8	28	FEB	1100	41	27.	.2	86.0	28	FEB	1915	74	108.	4.0	87.7
28	FEB	0300	9	9.	.1	85.8	28	FEB	1115	42	30.	.2	86.0	28	FEB	1930	75	101.	3.3	87.5
28	FEB	0315	10	9.	.1	85.9	28	FEB	1130	43	34.	.2	86.0	28	FEB	1945	76	94.	2.6	87.3
28	FEB	0330	11	10.	.1	85.9	28	FEB	1145	44	36.	.2	86.0	28	FEB	2000	77	89.	1.9	87.1
28	FEB	0345	12	10.	.1	85.9	28	FEB	1200	45	39.	.3	86.1	28	FEB	2015	78	79.	1.4	86.9
28	FEB	0400	13	10.	.1	85.9	28	FEB	1215	46	44.	.4	86.2	28	FEB	2030	79	68.	1.1	86.7
28	FEB	0415	14	10.	.1	85.9	28	FEB	1230	47	55.	.8	86.4	28	FEB	2045	80	62.	1.0	86.5
28	FEB	0430	15	10.	.1	85.9	28	FEB	1245	48	73.	1.3	86.8	28	FEB	2100	81	59.	.9	86.5
28	FEB	0445	16	11.	.1	85.9	28	FEB	1300	49	93.	2.4	87.2	28	FEB	2115	82	57.	.8	86.4
28	FEB	0500	17	11.	.1	85.9	28	FEB	1315	50	119.	6.0	88.1	28	FEB	2130	83	55.	.8	86.4
28	FEB	0515	18	11.	.1	85.9	28	FEB	1330	51	153.	12.5	89.4	28	FEB	2145	84	54.	.7	86.4
28	FEB	0530	19	11.	.1	85.9	28	FEB	1345	52	186.	18.8	90.6	28	FEB	2200	85	53.	.7	86.4
28	FEB	0545	20	11.	.1	85.9	28	FEB	1400	53	205.	22.5	91.4	28	FEB	2215	86	53.	.7	86.3
28	FEB	0600	21	11.	.1	85.9	28	FEB	1415	54	214.	24.3	91.7	28	FEB	2230	87	52.	.7	86.3
28	FEB	0615	22	11.	.1	85.9	28	FEB	1430	55	218.	24.9	91.8	28	FEB	2245	88	51.	.7	86.3
28	FEB	0630	23	11.	.1	85.9	28	FEB	1445	56	216.	24.7	91.8	28	FEB	2300	89	51.	.6	86.3
28	FEB	0645	24	11.	.1	85.9	28	FEB	1500	57	213.	24.0	91.7	28	FEB	2315	90	50.	.6	86.3
28	FEB	0700	25	11.	.1	85.9	28	FEB	1515	58	208.	23.0	91.5	28	FEB	2330	91	50.	.6	86.3
28	FEB	0715	26	11.	.1	85.9	28	FEB	1530	59	202.	21.9	91.2	28	FEB	2345	92	49.	.6	8[illegible]
28	FEB	0730	27	11.	.1	85.9	28	FEB	1545	60	195.	20.6	91.0	1	MAR	0000	93	49.	.6	8[illegible]
28	FEB	0745	28	11.	.1	85.9	28	FEB	1600	61	188.	19.2	90.7	1	MAR	0015	94	48.	.6	86.[illegible]
28	FEB	0800	29	11.	.1	85.9	28	FEB	1615	62	181.	17.8	90.4	1	MAR	0030	95	48.	.6	86.3
28	FEB	0815	30	11.	.1	85.9	28	FEB	1630	63	173.	16.4	90.2	1	MAR	0045	96	47.	.5	86.2
28	FEB	0830	31	12.	.1	85.9	28	FEB	1645	64	166.	15.1	89.9	1	MAR	0100	97	47.	.5	86.2
28	FEB	0845	32	13.	.1	85.9	28	FEB	1700	65	159.	13.7	89.6							
28	FEB	0900	33	13.	.1	85.9	28	FEB	1715	66	153.	12.4	89.4							

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 218.	13.50		169.	66.	66.	66.
		(INCHES)	2.174	3.416	3.416	3.416
		(AC-FT)	84.	131.	131.	131.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
25.	13.50	16.	4.	4.	4.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)				
91.84	13.50	89.99	87.08	87.08	87.08

CUMULATIVE AREA = .72 SQ MI

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          *            *
 123 KK   *     SUB7H  *
          *            *
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 124 KO         OUTPUT CONTROL VARIABLES
                      IPRNT           4  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

              SUBBASIN RUNOFF DATA

 126 BA         SUBBASIN CHARACTERISTICS
                      TAREA         .19  SUBBASIN AREA

                PRECIPITATION DATA

 127 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                     STORM AREA =     .19

 128 LS         SCS LOSS RATE
                      STRTL         .60  INITIAL ABSTRACTION
                     CRVNBR       77.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

    UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .30  LAG

                                                                  ***

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

                                                          UNIT HYDROGRAPH
                                                     8 END-OF-PERIOD ORDINATES
              136.      201.      88.      34.      13.       5.       2.       1.


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          *            *
 133 KK   *     7HSWP  *
          *            *
          **************

 134 KO         OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 7H

              HYDROGRAPH ROUTING DATA

 136 RS         STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        ELEV  TYPE OF INITIAL CONDITION
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                RSVRIC      84.00  INITIAL CONDITION
                     X        .00 WORKING R AND D COEFFICIENT

137 SA          AREA          .4       3.1       9.2      15.3

138 SE      ELEVATION      84.00     86.00     87.00     88.00

139 SS      SPILLWAY
                 CREL      84.00  SPILLWAY CREST ELEVATION
                SPWID      10.00  SPILLWAY WIDTH
                 COQW       3.00  WEIR COEFFICIENT
                 EXPW       1.50  EXPONENT OF HEAD
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COMPUTED STORAGE-ELEVATION DATA

STORAGE	.00	3.04	8.93	21.05
ELEVATION	84.00	86.00	87.00	88.00

COMPUTED OUTFLOW-ELEVATION DATA

OUTFLOW	.00	.00	.04	.33	1.11	2.63	5.14	8.89	14.12	21.07
ELEVATION	84.00	84.00	84.01	84.05	84.11	84.20	84.31	84.44	84.60	84.79
OUTFLOW	30.00	41.15	54.77	71.11	90.41	112.92	138.89	168.56	202.18	240.00
ELEVATION	85.00	85.23	85.49	85.78	86.09	86.42	86.78	87.16	87.57	88.00

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	.00	.02	.05	.09	.16	.25	.39	.58	.85
OUTFLOW	.00	.04	.33	1.11	2.63	5.14	8.89	14.12	21.07	30.00
ELEVATION	84.00	84.01	84.05	84.11	84.20	84.31	84.44	84.60	84.79	85.00
STORAGE	1.22	1.73	2.41	3.04	3.33	4.77	7.06	8.93	10.48	15.07
OUTFLOW	41.15	54.77	71.11	84.85	90.41	112.92	138.89	155.88	168.56	202.18
ELEVATION	85.23	85.49	85.78	86.00	86.09	86.42	86.78	87.00	87.16	87.57
STORAGE	21.05									
OUTFLOW	240.00									
ELEVATION	88.00									

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HYDROGRAPH AT STATION 7HSWP

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	84.0	*	28	FEB	0915	34	15.	.4	84.6	*	28	FEB	1730	67	211.	16.5	87.7
28	FEB	0115	2	0.	.0	84.0	*	28	FEB	0930	35	16.	.4	84.7	*	28	FEB	1745	68	205.	15.5	87.6
28	FEB	0130	3	0.	.0	84.0	*	28	FEB	0945	36	18.	.5	84.7	*	28	FEB	1800	69	198.	14.5	87.5
28	FEB	0145	4	0.	.0	84.0	*	28	FEB	1000	37	20.	.5	84.8	*	28	FEB	1815	70	191.	13.6	87.4
28	FEB	0200	5	1.	.0	84.1	*	28	FEB	1015	38	22.	.6	84.8	*	28	FEB	1830	71	184.	12.6	87.4
28	FEB	0215	6	3.	.1	84.2	*	28	FEB	1030	39	24.	.7	84.9	*	28	FEB	1845	72	177.	11.7	87.3
28	FEB	0230	7	5.	.2	84.3	*	28	FEB	1045	40	27.	.8	84.9	*	28	FEB	1900	73	171.	10.8	87.2
28	FEB	0245	8	6.	.2	84.4	*	28	FEB	1100	41	31.	.9	85.0	*	28	FEB	1915	74	164.	9.9	87.1
28	FEB	0300	9	7.	.2	84.4	*	28	FEB	1115	42	35.	1.0	85.1	*	28	FEB	1930	75	157.	9.0	87.0
28	FEB	0315	10	8.	.2	84.4	*	28	FEB	1130	43	39.	1.2	85.2	*	28	FEB	1945	76	149.	8.1	8[illegible]
28	FEB	0330	11	9.	.3	84.4	*	28	FEB	1145	44	44.	1.3	85.3	*	28	FEB	2000	77	141.	7.3	8[illegible]
28	FEB	0345	12	9.	.3	84.5	*	28	FEB	1200	45	48.	1.5	85.4	*	28	FEB	2015	78	131.	6.4	86.7
28	FEB	0400	13	10.	.3	84.5	*	28	FEB	1215	46	54.	1.7	85.5	*	28	FEB	2030	79	122.	5.5	86.5
28	FEB	0415	14	10.	.3	84.5	*	28	FEB	1230	47	65.	2.1	85.7	*	28	FEB	2045	80	111.	4.7	86.4
28	FEB	0430	15	10.	.3	84.5	*	28	FEB	1245	48	81.	2.9	85.9	*	28	FEB	2100	81	100.	4.0	86.2

28 FEB 0445	16	10.	.3	84.5	*	28 FEB 1300	49	104.	4.2	86.3	*	28 FEB 2115	82	91.	3.4	86.1
28 FEB 0500	17	11.	.3	84.5	*	28 FEB 1315	50	140.	7.2	86.8	*	28 FEB 2130	83	82.	2.9	86.0
28 FEB 0515	18	11.	.3	84.5	*	28 FEB 1330	51	178.	11.8	87.3	*	28 FEB 2145	84	76.	2.6	85.9
28 FEB 0530	19	11.	.3	84.5	*	28 FEB 1345	52	208.	16.0	87.6	*	28 FEB 2200	85	71.	2.4	85.8
FEB 0545	20	11.	.3	84.5	*	28 FEB 1400	53	225.	18.7	87.8	*	28 FEB 2215	86	67.	2.3	85.7
FEB 0600	21	11.	.3	84.5	*	28 FEB 1415	54	236.	20.4	88.0	*	28 FEB 2230	87	65.	2.1	85.7
28 FEB 0615	22	11.	.3	84.5	*	28 FEB 1430	55	242.	21.4	88.0	*	28 FEB 2245	88	63.	2.1	85.6
28 FEB 0630	23	11.	.3	84.5	*	28 FEB 1445	56	246.	21.9	88.1	*	28 FEB 2300	89	61.	2.0	85.6
28 FEB 0645	24	11.	.3	84.5	*	28 FEB 1500	57	247.	22.2	88.1	*	28 FEB 2315	90	60.	2.0	85.6
28 FEB 0700	25	11.	.3	84.5	*	28 FEB 1515	58	247.	22.2	88.1	*	28 FEB 2330	91	59.	1.9	85.6
28 FEB 0715	26	11.	.3	84.5	*	28 FEB 1530	59	246.	22.0	88.1	*	28 FEB 2345	92	59.	1.9	85.6
28 FEB 0730	27	11.	.3	84.5	*	28 FEB 1545	60	244.	21.7	88.0	*	1 MAR 0000	93	58.	1.9	85.5
28 FEB 0745	28	11.	.3	84.5	*	28 FEB 1600	61	241.	21.3	88.0	*	1 MAR 0015	94	57.	1.8	85.5
28 FEB 0800	29	11.	.3	84.5	*	28 FEB 1615	62	238.	20.7	88.0	*	1 MAR 0030	95	56.	1.8	85.5
28 FEB 0815	30	11.	.3	84.5	*	28 FEB 1630	63	233.	20.0	87.9	*	1 MAR 0045	96	56.	1.8	85.5
28 FEB 0830	31	12.	.3	84.5	*	28 FEB 1645	64	228.	19.2	87.9	*	1 MAR 0100	97	55.	1.7	85.5
28 FEB 0845	32	12.	.3	84.6	*	28 FEB 1700	65	223.	18.3	87.8	*					
28 FEB 0900	33	14.	.4	84.6	*	28 FEB 1715	66	217.	17.4	87.7	*					
					*						*					

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 247.	14.25		216.	85.	85.	85.
		(INCHES)	2.217	3.495	3.495	3.495
		(AC-FT)	107.	169.	169.	169.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
22.	14.25	17.	6.	6.	6.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)				
88.08	14.25	87.72	85.76	85.76	85.76

CUMULATIVE AREA = .91 SQ MI

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              *            *
140 KK        *    SUB8A   *
              *            *
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141 KO          OUTPUT CONTROL VARIABLES
                      IPRNT          4  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

                SUBBASIN RUNOFF DATA

     BA           SUBBASIN CHARACTERISTICS
                      TAREA        .08  SUBBASIN AREA

                  PRECIPITATION DATA
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144 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
              ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
              5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                STORM AREA =     .08

145 LS        SCS LOSS RATE
                   STRTL         .70  INITIAL ABSTRACTION
                  CRVNBR       74.00  CURVE NUMBER
                   RTIMP         .00  PERCENT IMPERVIOUS AREA

146 UD        SCS DIMENSIONLESS UNITGRAPH
                    TLAG         .23  LAG

                                                        ***

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

                                                     UNIT HYDROGRAPH
                                                 7 END-OF-PERIOD ORDINATES
             83.       78.       24.        8.        2.        1.        0.


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          *            *
150 KK    *     8ASWP  *
          *            *
          **************

151 KO        OUTPUT CONTROL VARIABLES
                  IPRNT           1  PRINT CONTROL
                  IPLOT           0  PLOT CONTROL
                  QSCAL          0.  HYDROGRAPH PLOT SCALE
                           STORAGE ROUTING THROUGH 8A SWAMP

            HYDROGRAPH ROUTING DATA

153 RS        STORAGE ROUTING
                  NSTPS           1  NUMBER OF SUBREACHES
                   ITYP        ELEV  TYPE OF INITIAL CONDITION
                 RSVRIC       78.00  INITIAL CONDITION
                      X         .00 WORKING R AND D COEFFICIENT

154 SA             AREA          .0       2.4       5.2       9.8

155 SE        ELEVATION       78.00     80.00     82.00     84.00

156 SL        LOW-LEVEL OUTLET
                  ELEVL       78.85  ELEVATION AT CENTER OF OUTLET
                  CAREA       28.30  CROSS-SECTIONAL AREA
                   COQL         .60  COEFFICIENT
                   EXPL         .50  EXPONENT OF HEAD

157 SS        SPILLWAY
                   CREL       83.90  SPILLWAY CREST ELEVATION
                  SPWID         .00  SPILLWAY WIDTH
                   COQW         .00  WEIR COEFFICIENT
                   EXPW        1.50  EXPONENT OF HEAD

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COMPUTED STORAGE-ELEVATION DATA

STORAGE	.00	1.61	9.05	23.82
ELEVATION	78.00	80.00	82.00	84.00

COMPUTED OUTFLOW-ELEVATION DATA

OUTFLOW	.00	.00	225.12	233.96	243.52	253.89	265.18	277.53	291.08	306.03
ELEVATION	78.00	78.85	81.58	81.80	82.05	82.33	82.64	83.00	83.42	83.90

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	.12	1.61	7.02	8.05	9.05	9.30	10.85	12.80	15.30
OUTFLOW	.00	.00	146.04	225.12	233.96	241.69	243.52	253.89	265.18	277.53
ELEVATION	78.00	78.85	80.00	81.58	81.80	82.00	82.05	82.33	82.64	83.00

STORAGE	18.55	22.85	23.82
OUTFLOW	291.08	306.03	309.04
ELEVATION	83.42	83.90	84.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 0. TO 146.
THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

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HYDROGRAPH AT STATION BASWP

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
	FEB	0100	1	0.	.0	78.0	*	28	FEB	0915	34	14.	.3	79.0	*	28	FEB	1730	67	240.	8.8	82.0
	FEB	0115	2	0.	.0	78.0	*	28	FEB	0930	35	16.	.3	79.0	*	28	FEB	1745	68	236.	8.4	81.9
28	FEB	0130	3	0.	.0	78.0	*	28	FEB	0945	36	18.	.3	79.0	*	28	FEB	1800	69	232.	7.8	81.8
28	FEB	0145	4	0.	.0	78.0	*	28	FEB	1000	37	20.	.3	79.0	*	28	FEB	1815	70	227.	7.2	81.6
28	FEB	0200	5	0.	.0	78.1	*	28	FEB	1015	38	22.	.3	79.0	*	28	FEB	1830	71	219.	6.6	81.5
28	FEB	0215	6	0.	.0	78.3	*	28	FEB	1030	39	25.	.4	79.0	*	28	FEB	1845	72	211.	6.1	81.3
28	FEB	0230	7	0.	.1	78.9	*	28	FEB	1045	40	28.	.4	79.1	*	28	FEB	1900	73	203.	5.5	81.1
28	FEB	0245	8	6.	.2	78.9	*	28	FEB	1100	41	32.	.5	79.1	*	28	FEB	1915	74	195.	5.0	81.0
28	FEB	0300	9	7.	.2	78.9	*	28	FEB	1115	42	36.	.5	79.1	*	28	FEB	1930	75	187.	4.4	80.8
28	FEB	0315	10	8.	.2	78.9	*	28	FEB	1130	43	41.	.5	79.2	*	28	FEB	1945	76	179.	3.9	80.7
28	FEB	0330	11	9.	.2	78.9	*	28	FEB	1145	44	47.	.6	79.2	*	28	FEB	2000	77	171.	3.3	80.5
28	FEB	0345	12	9.	.2	78.9	*	28	FEB	1200	45	52.	.7	79.3	*	28	FEB	2015	78	163.	2.8	80.3
28	FEB	0400	13	10.	.2	78.9	*	28	FEB	1215	46	59.	.7	79.3	*	28	FEB	2030	79	155.	2.2	80.2
28	FEB	0415	14	10.	.2	78.9	*	28	FEB	1230	47	72.	.9	79.4	*	28	FEB	2045	80	145.	1.6	80.0
28	FEB	0430	15	10.	.2	78.9	*	28	FEB	1245	48	90.	1.0	79.6	*	28	FEB	2100	81	109.	1.2	79.7
28	FEB	0445	16	10.	.2	78.9	*	28	FEB	1300	49	124.	1.4	79.8	*	28	FEB	2115	82	99.	1.1	79.6
28	FEB	0500	17	10.	.2	78.9	*	28	FEB	1315	50	159.	2.5	80.3	*	28	FEB	2130	83	90.	1.0	79.6
28	FEB	0515	18	11.	.2	78.9	*	28	FEB	1330	51	186.	4.3	80.8	*	28	FEB	2145	84	83.	1.0	79.5
28	FEB	0530	19	11.	.2	78.9	*	28	FEB	1345	52	209.	5.9	81.3	*	28	FEB	2200	85	77.	.9	79.5
28	FEB	0545	20	11.	.2	78.9	*	28	FEB	1400	53	224.	6.9	81.6	*	28	FEB	2215	86	73.	.9	79.4
28	FEB	0600	21	11.	.2	78.9	*	28	FEB	1415	54	231.	7.7	81.7	*	28	FEB	2230	87	69.	.8	79.4
28	FEB	0615	22	11.	.2	78.9	*	28	FEB	1430	55	236.	8.3	81.9	*	28	FEB	2245	88	67.	.8	79.4
28	FEB	0630	23	11.	.2	78.9	*	28	FEB	1445	56	240.	8.8	81.9	*	28	FEB	2300	89	65.	.8	79.4
28	FEB	0645	24	11.	.2	78.9	*	28	FEB	1500	57	243.	9.2	82.0	*	28	FEB	2315	90	64.	.8	79.4
28	FEB	0700	25	11.	.2	78.9	*	28	FEB	1515	58	245.	9.6	82.1	*	28	FEB	2330	91	63.	.8	79.3
28	FEB	0715	26	11.	.2	78.9	*	28	FEB	1530	59	247.	9.8	82.1	*	28	FEB	2345	92	62.	.8	79.3
28	FEB	0730	27	11.	.2	78.9	*	28	FEB	1545	60	248.	10.0	82.2	*	1	MAR	0000	93	61.	.7	79.3
28	FEB	0745	28	11.	.2	78.9	*	28	FEB	1600	61	249.	10.1	82.2	*	1	MAR	0015	94	60.	.7	79.3
	FEB	0800	29	11.	.2	78.9	*	28	FEB	1615	62	249.	10.2	82.2	*	1	MAR	0030	95	60.	.7	79.3
	FEB	0815	30	11.	.2	78.9	*	28	FEB	1630	63	249.	10.1	82.2	*	1	MAR	0045	96	59.	.7	79.3
28	FEB	0830	31	11.	.2	78.9	*	28	FEB	1645	64	247.	9.9	82.2	*	1	MAR	0100	97	58.	.7	79.3
28	FEB	0845	32	12.	.2	78.9	*	28	FEB	1700	65	246.	9.6	82.1	*							
28	FEB	0900	33	13.	.3	79.0	*	28	FEB	1715	66	243.	9.3	82.0	*							

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 PEAK FLOW     TIME                                   MAXIMUM AVERAGE FLOW
                                              6-HR        24-HR        72-HR      24.00-HR
+   (CFS)      (HR)
                                   (CFS)
+     249.    15.25                  232.         92.          92.          92.
                             (INCHES)    2.190       3.496        3.496        3.496
                              (AC-FT)      115.        183.         183.         183.

 PEAK STORAGE   TIME                                 MAXIMUM AVERAGE STORAGE
                                              6-HR        24-HR        72-HR      24.00-HR
+  (AC-FT)     (HR)
      10.     15.25                    8.          3.           3.           3.

 PEAK STAGE    TIME                                   MAXIMUM AVERAGE STAGE
                                              6-HR        24-HR        72-HR      24.00-HR
+   (FEET)     (HR)
    82.20     15.25                  81.77       79.83        79.83        79.83

                              CUMULATIVE AREA =     .98 SQ MI


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            *            *
 158 KK     *     SUB8B  *
            *            *
            **************

 159 KO          OUTPUT CONTROL VARIABLES
                       IPRNT           4  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE
                                SCS RUNOFF CALCULATION

               SUBBASIN RUNOFF DATA

 161 BA          SUBBASIN CHARACTERISTICS
                       TAREA         .33  SUBBASIN AREA

                 PRECIPITATION DATA

 162 PH                                 DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                     STORM AREA =     .33

 163 LS          SCS LOSS RATE
                       STRTL         .70  INITIAL ABSTRACTION
                      CRVNBR       74.00  CURVE NUMBER
                       RTIMP         .00  PERCENT IMPERVIOUS AREA

 164 UD          SCS DIMENSIONLESS UNITGRAPH
                        TLAG         .40  LAG

                                                          ***

WARNING *** TIME INTERVAL IS GREATER THAN .29*LAG
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                                        UNIT HYDROGRAPH
                                    10 END-OF-PERIOD ORDINATES
        133.     306.     231.     101.      47.      22.      10.       5.       2.       1.

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        *            *
168 KK  *     8BSWP  *
        *            *
        **************

169 KO        OUTPUT CONTROL VARIABLES
                   IPRNT          1  PRINT CONTROL
                   IPLOT          0  PLOT CONTROL
                   QSCAL         0.  HYDROGRAPH PLOT SCALE
                            STORAGE ROUTING THROUGH 8B

          HYDROGRAPH ROUTING DATA

171 RS        STORAGE ROUTING
                   NSTPS          1  NUMBER OF SUBREACHES
                    ITYP       STOR  TYPE OF INITIAL CONDITION
                  RSVRIC        .00  INITIAL CONDITION
                       X        .00 WORKING R AND D COEFFICIENT

172 RC        NORMAL DEPTH CHANNEL ROUTING
                     ANL       .080  LEFT OVERBANK N-VALUE
                    ANCH       .030  MAIN CHANNEL N-VALUE
                     ANR       .080  RIGHT OVERBANK N-VALUE
                   RLNTH      1200.  REACH LENGTH
                     SEL      .0030  ENERGY SLOPE
                   ELMAX       82.0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                   CROSS-SECTION DATA
                        --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
174 RY      ELEVATION    84.00    83.00    82.00    75.00    75.00    82.00    83.00    84.00
173 RX      DISTANCE       .00     5.00    10.00    20.00    25.00    35.00    40.00    45.00

                                                  ***

                                   COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

        STORAGE       .00      .06      .12      .20      .29      .39      .50      .62      .75      .89
        OUTFLOW       .00     2.61     8.53    17.35    29.10    43.92    61.94    83.36   108.33   137.04
      ELEVATION     75.00    75.37    75.74    76.11    76.47    76.84    77.21    77.58    77.95    78.32

        STORAGE      1.04     1.20     1.38     1.56     1.76     1.96     2.18     2.41     2.64     2.89
        OUTFLOW    169.67   206.38   247.34   292.73   342.72   397.46   457.12   521.86   591.83   667.20
      ELEVATION     78.68    79.05    79.42    79.79    80.16    80.53    80.89    81.26    81.63    82.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN        9. TO      667.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

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                                        HYDROGRAPH AT STATION    8BSWP

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DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE
28 FEB 0100	1	0.	.0	75.0	28 FEB 0915	34	15.	.2	76.0	28 FEB 1730	67	274.	1.5	79.4
28 FEB 0115	2	0.	.0	75.0	28 FEB 0930	35	17.	.2	76.1	28 FEB 1745	68	269.	1.5	7
28 FEB 0130	3	0.	.0	75.0	28 FEB 0945	36	20.	.2	76.2	28 FEB 1800	69	263.	1.4	79.
28 FEB 0145	4	0.	.0	75.0	28 FEB 1000	37	23.	.2	76.3	28 FEB 1815	70	257.	1.4	79.5
28 FEB 0200	5	0.	.0	75.0	28 FEB 1015	38	26.	.3	76.4	28 FEB 1830	71	249.	1.4	79.4
28 FEB 0215	6	0.	.0	75.0	28 FEB 1030	39	30.	.3	76.5	28 FEB 1845	72	240.	1.3	79.4
28 FEB 0230	7	0.	.0	75.0	28 FEB 1045	40	35.	.3	76.6	28 FEB 1900	73	230.	1.3	79.3
28 FEB 0245	8	2.	.0	75.3	28 FEB 1100	41	41.	.4	76.8	28 FEB 1915	74	221.	1.3	79.2
28 FEB 0300	9	6.	.1	75.6	28 FEB 1115	42	48.	.4	76.9	28 FEB 1930	75	212.	1.2	79.1
28 FEB 0315	10	7.	.1	75.7	28 FEB 1130	43	56.	.5	77.1	28 FEB 1945	76	202.	1.2	79.0
28 FEB 0330	11	8.	.1	75.7	28 FEB 1145	44	64.	.5	77.3	28 FEB 2000	77	193.	1.1	78.9
28 FEB 0345	12	9.	.1	75.8	28 FEB 1200	45	73.	.6	77.4	28 FEB 2015	78	184.	1.1	78.8
28 FEB 0400	13	9.	.1	75.8	28 FEB 1215	46	86.	.6	77.6	28 FEB 2030	79	175.	1.1	78.7
28 FEB 0415	14	10.	.1	75.8	28 FEB 1230	47	110.	.8	78.0	28 FEB 2045	80	165.	1.0	78.6
28 FEB 0430	15	10.	.1	75.8	28 FEB 1245	48	148.	.9	78.4	28 FEB 2100	81	137.	.9	78.3
28 FEB 0445	16	10.	.1	75.8	28 FEB 1300	49	220.	1.3	79.2	28 FEB 2115	82	116.	.8	78.0
28 FEB 0500	17	10.	.1	75.8	28 FEB 1315	50	384.	1.9	80.4	28 FEB 2130	83	110.	.8	78.0
28 FEB 0515	18	11.	.1	75.8	28 FEB 1330	51	569.	2.6	81.5	28 FEB 2145	84	100.	.7	77.8
28 FEB 0530	19	11.	.1	75.8	28 FEB 1345	52	579.	2.6	81.6	28 FEB 2200	85	94.	.7	77.7
28 FEB 0545	20	11.	.1	75.8	28 FEB 1400	53	482.	2.3	81.0	28 FEB 2215	86	89.	.6	77.7
28 FEB 0600	21	11.	.1	75.8	28 FEB 1415	54	416.	2.0	80.6	28 FEB 2230	87	85.	.6	77.6
28 FEB 0615	22	11.	.1	75.8	28 FEB 1430	55	369.	1.9	80.3	28 FEB 2245	88	83.	.6	77.6
28 FEB 0630	23	11.	.1	75.8	28 FEB 1445	56	338.	1.7	80.1	28 FEB 2300	89	80.	.6	77.5
28 FEB 0645	24	11.	.1	75.8	28 FEB 1500	57	322.	1.7	80.0	28 FEB 2315	90	79.	.6	77.5
28 FEB 0700	25	11.	.1	75.8	28 FEB 1515	58	314.	1.6	79.9	28 FEB 2330	91	77.	.6	77.5
28 FEB 0715	26	11.	.1	75.8	28 FEB 1530	59	308.	1.6	79.9	28 FEB 2345	92	76.	.6	77.5
28 FEB 0730	27	11.	.1	75.8	28 FEB 1545	60	304.	1.6	79.9	1 MAR 0000	93	75.	.6	77.4
28 FEB 0745	28	11.	.1	75.8	28 FEB 1600	61	300.	1.6	79.8	1 MAR 0015	94	74.	.6	77.4
28 FEB 0800	29	11.	.1	75.8	28 FEB 1615	62	296.	1.6	79.8	1 MAR 0030	95	73.	.6	77.4
28 FEB 0815	30	11.	.1	75.8	28 FEB 1630	63	292.	1.6	79.8	1 MAR 0045	96	72.	.6	7
28 FEB 0830	31	11.	.1	75.8	28 FEB 1645	64	287.	1.5	79.7	1 MAR 0100	97	71.	.5	7
28 FEB 0845	32	12.	.2	75.9	28 FEB 1700	65	283.	1.5	79.7					
28 FEB 0900	33	13.	.2	75.9	28 FEB 1715	66	278.	1.5	79.7					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 579.	12.75		329.	125.	125.	125.
		(INCHES)	2.326	3.530	3.530	3.530
		(AC-FT)	163.	248.	248.	248.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
3.	12.75	2.	1.	1.	1.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)				
81.56	12.75	80.01	77.54	77.54	77.54

CUMULATIVE AREA = 1.31 SQ MI

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175 KK     *     SUB8C  *
           *            *
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    KO          OUTPUT CONTROL VARIABLES
                      IPRNT           4  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

              SUBBASIN RUNOFF DATA

178 BA          SUBBASIN CHARACTERISTICS
                      TAREA         .12  SUBBASIN AREA

                PRECIPITATION DATA

179 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                STORM AREA =     .12

180 LS          SCS LOSS RATE
                      STRTL         .70  INITIAL ABSTRACTION
                     CRVNBR       74.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

181 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .26  LAG

                                                                 ***

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

                                                        UNIT HYDROGRAPH
                                                   7 END-OF-PERIOD ORDINATES
              107.      125.       44.       16.        5.        2.        1.


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185 KK     *     8CSWP  *
           *            *
           **************

186 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 8C

              HYDROGRAPH ROUTING DATA

    RS          STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC       64.00  INITIAL CONDITION
                          X         .00 WORKING R AND D COEFFICIENT

189 SA              AREA        1.1       1.9       3.3       5.7       8.8      11.1
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190 SE          ELEVATION       64.00     66.00     68.00     70.00     72.00     74.00

191 SS          SPILLWAY
                      CREL       64.00  SPILLWAY CREST ELEVATION
                     SPWID       12.00  SPILLWAY WIDTH
                      COQW        3.00  WEIR COEFFICIENT
                      EXPW        1.50  EXPONENT OF HEAD

                                                  ***

                                   COMPUTED STORAGE-ELEVATION DATA

          STORAGE       .00      3.00      8.12     16.99     31.37     51.20
        ELEVATION     64.00     66.00     68.00     70.00     72.00     74.00

                                   COMPUTED OUTFLOW-ELEVATION DATA

          OUTFLOW       .00       .00       .20      1.56      5.27     12.49     24.40     42.16     66.95     99.94
        ELEVATION     64.00     64.00     64.03     64.12     64.28     64.49     64.77     65.11     65.51     65.98

          OUTFLOW    142.30    195.20    259.81    337.31    428.86    535.64    658.81    799.55    959.03   1138.42
        ELEVATION     66.50     67.09     67.73     68.44     69.22     70.05     70.94     71.90     72.92     74.00

                                   COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE       .00       .03       .14       .32       .60       .97      1.47      2.12      2.95      3.00
          OUTFLOW       .00       .20      1.56      5.27     12.49     24.40     42.16     66.95     99.94    101.82
        ELEVATION     64.00     64.03     64.12     64.28     64.49     64.77     65.11     65.51     65.98     66.00

          STORAGE      4.03      5.44      7.28      8.12      9.69     12.93     16.99     17.28     23.01     30.51
          OUTFLOW    142.30    195.20    259.81    288.00    337.31    428.86    529.09    535.64    658.81    799.55
        ELEVATION     66.50     67.09     67.73     68.00     68.44     69.22     70.00     70.05     70.94     71.90

          STORAGE     31.37     39.92     51.20
          OUTFLOW    814.59    959.03   1138.42
        ELEVATION     72.00     72.92     74.00
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HYDROGRAPH AT STATION 8CSWP

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	64.0	*	28	FEB	0915	34	13.	.6	64.5	*	28	FEB	1730	67	293.	8.3	68.0
28	FEB	0115	2	0.	.0	64.0	*	28	FEB	0930	35	15.	.7	64.5	*	28	FEB	1745	68	287.	8.1	68.0
28	FEB	0130	3	0.	.0	64.0	*	28	FEB	0945	36	17.	.7	64.6	*	28	FEB	1800	69	282.	7.9	67.9
28	FEB	0145	4	0.	.0	64.0	*	28	FEB	1000	37	20.	.8	64.7	*	28	FEB	1815	70	276.	7.8	67.9
28	FEB	0200	5	0.	.0	64.0	*	28	FEB	1015	38	23.	.9	64.7	*	28	FEB	1830	71	269.	7.6	67.8
28	FEB	0215	6	0.	.0	64.0	*	28	FEB	1030	39	27.	1.0	64.8	*	28	FEB	1845	72	261.	7.3	67.7
28	FEB	0230	7	0.	.0	64.0	*	28	FEB	1045	40	32.	1.2	64.9	*	28	FEB	1900	73	252.	7.1	67.7
28	FEB	0245	8	0.	.0	64.0	*	28	FEB	1100	41	38.	1.3	65.0	*	28	FEB	1915	74	243.	6.8	67.6
28	FEB	0300	9	1.	.1	64.1	*	28	FEB	1115	42	44.	1.5	65.1	*	28	FEB	1930	75	233.	6.5	67.5
28	FEB	0315	10	3.	.2	64.2	*	28	FEB	1130	43	52.	1.7	65.3	*	28	FEB	1945	76	223.	6.2	67.4
28	FEB	0330	11	4.	.3	64.2	*	28	FEB	1145	44	61.	2.0	65.4	*	28	FEB	2000	77	213.	5.9	67.3
28	FEB	0345	12	6.	.4	64.3	*	28	FEB	1200	45	70.	2.2	65.6	*	28	FEB	2015	78	203.	5.7	67.2
28	FEB	0400	13	7.	.4	64.3	*	28	FEB	1215	46	82.	2.5	65.7	*	28	FEB	2030	79	194.	5.4	67
28	FEB	0415	14	8.	.4	64.4	*	28	FEB	1230	47	102.	3.0	66.0	*	28	FEB	2045	80	184.	5.1	67.
28	FEB	0430	15	9.	.5	64.4	*	28	FEB	1245	48	132.	3.8	66.4	*	28	FEB	2100	81	169.	4.7	66.8
28	FEB	0445	16	10.	.5	64.4	*	28	FEB	1300	49	186.	5.2	67.0	*	28	FEB	2115	82	148.	4.2	66.6
28	FEB	0500	17	10.	.5	64.4	*	28	FEB	1315	50	300.	8.5	68.1	*	28	FEB	2130	83	131.	3.7	66.4
28	FEB	0515	18	10.	.5	64.4	*	28	FEB	1330	51	449.	13.7	69.4	*	28	FEB	2145	84	119.	3.4	66.2
28	FEB	0530	19	10.	.5	64.4	*	28	FEB	1345	52	549.	17.9	70.1	*	28	FEB	2200	85	110.	3.2	66.1

28 FEB 0545	20	10.	.5	64.4 *	28 FEB 1400	53	572.	19.0	70.3 *	28 FEB 2215	86	102.	3.0	66.0
28 FEB 0600	21	11.	.5	64.4 *	28 FEB 1415	54	547.	17.8	70.1 *	28 FEB 2230	87	97.	2.9	65.9
28 FEB 0615	22	11.	.5	64.4 *	28 FEB 1430	55	502.	15.9	69.8 *	28 FEB 2245	88	92.	2.8	65.9
28 FEB 0630	23	11.	.5	64.4 *	28 FEB 1445	56	453.	13.9	69.4 *	28 FEB 2300	89	89.	2.7	65.8
FEB 0645	24	11.	.5	64.4 *	28 FEB 1500	57	411.	12.3	69.1 *	28 FEB 2315	90	86.	2.6	65.8
FEB 0700	25	11.	.5	64.4 *	28 FEB 1515	58	379.	11.2	68.8 *	28 FEB 2330	91	84.	2.6	65.8
28 FEB 0715	26	11.	.5	64.4 *	28 FEB 1530	59	358.	10.4	68.6 *	28 FEB 2345	92	83.	2.5	65.7
28 FEB 0730	27	11.	.5	64.4 *	28 FEB 1545	60	343.	9.9	68.5 *	1 MAR 0000	93	81.	2.5	65.7
28 FEB 0745	28	11.	.5	64.4 *	28 FEB 1600	61	331.	9.5	68.4 *	1 MAR 0015	94	80.	2.4	65.7
28 FEB 0800	29	11.	.5	64.4 *	28 FEB 1615	62	323.	9.2	68.3 *	1 MAR 0030	95	79.	2.4	65.7
28 FEB 0815	30	11.	.5	64.4 *	28 FEB 1630	63	316.	9.0	68.3 *	1 MAR 0045	96	78.	2.4	65.7
28 FEB 0830	31	11.	.5	64.4 *	28 FEB 1645	64	309.	8.8	68.2 *	1 MAR 0100	97	77.	2.4	65.6
28 FEB 0845	32	11.	.5	64.5 *	28 FEB 1700	65	303.	8.6	68.1 *					
28 FEB 0900	33	12.	.6	64.5 *	28 FEB 1715	66	298.	8.4	68.1 *					
				*					*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 572.	13.00		360.	135.	135.	135.
		(INCHES)	2.338	3.510	3.510	3.510
		(AC-FT)	178.	268.	268.	268.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
19.	13.00	11.	4.	4.	4.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
(FEET)	(HR)				
— 70.31	13.00	68.60	66.04	66.04	66.04

CUMULATIVE AREA = 1.43 SQ MI

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          *            *
192 KK    *    SUB6A   *
          *            *
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193 KO        OUTPUT CONTROL VARIABLES
                    IPRNT          4  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL         0.  HYDROGRAPH PLOT SCALE
                             SCS RUNOFF CALCULATION

            SUBBASIN RUNOFF DATA

195 BA        SUBBASIN CHARACTERISTICS
                    TAREA        .10  SUBBASIN AREA

              PRECIPITATION DATA

196 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
              ..... HYDRO-35 ......  ............... TP-40 ...............  ........... TP-49 ...........
              5-MIN  15-MIN  60-MIN   2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                .60    1.30    2.50   3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00
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                                        STORM AREA =      .10

 197 LS          SCS LOSS RATE
                      STRTL        .78  INITIAL ABSTRACTION
                     CRVNBR      72.00  CURVE NUMBER
                      RTIMP        .00  PERCENT IMPERVIOUS AREA

 198 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG        .50  LAG

                                                  ***

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

                                                UNIT HYDROGRAPH
                                           12 END-OF-PERIOD ORDINATES
              23.       70.       70.       42.       21.       11.        6.        3.        2.        1.
               0.        0.


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          *            *
 199 KK   *     6ASWP  *
          *            *
          **************

 200 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                              STORAGE ROUTING THROUGH 6A

             HYDROGRAPH ROUTING DATA

 202 RS          STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC       82.00  INITIAL CONDITION
                          X         .00 WORKING R AND D COEFFICIENT

 203 SA              AREA          .1       1.2       4.0       7.5

 204 SE          ELEVATION       82.00     84.00     85.00     86.00

 205 SL          LOW-LEVEL OUTLET
                      ELEVL       85.00  ELEVATION AT CENTER OF OUTLET
                      CAREA        4.50  CROSS-SECTIONAL AREA
                       COQL         .60  COEFFICIENT
                       EXPL         .50  EXPONENT OF HEAD

 206 SS          SPILLWAY
                       CREL       85.90  SPILLWAY CREST ELEVATION
                      SPWID         .00  SPILLWAY WIDTH
                       COQW         .00  WEIR COEFFICIENT
                       EXPW        1.50  EXPONENT OF HEAD

                                                  ***

                                        COMPUTED STORAGE-ELEVATION DATA

          STORAGE        .00      1.07      3.50      9.16
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ELEVATION	82.00	84.00	85.00	86.00

COMPUTED OUTFLOW-ELEVATION DATA

OUTFLOW	.00	.00	21.62	21.46	21.30	21.14	20.99	20.84	20.69	20.54
ELEVATION	82.00	85.00	86.00	85.98	85.97	85.95	85.94	85.93	85.91	85.90

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	1.07	3.50	9.14
OUTFLOW	.00	.00	.00	21.62
ELEVATION	82.00	84.00	85.00	86.00

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HYDROGRAPH AT STATION 6ASWP

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	82.0	28	FEB	0915	34	0.	.0	82.0	28	FEB	1730	67	18.	8.1	85.8
28	FEB	0115	2	0.	.0	82.0	28	FEB	0930	35	0.	.0	82.0	28	FEB	1745	68	17.	7.9	85.8
28	FEB	0130	3	0.	.0	82.0	28	FEB	0945	36	0.	.0	82.0	28	FEB	1800	69	16.	7.8	85.8
28	FEB	0145	4	0.	.0	82.0	28	FEB	1000	37	0.	.0	82.0	28	FEB	1815	70	16.	7.6	85.7
28	FEB	0200	5	0.	.0	82.0	28	FEB	1015	38	0.	.0	82.1	28	FEB	1830	71	15.	7.4	85.7
28	FEB	0215	6	0.	.0	82.0	28	FEB	1030	39	0.	.0	82.1	28	FEB	1845	72	15.	7.3	85.7
28	FEB	0230	7	0.	.0	82.0	28	FEB	1045	40	0.	.1	82.2	28	FEB	1900	73	14.	7.2	85.6
28	FEB	0245	8	0.	.0	82.0	28	FEB	1100	41	0.	.1	82.2	28	FEB	1915	74	14.	7.0	85.6
28	FEB	0300	9	0.	.0	82.0	28	FEB	1115	42	0.	.2	82.3	28	FEB	1930	75	13.	6.9	85.6
28	FEB	0315	10	0.	.0	82.0	28	FEB	1130	43	0.	.2	82.4	28	FEB	1945	76	13.	6.8	85.6
	FEB	0330	11	0.	.0	82.0	28	FEB	1145	44	0.	.3	82.6	28	FEB	2000	77	12.	6.6	85.6
	FEB	0345	12	0.	.0	82.0	28	FEB	1200	45	0.	.4	82.8	28	FEB	2015	78	12.	6.5	85.5
28	FEB	0400	13	0.	.0	82.0	28	FEB	1215	46	0.	.6	83.0	28	FEB	2030	79	11.	6.4	85.5
28	FEB	0415	14	0.	.0	82.0	28	FEB	1230	47	0.	.7	83.4	28	FEB	2045	80	11.	6.3	85.5
28	FEB	0430	15	0.	.0	82.0	28	FEB	1245	48	0.	1.0	83.9	28	FEB	2100	81	10.	6.1	85.5
28	FEB	0445	16	0.	.0	82.0	28	FEB	1300	49	0.	1.4	84.1	28	FEB	2115	82	10.	6.0	85.4
28	FEB	0500	17	0.	.0	82.0	28	FEB	1315	50	0.	2.2	84.5	28	FEB	2130	83	9.	5.9	85.4
28	FEB	0515	18	0.	.0	82.0	28	FEB	1330	51	1.	3.8	85.0	28	FEB	2145	84	9.	5.8	85.4
28	FEB	0530	19	0.	.0	82.0	28	FEB	1345	52	8.	5.7	85.4	28	FEB	2200	85	9.	5.8	85.4
28	FEB	0545	20	0.	.0	82.0	28	FEB	1400	53	14.	7.2	85.7	28	FEB	2215	86	8.	5.7	85.4
28	FEB	0600	21	0.	.0	82.0	28	FEB	1415	54	18.	8.3	85.8	28	FEB	2230	87	8.	5.6	85.4
28	FEB	0615	22	0.	.0	82.0	28	FEB	1430	55	21.	8.9	85.9	28	FEB	2245	88	8.	5.5	85.4
28	FEB	0630	23	0.	.0	82.0	28	FEB	1445	56	22.	9.2	86.0	28	FEB	2300	89	7.	5.4	85.3
28	FEB	0645	24	0.	.0	82.0	28	FEB	1500	57	22.	9.3	86.0	28	FEB	2315	90	7.	5.4	85.3
28	FEB	0700	25	0.	.0	82.0	28	FEB	1515	58	22.	9.3	86.0	28	FEB	2330	91	7.	5.3	85.3
28	FEB	0715	26	0.	.0	82.0	28	FEB	1530	59	22.	9.3	86.0	28	FEB	2345	92	7.	5.3	85.3
28	FEB	0730	27	0.	.0	82.0	28	FEB	1545	60	22.	9.2	86.0	1	MAR	0000	93	7.	5.2	85.3
28	FEB	0745	28	0.	.0	82.0	28	FEB	1600	61	21.	9.1	86.0	1	MAR	0015	94	6.	5.1	85.3
28	FEB	0800	29	0.	.0	82.0	28	FEB	1615	62	21.	8.9	86.0	1	MAR	0030	95	6.	5.1	85.3
28	FEB	0815	30	0.	.0	82.0	28	FEB	1630	63	20.	8.8	85.9	1	MAR	0045	96	6.	5.0	85.3
28	FEB	0830	31	0.	.0	82.0	28	FEB	1645	64	20.	8.6	85.9	1	MAR	0100	97	6.	5.0	85.3
28	FEB	0845	32	0.	.0	82.0	28	FEB	1700	65	19.	8.4	85.9							
28	FEB	0900	33	0.	.0	82.0	28	FEB	1715	66	18.	8.3	85.8							

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PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
		(CFS)				
+ 22.	14.25		18.	6.	6.	6.
		(INCHES)	1.737	2.475	2.475	2.475
		(AC-FT)	9.	13.	13.	13.

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 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                        6-HR       24-HR       72-HR     24.00-HR
+  (AC-FT)      (HR)
       9.     14.25                      8.          3.          3.          3.

 PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                        6-HR       24-HR       72-HR     24.00-HR
+   (FEET)      (HR)
    86.03     14.25                    85.83       83.87       83.87       83.87

                        CUMULATIVE AREA =     .10 SQ MI
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          *            *
 207 KK   *     SUB6B  *
          *            *
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 208 KO         OUTPUT CONTROL VARIABLES
                      IPRNT           4  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

              SUBBASIN RUNOFF DATA

 210 BA         SUBBASIN CHARACTERISTICS
                      TAREA         .18  SUBBASIN AREA

                PRECIPITATION DATA

 211 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                   STORM AREA =     .18

 212 LS         SCS LOSS RATE
                      STRTL         .78  INITIAL ABSTRACTION
                     CRVNBR       72.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

 213 UD         SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .20  LAG

                                                        ***

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

                                                   UNIT HYDROGRAPH
                                              6 END-OF-PERIOD ORDINATES
              230.      163.       45.       13.        4.        1.
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          *           *
217 KK    *    6BSWP  *
          *           *
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   KO          OUTPUT CONTROL VARIABLES
                     IPRNT          1  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE
                              STORAGE ROUTING THROUGH 6B

             HYDROGRAPH ROUTING DATA

220 RS          STORAGE ROUTING
                     NSTPS          1  NUMBER OF SUBREACHES
                      ITYP       ELEV  TYPE OF INITIAL CONDITION
                    RSVRIC      79.50  INITIAL CONDITION
                         X        .00 WORKING R AND D COEFFICIENT

221 SA              AREA        9.6     23.8     37.4

222 SE          ELEVATION      79.00    80.00    82.00

224 SL          LOW-LEVEL OUTLET
                     ELEVL      80.60  ELEVATION AT CENTER OF OUTLET
                     CAREA      11.30  CROSS-SECTIONAL AREA
                      COQL        .60  COEFFICIENT
                      EXPL        .50  EXPONENT OF HEAD

225 SS          SPILLWAY
                      CREL      81.90  SPILLWAY CREST ELEVATION
                     SPWID        .00  SPILLWAY WIDTH
                      COQW        .00  WEIR COEFFICIENT
                      EXPW       1.50  EXPONENT OF HEAD

                                                    ***

                                        COMPUTED STORAGE-ELEVATION DATA

          STORAGE        .00     16.21     76.95
        ELEVATION      79.00     80.00     82.00

                                        COMPUTED OUTFLOW-ELEVATION DATA

          OUTFLOW        .00       .00     67.92     67.00     66.11     65.25     64.40     63.58     62.78     62.00
        ELEVATION      79.00     80.60     82.16     82.12     82.08     82.04     82.00     81.97     81.93     81.90

                                       COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE        .00     16.21     31.62     76.95     83.04
          OUTFLOW        .00       .00       .00     64.34     67.92
        ELEVATION      79.00     80.00     80.60     82.00     82.16
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HYDROGRAPH AT STATION 6BSWP

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MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	6.3	79.4	*	28	FEB	0915	34	0.	6.3	79.4	*	28	FEB	1730	67	9.	38.3	80.8
28	FEB	0115	2	0.	6.3	79.4	*	28	FEB	0930	35	0.	6.3	79.4	*	28	FEB	1745	68	10.	38.8	80.8
28	FEB	0130	3	0.	6.3	79.4	*	28	FEB	0945	36	0.	6.4	79.4	*	28	FEB	1800	69	11.	39.2	80.8
28	FEB	0145	4	0.	6.3	79.4	*	28	FEB	1000	37	0.	6.4	79.4	*	28	FEB	1815	70	11.	39.6	80.8

28 FEB 0200	5	0.	6.3	79.4	*	28 FEB 1015	38	0.	6.4	79.4	*	28 FEB 1830	71	12.	40.0	80.9
28 FEB 0215	6	0.	6.3	79.4	*	28 FEB 1030	39	0.	6.5	79.4	*	28 FEB 1845	72	12.	40.3	80.9
28 FEB 0230	7	0.	6.3	79.4	*	28 FEB 1045	40	0.	6.6	79.4	*	28 FEB 1900	73	13.	40.6	80.9
28 FEB 0245	8	0.	6.3	79.4	*	28 FEB 1100	41	0.	6.7	79.4	*	28 FEB 1915	74	13.	40.9	80.9
28 FEB 0300	9	0.	6.3	79.4	*	28 FEB 1115	42	0.	6.8	79.4	*	28 FEB 1930	75	13.	41.1	8
28 FEB 0315	10	0.	6.3	79.4	*	28 FEB 1130	43	0.	7.0	79.4	*	28 FEB 1945	76	14.	41.3	80.
28 FEB 0330	11	0.	6.3	79.4	*	28 FEB 1145	44	0.	7.2	79.4	*	28 FEB 2000	77	14.	41.5	80.9
28 FEB 0345	12	0.	6.3	79.4	*	28 FEB 1200	45	0.	7.4	79.5	*	28 FEB 2015	78	14.	41.6	80.9
28 FEB 0400	13	0.	6.3	79.4	*	28 FEB 1215	46	0.	7.8	79.5	*	28 FEB 2030	79	14.	41.8	80.9
28 FEB 0415	14	0.	6.3	79.4	*	28 FEB 1230	47	0.	8.3	79.5	*	28 FEB 2045	80	15.	41.9	80.9
28 FEB 0430	15	0.	6.3	79.4	*	28 FEB 1245	48	0.	9.1	79.6	*	28 FEB 2100	81	15.	42.0	80.9
28 FEB 0445	16	0.	6.3	79.4	*	28 FEB 1300	49	0.	10.5	79.7	*	28 FEB 2115	82	15.	42.0	80.9
28 FEB 0500	17	0.	6.3	79.4	*	28 FEB 1315	50	0.	14.1	79.9	*	28 FEB 2130	83	15.	42.1	80.9
28 FEB 0515	18	0.	6.3	79.4	*	28 FEB 1330	51	0.	18.9	80.1	*	28 FEB 2145	84	15.	42.2	80.9
28 FEB 0530	19	0.	6.3	79.4	*	28 FEB 1345	52	0.	22.5	80.2	*	28 FEB 2200	85	15.	42.2	80.9
28 FEB 0545	20	0.	6.3	79.4	*	28 FEB 1400	53	0.	24.8	80.3	*	28 FEB 2215	86	15.	42.2	80.9
28 FEB 0600	21	0.	6.3	79.4	*	28 FEB 1415	54	0.	26.6	80.4	*	28 FEB 2230	87	15.	42.2	80.9
28 FEB 0615	22	0.	6.3	79.4	*	28 FEB 1430	55	0.	28.0	80.5	*	28 FEB 2245	88	15.	42.2	80.9
28 FEB 0630	23	0.	6.3	79.4	*	28 FEB 1445	56	0.	29.3	80.5	*	28 FEB 2300	89	15.	42.2	80.9
28 FEB 0645	24	0.	6.3	79.4	*	28 FEB 1500	57	0.	30.4	80.6	*	28 FEB 2315	90	15.	42.2	80.9
28 FEB 0700	25	0.	6.3	79.4	*	28 FEB 1515	58	0.	31.5	80.6	*	28 FEB 2330	91	15.	42.2	80.9
28 FEB 0715	26	0.	6.3	79.4	*	28 FEB 1530	59	1.	32.6	80.6	*	28 FEB 2345	92	15.	42.2	80.9
28 FEB 0730	27	0.	6.3	79.4	*	28 FEB 1545	60	3.	33.5	80.7	*	1 MAR 0000	93	15.	42.2	80.9
28 FEB 0745	28	0.	6.3	79.4	*	28 FEB 1600	61	4.	34.4	80.7	*	1 MAR 0015	94	15.	42.1	80.9
28 FEB 0800	29	0.	6.3	79.4	*	28 FEB 1615	62	5.	35.2	80.7	*	1 MAR 0030	95	15.	42.1	80.9
28 FEB 0815	30	0.	6.3	79.4	*	28 FEB 1630	63	6.	35.9	80.7	*	1 MAR 0045	96	15.	42.0	80.9
28 FEB 0830	31	0.	6.3	79.4	*	28 FEB 1645	64	7.	36.6	80.8	*	1 MAR 0100	97	15.	42.0	80.9
28 FEB 0845	32	0.	6.3	79.4	*	28 FEB 1700	65	8.	37.2	80.8	*					
28 FEB 0900	33	0.	6.3	79.4	*	28 FEB 1715	66	9.	37.8	80.8	*					
					*						*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 15.	21.75		15.	5.	5.	5.
		(INCHES)	.499	.663	.663	.663
		(AC-FT)	7.	10.	10.	10.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
42.	21.75	42.	22.	22.	22.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)				
80.93	21.75	80.92	80.08	80.08	80.08

CUMULATIVE AREA = .27 SQ MI

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              *            *
226 KK        *    SUB6D   *
              *            *
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227 KO OUTPUT CONTROL VARIABLES

IPRNT 4 PRINT CONTROL

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                IPLOT          0  PLOT CONTROL
                QSCAL         0.  HYDROGRAPH PLOT SCALE
                         SCS RUNOFF CALCULATION

          SUBBASIN RUNOFF DATA

 .9 BA      SUBBASIN CHARACTERISTICS
                TAREA        .42  SUBBASIN AREA

            PRECIPITATION DATA

 230 PH                          DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
            ..... HYDRO-35 ......  ............... TP-40 ...............  ........... TP-49 ...........
            5-MIN  15-MIN  60-MIN   2-HR   3-HR   6-HR  12-HR  24-HR  2-DAY  4-DAY  7-DAY  10-DAY
              .60    1.30   2.50   3.30   3.70   4.60   5.60   6.60    .00    .00    .00     .00

                                              STORM AREA =     .42

 231 LS     SCS LOSS RATE
                STRTL        .78  INITIAL ABSTRACTION
               CRVNBR      72.00  CURVE NUMBER
                RTIMP        .00  PERCENT IMPERVIOUS AREA

 232 UD     SCS DIMENSIONLESS UNITGRAPH
                 TLAG        .50  LAG

                                                  ***

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

                                                UNIT HYDROGRAPH
                                          12 END-OF-PERIOD ORDINATES
          102.     305.     305.     184.      92.      48.      25.      13.       7.       4.
            2.       1.

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        *            *
 233 KK *     6DSWP  *
        *            *
        **************

 234 KO     OUTPUT CONTROL VARIABLES
                IPRNT          1  PRINT CONTROL
                IPLOT          0  PLOT CONTROL
                QSCAL         0.  HYDROGRAPH PLOT SCALE
                         STORAGE ROUTING THROUGH 6D

          HYDROGRAPH ROUTING DATA

 236 RS     STORAGE ROUTING
                NSTPS          1  NUMBER OF SUBREACHES
                 ITYP       ELEV  TYPE OF INITIAL CONDITION
               RSVRIC      80.00  INITIAL CONDITION
                    X        .00 WORKING R AND D COEFFICIENT

 ?77 SA         AREA        1.5      14.4

  . SE      ELEVATION      80.00     90.00

 239 SL     LOW-LEVEL OUTLET
                ELEVL      80.00  ELEVATION AT CENTER OF OUTLET
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CAREA	12.57	CROSS-SECTIONAL AREA
COQL	.60	COEFFICIENT
EXPL	.50	EXPONENT OF HEAD

240 SS SPILLWAY

CREL	90.00	SPILLWAY CREST ELEVATION
SPWID	.00	SPILLWAY WIDTH
COQW	.00	WEIR COEFFICIENT
EXPW	1.50	EXPONENT OF HEAD

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COMPUTED STORAGE-ELEVATION DATA

STORAGE	.00	68.83
ELEVATION	80.00	90.00

COMPUTED OUTFLOW-ELEVATION DATA

OUTFLOW	.00	84.17	90.50	97.87	106.54	116.90	129.48	145.11	165.02	191.28
ELEVATION	80.00	81.94	82.24	82.62	83.10	83.73	84.58	85.76	87.44	90.00

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	4.33	5.28	6.59	8.48	11.30	15.80	23.50	37.99	68.83
OUTFLOW	.00	84.17	90.50	97.87	106.54	116.90	129.48	145.11	165.02	191.28
ELEVATION	80.00	81.94	82.24	82.62	83.10	83.73	84.58	85.76	87.44	90.00

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HYDROGRAPH AT STATION 6DSWP

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	80.0	*	28	FEB	0915	34	0.	.0	80.0	*	28	FEB	1730	67	115.	10.7	83.6
28	FEB	0115	2	0.	.0	80.0	*	28	FEB	0930	35	0.	.0	80.0	*	28	FEB	1745	68	109.	9.2	83.3
28	FEB	0130	3	0.	.0	80.0	*	28	FEB	0945	36	0.	.0	80.0	*	28	FEB	1800	69	103.	7.8	82.9
28	FEB	0145	4	0.	.0	80.0	*	28	FEB	1000	37	1.	.0	80.0	*	28	FEB	1815	70	97.	6.5	82.6
28	FEB	0200	5	0.	.0	80.0	*	28	FEB	1015	38	2.	.1	80.0	*	28	FEB	1830	71	90.	5.3	82.2
28	FEB	0215	6	0.	.0	80.0	*	28	FEB	1030	39	3.	.1	80.1	*	28	FEB	1845	72	82.	4.2	81.9
28	FEB	0230	7	0.	.0	80.0	*	28	FEB	1045	40	4.	.2	80.1	*	28	FEB	1900	73	65.	3.4	81.5
28	FEB	0245	8	0.	.0	80.0	*	28	FEB	1100	41	5.	.3	80.1	*	28	FEB	1915	74	54.	2.8	81.2
28	FEB	0300	9	0.	.0	80.0	*	28	FEB	1115	42	7.	.4	80.2	*	28	FEB	1930	75	46.	2.4	81.1
28	FEB	0315	10	0.	.0	80.0	*	28	FEB	1130	43	10.	.5	80.2	*	28	FEB	1945	76	40.	2.0	80.9
28	FEB	0330	11	0.	.0	80.0	*	28	FEB	1145	44	12.	.6	80.3	*	28	FEB	2000	77	35.	1.8	80.8
28	FEB	0345	12	0.	.0	80.0	*	28	FEB	1200	45	15.	.8	80.4	*	28	FEB	2015	78	32.	1.6	80.7
28	FEB	0400	13	0.	.0	80.0	*	28	FEB	1215	46	19.	1.0	80.4	*	28	FEB	2030	79	29.	1.5	80.7
28	FEB	0415	14	0.	.0	80.0	*	28	FEB	1230	47	25.	1.3	80.6	*	28	FEB	2045	80	27.	1.4	80.6
28	FEB	0430	15	0.	.0	80.0	*	28	FEB	1245	48	35.	1.8	80.8	*	28	FEB	2100	81	25.	1.3	80.6
28	FEB	0445	16	0.	.0	80.0	*	28	FEB	1300	49	53.	2.7	81.2	*	28	FEB	2115	82	24.	1.2	80.5
28	FEB	0500	17	0.	.0	80.0	*	28	FEB	1315	50	88.	4.9	82.1	*	28	FEB	2130	83	23.	1.2	80.5
28	FEB	0515	18	0.	.0	80.0	*	28	FEB	1330	51	111.	9.6	83.4	*	28	FEB	2145	84	22.	1.1	80.5
28	FEB	0530	19	0.	.0	80.0	*	28	FEB	1345	52	129.	15.8	84.6	*	28	FEB	2200	85	21.	1.1	80.5
28	FEB	0545	20	0.	.0	80.0	*	28	FEB	1400	53	140.	20.9	85.4	*	28	FEB	2215	86	21.	1.1	80.5
28	FEB	0600	21	0.	.0	80.0	*	28	FEB	1415	54	146.	23.9	85.8	*	28	FEB	2230	87	20.	1.0	80.5
28	FEB	0615	22	0.	.0	80.0	*	28	FEB	1430	55	148.	25.4	86.0	*	28	FEB	2245	88	20.	1.0	80
28	FEB	0630	23	0.	.0	80.0	*	28	FEB	1445	56	148.	25.6	86.0	*	28	FEB	2300	89	19.	1.0	8[illegible]
28	FEB	0645	24	0.	.0	80.0	*	28	FEB	1500	57	147.	25.1	85.9	*	28	FEB	2315	90	19.	1.0	80.[illegible]
28	FEB	0700	25	0.	.0	80.0	*	28	FEB	1515	58	146.	24.2	85.8	*	28	FEB	2330	91	18.	.9	80.4
28	FEB	0715	26	0.	.0	80.0	*	28	FEB	1530	59	144.	22.9	85.7	*	28	FEB	2345	92	18.	.9	80.4
28	FEB	0730	27	0.	.0	80.0	*	28	FEB	1545	60	141.	21.6	85.5	*	1	MAR	0000	93	18.	.9	80.4
28	FEB	0745	28	0.	.0	80.0	*	28	FEB	1600	61	138.	20.1	85.2	*	1	MAR	0015	94	17.	.9	80.4

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28 FEB 0800  29      0.      .0    80.0 * 28 FEB 1615  62     135.     18.6    85.0 *  1 MAR 0030  95      17.      .9    80.4
28 FEB 0815  30      0.      .0    80.0 * 28 FEB 1630  63     132.     17.0    84.8 *  1 MAR 0045  96      17.      .9    80.4
28 FEB 0830  31      0.      .0    80.0 * 28 FEB 1645  64     128.     15.4    84.5 *  1 MAR 0100  97      16.      .8    80.4
28 FEB 0845  32      0.      .0    80.0 * 28 FEB 1700  65     124.     13.8    84.2 *
28 FEB 0900  33      0.      .0    80.0 * 28 FEB 1715  66     119.     12.2    83.9 *
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 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     24.00-HR
+   (CFS)      (HR)
                          (CFS)
+     148.     13.75                122.         39.         39.         39.
                        (INCHES)   2.687      3.411       3.411       3.411
                         (AC-FT)     60.         77.         77.         77.

 PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     24.00-HR
+  (AC-FT)      (HR)
      26.      13.75                 15.          4.          4.          4.

 PEAK STAGE     TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     24.00-HR
+   (FEET)      (HR)
    86.00      13.75                84.23       81.25       81.25       81.25

                        CUMULATIVE AREA =     .42 SQ MI
```

*** ***

```
            **************
            *            *
 241 KK     *    SUB6C   *
            *            *
            **************

 242 KO         OUTPUT CONTROL VARIABLES
                      IPRNT          4  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

             SUBBASIN RUNOFF DATA

 244 BA         SUBBASIN CHARACTERISTICS
                      TAREA        .23  SUBBASIN AREA

                PRECIPITATION DATA

 245 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                STORM AREA =     .23

 246 LS         SCS LOSS RATE
                      STRTL        .78  INITIAL ABSTRACTION
                     CRVNBR      72.00  CURVE NUMBER
                      RTIMP        .00  PERCENT IMPERVIOUS AREA

 247 UD         SCS DIMENSIONLESS UNITGRAPH
```

```
                    TLAG          .30  LAG

                                                          ***

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

                                                    UNIT HYDROGRAPH
                                                 8 END-OF-PERIOD ORDINATES
             171.      253.      111.       43.       16.        6.        3.        1.


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


          **************
          *            *
 251 KK   *     6CSWP  *
          *            *
          **************

 252 KO         OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 6C

             HYDROGRAPH ROUTING DATA

 254 RS         STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC       74.50  INITIAL CONDITION
                          X         .00 WORKING R AND D COEFFICIENT

 255 SA              AREA          .0       2.3      12.6      24.4      33.5

 256 SE         ELEVATION       74.50     76.00     78.00     80.00     82.00

 257 SL         LOW-LEVEL OUTLET
                      ELEVL       74.50  ELEVATION AT CENTER OF OUTLET
                      CAREA       19.64  CROSS-SECTIONAL AREA
                       COQL         .60  COEFFICIENT
                       EXPL         .50  EXPONENT OF HEAD

 258 SS         SPILLWAY
                       CREL       81.90  SPILLWAY CREST ELEVATION
                      SPWID         .00  SPILLWAY WIDTH
                       COQW         .00  WEIR COEFFICIENT
                       EXPW        1.50  EXPONENT OF HEAD

                                                          ***

                                              COMPUTED STORAGE-ELEVATION DATA

          STORAGE        .00      1.16     14.69     50.99    108.68
        ELEVATION      74.50     76.00     78.00     80.00     82.00

                                              COMPUTED OUTFLOW-ELEVATION DATA

          OUTFLOW        .00    144.90    153.26    162.65    173.25    185.34    199.24    215.40    234.40    257.09
        ELEVATION      74.50     76.85     77.13     77.46     77.86     78.35     78.94     79.69     80.65     81.90

                                        COMPUTED STORAGE-OUTFLOW-ELEVATION DATA
```

STORAGE	.00	1.16	4.47	6.25	8.92	13.01	14.69	19.34	28.89	43.85
OUTFLOW	.00	115.75	144.90	153.26	162.65	173.25	176.81	185.34	199.24	215.40
ELEVATION	74.50	76.00	76.85	77.13	77.46	77.86	78.00	78.35	78.94	79.69

STORAGE	50.99	67.80	105.35	108.68
OUTFLOW	221.64	234.40	257.09	258.82
ELEVATION	80.00	80.65	81.90	82.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 0. TO 116.
THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

****

HYDROGRAPH AT STATION 6CSWP

****

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	74.5	28	FEB	0915	34	0.	.0	74.5	28	FEB	1730	67	179.	15.9	78.1
28	FEB	0115	2	0.	.0	74.5	28	FEB	0930	35	0.	.0	74.5	28	FEB	1745	68	178.	15.1	78.0
28	FEB	0130	3	0.	.0	74.5	28	FEB	0945	36	1.	.0	74.5	28	FEB	1800	69	176.	14.3	78.0
28	FEB	0145	4	0.	.0	74.5	28	FEB	1000	37	2.	.0	74.5	28	FEB	1815	70	174.	13.4	77.9
28	FEB	0200	5	0.	.0	74.5	28	FEB	1015	38	4.	.0	74.5	28	FEB	1830	71	172.	12.4	77.8
28	FEB	0215	6	0.	.0	74.5	28	FEB	1030	39	6.	.1	74.6	28	FEB	1845	72	169.	11.3	77.7
28	FEB	0230	7	0.	.0	74.5	28	FEB	1045	40	8.	.1	74.6	28	FEB	1900	73	165.	10.0	77.6
28	FEB	0245	8	0.	.0	74.5	28	FEB	1100	41	11.	.1	74.6	28	FEB	1915	74	161.	8.5	77.4
28	FEB	0300	9	0.	.0	74.5	28	FEB	1115	42	14.	.1	74.7	28	FEB	1930	75	155.	6.8	77.2
28	FEB	0315	10	0.	.0	74.5	28	FEB	1130	43	18.	.2	74.7	28	FEB	1945	76	148.	5.1	77.0
28	FEB	0330	11	0.	.0	74.5	28	FEB	1145	44	23.	.2	74.8	28	FEB	2000	77	137.	3.5	76.6
28	FEB	0345	12	0.	.0	74.5	28	FEB	1200	45	28.	.3	74.9	28	FEB	2015	78	124.	2.1	76.2
[illegible]	FEB	0400	13	0.	.0	74.5	28	FEB	1215	46	36.	.4	75.0	28	FEB	2030	79	97.	1.0	75.8
[illegible]	FEB	0415	14	0.	.0	74.5	28	FEB	1230	47	51.	.5	75.2	28	FEB	2045	80	54.	.5	75.2
[illegible]	FEB	0430	15	0.	.0	74.5	28	FEB	1245	48	73.	.7	75.5	28	FEB	2100	81	52.	.5	75.2
28	FEB	0445	16	0.	.0	74.5	28	FEB	1300	49	116.	1.2	76.0	28	FEB	2115	82	51.	.5	75.2
28	FEB	0500	17	0.	.0	74.5	28	FEB	1315	50	137.	3.6	76.6	28	FEB	2130	83	49.	.5	75.1
28	FEB	0515	18	0.	.0	74.5	28	FEB	1330	51	160.	8.1	77.4	28	FEB	2145	84	48.	.5	75.1
28	FEB	0530	19	0.	.0	74.5	28	FEB	1345	52	172.	12.4	77.8	28	FEB	2200	85	47.	.5	75.1
28	FEB	0545	20	0.	.0	74.5	28	FEB	1400	53	177.	15.0	78.0	28	FEB	2215	86	46.	.5	75.1
28	FEB	0600	21	0.	.0	74.5	28	FEB	1415	54	181.	16.7	78.2	28	FEB	2230	87	46.	.5	75.1
28	FEB	0615	22	0.	.0	74.5	28	FEB	1430	55	182.	17.7	78.2	28	FEB	2245	88	45.	.5	75.1
28	FEB	0630	23	0.	.0	74.5	28	FEB	1445	56	183.	18.2	78.3	28	FEB	2300	89	44.	.4	75.1
28	FEB	0645	24	0.	.0	74.5	28	FEB	1500	57	184.	18.5	78.3	28	FEB	2315	90	44.	.4	75.1
28	FEB	0700	25	0.	.0	74.5	28	FEB	1515	58	184.	18.7	78.3	28	FEB	2330	91	43.	.4	75.1
28	FEB	0715	26	0.	.0	74.5	28	FEB	1530	59	184.	18.7	78.3	28	FEB	2345	92	42.	.4	75.1
28	FEB	0730	27	0.	.0	74.5	28	FEB	1545	60	184.	18.7	78.3	1	MAR	0000	93	42.	.4	75.0
28	FEB	0745	28	0.	.0	74.5	28	FEB	1600	61	184.	18.5	78.3	1	MAR	0015	94	41.	.4	75.0
28	FEB	0800	29	0.	.0	74.5	28	FEB	1615	62	183.	18.3	78.3	1	MAR	0030	95	41.	.4	75.0
28	FEB	0815	30	0.	.0	74.5	28	FEB	1630	63	183.	18.0	78.2	1	MAR	0045	96	40.	.4	75.0
28	FEB	0830	31	0.	.0	74.5	28	FEB	1645	64	182.	17.6	78.2	1	MAR	0100	97	40.	.4	75.0
28	FEB	0845	32	0.	.0	74.5	28	FEB	1700	65	181.	17.1	78.2							
28	FEB	0900	33	0.	.0	74.5	28	FEB	1715	66	180.	16.5	78.1							

****

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
+ 184.	14.50	(CFS)	177.	65.	65.	65.
		(INCHES)	1.779	2.610	2.610	2.610
		(AC-FT)	88.	129.	129.	129.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	24.00-HR

```
+  (AC-FT)      (HR)
      19.     14.50                  15.         4.         4.         4.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                        6-HR       24-HR      72-HR     24.00-HR
+   (FEET)      (HR)
    78.30     14.50                  78.03       75.67      75.67      75.67

                          CUMULATIVE AREA =     .93 SQ MI

1
                                                RUNOFF SUMMARY
                                          FLOW IN CUBIC FEET PER SECOND
                                       TIME IN HOURS,  AREA IN SQUARE MILES

                                      PEAK   TIME OF    AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN    MAXIMUM    TIME OF
          OPERATION        STATION   FLOW    PEAK                                          AREA     STAGE    MAX STAGE
+                                                          6-HOUR     24-HOUR    72-HOUR

          HYDROGRAPH AT
+                          SUB7A     193.   12.50          46.        14.        14.       .13
          ROUTED TO
+                          7ASWP      30.   14.00          29.        14.        14.       .13
+                                                                                           113.10     14.00

          HYDROGRAPH AT
+                          SUB7B     134.   12.75          40.        12.        12.       .12
          2 COMBINED AT
+                           7AB      162.   12.75          67.        26.        26.       .25
          ROUTED TO
+                          7BSWP      28.   21.75          27.        19.        19.       .25
+                                                                                           111.23     21.75

          HYDROGRAPH AT
+                          SUB7C      77.   12.50          18.         6.         6.       .05
          2 COMBINED AT
+                           7BC       97.   12.50          42.        24.        24.       .30
          ROUTED TO
+                          7CHNL      99.   12.50          42.        24.        24.       .30
+                                                                                            96.98     12.50

          HYDROGRAPH AT
+                          SUB7D     138.   12.50          36.        11.        11.       .10
          ROUTED TO
+                          7DSWP      69.   13.25          32.        10.        10.       .10
+                                                                                            93.05     13.25

          HYDROGRAPH AT
+                          SUB7E      91.   12.25          16.         5.         5.       .05
          3 COMBINED AT
+                           7CDE     199.   12.25          89.        39.        39.       .45
          ROUTED TO
+                          7ECHN     149.   13.00          87.        38.        38.       .45
+                                                                                            91.33     13.00

          HYDROGRAPH AT
+                          SUB7F     299.   12.50          71.        22.        22.       .21
```

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          2 COMBINED AT
+                         7EF      429.  12.50      156.      60.      60.     .66
          ROUTED TO
+                         7FCHN    430.  12.50      155.      60.      60.     .66
                                                                                      91.13     12.50

          HYDROGRAPH AT
+                         SUB7G     92.  12.50       22.       7.       7.     .06

          2 COMBINED AT
+                         7FG      522.  12.50      177.      66.      66.     .72

          ROUTED TO
+                         7GSWP    218.  13.50      169.      66.      66.     .72
+                                                                                      91.84     13.50

          HYDROGRAPH AT
+                         SUB7H    270.  12.50       64.      20.      20.     .19

          2 COMBINED AT
+                         7GH      423.  12.50      229.      86.      86.     .91

          ROUTED TO
+                         7HSWP    247.  14.25      216.      85.      85.     .91
+                                                                                      88.08     14.25

          HYDROGRAPH AT
+                         SUB8A    105.  12.25       24.       8.       8.     .08

          2 COMBINED AT
+                         7H8A     279.  12.50      237.      93.      93.     .98

          ROUTED TO
+                         8ASWP    249.  15.25      232.      92.      92.     .98
+                                                                                      82.20     15.25

          HYDROGRAPH AT
+                         SUB8B    405.  12.50      105.      33.      33.     .33

          2 COMBINED AT
+                         8AB      591.  12.50      329.     125.     125.    1.31

          ROUTED TO
+                         8BSWP    579.  12.75      329.     125.     125.    1.31
+                                                                                      81.56     12.75

          HYDROGRAPH AT
+                         SUB8C    156.  12.50       37.      11.      11.     .12

          2 COMBINED AT
+                         8BC      726.  12.50      363.     136.     136.    1.43

          ROUTED TO
+                         8CSWP    572.  13.00      360.     135.     135.    1.43
+                                                                                      70.31     13.00

          HYDROGRAPH AT
+                         SUB6A     97.  12.75       29.       9.       9.     .10

          ROUTED TO
                          6ASWP     22.  14.25       18.       6.       6.     .10
+                                                                                      86.03     14.25

          HYDROGRAPH AT
+                         SUB6B    252.  12.25       53.      16.      16.     .18
```

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        2 COMBINED AT
+                       6AB      252.  12.25      68.      23.      23.      .27
        ROUTED TO
+                       6BSWP     15.  21.75      15.       5.       5.      .27
+                                                                          80.93     21.75
        HYDROGRAPH AT
+                       SUB6D    425.  12.75     126.      39.      39.      .42
        ROUTED TO
+                       6DSWP    148.  13.75     122.      39.      39.      .42
+                                                                          86.00     13.75
        HYDROGRAPH AT
+                       SUB6C    298.  12.50      70.      22.      22.      .23
        3 COMBINED AT
+                       6BCD     408.  12.50     194.      65.      65.      .93
        ROUTED TO
+                       6CSWP    184.  14.50     177.      65.      65.      .93
+                                                                          78.30     14.50
```

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

HEC-1

25 Year, 24 Hour Storm

(Routing Watershed 7 Through 6)

```
1                                                  ****
                    FLOOD HYDROGRAPH PACKAGE HEC-1 (IBM XT 512K VERSION) -FEB 1,1985
          U.S. ARMY CORPS OF ENGINEERS, THE HYDROLOGIC ENGINEERING CENTER, 609 SECOND STREET, DAVIS, CA. 95616
                                                  ****


          THIS HEC-1 VERSION CONTAINS ALL OPTIONS EXCEPT ECONOMICS, AND THE NUMBER OF PLANS ARE REDUCED TO 3


1                                          HEC-1 INPUT                                                PAGE  1

     LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

       1           ID        READING SUBWATERSHEDS
       2           ID        DETAILED STORAGE AND STREAM NETWORK
       3           ID        EXISTING CONDITIONS - 25 YR, 24 HR STORM
                   *DIAGRAM
       4           IT      15 28FEB91     100      97
       5           IO       5

       6           KK   SUB7A
       7           KO       4
       8           KM        SCS RUNOFF CALCULATION
       9           BA   0.133
      10           PH              0     0.5     1.1     2.1     2.7     3.0     3.6     4.5     5.2
      11           LS             77
      12           UD     0.3

      13           KK   7ASWP
      14           KO       1
      15           KM        STORAGE ROUTING THROUGH 7A
      16           RS       1    ELEV     110
      17           SA    0.80    1.94    4.34   11.31   18.24
      18           SE     110     111     112     113     114
      19           SL   110.0    3.53     0.6     0.5
      20           SS   113.9       0       0     1.5

      21           KK   SUB7B
      22           KO       4
      23           KM        SCS RUNOFF CALCULATION
      24           BA   0.116
      25           PH              0     0.5     1.1     2.1     2.7     3.0     3.6     4.5     5.2
      26           LS             77
      27           UD    0.52

      28           KK     7AB
      29           KM        COMBINE HYDROGRAPHS FOR 7A & 7B
      30           HC       2

      31           KK   7BSWP
      32           KO       1
      33           KM        STORAGE ROUTING THROUGH 7B
      34           RS       1    ELEV     101
      35           SA    0.26    0.65    2.16    3.58    5.77
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 36          SE     103     104     106     108     109
 37          SL     101    1.77     0.6     0.5
 38          SS   105.9       0       0     1.5

 39          KK   SUB7C
 40          KO       4
 41          KM        SCS RUNOFF CALCULATION
 42          BA   0.053
 43          PH               0     0.5     1.1     2.1     2.7     3.0     3.6     4.5     5.2
 44          LS              77
 45          UD    0.25
1                                          HEC-1 INPUT                                        PAGE  2

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 46          KK     7BC
 47          KM        COMBINE HYDROGRAPHS FOR 7B & 7C
 48          HC       2

 49          KK   7CHNL
 50          KO       1
 51          KM        STORAGE ROUTING THROUGH 7C
 52          RS       1    STOR       0
 53          RC   0.080   0.030   0.080     400  0.0285      98
 54          RX       0      10      20      30      40      50      60      70
 55          RY      99    98.5      98      96      96      98    98.5      99

 56          KK   SUB7D
 57          KO       4
 58          KM        SCS RUNOFF CALCULATION
 59          BA   0.104
 60          PH               0     0.5     1.1     2.1     2.7     3.0     3.6     4.5     5.2
 61          LS              77
 62          UD    0.38

 63          KK   7DSWP
 64          KO       1
 65          KM        STORAGE ROUTING THROUGH 7D
 66          RS       1    ELEV      89
 67          SA    0.57    1.42    2.49    3.86
 68          SE      88      90      92      94
 69          SL    90.6    4.91     0.6     0.5
 70          SS      92      10     3.0     1.5

 71          KK   SUB7E
 72          KO       4
 73          KM        SCS RUNOFF CALCULATION
 74          BA   0.046
 75          PH               0     0.5     1.1     2.1     2.7     3.0     3.6     4.5     5.2
 76          LS              77
 77          UD    0.14

 78          KK    7CDE
 79          KM        COMBINE HYDROGRAPHS FOR 7C, 7D, & 7E
 80          HC       3

 81          KK   7ECHN
 82          KO       1
 83          KM        STORAGE ROUTING THROUGH 7CDE
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 84          RS      1    STOR      0
 85          RC   0.08    0.03    0.08    7600   0.002      93
 86          RX      0       5      10      16      24      30      35      40
 87          RY     94    93.5      93      88      88      93    93.5      94
1                                        HEC-1 INPUT                                                    PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 88          KK   SUB7F
 89          KO      4
 90          KM       SCS RUNOFF CALCULATION
 91          BA   0.206
 92          PH              0     0.5     1.1     2.1     2.7     3.0     3.6     4.5     5.2
 93          LS             77
 94          UD    0.29

 95          KK    7EF
 96          KM       COMBINE HYDROGRAPHS FOR 7E & 7F
 97          HC      2

 98          KK   7FCHNL
 99          KO      1
100          KM       STORAGE ROUTING THROUGH 7F
101          RS      1    STOR      0
102          RC   0.08    0.03    0.08     500   0.003      90
103          RX      0       5      10      16      24      30      35      40
104          RY     90    90.5      90      86      86      90    90.5      91

105          KK   SUB7G
106          KO      4
107          KM       SCS RUNOFF CALCULATION
108          BA   0.063
109          PH              0     0.5     1.1     2.1     2.7     3.0     3.6     4.5     5.2
110          LS             77
111          UD    0.31

112          KK    7FG
113          KM       COMBINE HYDROGRAPHS FOR 7F & 7G
114          HC      2

115          KK   7GSWP
116          KO      1
117          KM       STORAGE ROUTING THROUGH 7G
118          RS      1    ELEV     83
119          SA      0    0.57    2.53    5.15
120          SE     85      86      87      88
121          SL   85.8   16.25     0.6     0.5
122          SS     88       0       0     1.5

123          KK   SUB7H
124          KO      4
125          KM       SCS RUNOFF CALCULATION
126          BA   0.186
127          PH              0     0.5     1.1     2.1     2.7     3.0     3.6     4.5     5.2
128          LS             77
129          UD    0.31
                                         HEC-1 INPUT                                                    PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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130          KK    7GH
131          KM        COMBINE HYDROGRAPHS FOR 7G & 7H
132          HC       2

133          KK   7HSWP
134          KO       1
135          KM        STORAGE ROUTING THROUGH 7H
136          RS       1    ELEV      84
137          SA    0.39    3.08    9.24   15.26
138          SE      84      86      87      88
139          SS      84      10     3.0     1.5

140          KK  SUB8AA
141          KO       4
142          KM        SCS RUNOFF CALCULATION
143          BA   0.060
144          PH              0     0.5     1.1     2.1     2.7     3.0     3.6     4.5     5.2
145          LS             74
146          UD    0.23

147          KK   7H8AA
148          KM        COMBINE HYDROGRAPHS FOR 7H & 8AA
149          HC       2

150          KK  8AASWP
151          KO       1
152          KM        STORAGE ROUTING THROUGH 8AA SWAMP
153          RS       1    ELEV      80
154          SA       0    2.42    5.19    9.28
155          SE      78      80      82      84
156          SL      80    1.23     0.6     0.5
157          SS    83.9       0       0     1.5

158          KK   SUB6A
159          KO       4
160          KM        SCS RUNOFF CALCULATION
161          BA   0.096
162          PH              0     0.5     1.1     2.1     2.7     3.0     3.6     4.5     5.2
163          LS             72
164          UD    0.51

165          KK   8AA6A
166          KM        COMBINE HYDROGRAPHS FOR 8AA & 6A
167          HC       2

168          KK   6ASWP
169          KO       1
170          KM        STORAGE ROUTING THROUGH 6A
171          RS       1    ELEV      82
172          SA    0.10    1.16    3.98    7.54
173          SE      82      84      85      86
174          SL      85    4.50     0.6     0.5
175          SS    85.9       0       0     1.5
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
176        KK   SUB6B
177        KO      4
178        KM       SCS RUNOFF CALCULATION
179        BA   0.176
180        PH             0     0.5     1.1     2.1     2.7     3.0     3.6     4.5     5.2
181        LS            72
182        UD    0.18

183        KK    6AB
184        KM       COMBINE HYDROGRAPHS FOR 6A & 6B
185        HC      2

186        KK   6BSWP
187        KO      1
188        KM       STORAGE ROUTING THROUGH 6B
189        RS      1    ELEV      79
190        SA   9.64   23.83   37.42
191        SE     79      80      82
192        SL   79.5    0.79     0.6     0.5
193        SL   80.6    11.3     0.6     0.5
194        SS   81.9       0       0     1.5

195        KK   SUB6C
196        KO      4
197        KM       SCS RUNOFF CALCULATION
198        BA   0.234
199        PH             0     0.5     1.1     2.1     2.7     3.0     3.6     4.5     5.2
200        LS            72
201        UD     0.3

202        KK   SUB6D
203        KO      4
204        KM       SCS RUNOFF CALCULATION
205        BA   0.421
206        PH             0     0.5     1.1     2.1     2.7     3.0     3.6     4.5     5.2
207        LS            72
208        UD    0.50

209        KK   6DSWP
210        KO      1
211        KM       STORAGE ROUTING THROUGH 6D
212        RS      1    ELEV      80
213        SA   1.54    14.4
214        SE     80      90
215        SL     80   12.57     0.6     0.5
216        SS     90       0     3.0     1.5

217        KK    6BCD
218        KM       COMBINE HYDROGRAPHS FOR 6B, 6C & 6D
219        HC      3
```



```
LINE       ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

220        KK   6CSWP
221        KO      1
222        KM       STORAGE ROUTING THROUGH 6C
223        RS      1    ELEV      76
224        SA      0    2.33   12.55   24.40   33.53
```

```
225          SE    74.5      76      78      80      82
226          SL    74.5   19.64     0.6     0.5
227          SS    81.9       0       0     1.5

228          KK  SUB8AB
229          KO       4
230          KM         SCS RUNOFF CALCULATION
231          BA   0.016
232          PH               0     0.5     1.1     2.1     2.7     3.0     3.6     4.5     5.2
233          LS              74
234          UD    0.23

235          KK  8ABCHL
236          KO       1
237          KM         STORAGE ROUTING THROUGH 8AB CHANNEL
238          RS       1    STOR       0
239          RC   0.080   0.030   0.080     300   0.025      86
240          RX       0      25      50      55      60      65      75      85
241          RY      86      85      84      78      78      84      85      86

242          KK   SUB8B
243          KO       4
244          KM         SCS RUNOFF CALCULATION
245          BA   0.332
246          PH               0     0.5     1.1     2.1     2.7     3.0     3.6     4.5     5.2
247          LS              74
248          UD     0.4

249          KK    8ABB
250          KM         COMBINE HYDROGRAPHS FOR 8AB & 8B
251          HC       2

252          KK   8BCHL
253          KO       1
254          KM         STORAGE ROUTING THROUGH 8B
255          RS       1    STOR       0
256          RC    0.08    0.03    0.08    1200   0.003      82
257          RX       0       5      10      20      25      35      40      45
258          RY      84      83      82      75      75      82      83      84

259          KK   SUB8C
260          KO       4
261          KM         SCS RUNOFF CALCULATION
262          BA   0.116
263          PH               0     0.5     1.1     2.1     2.7     3.0     3.6     4.5     5.2
264          LS              74
265          UD    0.26
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

266          KK    8BC
267          KM         COMBINE HYDROGRAPHS FOR 8B & 8C
268          HC       2

269          KK   8CSWP
270          KO       1
271          KM         STORAGE ROUTING THROUGH 8C
272          RS       1    ELEV      64
```

273	SA	1.12	1.91	3.28	5.70	8.79	11.08
274	SE	64	66	68	70	72	74
275	SS	64	12	3.0	1.5		
276	ZZ						

```
                SCHEMATIC DIAGRAM OF STREAM NETWORK
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    6       SUB7A
                V
                V
   13       7ASWP
                .
                .
   21           .       SUB7B
                .           .
                .           .
   28         7AB............
                V
                V
   31       7BSWP
                .
                .
   39           .       SUB7C
                .           .
                .           .
   46         7BC............
                V
                V
   49       7CHNL
                .
                .
   56           .       SUB7D
                .           V
                .           V
   63           .       7DSWP
                .           .
                .           .
   71           .           .       SUB7E
                .           .           .
                .           .           .
   78        7CDE........................
                V
                V
   81       7ECHN
                .
                .
   88           .       SUB7F
                .           .
                .           .
   95        7EF ............
                V
                V
   98       7FCHN
                .
                .
  105           .       SUB7G
```

```
              .           .
              .           .
112        7FG .............
              V
              V
115       7GSWP
              .
              .
123           .       SUB7H
              .           .
              .           .
130        7GH .............
              V
              V
133       7HSWP
              .
              .
140           .      SUB8AA
              .           .
              .           .
147       7H8AA.............
              V
              V
150      8AASWP
              .
              .
158           .       SUB6A
              .           .
              .           .
165       8AA6A.............
              V
              V
168       6ASWP
              .
              .
176           .       SUB6B
              .           .
              .           .
183         6AB.............
              V
              V
186       6BSWP
              .
              .
195           .       SUB6C
              .           .
              .           .
202           .           .       SUB6D
              .           .           V
              .           .           V
209           .           .       6DSWP
              .           .           .
              .           .           .
217        6BCD.........................
              V
              V
220       6CSWP
              .
              .
228           .      SUB8AB
```

```
              .          V
              .          V
  235         .      8ABCHL
              .          .
              .          .
  42          .          .       SUB8B
              .          .          .
              .          .          .
  249         .       8ABB............
              .          V
              .          V
  252         .      8BCHL
              .          .
              .          .
  259         .          .       SUB8C
              .          .          .
              .          .          .
  266         .       8BC ............
              .          V
              .          V
  269         .      8CSWP

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1                                                          ****
                        FLOOD HYDROGRAPH PACKAGE HEC-1 (IBM XT 512K VERSION) -FEB 1,1985
            U.S. ARMY CORPS OF ENGINEERS, THE HYDROLOGIC ENGINEERING CENTER, 609 SECOND STREET, DAVIS, CA. 95616
                                                           ****



                        READING SUBWATERSHEDS
                        DETAILED STORAGE AND STREAM NETWORK
                        EXISTING CONDITIONS - 25 YR, 24 HR STORM

  5 IO        OUTPUT CONTROL VARIABLES
                 IPRNT          5  PRINT CONTROL
                 IPLOT          0  PLOT CONTROL
                 QSCAL         0.  HYDROGRAPH PLOT SCALE

   IT         HYDROGRAPH TIME DATA
                  NMIN         15  MINUTES IN COMPUTATION INTERVAL
                 IDATE     28FEB91  STARTING DATE
                 ITIME        0100  STARTING TIME
                    NQ         97  NUMBER OF HYDROGRAPH ORDINATES
                NDDATE      1MAR91  ENDING DATE
                NDTIME        0100  ENDING TIME

             COMPUTATION INTERVAL     .25 HOURS
                  TOTAL TIME BASE   24.00 HOURS

        ENGLISH UNITS


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


        **************
        *            *
```

```
  6 KK     *     SUB7A  *
           *            *
           **************

  7 KO         OUTPUT CONTROL VARIABLES
                     IPRNT           4  PRINT CONTROL
                     IPLOT           0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE
                              SCS RUNOFF CALCULATION

             SUBBASIN RUNOFF DATA

  9 BA         SUBBASIN CHARACTERISTICS
                     TAREA         .13  SUBBASIN AREA

               PRECIPITATION DATA

 10 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
               ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
               5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                 .50    1.10    2.10    2.70    3.00    3.60    4.50    5.20     .00     .00     .00     .00

                                                   STORM AREA =     .13

 11 LS         SCS LOSS RATE
                     STRTL         .60  INITIAL ABSTRACTION
                    CRVNBR       77.00  CURVE NUMBER
                     RTIMP         .00  PERCENT IMPERVIOUS AREA

 12 UD         SCS DIMENSIONLESS UNITGRAPH
                      TLAG         .30  LAG

                                                        ***

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

                                                   UNIT HYDROGRAPH
                                              8 END-OF-PERIOD ORDINATES
             97.      144.      63.      25.       9.       4.       1.       0.


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


           **************
           *            *
 13 KK     *     7ASWP  *
           *            *
           **************

 14 KO         OUTPUT CONTROL VARIABLES
                     IPRNT           1  PRINT CONTROL
                     IPLOT           0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE
                              STORAGE ROUTING THROUGH 7A

             HYDROGRAPH ROUTING DATA

 16 RS         STORAGE ROUTING
```

```
                NSTPS          1  NUMBER OF SUBREACHES
                 ITYP       ELEV  TYPE OF INITIAL CONDITION
               RSVRIC     110.00  INITIAL CONDITION
                    X        .00 WORKING R AND D COEFFICIENT

 17 SA          AREA         .8      1.9      4.3     11.3     18.2

 18 SE     ELEVATION     110.00   111.00   112.00   113.00   114.00

 19 SL     LOW-LEVEL OUTLET
                ELEVL     110.00  ELEVATION AT CENTER OF OUTLET
                CAREA       3.53  CROSS-SECTIONAL AREA
                 COQL        .60  COEFFICIENT
                 EXPL        .50  EXPONENT OF HEAD

 20 SS     SPILLWAY
                 CREL     113.90  SPILLWAY CREST ELEVATION
                SPWID        .00  SPILLWAY WIDTH
                 COQW        .00  WEIR COEFFICIENT
                 EXPW       1.50  EXPONENT OF HEAD

                                                  ***

                                   COMPUTED STORAGE-ELEVATION DATA

          STORAGE       .00     1.33     4.39    11.94    26.58
        ELEVATION    110.00   111.00   112.00   113.00   114.00

                                   COMPUTED OUTFLOW-ELEVATION DATA

          OUTFLOW       .00    17.07    18.18    19.46    20.92    22.62    24.63    27.02    29.93    33.55
        ELEVATION    110.00   111.01   111.15   111.31   111.52   111.77   112.10   112.53   113.11   113.90


                                 COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE       .00     1.33     1.63     2.03     2.61     3.48     4.39     4.86     7.53    11.94
          OUTFLOW       .00    16.99    18.18    19.46    20.92    22.62    24.02    24.63    27.02    29.42
        ELEVATION    110.00   111.00   111.15   111.31   111.52   111.77   112.00   112.10   112.53   113.00

          STORAGE     13.17    24.79    26.58
          OUTFLOW     29.93    33.55    33.97
        ELEVATION    113.11   113.90   114.00
*****************************************************************************************************************

                                   HYDROGRAPH AT STATION    7ASWP

*****************************************************************************************************************
                                        *                                        *
 DA MON HRMN ORD  OUTFLOW  STORAGE   STAGE * DA MON HRMN ORD  OUTFLOW  STORAGE   STAGE * DA MON HRMN ORD  OUTFLOW  STORAGE   STAGE
                                        *                                        *
 28 FEB 0100   1       0.       .0   110.0 * 28 FEB 0915  34       0.       .0   110.0 * 28 FEB 1730  67      25.      5.6   112.2
 28 FEB 0115   2       0.       .0   110.0 * 28 FEB 0930  35       0.       .0   110.0 * 28 FEB 1745  68      25.      5.3   112.2
 28 FEB 0130   3       0.       .0   110.0 * 28 FEB 0945  36       0.       .0   110.0 * 28 FEB 1800  69      25.      5.0   112.1
    FEB 0145   4       0.       .0   110.0 * 28 FEB 1000  37       0.       .0   110.0 * 28 FEB 1815  70      24.      4.7   112.1
    FEB 0200   5       0.       .0   110.0 * 28 FEB 1015  38       1.       .0   110.0 * 28 FEB 1830  71      24.      4.4   112.0
 28 FEB 0215   6       0.       .0   110.0 * 28 FEB 1030  39       1.       .1   110.0 * 28 FEB 1845  72      24.      4.1   111.9
 28 FEB 0230   7       0.       .0   110.0 * 28 FEB 1045  40       1.       .1   110.1 * 28 FEB 1900  73      23.      3.8   111.9
 28 FEB 0245   8       0.       .0   110.0 * 28 FEB 1100  41       1.       .1   110.1 * 28 FEB 1915  74      23.      3.5   111.8
```

28 FEB	0300	9	0.	.0	110.0	*	28 FEB	1115	42	2.	.1	110.1	*	28 FEB	1930	75	22.	3.2	111.7
28 FEB	0315	10	0.	.0	110.0	*	28 FEB	1130	43	2.	.2	110.1	*	28 FEB	1945	76	21.	2.9	111.6
28 FEB	0330	11	0.	.0	110.0	*	28 FEB	1145	44	3.	.2	110.2	*	28 FEB	2000	77	21.	2.6	111.5
28 FEB	0345	12	0.	.0	110.0	*	28 FEB	1200	45	3.	.3	110.2	*	28 FEB	2015	78	20.	2.3	111
28 FEB	0400	13	0.	.0	110.0	*	28 FEB	1215	46	4.	.4	110.3	*	28 FEB	2030	79	19.	2.0	11
28 FEB	0415	14	0.	.0	110.0	*	28 FEB	1230	47	6.	.5	110.4	*	28 FEB	2045	80	18.	1.7	111.
28 FEB	0430	15	0.	.0	110.0	*	28 FEB	1245	48	9.	.7	110.5	*	28 FEB	2100	81	17.	1.4	111.0
28 FEB	0445	16	0.	.0	110.0	*	28 FEB	1300	49	15.	1.2	110.9	*	28 FEB	2115	82	15.	1.2	110.9
28 FEB	0500	17	0.	.0	110.0	*	28 FEB	1315	50	21.	2.5	111.5	*	28 FEB	2130	83	13.	1.0	110.7
28 FEB	0515	18	0.	.0	110.0	*	28 FEB	1330	51	24.	4.7	112.1	*	28 FEB	2145	84	11.	.8	110.6
28 FEB	0530	19	0.	.0	110.0	*	28 FEB	1345	52	26.	6.7	112.4	*	28 FEB	2200	85	9.	.7	110.5
28 FEB	0545	20	0.	.0	110.0	*	28 FEB	1400	53	27.	7.8	112.6	*	28 FEB	2215	86	8.	.6	110.5
28 FEB	0600	21	0.	.0	110.0	*	28 FEB	1415	54	27.	8.3	112.6	*	28 FEB	2230	87	7.	.6	110.4
28 FEB	0615	22	0.	.0	110.0	*	28 FEB	1430	55	28.	8.5	112.6	*	28 FEB	2245	88	6.	.5	110.4
28 FEB	0630	23	0.	.0	110.0	*	28 FEB	1445	56	28.	8.5	112.6	*	28 FEB	2300	89	6.	.5	110.3
28 FEB	0645	24	0.	.0	110.0	*	28 FEB	1500	57	27.	8.3	112.6	*	28 FEB	2315	90	5.	.4	110.3
28 FEB	0700	25	0.	.0	110.0	*	28 FEB	1515	58	27.	8.1	112.6	*	28 FEB	2330	91	5.	.4	110.3
28 FEB	0715	26	0.	.0	110.0	*	28 FEB	1530	59	27.	7.9	112.6	*	28 FEB	2345	92	5.	.4	110.3
28 FEB	0730	27	0.	.0	110.0	*	28 FEB	1545	60	27.	7.6	112.5	*	1 MAR	0000	93	4.	.3	110.3
28 FEB	0745	28	0.	.0	110.0	*	28 FEB	1600	61	27.	7.3	112.5	*	1 MAR	0015	94	4.	.3	110.3
28 FEB	0800	29	0.	.0	110.0	*	28 FEB	1615	62	27.	7.0	112.5	*	1 MAR	0030	95	4.	.3	110.2
28 FEB	0815	30	0.	.0	110.0	*	28 FEB	1630	63	26.	6.8	112.4	*	1 MAR	0045	96	4.	.3	110.2
28 FEB	0830	31	0.	.0	110.0	*	28 FEB	1645	64	26.	6.5	112.4	*	1 MAR	0100	97	4.	.3	110.2
28 FEB	0845	32	0.	.0	110.0	*	28 FEB	1700	65	26.	6.2	112.3	*						
28 FEB	0900	33	0.	.0	110.0	*	28 FEB	1715	66	26.	5.9	112.3	*						
						*							*						

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 28.	13.50		26.	10.	10.	10.
		(INCHES)	1.803	2.732	2.732	2.732
		(AC-FT)	13.	19.	19.	19.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
9.	13.50	6.	2.	2.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)				
112.63	13.50	112.32	110.79	110.79	110.79

CUMULATIVE AREA = .13 SQ MI

*** ***

```
          **************
          *            *
21 KK     *    SUB7B   *
          *            *
          **************
```

```
22 KO          OUTPUT CONTROL VARIABLES
                     IPRNT          4  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE
                              SCS RUNOFF CALCULATION

            SUBBASIN RUNOFF DATA

24 BA          SUBBASIN CHARACTERISTICS
                     TAREA        .12  SUBBASIN AREA

               PRECIPITATION DATA

25 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
               ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
               5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                 .50    1.10    2.10    2.70    3.00    3.60    4.50    5.20     .00     .00     .00     .00

                                                STORM AREA =     .12

26 LS          SCS LOSS RATE
                     STRTL        .60  INITIAL ABSTRACTION
                    CRVNBR      77.00  CURVE NUMBER
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

27 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG        .52  LAG

                                                   ***

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

                                                UNIT HYDROGRAPH
                                           12 END-OF-PERIOD ORDINATES
            26.      79.      83.      54.      27.      15.       8.       4.       2.       1.
             1.       0.


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


         **************
         *            *
31 KK    *     7BSWP  *
         *            *
         **************

32 KO          OUTPUT CONTROL VARIABLES
                     IPRNT          1  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE
                              STORAGE ROUTING THROUGH 7B

            HYDROGRAPH ROUTING DATA

 + RS          STORAGE ROUTING
                     NSTPS          1  NUMBER OF SUBREACHES
                      ITYP       ELEV  TYPE OF INITIAL CONDITION
                    RSVRIC     101.00  INITIAL CONDITION
```

```
                    X        .00 WORKING R AND D COEFFICIENT

35 SA            AREA         .3       .6      2.2      3.6      5.8

36 SE       ELEVATION     103.00   104.00   106.00   108.00   109.00

37 SL       LOW-LEVEL OUTLET
                 ELEVL     101.00  ELEVATION AT CENTER OF OUTLET
                 CAREA       1.77  CROSS-SECTIONAL AREA
                  COQL        .60  COEFFICIENT
                  EXPL        .50  EXPONENT OF HEAD

38 SS       SPILLWAY
                  CREL     105.90  SPILLWAY CREST ELEVATION
                 SPWID        .00  SPILLWAY WIDTH
                  COQW        .00  WEIR COEFFICIENT
                  EXPW       1.50  EXPONENT OF HEAD

                                          ***
```

COMPUTED STORAGE-ELEVATION DATA

STORAGE	.00	.44	3.10	8.78	13.42
ELEVATION	103.00	104.00	106.00	108.00	109.00

COMPUTED OUTFLOW-ELEVATION DATA

OUTFLOW	.00	12.55	13.10	13.69	14.35	15.07	15.86	16.75	17.74	18.85
ELEVATION	103.00	103.17	103.36	103.58	103.84	104.13	104.47	104.87	105.34	105.90

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	.05	.12	.21	.34	.44	.53	.81	1.23	1.88
OUTFLOW	12.05	12.55	13.10	13.69	14.35	14.75	15.07	15.86	16.75	17.74
ELEVATION	103.00	103.17	103.36	103.58	103.84	104.00	104.13	104.47	104.87	105.34
STORAGE	2.89	3.10	8.78	13.42						
OUTFLOW	18.85	19.05	22.53	24.09						
ELEVATION	105.90	106.00	108.00	109.00						

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HYDROGRAPH AT STATION 7BSWP

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.1	103.0	*	28	FEB	0915	34	11.	-.1	103.0	*	28	FEB	1730	67	24.	14.3	109.2
28	FEB	0115	2	12.	.0	103.0	*	28	FEB	0930	35	11.	-.1	103.0	*	28	FEB	1745	68	24.	14.5	109.2
28	FEB	0130	3	11.	-.1	103.0	*	28	FEB	0945	36	11.	-.1	103.0	*	28	FEB	1800	69	25.	14.8	109.3
28	FEB	0145	4	11.	-.1	103.0	*	28	FEB	1000	37	11.	-.1	103.0	*	28	FEB	1815	70	25.	14.9	109.3
28	FEB	0200	5	11.	-.1	103.0	*	28	FEB	1015	38	11.	-.1	103.0	*	28	FEB	1830	71	25.	15.1	109.4
28	FEB	0215	6	11.	-.1	103.0	*	28	FEB	1030	39	11.	-.1	103.0	*	28	FEB	1845	72	25.	15.3	109
28	FEB	0230	7	11.	-.1	103.0	*	28	FEB	1045	40	11.	-.1	103.0	*	28	FEB	1900	73	25.	15.4	109.
28	FEB	0245	8	11.	-.1	103.0	*	28	FEB	1100	41	11.	-.1	103.0	*	28	FEB	1915	74	25.	15.6	109.5
28	FEB	0300	9	11.	-.1	103.0	*	28	FEB	1115	42	11.	-.1	103.0	*	28	FEB	1930	75	25.	15.7	109.5
28	FEB	0315	10	11.	-.1	103.0	*	28	FEB	1130	43	11.	-.1	103.0	*	28	FEB	1945	76	25.	15.7	109.5
28	FEB	0330	11	11.	-.1	103.0	*	28	FEB	1145	44	11.	-.1	103.0	*	28	FEB	2000	77	25.	15.8	109.5

28	FEB	0345	12	11.	-.1	103.0	*	28	FEB	1200	45	11.	-.1	103.0	*	28	FEB	2015	78	25.	15.8	109.5
28	FEB	0400	13	11.	-.1	103.0	*	28	FEB	1215	46	11.	-.1	103.0	*	28	FEB	2030	79	25.	15.8	109.5
28	FEB	0415	14	11.	-.1	103.0	*	28	FEB	1230	47	11.	-.1	103.0	*	28	FEB	2045	80	25.	15.7	109.5
28	FEB	0430	15	11.	-.1	103.0	*	28	FEB	1245	48	13.	.1	103.2	*	28	FEB	2100	81	25.	15.7	109.5
	FEB	0445	16	11.	-.1	103.0	*	28	FEB	1300	49	15.	.4	103.9	*	28	FEB	2115	82	25.	15.6	109.5
	FEB	0500	17	11.	-.1	103.0	*	28	FEB	1315	50	17.	1.2	104.9	*	28	FEB	2130	83	25.	15.4	109.4
28	FEB	0515	18	11.	-.1	103.0	*	28	FEB	1330	51	19.	2.8	105.9	*	28	FEB	2145	84	25.	15.3	109.4
28	FEB	0530	19	11.	-.1	103.0	*	28	FEB	1345	52	20.	4.9	106.6	*	28	FEB	2200	85	25.	15.0	109.3
28	FEB	0545	20	11.	-.1	103.0	*	28	FEB	1400	53	21.	6.9	107.3	*	28	FEB	2215	86	25.	14.8	109.3
28	FEB	0600	21	11.	-.1	103.0	*	28	FEB	1415	54	22.	8.4	107.9	*	28	FEB	2230	87	24.	14.5	109.2
28	FEB	0615	22	11.	-.1	103.0	*	28	FEB	1430	55	23.	9.5	108.2	*	28	FEB	2245	88	24.	14.2	109.2
28	FEB	0630	23	11.	-.1	103.0	*	28	FEB	1445	56	23.	10.4	108.3	*	28	FEB	2300	89	24.	13.9	109.1
28	FEB	0645	24	11.	-.1	103.0	*	28	FEB	1500	57	23.	11.0	108.5	*	28	FEB	2315	90	24.	13.6	109.0
28	FEB	0700	25	11.	-.1	103.0	*	28	FEB	1515	58	23.	11.5	108.6	*	28	FEB	2330	91	24.	13.3	109.0
28	FEB	0715	26	11.	-.1	103.0	*	28	FEB	1530	59	24.	12.0	108.7	*	28	FEB	2345	92	24.	12.9	108.9
28	FEB	0730	27	11.	-.1	103.0	*	28	FEB	1545	60	24.	12.4	108.8	*	1	MAR	0000	93	24.	12.6	108.8
28	FEB	0745	28	11.	-.1	103.0	*	28	FEB	1600	61	24.	12.7	108.8	*	1	MAR	0015	94	24.	12.3	108.8
28	FEB	0800	29	11.	-.1	103.0	*	28	FEB	1615	62	24.	13.0	108.9	*	1	MAR	0030	95	24.	11.9	108.7
28	FEB	0815	30	11.	-.1	103.0	*	28	FEB	1630	63	24.	13.3	109.0	*	1	MAR	0045	96	23.	11.6	108.6
28	FEB	0830	31	11.	-.1	103.0	*	28	FEB	1645	64	24.	13.6	109.0	*	1	MAR	0100	97	23.	11.3	108.5
28	FEB	0845	32	11.	-.1	103.0	*	28	FEB	1700	65	24.	13.8	109.1	*							
28	FEB	0900	33	11.	-.1	103.0	*	28	FEB	1715	66	24.	14.1	109.1	*							
							*								*							

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
25.	19.25		25.	17.	17.	17.
		(INCHES)	.921	2.582	2.582	2.582
		(AC-FT)	12.	34.	34.	34.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
16.	19.25	15.	6.	6.	6.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)				
109.51	19.25	109.37	105.90	105.90	105.90

CUMULATIVE AREA = .25 SQ MI

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              **************
              *            *
  39 KK       *    SUB7C   *
              *            *
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40 KO OUTPUT CONTROL VARIABLES

IPRNT	4	PRINT CONTROL
IPLOT	0	PLOT CONTROL

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                QSCAL          0.  HYDROGRAPH PLOT SCALE
                          SCS RUNOFF CALCULATION

          SUBBASIN RUNOFF DATA

 42 BA      SUBBASIN CHARACTERISTICS
                TAREA        .05  SUBBASIN AREA

            PRECIPITATION DATA

 43 PH                          DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
            ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
            5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
              .50    1.10    2.10    2.70    3.00    3.60    4.50    5.20     .00     .00     .00     .00

                                                STORM AREA =     .05

 44 LS      SCS LOSS RATE
                STRTL        .60  INITIAL ABSTRACTION
               CRVNBR      77.00  CURVE NUMBER
                RTIMP        .00  PERCENT IMPERVIOUS AREA

 45 UD      SCS DIMENSIONLESS UNITGRAPH
                 TLAG        .25  LAG

                                                    ***

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

                                                UNIT HYDROGRAPH
                                            7 END-OF-PERIOD ORDINATES
          52.      56.      19.       7.       2.       1.       0.


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        *            *
 49 KK  *     7CHNL  *
        *            *
        **************

 50 KO      OUTPUT CONTROL VARIABLES
                IPRNT          1  PRINT CONTROL
                IPLOT          0  PLOT CONTROL
                QSCAL         0.  HYDROGRAPH PLOT SCALE
                          STORAGE ROUTING THROUGH 7C

          HYDROGRAPH ROUTING DATA

 52 RS      STORAGE ROUTING
                NSTPS          1  NUMBER OF SUBREACHES
                 ITYP       STOR  TYPE OF INITIAL CONDITION
               RSVRIC        .00  INITIAL CONDITION
                    X        .00 WORKING R AND D COEFFICIENT

 53 RC      NORMAL DEPTH CHANNEL ROUTING
                  ANL       .080  LEFT OVERBANK N-VALUE
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ANCH	.030	MAIN CHANNEL N-VALUE
ANR	.080	RIGHT OVERBANK N-VALUE
RLNTH	400.	REACH LENGTH
SEL	.0285	ENERGY SLOPE
ELMAX	98.0	MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

CROSS-SECTION DATA

		--- LEFT OVERBANK ---			+ ------ MAIN CHANNEL -------			+ --- RIGHT OVERBANK ---	
55 RY	ELEVATION	99.00	98.50	98.00	96.00	96.00	98.00	98.50	99.00
54 RX	DISTANCE	.00	10.00	20.00	30.00	40.00	50.00	60.00	70.00

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COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	.01	.02	.03	.05	.06	.08	.09	.11	.13
OUTFLOW	.00	2.00	6.48	13.01	21.49	31.89	44.21	58.51	74.81	93.17
ELEVATION	96.00	96.11	96.21	96.32	96.42	96.53	96.63	96.74	96.84	96.95
STORAGE	.15	.17	.19	.21	.24	.26	.28	.31	.34	.37
OUTFLOW	113.65	136.29	161.16	188.33	217.84	249.76	284.15	321.07	360.59	402.75
ELEVATION	97.05	97.16	97.26	97.37	97.47	97.58	97.68	97.79	97.89	98.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 0. TO 403.
THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

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HYDROGRAPH AT STATION 7CHNL

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DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE
28 FEB 0100	1	0.	.0	96.0	*	28 FEB 0915	34	11.	.0	96.3	*	28 FEB 1730	67	29.	.1	96.5
28 FEB 0115	2	9.	.0	96.3	*	28 FEB 0930	35	11.	.0	96.3	*	28 FEB 1745	68	29.	.1	96.5
28 FEB 0130	3	13.	.0	96.3	*	28 FEB 0945	36	11.	.0	96.3	*	28 FEB 1800	69	29.	.1	96.5
28 FEB 0145	4	10.	.0	96.3	*	28 FEB 1000	37	11.	.0	96.3	*	28 FEB 1815	70	29.	.1	96.5
28 FEB 0200	5	12.	.0	96.3	*	28 FEB 1015	38	12.	.0	96.3	*	28 FEB 1830	71	28.	.1	96.5
28 FEB 0215	6	10.	.0	96.3	*	28 FEB 1030	39	12.	.0	96.3	*	28 FEB 1845	72	28.	.1	96.5
28 FEB 0230	7	11.	.0	96.3	*	28 FEB 1045	40	12.	.0	96.3	*	28 FEB 1900	73	28.	.1	96.5
28 FEB 0245	8	11.	.0	96.3	*	28 FEB 1100	41	12.	.0	96.3	*	28 FEB 1915	74	28.	.1	96.5
28 FEB 0300	9	11.	.0	96.3	*	28 FEB 1115	42	12.	.0	96.3	*	28 FEB 1930	75	27.	.1	96.5
28 FEB 0315	10	11.	.0	96.3	*	28 FEB 1130	43	13.	.0	96.3	*	28 FEB 1945	76	27.	.1	96.5
28 FEB 0330	11	11.	.0	96.3	*	28 FEB 1145	44	13.	.0	96.3	*	28 FEB 2000	77	27.	.1	96.5
28 FEB 0345	12	11.	.0	96.3	*	28 FEB 1200	45	14.	.0	96.3	*	28 FEB 2015	78	27.	.1	96.5
28 FEB 0400	13	11.	.0	96.3	*	28 FEB 1215	46	15.	.0	96.3	*	28 FEB 2030	79	27.	.1	96.5
28 FEB 0415	14	11.	.0	96.3	*	28 FEB 1230	47	17.	.0	96.4	*	28 FEB 2045	80	27.	.1	96.5
28 FEB 0430	15	11.	.0	96.3	*	28 FEB 1245	48	22.	.0	96.4	*	28 FEB 2100	81	27.	.1	96.5
28 FEB 0445	16	11.	.0	96.3	*	28 FEB 1300	49	34.	.1	96.5	*	28 FEB 2115	82	27.	.1	96.5
28 FEB 0500	17	11.	.0	96.3	*	28 FEB 1315	50	69.	.1	96.8	*	28 FEB 2130	83	27.	.1	96.5
28 FEB 0515	18	11.	.0	96.3	*	28 FEB 1330	51	78.	.1	96.9	*	28 FEB 2145	84	26.	.1	96.5
28 FEB 0530	19	11.	.0	96.3	*	28 FEB 1345	52	55.	.1	96.7	*	28 FEB 2200	85	26.	.1	96.5
` FEB 0545	20	11.	.0	96.3	*	28 FEB 1400	53	45.	.1	96.6	*	28 FEB 2215	86	26.	.1	96.5
FEB 0600	21	11.	.0	96.3	*	28 FEB 1415	54	38.	.1	96.6	*	28 FEB 2230	87	26.	.1	96.5
28 FEB 0615	22	11.	.0	96.3	*	28 FEB 1430	55	34.	.1	96.5	*	28 FEB 2245	88	26.	.1	96.5
28 FEB 0630	23	11.	.0	96.3	*	28 FEB 1445	56	31.	.1	96.5	*	28 FEB 2300	89	26.	.1	96.5
28 FEB 0645	24	11.	.0	96.3	*	28 FEB 1500	57	30.	.1	96.5	*	28 FEB 2315	90	26.	.1	96.5

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28 FEB 0700  25     11.      .0    96.3 * 28 FEB 1515  58     30.      .1    96.5 * 28 FEB 2330  91     26.      .1    96.5
28 FEB 0715  26     11.      .0    96.3 * 28 FEB 1530  59     29.      .1    96.5 * 28 FEB 2345  92     25.      .1    96.5
28 FEB 0730  27     11.      .0    96.3 * 28 FEB 1545  60     29.      .1    96.5 *  1 MAR 0000  93     25.      .1    96.5
28 FEB 0745  28     11.      .0    96.3 * 28 FEB 1600  61     29.      .1    96.5 *  1 MAR 0015  94     25.      .1    96.5
28 FEB 0800  29     11.      .0    96.3 * 28 FEB 1615  62     29.      .1    96.5 *  1 MAR 0030  95     25.      .1    9
28 FEB 0815  30     11.      .0    96.3 * 28 FEB 1630  63     29.      .1    96.5 *  1 MAR 0045  96     25.      .1    96.5
28 FEB 0830  31     11.      .0    96.3 * 28 FEB 1645  64     29.      .1    96.5 *  1 MAR 0100  97     25.      .1    96.5
28 FEB 0845  32     11.      .0    96.3 * 28 FEB 1700  65     29.      .1    96.5 *
28 FEB 0900  33     11.      .0    96.3 * 28 FEB 1715  66     29.      .1    96.5 *
                                        *                                        *
*****************************************************************************************************************************

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     24.00-HR
+   (CFS)      (HR)
                          (CFS)
+     78.     12.50                 35.         21.         21.         21.
                         (INCHES)  1.084       2.613       2.613       2.613
                          (AC-FT)   17.         42.         42.         42.

 PEAK STORAGE  TIME                          MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     24.00-HR
+  (AC-FT)     (HR)
       0.     12.50                  0.          0.          0.          0.

 PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     24.00-HR
+   (FEET)     (HR)
    96.86     12.50                96.55       96.40       96.40       96.40

                         CUMULATIVE AREA =     .30 SQ MI


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            *            *
  56 KK     *     SUB7D  *
            *            *
            **************

  57 KO          OUTPUT CONTROL VARIABLES
                       IPRNT          4  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

               SUBBASIN RUNOFF DATA

  59 BA          SUBBASIN CHARACTERISTICS
                       TAREA        .10  SUBBASIN AREA

                 PRECIPITATION DATA

  60 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......  ............... TP-40 ...............  ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
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                .50    1.10    2.10    2.70    3.00    3.60    4.50    5.20     .00     .00     .00     .00

                                                STORM AREA =     .10

  1 LS          SCS LOSS RATE
                      STRTL         .60  INITIAL ABSTRACTION
                     CRVNBR       77.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

 62 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .38  LAG

                                                                ***

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

                                                        UNIT HYDROGRAPH
                                                   10 END-OF-PERIOD ORDINATES
             46.      100.       70.       29.       13.        6.        3.        1.        1.        0.


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          *            *
 63 KK    *     7DSWP  *
          *            *
          **************

 64 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 7D

             HYDROGRAPH ROUTING DATA

 66 RS          STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC       89.00  INITIAL CONDITION
                          X         .00 WORKING R AND D COEFFICIENT

 67 SA              AREA          .6       1.4       2.5       3.9

 68 SE          ELEVATION       88.00     90.00     92.00     94.00

 69 SL          LOW-LEVEL OUTLET
                      ELEVL       90.60  ELEVATION AT CENTER OF OUTLET
                      CAREA        4.91  CROSS-SECTIONAL AREA
                       COQL         .60  COEFFICIENT
                       EXPL         .50  EXPONENT OF HEAD

 70 SS          SPILLWAY
                       CREL       92.00  SPILLWAY CREST ELEVATION
                      SPWID       10.00  SPILLWAY WIDTH
                       COQW        3.00  WEIR COEFFICIENT
                       EXPW        1.50  EXPONENT OF HEAD
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COMPUTED STORAGE-ELEVATION DATA

STORAGE	.00	1.93	5.79	12.09
ELEVATION	88.00	90.00	92.00	94.00

COMPUTED OUTFLOW-ELEVATION DATA

OUTFLOW	.00	.00	24.70	25.11	25.55	25.99	26.46	26.94	27.44	27.96
ELEVATION	88.00	90.60	91.69	91.73	91.77	91.81	91.85	91.90	91.95	92.00
OUTFLOW	30.29	32.92	36.97	42.70	50.41	60.37	72.86	88.17	106.59	128.42
ELEVATION	92.12	92.21	92.34	92.49	92.67	92.88	93.12	93.38	93.68	94.00

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	1.93	2.86	5.05	5.14	5.23	5.33	5.43	5.54	5.66
OUTFLOW	.00	.00	.00	24.70	25.11	25.55	25.99	26.46	26.94	27.44
ELEVATION	88.00	90.00	90.60	91.69	91.73	91.77	91.81	91.85	91.90	91.95
STORAGE	5.79	6.08	6.33	6.66	7.08	7.59	8.22	8.96	9.84	10.88
OUTFLOW	27.96	30.29	32.92	36.97	42.70	50.41	60.37	72.86	88.17	106.59
ELEVATION	92.00	92.12	92.21	92.34	92.49	92.67	92.88	93.12	93.38	93.68
STORAGE	12.09									
OUTFLOW	128.42									
ELEVATION	94.00									

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HYDROGRAPH AT STATION 7DSWP

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DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE
28 FEB 0100	1	0.	.8	88.8	28 FEB 0915	34	0.	.8	88.8	28 FEB 1730	67	13.	4.0	91.2
28 FEB 0115	2	0.	.8	88.8	28 FEB 0930	35	0.	.8	88.8	28 FEB 1745	68	12.	3.9	91.1
28 FEB 0130	3	0.	.8	88.8	28 FEB 0945	36	0.	.8	88.8	28 FEB 1800	69	11.	3.9	91.1
28 FEB 0145	4	0.	.8	88.8	28 FEB 1000	37	0.	.8	88.8	28 FEB 1815	70	11.	3.8	91.1
28 FEB 0200	5	0.	.8	88.8	28 FEB 1015	38	0.	.8	88.8	28 FEB 1830	71	10.	3.8	91.0
28 FEB 0215	6	0.	.8	88.8	28 FEB 1030	39	0.	.8	88.8	28 FEB 1845	72	10.	3.7	91.0
28 FEB 0230	7	0.	.8	88.8	28 FEB 1045	40	0.	.8	88.9	28 FEB 1900	73	9.	3.7	91.0
28 FEB 0245	8	0.	.8	88.8	28 FEB 1100	41	0.	.9	88.9	28 FEB 1915	74	9.	3.6	91.0
28 FEB 0300	9	0.	.8	88.8	28 FEB 1115	42	0.	.9	89.0	28 FEB 1930	75	8.	3.6	91.0
28 FEB 0315	10	0.	.8	88.8	28 FEB 1130	43	0.	1.0	89.0	28 FEB 1945	76	7.	3.5	90.9
28 FEB 0330	11	0.	.8	88.8	28 FEB 1145	44	0.	1.1	89.1	28 FEB 2000	77	7.	3.5	90.9
28 FEB 0345	12	0.	.8	88.8	28 FEB 1200	45	0.	1.1	89.2	28 FEB 2015	78	6.	3.4	90.9
28 FEB 0400	13	0.	.8	88.8	28 FEB 1215	46	0.	1.3	89.3	28 FEB 2030	79	6.	3.4	90.9
28 FEB 0415	14	0.	.8	88.8	28 FEB 1230	47	0.	1.4	89.5	28 FEB 2045	80	5.	3.3	90.8
28 FEB 0430	15	0.	.8	88.8	28 FEB 1245	48	0.	1.7	89.7	28 FEB 2100	81	5.	3.3	90.8
28 FEB 0445	16	0.	.8	88.8	28 FEB 1300	49	0.	2.1	90.1	28 FEB 2115	82	5.	3.3	90
28 FEB 0500	17	0.	.8	88.8	28 FEB 1315	50	3.	3.1	90.7	28 FEB 2130	83	5.	3.3	90.
28 FEB 0515	18	0.	.8	88.8	28 FEB 1330	51	20.	4.7	91.5	28 FEB 2145	84	4.	3.2	90.8
28 FEB 0530	19	0.	.8	88.8	28 FEB 1345	52	31.	6.1	92.1	28 FEB 2200	85	4.	3.2	90.8
28 FEB 0545	20	0.	.8	88.8	28 FEB 1400	53	40.	6.9	92.4	28 FEB 2215	86	4.	3.2	90.8
28 FEB 0600	21	0.	.8	88.8	28 FEB 1415	54	42.	7.1	92.5	28 FEB 2230	87	4.	3.2	90.8

28 FEB 0615	22	0.	.8	88.8 *	28 FEB 1430	55	41.	6.9	92.4 *	28 FEB 2245	88	4.	3.2	90.8
28 FEB 0630	23	0.	.8	88.8 *	28 FEB 1445	56	37.	6.6	92.3 *	28 FEB 2300	89	4.	3.2	90.8
28 FEB 0645	24	0.	.8	88.8 *	28 FEB 1500	57	33.	6.3	92.2 *	28 FEB 2315	90	3.	3.2	90.8
28 FEB 0700	25	0.	.8	88.8 *	28 FEB 1515	58	29.	6.0	92.1 *	28 FEB 2330	91	3.	3.2	90.7
FEB 0715	26	0.	.8	88.8 *	28 FEB 1530	59	27.	5.7	92.0 *	28 FEB 2345	92	3.	3.2	90.7
FEB 0730	27	0.	.8	88.8 *	28 FEB 1545	60	26.	5.4	91.8 *	1 MAR 0000	93	3.	3.1	90.7
28 FEB 0745	28	0.	.8	88.8 *	28 FEB 1600	61	25.	5.0	91.7 *	1 MAR 0015	94	3.	3.1	90.7
28 FEB 0800	29	0.	.8	88.8 *	28 FEB 1615	62	22.	4.8	91.6 *	1 MAR 0030	95	3.	3.1	90.7
28 FEB 0815	30	0.	.8	88.8 *	28 FEB 1630	63	19.	4.6	91.4 *	1 MAR 0045	96	3.	3.1	90.7
28 FEB 0830	31	0.	.8	88.8 *	28 FEB 1645	64	17.	4.4	91.4 *	1 MAR 0100	97	3.	3.1	90.7
28 FEB 0845	32	0.	.8	88.8 *	28 FEB 1700	65	16.	4.2	91.3 *					
28 FEB 0900	33	0.	.8	88.8 *	28 FEB 1715	66	14.	4.1	91.2 *					
				*					*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 42.	13.25		22.	7.	7.	7.
		(INCHES)	1.941	2.342	2.342	2.342
		(AC-FT)	11.	13.	13.	13.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
7.	13.25	5.	2.	2.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
FEET)	(HR)				
92.48	13.25	91.60	90.03	90.03	90.03

CUMULATIVE AREA = .10 SQ MI

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          ***************
          *             *
 71 KK    *    SUB7E    *
          *             *
          ***************

 72 KO       OUTPUT CONTROL VARIABLES
                  IPRNT          4  PRINT CONTROL
                  IPLOT          0  PLOT CONTROL
                  QSCAL         0.  HYDROGRAPH PLOT SCALE
                           SCS RUNOFF CALCULATION

           SUBBASIN RUNOFF DATA

    BA       SUBBASIN CHARACTERISTICS
                  TAREA        .05  SUBBASIN AREA

             PRECIPITATION DATA
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 75 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
              ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
              5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                .50    1.10    2.10    2.70    3.00    3.60    4.50    5.20     .00     .00     .00     .00

                                                STORM AREA =     .05

 76 LS        SCS LOSS RATE
                    STRTL         .60  INITIAL ABSTRACTION
                   CRVNBR       77.00  CURVE NUMBER
                    RTIMP         .00  PERCENT IMPERVIOUS AREA

 77 UD        SCS DIMENSIONLESS UNITGRAPH
                     TLAG         .14  LAG

                                                          ***

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

                                                      UNIT HYDROGRAPH
                                                  5 END-OF-PERIOD ORDINATES
             83.       28.        6.        1.        0.


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


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          *            *
 81 KK    *     7ECHN  *
          *            *
          **************

 82 KO        OUTPUT CONTROL VARIABLES
                   IPRNT           1  PRINT CONTROL
                   IPLOT           0  PLOT CONTROL
                   QSCAL          0.  HYDROGRAPH PLOT SCALE
                            STORAGE ROUTING THROUGH 7CDE

            HYDROGRAPH ROUTING DATA

 84 RS        STORAGE ROUTING
                   NSTPS           1  NUMBER OF SUBREACHES
                    ITYP        STOR  TYPE OF INITIAL CONDITION
                  RSVRIC         .00  INITIAL CONDITION
                       X         .00 WORKING R AND D COEFFICIENT

 85 RC        NORMAL DEPTH CHANNEL ROUTING
                     ANL        .080  LEFT OVERBANK N-VALUE
                    ANCH        .030  MAIN CHANNEL N-VALUE
                     ANR        .080  RIGHT OVERBANK N-VALUE
                   RLNTH       7600.  REACH LENGTH
                     SEL       .0020  ENERGY SLOPE
                   ELMAX        93.0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                          CROSS-SECTION DATA
                         --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
 87 RY       ELEVATION     94.00     93.50     93.00     88.00     88.00     93.00     93.50     94.00
 86 RX       DISTANCE        .00      5.00     10.00     16.00     24.00     30.00     35.00     40.00
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COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	.38	.79	1.23	1.70	2.20	2.73	3.28	3.87	4.48
OUTFLOW	.00	1.92	6.11	12.07	19.64	28.75	39.36	51.47	65.08	80.21
ELEVATION	88.00	88.26	88.53	88.79	89.05	89.32	89.58	89.84	90.11	90.37
STORAGE	5.12	5.79	6.50	7.23	7.98	8.77	9.59	10.43	11.31	12.21
OUTFLOW	96.87	115.10	134.92	156.35	179.44	204.21	230.70	258.94	288.96	320.80
ELEVATION	90.63	90.89	91.16	91.42	91.68	91.95	92.21	92.47	92.74	93.00

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HYDROGRAPH AT STATION 7ECHN

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	88.0	28	FEB	0915	34	11.	1.1	88.7	28	FEB	1730	67	49.	3.2	89.8
28	FEB	0115	2	0.	.1	88.1	28	FEB	0930	35	11.	1.2	88.7	28	FEB	1745	68	48.	3.1	89.8
28	FEB	0130	3	2.	.3	88.2	28	FEB	0945	36	11.	1.2	88.7	28	FEB	1800	69	46.	3.1	89.7
28	FEB	0145	4	3.	.5	88.3	28	FEB	1000	37	11.	1.2	88.8	28	FEB	1815	70	45.	3.0	89.7
28	FEB	0200	5	4.	.6	88.4	28	FEB	1015	38	11.	1.2	88.8	28	FEB	1830	71	44.	2.9	89.7
28	FEB	0215	6	6.	.8	88.5	28	FEB	1030	39	12.	1.2	88.8	28	FEB	1845	72	43.	2.9	89.7
28	FEB	0230	7	7.	.8	88.6	28	FEB	1045	40	12.	1.2	88.8	28	FEB	1900	73	42.	2.9	89.6
28	FEB	0245	8	8.	.9	88.6	28	FEB	1100	41	12.	1.2	88.8	28	FEB	1915	74	41.	2.8	89.6
	FEB	0300	9	9.	1.0	88.6	28	FEB	1115	42	12.	1.3	88.8	28	FEB	1930	75	40.	2.8	89.6
28	FEB	0315	10	9.	1.0	88.7	28	FEB	1130	43	13.	1.3	88.8	28	FEB	1945	76	39.	2.7	89.6
28	FEB	0330	11	10.	1.0	88.7	28	FEB	1145	44	13.	1.3	88.8	28	FEB	2000	77	38.	2.7	89.5
28	FEB	0345	12	10.	1.1	88.7	28	FEB	1200	45	14.	1.4	88.9	28	FEB	2015	78	37.	2.6	89.5
28	FEB	0400	13	10.	1.1	88.7	28	FEB	1215	46	15.	1.4	88.9	28	FEB	2030	79	36.	2.6	89.5
28	FEB	0415	14	10.	1.1	88.7	28	FEB	1230	47	17.	1.5	89.0	28	FEB	2045	80	35.	2.5	89.5
28	FEB	0430	15	10.	1.1	88.7	28	FEB	1245	48	20.	1.7	89.1	28	FEB	2100	81	35.	2.5	89.5
28	FEB	0445	16	11.	1.1	88.7	28	FEB	1300	49	28.	2.2	89.3	28	FEB	2115	82	34.	2.5	89.5
28	FEB	0500	17	11.	1.1	88.7	28	FEB	1315	50	54.	3.4	89.9	28	FEB	2130	83	34.	2.4	89.4
28	FEB	0515	18	11.	1.1	88.7	28	FEB	1330	51	88.	4.8	90.5	28	FEB	2145	84	33.	2.4	89.4
28	FEB	0530	19	11.	1.1	88.7	28	FEB	1345	52	103.	5.4	90.7	28	FEB	2200	85	33.	2.4	89.4
28	FEB	0545	20	11.	1.1	88.7	28	FEB	1400	53	103.	5.4	90.7	28	FEB	2215	86	32.	2.4	89.4
28	FEB	0600	21	11.	1.1	88.7	28	FEB	1415	54	100.	5.2	90.7	28	FEB	2230	87	32.	2.4	89.4
28	FEB	0615	22	11.	1.1	88.7	28	FEB	1430	55	94.	5.0	90.6	28	FEB	2245	88	32.	2.3	89.4
28	FEB	0630	23	11.	1.1	88.7	28	FEB	1445	56	87.	4.7	90.5	28	FEB	2300	89	31.	2.3	89.4
28	FEB	0645	24	11.	1.1	88.7	28	FEB	1500	57	81.	4.5	90.4	28	FEB	2315	90	31.	2.3	89.4
28	FEB	0700	25	11.	1.1	88.7	28	FEB	1515	58	75.	4.3	90.3	28	FEB	2330	91	31.	2.3	89.4
28	FEB	0715	26	11.	1.1	88.7	28	FEB	1530	59	70.	4.1	90.2	28	FEB	2345	92	31.	2.3	89.4
28	FEB	0730	27	11.	1.1	88.7	28	FEB	1545	60	66.	3.9	90.1	1	MAR	0000	93	30.	2.3	89.4
28	FEB	0745	28	11.	1.1	88.7	28	FEB	1600	61	63.	3.8	90.1	1	MAR	0015	94	30.	2.3	89.3
28	FEB	0800	29	11.	1.1	88.7	28	FEB	1615	62	60.	3.7	90.0	1	MAR	0030	95	30.	2.3	89.3
28	FEB	0815	30	11.	1.1	88.7	28	FEB	1630	63	58.	3.6	90.0	1	MAR	0045	96	30.	2.2	89.3
28	FEB	0830	31	11.	1.1	88.7	28	FEB	1645	64	55.	3.4	89.9	1	MAR	0100	97	29.	2.2	89.3
28	FEB	0845	32	11.	1.1	88.7	28	FEB	1700	65	53.	3.4	89.9							
28	FEB	0900	33	11.	1.1	88.7	28	FEB	1715	66	51.	3.3	89.8							

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PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.00-HR

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+   (CFS)       (HR)
                          (CFS)
+     103.      13.00                66.         30.         30.         30.
                        (INCHES)    1.349       2.475       2.475       2.475
                         (AC-FT)     33.         60.         60.         60.

 PEAK STORAGE   TIME                        MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     24.00-HR
+  (AC-FT)      (HR)
       5.      13.00                  4.          2.          2.          2.

  PEAK STAGE    TIME                        MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     24.00-HR
+   (FEET)      (HR)
     90.73     13.00               90.09       89.23       89.23       89.23

                         CUMULATIVE AREA =     .45 SQ MI
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          **************
          *            *
  88 KK   *     SUB7F  *
          *            *
          **************

  89 KO         OUTPUT CONTROL VARIABLES
                      IPRNT           4  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

             SUBBASIN RUNOFF DATA

  91 BA         SUBBASIN CHARACTERISTICS
                      TAREA         .21  SUBBASIN AREA

                PRECIPITATION DATA

  92 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .50    1.10    2.10    2.70    3.00    3.60    4.50    5.20     .00     .00     .00     .00

                                                   STORM AREA =     .21

  93 LS         SCS LOSS RATE
                      STRTL         .60  INITIAL ABSTRACTION
                     CRVNBR       77.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

  94 UD         SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .29  LAG
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WARNING *** TIME INTERVAL IS GREATER THAN .29*LAG

UNIT HYDROGRAPH
8 END-OF-PERIOD ORDINATES

160.	223.	93.	35.	13.	5.	2.	0.

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          *            *
 98 KK    *     7FCHN  *     L
          *            *
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 99 KO        OUTPUT CONTROL VARIABLES
                    IPRNT          1  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL         0.  HYDROGRAPH PLOT SCALE
                             STORAGE ROUTING THROUGH 7F

            HYDROGRAPH ROUTING DATA

101 RS        STORAGE ROUTING
                    NSTPS          1  NUMBER OF SUBREACHES
                     ITYP       STOR  TYPE OF INITIAL CONDITION
                   RSVRIC        .00  INITIAL CONDITION
                        X        .00 WORKING R AND D COEFFICIENT

102 RC        NORMAL DEPTH CHANNEL ROUTING
                      ANL       .080  LEFT OVERBANK N-VALUE
                     ANCH       .030  MAIN CHANNEL N-VALUE
                      ANR       .080  RIGHT OVERBANK N-VALUE
                    RLNTH       500.  REACH LENGTH
                      SEL      .0030  ENERGY SLOPE
                    ELMAX       90.0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION
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CROSS-SECTION DATA

		--- LEFT OVERBANK ---			+ ------ MAIN CHANNEL			------- + --- RIGHT OVERBANK ---	
104 RY	ELEVATION	90.00	90.50	90.00	86.00	86.00	90.00	90.50	91.00
103 RX	DISTANCE	.00	5.00	10.00	16.00	24.00	30.00	35.00	40.00

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COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	.02	.04	.06	.09	.12	.14	.17	.20	.24
OUTFLOW	.00	1.63	5.20	10.32	16.84	24.71	33.90	44.41	56.26	69.44
ELEVATION	86.00	86.21	86.42	86.63	86.84	87.05	87.26	87.47	87.68	87.89
STORAGE	.27	.30	.34	.38	.42	.46	.50	.55	.60	.64
OUTFLOW	83.98	99.91	117.25	136.02	156.26	177.99	201.24	226.04	252.43	280.43
ELEVATION	88.11	88.32	88.53	88.74	88.95	89.16	89.37	89.58	89.79	90.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 2. TO 280.
THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

HYDROGRAPH AT STATION 7FCHN

DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE
28 FEB 0100	1	0.	.0	86.0	28 FEB 0915	34	11.	.1	86.7	28 FEB 1730	67	67.	.2	87.9
28 FEB 0115	2	0.	.0	86.0	28 FEB 0930	35	12.	.1	86.7	28 FEB 1745	68	65.	.2	87.8
28 FEB 0130	3	1.	.0	86.1	28 FEB 0945	36	12.	.1	86.7	28 FEB 1800	69	63.	.2	87.8
28 FEB 0145	4	2.	.0	86.3	28 FEB 1000	37	13.	.1	86.7	28 FEB 1815	70	61.	.2	87.8
28 FEB 0200	5	4.	.0	86.4	28 FEB 1015	38	14.	.1	86.7	28 FEB 1830	71	59.	.2	87.7
28 FEB 0215	6	5.	.0	86.4	28 FEB 1030	39	14.	.1	86.8	28 FEB 1845	72	58.	.2	87.7
28 FEB 0230	7	7.	.0	86.5	28 FEB 1045	40	15.	.1	86.8	28 FEB 1900	73	57.	.2	87.7
28 FEB 0245	8	8.	.1	86.5	28 FEB 1100	41	16.	.1	86.8	28 FEB 1915	74	54.	.2	87.6
28 FEB 0300	9	8.	.1	86.6	28 FEB 1115	42	17.	.1	86.9	28 FEB 1930	75	51.	.2	87.6
28 FEB 0315	10	9.	.1	86.6	28 FEB 1130	43	19.	.1	86.9	28 FEB 1945	76	48.	.2	87.5
28 FEB 0330	11	10.	.1	86.6	28 FEB 1145	44	21.	.1	87.0	28 FEB 2000	77	46.	.2	87.5
28 FEB 0345	12	10.	.1	86.6	28 FEB 1200	45	23.	.1	87.0	28 FEB 2015	78	45.	.2	87.5
28 FEB 0400	13	10.	.1	86.6	28 FEB 1215	46	29.	.1	87.1	28 FEB 2030	79	44.	.2	87.5
28 FEB 0415	14	10.	.1	86.6	28 FEB 1230	47	38.	.2	87.3	28 FEB 2045	80	43.	.2	87.4
28 FEB 0430	15	10.	.1	86.6	28 FEB 1245	48	53.	.2	87.6	28 FEB 2100	81	42.	.2	87.4
28 FEB 0445	16	11.	.1	86.6	28 FEB 1300	49	94.	.3	88.2	28 FEB 2115	82	41.	.2	87.4
28 FEB 0500	17	11.	.1	86.6	28 FEB 1315	50	223.	.5	89.6	28 FEB 2130	83	41.	.2	87.4
28 FEB 0515	18	11.	.1	86.6	28 FEB 1330	51	315.	.7	90.3	28 FEB 2145	84	40.	.2	87.4
28 FEB 0530	19	11.	.1	86.6	28 FEB 1345	52	257.	.6	89.8	28 FEB 2200	85	40.	.2	87.4
28 FEB 0545	20	11.	.1	86.6	28 FEB 1400	53	202.	.5	89.4	28 FEB 2215	86	39.	.2	87.4
28 FEB 0600	21	11.	.1	86.6	28 FEB 1415	54	169.	.4	89.1	28 FEB 2230	87	39.	.2	87
28 FEB 0615	22	11.	.1	86.6	28 FEB 1430	55	140.	.4	88.8	28 FEB 2245	88	38.	.2	8.
28 FEB 0630	23	11.	.1	86.6	28 FEB 1445	56	124.	.4	88.6	28 FEB 2300	89	38.	.2	87.3
28 FEB 0645	24	11.	.1	86.6	28 FEB 1500	57	110.	.3	88.4	28 FEB 2315	90	37.	.2	87.3
28 FEB 0700	25	11.	.1	86.6	28 FEB 1515	58	101.	.3	88.3	28 FEB 2330	91	37.	.2	87.3
28 FEB 0715	26	11.	.1	86.6	28 FEB 1530	59	93.	.3	88.2	28 FEB 2345	92	36.	.2	87.3
28 FEB 0730	27	11.	.1	86.6	28 FEB 1545	60	88.	.3	88.2	1 MAR 0000	93	36.	.1	87.3
28 FEB 0745	28	11.	.1	86.6	28 FEB 1600	61	83.	.3	88.1	1 MAR 0015	94	36.	.1	87.3
28 FEB 0800	29	11.	.1	86.6	28 FEB 1615	62	80.	.3	88.0	1 MAR 0030	95	35.	.1	87.3
28 FEB 0815	30	11.	.1	86.6	28 FEB 1630	63	78.	.3	88.0	1 MAR 0045	96	35.	.1	87.3
28 FEB 0830	31	11.	.1	86.6	28 FEB 1645	64	75.	.2	88.0	1 MAR 0100	97	35.	.1	87.3
28 FEB 0845	32	11.	.1	86.6	28 FEB 1700	65	72.	.2	87.9					
28 FEB 0900	33	11.	.1	86.7	28 FEB 1715	66	69.	.2	87.9					

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 315.	12.50		114.	45.	45.	45.
		(INCHES)	1.614	2.565	2.565	2.565
		(AC-FT)	57.	90.	90.	90.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
1.	12.50	0.	0.	0.	0.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR

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+   (FEET)      (HR)
    90.26      12.50                88.39       87.29       87.29       87.29

                      CUMULATIVE AREA =     .66 SQ MI


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 105 KK    *     SUB7G  *
           *            *
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 106 KO          OUTPUT CONTROL VARIABLES
                       IPRNT           4  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE
                                SCS RUNOFF CALCULATION

              SUBBASIN RUNOFF DATA

 108 BA          SUBBASIN CHARACTERISTICS
                       TAREA         .06  SUBBASIN AREA

                 PRECIPITATION DATA

    PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .50    1.10    2.10    2.70    3.00    3.60    4.50    5.20     .00     .00     .00     .00

                                                   STORM AREA =     .06

 110 LS          SCS LOSS RATE
                       STRTL         .60  INITIAL ABSTRACTION
                      CRVNBR       77.00  CURVE NUMBER
                       RTIMP         .00  PERCENT IMPERVIOUS AREA

 111 UD          SCS DIMENSIONLESS UNITGRAPH
                        TLAG         .31  LAG

                                                          ***

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

                                                     UNIT HYDROGRAPH
                                                 8 END-OF-PERIOD ORDINATES
              43.       68.       31.       13.        5.        2.        1.        0.


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115 KK     *     7GSWP  *
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116 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 7G

             HYDROGRAPH ROUTING DATA

118 RS          STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC       83.00  INITIAL CONDITION
                          X         .00 WORKING R AND D COEFFICIENT

119 SA               AREA          .0        .6       2.5       5.2

120 SE          ELEVATION       85.00     86.00     87.00     88.00

121 SL          LOW-LEVEL OUTLET
                      ELEVL       85.80  ELEVATION AT CENTER OF OUTLET
                      CAREA       16.25  CROSS-SECTIONAL AREA
                       COQL         .60  COEFFICIENT
                       EXPL         .50  EXPONENT OF HEAD

122 SS          SPILLWAY
                       CREL       88.00  SPILLWAY CREST ELEVATION
                      SPWID         .00  SPILLWAY WIDTH
                       COQW         .00  WEIR COEFFICIENT
                       EXPW        1.50  EXPONENT OF HEAD

                                                  ***

                                       COMPUTED STORAGE-ELEVATION DATA

          STORAGE        .00       .19      1.62      5.39
        ELEVATION      85.00     86.00     87.00     88.00

                                       COMPUTED OUTFLOW-ELEVATION DATA

          OUTFLOW        .00       .00    109.32    110.22    111.14    112.08    113.03    114.00    114.98    115.98
        ELEVATION      85.00     85.80     87.75     87.79     87.82     87.85     87.89     87.93     87.96     88.00

                                      COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE        .00       .10       .19      1.62      4.21      4.36      4.51      4.67      4.84      5.01
          OUTFLOW        .00       .00     34.97     85.66    109.32    110.22    111.14    112.08    113.03    114.00
        ELEVATION      85.00     85.80     86.00     87.00     87.75     87.79     87.82     87.85     87.89     87.93

          STORAGE       5.19      5.39
          OUTFLOW     114.98    115.98
        ELEVATION      87.96     88.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN        0. TO       35.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)
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HYDROGRAPH AT STATION 7GSWP

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	85.0	28	FEB	0915	34	11.	.1	85.9	28	FEB	1730	67	111.	4.5	87.8
28	FEB	0115	2	0.	.0	85.0	28	FEB	0930	35	12.	.1	85.9	28	FEB	1745	68	105.	3.8	87.6
28	FEB	0130	3	0.	.0	85.1	28	FEB	0945	36	12.	.1	85.9	28	FEB	1800	69	99.	3.1	87.4
28	FEB	0145	4	0.	.0	85.4	28	FEB	1000	37	13.	.1	85.9	28	FEB	1815	70	93.	2.5	87.2
28	FEB	0200	5	1.	.1	85.8	28	FEB	1015	38	14.	.1	85.9	28	FEB	1830	71	88.	1.9	87.1
28	FEB	0215	6	7.	.1	85.8	28	FEB	1030	39	15.	.1	85.9	28	FEB	1845	72	81.	1.5	86.9
28	FEB	0230	7	6.	.1	85.8	28	FEB	1045	40	16.	.1	85.9	28	FEB	1900	73	70.	1.2	86.7
28	FEB	0245	8	8.	.1	85.8	28	FEB	1100	41	17.	.1	85.9	28	FEB	1915	74	64.	1.0	86.6
28	FEB	0300	9	8.	.1	85.8	28	FEB	1115	42	19.	.1	85.9	28	FEB	1930	75	60.	.9	86.5
28	FEB	0315	10	9.	.1	85.9	28	FEB	1130	43	21.	.2	85.9	28	FEB	1945	76	56.	.8	86.4
28	FEB	0330	11	9.	.1	85.9	28	FEB	1145	44	23.	.2	85.9	28	FEB	2000	77	53.	.7	86.3
28	FEB	0345	12	10.	.1	85.9	28	FEB	1200	45	26.	.2	85.9	28	FEB	2015	78	50.	.6	86.3
28	FEB	0400	13	10.	.1	85.9	28	FEB	1215	46	32.	.2	86.0	28	FEB	2030	79	49.	.6	86.3
28	FEB	0415	14	10.	.1	85.9	28	FEB	1230	47	38.	.3	86.1	28	FEB	2045	80	47.	.5	86.2
28	FEB	0430	15	10.	.1	85.9	28	FEB	1245	48	46.	.5	86.2	28	FEB	2100	81	46.	.5	86.2
28	FEB	0445	16	11.	.1	85.9	28	FEB	1300	49	69.	1.2	86.7	28	FEB	2115	82	45.	.5	86.2
28	FEB	0500	17	11.	.1	85.9	28	FEB	1315	50	102.	3.4	87.5	28	FEB	2130	83	44.	.4	86.2
28	FEB	0515	18	11.	.1	85.9	28	FEB	1330	51	129.	7.9	88.5	28	FEB	2145	84	43.	.4	86.2
28	FEB	0530	19	11.	.1	85.9	28	FEB	1345	52	151.	12.1	89.3	28	FEB	2200	85	43.	.4	86.1
28	FEB	0545	20	11.	.1	85.9	28	FEB	1400	53	163.	14.4	89.8	28	FEB	2215	86	42.	.4	86.1
28	FEB	0600	21	11.	.1	85.9	28	FEB	1415	54	168.	15.3	90.0	28	FEB	2230	87	41.	.4	86.1
	FEB	0615	22	11.	.1	85.9	28	FEB	1430	55	168.	15.4	90.0	28	FEB	2245	88	41.	.4	86.1
	FEB	0630	23	11.	.1	85.9	28	FEB	1445	56	166.	15.0	89.9	28	FEB	2300	89	40.	.3	86.1
28	FEB	0645	24	11.	.1	85.9	28	FEB	1500	57	162.	14.2	89.7	28	FEB	2315	90	40.	.3	86.1
28	FEB	0700	25	11.	.1	85.9	28	FEB	1515	58	157.	13.3	89.5	28	FEB	2330	91	39.	.3	86.1
28	FEB	0715	26	11.	.1	85.9	28	FEB	1530	59	152.	12.2	89.3	28	FEB	2345	92	39.	.3	86.1
28	FEB	0730	27	11.	.1	85.9	28	FEB	1545	60	146.	11.2	89.1	1	MAR	0000	93	38.	.3	86.1
28	FEB	0745	28	11.	.1	85.9	28	FEB	1600	61	140.	10.1	88.9	1	MAR	0015	94	38.	.3	86.1
28	FEB	0800	29	11.	.1	85.9	28	FEB	1615	62	135.	9.1	88.7	1	MAR	0030	95	37.	.3	86.0
28	FEB	0815	30	11.	.1	85.9	28	FEB	1630	63	130.	8.1	88.5	1	MAR	0045	96	37.	.3	86.0
28	FEB	0830	31	11.	.1	85.9	28	FEB	1645	64	125.	7.1	88.3	1	MAR	0100	97	37.	.2	86.0
28	FEB	0845	32	11.	.1	85.9	28	FEB	1700	65	120.	6.2	88.2							
28	FEB	0900	33	11.	.1	85.9	28	FEB	1715	66	116.	5.4	88.0							

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
		(CFS)				
168.	13.50		128.	50.	50.	50.
		(INCHES)	1.653	2.577	2.577	2.577
		(AC-FT)	64.	99.	99.	99.

PEAK STORAGE (AC-FT)	TIME (HR)	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	24.00-HR
15.	13.50	8.	2.	2.	2.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	24.00-HR

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+   (FEET)      (HR)
    89.97      13.50                88.51       86.60       86.60       86.60

                       CUMULATIVE AREA =     .72 SQ MI


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 123 KK    *     SUB7H  *
           *            *
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 124 KO          OUTPUT CONTROL VARIABLES
                       IPRNT           4  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE
                                SCS RUNOFF CALCULATION

              SUBBASIN RUNOFF DATA

 126 BA          SUBBASIN CHARACTERISTICS
                       TAREA         .19  SUBBASIN AREA

                 PRECIPITATION DATA

 127 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .50    1.10    2.10    2.70    3.00    3.60    4.50    5.20     .00     .00     .00     .00

                                                STORM AREA =     .19

 128 LS          SCS LOSS RATE
                       STRTL         .60  INITIAL ABSTRACTION
                      CRVNBR       77.00  CURVE NUMBER
                       RTIMP         .00  PERCENT IMPERVIOUS AREA

 129 UD          SCS DIMENSIONLESS UNITGRAPH
                        TLAG         .31  LAG

                                                          ***

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

                                                     UNIT HYDROGRAPH
                                                 8 END-OF-PERIOD ORDINATES
              128.      200.       92.       37.       14.        6.        2.        1.


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133 KK     *     7HSWP  *
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  . KO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 7H

             HYDROGRAPH ROUTING DATA

136 RS          STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        ELEV  TYPE OF INITIAL CONDITION
                      RSVRIC      84.00  INITIAL CONDITION
                           X        .00 WORKING R AND D COEFFICIENT

137 SA                AREA          .4       3.1       9.2      15.3

138 SE          ELEVATION       84.00     86.00     87.00     88.00

139 SS          SPILLWAY
                       CREL      84.00  SPILLWAY CREST ELEVATION
                      SPWID      10.00  SPILLWAY WIDTH
                       COQW       3.00  WEIR COEFFICIENT
                       EXPW       1.50  EXPONENT OF HEAD

                                                   ***

                                        COMPUTED STORAGE-ELEVATION DATA

          STORAGE        .00      3.04      8.93     21.05
        ELEVATION      84.00     86.00     87.00     88.00

                                        COMPUTED OUTFLOW-ELEVATION DATA

          OUTFLOW        .00       .00       .04       .33      1.11      2.63      5.14      8.89     14.12     21.07
        ELEVATION      84.00     84.00     84.01     84.05     84.11     84.20     84.31     84.44     84.60     84.79

          OUTFLOW      30.00     41.15     54.77     71.11     90.41    112.92    138.89    168.56    202.18    240.00
        ELEVATION      85.00     85.23     85.49     85.78     86.09     86.42     86.78     87.16     87.57     88.00


                                      COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE        .00       .00       .02       .05       .09       .16       .25       .39       .58       .85
          OUTFLOW        .00       .04       .33      1.11      2.63      5.14      8.89     14.12     21.07     30.00
        ELEVATION      84.00     84.01     84.05     84.11     84.20     84.31     84.44     84.60     84.79     85.00

          STORAGE       1.22      1.73      2.41      3.04      3.33      4.77      7.06      8.93     10.48     15.07
          OUTFLOW      41.15     54.77     71.11     84.85     90.41    112.92    138.89    155.88    168.56    202.18
        ELEVATION      85.23     85.49     85.78     86.00     86.09     86.42     86.78     87.00     87.16     87.57

          STORAGE      21.05
          OUTFLOW     240.00
        ELEVATION      88.00
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HYDROGRAPH AT STATION 7HSWP

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	S
28	FEB	0100	1	0.	.0	84.0	28	FEB	0915	34	11.	.3	84.5	28	FEB	1730	67	158.	9.2	87.0
28	FEB	0115	2	0.	.0	84.0	28	FEB	0930	35	11.	.3	84.5	28	FEB	1745	68	152.	8.5	86.9
28	FEB	0130	3	0.	.0	84.0	28	FEB	0945	36	12.	.3	84.5	28	FEB	1800	69	146.	7.8	86.9
28	FEB	0145	4	0.	.0	84.0	28	FEB	1000	37	13.	.4	84.6	28	FEB	1815	70	140.	7.2	86.8
28	FEB	0200	5	0.	.0	84.0	28	FEB	1015	38	15.	.4	84.6	28	FEB	1830	71	133.	6.5	86.7
28	FEB	0215	6	2.	.1	84.2	28	FEB	1030	39	16.	.4	84.7	28	FEB	1845	72	125.	5.9	86.6
28	FEB	0230	7	4.	.1	84.3	28	FEB	1045	40	17.	.5	84.7	28	FEB	1900	73	118.	5.2	86.5
28	FEB	0245	8	6.	.2	84.3	28	FEB	1100	41	19.	.5	84.7	28	FEB	1915	74	109.	4.5	86.4
28	FEB	0300	9	7.	.2	84.4	28	FEB	1115	42	21.	.6	84.8	28	FEB	1930	75	99.	3.8	86.2
28	FEB	0315	10	8.	.2	84.4	28	FEB	1130	43	23.	.6	84.8	28	FEB	1945	76	89.	3.3	86.1
28	FEB	0330	11	9.	.2	84.4	28	FEB	1145	44	26.	.7	84.9	28	FEB	2000	77	80.	2.8	85.9
28	FEB	0345	12	9.	.3	84.5	28	FEB	1200	45	29.	.8	85.0	28	FEB	2015	78	72.	2.5	85.8
28	FEB	0400	13	10.	.3	84.5	28	FEB	1215	46	34.	1.0	85.1	28	FEB	2030	79	66.	2.2	85.7
28	FEB	0415	14	10.	.3	84.5	28	FEB	1230	47	42.	1.3	85.3	28	FEB	2045	80	62.	2.0	85.6
28	FEB	0430	15	10.	.3	84.5	28	FEB	1245	48	53.	1.7	85.5	28	FEB	2100	81	58.	1.9	85.6
28	FEB	0445	16	10.	.3	84.5	28	FEB	1300	49	73.	2.5	85.8	28	FEB	2115	82	56.	1.8	85.5
28	FEB	0500	17	10.	.3	84.5	28	FEB	1315	50	111.	4.6	86.4	28	FEB	2130	83	54.	1.7	85.5
28	FEB	0515	18	11.	.3	84.5	28	FEB	1330	51	148.	8.1	86.9	28	FEB	2145	84	52.	1.6	85.4
28	FEB	0530	19	11.	.3	84.5	28	FEB	1345	52	173.	11.1	87.2	28	FEB	2200	85	51.	1.6	85.4
28	FEB	0545	20	11.	.3	84.5	28	FEB	1400	53	187.	13.0	87.4	28	FEB	2215	86	50.	1.5	85.4
28	FEB	0600	21	11.	.3	84.5	28	FEB	1415	54	195.	14.1	87.5	28	FEB	2230	87	49.	1.5	85.4
28	FEB	0615	22	11.	.3	84.5	28	FEB	1430	55	198.	14.6	87.5	28	FEB	2245	88	48.	1.5	85.4
28	FEB	0630	23	11.	.3	84.5	28	FEB	1445	56	199.	14.7	87.5	28	FEB	2300	89	47.	1.4	85.3
28	FEB	0645	24	11.	.3	84.5	28	FEB	1500	57	198.	14.6	87.5	28	FEB	2315	90	46.	1.4	8[illegible]
28	FEB	0700	25	11.	.3	84.5	28	FEB	1515	58	197.	14.3	87.5	28	FEB	2330	91	46.	1.4	8.
28	FEB	0715	26	11.	.3	84.5	28	FEB	1530	59	194.	13.9	87.5	28	FEB	2345	92	45.	1.4	85.3
28	FEB	0730	27	11.	.3	84.5	28	FEB	1545	60	190.	13.4	87.4	1	MAR	0000	93	44.	1.3	85.3
28	FEB	0745	28	11.	.3	84.5	28	FEB	1600	61	186.	12.9	87.4	1	MAR	0015	94	44.	1.3	85.3
28	FEB	0800	29	11.	.3	84.5	28	FEB	1615	62	182.	12.3	87.3	1	MAR	0030	95	43.	1.3	85.3
28	FEB	0815	30	11.	.3	84.5	28	FEB	1630	63	177.	11.7	87.3	1	MAR	0045	96	43.	1.3	85.3
28	FEB	0830	31	11.	.3	84.5	28	FEB	1645	64	173.	11.1	87.2	1	MAR	0100	97	42.	1.3	85.3
28	FEB	0845	32	11.	.3	84.5	28	FEB	1700	65	168.	10.4	87.2							
28	FEB	0900	33	11.	.3	84.5	28	FEB	1715	66	163.	9.8	87.1							

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
199.	13.75	(CFS)	167.	63.	63.	63.
		(INCHES)	1.712	2.591	2.591	2.591
		(AC-FT)	83.	125.	125.	125.

PEAK STORAGE (AC-FT)	TIME (HR)	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	24.00-HR
15.	13.75	11.	3.	3.	3.

PEAK STAGE (FEET)	TIME (HR)	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	24.00-HR
87.53	13.75	87.13	85.44	85.44	85.44

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                    CUMULATIVE AREA =     .91 SQ MI


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140 KK    *   SUB8AA   *
          *            *
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141 KO         OUTPUT CONTROL VARIABLES
                     IPRNT          4  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE
                              SCS RUNOFF CALCULATION

             SUBBASIN RUNOFF DATA

143 BA         SUBBASIN CHARACTERISTICS
                     TAREA        .06  SUBBASIN AREA

               PRECIPITATION DATA

144 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
               ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
               5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                 .50    1.10    2.10    2.70    3.00    3.60    4.50    5.20     .00     .00     .00     .00

                                                STORM AREA =     .06

145 LS         SCS LOSS RATE
                     STRTL        .70  INITIAL ABSTRACTION
                    CRVNBR      74.00  CURVE NUMBER
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

146 UD         SCS DIMENSIONLESS UNITGRAPH
                      TLAG        .23  LAG

                                                    ***

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

                                                UNIT HYDROGRAPH
                                            7 END-OF-PERIOD ORDINATES
             66.      61.      19.       6.       2.       1.       0.


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          *            *
150 KK    *   8AASWP   *
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151 KO          OUTPUT CONTROL VARIABLES
                      IPRNT          1  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 8AA SWAMP

            HYDROGRAPH ROUTING DATA

153 RS          STORAGE ROUTING
                      NSTPS          1  NUMBER OF SUBREACHES
                       ITYP       ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC      80.00  INITIAL CONDITION
                          X        .00 WORKING R AND D COEFFICIENT

154 SA               AREA         .0      2.4      5.2      9.3

155 SE          ELEVATION      78.00    80.00    82.00    84.00

156 SL          LOW-LEVEL OUTLET
                      ELEVL      80.00  ELEVATION AT CENTER OF OUTLET
                      CAREA       1.23  CROSS-SECTIONAL AREA
                       COQL        .60  COEFFICIENT
                       EXPL        .50  EXPONENT OF HEAD

157 SS          SPILLWAY
                       CREL      83.90  SPILLWAY CREST ELEVATION
                      SPWID        .00  SPILLWAY WIDTH
                       COQW        .00  WEIR COEFFICIENT
                       EXPW       1.50  EXPONENT OF HEAD

                                                  ***

                                     COMPUTED STORAGE-ELEVATION DATA

        STORAGE        .00      1.61      9.05     23.32
      ELEVATION      78.00     80.00     82.00     84.00

                                     COMPUTED OUTFLOW-ELEVATION DATA

        OUTFLOW        .00       .00      4.67      5.11      5.64      6.29      7.11      8.18      9.63     11.69
      ELEVATION      78.00     80.00     80.62     80.75     80.91     81.13     81.44     81.91     82.64     83.90


                                   COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

        STORAGE        .00      1.61      3.35      3.75      4.31      5.13      6.41      8.59      9.05     12.77
        OUTFLOW        .00       .00      4.67      5.11      5.64      6.29      7.11      8.18      8.37      9.63
      ELEVATION      78.00     80.00     80.62     80.75     80.91     81.13     81.44     81.91     82.00     82.64

        STORAGE      22.41     23.32
        OUTFLOW      11.69     11.84
      ELEVATION      83.90     84.00
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                                     HYDROGRAPH AT STATION   8AASWP

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DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE
28 FEB 0100	1	0.	1.6	80.0	28 FEB 0915	34	6.	5.0	81.1	28 FEB 1730	67	20.	76.5	89.8
28 FEB 0115	2	0.	1.6	80.0	28 FEB 0930	35	6.	5.1	81.1	28 FEB 1745	68	21.	79.4	90.1
FEB 0130	3	0.	1.6	80.0	28 FEB 0945	36	6.	5.2	81.1	28 FEB 1800	69	21.	82.1	90.4
FEB 0145	4	0.	1.6	80.0	28 FEB 1000	37	6.	5.3	81.2	28 FEB 1815	70	22.	84.7	90.7
28 FEB 0200	5	0.	1.6	80.0	28 FEB 1015	38	7.	5.5	81.2	28 FEB 1830	71	22.	87.2	91.0
28 FEB 0215	6	0.	1.6	80.0	28 FEB 1030	39	7.	5.7	81.3	28 FEB 1845	72	23.	89.4	91.2
28 FEB 0230	7	0.	1.7	80.0	28 FEB 1045	40	7.	5.9	81.3	28 FEB 1900	73	23.	91.6	91.4
28 FEB 0245	8	0.	1.8	80.1	28 FEB 1100	41	7.	6.1	81.4	28 FEB 1915	74	23.	93.5	91.7
28 FEB 0300	9	1.	1.9	80.1	28 FEB 1115	42	7.	6.4	81.4	28 FEB 1930	75	24.	95.2	91.8
28 FEB 0315	10	1.	2.0	80.2	28 FEB 1130	43	7.	6.7	81.5	28 FEB 1945	76	24.	96.7	92.0
28 FEB 0330	11	2.	2.2	80.2	28 FEB 1145	44	7.	7.1	81.6	28 FEB 2000	77	24.	98.0	92.2
28 FEB 0345	12	2.	2.3	80.3	28 FEB 1200	45	8.	7.6	81.7	28 FEB 2015	78	24.	99.1	92.3
28 FEB 0400	13	2.	2.5	80.3	28 FEB 1215	46	8.	8.1	81.8	28 FEB 2030	79	24.	100.1	92.4
28 FEB 0415	14	3.	2.6	80.4	28 FEB 1230	47	8.	8.8	82.0	28 FEB 2045	80	24.	101.0	92.5
28 FEB 0430	15	3.	2.8	80.4	28 FEB 1245	48	9.	9.8	82.1	28 FEB 2100	81	25.	101.7	92.6
28 FEB 0445	16	4.	2.9	80.5	28 FEB 1300	49	9.	11.2	82.4	28 FEB 2115	82	25.	102.4	92.6
28 FEB 0500	17	4.	3.1	80.5	28 FEB 1315	50	10.	13.8	82.8	28 FEB 2130	83	25.	103.1	92.7
28 FEB 0515	18	4.	3.2	80.6	28 FEB 1330	51	11.	17.5	83.3	28 FEB 2145	84	25.	103.7	92.8
28 FEB 0530	19	5.	3.3	80.6	28 FEB 1345	52	11.	21.5	83.8	28 FEB 2200	85	25.	104.3	92.8
28 FEB 0545	20	5.	3.5	80.7	28 FEB 1400	53	12.	25.6	84.2	28 FEB 2215	86	25.	104.9	92.9
28 FEB 0600	21	5.	3.6	80.7	28 FEB 1415	54	13.	29.6	84.7	28 FEB 2230	87	25.	105.4	93.0
28 FEB 0615	22	5.	3.7	80.7	28 FEB 1430	55	14.	33.7	85.1	28 FEB 2245	88	25.	105.9	93.0
28 FEB 0630	23	5.	3.8	80.8	28 FEB 1445	56	14.	37.7	85.6	28 FEB 2300	89	25.	106.4	93.1
28 FEB 0645	24	5.	3.9	80.8	28 FEB 1500	57	15.	41.7	86.0	28 FEB 2315	90	25.	106.9	93.1
28 FEB 0700	25	5.	4.0	80.8	28 FEB 1515	58	15.	45.6	86.4	28 FEB 2330	91	25.	107.3	93.2
28 FEB 0715	26	5.	4.2	80.9	28 FEB 1530	59	16.	49.4	86.9	28 FEB 2345	92	26.	107.8	93.2
28 FEB 0730	27	6.	4.3	80.9	28 FEB 1545	60	17.	53.2	87.3	1 MAR 0000	93	26.	108.2	93.3
28 FEB 0745	28	6.	4.4	80.9	28 FEB 1600	61	17.	56.8	87.7	1 MAR 0015	94	26.	108.6	93.3
FEB 0800	29	6.	4.5	81.0	28 FEB 1615	62	18.	60.4	88.0	1 MAR 0030	95	26.	109.0	93.3
FEB 0815	30	6.	4.6	81.0	28 FEB 1630	63	18.	63.8	88.4	1 MAR 0045	96	26.	109.4	93.4
28 FEB 0830	31	6.	4.7	81.0	28 FEB 1645	64	19.	67.2	88.8	1 MAR 0100	97	26.	109.8	93.4
28 FEB 0845	32	6.	4.8	81.0	28 FEB 1700	65	19.	70.4	89.1					
28 FEB 0900	33	6.	4.9	81.1	28 FEB 1715	66	20.	73.5	89.5					

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PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
		(CFS)				
+ 26.	24.00		25.	13.	13.	13.
		(INCHES)	.239	.489	.489	.489
		(AC-FT)	12.	25.	25.	25.

PEAK STORAGE (AC-FT)	TIME (HR)	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	24.00-HR
+ 110.	24.00	103.	42.	42.	42.

PEAK STAGE (FEET)	TIME (HR)	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	24.00-HR
+ 93.43	24.00	92.73	85.44	85.44	85.44

CUMULATIVE AREA = .97 SQ MI

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          *            *
 158 KK   *     SUB6A  *
          *            *
          **************

 159 KO         OUTPUT CONTROL VARIABLES
                      IPRNT           4  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

             SUBBASIN RUNOFF DATA

 161 BA         SUBBASIN CHARACTERISTICS
                      TAREA         .10  SUBBASIN AREA

                PRECIPITATION DATA

 162 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .50    1.10    2.10    2.70    3.00    3.60    4.50    5.20     .00     .00     .00     .00

                                                   STORM AREA =     .10

 163 LS         SCS LOSS RATE
                      STRTL         .78  INITIAL ABSTRACTION
                     CRVNBR       72.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

 164 UD         SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .51  LAG

                                                          ***

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

                                                     UNIT HYDROGRAPH
                                                 12 END-OF-PERIOD ORDINATES
              22.      67.      69.      43.      22.      12.       6.       3.       2.       1.
               1.       0.


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          *            *
 168 KK   *     6ASWP  *
          *            *
          **************

 169 KO         OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
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                IPLOT          0  PLOT CONTROL
                QSCAL         0.  HYDROGRAPH PLOT SCALE
                        STORAGE ROUTING THROUGH 6A

          HYDROGRAPH ROUTING DATA

171 RS        STORAGE ROUTING
                NSTPS          1  NUMBER OF SUBREACHES
                 ITYP       ELEV  TYPE OF INITIAL CONDITION
                RSVRIC      82.00  INITIAL CONDITION
                     X        .00 WORKING R AND D COEFFICIENT

172 SA          AREA         .1       1.2       4.0       7.5

173 SE        ELEVATION     82.00     84.00     85.00     86.00

174 SL        LOW-LEVEL OUTLET
                ELEVL      85.00  ELEVATION AT CENTER OF OUTLET
                CAREA       4.50  CROSS-SECTIONAL AREA
                 COQL        .60  COEFFICIENT
                 EXPL        .50  EXPONENT OF HEAD

175 SS        SPILLWAY
                 CREL      85.90  SPILLWAY CREST ELEVATION
                SPWID        .00  SPILLWAY WIDTH
                 COQW        .00  WEIR COEFFICIENT
                 EXPW       1.50  EXPONENT OF HEAD

                                                  ***

                                   COMPUTED STORAGE-ELEVATION DATA

        STORAGE       .00      1.07      3.50      9.16
      ELEVATION     82.00     84.00     85.00     86.00

                                   COMPUTED OUTFLOW-ELEVATION DATA

        OUTFLOW       .00       .00     21.62     21.46     21.30     21.14     20.99     20.84     20.69     20.54
      ELEVATION     82.00     85.00     86.00     85.98     85.97     85.95     85.94     85.93     85.91     85.90

                                   COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

        STORAGE       .00      1.07      3.50      9.14
        OUTFLOW       .00       .00       .00     21.62
      ELEVATION     82.00     84.00     85.00     86.00
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                                   HYDROGRAPH AT STATION    6ASWP

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                                      *                                      *
 DA MON HRMN ORD  OUTFLOW  STORAGE   STAGE * DA MON HRMN ORD  OUTFLOW  STORAGE   STAGE * DA MON HRMN ORD  OUTFLOW  STORAGE   STAGE
                                      *                                      *
    FEB 0100   1      0.       .0    82.0 * 28 FEB 0915  34      0.      2.3    84.5 * 28 FEB 1730  67     27.      10.6    86.3
    FEB 0115   2      0.       .0    82.0 * 28 FEB 0930  35      0.      2.4    84.6 * 28 FEB 1745  68     27.      10.7    86.3
 28 FEB 0130   3      0.       .0    82.0 * 28 FEB 0945  36      0.      2.6    84.6 * 28 FEB 1800  69     28.      10.7    86.3
 28 FEB 0145   4      0.       .0    82.0 * 28 FEB 1000  37      0.      2.7    84.7 * 28 FEB 1815  70     28.      10.7    86.3
 28 FEB 0200   5      0.       .0    82.0 * 28 FEB 1015  38      0.      2.8    84.7 * 28 FEB 1830  71     28.      10.7    86.3
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28 FEB 0215	6	0.	.0	82.0 *	28 FEB 1030	39	0.	3.0	84.8 *	28 FEB 1845	72	28.	10.7	86.3
28 FEB 0230	7	0.	.0	82.0 *	28 FEB 1045	40	0.	3.1	84.8 *	28 FEB 1900	73	28.	10.8	86.3
28 FEB 0245	8	0.	.0	82.0 *	28 FEB 1100	41	0.	3.2	84.9 *	28 FEB 1915	74	28.	10.8	86.3
28 FEB 0300	9	0.	.0	82.0 *	28 FEB 1115	42	0.	3.4	85.0 *	28 FEB 1930	75	28.	10.8	86
28 FEB 0315	10	0.	.0	82.1 *	28 FEB 1130	43	0.	3.6	85.0 *	28 FEB 1945	76	28.	10.8	8
28 FEB 0330	11	0.	.1	82.1 *	28 FEB 1145	44	1.	3.7	85.0 *	28 FEB 2000	77	28.	10.8	86.3
28 FEB 0345	12	0.	.1	82.2 *	28 FEB 1200	45	2.	3.9	85.1 *	28 FEB 2015	78	28.	10.8	86.3
28 FEB 0400	13	0.	.2	82.3 *	28 FEB 1215	46	2.	4.1	85.1 *	28 FEB 2030	79	28.	10.8	86.3
28 FEB 0415	14	0.	.2	82.4 *	28 FEB 1230	47	3.	4.3	85.1 *	28 FEB 2045	80	28.	10.8	86.3
28 FEB 0430	15	0.	.3	82.5 *	28 FEB 1245	48	4.	4.5	85.2 *	28 FEB 2100	81	28.	10.8	86.3
28 FEB 0445	16	0.	.3	82.6 *	28 FEB 1300	49	5.	4.8	85.2 *	28 FEB 2115	82	28.	10.8	86.3
28 FEB 0500	17	0.	.4	82.8 *	28 FEB 1315	50	7.	5.4	85.3 *	28 FEB 2130	83	28.	10.8	86.3
28 FEB 0515	18	0.	.5	82.9 *	28 FEB 1330	51	11.	6.4	85.5 *	28 FEB 2145	84	28.	10.8	86.3
28 FEB 0530	19	0.	.6	83.1 *	28 FEB 1345	52	16.	7.7	85.8 *	28 FEB 2200	85	28.	10.8	86.3
28 FEB 0545	20	0.	.7	83.3 *	28 FEB 1400	53	21.	8.9	86.0 *	28 FEB 2215	86	28.	10.8	86.3
28 FEB 0600	21	0.	.8	83.5 *	28 FEB 1415	54	24.	9.7	86.1 *	28 FEB 2230	87	28.	10.8	86.3
28 FEB 0615	22	0.	.9	83.7 *	28 FEB 1430	55	26.	10.2	86.2 *	28 FEB 2245	88	28.	10.8	86.3
28 FEB 0630	23	0.	1.0	83.9 *	28 FEB 1445	56	27.	10.4	86.2 *	28 FEB 2300	89	28.	10.8	86.3
28 FEB 0645	24	0.	1.1	84.0 *	28 FEB 1500	57	27.	10.6	86.3 *	28 FEB 2315	90	28.	10.8	86.3
28 FEB 0700	25	0.	1.2	84.1 *	28 FEB 1515	58	27.	10.7	86.3 *	28 FEB 2330	91	28.	10.8	86.3
28 FEB 0715	26	0.	1.3	84.1 *	28 FEB 1530	59	28.	10.7	86.3 *	28 FEB 2345	92	28.	10.8	86.3
28 FEB 0730	27	0.	1.4	84.2 *	28 FEB 1545	60	28.	10.7	86.3 *	1 MAR 0000	93	28.	10.8	86.3
28 FEB 0745	28	0.	1.6	84.2 *	28 FEB 1600	61	27.	10.7	86.3 *	1 MAR 0015	94	28.	10.8	86.3
28 FEB 0800	29	0.	1.7	84.3 *	28 FEB 1615	62	27.	10.6	86.3 *	1 MAR 0030	95	28.	10.8	86.3
28 FEB 0815	30	0.	1.8	84.3 *	28 FEB 1630	63	27.	10.6	86.3 *	1 MAR 0045	96	28.	10.8	86.3
28 FEB 0830	31	0.	1.9	84.4 *	28 FEB 1645	64	27.	10.6	86.3 *	1 MAR 0100	97	28.	10.8	86.3
28 FEB 0845	32	0.	2.0	84.4 *	28 FEB 1700	65	27.	10.6	86.3 *					
28 FEB 0900	33	0.	2.2	84.5 *	28 FEB 1715	66	27.	10.6	86.3 *					
				*					*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 28.	18.75		28.	13.	13.	13.
		(INCHES)	.245	.464	.464	.464
		(AC-FT)	14.	26.	26.	26.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
11.	18.75	11.	6.	6.	6.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)				
86.29	19.00	86.29	84.92	84.92	84.92

CUMULATIVE AREA = 1.06 SQ MI

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176 KK        *    SUB6B   *
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177 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           4  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

              SUBBASIN RUNOFF DATA

179 BA          SUBBASIN CHARACTERISTICS
                      TAREA         .18  SUBBASIN AREA

                PRECIPITATION DATA

180 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .50    1.10    2.10    2.70    3.00    3.60    4.50    5.20     .00     .00     .00     .00

                                                   STORM AREA =     .18

181 LS          SCS LOSS RATE
                      STRTL         .78  INITIAL ABSTRACTION
                     CRVNBR       72.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

182 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .18  LAG

                                                          ***

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

                                                     UNIT HYDROGRAPH
                                                 6 END-OF-PERIOD ORDINATES
              260.      144.       37.       10.        3.        0.


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          *           *
186 KK    *     68SWP  *
          *           *
          **************

187 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 68

              HYDROGRAPH ROUTING DATA

189 RS          STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
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                    ITYP        ELEV  TYPE OF INITIAL CONDITION
                   RSVRIC       79.00  INITIAL CONDITION
                       X         .00 WORKING R AND D COEFFICIENT

190 SA             AREA         9.6      23.8      37.4

191 SE        ELEVATION       79.00     80.00     82.00

193 SL        LOW-LEVEL OUTLET
                   ELEVL       80.60  ELEVATION AT CENTER OF OUTLET
                   CAREA       11.30  CROSS-SECTIONAL AREA
                    COQL         .60  COEFFICIENT
                    EXPL         .50  EXPONENT OF HEAD

194 SS        SPILLWAY
                    CREL       81.90  SPILLWAY CREST ELEVATION
                   SPWID         .00  SPILLWAY WIDTH
                    COQW         .00  WEIR COEFFICIENT
                    EXPW        1.50  EXPONENT OF HEAD

                                                  ***

                                        COMPUTED STORAGE-ELEVATION DATA

        STORAGE        .00     16.21     76.95
      ELEVATION      79.00     80.00     82.00

                                        COMPUTED OUTFLOW-ELEVATION DATA

        OUTFLOW        .00       .00     67.92     67.00     66.11     65.25     64.40     63.58     62.78     62.00
      ELEVATION      79.00     80.60     82.16     82.12     82.08     82.04     82.00     81.97     81.93     81.90

                                       COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

        STORAGE        .00     16.21     31.62     76.95     83.04
        OUTFLOW        .00       .00       .00     64.34     67.92
      ELEVATION      79.00     80.00     80.60     82.00     82.16
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HYDROGRAPH AT STATION 6BSWP

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	79.0	28	FEB	0915	34	0.	.0	79.0	28	FEB	1730	67	0.	26.8	80.4
28	FEB	0115	2	0.	.0	79.0	28	FEB	0930	35	0.	.0	79.0	28	FEB	1745	68	0.	27.7	80.4
28	FEB	0130	3	0.	.0	79.0	28	FEB	0945	36	0.	.0	79.0	28	FEB	1800	69	0.	28.5	80.5
28	FEB	0145	4	0.	.0	79.0	28	FEB	1000	37	0.	.0	79.0	28	FEB	1815	70	0.	29.3	80.5
28	FEB	0200	5	0.	.0	79.0	28	FEB	1015	38	0.	.0	79.0	28	FEB	1830	71	0.	30.1	80.5
28	FEB	0215	6	0.	.0	79.0	28	FEB	1030	39	0.	.0	79.0	28	FEB	1845	72	0.	30.9	80.6
28	FEB	0230	7	0.	.0	79.0	28	FEB	1045	40	0.	.0	79.0	28	FEB	1900	73	0.	31.7	80.6
28	FEB	0245	8	0.	.0	79.0	28	FEB	1100	41	0.	.1	79.0	28	FEB	1915	74	1.	32.5	80
28	FEB	0300	9	0.	.0	79.0	28	FEB	1115	42	0.	.1	79.0	28	FEB	1930	75	2.	33.2	8[illegible]
28	FEB	0315	10	0.	.0	79.0	28	FEB	1130	43	0.	.1	79.0	28	FEB	1945	76	3.	33.8	80.[illegible]
28	FEB	0330	11	0.	.0	79.0	28	FEB	1145	44	0.	.2	79.0	28	FEB	2000	77	4.	34.5	80.7
28	FEB	0345	12	0.	.0	79.0	28	FEB	1200	45	0.	.4	79.0	28	FEB	2015	78	5.	35.1	80.7
28	FEB	0400	13	0.	.0	79.0	28	FEB	1215	46	0.	.6	79.0	28	FEB	2030	79	6.	35.7	80.7

28 FEB 0415	14	0.	.0	79.0 *	28 FEB 1230	47	0.	.9	79.1 *	28 FEB 2045	80	7.	36.3	80.7
28 FEB 0430	15	0.	.0	79.0 *	28 FEB 1245	48	0.	1.4	79.1 *	28 FEB 2100	81	7.	36.8	80.8
28 FEB 0445	16	0.	.0	79.0 *	28 FEB 1300	49	0.	2.4	79.1 *	28 FEB 2115	82	8.	37.3	80.8
28 FEB 0500	17	0.	.0	79.0 *	28 FEB 1315	50	0.	5.2	79.3 *	28 FEB 2130	83	9.	37.9	80.8
FEB 0515	18	0.	.0	79.0 *	28 FEB 1330	51	0.	8.9	79.5 *	28 FEB 2145	84	10.	38.4	80.8
FEB 0530	19	0.	.0	79.0 *	28 FEB 1345	52	0.	11.5	79.7 *	28 FEB 2200	85	10.	38.8	80.8
28 FEB 0545	20	0.	.0	79.0 *	28 FEB 1400	53	0.	13.3	79.8 *	28 FEB 2215	86	11.	39.3	80.8
28 FEB 0600	21	0.	.0	79.0 *	28 FEB 1415	54	0.	14.8	79.9 *	28 FEB 2230	87	12.	39.8	80.9
28 FEB 0615	22	0.	.0	79.0 *	28 FEB 1430	55	0.	15.9	80.0 *	28 FEB 2245	88	12.	40.2	80.9
28 FEB 0630	23	0.	.0	79.0 *	28 FEB 1445	56	0.	17.0	80.0 *	28 FEB 2300	89	13.	40.6	80.9
28 FEB 0645	24	0.	.0	79.0 *	28 FEB 1500	57	0.	18.0	80.1 *	28 FEB 2315	90	13.	41.0	80.9
28 FEB 0700	25	0.	.0	79.0 *	28 FEB 1515	58	0.	18.9	80.1 *	28 FEB 2330	91	14.	41.4	80.9
28 FEB 0715	26	0.	.0	79.0 *	28 FEB 1530	59	0.	19.9	80.1 *	28 FEB 2345	92	14.	41.8	80.9
28 FEB 0730	27	0.	.0	79.0 *	28 FEB 1545	60	0.	20.8	80.2 *	1 MAR 0000	93	15.	42.1	80.9
28 FEB 0745	28	0.	.0	79.0 *	28 FEB 1600	61	0.	21.6	80.2 *	1 MAR 0015	94	15.	42.5	80.9
28 FEB 0800	29	0.	.0	79.0 *	28 FEB 1615	62	0.	22.5	80.2 *	1 MAR 0030	95	16.	42.8	80.9
28 FEB 0815	30	0.	.0	79.0 *	28 FEB 1630	63	0.	23.4	80.3 *	1 MAR 0045	96	16.	43.2	81.0
28 FEB 0830	31	0.	.0	79.0 *	28 FEB 1645	64	0.	24.3	80.3 *	1 MAR 0100	97	17.	43.5	81.0
28 FEB 0845	32	0.	.0	79.0 *	28 FEB 1700	65	0.	25.1	80.3 *					
28 FEB 0900	33	0.	.0	79.0 *	28 FEB 1715	66	0.	26.0	80.4 *					
				*					*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 17.	24.00		10.	2.	2.	2.
		(INCHES)	.073	.073	.073	.073
		(AC-FT)	5.	5.	5.	5.

STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
43.	24.00	38.	15.	15.	15.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)				
80.97	24.00	80.81	79.74	79.74	79.74

CUMULATIVE AREA = 1.24 SQ MI

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              *            *
195 KK        *    SUB6C   *
              *            *
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KO OUTPUT CONTROL VARIABLES

IPRNT	4	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE

SCS RUNOFF CALCULATION

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            SUBBASIN RUNOFF DATA

198 BA        SUBBASIN CHARACTERISTICS
                    TAREA          .23  SUBBASIN AREA

              PRECIPITATION DATA

199 PH                            DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
              ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
              5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                .50    1.10    2.10    2.70    3.00    3.60    4.50    5.20     .00     .00     .00     .00

                                                STORM AREA =     .23

200 LS        SCS LOSS RATE
                    STRTL          .78  INITIAL ABSTRACTION
                   CRVNBR        72.00  CURVE NUMBER
                    RTIMP          .00  PERCENT IMPERVIOUS AREA

201 UD        SCS DIMENSIONLESS UNITGRAPH
                     TLAG          .30  LAG

                                                    ***

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

                                                UNIT HYDROGRAPH
                                            8 END-OF-PERIOD ORDINATES
            171.      253.      111.      43.       16.       6.        3.        1.


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          *            *
202 KK    *     SUB6D  *
          *            *
          **************

203 KO        OUTPUT CONTROL VARIABLES
                   IPRNT           4  PRINT CONTROL
                   IPLOT           0  PLOT CONTROL
                   QSCAL          0.  HYDROGRAPH PLOT SCALE
                            SCS RUNOFF CALCULATION

            SUBBASIN RUNOFF DATA

205 BA        SUBBASIN CHARACTERISTICS
                    TAREA          .42  SUBBASIN AREA

              PRECIPITATION DATA

206 PH                            DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
              ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
              5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                .50    1.10    2.10    2.70    3.00    3.60    4.50    5.20     .00     .00     .00     .00
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                                        STORM AREA =     .42

207 LS          SCS LOSS RATE
                     STRTL        .78  INITIAL ABSTRACTION
                    CRVNBR      72.00  CURVE NUMBER
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

208 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG        .50  LAG

                                                  ***

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

                                              UNIT HYDROGRAPH
                                          12 END-OF-PERIOD ORDINATES
             102.     305.     305.     184.      92.      48.      25.      13.       7.       4.
               2.       1.


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


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          *            *
209 KK    *     6DSWP  *
          *            *
          **************

  KO          OUTPUT CONTROL VARIABLES
                    IPRNT          1  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL         0.  HYDROGRAPH PLOT SCALE
                             STORAGE ROUTING THROUGH 60

             HYDROGRAPH ROUTING DATA

212 RS          STORAGE ROUTING
                    NSTPS          1  NUMBER OF SUBREACHES
                     ITYP       ELEV  TYPE OF INITIAL CONDITION
                   RSVRIC      80.00  INITIAL CONDITION
                        X        .00 WORKING R AND D COEFFICIENT

213 SA              AREA        1.5      14.4

214 SE          ELEVATION      80.00     90.00

215 SL          LOW-LEVEL OUTLET
                    ELEVL      80.00  ELEVATION AT CENTER OF OUTLET
                    CAREA      12.57  CROSS-SECTIONAL AREA
                     COQL        .60  COEFFICIENT
                     EXPL        .50  EXPONENT OF HEAD

216 SS          SPILLWAY
                     CREL      90.00  SPILLWAY CREST ELEVATION
                    SPWID        .00  SPILLWAY WIDTH
                     COQW        .00  WEIR COEFFICIENT
                     EXPW       1.50  EXPONENT OF HEAD
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COMPUTED STORAGE-ELEVATION DATA

STORAGE	.00	68.83
ELEVATION	80.00	90.00

COMPUTED OUTFLOW-ELEVATION DATA

OUTFLOW	.00	84.17	90.50	97.87	106.54	116.90	129.48	145.11	165.02	191.28
ELEVATION	80.00	81.94	82.24	82.62	83.10	83.73	84.58	85.76	87.44	90.00

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	4.33	5.28	6.59	8.48	11.30	15.80	23.50	37.99	68.83
OUTFLOW	.00	84.17	90.50	97.87	106.54	116.90	129.48	145.11	165.02	191.28
ELEVATION	80.00	81.94	82.24	82.62	83.10	83.73	84.58	85.76	87.44	90.00

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HYDROGRAPH AT STATION 6DSWP

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DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE
28 FEB 0100	1	0.	.0	80.0	28 FEB 0915	34	0.	.0	80.0	28 FEB 1730	67	54.	2.8	81.2
28 FEB 0115	2	0.	.0	80.0	28 FEB 0930	35	0.	.0	80.0	28 FEB 1745	68	47.	2.4	81
28 FEB 0130	3	0.	.0	80.0	28 FEB 0945	36	0.	.0	80.0	28 FEB 1800	69	42.	2.1	81
28 FEB 0145	4	0.	.0	80.0	28 FEB 1000	37	0.	.0	80.0	28 FEB 1815	70	38.	1.9	80.9
28 FEB 0200	5	0.	.0	80.0	28 FEB 1015	38	0.	.0	80.0	28 FEB 1830	71	35.	1.8	80.8
28 FEB 0215	6	0.	.0	80.0	28 FEB 1030	39	0.	.0	80.0	28 FEB 1845	72	33.	1.7	80.8
28 FEB 0230	7	0.	.0	80.0	28 FEB 1045	40	0.	.0	80.0	28 FEB 1900	73	31.	1.6	80.7
28 FEB 0245	8	0.	.0	80.0	28 FEB 1100	41	1.	.0	80.0	28 FEB 1915	74	30.	1.5	80.7
28 FEB 0300	9	0.	.0	80.0	28 FEB 1115	42	1.	.1	80.0	28 FEB 1930	75	28.	1.4	80.6
28 FEB 0315	10	0.	.0	80.0	28 FEB 1130	43	2.	.1	80.0	28 FEB 1945	76	25.	1.3	80.6
28 FEB 0330	11	0.	.0	80.0	28 FEB 1145	44	3.	.2	80.1	28 FEB 2000	77	23.	1.2	80.5
28 FEB 0345	12	0.	.0	80.0	28 FEB 1200	45	5.	.2	80.1	28 FEB 2015	78	21.	1.1	80.5
28 FEB 0400	13	0.	.0	80.0	28 FEB 1215	46	7.	.3	80.2	28 FEB 2030	79	19.	1.0	80.4
28 FEB 0415	14	0.	.0	80.0	28 FEB 1230	47	10.	.5	80.2	28 FEB 2045	80	18.	.9	80.4
28 FEB 0430	15	0.	.0	80.0	28 FEB 1245	48	16.	.8	80.4	28 FEB 2100	81	17.	.9	80.4
28 FEB 0445	16	0.	.0	80.0	28 FEB 1300	49	27.	1.4	80.6	28 FEB 2115	82	16.	.8	80.4
28 FEB 0500	17	0.	.0	80.0	28 FEB 1315	50	55.	2.8	81.3	28 FEB 2130	83	15.	.8	80.3
28 FEB 0515	18	0.	.0	80.0	28 FEB 1330	51	94.	5.9	82.4	28 FEB 2145	84	14.	.7	80.3
28 FEB 0530	19	0.	.0	80.0	28 FEB 1345	52	112.	9.9	83.4	28 FEB 2200	85	14.	.7	80.3
28 FEB 0545	20	0.	.0	80.0	28 FEB 1400	53	122.	13.1	84.1	28 FEB 2215	86	13.	.7	80.3
28 FEB 0600	21	0.	.0	80.0	28 FEB 1415	54	127.	14.8	84.4	28 FEB 2230	87	13.	.7	80.3
28 FEB 0615	22	0.	.0	80.0	28 FEB 1430	55	128.	15.2	84.5	28 FEB 2245	88	13.	.7	80.3
28 FEB 0630	23	0.	.0	80.0	28 FEB 1445	56	127.	14.9	84.4	28 FEB 2300	89	12.	.6	80.3
28 FEB 0645	24	0.	.0	80.0	28 FEB 1500	57	125.	14.0	84.2	28 FEB 2315	90	12.	.6	80.3
28 FEB 0700	25	0.	.0	80.0	28 FEB 1515	58	121.	12.9	84.0	28 FEB 2330	91	12.	.6	80.3
28 FEB 0715	26	0.	.0	80.0	28 FEB 1530	59	118.	11.5	83.8	28 FEB 2345	92	12.	.6	80.3
28 FEB 0730	27	0.	.0	80.0	28 FEB 1545	60	113.	10.2	83.5	1 MAR 0000	93	11.	.6	80.3
28 FEB 0745	28	0.	.0	80.0	28 FEB 1600	61	108.	8.8	83.2	1 MAR 0015	94	11.	.6	80
28 FEB 0800	29	0.	.0	80.0	28 FEB 1615	62	102.	7.4	82.8	1 MAR 0030	95	11.	.6	80..
28 FEB 0815	30	0.	.0	80.0	28 FEB 1630	63	95.	6.1	82.5	1 MAR 0045	96	11.	.6	80.2
28 FEB 0830	31	0.	.0	80.0	28 FEB 1645	64	89.	5.0	82.1	1 MAR 0100	97	11.	.5	80.2
28 FEB 0845	32	0.	.0	80.0	28 FEB 1700	65	78.	4.0	81.8					

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 28 FEB 0900  33       0.       .0    80.0 * 28 FEB 1715  66      64.      3.3    81.5 *
                                            *                                            *
*****************************************************************************************************************************

   \K FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                        6-HR       24-HR       72-HR     24.00-HR
+   (CFS)      (HR)
                          (CFS)
+     128.     13.50                     85.         26.         26.         26.
                        (INCHES)      1.888       2.301       2.301       2.301
                         (AC-FT)        42.         52.         52.         52.

 PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                        6-HR       24-HR       72-HR     24.00-HR
+  (AC-FT)     (HR)
      15.     13.50                      7.          2.          2.          2.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                        6-HR       24-HR       72-HR     24.00-HR
+   (FEET)     (HR)
    84.48     13.50                    82.51       80.74       80.74       80.74

                        CUMULATIVE AREA =     .42 SQ MI



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


            **************
            *            *
 220 KK     *     6CSWP  *
            *            *
            **************

 221 KO          OUTPUT CONTROL VARIABLES
                       IPRNT           1  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE
                                STORAGE ROUTING THROUGH 6C

               HYDROGRAPH ROUTING DATA

 223 RS          STORAGE ROUTING
                       NSTPS           1  NUMBER OF SUBREACHES
                        ITYP        ELEV  TYPE OF INITIAL CONDITION
                      RSVRIC       76.00  INITIAL CONDITION
                           X         .00 WORKING R AND D COEFFICIENT

 224 SA               AREA          .0       2.3      12.6      24.4      33.5

 225 SE          ELEVATION       74.50     76.00     78.00     80.00     82.00

 226 SL          LOW-LEVEL OUTLET
                       ELEVL       74.50  ELEVATION AT CENTER OF OUTLET
                       CAREA       19.64  CROSS-SECTIONAL AREA
                        COQL         .60  COEFFICIENT
                        EXPL         .50  EXPONENT OF HEAD
```

227 SS SPILLWAY

CREL	81.90	SPILLWAY CREST ELEVATION
SPWID	.00	SPILLWAY WIDTH
COQW	.00	WEIR COEFFICIENT
EXPW	1.50	EXPONENT OF HEAD

***

COMPUTED STORAGE-ELEVATION DATA

STORAGE	.00	1.16	14.69	50.99	108.68
ELEVATION	74.50	76.00	78.00	80.00	82.00

COMPUTED OUTFLOW-ELEVATION DATA

OUTFLOW	.00	144.90	153.26	162.65	173.25	185.34	199.24	215.40	234.40	257.09
ELEVATION	74.50	76.85	77.13	77.46	77.86	78.35	78.94	79.69	80.65	81.90

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	1.16	4.47	6.25	8.92	13.01	14.69	19.34	28.89	43.85
OUTFLOW	.00	115.75	144.90	153.26	162.65	173.25	176.81	185.34	199.24	215.40
ELEVATION	74.50	76.00	76.85	77.13	77.46	77.86	78.00	78.35	78.94	79.69

STORAGE	50.99	67.80	105.35	108.68
OUTFLOW	221.64	234.40	257.09	258.82
ELEVATION	80.00	80.65	81.90	82.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 0. TO 116.
THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

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HYDROGRAPH AT STATION 6CSWP

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	116.	1.2	76.0	*	28	FEB	0915	34	0.	.0	74.5	*	28	FEB	1730	67	129.	2.6	76.4
28	FEB	0115	2	0.	.0	74.5	*	28	FEB	0930	35	0.	.0	74.5	*	28	FEB	1745	68	119.	1.5	76.1
28	FEB	0130	3	0.	.0	74.5	*	28	FEB	0945	36	0.	.0	74.5	*	28	FEB	1800	69	75.	.8	75.5
28	FEB	0145	4	0.	.0	74.5	*	28	FEB	1000	37	0.	.0	74.5	*	28	FEB	1815	70	56.	.6	75.2
28	FEB	0200	5	0.	.0	74.5	*	28	FEB	1015	38	0.	.0	74.5	*	28	FEB	1830	71	52.	.5	75.2
28	FEB	0215	6	0.	.0	74.5	*	28	FEB	1030	39	0.	.0	74.5	*	28	FEB	1845	72	49.	.5	75.1
28	FEB	0230	7	0.	.0	74.5	*	28	FEB	1045	40	1.	.0	74.5	*	28	FEB	1900	73	47.	.5	75.1
28	FEB	0245	8	0.	.0	74.5	*	28	FEB	1100	41	2.	.0	74.5	*	28	FEB	1915	74	45.	.5	75.1
28	FEB	0300	9	0.	.0	74.5	*	28	FEB	1115	42	3.	.0	74.5	*	28	FEB	1930	75	42.	.4	75.0
28	FEB	0315	10	0.	.0	74.5	*	28	FEB	1130	43	5.	.0	74.6	*	28	FEB	1945	76	39.	.4	75.0
28	FEB	0330	11	0.	.0	74.5	*	28	FEB	1145	44	7.	.1	74.6	*	28	FEB	2000	77	37.	.4	75.0
28	FEB	0345	12	0.	.0	74.5	*	28	FEB	1200	45	9.	.1	74.6	*	28	FEB	2015	78	35.	.4	75.0
28	FEB	0400	13	0.	.0	74.5	*	28	FEB	1215	46	14.	.1	74.7	*	28	FEB	2030	79	34.	.3	74.9
28	FEB	0415	14	0.	.0	74.5	*	28	FEB	1230	47	22.	.2	74.8	*	28	FEB	2045	80	33.	.3	74.[illegible]
28	FEB	0430	15	0.	.0	74.5	*	28	FEB	1245	48	35.	.4	75.0	*	28	FEB	2100	81	32.	.3	7[illegible]
28	FEB	0445	16	0.	.0	74.5	*	28	FEB	1300	49	65.	.7	75.3	*	28	FEB	2115	82	31.	.3	74.[illegible]
28	FEB	0500	17	0.	.0	74.5	*	28	FEB	1315	50	122.	1.9	76.2	*	28	FEB	2130	83	31.	.3	74.9
28	FEB	0515	18	0.	.0	74.5	*	28	FEB	1330	51	146.	4.6	76.9	*	28	FEB	2145	84	31.	.3	74.9
28	FEB	0530	19	0.	.0	74.5	*	28	FEB	1345	52	157.	7.3	77.3	*	28	FEB	2200	85	31.	.3	74.9

28 FEB 0545	20	0.	.0	74.5	*	28 FEB 1400	53	163.	8.9	77.5	*	28 FEB 2215	86	31.	.3	74.9
28 FEB 0600	21	0.	.0	74.5	*	28 FEB 1415	54	165.	9.8	77.6	*	28 FEB 2230	87	31.	.3	74.9
28 FEB 0615	22	0.	.0	74.5	*	28 FEB 1430	55	166.	10.2	77.6	*	28 FEB 2245	88	31.	.3	74.9
28 FEB 0630	23	0.	.0	74.5	*	28 FEB 1445	56	166.	10.3	77.6	*	28 FEB 2300	89	31.	.3	74.9
FEB 0645	24	0.	.0	74.5	*	28 FEB 1500	57	166.	10.1	77.6	*	28 FEB 2315	90	32.	.3	74.9
FEB 0700	25	0.	.0	74.5	*	28 FEB 1515	58	165.	9.8	77.5	*	28 FEB 2330	91	32.	.3	74.9
28 FEB 0715	26	0.	.0	74.5	*	28 FEB 1530	59	164.	9.4	77.5	*	28 FEB 2345	92	32.	.3	74.9
28 FEB 0730	27	0.	.0	74.5	*	28 FEB 1545	60	162.	8.9	77.5	*	1 MAR 0000	93	32.	.3	74.9
28 FEB 0745	28	0.	.0	74.5	*	28 FEB 1600	61	160.	8.2	77.4	*	1 MAR 0015	94	32.	.3	74.9
28 FEB 0800	29	0.	.0	74.5	*	28 FEB 1615	62	158.	7.5	77.3	*	1 MAR 0030	95	32.	.3	74.9
28 FEB 0815	30	0.	.0	74.5	*	28 FEB 1630	63	155.	6.7	77.2	*	1 MAR 0045	96	33.	.3	74.9
28 FEB 0830	31	0.	.0	74.5	*	28 FEB 1645	64	152.	5.9	77.1	*	1 MAR 0100	97	33.	.3	74.9
28 FEB 0845	32	0.	.0	74.5	*	28 FEB 1700	65	147.	4.9	76.9	*					
28 FEB 0900	33	0.	.0	74.5	*	28 FEB 1715	66	139.	3.8	76.7	*					
					*						*					

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 166.	13.75		133.	44.	44.	44.
		(INCHES)	.653	.856	.856	.856
		(AC-FT)	66.	87.	87.	87.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
10.	13.75	6.	2.	2.	2.

K STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)				
77.59	13.75	76.74	75.20	75.20	75.20

CUMULATIVE AREA = 1.89 SQ MI

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          *             *
228 KK    *   SUBBAB    *
          *             *
          ***************

229 KO         OUTPUT CONTROL VARIABLES
                     IPRNT            4  PRINT CONTROL
                     IPLOT            0  PLOT CONTROL
                     QSCAL           0.  HYDROGRAPH PLOT SCALE
                              SCS RUNOFF CALCULATION

               SUBBASIN RUNOFF DATA

231 BA         SUBBASIN CHARACTERISTICS
                     TAREA          .02  SUBBASIN AREA
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                PRECIPITATION DATA

232 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .50    1.10    2.10    2.70    3.00    3.60    4.50    5.20     .00     .00     .00     .00

                                                STORM AREA =     .02

233 LS          SCS LOSS RATE
                      STRTL         .70  INITIAL ABSTRACTION
                     CRVNBR       74.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

234 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .23  LAG

                                                          ***

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

                                                      UNIT HYDROGRAPH
                                                  7 END-OF-PERIOD ORDINATES
              18.       16.        5.        2.        1.        0.        0.


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          *            *
235 KK    *    8ABCHL  *
          *            *
          **************

236 KO          OUTPUT CONTROL VARIABLES
                     IPRNT           1  PRINT CONTROL
                     IPLOT           0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE
                              STORAGE ROUTING THROUGH 8AB CHANNEL

             HYDROGRAPH ROUTING DATA

238 RS          STORAGE ROUTING
                     NSTPS           1  NUMBER OF SUBREACHES
                      ITYP        STOR  TYPE OF INITIAL CONDITION
                    RSVRIC         .00  INITIAL CONDITION
                         X         .00 WORKING R AND D COEFFICIENT

239 RC          NORMAL DEPTH CHANNEL ROUTING
                       ANL        .080  LEFT OVERBANK N-VALUE
                      ANCH        .030  MAIN CHANNEL N-VALUE
                       ANR        .080  RIGHT OVERBANK N-VALUE
                     RLNTH        300.  REACH LENGTH
                       SEL       .0250  ENERGY SLOPE
                     ELMAX        86.0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                          CROSS-SECTION DATA
                        --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
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241 RY	ELEVATION	86.00	85.00	84.00	78.00	78.00	84.00	85.00	86.00
240 RX	DISTANCE	.00	25.00	50.00	55.00	60.00	65.00	75.00	85.00

***

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	.02	.03	.05	.07	.10	.12	.15	.18	.21
OUTFLOW	.00	9.11	28.80	56.89	92.92	136.85	188.83	249.09	317.89	395.52
ELEVATION	78.00	78.42	78.84	79.26	79.68	80.11	80.53	80.95	81.37	81.79
STORAGE	.25	.28	.32	.36	.40	.46	.55	.69	.88	1.10
OUTFLOW	482.30	578.53	684.52	800.59	927.05	1091.48	1287.27	1514.96	1781.60	2093.43
ELEVATION	82.21	82.63	83.05	83.47	83.89	84.32	84.74	85.16	85.58	86.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 0. TO 2093.
THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

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HYDROGRAPH AT STATION 8ABCHL

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	78.0	*	28	FEB	0915	34	0.	.0	78.0	*	28	FEB	1730	67	1.	.0	78.1
	FEB	0115	2	0.	.0	78.0	*	28	FEB	0930	35	0.	.0	78.0	*	28	FEB	1745	68	1.	.0	78.1
	FEB	0130	3	0.	.0	78.0	*	28	FEB	0945	36	0.	.0	78.0	*	28	FEB	1800	69	1.	.0	78.1
	FEB	0145	4	0.	.0	78.0	*	28	FEB	1000	37	0.	.0	78.0	*	28	FEB	1815	70	1.	.0	78.1
28	FEB	0200	5	0.	.0	78.0	*	28	FEB	1015	38	0.	.0	78.0	*	28	FEB	1830	71	1.	.0	78.1
28	FEB	0215	6	0.	.0	78.0	*	28	FEB	1030	39	0.	.0	78.0	*	28	FEB	1845	72	1.	.0	78.0
28	FEB	0230	7	0.	.0	78.0	*	28	FEB	1045	40	0.	.0	78.0	*	28	FEB	1900	73	1.	.0	78.0
28	FEB	0245	8	0.	.0	78.0	*	28	FEB	1100	41	0.	.0	78.0	*	28	FEB	1915	74	1.	.0	78.0
28	FEB	0300	9	0.	.0	78.0	*	28	FEB	1115	42	0.	.0	78.0	*	28	FEB	1930	75	1.	.0	78.0
28	FEB	0315	10	0.	.0	78.0	*	28	FEB	1130	43	0.	.0	78.0	*	28	FEB	1945	76	1.	.0	78.0
28	FEB	0330	11	0.	.0	78.0	*	28	FEB	1145	44	0.	.0	78.0	*	28	FEB	2000	77	1.	.0	78.0
28	FEB	0345	12	0.	.0	78.0	*	28	FEB	1200	45	1.	.0	78.0	*	28	FEB	2015	78	1.	.0	78.0
28	FEB	0400	13	0.	.0	78.0	*	28	FEB	1215	46	1.	.0	78.0	*	28	FEB	2030	79	1.	.0	78.0
28	FEB	0415	14	0.	.0	78.0	*	28	FEB	1230	47	1.	.0	78.1	*	28	FEB	2045	80	1.	.0	78.0
28	FEB	0430	15	0.	.0	78.0	*	28	FEB	1245	48	2.	.0	78.1	*	28	FEB	2100	81	1.	.0	78.0
28	FEB	0445	16	0.	.0	78.0	*	28	FEB	1300	49	5.	.0	78.2	*	28	FEB	2115	82	1.	.0	78.0
28	FEB	0500	17	0.	.0	78.0	*	28	FEB	1315	50	15.	.0	78.5	*	28	FEB	2130	83	1.	.0	78.0
28	FEB	0515	18	0.	.0	78.0	*	28	FEB	1330	51	16.	.0	78.6	*	28	FEB	2145	84	0.	.0	78.0
28	FEB	0530	19	0.	.0	78.0	*	28	FEB	1345	52	9.	.0	78.4	*	28	FEB	2200	85	0.	.0	78.0
28	FEB	0545	20	0.	.0	78.0	*	28	FEB	1400	53	6.	.0	78.3	*	28	FEB	2215	86	0.	.0	78.0
28	FEB	0600	21	0.	.0	78.0	*	28	FEB	1415	54	4.	.0	78.2	*	28	FEB	2230	87	0.	.0	78.0
28	FEB	0615	22	0.	.0	78.0	*	28	FEB	1430	55	3.	.0	78.1	*	28	FEB	2245	88	0.	.0	78.0
28	FEB	0630	23	0.	.0	78.0	*	28	FEB	1445	56	2.	.0	78.1	*	28	FEB	2300	89	0.	.0	78.0
28	FEB	0645	24	0.	.0	78.0	*	28	FEB	1500	57	2.	.0	78.1	*	28	FEB	2315	90	0.	.0	78.0
28	FEB	0700	25	0.	.0	78.0	*	28	FEB	1515	58	2.	.0	78.1	*	28	FEB	2330	91	0.	.0	78.0
28	FEB	0715	26	0.	.0	78.0	*	28	FEB	1530	59	2.	.0	78.1	*	28	FEB	2345	92	0.	.0	78.0
28	FEB	0730	27	0.	.0	78.0	*	28	FEB	1545	60	1.	.0	78.1	*	1	MAR	0000	93	0.	.0	78.0
	FEB	0745	28	0.	.0	78.0	*	28	FEB	1600	61	1.	.0	78.1	*	1	MAR	0015	94	0.	.0	78.0
	FEB	0800	29	0.	.0	78.0	*	28	FEB	1615	62	1.	.0	78.1	*	1	MAR	0030	95	0.	.0	78.0
28	FEB	0815	30	0.	.0	78.0	*	28	FEB	1630	63	1.	.0	78.1	*	1	MAR	0045	96	0.	.0	78.0
28	FEB	0830	31	0.	.0	78.0	*	28	FEB	1645	64	1.	.0	78.1	*	1	MAR	0100	97	0.	.0	78.0
28	FEB	0845	32	0.	.0	78.0	*	28	FEB	1700	65	1.	.0	78.1	*							

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 28 FEB 0900  33       0.       .0    78.0 * 28 FEB 1715  66       1.       .0    78.1 *
                                           *                                           *
*****************************************************************************************************************

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     24.00-HR
+   (CFS)      (HR)
                         (CFS)
+      16.     12.50                  4.          1.          1.          1.
                       (INCHES)    2.064       2.512       2.512       2.512
                        (AC-FT)       2.          2.          2.          2.

 PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     24.00-HR
+  (AC-FT)     (HR)
       0.     12.50                  0.          0.          0.          0.

 PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     24.00-HR
+   (FEET)     (HR)
    78.57     12.50                 78.15       78.05       78.05       78.05

                        CUMULATIVE AREA =     .02 SQ MI


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           **************
           *            *
 242 KK    *     SUB88  *
           *            *
           **************

 243 KO          OUTPUT CONTROL VARIABLES
                       IPRNT           4  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE
                                SCS RUNOFF CALCULATION

               SUBBASIN RUNOFF DATA

 245 BA          SUBBASIN CHARACTERISTICS
                       TAREA         .33  SUBBASIN AREA

                 PRECIPITATION DATA

 246 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .50    1.10    2.10    2.70    3.00    3.60    4.50    5.20     .00     .00     .00     .00

                                                   STORM AREA =     .33

 247 LS          SCS LOSS RATE
                       STRTL         .70  INITIAL ABSTRACTION
                      CRVNBR       74.00  CURVE NUMBER
                       RTIMP         .00  PERCENT IMPERVIOUS AREA
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248 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG          .40  LAG

                                                    ***

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

                                                UNIT HYDROGRAPH
                                            10 END-OF-PERIOD ORDINATES
            133.      306.      231.      101.       47.       22.       10.        5.        2.        1.


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          **************
          *            *
252 KK    *     88CHL  *
          *            *
          **************

253 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                              STORAGE ROUTING THROUGH 88

            HYDROGRAPH ROUTING DATA

    RS          STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        STOR  TYPE OF INITIAL CONDITION
                     RSVRIC         .00  INITIAL CONDITION
                          X         .00 WORKING R AND D COEFFICIENT

256 RC          NORMAL DEPTH CHANNEL ROUTING
                        ANL        .080  LEFT OVERBANK N-VALUE
                       ANCH        .030  MAIN CHANNEL N-VALUE
                        ANR        .080  RIGHT OVERBANK N-VALUE
                      RLNTH       1200.  REACH LENGTH
                        SEL       .0030  ENERGY SLOPE
                      ELMAX        82.0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                      CROSS-SECTION DATA
                          --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
258 RY        ELEVATION     84.00     83.00     82.00     75.00     75.00     82.00     83.00     84.00
257 RX        DISTANCE        .00      5.00     10.00     20.00     25.00     35.00     40.00     45.00

                                                    ***

                                      COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE        .00       .06       .12       .20       .29       .39       .50       .62       .75       .89
          OUTFLOW        .00      2.61      8.53     17.35     29.10     43.92     61.94     83.36    108.33    137.04
        ELEVATION      75.00     75.37     75.74     76.11     76.47     76.84     77.21     77.58     77.95     78.32

          STORAGE       1.04      1.20      1.38      1.56      1.76      1.96      2.18      2.41      2.64      2.89
          OUTFLOW     169.67    206.38    247.34    292.73    342.72    397.46    457.12    521.86    591.83    667.20
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ELEVATION	78.68	79.05	79.42	79.79	80.16	80.53	80.89	81.26	81.63	82.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 9. TO 667.
THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

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HYDROGRAPH AT STATION 8BCHL

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	75.0	28	FEB	0915	34	0.	.0	75.0	28	FEB	1730	67	29.	.3	76.5
28	FEB	0115	2	0.	.0	75.0	28	FEB	0930	35	0.	.0	75.0	28	FEB	1745	68	27.	.3	76.4
28	FEB	0130	3	0.	.0	75.0	28	FEB	0945	36	0.	.0	75.0	28	FEB	1800	69	26.	.3	76.4
28	FEB	0145	4	0.	.0	75.0	28	FEB	1000	37	0.	.0	75.0	28	FEB	1815	70	26.	.3	76.4
28	FEB	0200	5	0.	.0	75.0	28	FEB	1015	38	1.	.0	75.1	28	FEB	1830	71	25.	.3	76.3
28	FEB	0215	6	0.	.0	75.0	28	FEB	1030	39	1.	.0	75.2	28	FEB	1845	72	24.	.2	76.3
28	FEB	0230	7	0.	.0	75.0	28	FEB	1045	40	2.	.0	75.3	28	FEB	1900	73	23.	.2	76.3
28	FEB	0245	8	0.	.0	75.0	28	FEB	1100	41	3.	.1	75.4	28	FEB	1915	74	22.	.2	76.2
28	FEB	0300	9	0.	.0	75.0	28	FEB	1115	42	4.	.1	75.5	28	FEB	1930	75	19.	.2	76.2
28	FEB	0315	10	0.	.0	75.0	28	FEB	1130	43	6.	.1	75.6	28	FEB	1945	76	16.	.2	76.1
28	FEB	0330	11	0.	.0	75.0	28	FEB	1145	44	7.	.1	75.7	28	FEB	2000	77	15.	.2	76.0
28	FEB	0345	12	0.	.0	75.0	28	FEB	1200	45	10.	.1	75.8	28	FEB	2015	78	14.	.2	75.9
28	FEB	0400	13	0.	.0	75.0	28	FEB	1215	46	14.	.2	75.9	28	FEB	2030	79	13.	.2	75.9
28	FEB	0415	14	0.	.0	75.0	28	FEB	1230	47	21.	.2	76.2	28	FEB	2045	80	12.	.2	75.9
28	FEB	0430	15	0.	.0	75.0	28	FEB	1245	48	34.	.3	76.6	28	FEB	2100	81	12.	.2	7[illegible]
28	FEB	0445	16	0.	.0	75.0	28	FEB	1300	49	65.	.5	77.3	28	FEB	2115	82	12.	.2	7[illegible]
28	FEB	0500	17	0.	.0	75.0	28	FEB	1315	50	163.	1.0	78.6	28	FEB	2130	83	11.	.1	75.9
28	FEB	0515	18	0.	.0	75.0	28	FEB	1330	51	291.	1.6	79.8	28	FEB	2145	84	11.	.1	75.8
28	FEB	0530	19	0.	.0	75.0	28	FEB	1345	52	285.	1.5	79.7	28	FEB	2200	85	11.	.1	75.8
28	FEB	0545	20	0.	.0	75.0	28	FEB	1400	53	198.	1.2	79.0	28	FEB	2215	86	11.	.1	75.8
28	FEB	0600	21	0.	.0	75.0	28	FEB	1415	54	139.	.9	78.3	28	FEB	2230	87	10.	.1	75.8
28	FEB	0615	22	0.	.0	75.0	28	FEB	1430	55	100.	.7	77.8	28	FEB	2245	88	10.	.1	75.8
28	FEB	0630	23	0.	.0	75.0	28	FEB	1445	56	73.	.6	77.4	28	FEB	2300	89	10.	.1	75.8
28	FEB	0645	24	0.	.0	75.0	28	FEB	1500	57	57.	.5	77.1	28	FEB	2315	90	10.	.1	75.8
28	FEB	0700	25	0.	.0	75.0	28	FEB	1515	58	48.	.4	76.9	28	FEB	2330	91	10.	.1	75.8
28	FEB	0715	26	0.	.0	75.0	28	FEB	1530	59	41.	.4	76.8	28	FEB	2345	92	9.	.1	75.8
28	FEB	0730	27	0.	.0	75.0	28	FEB	1545	60	36.	.3	76.7	1	MAR	0000	93	9.	.1	75.8
28	FEB	0745	28	0.	.0	75.0	28	FEB	1600	61	33.	.3	76.6	1	MAR	0015	94	9.	.1	75.8
28	FEB	0800	29	0.	.0	75.0	28	FEB	1615	62	31.	.3	76.5	1	MAR	0030	95	9.	.1	75.8
28	FEB	0815	30	0.	.0	75.0	28	FEB	1630	63	31.	.3	76.5	1	MAR	0045	96	9.	.1	75.7
28	FEB	0830	31	0.	.0	75.0	28	FEB	1645	64	31.	.3	76.5	1	MAR	0100	97	9.	.1	75.7
28	FEB	0845	32	0.	.0	75.0	28	FEB	1700	65	31.	.3	76.5							
28	FEB	0900	33	0.	.0	75.0	28	FEB	1715	66	30.	.3	76.5							

****

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
		(CFS)				
+ 291.	12.50		77.	23.	23.	23.
		(INCHES)	2.057	2.496	2.496	2.496
		(AC-FT)	38.	46.	46.	46.

PEAK STORAGE TIME MAXIMUM AVERAGE STORAGE

```
                                    6-HR       24-HR       72-HR     24.00-HR
+  (AC-FT)      (HR)
       2.     12.50                  1.          0.          0.          0.

    K STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                    6-HR       24-HR       72-HR     24.00-HR
+   (FEET)      (HR)
     79.78     12.50                77.21       75.85       75.85       75.85

                        CUMULATIVE AREA =     .35 SQ MI
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            **************
            *            *
 259 KK     *     SUB8C  *
            *            *
            **************

 260 KO          OUTPUT CONTROL VARIABLES
                       IPRNT           4  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE
                                SCS RUNOFF CALCULATION

              SUBBASIN RUNOFF DATA

 262 BA          SUBBASIN CHARACTERISTICS
                       TAREA         .12  SUBBASIN AREA

                 PRECIPITATION DATA

 263 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .50    1.10    2.10    2.70    3.00    3.60    4.50    5.20     .00     .00     .00     .00

                                                   STORM AREA =     .12

 264 LS          SCS LOSS RATE
                       STRTL         .70  INITIAL ABSTRACTION
                      CRVNBR       74.00  CURVE NUMBER
                       RTIMP         .00  PERCENT IMPERVIOUS AREA

 265 UD          SCS DIMENSIONLESS UNITGRAPH
                        TLAG         .26  LAG

                                                          ***

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

                                                     UNIT HYDROGRAPH
                                                 7 END-OF-PERIOD ORDINATES
              107.      125.       44.       16.        5.        2.        1.
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*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

          **************
          *            *
269 KK    *     8CSWP  *
          *            *
          **************

270 KO         OUTPUT CONTROL VARIABLES
                     IPRNT          1  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE
                              STORAGE ROUTING THROUGH 8C

            HYDROGRAPH ROUTING DATA

272 RS         STORAGE ROUTING
                     NSTPS          1  NUMBER OF SUBREACHES
                      ITYP       ELEV  TYPE OF INITIAL CONDITION
                    RSVRIC      64.00  INITIAL CONDITION
                         X        .00 WORKING R AND D COEFFICIENT

273 SA              AREA        1.1       1.9       3.3       5.7       8.8      11.1

274 SE         ELEVATION      64.00     66.00     68.00     70.00     72.00     74.00

275 SS         SPILLWAY
                      CREL      64.00  SPILLWAY CREST ELEVATION
                     SPWID      12.00  SPILLWAY WIDTH
                      COQW       3.00  WEIR COEFFICIENT
                      EXPW       1.50  EXPONENT OF HEAD

                                                   ***

                                        COMPUTED STORAGE-ELEVATION DATA

          STORAGE       .00      3.00      8.12     16.99     31.37     51.20
        ELEVATION     64.00     66.00     68.00     70.00     72.00     74.00

                                        COMPUTED OUTFLOW-ELEVATION DATA

          OUTFLOW       .00       .00       .20      1.56      5.27     12.49     24.40     42.16     66.95     99.94
        ELEVATION     64.00     64.00     64.03     64.12     64.28     64.49     64.77     65.11     65.51     65.98

          OUTFLOW    142.30    195.20    259.81    337.31    428.86    535.64    658.81    799.55    959.03   1138.42
        ELEVATION     66.50     67.09     67.73     68.44     69.22     70.05     70.94     71.90     72.92     74.00

                                       COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE       .00       .03       .14       .32       .60       .97      1.47      2.12      2.95      3.00
          OUTFLOW       .00       .20      1.56      5.27     12.49     24.40     42.16     66.95     99.94    101.82
        ELEVATION     64.00     64.03     64.12     64.28     64.49     64.77     65.11     65.51     65.98     66.00

          STORAGE      4.03      5.44      7.28      8.12      9.69     12.93     16.99     17.28     23.01     30.51
          OUTFLOW    142.30    195.20    259.81    288.00    337.31    428.86    529.09    535.64    658.81    799.55
        ELEVATION     66.50     67.09     67.73     68.00     68.44     69.22     70.00     70.05     70.94     71.90
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STORAGE	31.37	39.92	51.20
OUTFLOW	814.59	959.03	1138.42
ELEVATION	72.00	72.92	74.00

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HYDROGRAPH AT STATION 8CSWP

****

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	64.0	28	FEB	0915	34	0.	.0	64.0	28	FEB	1730	67	39.	1.4	65.1
28	FEB	0115	2	0.	.0	64.0	28	FEB	0930	35	0.	.0	64.0	28	FEB	1745	68	38.	1.4	65.0
28	FEB	0130	3	0.	.0	64.0	28	FEB	0945	36	0.	.0	64.0	28	FEB	1800	69	37.	1.3	65.0
28	FEB	0145	4	0.	.0	64.0	28	FEB	1000	37	0.	.0	64.0	28	FEB	1815	70	35.	1.3	65.0
28	FEB	0200	5	0.	.0	64.0	28	FEB	1015	38	0.	.0	64.0	28	FEB	1830	71	34.	1.2	65.0
28	FEB	0215	6	0.	.0	64.0	28	FEB	1030	39	0.	.0	64.0	28	FEB	1845	72	33.	1.2	64.9
28	FEB	0230	7	0.	.0	64.0	28	FEB	1045	40	1.	.1	64.1	28	FEB	1900	73	32.	1.2	64.9
28	FEB	0245	8	0.	.0	64.0	28	FEB	1100	41	1.	.1	64.1	28	FEB	1915	74	31.	1.1	64.9
28	FEB	0300	9	0.	.0	64.0	28	FEB	1115	42	3.	.2	64.2	28	FEB	1930	75	28.	1.1	64.8
28	FEB	0315	10	0.	.0	64.0	28	FEB	1130	43	4.	.3	64.2	28	FEB	1945	76	25.	1.0	64.8
28	FEB	0330	11	0.	.0	64.0	28	FEB	1145	44	6.	.4	64.3	28	FEB	2000	77	23.	.9	64.7
28	FEB	0345	12	0.	.0	64.0	28	FEB	1200	45	9.	.5	64.4	28	FEB	2015	78	20.	.8	64.7
28	FEB	0400	13	0.	.0	64.0	28	FEB	1215	46	12.	.6	64.5	28	FEB	2030	79	19.	.8	64.6
28	FEB	0415	14	0.	.0	64.0	28	FEB	1230	47	19.	.8	64.6	28	FEB	2045	80	18.	.8	64.6
28	FEB	0430	15	0.	.0	64.0	28	FEB	1245	48	31.	1.1	64.9	28	FEB	2100	81	17.	.7	64.6
28	FEB	0445	16	0.	.0	64.0	28	FEB	1300	49	56.	1.8	65.3	28	FEB	2115	82	16.	.7	64.6
28	FEB	0500	17	0.	.0	64.0	28	FEB	1315	50	130.	3.7	66.4	28	FEB	2130	83	16.	.7	64.6
[illegible]	FEB	0515	18	0.	.0	64.0	28	FEB	1330	51	243.	6.8	67.6	28	FEB	2145	84	15.	.7	64.6
	FEB	0530	19	0.	.0	64.0	28	FEB	1345	52	313.	8.9	68.2	28	FEB	2200	85	15.	.7	64.6
28	FEB	0545	20	0.	.0	64.0	28	FEB	1400	53	307.	8.7	68.2	28	FEB	2215	86	15.	.7	64.5
28	FEB	0600	21	0.	.0	64.0	28	FEB	1415	54	257.	7.2	67.7	28	FEB	2230	87	14.	.7	64.5
28	FEB	0615	22	0.	.0	64.0	28	FEB	1430	55	198.	5.5	67.1	28	FEB	2245	88	14.	.6	64.5
28	FEB	0630	23	0.	.0	64.0	28	FEB	1445	56	147.	4.1	66.6	28	FEB	2300	89	14.	.6	64.5
28	FEB	0645	24	0.	.0	64.0	28	FEB	1500	57	109.	3.2	66.1	28	FEB	2315	90	13.	.6	64.5
28	FEB	0700	25	0.	.0	64.0	28	FEB	1515	58	84.	2.5	65.8	28	FEB	2330	91	13.	.6	64.5
28	FEB	0715	26	0.	.0	64.0	28	FEB	1530	59	68.	2.1	65.5	28	FEB	2345	92	13.	.6	64.5
28	FEB	0730	27	0.	.0	64.0	28	FEB	1545	60	58.	1.9	65.4	1	MAR	0000	93	13.	.6	64.5
28	FEB	0745	28	0.	.0	64.0	28	FEB	1600	61	51.	1.7	65.3	1	MAR	0015	94	12.	.6	64.5
28	FEB	0800	29	0.	.0	64.0	28	FEB	1615	62	46.	1.6	65.2	1	MAR	0030	95	12.	.6	64.5
28	FEB	0815	30	0.	.0	64.0	28	FEB	1630	63	43.	1.5	65.1	1	MAR	0045	96	12.	.6	64.5
28	FEB	0830	31	0.	.0	64.0	28	FEB	1645	64	42.	1.5	65.1	1	MAR	0100	97	12.	.6	64.5
28	FEB	0845	32	0.	.0	64.0	28	FEB	1700	65	42.	1.5	65.1							
28	FEB	0900	33	0.	.0	64.0	28	FEB	1715	66	41.	1.4	65.1							

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PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
		(CFS)				
313.	12.75		102.	31.	31.	31.
		(INCHES)	2.047	2.476	2.476	2.476
		(AC-FT)	51.	61.	61.	61.

STORAGE (AC-FT)	TIME (HR)	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	24.00-HR
9.	12.75	3.	1.	1.	1.

PEAK STAGE (FEET)	TIME (HR)	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	24.00-HR
68.23	12.75	65.86	64.65	64.65	64.65

CUMULATIVE AREA = .46 SQ MI

1

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

OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
HYDROGRAPH AT	SUB7A	145.	12.50	32.	10.	10.	.13		
ROUTED TO	7ASWP	28.	13.50	26.	10.	10.	.13		
								112.63	13.50
HYDROGRAPH AT	SUB7B	98.	12.75	28.	9.	9.	.12		
2 COMBINED AT	7AB	125.	12.75	53.	18.	18.	.25		
ROUTED TO	7BSWP	25.	19.25	25.	17.	17.	.25		
								109.51	19.25
HYDROGRAPH AT	SUB7C	58.	12.50	13.	4.	4.	.05		
2 COMBINED AT	7BC	76.	12.50	35.	21.	21.	.30		
ROUTED TO	7CHNL	78.	12.50	35.	21.	21.	.30		
								96.86	12.50
HYDROGRAPH AT	SUB7D	105.	12.50	25.	8.	8.	.10		
ROUTED TO	7DSWP	42.	13.25	22.	7.	7.	.10		
								92.48	13.25
HYDROGRAPH AT	SUB7E	68.	12.25	11.	3.	3.	.05		
3 COMBINED AT	7CDE	140.	12.25	67.	31.	31.	.45		
ROUTED TO	7ECHN	103.	13.00	66.	30.	30.	.45		
								90.73	13.00

	HYDROGRAPH AT								
+		SUB7F	225.	12.50	50.	15.	15.	.21	
	2 COMBINED AT								
		7EF	313.	12.50	114.	45.	45.	.66	
	ROUTED TO								
+		7FCHN	315.	12.50	114.	45.	45.	.66	
+									90.26 12.50
	HYDROGRAPH AT								
+		SUB7G	68.	12.50	15.	5.	5.	.06	
	2 COMBINED AT								
+		7FG	384.	12.50	129.	50.	50.	.72	
	ROUTED TO								
+		7GSWP	168.	13.50	128.	50.	50.	.72	
+									89.97 13.50
	HYDROGRAPH AT								
+		SUB7H	201.	12.50	45.	14.	14.	.19	
	2 COMBINED AT								
+		7GH	330.	12.50	172.	64.	64.	.91	
	ROUTED TO								
+		7HSWP	199.	13.75	167.	63.	63.	.91	
+									87.53 13.75
	HYDROGRAPH AT								
+		SUB8AA	59.	12.25	13.	4.	4.	.06	
	2 COMBINED AT								
+		7H8AA	210.	13.25	179.	67.	67.	.97	
	ROUTED TO								
+		8AASWP	26.	24.00	25.	13.	13.	.97	
+									93.43 24.00
	HYDROGRAPH AT								
+		SUB6A	69.	12.75	20.	6.	6.	.10	
	2 COMBINED AT								
+		8AA6A	80.	12.75	37.	19.	19.	1.06	
	ROUTED TO								
+		6ASWP	28.	18.75	28.	13.	13.	1.06	
+									86.29 19.00
	HYDROGRAPH AT								
+		SUB6B	193.	12.25	37.	11.	11.	.18	
	2 COMBINED AT								
		6AB	200.	12.25	60.	24.	24.	1.24	
	ROUTED TO								
+		6BSWP	17.	24.00	10.	2.	2.	1.24	
+									80.97 24.00

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        HYDROGRAPH AT
+                    SUB6C     214.  12.50      48.      15.      15.     .23

        HYDROGRAPH AT
+                    SUB6D     303.  12.75      87.      26.      26.     .42

        ROUTED TO
+                    6DSWP     128.  13.50      85.      26.      26.     .42
+                                                                        84.48     13.50

        3 COMBINED AT
+                     6BCD     308.  12.50     133.      43.      43.    1.89

        ROUTED TO
+                    6CSWP     166.  13.75     133.      44.      44.    1.89
+                                                                        77.59     13.75

        HYDROGRAPH AT
+                   SUB8AB      16.  12.25       4.       1.       1.     .02

        ROUTED TO
+                   8ABCHL      16.  12.50       4.       1.       1.     .02
+                                                                        78.57     12.50

        HYDROGRAPH AT
+                    SUB8B     292.  12.50      73.      22.      22.     .33

        2 COMBINED AT
+                     8ABB     308.  12.50      77.      23.      23.     .35

        ROUTED TO
+                    8BCHL     291.  12.50      77.      23.      23.     .35
+                                                                        79.78     12.50

        HYDROGRAPH AT
+                    SUB8C     115.  12.50      26.       8.       8.     .12

        2 COMBINED AT
+                      8BC     406.  12.50     103.      31.      31.     .46

        ROUTED TO
+                    8CSWP     313.  12.75     102.      31.      31.     .46
+                                                                        68.23     12.75


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

50 Year, 24 Hour Storm

(Routing Watershed 7 Through 6)

1 ****

FLOOD HYDROGRAPH PACKAGE HEC-1 (IBM XT 512K VERSION) -FEB 1,1985
U.S. ARMY CORPS OF ENGINEERS, THE HYDROLOGIC ENGINEERING CENTER, 609 SECOND STREET, DAVIS, CA. 95616
****

THIS HEC-1 VERSION CONTAINS ALL OPTIONS EXCEPT ECONOMICS, AND THE NUMBER OF PLANS ARE REDUCED TO 3

1 HEC-1 INPUT PAGE 1

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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID        READING SUBWATERSHEDS
  2           ID        DETAILED STORAGE AND STREAM NETWORK
  3           ID        EXISTING CONDITIONS - 50 YR, 24 HR STORM
              *DIAGRAM
  4           IT      15 28FEB91     100      97
  5           IO       5

  6           KK   SUB7A
  7           KO       4
  8           KM        SCS RUNOFF CALCULATION
  9           BA   0.133
 10           PH              0     0.6     1.3     2.4     3.0     3.4     4.2     5.2     6.0
 11           LS             77
 12           UD     0.3

 13           KK   7ASWP
 14           KO       1
 15           KM        STORAGE ROUTING THROUGH 7A
 16           RS       1    ELEV     110
 17           SA    0.80    1.94    4.34   11.31   18.24
 18           SE     110     111     112     113     114
 19           SL   110.0    3.53     0.6     0.5
 20           SS   113.9       0       0     1.5

 21           KK   SUB7B
 22           KO       4
 23           KM        SCS RUNOFF CALCULATION
 24           BA   0.116
 25           PH              0     0.6     1.3     2.4     3.0     3.4     4.2     5.2     6.0
 26           LS             77
 27           UD    0.52

 28           KK     7AB
 29           KM        COMBINE HYDROGRAPHS FOR 7A & 7B
 30           HC       2

 31           KK   7BSWP
 32           KO       1
 33           KM        STORAGE ROUTING THROUGH 7B
 34           RS       1    ELEV     101
 35           SA    0.26    0.65    2.16    3.58    5.77
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 36          SE     103     104     106     108     109
 37          SL     101    1.77     0.6     0.5
 38          SS   105.9       0       0     1.5

 39          KK   SUB7C
 40          KO       4
 41          KM        SCS RUNOFF CALCULATION
 42          BA   0.053
 43          PH              0     0.6     1.3     2.4     3.0     3.4     4.2     5.2     6.0
 44          LS             77
 45          UD    0.25
1                                          HEC-1 INPUT                                        PAGE  2

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 46          KK     7BC
 47          KM        COMBINE HYDROGRAPHS FOR 7B & 7C
 48          HC       2

 49          KK   7CHNL
 50          KO       1
 51          KM        STORAGE ROUTING THROUGH 7C
 52          RS       1    STOR       0
 53          RC   0.080   0.030   0.080     400  0.0285      98
 54          RX       0      10      20      30      40      50      60      70
 55          RY      99    98.5      98      96      96      98    98.5      99

 56          KK   SUB7D
 57          KO       4
 58          KM        SCS RUNOFF CALCULATION
 59          BA   0.104
 60          PH              0     0.6     1.3     2.4     3.0     3.4     4.2     5.2     6.0
 61          LS             77
 62          UD    0.38

 63          KK   7DSWP
 64          KO       1
 65          KM        STORAGE ROUTING THROUGH 7D
 66          RS       1    ELEV      89
 67          SA    0.57    1.42    2.49    3.86
 68          SE      88      90      92      94
 69          SL    90.6    4.91     0.6     0.5
 70          SS      92      10     3.0     1.5

 71          KK   SUB7E
 72          KO       4
 73          KM        SCS RUNOFF CALCULATION
 74          BA   0.046
 75          PH              0     0.6     1.3     2.4     3.0     3.4     4.2     5.2     6.0
 76          LS             77
 77          UD    0.14

 78          KK    7CDE
 79          KM        COMBINE HYDROGRAPHS FOR 7C, 7D, & 7E
 80          HC       3

 81          KK   7ECHN
 82          KO       1
 83          KM        STORAGE ROUTING THROUGH 7CDE
```

```
 84          RS      1    STOR      0
 85          RC   0.08    0.03   0.08    7600   0.002     93
 86          RX      0       5     10      16      24     30     35     40
 87          RY     94    93.5     93      88      88     93   93.5     94
                                        HEC-1 INPUT                                                    PAGE  3

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 88          KK   SUB7F
 89          KO      4
 90          KM       SCS RUNOFF CALCULATION
 91          BA   0.206
 92          PH              0     0.6     1.3     2.4     3.0     3.4     4.2     5.2     6.0
 93          LS             77
 94          UD    0.29

 95          KK    7EF
 96          KM       COMBINE HYDROGRAPHS FOR 7E & 7F
 97          HC      2

 98          KK   7FCHNL
 99          KO      1
100          KM       STORAGE ROUTING THROUGH 7F
101          RS      1    STOR      0
102          RC   0.08    0.03   0.08     500   0.003     90
103          RX      0       5     10      16      24     30     35     40
104          RY     90    90.5     90      86      86     90   90.5     91

105          KK   SUB7G
106          KO      4
107          KM       SCS RUNOFF CALCULATION
108          BA   0.063
109          PH              0     0.6     1.3     2.4     3.0     3.4     4.2     5.2     6.0
110          LS             77
111          UD    0.31

112          KK    7FG
113          KM       COMBINE HYDROGRAPHS FOR 7F & 7G
114          HC      2

115          KK   7GSWP
116          KO      1
117          KM       STORAGE ROUTING THROUGH 7G
118          RS      1    ELEV     83
119          SA      0    0.57   2.53    5.15
120          SE     85      86     87      88
121          SL   85.8   16.25    0.6     0.5
122          SS     88       0      0     1.5

123          KK   SUB7H
124          KO      4
125          KM       SCS RUNOFF CALCULATION
126          BA   0.186
127          PH              0     0.6     1.3     2.4     3.0     3.4     4.2     5.2     6.0
128          LS             77
129          UD    0.31
1                                       HEC-1 INPUT                                                    PAGE  4

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
130          KK    7GH
131          KM        COMBINE HYDROGRAPHS FOR 7G & 7H
132          HC       2

133          KK   7HSWP
134          KO       1
135          KM        STORAGE ROUTING THROUGH 7H
136          RS       1    ELEV      84
137          SA    0.39    3.08    9.24   15.26
138          SE      84      86      87      88
139          SS      84      10     3.0     1.5

140          KK  SUB8AA
141          KO       4
142          KM        SCS RUNOFF CALCULATION
143          BA   0.060
144          PH              0     0.6     1.3     2.4     3.0     3.4     4.2     5.2     6.0
145          LS             74
146          UD    0.23

147          KK   7H8AA
148          KM        COMBINE HYDROGRAPHS FOR 7H & 8AA
149          HC       2

150          KK  8AASWP
151          KO       1
152          KM        STORAGE ROUTING THROUGH 8AA SWAMP
153          RS       1    ELEV      80
154          SA       0    2.42    5.19    9.28
155          SE      78      80      82      84
156          SL      80    1.23     0.6     0.5
157          SS    83.9       0       0     1.5

158          KK   SUB6A
159          KO       4
160          KM        SCS RUNOFF CALCULATION
161          BA   0.096
162          PH              0     0.6     1.3     2.4     3.0     3.4     4.2     5.2     6.0
163          LS             72
164          UD    0.51

165          KK   8AA6A
166          KM        COMBINE HYDROGRAPHS FOR 8AA & 6A
167          HC       2

168          KK   6ASWP
169          KO       1
170          KM        STORAGE ROUTING THROUGH 6A
171          RS       1    ELEV      82
172          SA    0.10    1.16    3.98    7.54
173          SE      82      84      85      86
174          SL      85    4.50     0.6     0.5
175          SS    85.9       0       0     1.5
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
176        KK   SUB6B
177        KO       4
178        KM        SCS RUNOFF CALCULATION
179        BA   0.176
180        PH             0     0.6     1.3     2.4     3.0     3.4     4.2     5.2     6.0
181        LS            72
182        UD    0.18

183        KK     6AB
184        KM        COMBINE HYDROGRAPHS FOR 6A & 6B
185        HC       2

186        KK   6BSWP
187        KO       1
188        KM        STORAGE ROUTING THROUGH 6B
189        RS       1    ELEV      79
190        SA    9.64   23.83   37.42
191        SE      79      80      82
192        SL    79.5    0.79     0.6     0.5
193        SL    80.6    11.3     0.6     0.5
194        SS    81.9       0       0     1.5

195        KK   SUB6C
196        KO       4
197        KM        SCS RUNOFF CALCULATION
198        BA   0.234
199        PH             0     0.6     1.3     2.4     3.0     3.4     4.2     5.2     6.0
200        LS            72
201        UD     0.3

202        KK   SUB6D
203        KO       4
204        KM        SCS RUNOFF CALCULATION
205        BA   0.421
206        PH             0     0.6     1.3     2.4     3.0     3.4     4.2     5.2     6.0
207        LS            72
208        UD    0.50

209        KK   6DSWP
210        KO       1
211        KM        STORAGE ROUTING THROUGH 6D
212        RS       1    ELEV      80
213        SA    1.54    14.4
214        SE      80      90
215        SL      80   12.57     0.6     0.5
216        SS      90       0     3.0     1.5

217        KK    6BCD
218        KM        COMBINE HYDROGRAPHS FOR 6B, 6C & 6D
219        HC       3
```



```
LINE       ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


220        KK   6CSWP
221        KO       1
222        KM        STORAGE ROUTING THROUGH 6C
223        RS       1    ELEV      76
224        SA       0    2.33   12.55   24.40   33.53
```

```
225          SE    74.5      76      78      80      82
226          SL    74.5   19.64     0.6     0.5
227          SS    81.9       0       0     1.5

228          KK  SUB8AB
229          KO       4
230          KM        SCS RUNOFF CALCULATION
231          BA   0.016
232          PH              0     0.6     1.3     2.4     3.0     3.4     4.2     5.2     6.0
233          LS             74
234          UD    0.23

235          KK  8ABCHL
236          KO       1
237          KM        STORAGE ROUTING THROUGH 8AB CHANNEL
238          RS       1    STOR       0
239          RC   0.080   0.030   0.080     300   0.025      86
240          RX       0      25      50      55      60      65      75      85
241          RY      86      85      84      78      78      84      85      86

242          KK   SUB8B
243          KO       4
244          KM        SCS RUNOFF CALCULATION
245          BA   0.332
246          PH              0     0.6     1.3     2.4     3.0     3.4     4.2     5.2     6.0
247          LS             74
248          UD     0.4

249          KK    8ABB
250          KM        COMBINE HYDROGRAPHS FOR 8AB & 8B
251          HC       2

252          KK   8BCHL
253          KO       1
254          KM        STORAGE ROUTING THROUGH 8B
255          RS       1    STOR       0
256          RC    0.08    0.03    0.08    1200   0.003      82
257          RX       0       5      10      20      25      35      40      45
258          RY      84      83      82      75      75      82      83      84

259          KK   SUB8C
260          KO       4
261          KM        SCS RUNOFF CALCULATION
262          BA   0.116
263          PH              0     0.6     1.3     2.4     3.0     3.4     4.2     5.2     6.0
264          LS             74
265          UD    0.26
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


266          KK    8BC
267          KM        COMBINE HYDROGRAPHS FOR 8B & 8C
268          HC       2

269          KK   8CSWP
270          KO       1
271          KM        STORAGE ROUTING THROUGH 8C
272          RS       1    ELEV      64
```

```
273          SA    1.12    1.91    3.28    5.70    8.79   11.08
274          SE      64      66      68      70      72      74
275          SS      64      12     3.0     1.5
276          ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE     (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.     (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    6      SUB7A
               V
               V
   13      7ASWP
               .
               .
   21          .       SUB7B
               .           .
               .           .
   28        7AB............
               V
               V
   31      7BSWP
               .
               .
   39          .       SUB7C
               .           .
               .           .
   46        7BC............
               V
               V
   49      7CHNL
               .
               .
   56          .       SUB7D
               .           V
               .           V
   63          .       7DSWP
               .           .
               .           .
   71          .           .       SUB7E
               .           .           .
               .           .           .
   78        7CDE........................
               V
               V
   81      7ECHN
               .
               .
   88          .       SUB7F
               .           .
               .           .
   95        7EF ............
               V
               V
    8      7FCHN
               .
               .
  105          .       SUB7G
```

```
              .           .
              .           .
112        7FG ............
              V
              V
115       7GSWP
              .
              .
123           .       SUB7H
              .           .
              .           .
130        7GH ............
              V
              V
133       7HSWP
              .
              .
140           .      SUB8AA
              .           .
              .           .
147       7H8AA............
              V
              V
150      8AASWP
              .
              .
158           .       SUB6A
              .           .
              .           .
165       8AA6A............
              V
              V
168       6ASWP
              .
              .
176           .       SUB6B
              .           .
              .           .
183         6AB............
              V
              V
186       6BSWP
              .
              .
195           .       SUB6C
              .           .
              .           .
202           .           .       SUB6D
              .           .           V
              .           .           V
209           .           .       6DSWP
              .           .           .
              .           .           .
217        6BCD.........................
              V
              V
220       6CSWP
              .
              .
228           .      SUB8AB
```

```
              .          V
              .          V
  235         .      8ABCHL
              .          .
              .          .
    2         .          .       SUB8B
              .          .          .
              .          .          .
  249         .       8ABB............
              .          V
              .          V
  252         .      8BCHL
              .          .
              .          .
  259         .          .       SUB8C
              .          .          .
              .          .          .
  266         .       8BC ............
              .          V
              .          V
  269         .      8CSWP

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1                                                          ****
                          FLOOD HYDROGRAPH PACKAGE HEC-1 (IBM XT 512K VERSION) -FEB 1,1985
              U.S. ARMY CORPS OF ENGINEERS, THE HYDROLOGIC ENGINEERING CENTER, 609 SECOND STREET, DAVIS, CA. 95616
                                                           ****



                          READING SUBWATERSHEDS
                          DETAILED STORAGE AND STREAM NETWORK
                          EXISTING CONDITIONS - 50 YR, 24 HR STORM

  5 IO         OUTPUT CONTROL VARIABLES
                     IPRNT          5  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE

    IT         HYDROGRAPH TIME DATA
                      NMIN         15  MINUTES IN COMPUTATION INTERVAL
                     IDATE     28FEB91  STARTING DATE
                     ITIME        0100  STARTING TIME
                        NQ         97  NUMBER OF HYDROGRAPH ORDINATES
                    NDDATE      1MAR91  ENDING DATE
                    NDTIME        0100  ENDING TIME

                COMPUTATION INTERVAL     .25 HOURS
                     TOTAL TIME BASE   24.00 HOURS

        ENGLISH UNITS


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


          **************
          *            *
```

```
  6 KK     *     SUB7A  *
           *            *
           **************

  7 KO         OUTPUT CONTROL VARIABLES
                     IPRNT           4  PRINT CONTROL
                     IPLOT           0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE
                              SCS RUNOFF CALCULATION

             SUBBASIN RUNOFF DATA

  9 BA         SUBBASIN CHARACTERISTICS
                     TAREA         .13  SUBBASIN AREA

               PRECIPITATION DATA

 10 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
               ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
               5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                 .60    1.30    2.40    3.00    3.40    4.20    5.20    6.00     .00     .00     .00     .00

                                                   STORM AREA =     .13

 11 LS         SCS LOSS RATE
                     STRTL         .60  INITIAL ABSTRACTION
                    CRVNBR       77.00  CURVE NUMBER
                     RTIMP         .00  PERCENT IMPERVIOUS AREA

 12 UD         SCS DIMENSIONLESS UNITGRAPH
                      TLAG         .30  LAG

                                                          ***

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

                                                     UNIT HYDROGRAPH
                                                 8 END-OF-PERIOD ORDINATES
             97.      144.      63.      25.       9.       4.       1.       0.


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


           **************
           *            *
 13 KK     *     7ASWP  *
           *            *
           **************

 14 KO         OUTPUT CONTROL VARIABLES
                     IPRNT           1  PRINT CONTROL
                     IPLOT           0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE
                              STORAGE ROUTING THROUGH 7A

             HYDROGRAPH ROUTING DATA

 16 RS         STORAGE ROUTING
```

```
                NSTPS          1  NUMBER OF SUBREACHES
                 ITYP       ELEV  TYPE OF INITIAL CONDITION
                RSVRIC     110.00  INITIAL CONDITION
                     X        .00 WORKING R AND D COEFFICIENT

   SA           AREA         .8      1.9      4.3     11.3     18.2

 18 SE      ELEVATION     110.00   111.00   112.00   113.00   114.00

 19 SL      LOW-LEVEL OUTLET
                ELEVL     110.00  ELEVATION AT CENTER OF OUTLET
                CAREA       3.53  CROSS-SECTIONAL AREA
                 COQL        .60  COEFFICIENT
                 EXPL        .50  EXPONENT OF HEAD

 20 SS      SPILLWAY
                 CREL     113.90  SPILLWAY CREST ELEVATION
                SPWID        .00  SPILLWAY WIDTH
                 COQW        .00  WEIR COEFFICIENT
                 EXPW       1.50  EXPONENT OF HEAD

                                                  ***

                                   COMPUTED STORAGE-ELEVATION DATA

      STORAGE       .00     1.33     4.39    11.94    26.58
    ELEVATION    110.00   111.00   112.00   113.00   114.00

                                   COMPUTED OUTFLOW-ELEVATION DATA

     OUTFLOW       .00    17.07    18.18    19.46    20.92    22.62    24.63    27.02    29.93    33.55
    ELEVATION    110.00   111.01   111.15   111.31   111.52   111.77   112.10   112.53   113.11   113.90

                                   COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

      STORAGE       .00     1.33     1.63     2.03     2.61     3.48     4.39     4.86     7.53    11.94
     OUTFLOW       .00    16.99    18.18    19.46    20.92    22.62    24.02    24.63    27.02    29.42
    ELEVATION    110.00   111.00   111.15   111.31   111.52   111.77   112.00   112.10   112.53   113.00

      STORAGE     13.17    24.79    26.58
     OUTFLOW     29.93    33.55    33.97
    ELEVATION    113.11   113.90   114.00
```

****

HYDROGRAPH AT STATION 7ASWP

****

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	110.0	*	28	FEB	0915	34	0.	.0	110.0	*	28	FEB	1730	67	28.	8.7	112.7
28	FEB	0115	2	0.	.0	110.0	*	28	FEB	0930	35	0.	.0	110.0	*	28	FEB	1745	68	28.	8.4	112.6
28	FEB	0130	3	0.	.0	110.0	*	28	FEB	0945	36	1.	.0	110.0	*	28	FEB	1800	69	27.	8.1	112.6
	FEB	0145	4	0.	.0	110.0	*	28	FEB	1000	37	1.	.1	110.1	*	28	FEB	1815	70	27.	7.8	112.6
	FEB	0200	5	0.	.0	110.0	*	28	FEB	1015	38	1.	.1	110.1	*	28	FEB	1830	71	27.	7.5	112.5
28	FEB	0215	6	0.	.0	110.0	*	28	FEB	1030	39	2.	.1	110.1	*	28	FEB	1845	72	27.	7.1	112.5
28	FEB	0230	7	0.	.0	110.0	*	28	FEB	1045	40	2.	.2	110.1	*	28	FEB	1900	73	26.	6.8	112.4
28	FEB	0245	8	0.	.0	110.0	*	28	FEB	1100	41	3.	.2	110.2	*	28	FEB	1915	74	26.	6.5	112.4

28 FEB 0300	9	0.	.0	110.0	*	28 FEB 1115	42	3.	.3	110.2	*	28 FEB 1930	75	26.	6.1	112.3
28 FEB 0315	10	0.	.0	110.0	*	28 FEB 1130	43	4.	.3	110.2	*	28 FEB 1945	76	25.	5.7	112.2
28 FEB 0330	11	0.	.0	110.0	*	28 FEB 1145	44	5.	.4	110.3	*	28 FEB 2000	77	25.	5.3	112.2
28 FEB 0345	12	0.	.0	110.0	*	28 FEB 1200	45	6.	.5	110.4	*	28 FEB 2015	78	25.	5.0	11[illegible]
28 FEB 0400	13	0.	.0	110.0	*	28 FEB 1215	46	8.	.6	110.4	*	28 FEB 2030	79	24.	4.6	11[illegible]
28 FEB 0415	14	0.	.0	110.0	*	28 FEB 1230	47	10.	.7	110.6	*	28 FEB 2045	80	24.	4.2	112.0
28 FEB 0430	15	0.	.0	110.0	*	28 FEB 1245	48	13.	1.0	110.7	*	28 FEB 2100	81	23.	3.8	111.9
28 FEB 0445	16	0.	.0	110.0	*	28 FEB 1300	49	18.	1.5	111.1	*	28 FEB 2115	82	23.	3.5	111.8
28 FEB 0500	17	0.	.0	110.0	*	28 FEB 1315	50	22.	3.2	111.7	*	28 FEB 2130	83	22.	3.1	111.7
28 FEB 0515	18	0.	.0	110.0	*	28 FEB 1330	51	26.	6.1	112.3	*	28 FEB 2145	84	21.	2.8	111.6
28 FEB 0530	19	0.	.0	110.0	*	28 FEB 1345	52	28.	8.6	112.6	*	28 FEB 2200	85	21.	2.5	111.5
28 FEB 0545	20	0.	.0	110.0	*	28 FEB 1400	53	28.	10.0	112.8	*	28 FEB 2215	86	20.	2.1	111.4
28 FEB 0600	21	0.	.0	110.0	*	28 FEB 1415	54	29.	10.6	112.9	*	28 FEB 2230	87	19.	1.8	111.2
28 FEB 0615	22	0.	.0	110.0	*	28 FEB 1430	55	29.	11.0	112.9	*	28 FEB 2245	88	18.	1.6	111.1
28 FEB 0630	23	0.	.0	110.0	*	28 FEB 1445	56	29.	11.1	112.9	*	28 FEB 2300	89	17.	1.3	111.0
28 FEB 0645	24	0.	.0	110.0	*	28 FEB 1500	57	29.	11.0	112.9	*	28 FEB 2315	90	14.	1.1	110.8
28 FEB 0700	25	0.	.0	110.0	*	28 FEB 1515	58	29.	10.9	112.9	*	28 FEB 2330	91	12.	.9	110.7
28 FEB 0715	26	0.	.0	110.0	*	28 FEB 1530	59	29.	10.8	112.9	*	28 FEB 2345	92	10.	.8	110.6
28 FEB 0730	27	0.	.0	110.0	*	28 FEB 1545	60	29.	10.6	112.9	*	1 MAR 0000	93	9.	.7	110.5
28 FEB 0745	28	0.	.0	110.0	*	28 FEB 1600	61	29.	10.4	112.8	*	1 MAR 0015	94	8.	.6	110.4
28 FEB 0800	29	0.	.0	110.0	*	28 FEB 1615	62	28.	10.1	112.8	*	1 MAR 0030	95	7.	.5	110.4
28 FEB 0815	30	0.	.0	110.0	*	28 FEB 1630	63	28.	9.9	112.8	*	1 MAR 0045	96	6.	.5	110.4
28 FEB 0830	31	0.	.0	110.0	*	28 FEB 1645	64	28.	9.6	112.8	*	1 MAR 0100	97	6.	.4	110.3
28 FEB 0845	32	0.	.0	110.0	*	28 FEB 1700	65	28.	9.3	112.7	*					
28 FEB 0900	33	0.	.0	110.0	*	28 FEB 1715	66	28.	9.0	112.7	*					
					*						*					

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 29.	13.75		28.	12.	12.	12.
		(INCHES)	1.947	3.396	3.396	3.396
		(AC-FT)	14.	24.	24.	24.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
11.	13.75	9.	3.	3.	3.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)				
112.91	13.75	112.70	111.05	111.05	111.05

CUMULATIVE AREA = .13 SQ MI

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           *            *
21 KK      *    SUB7B   *
           *            *
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 22 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           4  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

            SUBBASIN RUNOFF DATA

 24 BA          SUBBASIN CHARACTERISTICS
                      TAREA         .12  SUBBASIN AREA

                PRECIPITATION DATA

 25 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .60    1.30    2.40    3.00    3.40    4.20    5.20    6.00     .00     .00     .00     .00

                                                   STORM AREA =     .12

 26 LS          SCS LOSS RATE
                      STRTL         .60  INITIAL ABSTRACTION
                     CRVNBR       77.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

 27 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .52  LAG

                                                          ***

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

                                                     UNIT HYDROGRAPH
                                                 12 END-OF-PERIOD ORDINATES
             26.       79.       83.       54.       27.       15.        8.        4.        2.        1.
              1.        0.


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


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          *            *
 31 KK    *     7BSWP  *
          *            *
          **************

 32 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 7B

            HYDROGRAPH ROUTING DATA

  , RS          STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC      101.00  INITIAL CONDITION
```

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                    X        .00 WORKING R AND D COEFFICIENT

35 SA            AREA         .3       .6      2.2      3.6      5.8

36 SE       ELEVATION     103.00   104.00   106.00   108.00   109.00

37 SL       LOW-LEVEL OUTLET
                 ELEVL     101.00  ELEVATION AT CENTER OF OUTLET
                 CAREA       1.77  CROSS-SECTIONAL AREA
                  COQL        .60  COEFFICIENT
                  EXPL        .50  EXPONENT OF HEAD

38 SS       SPILLWAY
                  CREL     105.90  SPILLWAY CREST ELEVATION
                 SPWID        .00  SPILLWAY WIDTH
                  COQW        .00  WEIR COEFFICIENT
                  EXPW       1.50  EXPONENT OF HEAD

                                          ***

                                COMPUTED STORAGE-ELEVATION DATA

      STORAGE       .00      .44     3.10     8.78    13.42
    ELEVATION    103.00   104.00   106.00   108.00   109.00

                                COMPUTED OUTFLOW-ELEVATION DATA

      OUTFLOW       .00    12.55    13.10    13.69    14.35    15.07    15.86    16.75    17.74    18.85
    ELEVATION    103.00   103.17   103.36   103.58   103.84   104.13   104.47   104.87   105.34   105.90


                             COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

      STORAGE       .00      .05      .12      .21      .34      .44      .53      .81     1.23     1.88
      OUTFLOW     12.05    12.55    13.10    13.69    14.35    14.75    15.07    15.86    16.75    17.74
    ELEVATION    103.00   103.17   103.36   103.58   103.84   104.00   104.13   104.47   104.87   105.34

      STORAGE      2.89     3.10     8.78    13.42
      OUTFLOW     18.85    19.05    22.53    24.09
    ELEVATION    105.90   106.00   108.00   109.00
*****************************************************************************************************************

                                HYDROGRAPH AT STATION    7BSWP

*****************************************************************************************************************
                                      *                                      *
 DA MON HRMN ORD  OUTFLOW  STORAGE   STAGE * DA MON HRMN ORD  OUTFLOW  STORAGE   STAGE * DA MON HRMN ORD  OUTFLOW  STORAGE   STAGE
                                      *                                      *
 28 FEB 0100  1      0.       .1   103.0 * 28 FEB 0915  34      11.      -.1   103.0 * 28 FEB 1730  67      26.     18.1   110.0
 28 FEB 0115  2     12.       .0   103.0 * 28 FEB 0930  35      11.      -.1   103.0 * 28 FEB 1745  68      26.     18.3   110.1
 28 FEB 0130  3     11.      -.1   103.0 * 28 FEB 0945  36      11.      -.1   103.0 * 28 FEB 1800  69      26.     18.6   110.1
 28 FEB 0145  4     11.      -.1   103.0 * 28 FEB 1000  37      11.      -.1   103.0 * 28 FEB 1815  70      26.     18.8   110.2
 28 FEB 0200  5     11.      -.1   103.0 * 28 FEB 1015  38      11.      -.1   103.0 * 28 FEB 1830  71      26.     19.1   110.2
 28 FEB 0215  6     11.      -.1   103.0 * 28 FEB 1030  39      11.      -.1   103.0 * 28 FEB 1845  72      26.     19.3   11(
 28 FEB 0230  7     11.      -.1   103.0 * 28 FEB 1045  40      11.      -.1   103.0 * 28 FEB 1900  73      26.     19.5   110.
 28 FEB 0245  8     11.      -.1   103.0 * 28 FEB 1100  41      11.      -.1   103.0 * 28 FEB 1915  74      26.     19.7   110.4
 28 FEB 0300  9     11.      -.1   103.0 * 28 FEB 1115  42      11.      -.1   103.0 * 28 FEB 1930  75      26.     19.9   110.4
 28 FEB 0315 10     11.      -.1   103.0 * 28 FEB 1130  43      11.      -.1   103.0 * 28 FEB 1945  76      26.     20.0   110.4
 28 FEB 0330 11     11.      -.1   103.0 * 28 FEB 1145  44      11.      -.1   103.0 * 28 FEB 2000  77      26.     20.1   110.4
```

28 FEB 0345	12	11.	-.1	103.0	*	28 FEB 1200	45	11.	-.1	103.0	*	28 FEB 2015	78	26.	20.2	110.5
28 FEB 0400	13	11.	-.1	103.0	*	28 FEB 1215	46	12.	.0	103.0	*	28 FEB 2030	79	26.	20.3	110.5
28 FEB 0415	14	11.	-.1	103.0	*	28 FEB 1230	47	13.	.1	103.4	*	28 FEB 2045	80	26.	20.3	110.5
28 FEB 0430	15	11.	-.1	103.0	*	28 FEB 1245	48	15.	.4	103.9	*	28 FEB 2100	81	26.	20.4	110.5
FEB 0445	16	11.	-.1	103.0	*	28 FEB 1300	49	16.	.9	104.5	*	28 FEB 2115	82	26.	20.4	110.5
FEB 0500	17	11.	-.1	103.0	*	28 FEB 1315	50	18.	1.9	105.4	*	28 FEB 2130	83	26.	20.4	110.5
28 FEB 0515	18	11.	-.1	103.0	*	28 FEB 1330	51	20.	3.9	106.3	*	28 FEB 2145	84	26.	20.4	110.5
28 FEB 0530	19	11.	-.1	103.0	*	28 FEB 1345	52	21.	6.5	107.2	*	28 FEB 2200	85	26.	20.4	110.5
28 FEB 0545	20	11.	-.1	103.0	*	28 FEB 1400	53	23.	8.8	108.0	*	28 FEB 2215	86	26.	20.4	110.5
28 FEB 0600	21	11.	-.1	103.0	*	28 FEB 1415	54	23.	10.6	108.4	*	28 FEB 2230	87	26.	20.3	110.5
28 FEB 0615	22	11.	-.1	103.0	*	28 FEB 1430	55	24.	11.9	108.7	*	28 FEB 2245	88	26.	20.2	110.5
28 FEB 0630	23	11.	-.1	103.0	*	28 FEB 1445	56	24.	13.0	108.9	*	28 FEB 2300	89	26.	20.1	110.5
28 FEB 0645	24	11.	-.1	103.0	*	28 FEB 1500	57	24.	13.8	109.1	*	28 FEB 2315	90	26.	20.0	110.4
28 FEB 0700	25	11.	-.1	103.0	*	28 FEB 1515	58	24.	14.4	109.2	*	28 FEB 2330	91	26.	19.8	110.4
28 FEB 0715	26	11.	-.1	103.0	*	28 FEB 1530	59	25.	15.0	109.3	*	28 FEB 2345	92	26.	19.6	110.3
28 FEB 0730	27	11.	-.1	103.0	*	28 FEB 1545	60	25.	15.5	109.5	*	1 MAR 0000	93	26.	19.3	110.3
28 FEB 0745	28	11.	-.1	103.0	*	28 FEB 1600	61	25.	16.0	109.5	*	1 MAR 0015	94	26.	19.0	110.2
28 FEB 0800	29	11.	-.1	103.0	*	28 FEB 1615	62	25.	16.4	109.6	*	1 MAR 0030	95	26.	18.7	110.1
28 FEB 0815	30	11.	-.1	103.0	*	28 FEB 1630	63	25.	16.8	109.7	*	1 MAR 0045	96	26.	18.4	110.1
28 FEB 0830	31	11.	-.1	103.0	*	28 FEB 1645	64	25.	17.1	109.8	*	1 MAR 0100	97	26.	18.0	110.0
28 FEB 0845	32	11.	-.1	103.0	*	28 FEB 1700	65	25.	17.4	109.9	*					
28 FEB 0900	33	11.	-.1	103.0	*	28 FEB 1715	66	26.	17.8	109.9	*					
					*						*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 26.	20.50		26.	18.	18.	18.
		(INCHES)	.982	2.701	2.701	2.701
		(AC-FT)	13.	36.	36.	36.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
20.	20.50	20.	8.	8.	8.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)				
110.52	20.50	110.41	106.38	106.38	106.38

CUMULATIVE AREA = .25 SQ MI

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              **************
              *            *
  39 KK       *    SUB7C   *
              *            *
              **************

  40 KO          OUTPUT CONTROL VARIABLES
                      IPRNT          4  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
```

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                    QSCAL          0.  HYDROGRAPH PLOT SCALE
                             SCS RUNOFF CALCULATION

            SUBBASIN RUNOFF DATA

 42 BA        SUBBASIN CHARACTERISTICS
                    TAREA         .05  SUBBASIN AREA

              PRECIPITATION DATA

 43 PH                             DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
              ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
              5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                .60    1.30    2.40    3.00    3.40    4.20    5.20    6.00     .00     .00     .00     .00

                                                  STORM AREA =     .05

 44 LS        SCS LOSS RATE
                    STRTL         .60  INITIAL ABSTRACTION
                   CRVNBR       77.00  CURVE NUMBER
                    RTIMP         .00  PERCENT IMPERVIOUS AREA

 45 UD        SCS DIMENSIONLESS UNITGRAPH
                     TLAG         .25  LAG

                                                        ***

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

                                                     UNIT HYDROGRAPH
                                                 7 END-OF-PERIOD ORDINATES
            52.       56.       19.        7.        2.        1.        0.


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


          **************
          *            *
 49 KK    *     7CHNL  *
          *            *
          **************

 50 KO        OUTPUT CONTROL VARIABLES
                   IPRNT           1  PRINT CONTROL
                   IPLOT           0  PLOT CONTROL
                   QSCAL          0.  HYDROGRAPH PLOT SCALE
                             STORAGE ROUTING THROUGH 7C

            HYDROGRAPH ROUTING DATA

 52 RS        STORAGE ROUTING
                   NSTPS           1  NUMBER OF SUBREACHES
                    ITYP        STOR  TYPE OF INITIAL CONDITION
                  RSVRIC         .00  INITIAL CONDITION
                       X         .00 WORKING R AND D COEFFICIENT

 53 RC        NORMAL DEPTH CHANNEL ROUTING
                     ANL        .080  LEFT OVERBANK N-VALUE
```

ANCH	.030	MAIN CHANNEL N-VALUE
ANR	.080	RIGHT OVERBANK N-VALUE
RLNTH	400.	REACH LENGTH
SEL	.0285	ENERGY SLOPE
ELMAX	98.0	MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

CROSS-SECTION DATA

		--- LEFT OVERBANK ---			+ ------ MAIN CHANNEL -------			+ --- RIGHT OVERBANK ---	
55 RY	ELEVATION	99.00	98.50	98.00	96.00	96.00	98.00	98.50	99.00
54 RX	DISTANCE	.00	10.00	20.00	30.00	40.00	50.00	60.00	70.00

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COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	.01	.02	.03	.05	.06	.08	.09	.11	.13
OUTFLOW	.00	2.00	6.48	13.01	21.49	31.89	44.21	58.51	74.81	93.17
ELEVATION	96.00	96.11	96.21	96.32	96.42	96.53	96.63	96.74	96.84	96.95
STORAGE	.15	.17	.19	.21	24	.26	.28	.31	.34	.37
OUTFLOW	113.65	136.29	161.16	188.33	217.84	249.76	284.15	321.07	360.59	402.75
ELEVATION	97.05	97.16	97.26	97.37	97.47	97.58	97.68	97.79	97.89	98.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 0. TO 403.
THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

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HYDROGRAPH AT STATION 7CHNL

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	96.0	*	28	FEB	0915	34	11.	.0	96.3	*	28	FEB	1730	67	31.	.1	96.5
28	FEB	0115	2	9.	.0	96.3	*	28	FEB	0930	35	11.	.0	96.3	*	28	FEB	1745	68	31.	.1	96.5
28	FEB	0130	3	13.	.0	96.3	*	28	FEB	0945	36	12.	.0	96.3	*	28	FEB	1800	69	31.	.1	96.5
28	FEB	0145	4	10.	.0	96.3	*	28	FEB	1000	37	12.	.0	96.3	*	28	FEB	1815	70	30.	.1	96.5
28	FEB	0200	5	12.	.0	96.3	*	28	FEB	1015	38	12.	.0	96.3	*	28	FEB	1830	71	30.	.1	96.5
28	FEB	0215	6	10.	.0	96.3	*	28	FEB	1030	39	12.	.0	96.3	*	28	FEB	1845	72	30.	.1	96.5
28	FEB	0230	7	11.	.0	96.3	*	28	FEB	1045	40	13.	.0	96.3	*	28	FEB	1900	73	30.	.1	96.5
28	FEB	0245	8	11.	.0	96.3	*	28	FEB	1100	41	13.	.0	96.3	*	28	FEB	1915	74	30.	.1	96.5
28	FEB	0300	9	11.	.0	96.3	*	28	FEB	1115	42	13.	.0	96.3	*	28	FEB	1930	75	29.	.1	96.5
28	FEB	0315	10	11.	.0	96.3	*	28	FEB	1130	43	14.	.0	96.3	*	28	FEB	1945	76	29.	.1	96.5
28	FEB	0330	11	11.	.0	96.3	*	28	FEB	1145	44	15.	.0	96.3	*	28	FEB	2000	77	29.	.1	96.5
28	FEB	0345	12	11.	.0	96.3	*	28	FEB	1200	45	16.	.0	96.3	*	28	FEB	2015	78	29.	.1	96.5
28	FEB	0400	13	11.	.0	96.3	*	28	FEB	1215	46	18.	.0	96.4	*	28	FEB	2030	79	29.	.1	96.5
28	FEB	0415	14	11.	.0	96.3	*	28	FEB	1230	47	21.	.0	96.4	*	28	FEB	2045	80	29.	.1	96.5
28	FEB	0430	15	11.	.0	96.3	*	28	FEB	1245	48	26.	.1	96.5	*	28	FEB	2100	81	29.	.1	96.5
28	FEB	0445	16	11.	.0	96.3	*	28	FEB	1300	49	40.	.1	96.6	*	28	FEB	2115	82	29.	.1	96.5
28	FEB	0500	17	11.	.0	96.3	*	28	FEB	1315	50	83.	.1	96.9	*	28	FEB	2130	83	29.	.1	96.5
28	FEB	0515	18	11.	.0	96.3	*	28	FEB	1330	51	93.	.1	96.9	*	28	FEB	2145	84	28.	.1	96.5
28	FEB	0530	19	11.	.0	96.3	*	28	FEB	1345	52	63.	.1	96.8	*	28	FEB	2200	85	28.	.1	96.5
	EB	0545	20	11.	.0	96.3	*	28	FEB	1400	53	49.	.1	96.7	*	28	FEB	2215	86	28.	.1	96.5
28	FEB	0600	21	11.	.0	96.3	*	28	FEB	1415	54	41.	.1	96.6	*	28	FEB	2230	87	28.	.1	96.5
28	FEB	0615	22	11.	.0	96.3	*	28	FEB	1430	55	37.	.1	96.6	*	28	FEB	2245	88	28.	.1	96.5
28	FEB	0630	23	11.	.0	96.3	*	28	FEB	1445	56	35.	.1	96.6	*	28	FEB	2300	89	28.	.1	96.5
28	FEB	0645	24	11.	.0	96.3	*	28	FEB	1500	57	34.	.1	96.5	*	28	FEB	2315	90	28.	.1	96.5

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28 FEB 0700  25     11.      .0    96.3 * 28 FEB 1515  58     33.      .1    96.5 * 28 FEB 2330  91     28.      .1    96.5
28 FEB 0715  26     11.      .0    96.3 * 28 FEB 1530  59     33.      .1    96.5 * 28 FEB 2345  92     28.      .1    96.5
28 FEB 0730  27     11.      .0    96.3 * 28 FEB 1545  60     32.      .1    96.5 *  1 MAR 0000  93     28.      .1    96
28 FEB 0745  28     11.      .0    96.3 * 28 FEB 1600  61     32.      .1    96.5 *  1 MAR 0015  94     28.      .1    9
28 FEB 0800  29     11.      .0    96.3 * 28 FEB 1615  62     32.      .1    96.5 *  1 MAR 0030  95     28.      .1    96
28 FEB 0815  30     11.      .0    96.3 * 28 FEB 1630  63     31.      .1    96.5 *  1 MAR 0045  96     27.      .1    96.5
28 FEB 0830  31     11.      .0    96.3 * 28 FEB 1645  64     31.      .1    96.5 *  1 MAR 0100  97     27.      .1    96.5
28 FEB 0845  32     11.      .0    96.3 * 28 FEB 1700  65     31.      .1    96.5 *
28 FEB 0900  33     11.      .0    96.3 * 28 FEB 1715  66     31.      .1    96.5 *
                                        *                                        *
*****************************************************************************************************************************

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     24.00-HR
+   (CFS)      (HR)
                          (CFS)
+      93.     12.50                 39.         23.         23.         23.
                         (INCHES)  1.209       2.831       2.831       2.831
                          (AC-FT)    19.         46.         46.         46.

 PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     24.00-HR
+  (AC-FT)     (HR)
       0.      12.50                  0.          0.          0.          0.

 PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     24.00-HR
+   (FEET)     (HR)
     96.95     12.50                96.58       96.42       96.42       96.42

                         CUMULATIVE AREA =     .30 SQ MI


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            **************
            *            *
  56 KK     *    SUB7D   *
            *            *
            **************

  57 KO          OUTPUT CONTROL VARIABLES
                       IPRNT          4  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

               SUBBASIN RUNOFF DATA

  59 BA          SUBBASIN CHARACTERISTICS
                       TAREA        .10  SUBBASIN AREA

                 PRECIPITATION DATA

  60 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
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                .60    1.30    2.40    3.00    3.40    4.20    5.20    6.00     .00     .00     .00     .00

                                                STORM AREA =     .10

    LS          SCS LOSS RATE
                      STRTL         .60  INITIAL ABSTRACTION
                     CRVNBR       77.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

 62 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .38  LAG

                                                                ***

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

                                                     UNIT HYDROGRAPH
                                                 10 END-OF-PERIOD ORDINATES
             46.      100.      70.      29.      13.       6.       3.       1.       1.       0.


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


          **************
          *            *
 63 KK    *     7DSWP  *
          *            *
          **************

 64 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 7D

             HYDROGRAPH ROUTING DATA

 66 RS          STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC       89.00  INITIAL CONDITION
                          X         .00 WORKING R AND D COEFFICIENT

 67 SA              AREA          .6       1.4       2.5       3.9

 68 SE          ELEVATION       88.00     90.00     92.00     94.00

 69 SL          LOW-LEVEL OUTLET
                      ELEVL       90.60  ELEVATION AT CENTER OF OUTLET
                      CAREA        4.91  CROSS-SECTIONAL AREA
                       COQL         .60  COEFFICIENT
                       EXPL         .50  EXPONENT OF HEAD

    SS          SPILLWAY
                       CREL       92.00  SPILLWAY CREST ELEVATION
                      SPWID       10.00  SPILLWAY WIDTH
                       COQW        3.00  WEIR COEFFICIENT
                       EXPW        1.50  EXPONENT OF HEAD
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COMPUTED STORAGE-ELEVATION DATA

STORAGE	.00	1.93	5.79	12.09
ELEVATION	88.00	90.00	92.00	94.00

COMPUTED OUTFLOW-ELEVATION DATA

OUTFLOW	.00	.00	24.70	25.11	25.55	25.99	26.46	26.94	27.44	27.96
ELEVATION	88.00	90.60	91.69	91.73	91.77	91.81	91.85	91.90	91.95	92.00
OUTFLOW	30.29	32.92	36.97	42.70	50.41	60.37	72.86	88.17	106.59	128.42
ELEVATION	92.12	92.21	92.34	92.49	92.67	92.88	93.12	93.38	93.68	94.00

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	1.93	2.86	5.05	5.14	5.23	5.33	5.43	5.54	5.66
OUTFLOW	.00	.00	.00	24.70	25.11	25.55	25.99	26.46	26.94	27.44
ELEVATION	88.00	90.00	90.60	91.69	91.73	91.77	91.81	91.85	91.90	91.95
STORAGE	5.79	6.08	6.33	6.66	7.08	7.59	8.22	8.96	9.84	10.88
OUTFLOW	27.96	30.29	32.92	36.97	42.70	50.41	60.37	72.86	88.17	106.59
ELEVATION	92.00	92.12	92.21	92.34	92.49	92.67	92.88	93.12	93.38	93.68
STORAGE	12.09									
OUTFLOW	128.42									
ELEVATION	94.00									

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HYDROGRAPH AT STATION 7DSWP

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.8	88.8	28	FEB	0915	34	0.	.8	88.8	28	FEB	1730	67	17.	4.4	91.3
28	FEB	0115	2	0.	.8	88.8	28	FEB	0930	35	0.	.8	88.8	28	FEB	1745	68	15.	4.2	91.3
28	FEB	0130	3	0.	.8	88.8	28	FEB	0945	36	0.	.8	88.8	28	FEB	1800	69	14.	4.1	91.2
28	FEB	0145	4	0.	.8	88.8	28	FEB	1000	37	0.	.8	88.9	28	FEB	1815	70	13.	4.0	91.2
28	FEB	0200	5	0.	.8	88.8	28	FEB	1015	38	0.	.9	88.9	28	FEB	1830	71	12.	4.0	91.1
28	FEB	0215	6	0.	.8	88.8	28	FEB	1030	39	0.	.9	88.9	28	FEB	1845	72	12.	3.9	91.1
28	FEB	0230	7	0.	.8	88.8	28	FEB	1045	40	0.	1.0	89.0	28	FEB	1900	73	11.	3.8	91.1
28	FEB	0245	8	0.	.8	88.8	28	FEB	1100	41	0.	1.0	89.1	28	FEB	1915	74	10.	3.8	91.1
28	FEB	0300	9	0.	.8	88.8	28	FEB	1115	42	0.	1.1	89.1	28	FEB	1930	75	10.	3.7	91.0
28	FEB	0315	10	0.	.8	88.8	28	FEB	1130	43	0.	1.2	89.3	28	FEB	1945	76	9.	3.6	91.0
28	FEB	0330	11	0.	.8	88.8	28	FEB	1145	44	0.	1.3	89.4	28	FEB	2000	77	8.	3.6	91.0
28	FEB	0345	12	0.	.8	88.8	28	FEB	1200	45	0.	1.5	89.5	28	FEB	2015	78	7.	3.5	90.9
28	FEB	0400	13	0.	.8	88.8	28	FEB	1215	46	0.	1.7	89.7	28	FEB	2030	79	7.	3.5	90.9
28	FEB	0415	14	0.	.8	88.8	28	FEB	1230	47	0.	1.9	90.0	28	FEB	2045	80	6.	3.4	90.9
28	FEB	0430	15	0.	.8	88.8	28	FEB	1245	48	0.	2.2	90.2	28	FEB	2100	81	6.	3.4	90.9
28	FEB	0445	16	0.	.8	88.8	28	FEB	1300	49	0.	2.8	90.5	28	FEB	2115	82	6.	3.4	9[illegible]
28	FEB	0500	17	0.	.8	88.8	28	FEB	1315	50	12.	3.9	91.1	28	FEB	2130	83	5.	3.3	90.
28	FEB	0515	18	0.	.8	88.8	28	FEB	1330	51	28.	5.7	92.0	28	FEB	2145	84	5.	3.3	90.8
28	FEB	0530	19	0.	.8	88.8	28	FEB	1345	52	48.	7.4	92.6	28	FEB	2200	85	5.	3.3	90.8
28	FEB	0545	20	0.	.8	88.8	28	FEB	1400	53	59.	8.1	92.8	28	FEB	2215	86	5.	3.3	90.8
28	FEB	0600	21	0.	.8	88.8	28	FEB	1415	54	58.	8.1	92.8	28	FEB	2230	87	5.	3.3	90.8

28 FEB 0615	22	0.	.8	88.8	*	28 FEB 1430	55	53.	7.8	92.7	*	28 FEB 2245	88	4.	3.2	90.8
28 FEB 0630	23	0.	.8	88.8	*	28 FEB 1445	56	47.	7.4	92.6	*	28 FEB 2300	89	4.	3.2	90.8
28 FEB 0645	24	0.	.8	88.8	*	28 FEB 1500	57	41.	7.0	92.4	*	28 FEB 2315	90	4.	3.2	90.8
28 FEB 0700	25	0.	.8	88.8	*	28 FEB 1515	58	36.	6.6	92.3	*	28 FEB 2330	91	4.	3.2	90.8
28 FEB 0715	26	0.	.8	88.8	*	28 FEB 1530	59	32.	6.3	92.2	*	28 FEB 2345	92	4.	3.2	90.8
FEB 0730	27	0.	.8	88.8	*	28 FEB 1545	60	29.	6.0	92.1	*	1 MAR 0000	93	4.	3.2	90.8
FEB 0745	28	0.	.8	88.8	*	28 FEB 1600	61	27.	5.7	92.0	*	1 MAR 0015	94	4.	3.2	90.8
28 FEB 0800	29	0.	.8	88.8	*	28 FEB 1615	62	26.	5.4	91.8	*	1 MAR 0030	95	4.	3.2	90.8
28 FEB 0815	30	0.	.8	88.8	*	28 FEB 1630	63	25.	5.1	91.7	*	1 MAR 0045	96	4.	3.2	90.8
28 FEB 0830	31	0.	.8	88.8	*	28 FEB 1645	64	23.	4.9	91.6	*	1 MAR 0100	97	3.	3.2	90.8
28 FEB 0845	32	0.	.8	88.8	*	28 FEB 1700	65	21.	4.7	91.5	*					
28 FEB 0900	33	0.	.8	88.8	*	28 FEB 1715	66	19.	4.5	91.4	*					
					*						*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 59.	13.00		28.	8.	8.	8.
		(INCHES)	2.528	3.018	3.018	3.018
		(AC-FT)	14.	17.	17.	17.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
8.	13.00	6.	3.	3.	3.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)				
92.85	13.00	91.84	90.14	90.14	90.14

CUMULATIVE AREA = .10 SQ MI

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              **************
              *            *
   71 KK      *    SUB7E   *
              *            *
              **************

   72 KO          OUTPUT CONTROL VARIABLES
                        IPRNT          4  PRINT CONTROL
                        IPLOT          0  PLOT CONTROL
                        QSCAL         0.  HYDROGRAPH PLOT SCALE
                                 SCS RUNOFF CALCULATION

                SUBBASIN RUNOFF DATA

   74 BA          SUBBASIN CHARACTERISTICS
                        TAREA        .05  SUBBASIN AREA

                  PRECIPITATION DATA
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 75 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
              ..... HYDRO-35 ......  ............... TP-40 ...............  ........... TP-49 ...........
              5-MIN  15-MIN  60-MIN   2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                .60    1.30    2.40   3.00    3.40    4.20    5.20    6.00     .00     .00     .00     .00

                                                STORM AREA =     .05

 76 LS        SCS LOSS RATE
                    STRTL        .60  INITIAL ABSTRACTION
                   CRVNBR      77.00  CURVE NUMBER
                    RTIMP       .00  PERCENT IMPERVIOUS AREA

 77 UD        SCS DIMENSIONLESS UNITGRAPH
                     TLAG        .14  LAG

                                                    ***

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

                                                     UNIT HYDROGRAPH
                                                 5 END-OF-PERIOD ORDINATES
             83.      28.       6.       1.       0.


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


          **************
          *            *
 81 KK    *     7ECHN  *
          *            *
          **************

 82 KO        OUTPUT CONTROL VARIABLES
                   IPRNT           1  PRINT CONTROL
                   IPLOT           0  PLOT CONTROL
                   QSCAL          0.  HYDROGRAPH PLOT SCALE
                            STORAGE ROUTING THROUGH 7CDE

            HYDROGRAPH ROUTING DATA

 84 RS        STORAGE ROUTING
                   NSTPS           1  NUMBER OF SUBREACHES
                    ITYP        STOR  TYPE OF INITIAL CONDITION
                  RSVRIC         .00  INITIAL CONDITION
                       X         .00 WORKING R AND D COEFFICIENT

 85 RC        NORMAL DEPTH CHANNEL ROUTING
                     ANL        .080  LEFT OVERBANK N-VALUE
                    ANCH        .030  MAIN CHANNEL N-VALUE
                     ANR        .080  RIGHT OVERBANK N-VALUE
                   RLNTH       7600.  REACH LENGTH
                     SEL       .0020  ENERGY SLOPE
                   ELMAX        93.0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                        CROSS-SECTION DATA
                          --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
 87 RY       ELEVATION     94.00     93.50     93.00     88.00     88.00     93.00     93.50     94.00
 86 RX       DISTANCE        .00      5.00     10.00     16.00     24.00     30.00     35.00     40.00
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COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	.38	.79	1.23	1.70	2.20	2.73	3.28	3.87	4.48
OUTFLOW	.00	1.92	6.11	12.07	19.64	28.75	39.36	51.47	65.08	80.21
ELEVATION	88.00	88.26	88.53	88.79	89.05	89.32	89.58	89.84	90.11	90.37
STORAGE	5.12	5.79	6.50	7.23	7.98	8.77	9.59	10.43	11.31	12.21
OUTFLOW	96.87	115.10	134.92	156.35	179.44	204.21	230.70	258.94	288.96	320.80
ELEVATION	90.63	90.89	91.16	91.42	91.68	91.95	92.21	92.47	92.74	93.00

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HYDROGRAPH AT STATION 7ECHN

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	88.0	28	FEB	0915	34	11.	1.2	88.7	28	FEB	1730	67	57.	3.5	89.9
28	FEB	0115	2	0.	.1	88.1	28	FEB	0930	35	11.	1.2	88.8	28	FEB	1745	68	54.	3.4	89.9
28	FEB	0130	3	2.	.3	88.2	28	FEB	0945	36	11.	1.2	88.8	28	FEB	1800	69	53.	3.3	89.9
28	FEB	0145	4	3.	.5	88.3	28	FEB	1000	37	12.	1.2	88.8	28	FEB	1815	70	51.	3.3	89.8
28	FEB	0200	5	4.	.6	88.4	28	FEB	1015	38	12.	1.2	88.8	28	FEB	1830	71	49.	3.2	89.8
28	FEB	0215	6	6.	.8	88.5	28	FEB	1030	39	12.	1.3	88.8	28	FEB	1845	72	48.	3.1	89.8
28	FEB	0230	7	7.	.8	88.6	28	FEB	1045	40	13.	1.3	88.8	28	FEB	1900	73	47.	3.1	89.7
28	FEB	0245	8	8.	.9	88.6	28	FEB	1100	41	13.	1.3	88.8	28	FEB	1915	74	46.	3.0	89.7
	FEB	0300	9	9.	1.0	88.6	28	FEB	1115	42	14.	1.3	88.9	28	FEB	1930	75	44.	3.0	89.7
	FEB	0315	10	9.	1.0	88.7	28	FEB	1130	43	15.	1.4	88.9	28	FEB	1945	76	43.	2.9	89.7
28	FEB	0330	11	10.	1.0	88.7	28	FEB	1145	44	15.	1.4	88.9	28	FEB	2000	77	42.	2.8	89.6
28	FEB	0345	12	10.	1.1	88.7	28	FEB	1200	45	16.	1.5	88.9	28	FEB	2015	78	41.	2.8	89.6
28	FEB	0400	13	10.	1.1	88.7	28	FEB	1215	46	18.	1.6	89.0	28	FEB	2030	79	40.	2.7	89.6
28	FEB	0415	14	10.	1.1	88.7	28	FEB	1230	47	20.	1.7	89.1	28	FEB	2045	80	39.	2.7	89.6
28	FEB	0430	15	10.	1.1	88.7	28	FEB	1245	48	25.	2.0	89.2	28	FEB	2100	81	38.	2.7	89.5
28	FEB	0445	16	11.	1.1	88.7	28	FEB	1300	49	35.	2.5	89.5	28	FEB	2115	82	37.	2.6	89.5
28	FEB	0500	17	11.	1.1	88.7	28	FEB	1315	50	69.	4.0	90.2	28	FEB	2130	83	37.	2.6	89.5
28	FEB	0515	18	11.	1.1	88.7	28	FEB	1330	51	114.	5.8	90.9	28	FEB	2145	84	36.	2.6	89.5
28	FEB	0530	19	11.	1.1	88.7	28	FEB	1345	52	131.	6.4	91.1	28	FEB	2200	85	36.	2.6	89.5
28	FEB	0545	20	11.	1.1	88.7	28	FEB	1400	53	130.	6.3	91.1	28	FEB	2215	86	36.	2.5	89.5
28	FEB	0600	21	11.	1.1	88.7	28	FEB	1415	54	125.	6.1	91.0	28	FEB	2230	87	35.	2.5	89.5
28	FEB	0615	22	11.	1.1	88.7	28	FEB	1430	55	116.	5.8	90.9	28	FEB	2245	88	35.	2.5	89.5
28	FEB	0630	23	11.	1.1	88.7	28	FEB	1445	56	107.	5.5	90.8	28	FEB	2300	89	35.	2.5	89.5
28	FEB	0645	24	11.	1.1	88.7	28	FEB	1500	57	98.	5.2	90.7	28	FEB	2315	90	34.	2.5	89.5
28	FEB	0700	25	11.	1.1	88.7	28	FEB	1515	58	90.	4.9	90.5	28	FEB	2330	91	34.	2.5	89.4
28	FEB	0715	26	11.	1.1	88.7	28	FEB	1530	59	83.	4.6	90.4	28	FEB	2345	92	34.	2.5	89.4
28	FEB	0730	27	11.	1.1	88.7	28	FEB	1545	60	78.	4.4	90.3	1	MAR	0000	93	34.	2.4	89.4
28	FEB	0745	28	11.	1.1	88.7	28	FEB	1600	61	73.	4.2	90.2	1	MAR	0015	94	33.	2.4	89.4
28	FEB	0800	29	11.	1.1	88.7	28	FEB	1615	62	69.	4.0	90.2	1	MAR	0030	95	33.	2.4	89.4
28	FEB	0815	30	11.	1.1	88.7	28	FEB	1630	63	67.	3.9	90.1	1	MAR	0045	96	33.	2.4	89.4
28	FEB	0830	31	11.	1.1	88.7	28	FEB	1645	64	64.	3.8	90.1	1	MAR	0100	97	33.	2.4	89.4
28	FEB	0845	32	11.	1.1	88.7	28	FEB	1700	65	62.	3.7	90.0							
28	FEB	0900	33	11.	1.2	88.7	28	FEB	1715	66	59.	3.6	90.0							

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PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.00-HR

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+   (CFS)       (HR)
                          (CFS)
+     131.      12.75                  79.         35.         35.          35.
                         (INCHES)    1.619       2.840       2.840        2.840
                          (AC-FT)     39.         68.         68.          68.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                        6-HR       24-HR       72-HR     24.00-HR
+  (AC-FT)      (HR)
       6.      12.75                    4.          2.          2.           2.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                        6-HR       24-HR       72-HR     24.00-HR
+   (FEET)      (HR)
    91.11      12.75                  90.30       89.32       89.32        89.32

                         CUMULATIVE AREA =     .45 SQ MI
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            **************
            *            *
  88 KK     *     SUB7F  *
            *            *
            **************

  89 KO          OUTPUT CONTROL VARIABLES
                       IPRNT           4  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE
                                SCS RUNOFF CALCULATION

               SUBBASIN RUNOFF DATA

  91 BA          SUBBASIN CHARACTERISTICS
                       TAREA         .21  SUBBASIN AREA

                 PRECIPITATION DATA

  92 PH                                 DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .60    1.30    2.40    3.00    3.40    4.20    5.20    6.00     .00     .00     .00     .00

                                                   STORM AREA =     .21

  93 LS          SCS LOSS RATE
                       STRTL         .60  INITIAL ABSTRACTION
                      CRVNBR       77.00  CURVE NUMBER
                       RTIMP         .00  PERCENT IMPERVIOUS AREA

  94 UD          SCS DIMENSIONLESS UNITGRAPH
                        TLAG         .29  LAG
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WARNING *** TIME INTERVAL IS GREATER THAN .29*LAG

UNIT HYDROGRAPH
8 END-OF-PERIOD ORDINATES

160.	223.	93.	35.	13.	5.	2.	0.

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          **************
          *            *
 98 KK    *     7FCHN  *     L
          *            *
          **************
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 99 KO          OUTPUT CONTROL VARIABLES
                      IPRNT          1  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 7F

            HYDROGRAPH ROUTING DATA

101 RS          STORAGE ROUTING
                      NSTPS          1  NUMBER OF SUBREACHES
                       ITYP       STOR  TYPE OF INITIAL CONDITION
                     RSVRIC        .00  INITIAL CONDITION
                          X        .00 WORKING R AND D COEFFICIENT

    RC          NORMAL DEPTH CHANNEL ROUTING
                        ANL       .080  LEFT OVERBANK N-VALUE
                       ANCH       .030  MAIN CHANNEL N-VALUE
                        ANR       .080  RIGHT OVERBANK N-VALUE
                      RLNTH       500.  REACH LENGTH
                        SEL      .0030  ENERGY SLOPE
                      ELMAX       90.0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION
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CROSS-SECTION DATA

		--- LEFT OVERBANK ---		+ ------ MAIN CHANNEL		------- +	--- RIGHT OVERBANK ---		
104 RY	ELEVATION	90.00	90.50	90.00	86.00	86.00	90.00	90.50	91.00
103 RX	DISTANCE	.00	5.00	10.00	16.00	24.00	30.00	35.00	40.00

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COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	.02	.04	.06	.09	.12	.14	.17	.20	.24
OUTFLOW	.00	1.63	5.20	10.32	16.84	24.71	33.90	44.41	56.26	69.44
ELEVATION	86.00	86.21	86.42	86.63	86.84	87.05	87.26	87.47	87.68	87.89
STORAGE	.27	.30	.34	.38	.42	.46	.50	.55	.60	.64
OUTFLOW	83.98	99.91	117.25	136.02	156.26	177.99	201.24	226.04	252.43	280.43
ELEVATION	88.11	88.32	88.53	88.74	88.95	89.16	89.37	89.58	89.79	90.00

WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 2. TO 280.
THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

HYDROGRAPH AT STATION 7FCHN

DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE
28 FEB 0100	1	0.	.0	86.0	28 FEB 0915	34	12.	.1	86.7	28 FEB 1730	67	77.	.3	88.0
28 FEB 0115	2	0.	.0	86.0	28 FEB 0930	35	13.	.1	86.7	28 FEB 1745	68	74.	.2	88.0
28 FEB 0130	3	1.	.0	86.1	28 FEB 0945	36	14.	.1	86.7	28 FEB 1800	69	71.	.2	87.9
28 FEB 0145	4	2.	.0	86.3	28 FEB 1000	37	15.	.1	86.8	28 FEB 1815	70	69.	.2	87.9
28 FEB 0200	5	4.	.0	86.4	28 FEB 1015	38	16.	.1	86.8	28 FEB 1830	71	67.	.2	87.9
28 FEB 0215	6	5.	.0	86.4	28 FEB 1030	39	17.	.1	86.9	28 FEB 1845	72	65.	.2	87.8
28 FEB 0230	7	7.	.0	86.5	28 FEB 1045	40	19.	.1	86.9	28 FEB 1900	73	63.	.2	87.8
28 FEB 0245	8	8.	.1	86.5	28 FEB 1100	41	21.	.1	86.9	28 FEB 1915	74	60.	.2	87.8
28 FEB 0300	9	8.	.1	86.6	28 FEB 1115	42	23.	.1	87.0	28 FEB 1930	75	56.	.2	87.7
28 FEB 0315	10	9.	.1	86.6	28 FEB 1130	43	25.	.1	87.1	28 FEB 1945	76	54.	.2	87.6
28 FEB 0330	11	10.	.1	86.6	28 FEB 1145	44	29.	.1	87.1	28 FEB 2000	77	52.	.2	87.6
28 FEB 0345	12	10.	.1	86.6	28 FEB 1200	45	33.	.1	87.2	28 FEB 2015	78	50.	.2	87.6
28 FEB 0400	13	10.	.1	86.6	28 FEB 1215	46	39.	.2	87.4	28 FEB 2030	79	49.	.2	87.6
28 FEB 0415	14	10.	.1	86.6	28 FEB 1230	47	48.	.2	87.5	28 FEB 2045	80	48.	.2	87.5
28 FEB 0430	15	10.	.1	86.6	28 FEB 1245	48	65.	.2	87.8	28 FEB 2100	81	47.	.2	87.5
28 FEB 0445	16	11.	.1	86.6	28 FEB 1300	49	115.	.3	88.5	28 FEB 2115	82	46.	.2	87.5
28 FEB 0500	17	11.	.1	86.6	28 FEB 1315	50	281.	.6	90.0	28 FEB 2130	83	45.	.2	87.5
28 FEB 0515	18	11.	.1	86.6	28 FEB 1330	51	397.	.8	90.9	28 FEB 2145	84	45.	.2	87.5
28 FEB 0530	19	11.	.1	86.6	28 FEB 1345	52	318.	.7	90.3	28 FEB 2200	85	44.	.2	87.5
28 FEB 0545	20	11.	.1	86.6	28 FEB 1400	53	242.	.6	89.7	28 FEB 2215	86	43.	.2	87
28 FEB 0600	21	11.	.1	86.6	28 FEB 1415	54	204.	.5	89.4	28 FEB 2230	87	43.	.2	8[illegible]
28 FEB 0615	22	11.	.1	86.6	28 FEB 1430	55	174.	.5	89.1	28 FEB 2245	88	42.	.2	87.
28 FEB 0630	23	11.	.1	86.6	28 FEB 1445	56	156.	.4	88.9	28 FEB 2300	89	42.	.2	87.4
28 FEB 0645	24	11.	.1	86.6	28 FEB 1500	57	138.	.4	88.8	28 FEB 2315	90	41.	.2	87.4
28 FEB 0700	25	11.	.1	86.6	28 FEB 1515	58	126.	.4	88.6	28 FEB 2330	91	41.	.2	87.4
28 FEB 0715	26	11.	.1	86.6	28 FEB 1530	59	116.	.3	88.5	28 FEB 2345	92	41.	.2	87.4
28 FEB 0730	27	11.	.1	86.6	28 FEB 1545	60	107.	.3	88.4	1 MAR 0000	93	40.	.2	87.4
28 FEB 0745	28	11.	.1	86.6	28 FEB 1600	61	100.	.3	88.3	1 MAR 0015	94	40.	.2	87.4
28 FEB 0800	29	11.	.1	86.6	28 FEB 1615	62	95.	.3	88.3	1 MAR 0030	95	40.	.2	87.4
28 FEB 0815	30	11.	.1	86.6	28 FEB 1630	63	91.	.3	88.2	1 MAR 0045	96	39.	.2	87.4
28 FEB 0830	31	11.	.1	86.7	28 FEB 1645	64	87.	.3	88.1	1 MAR 0100	97	39.	.2	87.4
28 FEB 0845	32	11.	.1	86.7	28 FEB 1700	65	84.	.3	88.1					
28 FEB 0900	33	11.	.1	86.7	28 FEB 1715	66	80.	.3	88.1					

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
		(CFS)				
+ 397.	12.50		139.	54.	54.	54.
		(INCHES)	1.964	3.029	3.029	3.029
		(AC-FT)	69.	106.	106.	106.

PEAK STORAGE (AC-FT)	TIME (HR)	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	24.00-HR
+ 1.	12.50	0.	0.	0.	0.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	24.00-HR

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+  (FEET)     (HR)
   90.87     12.50                88.65       87.40       87.40       87.40

                     CUMULATIVE AREA =     .66 SQ MI

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105 KK    *     SUB7G  *
          *            *
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106 KO         OUTPUT CONTROL VARIABLES
                     IPRNT          4  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE
                             SCS RUNOFF CALCULATION

             SUBBASIN RUNOFF DATA

108 BA         SUBBASIN CHARACTERISTICS
                     TAREA        .06  SUBBASIN AREA

               PRECIPITATION DATA

   PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
               ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
               5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                 .60    1.30    2.40    3.00    3.40    4.20    5.20    6.00     .00     .00     .00     .00

                                                STORM AREA =     .06

110 LS         SCS LOSS RATE
                     STRTL        .60  INITIAL ABSTRACTION
                    CRVNBR      77.00  CURVE NUMBER
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

111 UD         SCS DIMENSIONLESS UNITGRAPH
                      TLAG        .31  LAG

                                                        ***

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

                                                UNIT HYDROGRAPH
                                            8 END-OF-PERIOD ORDINATES
            43.      68.      31.      13.       5.       2.       1.       0.

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115 KK     *     7GSWP  *
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116 KO          OUTPUT CONTROL VARIABLES
                      IPRNT          1  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 7G

             HYDROGRAPH ROUTING DATA

118 RS          STORAGE ROUTING
                      NSTPS          1  NUMBER OF SUBREACHES
                       ITYP       ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC      83.00  INITIAL CONDITION
                          X        .00 WORKING R AND D COEFFICIENT

119 SA               AREA         .0       .6      2.5      5.2

120 SE          ELEVATION      85.00    86.00    87.00    88.00

121 SL          LOW-LEVEL OUTLET
                      ELEVL      85.80  ELEVATION AT CENTER OF OUTLET
                      CAREA      16.25  CROSS-SECTIONAL AREA
                       COQL        .60  COEFFICIENT
                       EXPL        .50  EXPONENT OF HEAD

122 SS          SPILLWAY
                       CREL      88.00  SPILLWAY CREST ELEVATION
                      SPWID        .00  SPILLWAY WIDTH
                       COQW        .00  WEIR COEFFICIENT
                       EXPW       1.50  EXPONENT OF HEAD

                                                  ***

                                     COMPUTED STORAGE-ELEVATION DATA

          STORAGE       .00      .19     1.62     5.39
        ELEVATION     85.00    86.00    87.00    88.00

                                     COMPUTED OUTFLOW-ELEVATION DATA

          OUTFLOW       .00      .00   109.32   110.22   111.14   112.08   113.03   114.00   114.98   115.98
        ELEVATION     85.00    85.80    87.75    87.79    87.82    87.85    87.89    87.93    87.96    88.00

                                    COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE       .00      .10      .19     1.62     4.21     4.36     4.51     4.67     4.84     5.01
          OUTFLOW       .00      .00    34.97    85.66   109.32   110.22   111.14   112.08   113.03   114.00
        ELEVATION     85.00    85.80    86.00    87.00    87.75    87.79    87.82    87.85    87.89    87.93

          STORAGE      5.19     5.39
          OUTFLOW    114.98   115.98
        ELEVATION     87.96    88.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN        0. TO       35.
               THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
               THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)
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HYDROGRAPH AT STATION 7GSWP

DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE
28 FEB 0100	1	0.	.0	85.0	28 FEB 0915	34	12.	.1	85.9	28 FEB 1730	67	133.	8.6	88.6
28 FEB 0115	2	0.	.0	85.0	28 FEB 0930	35	13.	.1	85.9	28 FEB 1745	68	127.	7.6	88.4
28 FEB 0130	3	0.	.0	85.1	28 FEB 0945	36	14.	.1	85.9	28 FEB 1800	69	122.	6.6	88.2
28 FEB 0145	4	0.	.0	85.4	28 FEB 1000	37	16.	.1	85.9	28 FEB 1815	70	118.	5.7	88.1
28 FEB 0200	5	1.	.1	85.8	28 FEB 1015	38	17.	.1	85.9	28 FEB 1830	71	113.	4.8	87.9
28 FEB 0215	6	7.	.1	85.8	28 FEB 1030	39	19.	.1	85.9	28 FEB 1845	72	108.	4.0	87.7
28 FEB 0230	7	6.	.1	85.8	28 FEB 1045	40	21.	.2	85.9	28 FEB 1900	73	101.	3.3	87.5
28 FEB 0245	8	8.	.1	85.8	28 FEB 1100	41	23.	.2	85.9	28 FEB 1915	74	95.	2.7	87.3
28 FEB 0300	9	8.	.1	85.8	28 FEB 1115	42	25.	.2	85.9	28 FEB 1930	75	89.	2.0	87.1
28 FEB 0315	10	9.	.1	85.9	28 FEB 1130	43	28.	.2	86.0	28 FEB 1945	76	81.	1.5	86.9
28 FEB 0330	11	9.	.1	85.9	28 FEB 1145	44	32.	.2	86.0	28 FEB 2000	77	67.	1.1	86.6
28 FEB 0345	12	10.	.1	85.9	28 FEB 1200	45	36.	.2	86.0	28 FEB 2015	78	60.	.9	86.5
28 FEB 0400	13	10.	.1	85.9	28 FEB 1215	46	39.	.3	86.1	28 FEB 2030	79	56.	.8	86.4
28 FEB 0415	14	10.	.1	85.9	28 FEB 1230	47	45.	.5	86.2	28 FEB 2045	80	53.	.7	86.4
28 FEB 0430	15	10.	.1	85.9	28 FEB 1245	48	57.	.8	86.4	28 FEB 2100	81	52.	.7	86.3
28 FEB 0445	16	11.	.1	85.9	28 FEB 1300	49	85.	1.6	87.0	28 FEB 2115	82	50.	.6	86.3
28 FEB 0500	17	11.	.1	85.9	28 FEB 1315	50	112.	4.6	87.8	28 FEB 2130	83	49.	.6	86.3
28 FEB 0515	18	11.	.1	85.9	28 FEB 1330	51	143.	10.6	89.0	28 FEB 2145	84	48.	.6	86.3
28 FEB 0530	19	11.	.1	85.9	28 FEB 1345	52	172.	16.2	90.1	28 FEB 2200	85	47.	.5	86.2
28 FEB 0545	20	11.	.1	85.9	28 FEB 1400	53	188.	19.2	90.7	28 FEB 2215	86	47.	.5	86.2
FEB 0600	21	11.	.1	85.9	28 FEB 1415	54	194.	20.5	91.0	28 FEB 2230	87	46.	.5	86.2
FEB 0615	22	11.	.1	85.9	28 FEB 1430	55	196.	20.8	91.0	28 FEB 2245	88	45.	.5	86.2
28 FEB 0630	23	11.	.1	85.9	28 FEB 1445	56	194.	20.5	91.0	28 FEB 2300	89	45.	.5	86.2
28 FEB 0645	24	11.	.1	85.9	28 FEB 1500	57	191.	19.8	90.8	28 FEB 2315	90	44.	.5	86.2
28 FEB 0700	25	11.	.1	85.9	28 FEB 1515	58	186.	18.9	90.6	28 FEB 2330	91	44.	.4	86.2
28 FEB 0715	26	11.	.1	85.9	28 FEB 1530	59	181.	17.8	90.4	28 FEB 2345	92	43.	.4	86.2
28 FEB 0730	27	11.	.1	85.9	28 FEB 1545	60	174.	16.6	90.2	1 MAR 0000	93	43.	.4	86.2
28 FEB 0745	28	11.	.1	85.9	28 FEB 1600	61	168.	15.4	90.0	1 MAR 0015	94	43.	.4	86.1
28 FEB 0800	29	11.	.1	85.9	28 FEB 1615	62	162.	14.2	89.7	1 MAR 0030	95	42.	.4	86.1
28 FEB 0815	30	11.	.1	85.9	28 FEB 1630	63	156.	13.0	89.5	1 MAR 0045	96	42.	.4	86.1
28 FEB 0830	31	11.	.1	85.9	28 FEB 1645	64	150.	11.8	89.3	1 MAR 0100	97	41.	.4	86.1
28 FEB 0845	32	11.	.1	85.9	28 FEB 1700	65	144.	10.7	89.0					
28 FEB 0900	33	12.	.1	85.9	28 FEB 1715	66	138.	9.6	88.8					

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 196.	13.50		153.	59.	59.	59.
		(INCHES)	1.967	3.057	3.057	3.057
		(AC-FT)	76.	118.	118.	118.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
C-FT)	(HR)				
21.	13.50	12.	3.	3.	3.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR

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+   (FEET)      (HR)
    91.02      13.50                 89.39       86.87       86.87       86.87

                       CUMULATIVE AREA =     .72 SQ MI


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 123 KK    *     SUB7H  *
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 124 KO          OUTPUT CONTROL VARIABLES
                       IPRNT           4  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

               SUBBASIN RUNOFF DATA

 126 BA          SUBBASIN CHARACTERISTICS
                       TAREA         .19  SUBBASIN AREA

                 PRECIPITATION DATA

 127 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .60    1.30    2.40    3.00    3.40    4.20    5.20    6.00     .00     .00     .00     .00

                                                   STORM AREA =     .19

 128 LS          SCS LOSS RATE
                       STRTL         .60  INITIAL ABSTRACTION
                      CRVNBR       77.00  CURVE NUMBER
                       RTIMP         .00  PERCENT IMPERVIOUS AREA

 129 UD          SCS DIMENSIONLESS UNITGRAPH
                        TLAG         .31  LAG

                                                          ***

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

                                                     UNIT HYDROGRAPH
                                                 8 END-OF-PERIOD ORDINATES
               128.      200.       92.       37.       14.        6.        2.        1.


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133 KK     *     7HSWP  *
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    KO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 7H

              HYDROGRAPH ROUTING DATA

136 RS          STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        ELEV  TYPE OF INITIAL CONDITION
                      RSVRIC      84.00  INITIAL CONDITION
                          X         .00 WORKING R AND D COEFFICIENT

137 SA              AREA          .4      3.1       9.2      15.3

138 SE          ELEVATION      84.00     86.00     87.00     88.00

139 SS          SPILLWAY
                       CREL      84.00  SPILLWAY CREST ELEVATION
                      SPWID      10.00  SPILLWAY WIDTH
                       COQW       3.00  WEIR COEFFICIENT
                       EXPW       1.50  EXPONENT OF HEAD

                                                  ***

                                        COMPUTED STORAGE-ELEVATION DATA

          STORAGE       .00      3.04      8.93     21.05
        ELEVATION     84.00     86.00     87.00     88.00

                                        COMPUTED OUTFLOW-ELEVATION DATA

          OUTFLOW       .00       .00       .04       .33      1.11      2.63      5.14      8.89     14.12     21.07
        ELEVATION     84.00     84.00     84.01     84.05     84.11     84.20     84.31     84.44     84.60     84.79

          OUTFLOW     30.00     41.15     54.77     71.11     90.41    112.92    138.89    168.56    202.18    240.00
        ELEVATION     85.00     85.23     85.49     85.78     86.09     86.42     86.78     87.16     87.57     88.00


                                       COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE       .00       .00       .02       .05       .09       .16       .25       .39       .58       .85
          OUTFLOW       .00       .04       .33      1.11      2.63      5.14      8.89     14.12     21.07     30.00
        ELEVATION     84.00     84.01     84.05     84.11     84.20     84.31     84.44     84.60     84.79     85.00

          STORAGE      1.22      1.73      2.41      3.04      3.33      4.77      7.06      8.93     10.48     15.07
          OUTFLOW     41.15     54.77     71.11     84.85     90.41    112.92    138.89    155.88    168.56    202.18
        ELEVATION     85.23     85.49     85.78     86.00     86.09     86.42     86.78     87.00     87.16     87.57

          STORAGE     21.05
          OUTFLOW    240.00
        ELEVATION     88.00
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HYDROGRAPH AT STATION 7HSWP

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STA
28	FEB	0100	1	0.	.0	84.0	28	FEB	0915	34	12.	.3	84.5	28	FEB	1730	67	190.	13.4	87.4
28	FEB	0115	2	0.	.0	84.0	28	FEB	0930	35	13.	.4	84.6	28	FEB	1745	68	184.	12.6	87.3
28	FEB	0130	3	0.	.0	84.0	28	FEB	0945	36	15.	.4	84.6	28	FEB	1800	69	178.	11.8	87.3
28	FEB	0145	4	0.	.0	84.0	28	FEB	1000	37	16.	.4	84.7	28	FEB	1815	70	172.	11.0	87.2
28	FEB	0200	5	0.	.0	84.0	28	FEB	1015	38	18.	.5	84.7	28	FEB	1830	71	166.	10.2	87.1
28	FEB	0215	6	2.	.1	84.2	28	FEB	1030	39	20.	.6	84.8	28	FEB	1845	72	160.	9.4	87.1
28	FEB	0230	7	4.	.1	84.3	28	FEB	1045	40	23.	.6	84.8	28	FEB	1900	73	153.	8.6	87.0
28	FEB	0245	8	6.	.2	84.3	28	FEB	1100	41	25.	.7	84.9	28	FEB	1915	74	146.	7.9	86.9
28	FEB	0300	9	7.	.2	84.4	28	FEB	1115	42	29.	.8	85.0	28	FEB	1930	75	139.	7.1	86.8
28	FEB	0315	10	8.	.2	84.4	28	FEB	1130	43	32.	.9	85.0	28	FEB	1945	76	130.	6.3	86.7
28	FEB	0330	11	9.	.2	84.4	28	FEB	1145	44	37.	1.1	85.1	28	FEB	2000	77	120.	5.4	86.5
28	FEB	0345	12	9.	.3	84.5	28	FEB	1200	45	42.	1.2	85.2	28	FEB	2015	78	109.	4.5	86.4
28	FEB	0400	13	10.	.3	84.5	28	FEB	1215	46	47.	1.4	85.4	28	FEB	2030	79	97.	3.8	86.2
28	FEB	0415	14	10.	.3	84.5	28	FEB	1230	47	55.	1.7	85.5	28	FEB	2045	80	87.	3.2	86.0
28	FEB	0430	15	10.	.3	84.5	28	FEB	1245	48	66.	2.2	85.7	28	FEB	2100	81	78.	2.7	85.9
28	FEB	0445	16	10.	.3	84.5	28	FEB	1300	49	88.	3.2	86.1	28	FEB	2115	82	71.	2.4	85.8
28	FEB	0500	17	10.	.3	84.5	28	FEB	1315	50	125.	5.9	86.6	28	FEB	2130	83	65.	2.2	85.7
28	FEB	0515	18	11.	.3	84.5	28	FEB	1330	51	166.	10.1	87.1	28	FEB	2145	84	62.	2.0	85.6
28	FEB	0530	19	11.	.3	84.5	28	FEB	1345	52	194.	14.0	87.5	28	FEB	2200	85	59.	1.9	85.6
28	FEB	0545	20	11.	.3	84.5	28	FEB	1400	53	210.	16.3	87.7	28	FEB	2215	86	57.	1.8	85.5
28	FEB	0600	21	11.	.3	84.5	28	FEB	1415	54	218.	17.6	87.8	28	FEB	2230	87	55.	1.8	85.5
28	FEB	0615	22	11.	.3	84.5	28	FEB	1430	55	223.	18.4	87.8	28	FEB	2245	88	54.	1.7	85.5
28	FEB	0630	23	11.	.3	84.5	28	FEB	1445	56	226.	18.8	87.8	28	FEB	2300	89	53.	1.7	85
28	FEB	0645	24	11.	.3	84.5	28	FEB	1500	57	226.	18.9	87.8	28	FEB	2315	90	52.	1.6	8
28	FEB	0700	25	11.	.3	84.5	28	FEB	1515	58	226.	18.8	87.8	28	FEB	2330	91	51.	1.6	85.
28	FEB	0715	26	11.	.3	84.5	28	FEB	1530	59	224.	18.6	87.8	28	FEB	2345	92	51.	1.6	85.4
28	FEB	0730	27	11.	.3	84.5	28	FEB	1545	60	222.	18.2	87.8	1	MAR	0000	93	50.	1.5	85.4
28	FEB	0745	28	11.	.3	84.5	28	FEB	1600	61	219.	17.7	87.8	1	MAR	0015	94	49.	1.5	85.4
28	FEB	0800	29	11.	.3	84.5	28	FEB	1615	62	215.	17.1	87.7	1	MAR	0030	95	49.	1.5	85.4
28	FEB	0815	30	11.	.3	84.5	28	FEB	1630	63	211.	16.5	87.7	1	MAR	0045	96	48.	1.5	85.4
28	FEB	0830	31	11.	.3	84.5	28	FEB	1645	64	207.	15.8	87.6	1	MAR	0100	97	48.	1.5	85.4
28	FEB	0845	32	11.	.3	84.5	28	FEB	1700	65	202.	15.0	87.6							
28	FEB	0900	33	11.	.3	84.5	28	FEB	1715	66	196.	14.2	87.5							

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
		(CFS)				
+ 226.	14.00		197.	76.	76.	76.
		(INCHES)	2.018	3.109	3.109	3.109
		(AC-FT)	98.	150.	150.	150.

PEAK STORAGE (AC-FT)	TIME (HR)	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	24.00-HR
+ 19.	14.00	15.	5.	5.	5.

PEAK STAGE (FEET)	TIME (HR)	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	24.00-HR
+ 87.85	14.00	87.50	85.62	85.62	85.62

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                    CUMULATIVE AREA =     .91 SQ MI


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140 KK    *   SUB8AA   *
          *            *
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141 KO         OUTPUT CONTROL VARIABLES
                     IPRNT          4  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE
                             SCS RUNOFF CALCULATION

            SUBBASIN RUNOFF DATA

143 BA         SUBBASIN CHARACTERISTICS
                     TAREA        .06  SUBBASIN AREA

               PRECIPITATION DATA

144 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
               ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
               5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                 .60    1.30    2.40    3.00    3.40    4.20    5.20    6.00     .00     .00     .00     .00

                                                STORM AREA =     .06

145 LS         SCS LOSS RATE
                     STRTL        .70  INITIAL ABSTRACTION
                    CRVNBR      74.00  CURVE NUMBER
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

146 UD         SCS DIMENSIONLESS UNITGRAPH
                      TLAG        .23  LAG

                                                   ***

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

                                                UNIT HYDROGRAPH
                                            7 END-OF-PERIOD ORDINATES
            66.      61.      19.       6.       2.       1.       0.


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          *            *
150 KK    *   8AASWP   *
          *            *
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151 KO          OUTPUT CONTROL VARIABLES
                      IPRNT          1  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 8AA SWAMP

            HYDROGRAPH ROUTING DATA

153 RS          STORAGE ROUTING
                      NSTPS          1  NUMBER OF SUBREACHES
                       ITYP       ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC      80.00  INITIAL CONDITION
                          X        .00 WORKING R AND D COEFFICIENT

154 SA               AREA         .0       2.4       5.2       9.3

155 SE          ELEVATION      78.00     80.00     82.00     84.00

156 SL          LOW-LEVEL OUTLET
                      ELEVL      80.00  ELEVATION AT CENTER OF OUTLET
                      CAREA       1.23  CROSS-SECTIONAL AREA
                       COQL        .60  COEFFICIENT
                       EXPL        .50  EXPONENT OF HEAD

157 SS          SPILLWAY
                       CREL      83.90  SPILLWAY CREST ELEVATION
                      SPWID        .00  SPILLWAY WIDTH
                       COQW        .00  WEIR COEFFICIENT
                       EXPW       1.50  EXPONENT OF HEAD

                                                  ***

                                     COMPUTED STORAGE-ELEVATION DATA

          STORAGE        .00      1.61      9.05     23.32
        ELEVATION      78.00     80.00     82.00     84.00

                                     COMPUTED OUTFLOW-ELEVATION DATA

          OUTFLOW        .00       .00      4.67      5.11      5.64      6.29      7.11      8.18      9.63     11.69
        ELEVATION      78.00     80.00     80.62     80.75     80.91     81.13     81.44     81.91     82.64     83.90

                                     COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE        .00      1.61      3.35      3.75      4.31      5.13      6.41      8.59      9.05     12.77
          OUTFLOW        .00       .00      4.67      5.11      5.64      6.29      7.11      8.18      8.37      9.63
        ELEVATION      78.00     80.00     80.62     80.75     80.91     81.13     81.44     81.91     82.00     82.64

          STORAGE      22.41     23.32
          OUTFLOW      11.69     11.84
        ELEVATION      83.90     84.00
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                                     HYDROGRAPH AT STATION   8AASWP

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DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE
28 FEB 0100	1	0.	1.6	80.0	28 FEB 0915	34	6.	5.0	81.1	28 FEB 1730	67	23.	90.4	91.3
28 FEB 0115	2	0.	1.6	80.0	28 FEB 0930	35	6.	5.1	81.1	28 FEB 1745	68	23.	93.9	91.7
FEB 0130	3	0.	1.6	80.0	28 FEB 0945	36	6.	5.3	81.2	28 FEB 1800	69	24.	97.2	92.1
FEB 0145	4	0.	1.6	80.0	28 FEB 1000	37	7.	5.5	81.2	28 FEB 1815	70	24.	100.4	92.4
FEB 0200	5	0.	1.6	80.0	28 FEB 1015	38	7.	5.7	81.3	28 FEB 1830	71	25.	103.5	92.8
28 FEB 0215	6	0.	1.6	80.0	28 FEB 1030	39	7.	6.0	81.3	28 FEB 1845	72	25.	106.5	93.1
28 FEB 0230	7	0.	1.7	80.0	28 FEB 1045	40	7.	6.3	81.4	28 FEB 1900	73	26.	109.3	93.4
28 FEB 0245	8	0.	1.8	80.1	28 FEB 1100	41	7.	6.7	81.5	28 FEB 1915	74	26.	111.9	93.7
28 FEB 0300	9	1.	1.9	80.1	28 FEB 1115	42	7.	7.2	81.6	28 FEB 1930	75	27.	114.4	93.9
28 FEB 0315	10	1.	2.0	80.2	28 FEB 1130	43	8.	7.7	81.7	28 FEB 1945	76	27.	116.7	94.2
28 FEB 0330	11	2.	2.2	80.2	28 FEB 1145	44	8.	8.3	81.8	28 FEB 2000	77	27.	118.7	94.4
28 FEB 0345	12	2.	2.3	80.3	28 FEB 1200	45	8.	9.0	82.0	28 FEB 2015	78	28.	120.6	94.6
28 FEB 0400	13	2.	2.5	80.3	28 FEB 1215	46	9.	9.8	82.1	28 FEB 2030	79	28.	122.2	94.8
28 FEB 0415	14	3.	2.6	80.4	28 FEB 1230	47	9.	10.9	82.3	28 FEB 2045	80	28.	123.6	94.9
28 FEB 0430	15	3.	2.8	80.4	28 FEB 1245	48	9.	12.1	82.5	28 FEB 2100	81	28.	124.8	95.1
28 FEB 0445	16	4.	2.9	80.5	28 FEB 1300	49	10.	13.9	82.8	28 FEB 2115	82	28.	125.8	95.2
28 FEB 0500	17	4.	3.1	80.5	28 FEB 1315	50	11.	17.0	83.2	28 FEB 2130	83	29.	126.6	95.3
28 FEB 0515	18	4.	3.2	80.6	28 FEB 1330	51	11.	21.3	83.8	28 FEB 2145	84	29.	127.4	95.4
28 FEB 0530	19	5.	3.3	80.6	28 FEB 1345	52	12.	25.9	84.3	28 FEB 2200	85	29.	128.1	95.4
28 FEB 0545	20	5.	3.5	80.7	28 FEB 1400	53	13.	30.5	84.8	28 FEB 2215	86	29.	128.7	95.5
28 FEB 0600	21	5.	3.6	80.7	28 FEB 1415	54	14.	35.1	85.3	28 FEB 2230	87	29.	129.3	95.6
28 FEB 0615	22	5.	3.7	80.7	28 FEB 1430	55	15.	39.7	85.8	28 FEB 2245	88	29.	129.9	95.6
28 FEB 0630	23	5.	3.8	80.8	28 FEB 1445	56	15.	44.3	86.3	28 FEB 2300	89	29.	130.4	95.7
28 FEB 0645	24	5.	3.9	80.8	28 FEB 1500	57	16.	48.9	86.8	28 FEB 2315	90	29.	131.0	95.7
28 FEB 0700	25	5.	4.0	80.8	28 FEB 1515	58	17.	53.4	87.3	28 FEB 2330	91	29.	131.5	95.8
28 FEB 0715	26	5.	4.2	80.9	28 FEB 1530	59	17.	57.9	87.8	28 FEB 2345	92	29.	132.0	95.9
28 FEB 0730	27	6.	4.3	80.9	28 FEB 1545	60	18.	62.3	88.3	1 MAR 0000	93	30.	132.4	95.9
28 FEB 0745	28	6.	4.4	80.9	28 FEB 1600	61	19.	66.7	88.7	1 MAR 0015	94	30.	132.9	96.0
FEB 0800	29	6.	4.5	81.0	28 FEB 1615	62	20.	70.9	89.2	1 MAR 0030	95	30.	133.3	96.0
FEB 0815	30	6.	4.6	81.0	28 FEB 1630	63	20.	75.0	89.6	1 MAR 0045	96	30.	133.7	96.0
28 FEB 0830	31	6.	4.7	81.0	28 FEB 1645	64	21.	79.0	90.1	1 MAR 0100	97	30.	134.2	96.1
28 FEB 0845	32	6.	4.8	81.0	28 FEB 1700	65	22.	82.9	90.5					
28 FEB 0900	33	6.	4.9	81.1	28 FEB 1715	66	22.	86.7	90.9					

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PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
		(CFS)				
30.	24.00		29.	14.	14.	14.
		(INCHES)	.274	.543	.543	.543
		(AC-FT)	14.	28.	28.	28.

PEAK STORAGE (AC-FT)	TIME (HR)	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	24.00-HR
134.	24.00	126.	50.	50.	50.

PEAK STAGE (FEET)	TIME (HR)	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	24.00-HR
96.09	24.00	95.22	86.37	86.37	86.37

CUMULATIVE AREA = .97 SQ MI

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 158 KK   *     SUB6A  *
          *            *
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 159 KO         OUTPUT CONTROL VARIABLES
                      IPRNT           4  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

             SUBBASIN RUNOFF DATA

 161 BA         SUBBASIN CHARACTERISTICS
                      TAREA         .10  SUBBASIN AREA

                PRECIPITATION DATA

 162 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .60    1.30    2.40    3.00    3.40    4.20    5.20    6.00     .00     .00     .00     .00

                                                     STORM AREA =     .10

 163 LS         SCS LOSS RATE
                      STRTL         .78  INITIAL ABSTRACTION
                     CRVNBR       72.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

 164 UD         SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .51  LAG

                                                          ***

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

                                                     UNIT HYDROGRAPH
                                                 12 END-OF-PERIOD ORDINATES
             22.      67.      69.      43.      22.      12.       6.       3.       2.       1.
              1.       0.


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          *            *
 168 KK   *     6ASWP  *
          *            *
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 169 KO         OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
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                IPLOT          0  PLOT CONTROL
                QSCAL         0.  HYDROGRAPH PLOT SCALE
                        STORAGE ROUTING THROUGH 6A

          HYDROGRAPH ROUTING DATA

171 RS        STORAGE ROUTING
                NSTPS          1  NUMBER OF SUBREACHES
                 ITYP       ELEV  TYPE OF INITIAL CONDITION
                RSVRIC      82.00  INITIAL CONDITION
                     X        .00 WORKING R AND D COEFFICIENT

172 SA          AREA          .1       1.2       4.0       7.5

173 SE        ELEVATION     82.00     84.00     85.00     86.00

174 SL        LOW-LEVEL OUTLET
                ELEVL      85.00  ELEVATION AT CENTER OF OUTLET
                CAREA       4.50  CROSS-SECTIONAL AREA
                 COQL        .60  COEFFICIENT
                 EXPL        .50  EXPONENT OF HEAD

175 SS        SPILLWAY
                 CREL      85.90  SPILLWAY CREST ELEVATION
                SPWID        .00  SPILLWAY WIDTH
                 COQW        .00  WEIR COEFFICIENT
                 EXPW       1.50  EXPONENT OF HEAD

                                        ***

                          COMPUTED STORAGE-ELEVATION DATA

        STORAGE       .00      1.07      3.50      9.16
      ELEVATION     82.00     84.00     85.00     86.00

                          COMPUTED OUTFLOW-ELEVATION DATA

        OUTFLOW       .00       .00     21.62     21.46     21.30     21.14     20.99     20.84     20.69     20.54
      ELEVATION     82.00     85.00     86.00     85.98     85.97     85.95     85.94     85.93     85.91     85.90

                          COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

        STORAGE       .00      1.07      3.50      9.14
        OUTFLOW       .00       .00       .00     21.62
      ELEVATION     82.00     84.00     85.00     86.00
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                          HYDROGRAPH AT STATION    6ASWP

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                                        *                                        *
DA MON HRMN ORD  OUTFLOW  STORAGE   STAGE * DA MON HRMN ORD  OUTFLOW  STORAGE   STAGE * DA MON HRMN ORD  OUTFLOW  STORAGE   STAGE
                                        *                                        *
   FEB 0100   1      0.       .0    82.0 * 28 FEB 0915  34      0.      2.3    84.5 * 28 FEB 1730  67     33.     12.0    86.5
   FEB 0115   2      0.       .0    82.0 * 28 FEB 0930  35      0.      2.4    84.6 * 28 FEB 1745  68     33.     12.0    86.5
28 FEB 0130   3      0.       .0    82.0 * 28 FEB 0945  36      0.      2.6    84.6 * 28 FEB 1800  69     33.     12.0    86.5
28 FEB 0145   4      0.       .0    82.0 * 28 FEB 1000  37      0.      2.7    84.7 * 28 FEB 1815  70     33.     12.0    86.5
28 FEB 0200   5      0.       .0    82.0 * 28 FEB 1015  38      0.      2.8    84.7 * 28 FEB 1830  71     33.     12.0    86.5
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28 FEB 0215	6	0.	.0	82.0	*	28 FEB 1030	39	0.	3.0	84.8	*	28 FEB 1845	72	33.	12.0	86.5
28 FEB 0230	7	0.	.0	82.0	*	28 FEB 1045	40	0.	3.1	84.9	*	28 FEB 1900	73	33.	12.0	86.5
28 FEB 0245	8	0.	.0	82.0	*	28 FEB 1100	41	0.	3.3	84.9	*	28 FEB 1915	74	33.	12.0	86.5
28 FEB 0300	9	0.	.0	82.0	*	28 FEB 1115	42	0.	3.5	85.0	*	28 FEB 1930	75	33.	12.0	8
28 FEB 0315	10	0.	.0	82.1	*	28 FEB 1130	43	1.	3.7	85.0	*	28 FEB 1945	76	33.	12.0	86
28 FEB 0330	11	0.	.1	82.1	*	28 FEB 1145	44	1.	3.9	85.1	*	28 FEB 2000	77	33.	12.0	86.5
28 FEB 0345	12	0.	.1	82.2	*	28 FEB 1200	45	2.	4.1	85.1	*	28 FEB 2015	78	33.	12.0	86.5
28 FEB 0400	13	0.	.2	82.3	*	28 FEB 1215	46	3.	4.3	85.1	*	28 FEB 2030	79	33.	12.0	86.5
28 FEB 0415	14	0.	.2	82.4	*	28 FEB 1230	47	4.	4.5	85.2	*	28 FEB 2045	80	32.	12.0	86.5
28 FEB 0430	15	0.	.3	82.5	*	28 FEB 1245	48	5.	4.8	85.2	*	28 FEB 2100	81	32.	12.0	86.5
28 FEB 0445	16	0.	.3	82.6	*	28 FEB 1300	49	7.	5.2	85.3	*	28 FEB 2115	82	32.	12.0	86.5
28 FEB 0500	17	0.	.4	82.8	*	28 FEB 1315	50	9.	5.9	85.4	*	28 FEB 2130	83	32.	12.0	86.5
28 FEB 0515	18	0.	.5	82.9	*	28 FEB 1330	51	14.	7.2	85.7	*	28 FEB 2145	84	32.	12.0	86.5
28 FEB 0530	19	0.	.6	83.1	*	28 FEB 1345	52	21.	8.9	85.9	*	28 FEB 2200	85	32.	12.0	86.5
28 FEB 0545	20	0.	.7	83.3	*	28 FEB 1400	53	26.	10.2	86.2	*	28 FEB 2215	86	32.	12.0	86.5
28 FEB 0600	21	0.	.8	83.5	*	28 FEB 1415	54	29.	11.1	86.4	*	28 FEB 2230	87	32.	12.0	86.5
28 FEB 0615	22	0.	.9	83.7	*	28 FEB 1430	55	31.	11.7	86.4	*	28 FEB 2245	88	32.	12.0	86.5
28 FEB 0630	23	0.	1.0	83.9	*	28 FEB 1445	56	33.	12.0	86.5	*	28 FEB 2300	89	32.	12.0	86.5
28 FEB 0645	24	0.	1.1	84.0	*	28 FEB 1500	57	33.	12.1	86.5	*	28 FEB 2315	90	32.	12.0	86.5
28 FEB 0700	25	0.	1.2	84.1	*	28 FEB 1515	58	33.	12.2	86.5	*	28 FEB 2330	91	32.	12.0	86.5
28 FEB 0715	26	0.	1.3	84.1	*	28 FEB 1530	59	33.	12.2	86.5	*	28 FEB 2345	92	32.	12.0	86.5
28 FEB 0730	27	0.	1.4	84.2	*	28 FEB 1545	60	33.	12.2	86.5	*	1 MAR 0000	93	32.	12.0	86.5
28 FEB 0745	28	0.	1.6	84.2	*	28 FEB 1600	61	33.	12.2	86.5	*	1 MAR 0015	94	32.	12.0	86.5
28 FEB 0800	29	0.	1.7	84.3	*	28 FEB 1615	62	33.	12.2	86.5	*	1 MAR 0030	95	32.	12.0	86.5
28 FEB 0815	30	0.	1.8	84.3	*	28 FEB 1630	63	33.	12.1	86.5	*	1 MAR 0045	96	32.	12.0	86.5
28 FEB 0830	31	0.	1.9	84.4	*	28 FEB 1645	64	33.	12.1	86.5	*	1 MAR 0100	97	32.	12.0	86.5
28 FEB 0845	32	0.	2.0	84.4	*	28 FEB 1700	65	33.	12.1	86.5	*					
28 FEB 0900	33	0.	2.2	84.5	*	28 FEB 1715	66	33.	12.0	86.5	*					
					*						*					

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 33.	14.50		33.	16.	16.	16.
		(INCHES)	.287	.550	.550	.550
		(AC-FT)	16.	31.	31.	31.

PEAK STORAGE	TIME		MAXIMUM AVERAGE STORAGE			
			6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)					
12.	14.50		12.	7.	7.	7.

PEAK STAGE	TIME		MAXIMUM AVERAGE STAGE			
			6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)					
86.54	14.50		86.51	85.04	85.04	85.04

CUMULATIVE AREA = 1.06 SQ MI

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176 KK    *    SUB6B    *
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177 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           4  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

             SUBBASIN RUNOFF DATA

179 BA          SUBBASIN CHARACTERISTICS
                      TAREA         .18  SUBBASIN AREA

                PRECIPITATION DATA

180 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .60    1.30    2.40    3.00    3.40    4.20    5.20    6.00     .00     .00     .00     .00

                                                   STORM AREA =     .18

181 LS          SCS LOSS RATE
                      STRTL         .78  INITIAL ABSTRACTION
                     CRVNBR       72.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

182 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .18  LAG

                                                          ***

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

                                                     UNIT HYDROGRAPH
                                                 6 END-OF-PERIOD ORDINATES
             260.      144.       37.       10.        3.        0.


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          *            *
186 KK    *     6BSWP  *
          *            *
          **************

187 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 6B

             HYDROGRAPH ROUTING DATA

189 RS          STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
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                    ITYP        ELEV  TYPE OF INITIAL CONDITION
                  RSVRIC       79.00  INITIAL CONDITION
                       X         .00 WORKING R AND D COEFFICIENT

190 SA              AREA         9.6      23.8      37.4

191 SE         ELEVATION       79.00     80.00     82.00

193 SL         LOW-LEVEL OUTLET
                    ELEVL       80.60  ELEVATION AT CENTER OF OUTLET
                    CAREA       11.30  CROSS-SECTIONAL AREA
                     COQL         .60  COEFFICIENT
                     EXPL         .50  EXPONENT OF HEAD

194 SS         SPILLWAY
                     CREL       81.90  SPILLWAY CREST ELEVATION
                    SPWID         .00  SPILLWAY WIDTH
                     COQW         .00  WEIR COEFFICIENT
                     EXPW        1.50  EXPONENT OF HEAD

                                                  ***

                                        COMPUTED STORAGE-ELEVATION DATA

        STORAGE        .00     16.21     76.95
      ELEVATION      79.00     80.00     82.00

                                        COMPUTED OUTFLOW-ELEVATION DATA

        OUTFLOW        .00       .00     67.92     67.00     66.11     65.25     64.40     63.58     62.78     62.00
      ELEVATION      79.00     80.60     82.16     82.12     82.08     82.04     82.00     81.97     81.93     81.90

                                       COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

        STORAGE        .00     16.21     31.62     76.95     83.04
        OUTFLOW        .00       .00       .00     64.34     67.92
      ELEVATION      79.00     80.00     80.60     82.00     82.16
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HYDROGRAPH AT STATION 6BSWP

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	79.0	*	28	FEB	0915	34	0.	.0	79.0	*	28	FEB	1730	67	3.	34.0	80.7
28	FEB	0115	2	0.	.0	79.0	*	28	FEB	0930	35	0.	.0	79.0	*	28	FEB	1745	68	5.	34.9	80.7
28	FEB	0130	3	0.	.0	79.0	*	28	FEB	0945	36	0.	.0	79.0	*	28	FEB	1800	69	6.	35.7	80.7
28	FEB	0145	4	0.	.0	79.0	*	28	FEB	1000	37	0.	.0	79.0	*	28	FEB	1815	70	7.	36.6	80.8
28	FEB	0200	5	0.	.0	79.0	*	28	FEB	1015	38	0.	.0	79.0	*	28	FEB	1830	71	8.	37.4	80.8
28	FEB	0215	6	0.	.0	79.0	*	28	FEB	1030	39	0.	.1	79.0	*	28	FEB	1845	72	9.	38.1	80.8
28	FEB	0230	7	0.	.0	79.0	*	28	FEB	1045	40	0.	.1	79.0	*	28	FEB	1900	73	10.	38.9	80.8
28	FEB	0245	8	0.	.0	79.0	*	28	FEB	1100	41	0.	.2	79.0	*	28	FEB	1915	74	11.	39.6	80
28	FEB	0300	9	0.	.0	79.0	*	28	FEB	1115	42	0.	.3	79.0	*	28	FEB	1930	75	12.	40.2	80.
28	FEB	0315	10	0.	.0	79.0	*	28	FEB	1130	43	0.	.4	79.0	*	28	FEB	1945	76	13.	40.8	80.9
28	FEB	0330	11	0.	.0	79.0	*	28	FEB	1145	44	0.	.6	79.0	*	28	FEB	2000	77	14.	41.3	80.9
28	FEB	0345	12	0.	.0	79.0	*	28	FEB	1200	45	0.	.8	79.1	*	28	FEB	2015	78	15.	41.9	80.9
28	FEB	0400	13	0.	.0	79.0	*	28	FEB	1215	46	0.	1.1	79.1	*	28	FEB	2030	79	15.	42.4	80.9

28 FEB 0415	14	0.	.0	79.0 *	28 FEB 1230	47	0.	1.6	79.1 *	28 FEB 2045	80	16.	42.9	80.9
28 FEB 0430	15	0.	.0	79.0 *	28 FEB 1245	48	0.	2.3	79.1 *	28 FEB 2100	81	17.	43.3	81.0
28 FEB 0445	16	0.	.0	79.0 *	28 FEB 1300	49	0.	3.6	79.2 *	28 FEB 2115	82	17.	43.8	81.0
28 FEB 0500	17	0.	.0	79.0 *	28 FEB 1315	50	0.	7.2	79.4 *	28 FEB 2130	83	18.	44.2	81.0
FEB 0515	18	0.	.0	79.0 *	28 FEB 1330	51	0.	11.9	79.7 *	28 FEB 2145	84	19.	44.7	81.0
FEB 0530	19	0.	.0	79.0 *	28 FEB 1345	52	0.	15.2	79.9 *	28 FEB 2200	85	19.	45.1	81.0
28 FEB 0545	20	0.	.0	79.0 *	28 FEB 1400	53	0.	17.3	80.0 *	28 FEB 2215	86	20.	45.5	81.0
28 FEB 0600	21	0.	.0	79.0 *	28 FEB 1415	54	0.	19.0	80.1 *	28 FEB 2230	87	20.	45.8	81.0
28 FEB 0615	22	0.	.0	79.0 *	28 FEB 1430	55	0.	20.4	80.2 *	28 FEB 2245	88	21.	46.2	81.1
28 FEB 0630	23	0.	.0	79.0 *	28 FEB 1445	56	0.	21.8	80.2 *	28 FEB 2300	89	21.	46.6	81.1
28 FEB 0645	24	0.	.0	79.0 *	28 FEB 1500	57	0.	23.1	80.3 *	28 FEB 2315	90	22.	46.9	81.1
28 FEB 0700	25	0.	.0	79.0 *	28 FEB 1515	58	0.	24.3	80.3 *	28 FEB 2330	91	22.	47.2	81.1
28 FEB 0715	26	0.	.0	79.0 *	28 FEB 1530	59	0.	25.5	80.4 *	28 FEB 2345	92	23.	47.6	81.1
28 FEB 0730	27	0.	.0	79.0 *	28 FEB 1545	60	0.	26.7	80.4 *	1 MAR 0000	93	23.	47.9	81.1
28 FEB 0745	28	0.	.0	79.0 *	28 FEB 1600	61	0.	27.8	80.5 *	1 MAR 0015	94	23.	48.2	81.1
28 FEB 0800	29	0.	.0	79.0 *	28 FEB 1615	62	0.	28.9	80.5 *	1 MAR 0030	95	24.	48.5	81.1
28 FEB 0815	30	0.	.0	79.0 *	28 FEB 1630	63	0.	30.0	80.5 *	1 MAR 0045	96	24.	48.7	81.1
28 FEB 0830	31	0.	.0	79.0 *	28 FEB 1645	64	0.	31.0	80.6 *	1 MAR 0100	97	25.	49.0	81.1
28 FEB 0845	32	0.	.0	79.0 *	28 FEB 1700	65	1.	32.0	80.6 *					
28 FEB 0900	33	0.	.0	79.0 *	28 FEB 1715	66	2.	33.0	80.6 *					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 25.	24.00		19.	5.	5.	5.
		(INCHES)	.139	.154	.154	.154
		(AC-FT)	9.	10.	10.	10.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
49.	24.00	45.	18.	18.	18.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)				
81.14	24.00	81.00	79.85	79.85	79.85

CUMULATIVE AREA = 1.24 SQ MI

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195 KK    *    SUB6C    *
          *             *
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KO OUTPUT CONTROL VARIABLES

IPRNT	4	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE

SCS RUNOFF CALCULATION

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              SUBBASIN RUNOFF DATA

198 BA          SUBBASIN CHARACTERISTICS
                      TAREA         .23  SUBBASIN AREA

                PRECIPITATION DATA

199 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .60    1.30    2.40    3.00    3.40    4.20    5.20    6.00     .00     .00     .00     .00

                                                STORM AREA =     .23

200 LS          SCS LOSS RATE
                      STRTL         .78  INITIAL ABSTRACTION
                     CRVNBR       72.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

201 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .30  LAG

                                                        ***

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

                                                   UNIT HYDROGRAPH
                                               8 END-OF-PERIOD ORDINATES
              171.      253.      111.       43.       16.        6.        3.        1.


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          *            *
202 KK    *     SUB60  *
          *            *
          **************

203 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           4  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

              SUBBASIN RUNOFF DATA

205 BA          SUBBASIN CHARACTERISTICS
                      TAREA         .42  SUBBASIN AREA

                PRECIPITATION DATA

206 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .60    1.30    2.40    3.00    3.40    4.20    5.20    6.00     .00     .00     .00     .00
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                                        STORM AREA =     .42

207 LS          SCS LOSS RATE
                     STRTL        .78  INITIAL ABSTRACTION
                    CRVNBR      72.00  CURVE NUMBER
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

208 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG        .50  LAG

                                                        ***

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

                                                UNIT HYDROGRAPH
                                            12 END-OF-PERIOD ORDINATES
            102.     305.     305.     184.      92.      48.      25.      13.       7.       4.
              2.       1.


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


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209 KK    *     6DSWP  *
          *            *
          **************

    KO          OUTPUT CONTROL VARIABLES
                     IPRNT          1  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE
                              STORAGE ROUTING THROUGH 6D

            HYDROGRAPH ROUTING DATA

212 RS          STORAGE ROUTING
                     NSTPS          1  NUMBER OF SUBREACHES
                      ITYP       ELEV  TYPE OF INITIAL CONDITION
                    RSVRIC      80.00  INITIAL CONDITION
                         X        .00 WORKING R AND D COEFFICIENT

213 SA              AREA        1.5      14.4

214 SE          ELEVATION      80.00     90.00

215 SL          LOW-LEVEL OUTLET
                     ELEVL      80.00  ELEVATION AT CENTER OF OUTLET
                     CAREA      12.57  CROSS-SECTIONAL AREA
                      COQL        .60  COEFFICIENT
                      EXPL        .50  EXPONENT OF HEAD

216 SS          SPILLWAY
                      CREL      90.00  SPILLWAY CREST ELEVATION
                     SPWID        .00  SPILLWAY WIDTH
                      COQW        .00  WEIR COEFFICIENT
                      EXPW       1.50  EXPONENT OF HEAD
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COMPUTED STORAGE-ELEVATION DATA

STORAGE	.00	68.83
ELEVATION	80.00	90.00

COMPUTED OUTFLOW-ELEVATION DATA

OUTFLOW	.00	84.17	90.50	97.87	106.54	116.90	129.48	145.11	165.02	191.28
ELEVATION	80.00	81.94	82.24	82.62	83.10	83.73	84.58	85.76	87.44	90.00

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	4.33	5.28	6.59	8.48	11.30	15.80	23.50	37.99	68.83
OUTFLOW	.00	84.17	90.50	97.87	106.54	116.90	129.48	145.11	165.02	191.28
ELEVATION	80.00	81.94	82.24	82.62	83.10	83.73	84.58	85.76	87.44	90.00

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HYDROGRAPH AT STATION 6DSWP

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	80.0	28	FEB	0915	34	0.	.0	80.0	28	FEB	1730	67	99.	6.8	8
28	FEB	0115	2	0.	.0	80.0	28	FEB	0930	35	0.	.0	80.0	28	FEB	1745	68	92.	5.6	82
28	FEB	0130	3	0.	.0	80.0	28	FEB	0945	36	0.	.0	80.0	28	FEB	1800	69	85.	4.5	82.0
28	FEB	0145	4	0.	.0	80.0	28	FEB	1000	37	0.	.0	80.0	28	FEB	1815	70	71.	3.6	81.6
28	FEB	0200	5	0.	.0	80.0	28	FEB	1015	38	0.	.0	80.0	28	FEB	1830	71	59.	3.0	81.4
28	FEB	0215	6	0.	.0	80.0	28	FEB	1030	39	1.	.0	80.0	28	FEB	1845	72	50.	2.6	81.2
28	FEB	0230	7	0.	.0	80.0	28	FEB	1045	40	2.	.1	80.0	28	FEB	1900	73	44.	2.3	81.0
28	FEB	0245	8	0.	.0	80.0	28	FEB	1100	41	3.	.1	80.1	28	FEB	1915	74	40.	2.0	80.9
28	FEB	0300	9	0.	.0	80.0	28	FEB	1115	42	4.	.2	80.1	28	FEB	1930	75	36.	1.8	80.8
28	FEB	0315	10	0.	.0	80.0	28	FEB	1130	43	6.	.3	80.1	28	FEB	1945	76	32.	1.7	80.7
28	FEB	0330	11	0.	.0	80.0	28	FEB	1145	44	8.	.4	80.2	28	FEB	2000	77	29.	1.5	80.7
28	FEB	0345	12	0.	.0	80.0	28	FEB	1200	45	11.	.5	80.2	28	FEB	2015	78	26.	1.3	80.6
28	FEB	0400	13	0.	.0	80.0	28	FEB	1215	46	14.	.7	80.3	28	FEB	2030	79	23.	1.2	80.5
28	FEB	0415	14	0.	.0	80.0	28	FEB	1230	47	19.	1.0	80.4	28	FEB	2045	80	22.	1.1	80.5
28	FEB	0430	15	0.	.0	80.0	28	FEB	1245	48	25.	1.3	80.6	28	FEB	2100	81	20.	1.0	80.5
28	FEB	0445	16	0.	.0	80.0	28	FEB	1300	49	39.	2.0	80.9	28	FEB	2115	82	19.	1.0	80.4
28	FEB	0500	17	0.	.0	80.0	28	FEB	1315	50	74.	3.8	81.7	28	FEB	2130	83	18.	.9	80.4
28	FEB	0515	18	0.	.0	80.0	28	FEB	1330	51	104.	7.9	83.0	28	FEB	2145	84	17.	.9	80.4
28	FEB	0530	19	0.	.0	80.0	28	FEB	1345	52	123.	13.3	84.1	28	FEB	2200	85	17.	.9	80.4
28	FEB	0545	20	0.	.0	80.0	28	FEB	1400	53	133.	17.7	84.9	28	FEB	2215	86	16.	.8	80.4
28	FEB	0600	21	0.	.0	80.0	28	FEB	1415	54	138.	20.1	85.2	28	FEB	2230	87	16.	.8	80.4
28	FEB	0615	22	0.	.0	80.0	28	FEB	1430	55	140.	20.9	85.4	28	FEB	2245	88	15.	.8	80.4
28	FEB	0630	23	0.	.0	80.0	28	FEB	1445	56	140.	20.9	85.4	28	FEB	2300	89	15.	.8	80.3
28	FEB	0645	24	0.	.0	80.0	28	FEB	1500	57	138.	20.2	85.3	28	FEB	2315	90	15.	.7	80.3
28	FEB	0700	25	0.	.0	80.0	28	FEB	1515	58	136.	19.2	85.1	28	FEB	2330	91	14.	.7	80.3
28	FEB	0715	26	0.	.0	80.0	28	FEB	1530	59	134.	18.0	84.9	28	FEB	2345	92	14.	.7	80
28	FEB	0730	27	0.	.0	80.0	28	FEB	1545	60	131.	16.6	84.7	1	MAR	0000	93	14.	.7	80.
28	FEB	0745	28	0.	.0	80.0	28	FEB	1600	61	128.	15.1	84.5	1	MAR	0015	94	13.	.7	80.
28	FEB	0800	29	0.	.0	80.0	28	FEB	1615	62	124.	13.7	84.2	1	MAR	0030	95	13.	.7	80.3
28	FEB	0815	30	0.	.0	80.0	28	FEB	1630	63	119.	12.2	83.9	1	MAR	0045	96	13.	.7	80.3
28	FEB	0830	31	0.	.0	80.0	28	FEB	1645	64	115.	10.8	83.6	1	MAR	0100	97	13.	.6	80.3
28	FEB	0845	32	0.	.0	80.0	28	FEB	1700	65	110.	9.4	83.3							

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28 FEB 0900  33       0.       .0    80.0 * 28 FEB 1715  66     104.      8.0    83.0 *
                                           *                                          *
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   K FLOW     TIME                                MAXIMUM AVERAGE FLOW
                                          6-HR       24-HR       72-HR     24.00-HR
+ (CFS)       (HR)
                            (CFS)
+     140.    13.50                       108.        33.         33.         33.
                          (INCHES)      2.382       2.932       2.932       2.932
                           (AC-FT)       53.         66.         66.         66.

 PEAK STORAGE   TIME                              MAXIMUM AVERAGE STORAGE
                                          6-HR       24-HR       72-HR     24.00-HR
+  (AC-FT)     (HR)
      21.     13.50                        11.         3.          3.          3.

  PEAK STAGE    TIME                               MAXIMUM AVERAGE STAGE
                                          6-HR       24-HR       72-HR     24.00-HR
+   (FEET)     (HR)
    85.36     13.50                      83.50       81.02       81.02       81.02

                          CUMULATIVE AREA =     .42 SQ MI


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


            **************
            *            *
 220 KK     *     6CSWP  *
            *            *
            **************

 221 KO          OUTPUT CONTROL VARIABLES
                       IPRNT           1  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 6C

              HYDROGRAPH ROUTING DATA

 223 RS          STORAGE ROUTING
                       NSTPS           1  NUMBER OF SUBREACHES
                        ITYP        ELEV  TYPE OF INITIAL CONDITION
                      RSVRIC       76.00  INITIAL CONDITION
                           X         .00 WORKING R AND D COEFFICIENT

 224 SA               AREA          .0       2.3      12.6      24.4      33.5

 225 SE          ELEVATION       74.50     76.00     78.00     80.00     82.00

 226 SL          LOW-LEVEL OUTLET
                       ELEVL       74.50  ELEVATION AT CENTER OF OUTLET
                       CAREA       19.64  CROSS-SECTIONAL AREA
                        COQL         .60  COEFFICIENT
                        EXPL         .50  EXPONENT OF HEAD
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227 SS SPILLWAY

CREL	81.90	SPILLWAY CREST ELEVATION
SPWID	.00	SPILLWAY WIDTH
COQW	.00	WEIR COEFFICIENT
EXPW	1.50	EXPONENT OF HEAD

***

COMPUTED STORAGE-ELEVATION DATA

STORAGE	.00	1.16	14.69	50.99	108.68
ELEVATION	74.50	76.00	78.00	80.00	82.00

COMPUTED OUTFLOW-ELEVATION DATA

OUTFLOW	.00	144.90	153.26	162.65	173.25	185.34	199.24	215.40	234.40	257.09
ELEVATION	74.50	76.85	77.13	77.46	77.86	78.35	78.94	79.69	80.65	81.90

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	1.16	4.47	6.25	8.92	13.01	14.69	19.34	28.89	43.85
OUTFLOW	.00	115.75	144.90	153.26	162.65	173.25	176.81	185.34	199.24	215.40
ELEVATION	74.50	76.00	76.85	77.13	77.46	77.86	78.00	78.35	78.94	79.69

STORAGE	50.99	67.80	105.35	108.68
OUTFLOW	221.64	234.40	257.09	258.82
ELEVATION	80.00	80.65	81.90	82.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 0. TO 116.
THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

****

HYDROGRAPH AT STATION 6CSWP

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DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE
28 FEB 0100	1	116.	1.2	76.0	*	28 FEB 0915	34	0.	.0	74.5	*	28 FEB 1730	67	166.	10.2	77.6
28 FEB 0115	2	0.	.0	74.5	*	28 FEB 0930	35	0.	.0	74.5	*	28 FEB 1745	68	163.	9.2	77.5
28 FEB 0130	3	0.	.0	74.5	*	28 FEB 0945	36	0.	.0	74.5	*	28 FEB 1800	69	160.	8.2	77.4
28 FEB 0145	4	0.	.0	74.5	*	28 FEB 1000	37	0.	.0	74.5	*	28 FEB 1815	70	156.	7.1	77.2
28 FEB 0200	5	0.	.0	74.5	*	28 FEB 1015	38	1.	.0	74.5	*	28 FEB 1830	71	151.	5.8	77.1
28 FEB 0215	6	0.	.0	74.5	*	28 FEB 1030	39	2.	.0	74.5	*	28 FEB 1845	72	145.	4.4	76.8
28 FEB 0230	7	0.	.0	74.5	*	28 FEB 1045	40	4.	.0	74.6	*	28 FEB 1900	73	133.	3.1	76.5
28 FEB 0245	8	0.	.0	74.5	*	28 FEB 1100	41	6.	.1	74.6	*	28 FEB 1915	74	122.	1.9	76.2
28 FEB 0300	9	0.	.0	74.5	*	28 FEB 1115	42	9.	.1	74.6	*	28 FEB 1930	75	95.	1.0	75.7
28 FEB 0315	10	0.	.0	74.5	*	28 FEB 1130	43	12.	.1	74.7	*	28 FEB 1945	76	58.	.6	75.3
28 FEB 0330	11	0.	.0	74.5	*	28 FEB 1145	44	16.	.2	74.7	*	28 FEB 2000	77	55.	.5	75.2
28 FEB 0345	12	0.	.0	74.5	*	28 FEB 1200	45	20.	.2	74.8	*	28 FEB 2015	78	52.	.5	75.2
28 FEB 0400	13	0.	.0	74.5	*	28 FEB 1215	46	27.	.3	74.9	*	28 FEB 2030	79	49.	.5	75.1
28 FEB 0415	14	0.	.0	74.5	*	28 FEB 1230	47	36.	.4	75.0	*	28 FEB 2045	80	48.	.5	75
28 FEB 0430	15	0.	.0	74.5	*	28 FEB 1245	48	52.	.5	75.2	*	28 FEB 2100	81	46.	.5	75.
28 FEB 0445	16	0.	.0	74.5	*	28 FEB 1300	49	89.	.9	75.7	*	28 FEB 2115	82	46.	.5	75.1
28 FEB 0500	17	0.	.0	74.5	*	28 FEB 1315	50	130.	2.8	76.4	*	28 FEB 2130	83	45.	.5	75.1
28 FEB 0515	18	0.	.0	74.5	*	28 FEB 1330	51	155.	6.8	77.2	*	28 FEB 2145	84	45.	.4	75.1
28 FEB 0530	19	0.	.0	74.5	*	28 FEB 1345	52	167.	10.5	77.6	*	28 FEB 2200	85	44.	.4	75.1

28 FEB 0545	20	0.	.0	74.5	*	28 FEB 1400	53	172.	12.6	77.8	*	28 FEB 2215	86	44.	.4	75.1
28 FEB 0600	21	0.	.0	74.5	*	28 FEB 1415	54	175.	13.8	77.9	*	28 FEB 2230	87	44.	.4	75.1
28 FEB 0615	22	0.	.0	74.5	*	28 FEB 1430	55	176.	14.5	78.0	*	28 FEB 2245	88	44.	.4	75.1
28 FEB 0630	23	0.	.0	74.5	*	28 FEB 1445	56	177.	14.8	78.0	*	28 FEB 2300	89	44.	.4	75.1
FEB 0645	24	0.	.0	74.5	*	28 FEB 1500	57	177.	15.0	78.0	*	28 FEB 2315	90	44.	.4	75.1
FEB 0700	25	0.	.0	74.5	*	28 FEB 1515	58	177.	14.9	78.0	*	28 FEB 2330	91	44.	.4	75.1
28 FEB 0715	26	0.	.0	74.5	*	28 FEB 1530	59	177.	14.8	78.0	*	28 FEB 2345	92	44.	.4	75.1
28 FEB 0730	27	0.	.0	74.5	*	28 FEB 1545	60	176.	14.5	78.0	*	1 MAR 0000	93	44.	.4	75.1
28 FEB 0745	28	0.	.0	74.5	*	28 FEB 1600	61	176.	14.2	78.0	*	1 MAR 0015	94	44.	.4	75.1
28 FEB 0800	29	0.	.0	74.5	*	28 FEB 1615	62	175.	13.7	77.9	*	1 MAR 0030	95	44.	.4	75.1
28 FEB 0815	30	0.	.0	74.5	*	28 FEB 1630	63	174.	13.2	77.9	*	1 MAR 0045	96	44.	.4	75.1
28 FEB 0830	31	0.	.0	74.5	*	28 FEB 1645	64	172.	12.5	77.8	*	1 MAR 0100	97	44.	.4	75.1
28 FEB 0845	32	0.	.0	74.5	*	28 FEB 1700	65	170.	11.8	77.7	*					
28 FEB 0900	33	0.	.0	74.5	*	28 FEB 1715	66	168.	11.0	77.7	*					
					*						*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 177.	14.00		165.	57.	57.	57.
		(INCHES)	.811	1.127	1.127	1.127
		(AC-FT)	82.	114.	114.	114.

PEAK STORAGE	TIME		MAXIMUM AVERAGE STORAGE			
			6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)					
15.	14.00		11.	3.	3.	3.

K STAGE	TIME		MAXIMUM AVERAGE STAGE			
			6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)					
78.02	14.00		77.58	75.48	75.48	75.48

CUMULATIVE AREA = 1.89 SQ MI

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          ***************
          *             *
228 KK    *    SUB8AB   *
          *             *
          ***************

229 KO         OUTPUT CONTROL VARIABLES
                     IPRNT           4  PRINT CONTROL
                     IPLOT           0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

             SUBBASIN RUNOFF DATA

231 BA         SUBBASIN CHARACTERISTICS
                     TAREA         .02  SUBBASIN AREA
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                PRECIPITATION DATA

232 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .60    1.30    2.40    3.00    3.40    4.20    5.20    6.00     .00     .00     .00     .00

                                                STORM AREA =     .02

233 LS          SCS LOSS RATE
                      STRTL         .70  INITIAL ABSTRACTION
                     CRVNBR       74.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

234 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .23  LAG

                                                        ***

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

                                                   UNIT HYDROGRAPH
                                               7 END-OF-PERIOD ORDINATES
              18.       16.        5.        2.        1.        0.        0.


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


          **************
          *            *
235 KK    *    8ABCHL  *
          *            *
          **************

236 KO          OUTPUT CONTROL VARIABLES
                     IPRNT           1  PRINT CONTROL
                     IPLOT           0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE
                              STORAGE ROUTING THROUGH 8AB CHANNEL

            HYDROGRAPH ROUTING DATA

238 RS          STORAGE ROUTING
                     NSTPS           1  NUMBER OF SUBREACHES
                      ITYP        STOR  TYPE OF INITIAL CONDITION
                    RSVRIC         .00  INITIAL CONDITION
                         X         .00 WORKING R AND D COEFFICIENT

239 RC          NORMAL DEPTH CHANNEL ROUTING
                       ANL        .080  LEFT OVERBANK N-VALUE
                      ANCH        .030  MAIN CHANNEL N-VALUE
                       ANR        .080  RIGHT OVERBANK N-VALUE
                     RLNTH        300.  REACH LENGTH
                       SEL       .0250  ENERGY SLOPE
                     ELMAX        86.0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                   CROSS-SECTION DATA
                      --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
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241 RY	ELEVATION	86.00	85.00	84.00	78.00	78.00	84.00	85.00	86.00
240 RX	DISTANCE	.00	25.00	50.00	55.00	60.00	65.00	75.00	85.00

***

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	.02	.03	.05	.07	.10	.12	.15	.18	.21
OUTFLOW	.00	9.11	28.80	56.89	92.92	136.85	188.83	249.09	317.89	395.52
ELEVATION	78.00	78.42	78.84	79.26	79.68	80.11	80.53	80.95	81.37	81.79
STORAGE	.25	.28	.32	.36	.40	.46	.55	.69	.88	1.10
OUTFLOW	482.30	578.53	684.52	800.59	927.05	1091.48	1287.27	1514.96	1781.60	2093.43
ELEVATION	82.21	82.63	83.05	83.47	83.89	84.32	84.74	85.16	85.58	86.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 0. TO 2093.
THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

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HYDROGRAPH AT STATION 8ABCHL

****

DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE
28 FEB 0100	1	0.	.0	78.0	*	28 FEB 0915	34	0.	.0	78.0	*	28 FEB 1730	67	1.	.0	78.1
28 FEB 0115	2	0.	.0	78.0	*	28 FEB 0930	35	0.	.0	78.0	*	28 FEB 1745	68	1.	.0	78.1
28 FEB 0130	3	0.	.0	78.0	*	28 FEB 0945	36	0.	.0	78.0	*	28 FEB 1800	69	1.	.0	78.1
28 FEB 0145	4	0.	.0	78.0	*	28 FEB 1000	37	0.	.0	78.0	*	28 FEB 1815	70	1.	.0	78.1
28 FEB 0200	5	0.	.0	78.0	*	28 FEB 1015	38	0.	.0	78.0	*	28 FEB 1830	71	1.	.0	78.1
28 FEB 0215	6	0.	.0	78.0	*	28 FEB 1030	39	0.	.0	78.0	*	28 FEB 1845	72	1.	.0	78.1
28 FEB 0230	7	0.	.0	78.0	*	28 FEB 1045	40	0.	.0	78.0	*	28 FEB 1900	73	1.	.0	78.1
28 FEB 0245	8	0.	.0	78.0	*	28 FEB 1100	41	0.	.0	78.0	*	28 FEB 1915	74	1.	.0	78.0
28 FEB 0300	9	0.	.0	78.0	*	28 FEB 1115	42	1.	.0	78.0	*	28 FEB 1930	75	1.	.0	78.0
28 FEB 0315	10	0.	.0	78.0	*	28 FEB 1130	43	1.	.0	78.0	*	28 FEB 1945	76	1.	.0	78.0
28 FEB 0330	11	0.	.0	78.0	*	28 FEB 1145	44	1.	.0	78.0	*	28 FEB 2000	77	1.	.0	78.0
28 FEB 0345	12	0.	.0	78.0	*	28 FEB 1200	45	1.	.0	78.1	*	28 FEB 2015	78	1.	.0	78.0
28 FEB 0400	13	0.	.0	78.0	*	28 FEB 1215	46	1.	.0	78.1	*	28 FEB 2030	79	1.	.0	78.0
28 FEB 0415	14	0.	.0	78.0	*	28 FEB 1230	47	2.	.0	78.1	*	28 FEB 2045	80	1.	.0	78.0
28 FEB 0430	15	0.	.0	78.0	*	28 FEB 1245	48	3.	.0	78.1	*	28 FEB 2100	81	1.	.0	78.0
28 FEB 0445	16	0.	.0	78.0	*	28 FEB 1300	49	7.	.0	78.3	*	28 FEB 2115	82	1.	.0	78.0
28 FEB 0500	17	0.	.0	78.0	*	28 FEB 1315	50	19.	.0	78.6	*	28 FEB 2130	83	1.	.0	78.0
28 FEB 0515	18	0.	.0	78.0	*	28 FEB 1330	51	20.	.0	78.7	*	28 FEB 2145	84	1.	.0	78.0
28 FEB 0530	19	0.	.0	78.0	*	28 FEB 1345	52	11.	.0	78.5	*	28 FEB 2200	85	1.	.0	78.0
28 FEB 0545	20	0.	.0	78.0	*	28 FEB 1400	53	7.	.0	78.3	*	28 FEB 2215	86	1.	.0	78.0
28 FEB 0600	21	0.	.0	78.0	*	28 FEB 1415	54	5.	.0	78.2	*	28 FEB 2230	87	1.	.0	78.0
28 FEB 0615	22	0.	.0	78.0	*	28 FEB 1430	55	4.	.0	78.2	*	28 FEB 2245	88	1.	.0	78.0
28 FEB 0630	23	0.	.0	78.0	*	28 FEB 1445	56	3.	.0	78.1	*	28 FEB 2300	89	1.	.0	78.0
28 FEB 0645	24	0.	.0	78.0	*	28 FEB 1500	57	3.	.0	78.1	*	28 FEB 2315	90	1.	.0	78.0
28 FEB 0700	25	0.	.0	78.0	*	28 FEB 1515	58	2.	.0	78.1	*	28 FEB 2330	91	1.	.0	78.0
28 FEB 0715	26	0.	.0	78.0	*	28 FEB 1530	59	2.	.0	78.1	*	28 FEB 2345	92	1.	.0	78.0
28 FEB 0730	27	0.	.0	78.0	*	28 FEB 1545	60	2.	.0	78.1	*	1 MAR 0000	93	0.	.0	78.0
28 FEB 0745	28	0.	.0	78.0	*	28 FEB 1600	61	2.	.0	78.1	*	1 MAR 0015	94	0.	.0	78.0
28 FEB 0800	29	0.	.0	78.0	*	28 FEB 1615	62	2.	.0	78.1	*	1 MAR 0030	95	0.	.0	78.0
28 FEB 0815	30	0.	.0	78.0	*	28 FEB 1630	63	2.	.0	78.1	*	1 MAR 0045	96	0.	.0	78.0
28 FEB 0830	31	0.	.0	78.0	*	28 FEB 1645	64	2.	.0	78.1	*	1 MAR 0100	97	0.	.0	78.0
28 FEB 0845	32	0.	.0	78.0	*	28 FEB 1700	65	2.	.0	78.1	*					

```
 28 FEB 0900  33       0.       .0    78.0 * 28 FEB 1715  66       2.       .0    78.1 *
                                           *                                           *
*****************************************************************************************************************************

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                        6-HR       24-HR       72-HR     24.00-HR
+   (CFS)      (HR)
                         (CFS)
+      20.     12.50                     4.          1.          1.          1.
                       (INCHES)      2.588       3.169       3.169       3.169
                        (AC-FT)         2.          3.          3.          3.

 PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                        6-HR       24-HR       72-HR     24.00-HR
+  (AC-FT)      (HR)
       0.      12.25                     0.          0.          0.          0.

 PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                        6-HR       24-HR       72-HR     24.00-HR
+   (FEET)     (HR)
    78.66     12.50                    78.18       78.06       78.06       78.06

                       CUMULATIVE AREA =     .02 SQ MI


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


           **************
           *            *
 242 KK    *    SUB8B   *
           *            *
           **************

 243 KO          OUTPUT CONTROL VARIABLES
                       IPRNT           4  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE
                                SCS RUNOFF CALCULATION

               SUBBASIN RUNOFF DATA

 245 BA          SUBBASIN CHARACTERISTICS
                       TAREA         .33  SUBBASIN AREA

                 PRECIPITATION DATA

 246 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .60    1.30    2.40    3.00    3.40    4.20    5.20    6.00     .00     .00     .00     .00

                                                   STORM AREA =     .33

 247 LS          SCS LOSS RATE
                       STRTL         .70  INITIAL ABSTRACTION
                      CRVNBR       74.00  CURVE NUMBER
                       RTIMP         .00  PERCENT IMPERVIOUS AREA
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248 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG         .40  LAG

                                                    ***

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

                                                UNIT HYDROGRAPH
                                            10 END-OF-PERIOD ORDINATES
             133.      306.      231.      101.       47.       22.       10.        5.        2.        1.


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


          **************
          *            *
252 KK    *     8BCHL  *
          *            *
          **************

253 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 88

             HYDROGRAPH ROUTING DATA

255 RS          STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        STOR  TYPE OF INITIAL CONDITION
                     RSVRIC         .00  INITIAL CONDITION
                          X         .00 WORKING R AND D COEFFICIENT

256 RC          NORMAL DEPTH CHANNEL ROUTING
                        ANL        .080  LEFT OVERBANK N-VALUE
                       ANCH        .030  MAIN CHANNEL N-VALUE
                        ANR        .080  RIGHT OVERBANK N-VALUE
                      RLNTH       1200.  REACH LENGTH
                        SEL       .0030  ENERGY SLOPE
                      ELMAX        82.0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                          CROSS-SECTION DATA
                          --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
258 RY       ELEVATION     84.00     83.00     82.00     75.00     75.00     82.00     83.00     84.00
257 RX       DISTANCE        .00      5.00     10.00     20.00     25.00     35.00     40.00     45.00

                                                    ***

                                          COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE        .00       .06       .12       .20       .29       .39       .50       .62       .75       .89
          OUTFLOW        .00      2.61      8.53     17.35     29.10     43.92     61.94     83.36    108.33    137.04
        ELEVATION      75.00     75.37     75.74     76.11     76.47     76.84     77.21     77.58     77.95     78.32

          STORAGE       1.04      1.20      1.38      1.56      1.76      1.96      2.18      2.41      2.64      2.89
          OUTFLOW     169.67    206.38    247.34    292.73    342.72    397.46    457.12    521.86    591.83    667.20
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ELEVATION	78.68	79.05	79.42	79.79	80.16	80.53	80.89	81.26	81.63	82.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 9. TO 667.
THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

****

HYDROGRAPH AT STATION 8BCHL

****

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	75.0	28	FEB	0915	34	0.	.0	75.0	28	FEB	1730	67	33.	.3	76.6
28	FEB	0115	2	0.	.0	75.0	28	FEB	0930	35	0.	.0	75.0	28	FEB	1745	68	32.	.3	76.5
28	FEB	0130	3	0.	.0	75.0	28	FEB	0945	36	1.	.0	75.1	28	FEB	1800	69	31.	.3	76.5
28	FEB	0145	4	0.	.0	75.0	28	FEB	1000	37	1.	.0	75.2	28	FEB	1815	70	30.	.3	76.5
28	FEB	0200	5	0.	.0	75.0	28	FEB	1015	38	2.	.0	75.3	28	FEB	1830	71	29.	.3	76.5
28	FEB	0215	6	0.	.0	75.0	28	FEB	1030	39	4.	.1	75.4	28	FEB	1845	72	28.	.3	76.4
28	FEB	0230	7	0.	.0	75.0	28	FEB	1045	40	5.	.1	75.5	28	FEB	1900	73	27.	.3	76.4
28	FEB	0245	8	0.	.0	75.0	28	FEB	1100	41	7.	.1	75.6	28	FEB	1915	74	25.	.3	76.4
28	FEB	0300	9	0.	.0	75.0	28	FEB	1115	42	9.	.1	75.8	28	FEB	1930	75	22.	.2	76.3
28	FEB	0315	10	0.	.0	75.0	28	FEB	1130	43	12.	.2	75.9	28	FEB	1945	76	19.	.2	76.2
28	FEB	0330	11	0.	.0	75.0	28	FEB	1145	44	15.	.2	76.0	28	FEB	2000	77	17.	.2	76.1
28	FEB	0345	12	0.	.0	75.0	28	FEB	1200	45	18.	.2	76.1	28	FEB	2015	78	16.	.2	76.1
28	FEB	0400	13	0.	.0	75.0	28	FEB	1215	46	24.	.2	76.3	28	FEB	2030	79	15.	.2	76.0
28	FEB	0415	14	0.	.0	75.0	28	FEB	1230	47	32.	.3	76.5	28	FEB	2045	80	15.	.2	76.[illegible]
28	FEB	0430	15	0.	.0	75.0	28	FEB	1245	48	46.	.4	76.9	28	FEB	2100	81	14.	.2	7[illegible]
28	FEB	0445	16	0.	.0	75.0	28	FEB	1300	49	83.	.6	77.6	28	FEB	2115	82	14.	.2	76.[illegible]
28	FEB	0500	17	0.	.0	75.0	28	FEB	1315	50	210.	1.2	79.1	28	FEB	2130	83	14.	.2	75.9
28	FEB	0515	18	0.	.0	75.0	28	FEB	1330	51	371.	1.9	80.3	28	FEB	2145	84	13.	.2	75.9
28	FEB	0530	19	0.	.0	75.0	28	FEB	1345	52	355.	1.8	80.2	28	FEB	2200	85	13.	.2	75.9
28	FEB	0545	20	0.	.0	75.0	28	FEB	1400	53	237.	1.3	79.3	28	FEB	2215	86	13.	.2	75.9
28	FEB	0600	21	0.	.0	75.0	28	FEB	1415	54	162.	1.0	78.6	28	FEB	2230	87	12.	.2	75.9
28	FEB	0615	22	0.	.0	75.0	28	FEB	1430	55	119.	.8	78.1	28	FEB	2245	88	12.	.2	75.9
28	FEB	0630	23	0.	.0	75.0	28	FEB	1445	56	92.	.7	77.7	28	FEB	2300	89	12.	.2	75.9
28	FEB	0645	24	0.	.0	75.0	28	FEB	1500	57	75.	.6	77.4	28	FEB	2315	90	12.	.2	75.9
28	FEB	0700	25	0.	.0	75.0	28	FEB	1515	58	64.	.5	77.2	28	FEB	2330	91	11.	.1	75.9
28	FEB	0715	26	0.	.0	75.0	28	FEB	1530	59	56.	.5	77.1	28	FEB	2345	92	11.	.1	75.8
28	FEB	0730	27	0.	.0	75.0	28	FEB	1545	60	51.	.4	77.0	1	MAR	0000	93	11.	.1	75.8
28	FEB	0745	28	0.	.0	75.0	28	FEB	1600	61	46.	.4	76.9	1	MAR	0015	94	11.	.1	75.8
28	FEB	0800	29	0.	.0	75.0	28	FEB	1615	62	43.	.4	76.8	1	MAR	0030	95	11.	.1	75.8
28	FEB	0815	30	0.	.0	75.0	28	FEB	1630	63	41.	.4	76.8	1	MAR	0045	96	10.	.1	75.8
28	FEB	0830	31	0.	.0	75.0	28	FEB	1645	64	39.	.4	76.7	1	MAR	0100	97	10.	.1	75.8
28	FEB	0845	32	0.	.0	75.0	28	FEB	1700	65	37.	.3	76.7							
28	FEB	0900	33	0.	.0	75.0	28	FEB	1715	66	35.	.3	76.6							

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 371.	12.50		97.	29.	29.	29.
		(INCHES)	2.580	3.151	3.151	3.151
		(AC-FT)	48.	58.	58.	58.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE

```
                                    6-HR       24-HR       72-HR     24.00-HR
+  (AC-FT)      (HR)
       2.     12.50                  1.          0.          0.          0.

    < STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                    6-HR       24-HR       72-HR     24.00-HR
+   (FEET)      (HR)
    80.35     12.50                77.49       75.98       75.98       75.98

                       CUMULATIVE AREA =     .35 SQ MI


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          **************
          *            *
 259 KK   *     SUB8C  *
          *            *
          **************

 260 KO         OUTPUT CONTROL VARIABLES
                      IPRNT           4  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

             SUBBASIN RUNOFF DATA

 262 BA         SUBBASIN CHARACTERISTICS
                      TAREA         .12  SUBBASIN AREA

                PRECIPITATION DATA

 263 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .60    1.30    2.40    3.00    3.40    4.20    5.20    6.00     .00     .00     .00     .00

                                                   STORM AREA =     .12

 264 LS         SCS LOSS RATE
                      STRTL         .70  INITIAL ABSTRACTION
                     CRVNBR       74.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

 265 UD         SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .26  LAG

                                                        ***

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

                                                   UNIT HYDROGRAPH
                                               7 END-OF-PERIOD ORDINATES
             107.      125.       44.       16.        5.        2.        1.
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*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

          **************
          *            *
269 KK    *     8CSWP  *
          *            *
          **************

270 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 8C

             HYDROGRAPH ROUTING DATA

272 RS          STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        ELEV  TYPE OF INITIAL CONDITION
                      RSVRIC      64.00  INITIAL CONDITION
                          X         .00 WORKING R AND D COEFFICIENT

273 SA              AREA        1.1       1.9       3.3       5.7       8.8      11.1

274 SE          ELEVATION      64.00     66.00     68.00     70.00     72.00     74.00

275 SS          SPILLWAY
                       CREL      64.00  SPILLWAY CREST ELEVATION
                      SPWID      12.00  SPILLWAY WIDTH
                       COQW       3.00  WEIR COEFFICIENT
                       EXPW       1.50  EXPONENT OF HEAD

                                                   ***

                                        COMPUTED STORAGE-ELEVATION DATA

          STORAGE       .00      3.00      8.12     16.99     31.37     51.20
        ELEVATION     64.00     66.00     68.00     70.00     72.00     74.00

                                        COMPUTED OUTFLOW-ELEVATION DATA

          OUTFLOW       .00       .00       .20      1.56      5.27     12.49     24.40     42.16     66.95     99.94
        ELEVATION     64.00     64.00     64.03     64.12     64.28     64.49     64.77     65.11     65.51     65.98

          OUTFLOW    142.30    195.20    259.81    337.31    428.86    535.64    658.81    799.55    959.03   1138.42
        ELEVATION     66.50     67.09     67.73     68.44     69.22     70.05     70.94     71.90     72.92     74.00

                                      COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE       .00       .03       .14       .32       .60       .97      1.47      2.12      2.95      3.00
          OUTFLOW       .00       .20      1.56      5.27     12.49     24.40     42.16     66.95     99.94    101.82
        ELEVATION     64.00     64.03     64.12     64.28     64.49     64.77     65.11     65.51     65.98     66.00

          STORAGE      4.03      5.44      7.28      8.12      9.69     12.93     16.99     17.28     23.01     30.51
          OUTFLOW    142.30    195.20    259.81    288.00    337.31    428.86    529.09    535.64    658.81    799.55
        ELEVATION     66.50     67.09     67.73     68.00     68.44     69.22     70.00     70.05     70.94     71.90
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STORAGE	31.37	39.92	51.20
OUTFLOW	814.59	959.03	1138.42
ELEVATION	72.00	72.92	74.00

HYDROGRAPH AT STATION 8CSWP

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	64.0	28	FEB	0915	34	0.	.0	64.0	28	FEB	1730	67	47.	1.6	65.2
28	FEB	0115	2	0.	.0	64.0	28	FEB	0930	35	0.	.0	64.0	28	FEB	1745	68	45.	1.5	65.2
28	FEB	0130	3	0.	.0	64.0	28	FEB	0945	36	0.	.0	64.0	28	FEB	1800	69	43.	1.5	65.1
28	FEB	0145	4	0.	.0	64.0	28	FEB	1000	37	0.	.0	64.0	28	FEB	1815	70	41.	1.4	65.1
28	FEB	0200	5	0.	.0	64.0	28	FEB	1015	38	1.	.1	64.1	28	FEB	1830	71	40.	1.4	65.1
28	FEB	0215	6	0.	.0	64.0	28	FEB	1030	39	2.	.2	64.1	28	FEB	1845	72	39.	1.4	65.0
28	FEB	0230	7	0.	.0	64.0	28	FEB	1045	40	4.	.2	64.2	28	FEB	1900	73	37.	1.3	65.0
28	FEB	0245	8	0.	.0	64.0	28	FEB	1100	41	5.	.3	64.3	28	FEB	1915	74	36.	1.3	65.0
28	FEB	0300	9	0.	.0	64.0	28	FEB	1115	42	8.	.4	64.4	28	FEB	1930	75	33.	1.2	64.9
28	FEB	0315	10	0.	.0	64.0	28	FEB	1130	43	11.	.5	64.4	28	FEB	1945	76	29.	1.1	64.9
28	FEB	0330	11	0.	.0	64.0	28	FEB	1145	44	15.	.7	64.5	28	FEB	2000	77	26.	1.0	64.8
28	FEB	0345	12	0.	.0	64.0	28	FEB	1200	45	19.	.8	64.6	28	FEB	2015	78	24.	1.0	64.8
28	FEB	0400	13	0.	.0	64.0	28	FEB	1215	46	25.	1.0	64.8	28	FEB	2030	79	22.	.9	64.7
28	FEB	0415	14	0.	.0	64.0	28	FEB	1230	47	33.	1.2	64.9	28	FEB	2045	80	21.	.9	64.7
28	FEB	0430	15	0.	.0	64.0	28	FEB	1245	48	46.	1.6	65.2	28	FEB	2100	81	20.	.8	64.7
28	FEB	0445	16	0.	.0	64.0	28	FEB	1300	49	76.	2.4	65.6	28	FEB	2115	82	19.	.8	64.7
28	FEB	0500	17	0.	.0	64.0	28	FEB	1315	50	168.	4.7	66.8	28	FEB	2130	83	19.	.8	64.6
[illegible]	FEB	0515	18	0.	.0	64.0	28	FEB	1330	51	306.	8.7	68.2	28	FEB	2145	84	18.	.8	64.6
	EB	0530	19	0.	.0	64.0	28	FEB	1345	52	386.	11.4	68.9	28	FEB	2200	85	18.	.8	64.6
[illegible]	FEB	0545	20	0.	.0	64.0	28	FEB	1400	53	377.	11.1	68.8	28	FEB	2215	86	17.	.8	64.6
28	FEB	0600	21	0.	.0	64.0	28	FEB	1415	54	315.	9.0	68.2	28	FEB	2230	87	17.	.7	64.6
28	FEB	0615	22	0.	.0	64.0	28	FEB	1430	55	243.	6.8	67.6	28	FEB	2245	88	17.	.7	64.6
28	FEB	0630	23	0.	.0	64.0	28	FEB	1445	56	183.	5.1	67.0	28	FEB	2300	89	16.	.7	64.6
28	FEB	0645	24	0.	.0	64.0	28	FEB	1500	57	140.	4.0	66.5	28	FEB	2315	90	16.	.7	64.6
28	FEB	0700	25	0.	.0	64.0	28	FEB	1515	58	110.	3.2	66.1	28	FEB	2330	91	16.	.7	64.6
28	FEB	0715	26	0.	.0	64.0	28	FEB	1530	59	91.	2.7	65.9	28	FEB	2345	92	15.	.7	64.6
28	FEB	0730	27	0.	.0	64.0	28	FEB	1545	60	79.	2.4	65.7	1	MAR	0000	93	15.	.7	64.6
28	FEB	0745	28	0.	.0	64.0	28	FEB	1600	61	70.	2.2	65.6	1	MAR	0015	94	15.	.7	64.5
28	FEB	0800	29	0.	.0	64.0	28	FEB	1615	62	63.	2.0	65.5	1	MAR	0030	95	14.	.7	64.5
28	FEB	0815	30	0.	.0	64.0	28	FEB	1630	63	59.	1.9	65.4	1	MAR	0045	96	14.	.6	64.5
28	FEB	0830	31	0.	.0	64.0	28	FEB	1645	64	55.	1.8	65.3	1	MAR	0100	97	14.	.6	64.5
28	FEB	0845	32	0.	.0	64.0	28	FEB	1700	65	52.	1.7	65.3							
28	FEB	0900	33	0.	.0	64.0	28	FEB	1715	66	49.	1.7	65.2							

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 386.	12.75		128.	39.	39.	39.
		(INCHES)	2.571	3.129	3.129	3.129
		(AC-FT)	64.	77.	77.	77.

STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
11.	12.75	4.	1.	1.	1.

PEAK STAGE (FEET)	TIME (HR)	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	24.00-HR
68.86	12.75	66.17	64.77	64.77	64.77

CUMULATIVE AREA = .46 SQ MI

1

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

OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
HYDROGRAPH AT	SUB7A	180.	12.50	40.	12.	12.	.13		
ROUTED TO	7ASWP	29.	13.75	28.	12.	12.	.13	112.91	13.75
HYDROGRAPH AT	SUB7B	122.	12.75	35.	11.	11.	.12		
2 COMBINED AT	7AB	149.	12.75	62.	23.	23.	.25		
ROUTED TO	7BSWP	26.	20.50	26.	18.	18.	.25	110.52	20.50
HYDROGRAPH AT	SUB7C	72.	12.50	16.	5.	5.	.05		
2 COMBINED AT	7BC	91.	12.50	39.	23.	23.	.30		
ROUTED TO	7CHNL	93.	12.50	39.	23.	23.	.30	96.95	12.50
HYDROGRAPH AT	SUB7D	131.	12.50	31.	10.	10.	.10		
ROUTED TO	7DSWP	59.	13.00	28.	8.	8.	.10	92.85	13.00
HYDROGRAPH AT	SUB7E	86.	12.25	14.	4.	4.	.05		
3 COMBINED AT	7CDE	181.	12.25	80.	36.	36.	.45		
ROUTED TO	7ECHN	131.	12.75	79.	35.	35.	.45	91.11	12.75

```
        HYDROGRAPH AT
+                   SUB7F     280.  12.50     62.     19.     19.    .21

        2 COMBINED AT
                    7EF       394.  12.50    139.     54.     54.    .66

        ROUTED TO
+                   7FCHN     397.  12.50    139.     54.     54.    .66
+                                                                  90.87    12.50

        HYDROGRAPH AT
+                   SUB7G      85.  12.50     19.      6.      6.    .06

        2 COMBINED AT
+                   7FG       482.  12.50    158.     59.     59.    .72

        ROUTED TO
+                   7GSWP     196.  13.50    153.     59.     59.    .72
+                                                                  91.02    13.50

        HYDROGRAPH AT
+                   SUB7H     251.  12.50     56.     17.     17.    .19

        2 COMBINED AT
+                   7GH       394.  12.50    206.     77.     77.    .91

        ROUTED TO
+                   7HSWP     226.  14.00    197.     76.     76.    .91
+                                                                  87.85    14.00

        HYDROGRAPH AT
+                   SUB8AA     76.  12.25     17.      5.      5.    .06

        2 COMBINED AT
+                   7H8AA     239.  12.50    211.     81.     81.    .97

        ROUTED TO
+                   8AASWP     30.  24.00     29.     14.     14.    .97
+                                                                  96.09    24.00

        HYDROGRAPH AT
+                   SUB6A      87.  12.75     25.      8.      8.    .10

        2 COMBINED AT
+                   8AA6A      99.  12.75     43.     22.     22.   1.06

        ROUTED TO
+                   6ASWP      33.  14.50     33.     16.     16.   1.06
+                                                                  86.54    14.50

        HYDROGRAPH AT
+                   SUB6B     250.  12.25     46.     14.     14.    .18

        2 COMBINED AT
                    6AB       259.  12.25     74.     30.     30.   1.24

        ROUTED TO
+                   6BSWP      25.  24.00     19.      5.      5.   1.24
+                                                                  81.14    24.00
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	HYDROGRAPH AT								
+		SUB6C	273.	12.50	61.	19.	19.	.23		
	HYDROGRAPH AT								
+		SUB6D	383.	12.75	110.	34.	34.	.42		
	ROUTED TO								
+		6DSWP	140.	13.50	108.	33.	33.	.42		
+									85.36	13.50
	3 COMBINED AT								
+		6BCD	377.	12.50	170.	57.	57.	1.89		
	ROUTED TO								
+		6CSWP	177.	14.00	165.	57.	57.	1.89		
+									78.02	14.00
	HYDROGRAPH AT								
+		SUB8AB	20.	12.25	4.	1.	1.	.02		
	ROUTED TO								
+		8ABCHL	20.	12.50	4.	1.	1.	.02		
+									78.66	12.50
	HYDROGRAPH AT								
+		SUB8B	370.	12.50	92.	28.	28.	.33		
	2 COMBINED AT								
+		8ABB	390.	12.50	97.	30.	30.	.35		
	ROUTED TO								
+		8BCHL	371.	12.50	97.	29.	29.	.35		
+									80.35	12.50
	HYDROGRAPH AT								
+		SUB8C	145.	12.50	32.	10.	10.	.12		
	2 COMBINED AT								
+		8BC	516.	12.50	129.	39.	39.	.46		
	ROUTED TO								
+		8CSWP	386.	12.75	128.	39.	39.	.46		
+									68.86	12.75

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

HEC-1

100 Year, 24 Hour Storm

(Routing Watershed 7 Through 6)

1 ****

FLOOD HYDROGRAPH PACKAGE HEC-1 (IBM XT 512K VERSION) -FEB 1,1985
U.S. ARMY CORPS OF ENGINEERS, THE HYDROLOGIC ENGINEERING CENTER, 609 SECOND STREET, DAVIS, CA. 95616
****

THIS HEC-1 VERSION CONTAINS ALL OPTIONS EXCEPT ECONOMICS, AND THE NUMBER OF PLANS ARE REDUCED TO 3

1 HEC-1 INPUT PAGE 1

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  1           ID        READING SUBWATERSHEDS
  2           ID        DETAILED STORAGE AND STREAM NETWORK
  3           ID        EXISTING CONDITIONS - 100 YR, 24 HR STORM
              *DIAGRAM
  4           IT      15 28FEB91     100      97
  5           IO       5

  6           KK   SUB7A
  7           KO       4
  8           KM        SCS RUNOFF CALCULATION
  9           BA   0.133
 10           PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
 11           LS             77
 12           UD     0.3

 13           KK   7ASWP
 14           KO       1
 15           KM        STORAGE ROUTING THROUGH 7A
 16           RS       1    ELEV     110
 17           SA    0.80    1.94    4.34   11.31   18.24
 18           SE     110     111     112     113     114
 19           SL   110.0    3.53     0.6     0.5
 20           SS   113.9       0       0     1.5

 21           KK   SUB7B
 22           KO       4
 23           KM        SCS RUNOFF CALCULATION
 24           BA   0.116
 25           PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
 26           LS             77
 27           UD    0.52

 28           KK     7AB
 29           KM        COMBINE HYDROGRAPHS FOR 7A & 7B
 30           HC       2

 31           KK   7BSWP
 32           KO       1
 33           KM        STORAGE ROUTING THROUGH 7B
 34           RS       1    ELEV     101
 35           SA    0.26    0.65    2.16    3.58    5.77
```

```
 36          SE     103     104     106     108     109
 37          SL     101    1.77     0.6     0.5
 38          SS   105.9       0       0     1.5

 39          KK   SUB7C
 40          KO       4
 41          KM        SCS RUNOFF CALCULATION
 42          BA   0.053
 43          PH               0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
 44          LS              77
 45          UD    0.25
1                                          HEC-1 INPUT                                        PAGE  2

LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 46          KK     7BC
 47          KM        COMBINE HYDROGRAPHS FOR 7B & 7C
 48          HC       2

 49          KK   7CHNL
 50          KO       1
 51          KM        STORAGE ROUTING THROUGH 7C
 52          RS       1    STOR       0
 53          RC   0.080   0.030   0.080     400  0.0285      98
 54          RX       0      10      20      30      40      50      60      70
 55          RY      99    98.5      98      96      96      98    98.5      99

 56          KK   SUB7D
 57          KO       4
 58          KM        SCS RUNOFF CALCULATION
 59          BA   0.104
 60          PH               0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
 61          LS              77
 62          UD    0.38

 63          KK   7DSWP
 64          KO       1
 65          KM        STORAGE ROUTING THROUGH 7D
 66          RS       1    ELEV      89
 67          SA    0.57    1.42    2.49    3.86
 68          SE      88      90      92      94
 69          SL    90.6    4.91     0.6     0.5
 70          SS      92      10     3.0     1.5

 71          KK   SUB7E
 72          KO       4
 73          KM        SCS RUNOFF CALCULATION
 74          BA   0.046
 75          PH               0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
 76          LS              77
 77          UD    0.14

 78          KK    7CDE
 79          KM        COMBINE HYDROGRAPHS FOR 7C, 7D, & 7E
 80          HC       3

 81          KK   7ECHN
 82          KO       1
 83          KM        STORAGE ROUTING THROUGH 7CDE
```

```
 84        RS      1    STOR      0
 85        RC   0.08    0.03    0.08    7600   0.002      93
 86        RX      0       5      10      16      24      30      35      40
 87        RY     94    93.5      93      88      88      93    93.5      94
                                   HEC-1 INPUT                                          PAGE  3

LINE       ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 88        KK   SUB7F
 89        KO      4
 90        KM       SCS RUNOFF CALCULATION
 91        BA   0.206
 92        PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
 93        LS             77
 94        UD    0.29

 95        KK    7EF
 96        KM       COMBINE HYDROGRAPHS FOR 7E & 7F
 97        HC      2

 98        KK   7FCHNL
 99        KO      1
100        KM       STORAGE ROUTING THROUGH 7F
101        RS      1    STOR      0
102        RC   0.08    0.03    0.08     500   0.003      90
103        RX      0       5      10      16      24      30      35      40
104        RY     90    90.5      90      86      86      90    90.5      91

105        KK   SUB7G
106        KO      4
107        KM       SCS RUNOFF CALCULATION
108        BA   0.063
109        PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
110        LS             77
111        UD    0.31

112        KK    7FG
113        KM       COMBINE HYDROGRAPHS FOR 7F & 7G
114        HC      2

115        KK   7GSWP
116        KO      1
117        KM       STORAGE ROUTING THROUGH 7G
118        RS      1    ELEV     83
119        SA      0    0.57    2.53    5.15
120        SE     85      86      87      88
121        SL   85.8   16.25     0.6     0.5
122        SS     88       0       0     1.5

123        KK   SUB7H
124        KO      4
125        KM       SCS RUNOFF CALCULATION
126        BA   0.186
127        PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
128        LS             77
129        UD    0.31
1                                  HEC-1 INPUT                                          PAGE  4

LINE       ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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```
130        KK   7GH
131        KM       COMBINE HYDROGRAPHS FOR 7G & 7H
132        HC      2

133        KK   7HSWP
134        KO      1
135        KM       STORAGE ROUTING THROUGH 7H
136        RS      1    ELEV      84
137        SA   0.39    3.08    9.24   15.26
138        SE     84      86      87      88
139        SS     84      10     3.0     1.5

140        KK  SUB8AA
141        KO      4
142        KM       SCS RUNOFF CALCULATION
143        BA  0.060
144        PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
145        LS             74
146        UD   0.23

147        KK   7H8AA
148        KM       COMBINE HYDROGRAPHS FOR 7H & 8AA
149        HC      2

150        KK  8AASWP
151        KO      1
152        KM       STORAGE ROUTING THROUGH 8AA SWAMP
153        RS      1    ELEV      80
154        SA      0    2.42    5.19    9.28
155        SE     78      80      82      84
156        SL     80    1.23     0.6     0.5
157        SS   83.9       0       0     1.5

158        KK   SUB6A
159        KO      4
160        KM       SCS RUNOFF CALCULATION
161        BA  0.096
162        PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
163        LS             72
164        UD   0.51

165        KK   8AA6A
166        KM       COMBINE HYDROGRAPHS FOR 8AA & 6A
167        HC      2

168        KK   6ASWP
169        KO      1
170        KM       STORAGE ROUTING THROUGH 6A
171        RS      1    ELEV      82
172        SA   0.10    1.16    3.98    7.54
173        SE     82      84      85      86
174        SL     85    4.50     0.6     0.5
175        SS   85.9       0       0     1.5
```



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LINE       ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
176        KK   SUB6B
177        KO       4
178        KM        SCS RUNOFF CALCULATION
179        BA   0.176
180        PH             0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
181        LS            72
182        UD    0.18

183        KK     6AB
184        KM        COMBINE HYDROGRAPHS FOR 6A & 6B
185        HC       2

186        KK   6BSWP
187        KO       1
188        KM        STORAGE ROUTING THROUGH 6B
189        RS       1    ELEV      79
190        SA    9.64   23.83   37.42
191        SE      79      80      82
192        SL    79.5    0.79     0.6     0.5
193        SL    80.6    11.3     0.6     0.5
194        SS    81.9       0       0     1.5

195        KK   SUB6C
196        KO       4
197        KM        SCS RUNOFF CALCULATION
198        BA   0.234
199        PH             0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
200        LS            72
201        UD     0.3

202        KK   SUB6D
203        KO       4
204        KM        SCS RUNOFF CALCULATION
205        BA   0.421
206        PH             0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
207        LS            72
208        UD    0.50

209        KK   6DSWP
210        KO       1
211        KM        STORAGE ROUTING THROUGH 6D
212        RS       1    ELEV      80
213        SA    1.54    14.4
214        SE      80      90
215        SL      80   12.57     0.6     0.5
216        SS      90       0     3.0     1.5

217        KK    6BCD
218        KM        COMBINE HYDROGRAPHS FOR 6B, 6C & 6D
219        HC       3
```



```
LINE       ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


220        KK   6CSWP
221        KO       1
222        KM        STORAGE ROUTING THROUGH 6C
223        RS       1    ELEV      76
224        SA       0    2.33   12.55   24.40   33.53
```

```
225          SE    74.5      76      78      80      82
226          SL    74.5   19.64     0.6     0.5
227          SS    81.9       0       0     1.5

228          KK  SUB8AB
229          KO       4
230          KM        SCS RUNOFF CALCULATION
231          BA   0.016
232          PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
233          LS             74
234          UD    0.23

235          KK  8ABCHL
236          KO       1
237          KM        STORAGE ROUTING THROUGH 8AB CHANNEL
238          RS       1    STOR       0
239          RC   0.080   0.030   0.080     300   0.025      86
240          RX       0      25      50      55      60      65      75      85
241          RY      86      85      84      78      78      84      85      86

242          KK   SUB8B
243          KO       4
244          KM        SCS RUNOFF CALCULATION
245          BA   0.332
246          PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
247          LS             74
248          UD     0.4

249          KK    8ABB
250          KM        COMBINE HYDROGRAPHS FOR 8AB & 8B
251          HC       2

252          KK   8BCHL
253          KO       1
254          KM        STORAGE ROUTING THROUGH 8B
255          RS       1    STOR       0
256          RC    0.08    0.03    0.08    1200   0.003      82
257          RX       0       5      10      20      25      35      40      45
258          RY      84      83      82      75      75      82      83      84

259          KK   SUB8C
260          KO       4
261          KM        SCS RUNOFF CALCULATION
262          BA   0.116
263          PH              0     0.6     1.3     2.5     3.3     3.7     4.6     5.6     6.6
264          LS             74
265          UD    0.26
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


266          KK    8BC
267          KM        COMBINE HYDROGRAPHS FOR 8B & 8C
268          HC       2

269          KK   8CSWP
270          KO       1
271          KM        STORAGE ROUTING THROUGH 8C
272          RS       1    ELEV      64
```

```
273          SA    1.12    1.91    3.28    5.70    8.79   11.08
274          SE      64      66      68      70      72      74
275          SS      64      12     3.0     1.5
276          ZZ
```

```
              SCHEMATIC DIAGRAM OF STREAM NETWORK
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    6       SUB7A
                V
                V
   13       7ASWP
                .
                .
   21           .       SUB7B
                .           .
                .           .
   28         7AB............
                V
                V
   31       7BSWP
                .
                .
   39           .       SUB7C
                .           .
                .           .
   46         7BC............
                V
                V
   49       7CHNL
                .
                .
   56           .       SUB7D
                .           V
                .           V
   63           .       7DSWP
                .           .
                .           .
   71           .           .       SUB7E
                .           .           .
                .           .           .
   78        7CDE........................
                V
                V
   81       7ECHN
                .
                .
   88           .       SUB7F
                .           .
                .           .
   95        7EF ............
                V
                V
   98       7FCHN
                .
                .
  105           .       SUB7G
```

```
              .           .
              .           .
112        7FG ............
              V
              V
115       7GSWP
              .
              .
123           .       SUB7H
              .           .
              .           .
130        7GH ............
              V
              V
133       7HSWP
              .
              .
140           .      SUB8AA
              .           .
              .           .
147       7H8AA............
              V
              V
150      8AASWP
              .
              .
158           .       SUB6A
              .           .
              .           .
165       8AA6A............
              V
              V
168       6ASWP
              .
              .
176           .       SUB6B
              .           .
              .           .
183         6AB............
              V
              V
186       6BSWP
              .
              .
195           .       SUB6C
              .           .
              .           .
202           .           .      SUB6D
              .           .          V
              .           .          V
209           .           .      6DSWP
              .           .          .
              .           .          .
217        6BCD........................
              V
              V
220       6CSWP
              .
              .
228           .      SUB8AB
```

```
              .          V
              .          V
  235         .      8ABCHL
              .          .
              .          .
  242         .          .       SUB8B
              .          .          .
              .          .          .
  249         .       8ABB............
              .          V
              .          V
  252         .      8BCHL
              .          .
              .          .
  259         .          .       SUB8C
              .          .          .
              .          .          .
  266         .       8BC ............
              .          V
              .          V
  269         .      8CSWP

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1                                                          ****
                          FLOOD HYDROGRAPH PACKAGE HEC-1 (IBM XT 512K VERSION) -FEB 1,1985
              U.S. ARMY CORPS OF ENGINEERS, THE HYDROLOGIC ENGINEERING CENTER, 609 SECOND STREET, DAVIS, CA. 95616
                                                           ****



                            READING SUBWATERSHEDS
                            DETAILED STORAGE AND STREAM NETWORK
                            EXISTING CONDITIONS - 100 YR, 24 HR STORM

  5 IO         OUTPUT CONTROL VARIABLES
                     IPRNT          5  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE

    IT         HYDROGRAPH TIME DATA
                      NMIN         15  MINUTES IN COMPUTATION INTERVAL
                     IDATE     28FEB91  STARTING DATE
                     ITIME       0100  STARTING TIME
                        NQ         97  NUMBER OF HYDROGRAPH ORDINATES
                    NDDATE      1MAR91  ENDING DATE
                    NDTIME       0100  ENDING TIME

                 COMPUTATION INTERVAL     .25 HOURS
                      TOTAL TIME BASE   24.00 HOURS

        ENGLISH UNITS


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


         **************
         *            *
```

```
  6 KK     *     SUB7A  *
           *            *
           **************

  7 KO         OUTPUT CONTROL VARIABLES
                     IPRNT           4  PRINT CONTROL
                     IPLOT           0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE
                              SCS RUNOFF CALCULATION

             SUBBASIN RUNOFF DATA

  9 BA         SUBBASIN CHARACTERISTICS
                     TAREA         .13  SUBBASIN AREA

               PRECIPITATION DATA

 10 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
               ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
               5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                 .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                   STORM AREA =     .13

 11 LS         SCS LOSS RATE
                     STRTL         .60  INITIAL ABSTRACTION
                    CRVNBR       77.00  CURVE NUMBER
                     RTIMP         .00  PERCENT IMPERVIOUS AREA

 12 UD         SCS DIMENSIONLESS UNITGRAPH
                      TLAG         .30  LAG

                                                          ***

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

                                                     UNIT HYDROGRAPH
                                                 8 END-OF-PERIOD ORDINATES
             97.      144.      63.       25.       9.       4.       1.       0.


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


           **************
           *            *
 13 KK     *     7ASWP  *
           *            *
           **************

 14 KO         OUTPUT CONTROL VARIABLES
                     IPRNT           1  PRINT CONTROL
                     IPLOT           0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE
                              STORAGE ROUTING THROUGH 7A

             HYDROGRAPH ROUTING DATA

 16 RS         STORAGE ROUTING
```

```
                    NSTPS          1  NUMBER OF SUBREACHES
                     ITYP       ELEV  TYPE OF INITIAL CONDITION
                   RSVRIC     110.00  INITIAL CONDITION
                        X        .00 WORKING R AND D COEFFICIENT

 / SA              AREA         .8      1.9      4.3     11.3     18.2

18 SE          ELEVATION     110.00   111.00   112.00   113.00   114.00

19 SL          LOW-LEVEL OUTLET
                    ELEVL     110.00  ELEVATION AT CENTER OF OUTLET
                    CAREA       3.53  CROSS-SECTIONAL AREA
                     COQL        .60  COEFFICIENT
                     EXPL        .50  EXPONENT OF HEAD

20 SS          SPILLWAY
                     CREL     113.90  SPILLWAY CREST ELEVATION
                    SPWID        .00  SPILLWAY WIDTH
                     COQW        .00  WEIR COEFFICIENT
                     EXPW       1.50  EXPONENT OF HEAD

                                                  ***

                                   COMPUTED STORAGE-ELEVATION DATA

          STORAGE       .00      1.33      4.39     11.94     26.58
        ELEVATION    110.00    111.00    112.00    113.00    114.00

                                   COMPUTED OUTFLOW-ELEVATION DATA

         OUTFLOW       .00     17.07     18.18     19.46     20.92     22.62     24.63     27.02     29.93     33.55
        ELEVATION    110.00    111.01    111.15    111.31    111.52    111.77    112.10    112.53    113.11    113.90


                                 COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE       .00      1.33      1.63      2.03      2.61      3.48      4.39      4.86      7.53     11.94
         OUTFLOW       .00     16.99     18.18     19.46     20.92     22.62     24.02     24.63     27.02     29.42
        ELEVATION    110.00    111.00    111.15    111.31    111.52    111.77    112.00    112.10    112.53    113.00

          STORAGE     13.17     24.79     26.58
         OUTFLOW     29.93     33.55     33.97
        ELEVATION    113.11    113.90    114.00
*****************************************************************************************************************

                                   HYDROGRAPH AT STATION    7ASWP

*****************************************************************************************************************
                                        *                                        *
DA MON HRMN ORD  OUTFLOW  STORAGE   STAGE * DA MON HRMN ORD  OUTFLOW  STORAGE   STAGE * DA MON HRMN ORD  OUTFLOW  STORAGE   STAGE
                                        *                                        *
28 FEB 0100  1       0.       .0   110.0 * 28 FEB 0915  34       1.       .0   110.0 * 28 FEB 1730  67      29.     10.9   112.9
28 FEB 0115  2       0.       .0   110.0 * 28 FEB 0930  35       1.       .1   110.1 * 28 FEB 1745  68      29.     10.6   112.9
28 FEB 0130  3       0.       .0   110.0 * 28 FEB 0945  36       1.       .1   110.1 * 28 FEB 1800  69      29.     10.2   112.8
   FEB 0145  4       0.       .0   110.0 * 28 FEB 1000  37       2.       .1   110.1 * 28 FEB 1815  70      28.      9.9   112.8
   FEB 0200  5       0.       .0   110.0 * 28 FEB 1015  38       2.       .2   110.1 * 28 FEB 1830  71      28.      9.6   112.7
28 FEB 0215  6       0.       .0   110.0 * 28 FEB 1030  39       3.       .2   110.1 * 28 FEB 1845  72      28.      9.2   112.7
28 FEB 0230  7       0.       .0   110.0 * 28 FEB 1045  40       3.       .2   110.2 * 28 FEB 1900  73      28.      8.9   112.7
28 FEB 0245  8       0.       .0   110.0 * 28 FEB 1100  41       4.       .3   110.2 * 28 FEB 1915  74      28.      8.5   112.6
```

28 FEB 0300	9	0.	.0	110.0	*	28 FEB 1115	42	5.	.4	110.3	*	28 FEB 1930	75	27.	8.1	112.6
28 FEB 0315	10	0.	.0	110.0	*	28 FEB 1130	43	6.	.4	110.3	*	28 FEB 1945	76	27.	7.7	112.6
28 FEB 0330	11	0.	.0	110.0	*	28 FEB 1145	44	7.	.5	110.4	*	28 FEB 2000	77	27.	7.3	112.5
28 FEB 0345	12	0.	.0	110.0	*	28 FEB 1200	45	8.	.6	110.5	*	28 FEB 2015	78	27.	7.0	11[illegible]
28 FEB 0400	13	0.	.0	110.0	*	28 FEB 1215	46	10.	.8	110.6	*	28 FEB 2030	79	26.	6.6	11[illegible]
28 FEB 0415	14	0.	.0	110.0	*	28 FEB 1230	47	12.	1.0	110.7	*	28 FEB 2045	80	26.	6.2	112.[illegible]
28 FEB 0430	15	0.	.0	110.0	*	28 FEB 1245	48	17.	1.3	111.0	*	28 FEB 2100	81	25.	5.8	112.3
28 FEB 0445	16	0.	.0	110.0	*	28 FEB 1300	49	19.	2.0	111.3	*	28 FEB 2115	82	25.	5.4	112.2
28 FEB 0500	17	0.	.0	110.0	*	28 FEB 1315	50	23.	4.0	111.9	*	28 FEB 2130	83	25.	5.0	112.1
28 FEB 0515	18	0.	.0	110.0	*	28 FEB 1330	51	27.	7.1	112.5	*	28 FEB 2145	84	24.	4.7	112.1
28 FEB 0530	19	0.	.0	110.0	*	28 FEB 1345	52	28.	9.9	112.8	*	28 FEB 2200	85	24.	4.3	112.0
28 FEB 0545	20	0.	.0	110.0	*	28 FEB 1400	53	29.	11.5	113.0	*	28 FEB 2215	86	23.	4.0	111.9
28 FEB 0600	21	0.	.0	110.0	*	28 FEB 1415	54	30.	12.4	113.0	*	28 FEB 2230	87	23.	3.6	111.8
28 FEB 0615	22	0.	.0	110.0	*	28 FEB 1430	55	30.	12.9	113.1	*	28 FEB 2245	88	22.	3.3	111.7
28 FEB 0630	23	0.	.0	110.0	*	28 FEB 1445	56	30.	13.0	113.1	*	28 FEB 2300	89	22.	2.9	111.6
28 FEB 0645	24	0.	.0	110.0	*	28 FEB 1500	57	30.	13.1	113.1	*	28 FEB 2315	90	21.	2.6	111.5
28 FEB 0700	25	0.	.0	110.0	*	28 FEB 1515	58	30.	13.0	113.1	*	28 FEB 2330	91	20.	2.3	111.4
28 FEB 0715	26	0.	.0	110.0	*	28 FEB 1530	59	30.	12.9	113.1	*	28 FEB 2345	92	19.	2.0	111.3
28 FEB 0730	27	0.	.0	110.0	*	28 FEB 1545	60	30.	12.8	113.1	*	1 MAR 0000	93	19.	1.7	111.2
28 FEB 0745	28	0.	.0	110.0	*	28 FEB 1600	61	30.	12.6	113.1	*	1 MAR 0015	94	18.	1.5	111.1
28 FEB 0800	29	0.	.0	110.0	*	28 FEB 1615	62	30.	12.4	113.0	*	1 MAR 0030	95	16.	1.2	110.9
28 FEB 0815	30	0.	.0	110.0	*	28 FEB 1630	63	29.	12.1	113.0	*	1 MAR 0045	96	13.	1.1	110.8
28 FEB 0830	31	0.	.0	110.0	*	28 FEB 1645	64	29.	11.8	113.0	*	1 MAR 0100	97	12.	.9	110.7
28 FEB 0845	32	0.	.0	110.0	*	28 FEB 1700	65	29.	11.5	113.0	*					
28 FEB 0900	33	0.	.0	110.0	*	28 FEB 1715	66	29.	11.2	112.9	*					
					*						*					

****

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 30.	14.00		29.	14.	14.	14.
		(INCHES)	2.025	3.855	3.855	3.855
		(AC-FT)	14.	27.	27.	27.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
13.	14.00	11.	4.	4.	4.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)				
113.10	14.00	112.91	111.24	111.24	111.24

CUMULATIVE AREA = .13 SQ MI

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              *            *
   21 KK      *    SUB7B   *
              *            *
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 22 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           4  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

             SUBBASIN RUNOFF DATA

 24 BA          SUBBASIN CHARACTERISTICS
                      TAREA         .12  SUBBASIN AREA

                PRECIPITATION DATA

 25 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                   STORM AREA =     .12

 26 LS          SCS LOSS RATE
                      STRTL         .60  INITIAL ABSTRACTION
                     CRVNBR       77.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

 27 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .52  LAG

                                                        ***

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

                                                   UNIT HYDROGRAPH
                                              12 END-OF-PERIOD ORDINATES
             26.       79.       83.       54.       27.       15.        8.        4.        2.        1.
              1.        0.


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


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          *            *
 31 KK    *     7BSWP  *
          *            *
          **************

 32 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 7B

             HYDROGRAPH ROUTING DATA

  , RS          STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC      101.00  INITIAL CONDITION
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                    X        .00 WORKING R AND D COEFFICIENT

35 SA            AREA         .3       .6      2.2      3.6      5.8

36 SE       ELEVATION     103.00   104.00   106.00   108.00   109.00

37 SL       LOW-LEVEL OUTLET
                 ELEVL     101.00  ELEVATION AT CENTER OF OUTLET
                 CAREA       1.77  CROSS-SECTIONAL AREA
                  COQL        .60  COEFFICIENT
                  EXPL        .50  EXPONENT OF HEAD

38 SS       SPILLWAY
                  CREL     105.90  SPILLWAY CREST ELEVATION
                 SPWID        .00  SPILLWAY WIDTH
                  COOW        .00  WEIR COEFFICIENT
                  EXPW       1.50  EXPONENT OF HEAD

                                          ***

                                COMPUTED STORAGE-ELEVATION DATA

      STORAGE       .00      .44     3.10     8.78    13.42
    ELEVATION    103.00   104.00   106.00   108.00   109.00

                                COMPUTED OUTFLOW-ELEVATION DATA

      OUTFLOW       .00    12.55    13.10    13.69    14.35    15.07    15.86    16.75    17.74    18.85
    ELEVATION    103.00   103.17   103.36   103.58   103.84   104.13   104.47   104.87   105.34   105.90

                              COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

      STORAGE       .00      .05      .12      .21      .34      .44      .53      .81     1.23     1.88
      OUTFLOW     12.05    12.55    13.10    13.69    14.35    14.75    15.07    15.86    16.75    17.74
    ELEVATION    103.00   103.17   103.36   103.58   103.84   104.00   104.13   104.47   104.87   105.34

      STORAGE      2.89     3.10     8.78    13.42
      OUTFLOW     18.85    19.05    22.53    24.09
    ELEVATION    105.90   106.00   108.00   109.00
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HYDROGRAPH AT STATION 7BSWP

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.1	103.0	*	28	FEB	0915	34	11.	-.1	103.0	*	28	FEB	1730	67	27.	20.7	110.6
28	FEB	0115	2	12.	.0	103.0	*	28	FEB	0930	35	11.	-.1	103.0	*	28	FEB	1745	68	27.	21.0	110.6
28	FEB	0130	3	11.	-.1	103.0	*	28	FEB	0945	36	11.	-.1	103.0	*	28	FEB	1800	69	27.	21.3	110.7
28	FEB	0145	4	11.	-.1	103.0	*	28	FEB	1000	37	11.	-.1	103.0	*	28	FEB	1815	70	27.	21.6	110.8
28	FEB	0200	5	11.	-.1	103.0	*	28	FEB	1015	38	11.	-.1	103.0	*	28	FEB	1830	71	27.	21.8	110.8
28	FEB	0215	6	11.	-.1	103.0	*	28	FEB	1030	39	11.	-.1	103.0	*	28	FEB	1845	72	27.	22.0	11[illegible]
28	FEB	0230	7	11.	-.1	103.0	*	28	FEB	1045	40	11.	-.1	103.0	*	28	FEB	1900	73	27.	22.3	110.
28	FEB	0245	8	11.	-.1	103.0	*	28	FEB	1100	41	11.	-.1	103.0	*	28	FEB	1915	74	27.	22.5	111.0
28	FEB	0300	9	11.	-.1	103.0	*	28	FEB	1115	42	11.	-.1	103.0	*	28	FEB	1930	75	27.	22.7	111.0
28	FEB	0315	10	11.	-.1	103.0	*	28	FEB	1130	43	11.	-.1	103.0	*	28	FEB	1945	76	27.	22.8	111.0
28	FEB	0330	11	11.	-.1	103.0	*	28	FEB	1145	44	12.	.0	103.0	*	28	FEB	2000	77	27.	23.0	111.1

28	FEB	0345	12	11.	-.1	103.0	*	28	FEB	1200	45	12.	.0	103.1	*	28	FEB	2015	78	27.	23.1	111.1
28	FEB	0400	13	11.	-.1	103.0	*	28	FEB	1215	46	13.	.2	103.5	*	28	FEB	2030	79	27.	23.2	111.1
28	FEB	0415	14	11.	-.1	103.0	*	28	FEB	1230	47	15.	.4	103.9	*	28	FEB	2045	80	27.	23.3	111.1
28	FEB	0430	15	11.	-.1	103.0	*	28	FEB	1245	48	16.	.8	104.5	*	28	FEB	2100	81	27.	23.4	111.2
	FEB	0445	16	11.	-.1	103.0	*	28	FEB	1300	49	17.	1.5	105.0	*	28	FEB	2115	82	27.	23.5	111.2
	FEB	0500	17	11.	-.1	103.0	*	28	FEB	1315	50	19.	2.7	105.8	*	28	FEB	2130	83	28.	23.6	111.2
28	FEB	0515	18	11.	-.1	103.0	*	28	FEB	1330	51	20.	4.9	106.6	*	28	FEB	2145	84	28.	23.7	111.2
28	FEB	0530	19	11.	-.1	103.0	*	28	FEB	1345	52	22.	7.7	107.6	*	28	FEB	2200	85	28.	23.7	111.2
28	FEB	0545	20	11.	-.1	103.0	*	28	FEB	1400	53	23.	10.3	108.3	*	28	FEB	2215	86	28.	23.7	111.2
28	FEB	0600	21	11.	-.1	103.0	*	28	FEB	1415	54	24.	12.4	108.8	*	28	FEB	2230	87	28.	23.8	111.2
28	FEB	0615	22	11.	-.1	103.0	*	28	FEB	1430	55	24.	13.9	109.1	*	28	FEB	2245	88	28.	23.8	111.2
28	FEB	0630	23	11.	-.1	103.0	*	28	FEB	1445	56	25.	15.1	109.4	*	28	FEB	2300	89	28.	23.8	111.2
28	FEB	0645	24	11.	-.1	103.0	*	28	FEB	1500	57	25.	16.0	109.6	*	28	FEB	2315	90	28.	23.7	111.2
28	FEB	0700	25	11.	-.1	103.0	*	28	FEB	1515	58	25.	16.7	109.7	*	28	FEB	2330	91	28.	23.7	111.2
28	FEB	0715	26	11.	-.1	103.0	*	28	FEB	1530	59	25.	17.4	109.9	*	28	FEB	2345	92	28.	23.7	111.2
28	FEB	0730	27	11.	-.1	103.0	*	28	FEB	1545	60	26.	17.9	110.0	*	1	MAR	0000	93	28.	23.6	111.2
28	FEB	0745	28	11.	-.1	103.0	*	28	FEB	1600	61	26.	18.4	110.1	*	1	MAR	0015	94	27.	23.5	111.2
28	FEB	0800	29	11.	-.1	103.0	*	28	FEB	1615	62	26.	18.9	110.2	*	1	MAR	0030	95	27.	23.4	111.1
28	FEB	0815	30	11.	-.1	103.0	*	28	FEB	1630	63	26.	19.3	110.3	*	1	MAR	0045	96	27.	23.2	111.1
28	FEB	0830	31	11.	-.1	103.0	*	28	FEB	1645	64	26.	19.7	110.4	*	1	MAR	0100	97	27.	23.0	111.1
28	FEB	0845	32	11.	-.1	103.0	*	28	FEB	1700	65	26.	20.1	110.4	*							
28	FEB	0900	33	11.	-.1	103.0	*	28	FEB	1715	66	26.	20.4	110.5	*							
							*								*							

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PEAK FLOW	TIME			MAXIMUM AVERAGE FLOW		
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 28.	21.75		27.	19.	19.	19.
		(INCHES)	1.024	2.786	2.786	2.786
		(AC-FT)	14.	37.	37.	37.

PEAK STORAGE	TIME			MAXIMUM AVERAGE STORAGE		
			6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)					
24.	21.75		23.	10.	10.	10.

PEAK STAGE	TIME			MAXIMUM AVERAGE STAGE		
			6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)					
111.24	21.75		111.15	106.71	106.71	106.71

CUMULATIVE AREA = .25 SQ MI

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          *            *
 39 KK    *    SUB7C   *
          *            *
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40 KO   OUTPUT CONTROL VARIABLES

IPRNT	4	PRINT CONTROL
IPLOT	0	PLOT CONTROL

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                QSCAL          0.  HYDROGRAPH PLOT SCALE
                          SCS RUNOFF CALCULATION

          SUBBASIN RUNOFF DATA

 42 BA      SUBBASIN CHARACTERISTICS
                TAREA         .05  SUBBASIN AREA

            PRECIPITATION DATA

 43 PH                          DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
            ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
            5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
              .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                STORM AREA =     .05

 44 LS      SCS LOSS RATE
                STRTL         .60  INITIAL ABSTRACTION
               CRVNBR       77.00  CURVE NUMBER
                RTIMP         .00  PERCENT IMPERVIOUS AREA

 45 UD      SCS DIMENSIONLESS UNITGRAPH
                 TLAG         .25  LAG

                                                  ***

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

                                                UNIT HYDROGRAPH
                                            7 END-OF-PERIOD ORDINATES
          52.      56.      19.       7.       2.       1.       0.


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


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        *            *
 49 KK  *     7CHNL  *
        *            *
        **************

 50 KO      OUTPUT CONTROL VARIABLES
                IPRNT          1  PRINT CONTROL
                IPLOT          0  PLOT CONTROL
                QSCAL         0.  HYDROGRAPH PLOT SCALE
                          STORAGE ROUTING THROUGH 7C

          HYDROGRAPH ROUTING DATA

 52 RS      STORAGE ROUTING
                NSTPS          1  NUMBER OF SUBREACHES
                 ITYP       STOR  TYPE OF INITIAL CONDITION
               RSVRIC        .00  INITIAL CONDITION
                    X        .00 WORKING R AND D COEFFICIENT

 53 RC      NORMAL DEPTH CHANNEL ROUTING
                  ANL       .080  LEFT OVERBANK N-VALUE
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ANCH	.030	MAIN CHANNEL N-VALUE
ANR	.080	RIGHT OVERBANK N-VALUE
RLNTH	400.	REACH LENGTH
SEL	.0285	ENERGY SLOPE
ELMAX	98.0	MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

CROSS-SECTION DATA

		--- LEFT OVERBANK ---		+ ------ MAIN CHANNEL		------- +	--- RIGHT OVERBANK ---		
55 RY	ELEVATION	99.00	98.50	98.00	96.00	96.00	98.00	98.50	99.00
54 RX	DISTANCE	.00	10.00	20.00	30.00	40.00	50.00	60.00	70.00

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COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	.01	.02	.03	.05	.06	.08	.09	.11	.13
OUTFLOW	.00	2.00	6.48	13.01	21.49	31.89	44.21	58.51	74.81	93.17
ELEVATION	96.00	96.11	96.21	96.32	96.42	96.53	96.63	96.74	96.84	96.95
STORAGE	.15	.17	.19	.21	.24	.26	.28	.31	.34	.37
OUTFLOW	113.65	136.29	161.16	188.33	217.84	249.76	284.15	321.07	360.59	402.75
ELEVATION	97.05	97.16	97.26	97.37	97.47	97.58	97.68	97.79	97.89	98.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 0. TO 403.
THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

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HYDROGRAPH AT STATION 7CHNL

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	96.0	*	28	FEB	0915	34	12.	.0	96.3	*	28	FEB	1730	67	32.	.1	96.5
28	FEB	0115	2	9.	.0	96.3	*	28	FEB	0930	35	12.	.0	96.3	*	28	FEB	1745	68	32.	.1	96.5
28	FEB	0130	3	13.	.0	96.3	*	28	FEB	0945	36	12.	.0	96.3	*	28	FEB	1800	69	32.	.1	96.5
28	FEB	0145	4	10.	.0	96.3	*	28	FEB	1000	37	12.	.0	96.3	*	28	FEB	1815	70	31.	.1	96.5
28	FEB	0200	5	12.	.0	96.3	*	28	FEB	1015	38	12.	.0	96.3	*	28	FEB	1830	71	31.	.1	96.5
28	FEB	0215	6	10.	.0	96.3	*	28	FEB	1030	39	13.	.0	96.3	*	28	FEB	1845	72	31.	.1	96.5
28	FEB	0230	7	11.	.0	96.3	*	28	FEB	1045	40	13.	.0	96.3	*	28	FEB	1900	73	31.	.1	96.5
28	FEB	0245	8	11.	.0	96.3	*	28	FEB	1100	41	14.	.0	96.3	*	28	FEB	1915	74	31.	.1	96.5
28	FEB	0300	9	11.	.0	96.3	*	28	FEB	1115	42	14.	.0	96.3	*	28	FEB	1930	75	31.	.1	96.5
28	FEB	0315	10	11.	.0	96.3	*	28	FEB	1130	43	15.	.0	96.3	*	28	FEB	1945	76	30.	.1	96.5
28	FEB	0330	11	11.	.0	96.3	*	28	FEB	1145	44	16.	.0	96.4	*	28	FEB	2000	77	30.	.1	96.5
28	FEB	0345	12	11.	.0	96.3	*	28	FEB	1200	45	18.	.0	96.4	*	28	FEB	2015	78	30.	.1	96.5
28	FEB	0400	13	11.	.0	96.3	*	28	FEB	1215	46	21.	.0	96.4	*	28	FEB	2030	79	30.	.1	96.5
28	FEB	0415	14	11.	.0	96.3	*	28	FEB	1230	47	26.	.1	96.5	*	28	FEB	2045	80	30.	.1	96.5
28	FEB	0430	15	11.	.0	96.3	*	28	FEB	1245	48	31.	.1	96.5	*	28	FEB	2100	81	30.	.1	96.5
28	FEB	0445	16	11.	.0	96.3	*	28	FEB	1300	49	47.	.1	96.6	*	28	FEB	2115	82	30.	.1	96.5
28	FEB	0500	17	11.	.0	96.3	*	28	FEB	1315	50	90.	.1	96.9	*	28	FEB	2130	83	30.	.1	96.5
28	FEB	0515	18	11.	.0	96.3	*	28	FEB	1330	51	99.	.1	97.0	*	28	FEB	2145	84	30.	.1	96.5
28	FEB	0530	19	11.	.0	96.3	*	28	FEB	1345	52	69.	.1	96.8	*	28	FEB	2200	85	30.	.1	96.5
	FEB	0545	20	11.	.0	96.3	*	28	FEB	1400	53	55.	.1	96.7	*	28	FEB	2215	86	30.	.1	96.5
	FEB	0600	21	11.	.0	96.3	*	28	FEB	1415	54	45.	.1	96.6	*	28	FEB	2230	87	30.	.1	96.5
28	FEB	0615	22	11.	.0	96.3	*	28	FEB	1430	55	40.	.1	96.6	*	28	FEB	2245	88	30.	.1	96.5
28	FEB	0630	23	11.	.0	96.3	*	28	FEB	1445	56	37.	.1	96.6	*	28	FEB	2300	89	30.	.1	96.5
28	FEB	0645	24	11.	.0	96.3	*	28	FEB	1500	57	36.	.1	96.6	*	28	FEB	2315	90	30.	.1	96.5

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28 FEB 0700  25     11.      .0    96.3 * 28 FEB 1515  58     35.      .1    96.6 * 28 FEB 2330  91     30.      .1    96.5
28 FEB 0715  26     11.      .0    96.3 * 28 FEB 1530  59     35.      .1    96.5 * 28 FEB 2345  92     30.      .1    96.5
28 FEB 0730  27     11.      .0    96.3 * 28 FEB 1545  60     34.      .1    96.5 *  1 MAR 0000  93     30.      .1    9
28 FEB 0745  28     11.      .0    96.3 * 28 FEB 1600  61     34.      .1    96.5 *  1 MAR 0015  94     30.      .1    9.
28 FEB 0800  29     11.      .0    96.3 * 28 FEB 1615  62     33.      .1    96.5 *  1 MAR 0030  95     30.      .1    96.
28 FEB 0815  30     11.      .0    96.3 * 28 FEB 1630  63     33.      .1    96.5 *  1 MAR 0045  96     29.      .1    96.5
28 FEB 0830  31     11.      .0    96.3 * 28 FEB 1645  64     32.      .1    96.5 *  1 MAR 0100  97     29.      .1    96.5
28 FEB 0845  32     11.      .0    96.3 * 28 FEB 1700  65     32.      .1    96.5 *
28 FEB 0900  33     11.      .0    96.3 * 28 FEB 1715  66     32.      .1    96.5 *
                                        *                                        *
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 PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
                                    6-HR       24-HR       72-HR     24.00-HR
+   (CFS)      (HR)
                          (CFS)
+      99.     12.50                42.         24.         24.         24.
                        (INCHES)  1.291       2.993       2.993       2.993
                         (AC-FT)    21.         48.         48.         48.

 PEAK STORAGE  TIME                       MAXIMUM AVERAGE STORAGE
                                    6-HR       24-HR       72-HR     24.00-HR
+  (AC-FT)     (HR)
       0.      12.50                 0.          0.          0.          0.

 PEAK STAGE    TIME                        MAXIMUM AVERAGE STAGE
                                    6-HR       24-HR       72-HR     24.00-HR
+   (FEET)     (HR)
    96.98      12.50               96.60       96.43       96.43       96.43

                         CUMULATIVE AREA =     .30 SQ MI
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*** ***

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          **************
          *            *
  56 KK   *     SUB7D  *
          *            *
          **************

  57 KO         OUTPUT CONTROL VARIABLES
                      IPRNT          4  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

             SUBBASIN RUNOFF DATA

  59 BA         SUBBASIN CHARACTERISTICS
                      TAREA        .10  SUBBASIN AREA

                PRECIPITATION DATA

  60 PH                            DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
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                .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                STORM AREA =     .10

 61 LS          SCS LOSS RATE
                      STRTL         .60  INITIAL ABSTRACTION
                     CRVNBR       77.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

 62 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .38  LAG

                                                        ***

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

                                                   UNIT HYDROGRAPH
                                              10 END-OF-PERIOD ORDINATES
             46.      100.       70.       29.       13.        6.        3.        1.        1.        0.


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


          **************
          *            *
 63 KK    *     7DSWP  *
          *            *
          **************

 64 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 7D

             HYDROGRAPH ROUTING DATA

 66 RS          STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC       89.00  INITIAL CONDITION
                          X         .00 WORKING R AND D COEFFICIENT

 67 SA                AREA          .6       1.4       2.5       3.9

 68 SE          ELEVATION       88.00     90.00     92.00     94.00

 69 SL          LOW-LEVEL OUTLET
                      ELEVL       90.60  ELEVATION AT CENTER OF OUTLET
                      CAREA        4.91  CROSS-SECTIONAL AREA
                       COQL         .60  COEFFICIENT
                       EXPL         .50  EXPONENT OF HEAD

 70 SS          SPILLWAY
                       CREL       92.00  SPILLWAY CREST ELEVATION
                      SPWID       10.00  SPILLWAY WIDTH
                       COQW        3.00  WEIR COEFFICIENT
                       EXPW        1.50  EXPONENT OF HEAD
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COMPUTED STORAGE-ELEVATION DATA

STORAGE	.00	1.93	5.79	12.09
ELEVATION	88.00	90.00	92.00	94.00

COMPUTED OUTFLOW-ELEVATION DATA

OUTFLOW	.00	.00	24.70	25.11	25.55	25.99	26.46	26.94	27.44	27.96
ELEVATION	88.00	90.60	91.69	91.73	91.77	91.81	91.85	91.90	91.95	92.00
OUTFLOW	30.29	32.92	36.97	42.70	50.41	60.37	72.86	88.17	106.59	128.42
ELEVATION	92.12	92.21	92.34	92.49	92.67	92.88	93.12	93.38	93.68	94.00

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	1.93	2.86	5.05	5.14	5.23	5.33	5.43	5.54	5.66
OUTFLOW	.00	.00	.00	24.70	25.11	25.55	25.99	26.46	26.94	27.44
ELEVATION	88.00	90.00	90.60	91.69	91.73	91.77	91.81	91.85	91.90	91.95
STORAGE	5.79	6.08	6.33	6.66	7.08	7.59	8.22	8.96	9.84	10.88
OUTFLOW	27.96	30.29	32.92	36.97	42.70	50.41	60.37	72.86	88.17	106.59
ELEVATION	92.00	92.12	92.21	92.34	92.49	92.67	92.88	93.12	93.38	93.68
STORAGE	12.09									
OUTFLOW	128.42									
ELEVATION	94.00									

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HYDROGRAPH AT STATION 7DSWP

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.8	88.8	*	28	FEB	0915	34	0.	.8	88.8	*	28	FEB	1730	67	19.	4.5	91.4
28	FEB	0115	2	0.	.8	88.8	*	28	FEB	0930	35	0.	.8	88.9	*	28	FEB	1745	68	17.	4.4	91.4
28	FEB	0130	3	0.	.8	88.8	*	28	FEB	0945	36	0.	.9	88.9	*	28	FEB	1800	69	15.	4.2	91.3
28	FEB	0145	4	0.	.8	88.8	*	28	FEB	1000	37	0.	.9	88.9	*	28	FEB	1815	70	14.	4.1	91.2
28	FEB	0200	5	0.	.8	88.8	*	28	FEB	1015	38	0.	.9	89.0	*	28	FEB	1830	71	13.	4.0	91.2
28	FEB	0215	6	0.	.8	88.8	*	28	FEB	1030	39	0.	1.0	89.1	*	28	FEB	1845	72	12.	3.9	91.1
28	FEB	0230	7	0.	.8	88.8	*	28	FEB	1045	40	0.	1.1	89.1	*	28	FEB	1900	73	11.	3.9	91.1
28	FEB	0245	8	0.	.8	88.8	*	28	FEB	1100	41	0.	1.2	89.2	*	28	FEB	1915	74	11.	3.8	91.1
28	FEB	0300	9	0.	.8	88.8	*	28	FEB	1115	42	0.	1.3	89.3	*	28	FEB	1930	75	10.	3.8	91.0
28	FEB	0315	10	0.	.8	88.8	*	28	FEB	1130	43	0.	1.4	89.5	*	28	FEB	1945	76	9.	3.7	91.0
28	FEB	0330	11	0.	.8	88.8	*	28	FEB	1145	44	0.	1.6	89.6	*	28	FEB	2000	77	9.	3.6	91.0
28	FEB	0345	12	0.	.8	88.8	*	28	FEB	1200	45	0.	1.8	89.8	*	28	FEB	2015	78	8.	3.6	91.0
28	FEB	0400	13	0.	.8	88.8	*	28	FEB	1215	46	0.	2.0	90.0	*	28	FEB	2030	79	8.	3.6	90.9
28	FEB	0415	14	0.	.8	88.8	*	28	FEB	1230	47	0.	2.3	90.2	*	28	FEB	2045	80	7.	3.5	90.9
28	FEB	0430	15	0.	.8	88.8	*	28	FEB	1245	48	0.	2.7	90.5	*	28	FEB	2100	81	7.	3.5	90.[illegible]
28	FEB	0445	16	0.	.8	88.8	*	28	FEB	1300	49	6.	3.4	90.9	*	28	FEB	2115	82	7.	3.5	90
28	FEB	0500	17	0.	.8	88.8	*	28	FEB	1315	50	19.	4.6	91.5	*	28	FEB	2130	83	6.	3.4	90.
28	FEB	0515	18	0.	.8	88.8	*	28	FEB	1330	51	35.	6.5	92.3	*	28	FEB	2145	84	6.	3.4	90.9
28	FEB	0530	19	0.	.8	88.8	*	28	FEB	1345	52	60.	8.2	92.9	*	28	FEB	2200	85	6.	3.4	90.9
28	FEB	0545	20	0.	.8	88.8	*	28	FEB	1400	53	71.	8.9	93.1	*	28	FEB	2215	86	6.	3.4	90.9
28	FEB	0600	21	0.	.8	88.8	*	28	FEB	1415	54	70.	8.8	93.1	*	28	FEB	2230	87	6.	3.4	90.8

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28 FEB 0615  22      0.      .8    88.8 * 28 FEB 1430  55     64.     8.4    92.9 * 28 FEB 2245  88      5.     3.3    90.8
28 FEB 0630  23      0.      .8    88.8 * 28 FEB 1445  56     55.     7.9    92.8 * 28 FEB 2300  89      5.     3.3    90.8
28 FEB 0645  24      0.      .8    88.8 * 28 FEB 1500  57     48.     7.4    92.6 * 28 FEB 2315  90      5.     3.3    90.8
28 FEB 0700  25      0.      .8    88.8 * 28 FEB 1515  58     41.     7.0    92.4 * 28 FEB 2330  91      5.     3.3    90.8
   FEB 0715  26      0.      .8    88.8 * 28 FEB 1530  59     36.     6.6    92.3 * 28 FEB 2345  92      5.     3.3    90.8
   FEB 0730  27      0.      .8    88.8 * 28 FEB 1545  60     32.     6.3    92.2 *  1 MAR 0000  93      5.     3.3    90.8
28 FEB 0745  28      0.      .8    88.8 * 28 FEB 1600  61     29.     6.0    92.1 *  1 MAR 0015  94      5.     3.3    90.8
28 FEB 0800  29      0.      .8    88.8 * 28 FEB 1615  62     28.     5.7    92.0 *  1 MAR 0030  95      5.     3.3    90.8
28 FEB 0815  30      0.      .8    88.8 * 28 FEB 1630  63     27.     5.4    91.9 *  1 MAR 0045  96      4.     3.3    90.8
28 FEB 0830  31      0.      .8    88.8 * 28 FEB 1645  64     25.     5.2    91.7 *  1 MAR 0100  97      4.     3.3    90.8
28 FEB 0845  32      0.      .8    88.8 * 28 FEB 1700  65     23.     4.9    91.6 *
28 FEB 0900  33      0.      .8    88.8 * 28 FEB 1715  66     21.     4.7    91.5 *
                                        *                                          *
*****************************************************************************************************************************

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     24.00-HR
+  (CFS)       (HR)
                            (CFS)
+     71.     13.00                33.         10.         10.         10.
                          (INCHES)    2.922       3.524       3.524       3.524
                           (AC-FT)     16.         20.         20.         20.

 PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     24.00-HR
+ (AC-FT)      (HR)
      9.      13.00                 6.          3.          3.          3.

 PEAK STAGE     TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     24.00-HR
(    FEET)     (HR)
   93.08      13.00               91.98       90.22       90.22       90.22

                          CUMULATIVE AREA =     .10 SQ MI


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


            **************
            *            *
  71 KK     *     SUB7E  *
            *            *
            **************

  72 KO          OUTPUT CONTROL VARIABLES
                       IPRNT          4  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

              SUBBASIN RUNOFF DATA

     BA          SUBBASIN CHARACTERISTICS
                       TAREA        .05  SUBBASIN AREA

                 PRECIPITATION DATA
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 75 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
              ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
              5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                STORM AREA =     .05

 76 LS        SCS LOSS RATE
                   STRTL         .60  INITIAL ABSTRACTION
                  CRVNBR       77.00  CURVE NUMBER
                   RTIMP         .00  PERCENT IMPERVIOUS AREA

 77 UD        SCS DIMENSIONLESS UNITGRAPH
                    TLAG         .14  LAG

                                                     ***

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

                                                   UNIT HYDROGRAPH
                                               5 END-OF-PERIOD ORDINATES
             83.       28.        6.        1.        0.


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          **************
          *            *
 81 KK    *     7ECHN  *
          *            *
          **************

 82 KO        OUTPUT CONTROL VARIABLES
                  IPRNT           1  PRINT CONTROL
                  IPLOT           0  PLOT CONTROL
                  QSCAL          0.  HYDROGRAPH PLOT SCALE
                           STORAGE ROUTING THROUGH 7CDE

            HYDROGRAPH ROUTING DATA

 84 RS        STORAGE ROUTING
                  NSTPS           1  NUMBER OF SUBREACHES
                   ITYP        STOR  TYPE OF INITIAL CONDITION
                 RSVRIC         .00  INITIAL CONDITION
                      X         .00 WORKING R AND D COEFFICIENT

 85 RC        NORMAL DEPTH CHANNEL ROUTING
                    ANL        .080  LEFT OVERBANK N-VALUE
                   ANCH        .030  MAIN CHANNEL N-VALUE
                    ANR        .080  RIGHT OVERBANK N-VALUE
                  RLNTH       7600.  REACH LENGTH
                    SEL       .0020  ENERGY SLOPE
                  ELMAX        93.0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                        CROSS-SECTION DATA
                         --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
 87 RY       ELEVATION     94.00     93.50     93.00     88.00     88.00     93.00     93.50     94.00
 86 RX       DISTANCE        .00      5.00     10.00     16.00     24.00     30.00     35.00     40.00
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COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	.38	.79	1.23	1.70	2.20	2.73	3.28	3.87	4.48
OUTFLOW	.00	1.92	6.11	12.07	19.64	28.75	39.36	51.47	65.08	80.21
ELEVATION	88.00	88.26	88.53	88.79	89.05	89.32	89.58	89.84	90.11	90.37
STORAGE	5.12	5.79	6.50	7.23	7.98	8.77	9.59	10.43	11.31	12.21
OUTFLOW	96.87	115.10	134.92	156.35	179.44	204.21	230.70	258.94	288.96	320.80
ELEVATION	90.63	90.89	91.16	91.42	91.68	91.95	92.21	92.47	92.74	93.00

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HYDROGRAPH AT STATION 7ECHN

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	88.0	28	FEB	0915	34	11.	1.2	88.8	28	FEB	1730	67	60.	3.7	90.0
28	FEB	0115	2	0.	.1	88.1	28	FEB	0930	35	12.	1.2	88.8	28	FEB	1745	68	58.	3.6	90.0
28	FEB	0130	3	2.	.3	88.2	28	FEB	0945	36	12.	1.2	88.8	28	FEB	1800	69	56.	3.5	89.9
28	FEB	0145	4	3.	.5	88.3	28	FEB	1000	37	12.	1.2	88.8	28	FEB	1815	70	54.	3.4	89.9
28	FEB	0200	5	4.	.6	88.4	28	FEB	1015	38	13.	1.3	88.8	28	FEB	1830	71	52.	3.3	89.8
28	FEB	0215	6	6.	.8	88.5	28	FEB	1030	39	13.	1.3	88.8	28	FEB	1845	72	50.	3.2	89.8
28	FEB	0230	7	7.	.8	88.6	28	FEB	1045	40	14.	1.3	88.8	28	FEB	1900	73	49.	3.2	89.8
28	FEB	0245	8	8.	.9	88.6	28	FEB	1100	41	14.	1.4	88.9	28	FEB	1915	74	48.	3.1	89.8
[illegible]	EB	0300	9	9.	1.0	88.6	28	FEB	1115	42	15.	1.4	88.9	28	FEB	1930	75	46.	3.1	89.7
28	FEB	0315	10	9.	1.0	88.7	28	FEB	1130	43	16.	1.5	88.9	28	FEB	1945	76	45.	3.0	89.7
28	FEB	0330	11	10.	1.0	88.7	28	FEB	1145	44	17.	1.5	89.0	28	FEB	2000	77	44.	2.9	89.7
28	FEB	0345	12	10.	1.1	88.7	28	FEB	1200	45	18.	1.6	89.0	28	FEB	2015	78	43.	2.9	89.7
28	FEB	0400	13	10.	1.1	88.7	28	FEB	1215	46	20.	1.7	89.1	28	FEB	2030	79	42.	2.9	89.6
28	FEB	0415	14	10.	1.1	88.7	28	FEB	1230	47	24.	2.0	89.2	28	FEB	2045	80	42.	2.8	89.6
28	FEB	0430	15	10.	1.1	88.7	28	FEB	1245	48	30.	2.3	89.4	28	FEB	2100	81	41.	2.8	89.6
28	FEB	0445	16	11.	1.1	88.7	28	FEB	1300	49	44.	2.9	89.7	28	FEB	2115	82	40.	2.8	89.6
28	FEB	0500	17	11.	1.1	88.7	28	FEB	1315	50	83.	4.6	90.4	28	FEB	2130	83	40.	2.8	89.6
28	FEB	0515	18	11.	1.1	88.7	28	FEB	1330	51	132.	6.4	91.1	28	FEB	2145	84	39.	2.7	89.6
28	FEB	0530	19	11.	1.1	88.7	28	FEB	1345	52	151.	7.0	91.4	28	FEB	2200	85	39.	2.7	89.6
28	FEB	0545	20	11.	1.1	88.7	28	FEB	1400	53	152.	7.1	91.4	28	FEB	2215	86	39.	2.7	89.6
28	FEB	0600	21	11.	1.1	88.7	28	FEB	1415	54	145.	6.9	91.3	28	FEB	2230	87	38.	2.7	89.6
28	FEB	0615	22	11.	1.1	88.7	28	FEB	1430	55	134.	6.5	91.2	28	FEB	2245	88	38.	2.7	89.5
28	FEB	0630	23	11.	1.1	88.7	28	FEB	1445	56	122.	6.1	91.0	28	FEB	2300	89	38.	2.7	89.5
28	FEB	0645	24	11.	1.1	88.7	28	FEB	1500	57	111.	5.6	90.8	28	FEB	2315	90	38.	2.6	89.5
28	FEB	0700	25	11.	1.1	88.7	28	FEB	1515	58	101.	5.3	90.7	28	FEB	2330	91	37.	2.6	89.5
28	FEB	0715	26	11.	1.1	88.7	28	FEB	1530	59	93.	5.0	90.6	28	FEB	2345	92	37.	2.6	89.5
28	FEB	0730	27	11.	1.1	88.7	28	FEB	1545	60	86.	4.7	90.5	1	MAR	0000	93	37.	2.6	89.5
28	FEB	0745	28	11.	1.1	88.7	28	FEB	1600	61	80.	4.5	90.4	1	MAR	0015	94	37.	2.6	89.5
28	FEB	0800	29	11.	1.1	88.7	28	FEB	1615	62	75.	4.3	90.3	1	MAR	0030	95	36.	2.6	89.5
28	FEB	0815	30	11.	1.1	88.7	28	FEB	1630	63	71.	4.1	90.2	1	MAR	0045	96	36.	2.6	89.5
28	FEB	0830	31	11.	1.2	88.7	28	FEB	1645	64	68.	4.0	90.2	1	MAR	0100	97	36.	2.6	89.5
28	FEB	0845	32	11.	1.2	88.7	28	FEB	1700	65	65.	3.9	90.1							
28	FEB	0900	33	11.	1.2	88.8	28	FEB	1715	66	63.	3.8	90.1							

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PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.00-HR

```
+   (CFS)       (HR)
                          (CFS)
+     152.     13.00                  88.        38.        38.        38.
                         (INCHES)   1.806      3.111      3.111      3.111
                          (AC-FT)     44.        75.        75.        75.

 PEAK STORAGE   TIME                          MAXIMUM AVERAGE STORAGE
                                        6-HR       24-HR      72-HR    24.00-HR
+  (AC-FT)      (HR)
       7.      13.00                     5.         2.         2.         2.

  PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                        6-HR       24-HR      72-HR    24.00-HR
+   (FEET)      (HR)
    91.36      13.00                   90.44      89.38      89.38      89.38

                         CUMULATIVE AREA =     .45 SQ MI
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          *            *
  88 KK   *     SUB7F  *
          *            *
          **************

  89 KO         OUTPUT CONTROL VARIABLES
                      IPRNT          4  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                              SCS RUNOFF CALCULATION

             SUBBASIN RUNOFF DATA

  91 BA         SUBBASIN CHARACTERISTICS
                      TAREA        .21  SUBBASIN AREA

                PRECIPITATION DATA

  92 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                   STORM AREA =     .21

  93 LS         SCS LOSS RATE
                      STRTL        .60  INITIAL ABSTRACTION
                     CRVNBR      77.00  CURVE NUMBER
                      RTIMP        .00  PERCENT IMPERVIOUS AREA

  94 UD         SCS DIMENSIONLESS UNITGRAPH
                       TLAG        .29  LAG
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WARNING *** TIME INTERVAL IS GREATER THAN .29*LAG

                                                UNIT HYDROGRAPH
                                            8 END-OF-PERIOD ORDINATES
            160.      223.      93.      35.      13.       5.       2.       0.

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          *            *
 98 KK    *     7FCHN  *     L
          *            *
          **************

 99 KO          OUTPUT CONTROL VARIABLES
                     IPRNT           1  PRINT CONTROL
                     IPLOT           0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE
                              STORAGE ROUTING THROUGH 7F

            HYDROGRAPH ROUTING DATA

101 RS          STORAGE ROUTING
                     NSTPS           1  NUMBER OF SUBREACHES
                      ITYP        STOR  TYPE OF INITIAL CONDITION
                    RSVRIC         .00  INITIAL CONDITION
                         X         .00 WORKING R AND D COEFFICIENT

102 RC          NORMAL DEPTH CHANNEL ROUTING
                       ANL        .080  LEFT OVERBANK N-VALUE
                      ANCH        .030  MAIN CHANNEL N-VALUE
                       ANR        .080  RIGHT OVERBANK N-VALUE
                     RLNTH        500.  REACH LENGTH
                       SEL       .0030  ENERGY SLOPE
                     ELMAX        90.0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                      CROSS-SECTION DATA
                          --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
104 RY       ELEVATION     90.00     90.50     90.00     86.00     86.00     90.00     90.50     91.00
103 RX       DISTANCE        .00      5.00     10.00     16.00     24.00     30.00     35.00     40.00

                                                   ***

                                      COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE        .00       .02       .04       .06       .09       .12       .14       .17       .20       .24
          OUTFLOW        .00      1.63      5.20     10.32     16.84     24.71     33.90     44.41     56.26     69.44
        ELEVATION      86.00     86.21     86.42     86.63     86.84     87.05     87.26     87.47     87.68     87.89

          STORAGE        .27       .30       .34       .38       .42       .46       .50       .55       .60       .64
          OUTFLOW      83.98     99.91    117.25    136.02    156.26    177.99    201.24    226.04    252.43    280.43
        ELEVATION      88.11     88.32     88.53     88.74     88.95     89.16     89.37     89.58     89.79     90.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN        2. TO      280.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)
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HYDROGRAPH AT STATION 7FCHN

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	86.0	28	FEB	0915	34	14.	.1	86.7	28	FEB	1730	67	81.	.3	88.1
28	FEB	0115	2	0.	.0	86.0	28	FEB	0930	35	15.	.1	86.8	28	FEB	1745	68	78.	.3	88.0
28	FEB	0130	3	1.	.0	86.1	28	FEB	0945	36	16.	.1	86.8	28	FEB	1800	69	75.	.2	88.0
28	FEB	0145	4	2.	.0	86.3	28	FEB	1000	37	17.	.1	86.8	28	FEB	1815	70	72.	.2	87.9
28	FEB	0200	5	4.	.0	86.4	28	FEB	1015	38	18.	.1	86.9	28	FEB	1830	71	69.	.2	87.9
28	FEB	0215	6	5.	.0	86.4	28	FEB	1030	39	20.	.1	86.9	28	FEB	1845	72	67.	.2	87.9
28	FEB	0230	7	7.	.0	86.5	28	FEB	1045	40	22.	.1	87.0	28	FEB	1900	73	66.	.2	87.8
28	FEB	0245	8	8.	.1	86.5	28	FEB	1100	41	24.	.1	87.0	28	FEB	1915	74	63.	.2	87.8
28	FEB	0300	9	8.	.1	86.6	28	FEB	1115	42	27.	.1	87.1	28	FEB	1930	75	60.	.2	87.7
28	FEB	0315	10	9.	.1	86.6	28	FEB	1130	43	30.	.1	87.2	28	FEB	1945	76	58.	.2	87.7
28	FEB	0330	11	10.	.1	86.6	28	FEB	1145	44	34.	.1	87.3	28	FEB	2000	77	57.	.2	87.7
28	FEB	0345	12	10.	.1	86.6	28	FEB	1200	45	37.	.2	87.3	28	FEB	2015	78	55.	.2	87.7
28	FEB	0400	13	10.	.1	86.6	28	FEB	1215	46	46.	.2	87.5	28	FEB	2030	79	54.	.2	87.6
28	FEB	0415	14	10.	.1	86.6	28	FEB	1230	47	63.	.2	87.8	28	FEB	2045	80	53.	.2	87.6
28	FEB	0430	15	10.	.1	86.6	28	FEB	1245	48	86.	.3	88.1	28	FEB	2100	81	52.	.2	87.6
28	FEB	0445	16	11.	.1	86.6	28	FEB	1300	49	143.	.4	88.8	28	FEB	2115	82	51.	.2	87.6
28	FEB	0500	17	11.	.1	86.6	28	FEB	1315	50	319.	.7	90.3	28	FEB	2130	83	50.	.2	87.6
28	FEB	0515	18	11.	.1	86.6	28	FEB	1330	51	435.	.9	91.2	28	FEB	2145	84	50.	.2	87.6
28	FEB	0530	19	11.	.1	86.6	28	FEB	1345	52	357.	.8	90.6	28	FEB	2200	85	49.	.2	87.6
28	FEB	0545	20	11.	.1	86.6	28	FEB	1400	53	285.	.7	90.0	28	FEB	2215	86	49.	.2	87.5
28	FEB	0600	21	11.	.1	86.6	28	FEB	1415	54	243.	.6	89.7	28	FEB	2230	87	48.	.2	87
28	FEB	0615	22	11.	.1	86.6	28	FEB	1430	55	200.	.5	89.4	28	FEB	2245	88	48.	.2	87.
28	FEB	0630	23	11.	.1	86.6	28	FEB	1445	56	176.	.5	89.1	28	FEB	2300	89	47.	.2	87.5
28	FEB	0645	24	11.	.1	86.6	28	FEB	1500	57	156.	.4	88.9	28	FEB	2315	90	47.	.2	87.5
28	FEB	0700	25	11.	.1	86.6	28	FEB	1515	58	142.	.4	88.8	28	FEB	2330	91	46.	.2	87.5
28	FEB	0715	26	11.	.1	86.6	28	FEB	1530	59	130.	.4	88.7	28	FEB	2345	92	46.	.2	87.5
28	FEB	0730	27	11.	.1	86.6	28	FEB	1545	60	120.	.3	88.6	1	MAR	0000	93	45.	.2	87.5
28	FEB	0745	28	11.	.1	86.6	28	FEB	1600	61	111.	.3	88.5	1	MAR	0015	94	45.	.2	87.5
28	FEB	0800	29	11.	.1	86.7	28	FEB	1615	62	104.	.3	88.4	1	MAR	0030	95	45.	.2	87.5
28	FEB	0815	30	11.	.1	86.7	28	FEB	1630	63	97.	.3	88.3	1	MAR	0045	96	44.	.2	87.5
28	FEB	0830	31	12.	.1	86.7	28	FEB	1645	64	92.	.3	88.2	1	MAR	0100	97	44.	.2	87.5
28	FEB	0845	32	12.	.1	86.7	28	FEB	1700	65	88.	.3	88.2							
28	FEB	0900	33	13.	.1	86.7	28	FEB	1715	66	85.	.3	88.1							

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 435.	12.50		156.	60.	60.	60.
		(INCHES)	2.202	3.379	3.379	3.379
		(AC-FT)	77.	119.	119.	119.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
1.	12.50	0.	0.	0.	0.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR

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+   (FEET)      (HR)
    91.16      12.50                88.82       87.48       87.48       87.48

                      CUMULATIVE AREA =     .66 SQ MI


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            *            *
 105 KK     *     SUB7G  *
            *            *
            **************

 106 KO          OUTPUT CONTROL VARIABLES
                       IPRNT           4  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

               SUBBASIN RUNOFF DATA

 108 BA          SUBBASIN CHARACTERISTICS
                       TAREA         .06  SUBBASIN AREA

                 PRECIPITATION DATA

     PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                     STORM AREA =     .06

 110 LS          SCS LOSS RATE
                       STRTL         .60  INITIAL ABSTRACTION
                      CRVNBR       77.00  CURVE NUMBER
                       RTIMP         .00  PERCENT IMPERVIOUS AREA

 111 UD          SCS DIMENSIONLESS UNITGRAPH
                        TLAG         .31  LAG

                                                          ***

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

                                                   UNIT HYDROGRAPH
                                               8 END-OF-PERIOD ORDINATES
              43.       68.       31.       13.        5.        2.        1.        0.


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115 KK     *     7GSWP  *
           *            *
           **************

116 KO          OUTPUT CONTROL VARIABLES
                      IPRNT          1  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 7G

             HYDROGRAPH ROUTING DATA

118 RS          STORAGE ROUTING
                      NSTPS          1  NUMBER OF SUBREACHES
                       ITYP       ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC      83.00  INITIAL CONDITION
                          X        .00 WORKING R AND D COEFFICIENT

119 SA               AREA         .0       .6      2.5      5.2

120 SE          ELEVATION      85.00    86.00    87.00    88.00

121 SL          LOW-LEVEL OUTLET
                      ELEVL      85.80  ELEVATION AT CENTER OF OUTLET
                      CAREA      16.25  CROSS-SECTIONAL AREA
                       COQL        .60  COEFFICIENT
                       EXPL        .50  EXPONENT OF HEAD

122 SS          SPILLWAY
                       CREL      88.00  SPILLWAY CREST ELEVATION
                      SPWID        .00  SPILLWAY WIDTH
                       COQW        .00  WEIR COEFFICIENT
                       EXPW       1.50  EXPONENT OF HEAD

                                                  ***

                                     COMPUTED STORAGE-ELEVATION DATA

          STORAGE       .00      .19     1.62     5.39
        ELEVATION     85.00    86.00    87.00    88.00

                                     COMPUTED OUTFLOW-ELEVATION DATA

          OUTFLOW       .00      .00   109.32   110.22   111.14   112.08   113.03   114.00   114.98   115.98
        ELEVATION     85.00    85.80    87.75    87.79    87.82    87.85    87.89    87.93    87.96    88.00

                                    COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE       .00      .10      .19     1.62     4.21     4.36     4.51     4.67     4.84     5.01
          OUTFLOW       .00      .00    34.97    85.66   109.32   110.22   111.14   112.08   113.03   114.00
        ELEVATION     85.00    85.80    86.00    87.00    87.75    87.79    87.82    87.85    87.89    87.93

          STORAGE      5.19     5.39
          OUTFLOW    114.98   115.98
        ELEVATION     87.96    88.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN       0. TO       35.
          THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
          THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)
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HYDROGRAPH AT STATION 7GSWP

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	85.0	28	FEB	0915	34	14.	.1	85.9	28	FEB	1730	67	146.	11.2	89.1
28	FEB	0115	2	0.	.0	85.0	28	FEB	0930	35	15.	.1	85.9	28	FEB	1745	68	140.	10.0	88.9
28	FEB	0130	3	0.	.0	85.1	28	FEB	0945	36	17.	.1	85.9	28	FEB	1800	69	134.	8.9	88.7
28	FEB	0145	4	0.	.0	85.4	28	FEB	1000	37	18.	.1	85.9	28	FEB	1815	70	128.	7.8	88.5
28	FEB	0200	5	1.	.1	85.8	28	FEB	1015	38	20.	.1	85.9	28	FEB	1830	71	123.	6.8	88.3
28	FEB	0215	6	7.	.1	85.8	28	FEB	1030	39	22.	.2	85.9	28	FEB	1845	72	118.	5.8	88.1
28	FEB	0230	7	6.	.1	85.8	28	FEB	1045	40	25.	.2	85.9	28	FEB	1900	73	113.	4.9	87.9
28	FEB	0245	8	8.	.1	85.8	28	FEB	1100	41	27.	.2	86.0	28	FEB	1915	74	108.	4.0	87.7
28	FEB	0300	9	8.	.1	85.8	28	FEB	1115	42	30.	.2	86.0	28	FEB	1930	75	100.	3.2	87.5
28	FEB	0315	10	9.	.1	85.9	28	FEB	1130	43	34.	.2	86.0	28	FEB	1945	76	94.	2.5	87.3
28	FEB	0330	11	9.	.1	85.9	28	FEB	1145	44	36.	.2	86.0	28	FEB	2000	77	88.	1.9	87.1
28	FEB	0345	12	10.	.1	85.9	28	FEB	1200	45	39.	.3	86.1	28	FEB	2015	78	79.	1.4	86.9
28	FEB	0400	13	10.	.1	85.9	28	FEB	1215	46	44.	.5	86.2	28	FEB	2030	79	68.	1.1	86.6
28	FEB	0415	14	10.	.1	85.9	28	FEB	1230	47	55.	.8	86.4	28	FEB	2045	80	62.	1.0	86.5
28	FEB	0430	15	10.	.1	85.9	28	FEB	1245	48	73.	1.3	86.8	28	FEB	2100	81	59.	.9	86.5
28	FEB	0445	16	11.	.1	85.9	28	FEB	1300	49	93.	2.4	87.2	28	FEB	2115	82	57.	.8	86.4
28	FEB	0500	17	11.	.1	85.9	28	FEB	1315	50	120.	6.1	88.1	28	FEB	2130	83	55.	.8	86.4
28	FEB	0515	18	11.	.1	85.9	28	FEB	1330	51	154.	12.7	89.4	28	FEB	2145	84	54.	.7	86.4
28	FEB	0530	19	11.	.1	85.9	28	FEB	1345	52	187.	19.0	90.7	28	FEB	2200	85	53.	.7	86.4
28	FEB	0545	20	11.	.1	85.9	28	FEB	1400	53	206.	22.7	91.4	28	FEB	2215	86	53.	.7	86.3
[illegible]	FEB	0600	21	11.	.1	85.9	28	FEB	1415	54	215.	24.5	91.8	28	FEB	2230	87	52.	.7	86.3
[illegible]	EB	0615	22	11.	.1	85.9	28	FEB	1430	55	219.	25.1	91.9	28	FEB	2245	88	51.	.6	86.3
28	FEB	0630	23	11.	.1	85.9	28	FEB	1445	56	217.	24.9	91.8	28	FEB	2300	89	51.	.6	86.3
28	FEB	0645	24	11.	.1	85.9	28	FEB	1500	57	214.	24.2	91.7	28	FEB	2315	90	50.	.6	86.3
28	FEB	0700	25	11.	.1	85.9	28	FEB	1515	58	208.	23.1	91.5	28	FEB	2330	91	50.	.6	86.3
28	FEB	0715	26	11.	.1	85.9	28	FEB	1530	59	202.	22.0	91.3	28	FEB	2345	92	49.	.6	86.3
28	FEB	0730	27	11.	.1	85.9	28	FEB	1545	60	195.	20.6	91.0	1	MAR	0000	93	49.	.6	86.3
28	FEB	0745	28	11.	.1	85.9	28	FEB	1600	61	188.	19.3	90.7	1	MAR	0015	94	48.	.6	86.3
28	FEB	0800	29	11.	.1	85.9	28	FEB	1615	62	181.	17.9	90.5	1	MAR	0030	95	48.	.6	86.3
28	FEB	0815	30	11.	.1	85.9	28	FEB	1630	63	174.	16.5	90.2	1	MAR	0045	96	47.	.5	86.2
28	FEB	0830	31	12.	.1	85.9	28	FEB	1645	64	166.	15.1	89.9	1	MAR	0100	97	47.	.5	86.2
28	FEB	0845	32	13.	.1	85.9	28	FEB	1700	65	159.	13.7	89.6							
28	FEB	0900	33	13.	.1	85.9	28	FEB	1715	66	153.	12.4	89.4							

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 219.	13.50		169.	66.	66.	66.
		(INCHES)	2.179	3.418	3.418	3.418
		(AC-FT)	84.	131.	131.	131.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
:-FT)	(HR)				
25.	13.50	16.	4.	4.	4.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR

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+   (FEET)      (HR)
    91.87      13.50                 90.00       87.08       87.08       87.08

                       CUMULATIVE AREA =     .72 SQ MI


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          *            *
 123 KK   *     SUB7H  *
          *            *
          **************

 124 KO         OUTPUT CONTROL VARIABLES
                      IPRNT           4  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               SCS RUNOFF CALCULATION

              SUBBASIN RUNOFF DATA

 126 BA         SUBBASIN CHARACTERISTICS
                      TAREA         .19  SUBBASIN AREA

                PRECIPITATION DATA

 127 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                   STORM AREA =     .19

 128 LS         SCS LOSS RATE
                      STRTL         .60  INITIAL ABSTRACTION
                     CRVNBR       77.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

 129 UD         SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .31  LAG

                                                          ***

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

                                                     UNIT HYDROGRAPH
                                                 8 END-OF-PERIOD ORDINATES
              128.      200.       92.       37.       14.        6.        2.        1.


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133 KK     *     7HSWP  *
           *            *
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 KO          OUTPUT CONTROL VARIABLES
                 IPRNT          1  PRINT CONTROL
                 IPLOT          0  PLOT CONTROL
                 QSCAL         0.  HYDROGRAPH PLOT SCALE
                          STORAGE ROUTING THROUGH 7H

            HYDROGRAPH ROUTING DATA

136 RS       STORAGE ROUTING
                 NSTPS          1  NUMBER OF SUBREACHES
                  ITYP       ELEV  TYPE OF INITIAL CONDITION
                RSVRIC      84.00  INITIAL CONDITION
                     X        .00 WORKING R AND D COEFFICIENT

137 SA          AREA          .4       3.1       9.2      15.3

138 SE       ELEVATION      84.00     86.00     87.00     88.00

139 SS       SPILLWAY
                  CREL      84.00  SPILLWAY CREST ELEVATION
                 SPWID      10.00  SPILLWAY WIDTH
                  COQW       3.00  WEIR COEFFICIENT
                  EXPW       1.50  EXPONENT OF HEAD
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COMPUTED STORAGE-ELEVATION DATA

STORAGE	.00	3.04	8.93	21.05
ELEVATION	84.00	86.00	87.00	88.00

COMPUTED OUTFLOW-ELEVATION DATA

OUTFLOW	.00	.00	.04	.33	1.11	2.63	5.14	8.89	14.12	21.07
ELEVATION	84.00	84.00	84.01	84.05	84.11	84.20	84.31	84.44	84.60	84.79
OUTFLOW	30.00	41.15	54.77	71.11	90.41	112.92	138.89	168.56	202.18	240.00
ELEVATION	85.00	85.23	85.49	85.78	86.09	86.42	86.78	87.16	87.57	88.00

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	.00	.02	.05	.09	.16	.25	.39	.58	.85
OUTFLOW	.00	.04	.33	1.11	2.63	5.14	8.89	14.12	21.07	30.00
ELEVATION	84.00	84.01	84.05	84.11	84.20	84.31	84.44	84.60	84.79	85.00
STORAGE	1.22	1.73	2.41	3.04	3.33	4.77	7.06	8.93	10.48	15.07
OUTFLOW	41.15	54.77	71.11	84.85	90.41	112.92	138.89	155.88	168.56	202.18
ELEVATION	85.23	85.49	85.78	86.00	86.09	86.42	86.78	87.00	87.16	87.57
STORAGE	21.05									
OUTFLOW	240.00									
ELEVATION	88.00									

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HYDROGRAPH AT STATION 7HSWP

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STA
28	FEB	0100	1	0.	.0	84.0	28	FEB	0915	34	15.	.4	84.6	28	FEB	1730	67	211.	16.5	87.7
28	FEB	0115	2	0.	.0	84.0	28	FEB	0930	35	16.	.4	84.7	28	FEB	1745	68	205.	15.6	87.6
28	FEB	0130	3	0.	.0	84.0	28	FEB	0945	36	18.	.5	84.7	28	FEB	1800	69	199.	14.6	87.5
28	FEB	0145	4	0.	.0	84.0	28	FEB	1000	37	20.	.5	84.8	28	FEB	1815	70	191.	13.6	87.4
28	FEB	0200	5	0.	.0	84.0	28	FEB	1015	38	22.	.6	84.8	28	FEB	1830	71	185.	12.7	87.4
28	FEB	0215	6	2.	.1	84.2	28	FEB	1030	39	24.	.7	84.9	28	FEB	1845	72	178.	11.7	87.3
28	FEB	0230	7	4.	.1	84.3	28	FEB	1045	40	27.	.8	84.9	28	FEB	1900	73	171.	10.8	87.2
28	FEB	0245	8	6.	.2	84.3	28	FEB	1100	41	31.	.9	85.0	28	FEB	1915	74	164.	9.9	87.1
28	FEB	0300	9	7.	.2	84.4	28	FEB	1115	42	35.	1.0	85.1	28	FEB	1930	75	157.	9.0	87.0
28	FEB	0315	10	8.	.2	84.4	28	FEB	1130	43	39.	1.2	85.2	28	FEB	1945	76	149.	8.1	86.9
28	FEB	0330	11	9.	.2	84.4	28	FEB	1145	44	44.	1.3	85.3	28	FEB	2000	77	141.	7.3	86.8
28	FEB	0345	12	9.	.3	84.5	28	FEB	1200	45	48.	1.5	85.4	28	FEB	2015	78	132.	6.4	86.7
28	FEB	0400	13	10.	.3	84.5	28	FEB	1215	46	54.	1.7	85.5	28	FEB	2030	79	121.	5.5	86.5
28	FEB	0415	14	10.	.3	84.5	28	FEB	1230	47	65.	2.1	85.7	28	FEB	2045	80	111.	4.7	86.4
28	FEB	0430	15	10.	.3	84.5	28	FEB	1245	48	81.	2.9	85.9	28	FEB	2100	81	100.	3.9	86.2
28	FEB	0445	16	10.	.3	84.5	28	FEB	1300	49	103.	4.2	86.3	28	FEB	2115	82	91.	3.4	86.1
28	FEB	0500	17	10.	.3	84.5	28	FEB	1315	50	139.	7.1	86.8	28	FEB	2130	83	82.	2.9	86.0
28	FEB	0515	18	11.	.3	84.5	28	FEB	1330	51	177.	11.7	87.3	28	FEB	2145	84	76.	2.6	85.9
28	FEB	0530	19	11.	.3	84.5	28	FEB	1345	52	207.	15.9	87.6	28	FEB	2200	85	71.	2.4	85.8
28	FEB	0545	20	11.	.3	84.5	28	FEB	1400	53	225.	18.7	87.8	28	FEB	2215	86	67.	2.2	85.7
28	FEB	0600	21	11.	.3	84.5	28	FEB	1415	54	236.	20.5	88.0	28	FEB	2230	87	65.	2.1	85.7
28	FEB	0615	22	11.	.3	84.5	28	FEB	1430	55	243.	21.5	88.0	28	FEB	2245	88	63.	2.1	85.6
28	FEB	0630	23	11.	.3	84.5	28	FEB	1445	56	246.	22.1	88.1	28	FEB	2300	89	61.	2.0	8[illegible]
28	FEB	0645	24	11.	.3	84.5	28	FEB	1500	57	248.	22.3	88.1	28	FEB	2315	90	60.	2.0	85.
28	FEB	0700	25	11.	.3	84.5	28	FEB	1515	58	248.	22.3	88.1	28	FEB	2330	91	59.	1.9	85.[illegible]
28	FEB	0715	26	11.	.3	84.5	28	FEB	1530	59	247.	22.2	88.1	28	FEB	2345	92	59.	1.9	85.6
28	FEB	0730	27	11.	.3	84.5	28	FEB	1545	60	245.	21.9	88.1	1	MAR	0000	93	58.	1.9	85.5
28	FEB	0745	28	11.	.3	84.5	28	FEB	1600	61	242.	21.4	88.0	1	MAR	0015	94	57.	1.8	85.5
28	FEB	0800	29	11.	.3	84.5	28	FEB	1615	62	238.	20.8	88.0	1	MAR	0030	95	56.	1.8	85.5
28	FEB	0815	30	11.	.3	84.5	28	FEB	1630	63	234.	20.1	87.9	1	MAR	0045	96	56.	1.8	85.5
28	FEB	0830	31	12.	.3	84.5	28	FEB	1645	64	229.	19.3	87.9	1	MAR	0100	97	55.	1.7	85.5
28	FEB	0845	32	12.	.3	84.6	28	FEB	1700	65	223.	18.4	87.8							
28	FEB	0900	33	14.	.4	84.6	28	FEB	1715	66	218.	17.5	87.7							

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
		(CFS)				
248.	14.25		217.	85.	85.	85.
		(INCHES)	2.222	3.497	3.497	3.497
		(AC-FT)	107.	169.	169.	169.

PEAK STORAGE (AC-FT)	TIME (HR)	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	24.00-HR
22.	14.25	18.	6.	6.	6.

PEAK STAGE (FEET)	TIME (HR)	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	24.00-HR
88.09	14.25	87.73	85.76	85.76	85.76

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                    CUMULATIVE AREA =     .91 SQ MI


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140 KK    *   SUB8AA   *
          *            *
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141 KO         OUTPUT CONTROL VARIABLES
                     IPRNT          4  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE
                              SCS RUNOFF CALCULATION

            SUBBASIN RUNOFF DATA

143 BA         SUBBASIN CHARACTERISTICS
                     TAREA        .06  SUBBASIN AREA

               PRECIPITATION DATA

144 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
               ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
               5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                 .60    1.30   2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                STORM AREA =     .06

145 LS         SCS LOSS RATE
                     STRTL        .70  INITIAL ABSTRACTION
                    CRVNBR      74.00  CURVE NUMBER
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

146 UD         SCS DIMENSIONLESS UNITGRAPH
                      TLAG        .23  LAG

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

                                                UNIT HYDROGRAPH
                                            7 END-OF-PERIOD ORDINATES
            66.      61.      19.       6.       2.       1.       0.


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150 KK    *   8AASWP   *
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151 KO          OUTPUT CONTROL VARIABLES
                      IPRNT          1  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 8AA SWAMP

            HYDROGRAPH ROUTING DATA

153 RS          STORAGE ROUTING
                      NSTPS          1  NUMBER OF SUBREACHES
                       ITYP       ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC      80.00  INITIAL CONDITION
                          X        .00 WORKING R AND D COEFFICIENT

154 SA               AREA         .0      2.4      5.2      9.3

155 SE          ELEVATION      78.00    80.00    82.00    84.00

156 SL          LOW-LEVEL OUTLET
                      ELEVL      80.00  ELEVATION AT CENTER OF OUTLET
                      CAREA       1.23  CROSS-SECTIONAL AREA
                       COQL        .60  COEFFICIENT
                       EXPL        .50  EXPONENT OF HEAD

157 SS          SPILLWAY
                       CREL      83.90  SPILLWAY CREST ELEVATION
                      SPWID        .00  SPILLWAY WIDTH
                       COQW        .00  WEIR COEFFICIENT
                       EXPW       1.50  EXPONENT OF HEAD
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COMPUTED STORAGE-ELEVATION DATA

STORAGE	.00	1.61	9.05	23.32
ELEVATION	78.00	80.00	82.00	84.00

COMPUTED OUTFLOW-ELEVATION DATA

OUTFLOW	.00	.00	4.67	5.11	5.64	6.29	7.11	8.18	9.63	11.69
ELEVATION	78.00	80.00	80.62	80.75	80.91	81.13	81.44	81.91	82.64	83.90

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	1.61	3.35	3.75	4.31	5.13	6.41	8.59	9.05	12.77
OUTFLOW	.00	.00	4.67	5.11	5.64	6.29	7.11	8.18	8.37	9.63
ELEVATION	78.00	80.00	80.62	80.75	80.91	81.13	81.44	81.91	82.00	82.64

STORAGE	22.41	23.32
OUTFLOW	11.69	11.84
ELEVATION	83.90	84.00

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HYDROGRAPH AT STATION 8AASWP

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DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE
28 FEB 0100	1	0.	1.6	80.0	28 FEB 0915	34	6.	5.1	81.1	28 FEB 1730	67	24.	100.6	92.4
28 FEB 0115	2	0.	1.6	80.0	28 FEB 0930	35	6.	5.3	81.2	28 FEB 1745	68	25.	104.5	92.9
FEB 0130	3	0.	1.6	80.0	28 FEB 0945	36	7.	5.6	81.2	28 FEB 1800	69	26.	108.3	93.3
FEB 0145	4	0.	1.6	80.0	28 FEB 1000	37	7.	5.8	81.3	28 FEB 1815	70	26.	111.9	93.7
28 FEB 0200	5	0.	1.6	80.0	28 FEB 1015	38	7.	6.1	81.4	28 FEB 1830	71	27.	115.3	94.0
28 FEB 0215	6	0.	1.6	80.0	28 FEB 1030	39	7.	6.5	81.5	28 FEB 1845	72	27.	118.6	94.4
28 FEB 0230	7	0.	1.7	80.0	28 FEB 1045	40	7.	6.9	81.6	28 FEB 1900	73	28.	121.7	94.7
28 FEB 0245	8	0.	1.8	80.1	28 FEB 1100	41	8.	7.4	81.7	28 FEB 1915	74	28.	124.7	95.1
28 FEB 0300	9	1.	1.9	80.1	28 FEB 1115	42	8.	8.0	81.8	28 FEB 1930	75	29.	127.5	95.4
28 FEB 0315	10	1.	2.0	80.2	28 FEB 1130	43	8.	8.7	81.9	28 FEB 1945	76	29.	130.1	95.7
28 FEB 0330	11	2.	2.2	80.2	28 FEB 1145	44	8.	9.4	82.1	28 FEB 2000	77	30.	132.6	95.9
28 FEB 0345	12	2.	2.3	80.3	28 FEB 1200	45	9.	10.3	82.2	28 FEB 2015	78	30.	134.8	96.2
28 FEB 0400	13	2.	2.5	80.3	28 FEB 1215	46	9.	11.3	82.4	28 FEB 2030	79	30.	136.9	96.4
28 FEB 0415	14	3.	2.6	80.4	28 FEB 1230	47	10.	12.5	82.6	28 FEB 2045	80	31.	138.7	96.6
28 FEB 0430	15	3.	2.8	80.4	28 FEB 1245	48	10.	14.1	82.8	28 FEB 2100	81	31.	140.4	96.8
28 FEB 0445	16	4.	2.9	80.5	28 FEB 1300	49	10.	16.3	83.1	28 FEB 2115	82	31.	141.8	96.9
28 FEB 0500	17	4.	3.1	80.5	28 FEB 1315	50	11.	19.8	83.6	28 FEB 2130	83	31.	143.0	97.1
28 FEB 0515	18	4.	3.2	80.6	28 FEB 1330	51	12.	24.5	84.1	28 FEB 2145	84	31.	144.0	97.2
28 FEB 0530	19	5.	3.3	80.6	28 FEB 1345	52	13.	29.5	84.7	28 FEB 2200	85	32.	144.9	97.3
28 FEB 0545	20	5.	3.5	80.7	28 FEB 1400	53	14.	34.5	85.2	28 FEB 2215	86	32.	145.8	97.4
28 FEB 0600	21	5.	3.6	80.7	28 FEB 1415	54	14.	39.5	85.8	28 FEB 2230	87	32.	146.5	97.4
28 FEB 0615	22	5.	3.7	80.7	28 FEB 1430	55	15.	44.6	86.3	28 FEB 2245	88	32.	147.2	97.5
28 FEB 0630	23	5.	3.8	80.8	28 FEB 1445	56	16.	49.6	86.9	28 FEB 2300	89	32.	147.9	97.6
28 FEB 0645	24	5.	3.9	80.8	28 FEB 1500	57	17.	54.6	87.4	28 FEB 2315	90	32.	148.6	97.7
28 FEB 0700	25	5.	4.0	80.8	28 FEB 1515	58	18.	59.6	88.0	28 FEB 2330	91	32.	149.2	97.7
28 FEB 0715	26	5.	4.2	80.9	28 FEB 1530	59	19.	64.5	88.5	28 FEB 2345	92	32.	149.8	97.8
28 FEB 0730	27	6.	4.3	80.9	28 FEB 1545	60	19.	69.4	89.0	1 MAR 0000	93	32.	150.4	97.9
FEB 0745	28	6.	4.4	80.9	28 FEB 1600	61	20.	74.2	89.6	1 MAR 0015	94	33.	150.9	97.9
FEB 0800	29	6.	4.5	81.0	28 FEB 1615	62	21.	79.0	90.1	1 MAR 0030	95	33.	151.5	98.0
28 FEB 0815	30	6.	4.6	81.0	28 FEB 1630	63	22.	83.5	90.6	1 MAR 0045	96	33.	152.0	98.0
28 FEB 0830	31	6.	4.7	81.0	28 FEB 1645	64	22.	88.0	91.1	1 MAR 0100	97	33.	152.5	98.1
28 FEB 0845	32	6.	4.8	81.0	28 FEB 1700	65	23.	92.3	91.5					
28 FEB 0900	33	6.	5.0	81.1	28 FEB 1715	66	24.	96.5	92.0					

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PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
		(CFS)				
33.	24.00		31.	15.	15.	15.
		(INCHES)	.300	.582	.582	.582
		(AC-FT)	15.	30.	30.	30.

PEAK STORAGE (AC-FT)	TIME (HR)	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	24.00-HR
153.	24.00	142.	56.	56.	56.

PEAK STAGE (FEET)	TIME (HR)	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	24.00-HR
98.10	24.00	96.99	87.04	87.04	87.04

CUMULATIVE AREA = .97 SQ MI

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158 KK    *     SUB6A  *
          *            *
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159 KO         OUTPUT CONTROL VARIABLES
                     IPRNT           4  PRINT CONTROL
                     IPLOT           0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE
                              SCS RUNOFF CALCULATION

            SUBBASIN RUNOFF DATA

161 BA         SUBBASIN CHARACTERISTICS
                     TAREA         .10  SUBBASIN AREA

               PRECIPITATION DATA

162 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
               ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
               5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                 .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                   STORM AREA =     .10

163 LS         SCS LOSS RATE
                     STRTL         .78  INITIAL ABSTRACTION
                    CRVNBR       72.00  CURVE NUMBER
                     RTIMP         .00  PERCENT IMPERVIOUS AREA

164 UD         SCS DIMENSIONLESS UNITGRAPH
                      TLAG         .51  LAG

                                                        ***

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

                                                   UNIT HYDROGRAPH
                                              12 END-OF-PERIOD ORDINATES
            22.      67.      69.      43.      22.      12.       6.       3.       2.       1.
             1.       0.


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          *            *
168 KK    *     6ASWP  *
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169 KO         OUTPUT CONTROL VARIABLES
                     IPRNT           1  PRINT CONTROL
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                IPLOT          0  PLOT CONTROL
                QSCAL         0.  HYDROGRAPH PLOT SCALE
                        STORAGE ROUTING THROUGH 6A

          HYDROGRAPH ROUTING DATA

171 RS        STORAGE ROUTING
                NSTPS          1  NUMBER OF SUBREACHES
                 ITYP       ELEV  TYPE OF INITIAL CONDITION
                RSVRIC      82.00  INITIAL CONDITION
                     X        .00 WORKING R AND D COEFFICIENT

172 SA          AREA         .1       1.2       4.0       7.5

173 SE        ELEVATION     82.00     84.00     85.00     86.00

174 SL        LOW-LEVEL OUTLET
                ELEVL      85.00  ELEVATION AT CENTER OF OUTLET
                CAREA       4.50  CROSS-SECTIONAL AREA
                 COQL        .60  COEFFICIENT
                 EXPL        .50  EXPONENT OF HEAD

175 SS        SPILLWAY
                 CREL      85.90  SPILLWAY CREST ELEVATION
                SPWID        .00  SPILLWAY WIDTH
                 COQW        .00  WEIR COEFFICIENT
                 EXPW       1.50  EXPONENT OF HEAD

                                        ***

                              COMPUTED STORAGE-ELEVATION DATA

        STORAGE       .00      1.07      3.50      9.16
      ELEVATION     82.00     84.00     85.00     86.00

                              COMPUTED OUTFLOW-ELEVATION DATA

        OUTFLOW       .00       .00     21.62     21.46     21.30     21.14     20.99     20.84     20.69     20.54
      ELEVATION     82.00     85.00     86.00     85.98     85.97     85.95     85.94     85.93     85.91     85.90

                              COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

        STORAGE       .00      1.07      3.50      9.14
        OUTFLOW       .00       .00       .00     21.62
      ELEVATION     82.00     84.00     85.00     86.00
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HYDROGRAPH AT STATION 6ASWP

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
	FEB	0100	1	0.	.0	82.0	*	28	FEB	0915	34	0.	2.3	84.5	*	28	FEB	1730	67	36.	13.0	86.7
[illegible]	FEB	0115	2	0.	.0	82.0	*	28	FEB	0930	35	0.	2.4	84.6	*	28	FEB	1745	68	36.	12.9	86.7
28	FEB	0130	3	0.	.0	82.0	*	28	FEB	0945	36	0.	2.6	84.6	*	28	FEB	1800	69	36.	12.9	86.7
28	FEB	0145	4	0.	.0	82.0	*	28	FEB	1000	37	0.	2.[illegible]	84.7	*	28	FEB	1815	70	36.	12.9	86.7
28	FEB	0200	5	0.	.0	82.0	*	28	FEB	1015	38	0.	2.9	84.7	*	28	FEB	1830	71	36.	12.8	86.6

28 FEB 0215	6	0.	.0	82.0 *	28 FEB 1030	39	0.	3.0	84.8 *	28 FEB 1845	72	36.	12.8	86.6
28 FEB 0230	7	0.	.0	82.0 *	28 FEB 1045	40	0.	3.2	84.9 *	28 FEB 1900	73	36.	12.8	86.6
28 FEB 0245	8	0.	.0	82.0 *	28 FEB 1100	41	0.	3.4	85.0 *	28 FEB 1915	74	36.	12.8	86.6
28 FEB 0300	9	0.	.0	82.0 *	28 FEB 1115	42	0.	3.6	85.0 *	28 FEB 1930	75	36.	12.8	8/
28 FEB 0315	10	0.	.0	82.1 *	28 FEB 1130	43	1.	3.8	85.1 *	28 FEB 1945	76	36.	12.8	86.
28 FEB 0330	11	0.	.1	82.1 *	28 FEB 1145	44	2.	4.1	85.1 *	28 FEB 2000	77	36.	12.8	86.6
28 FEB 0345	12	0.	.1	82.2 *	28 FEB 1200	45	3.	4.3	85.1 *	28 FEB 2015	78	36.	12.8	86.6
28 FEB 0400	13	0.	.2	82.3 *	28 FEB 1215	46	4.	4.5	85.2 *	28 FEB 2030	79	36.	12.8	86.6
28 FEB 0415	14	0.	.2	82.4 *	28 FEB 1230	47	5.	4.8	85.2 *	28 FEB 2045	80	36.	12.8	86.6
28 FEB 0430	15	0.	.3	82.5 *	28 FEB 1245	48	6.	5.1	85.3 *	28 FEB 2100	81	36.	12.8	86.6
28 FEB 0445	16	0.	.3	82.6 *	28 FEB 1300	49	8.	5.6	85.4 *	28 FEB 2115	82	36.	12.8	86.6
28 FEB 0500	17	0.	.4	82.8 *	28 FEB 1315	50	11.	6.4	85.5 *	28 FEB 2130	83	36.	12.8	86.6
28 FEB 0515	18	0.	.5	82.9 *	28 FEB 1330	51	17.	7.9	85.8 *	28 FEB 2145	84	36.	12.8	86.6
28 FEB 0530	19	0.	.6	83.1 *	28 FEB 1345	52	24.	9.7	86.1 *	28 FEB 2200	85	36.	12.8	86.6
28 FEB 0545	20	0.	.7	83.3 *	28 FEB 1400	53	30.	11.2	86.4 *	28 FEB 2215	86	36.	12.8	86.6
28 FEB 0600	21	0.	.8	83.5 *	28 FEB 1415	54	34.	12.2	86.5 *	28 FEB 2230	87	36.	12.8	86.6
28 FEB 0615	22	0.	.9	83.7 *	28 FEB 1430	55	36.	12.9	86.7 *	28 FEB 2245	88	36.	12.8	86.6
28 FEB 0630	23	0.	1.0	83.9 *	28 FEB 1445	56	37.	13.2	86.7 *	28 FEB 2300	89	36.	12.8	86.7
28 FEB 0645	24	0.	1.1	84.0 *	28 FEB 1500	57	38.	13.4	86.7 *	28 FEB 2315	90	36.	12.8	86.7
28 FEB 0700	25	0.	1.2	84.1 *	28 FEB 1515	58	38.	13.4	86.8 *	28 FEB 2330	91	36.	12.9	86.7
28 FEB 0715	26	0.	1.3	84.1 *	28 FEB 1530	59	38.	13.4	86.8 *	28 FEB 2345	92	36.	12.9	86.7
28 FEB 0730	27	0.	1.4	84.2 *	28 FEB 1545	60	38.	13.4	86.7 *	1 MAR 0000	93	36.	12.9	86.7
28 FEB 0745	28	0.	1.6	84.2 *	28 FEB 1600	61	38.	13.3	86.7 *	1 MAR 0015	94	36.	12.9	86.7
28 FEB 0800	29	0.	1.7	84.3 *	28 FEB 1615	62	38.	13.3	86.7 *	1 MAR 0030	95	36.	12.9	86.7
28 FEB 0815	30	0.	1.8	84.3 *	28 FEB 1630	63	37.	13.2	86.7 *	1 MAR 0045	96	36.	12.9	86.7
28 FEB 0830	31	0.	1.9	84.4 *	28 FEB 1645	64	37.	13.2	86.7 *	1 MAR 0100	97	36.	12.9	86.7
28 FEB 0845	32	0.	2.0	84.4 *	28 FEB 1700	65	37.	13.1	86.7 *					
28 FEB 0900	33	0.	2.2	84.5 *	28 FEB 1715	66	37.	13.0	86.7 *					
				*					*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 38.	14.50		37.	18.	18.	18.
		(INCHES)	.319	.614	.614	.614
		(AC-FT)	18.	35.	35.	35.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
13.	14.50	13.	7.	7.	7.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)				
86.75	14.50	86.68	85.12	85.12	85.12

CUMULATIVE AREA = 1.06 SQ MI

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176 KK      *    SUB68   *
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  KO          OUTPUT CONTROL VARIABLES
                    IPRNT           4  PRINT CONTROL
                    IPLOT           0  PLOT CONTROL
                    QSCAL          0.  HYDROGRAPH PLOT SCALE
                             SCS RUNOFF CALCULATION

             SUBBASIN RUNOFF DATA

 179 BA       SUBBASIN CHARACTERISTICS
                    TAREA         .18  SUBBASIN AREA

              PRECIPITATION DATA

 180 PH                            DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
              ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
              5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                   STORM AREA =     .18

 181 LS       SCS LOSS RATE
                    STRTL         .78  INITIAL ABSTRACTION
                   CRVNBR       72.00  CURVE NUMBER
                    RTIMP         .00  PERCENT IMPERVIOUS AREA

 182 UD       SCS DIMENSIONLESS UNITGRAPH
                     TLAG         .18  LAG

                                                          ***

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

                                                     UNIT HYDROGRAPH
                                                 6 END-OF-PERIOD ORDINATES
             260.      144.      37.      10.       3.       0.


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          *            *
 186 KK   *     6BSWP  *
          *            *
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 187 KO       OUTPUT CONTROL VARIABLES
                    IPRNT           1  PRINT CONTROL
                    IPLOT           0  PLOT CONTROL
                    QSCAL          0.  HYDROGRAPH PLOT SCALE
                             STORAGE ROUTING THROUGH 6B

             HYDROGRAPH ROUTING DATA

 189 RS       STORAGE ROUTING
                    NSTPS           1  NUMBER OF SUBREACHES
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                    ITYP        ELEV  TYPE OF INITIAL CONDITION
                  RSVRIC       79.00  INITIAL CONDITION
                       X         .00 WORKING R AND D COEFFICIENT

190 SA              AREA         9.6      23.8      37.4

191 SE         ELEVATION       79.00     80.00     82.00

193 SL         LOW-LEVEL OUTLET
                    ELEVL       80.60  ELEVATION AT CENTER OF OUTLET
                    CAREA       11.30  CROSS-SECTIONAL AREA
                     COQL         .60  COEFFICIENT
                     EXPL         .50  EXPONENT OF HEAD

194 SS         SPILLWAY
                     CREL       81.90  SPILLWAY CREST ELEVATION
                    SPWID         .00  SPILLWAY WIDTH
                     COQW         .00  WEIR COEFFICIENT
                     EXPW        1.50  EXPONENT OF HEAD

                                                  ***

                                     COMPUTED STORAGE-ELEVATION DATA

          STORAGE        .00     16.21     76.95
        ELEVATION      79.00     80.00     82.00

                                     COMPUTED OUTFLOW-ELEVATION DATA

          OUTFLOW        .00       .00     67.92     67.00     66.11     65.25     64.40     63.58     62.78     62.00
        ELEVATION      79.00     80.60     82.16     82.12     82.08     82.04     82.00     81.97     81.93     81.90

                                     COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE        .00     16.21     31.62     76.95     83.04
          OUTFLOW        .00       .00       .00     64.34     67.92
        ELEVATION      79.00     80.00     80.60     82.00     82.16
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HYDROGRAPH AT STATION 6BSWP

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	79.0	*	28	FEB	0915	34	0.	.0	79.0	*	28	FEB	1730	67	10.	38.7	80.8
28	FEB	0115	2	0.	.0	79.0	*	28	FEB	0930	35	0.	.0	79.0	*	28	FEB	1745	68	11.	39.5	80.8
28	FEB	0130	3	0.	.0	79.0	*	28	FEB	0945	36	0.	.0	79.0	*	28	FEB	1800	69	12.	40.3	80.9
28	FEB	0145	4	0.	.0	79.0	*	28	FEB	1000	37	0.	.1	79.0	*	28	FEB	1815	70	13.	41.1	80.9
28	FEB	0200	5	0.	.0	79.0	*	28	FEB	1015	38	0.	.1	79.0	*	28	FEB	1830	71	14.	41.8	80.9
28	FEB	0215	6	0.	.0	79.0	*	28	FEB	1030	39	0.	.2	79.0	*	28	FEB	1845	72	16.	42.5	80.9
28	FEB	0230	7	0.	.0	79.0	*	28	FEB	1045	40	0.	.3	79.0	*	28	FEB	1900	73	16.	43.2	81.0
28	FEB	0245	8	0.	.0	79.0	*	28	FEB	1100	41	0.	.4	79.0	*	28	FEB	1915	74	17.	43.9	8[illegible]
28	FEB	0300	9	0.	.0	79.0	*	28	FEB	1115	42	0.	.5	79.0	*	28	FEB	1930	75	18.	44.4	81.
28	FEB	0315	10	0.	.0	79.0	*	28	FEB	1130	43	0.	.7	79.0	*	28	FEB	1945	76	19.	45.0	81.0
28	FEB	0330	11	0.	.0	79.0	*	28	FEB	1145	44	0.	.9	79.1	*	28	FEB	2000	77	20.	45.5	81.0
28	FEB	0345	12	0.	.0	79.0	*	28	FEB	1200	45	0.	1.2	79.1	*	28	FEB	2015	78	20.	46.1	81.0
28	FEB	0400	13	0.	.0	79.0	*	28	FEB	1215	46	0.	1.7	79.1	*	28	FEB	2030	79	21.	46.6	81.1

28 FEB 0415	14	0.	.0	79.0 *	28 FEB 1230	47	0.	2.3	79.1 *	28 FEB 2045	80	22.	47.0	81.1
28 FEB 0430	15	0.	.0	79.0 *	28 FEB 1245	48	0.	3.2	79.2 *	28 FEB 2100	81	23.	47.5	81.1
28 FEB 0445	16	0.	.0	79.0 *	28 FEB 1300	49	0.	4.9	79.3 *	28 FEB 2115	82	23.	47.9	81.1
FEB 0500	17	0.	.0	79.0 *	28 FEB 1315	50	0.	9.0	79.6 *	28 FEB 2130	83	24.	48.3	81.1
FEB 0515	18	0.	.0	79.0 *	28 FEB 1330	51	0.	14.1	79.9 *	28 FEB 2145	84	24.	48.8	81.1
28 FEB 0530	19	0.	.0	79.0 *	28 FEB 1345	52	0.	17.8	80.1 *	28 FEB 2200	85	25.	49.1	81.1
28 FEB 0545	20	0.	.0	79.0 *	28 FEB 1400	53	0.	20.4	80.2 *	28 FEB 2215	86	25.	49.5	81.2
28 FEB 0600	21	0.	.0	79.0 *	28 FEB 1415	54	0.	22.4	80.2 *	28 FEB 2230	87	26.	49.9	81.2
28 FEB 0615	22	0.	.0	79.0 *	28 FEB 1430	55	0.	24.1	80.3 *	28 FEB 2245	88	26.	50.2	81.2
28 FEB 0630	23	0.	.0	79.0 *	28 FEB 1445	56	0.	25.6	80.4 *	28 FEB 2300	89	27.	50.6	81.2
28 FEB 0645	24	0.	.0	79.0 *	28 FEB 1500	57	0.	27.1	80.4 *	28 FEB 2315	90	27.	50.9	81.2
28 FEB 0700	25	0.	.0	79.0 *	28 FEB 1515	58	0.	28.5	80.5 *	28 FEB 2330	91	28.	51.2	81.2
28 FEB 0715	26	0.	.0	79.0 *	28 FEB 1530	59	0.	29.9	80.5 *	28 FEB 2345	92	28.	51.5	81.2
28 FEB 0730	27	0.	.0	79.0 *	28 FEB 1545	60	0.	31.2	80.6 *	1 MAR 0000	93	29.	51.8	81.2
28 FEB 0745	28	0.	.0	79.0 *	28 FEB 1600	61	1.	32.5	80.6 *	1 MAR 0015	94	29.	52.1	81.2
28 FEB 0800	29	0.	.0	79.0 *	28 FEB 1615	62	3.	33.7	80.7 *	1 MAR 0030	95	29.	52.4	81.2
28 FEB 0815	30	0.	.0	79.0 *	28 FEB 1630	63	4.	34.8	80.7 *	1 MAR 0045	96	30.	52.7	81.2
28 FEB 0830	31	0.	.0	79.0 *	28 FEB 1645	64	6.	35.8	80.7 *	1 MAR 0100	97	30.	52.9	81.3
28 FEB 0845	32	0.	.0	79.0 *	28 FEB 1700	65	7.	36.8	80.8 *					
28 FEB 0900	33	0.	.0	79.0 *	28 FEB 1715	66	9.	37.8	80.8 *					
				*					*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 30.	24.00		24.	7.	7.	7.
		(INCHES)	.183	.219	.219	.219
		(AC-FT)	12.	14.	14.	14.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
53.	24.00	49.	20.	20.	20.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)				
81.26	24.00	81.13	79.92	79.92	79.92

CUMULATIVE AREA = 1.24 SQ MI

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195 KK        *    SUB6C   *
              *            *
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KO OUTPUT CONTROL VARIABLES

IPRNT	4	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE

SCS RUNOFF CALCULATION

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            SUBBASIN RUNOFF DATA

198 BA        SUBBASIN CHARACTERISTICS
                    TAREA          .23  SUBBASIN AREA

              PRECIPITATION DATA

199 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
              ..... HYDRO-35 ......  ............... TP-40 ...............  ........... TP-49 ...........
              5-MIN  15-MIN  60-MIN   2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                .60    1.30    2.50   3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                STORM AREA =     .23

200 LS        SCS LOSS RATE
                    STRTL          .78  INITIAL ABSTRACTION
                   CRVNBR        72.00  CURVE NUMBER
                    RTIMP          .00  PERCENT IMPERVIOUS AREA

201 UD        SCS DIMENSIONLESS UNITGRAPH
                     TLAG          .30  LAG

                                                        ***

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

                                                   UNIT HYDROGRAPH
                                              8 END-OF-PERIOD ORDINATES
            171.      253.      111.       43.       16.        6.        3.        1.


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          *            *
202 KK    *     SUB6D  *
          *            *
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203 KO        OUTPUT CONTROL VARIABLES
                   IPRNT           4  PRINT CONTROL
                   IPLOT           0  PLOT CONTROL
                   QSCAL          0.  HYDROGRAPH PLOT SCALE
                            SCS RUNOFF CALCULATION

            SUBBASIN RUNOFF DATA

205 BA        SUBBASIN CHARACTERISTICS
                    TAREA          .42  SUBBASIN AREA

              PRECIPITATION DATA

206 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
              ..... HYDRO-35 ......  ............... TP-40 ...............  ........... TP-49 ...........
              5-MIN  15-MIN  60-MIN   2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                .60    1.30    2.50   3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00
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                                        STORM AREA =     .42

207 LS          SCS LOSS RATE
                     STRTL        .78  INITIAL ABSTRACTION
                    CRVNBR      72.00  CURVE NUMBER
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

208 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG        .50  LAG

                                                  ***

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

                                                UNIT HYDROGRAPH
                                            12 END-OF-PERIOD ORDINATES
             102.     305.     305.     184.      92.      48.      25.      13.       7.       4.
               2.       1.


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          *            *
209 KK    *     6DSWP  *
          *            *
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    KO          OUTPUT CONTROL VARIABLES
                     IPRNT          1  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE
                              STORAGE ROUTING THROUGH 6D

             HYDROGRAPH ROUTING DATA

212 RS          STORAGE ROUTING
                     NSTPS          1  NUMBER OF SUBREACHES
                      ITYP       ELEV  TYPE OF INITIAL CONDITION
                    RSVRIC      80.00  INITIAL CONDITION
                         X        .00 WORKING R AND D COEFFICIENT

213 SA              AREA        1.5     14.4

214 SE          ELEVATION      80.00     90.00

215 SL          LOW-LEVEL OUTLET
                     ELEVL      80.00  ELEVATION AT CENTER OF OUTLET
                     CAREA      12.57  CROSS-SECTIONAL AREA
                      COQL        .60  COEFFICIENT
                      EXPL        .50  EXPONENT OF HEAD

216 SS          SPILLWAY
                      CREL      90.00  SPILLWAY CREST ELEVATION
                     SPWID        .00  SPILLWAY WIDTH
                      COQW        .00  WEIR COEFFICIENT
                      EXPW       1.50  EXPONENT OF HEAD
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COMPUTED STORAGE-ELEVATION DATA

STORAGE	.00	68.83
ELEVATION	80.00	90.00

COMPUTED OUTFLOW-ELEVATION DATA

OUTFLOW	.00	84.17	90.50	97.87	106.54	116.90	129.48	145.11	165.02	191.28
ELEVATION	80.00	81.94	82.24	82.62	83.10	83.73	84.58	85.76	87.44	90.00

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	4.33	5.28	6.59	8.48	11.30	15.80	23.50	37.99	68.83
OUTFLOW	.00	84.17	90.50	97.87	106.54	116.90	129.48	145.11	165.02	191.28
ELEVATION	80.00	81.94	82.24	82.62	83.10	83.73	84.58	85.76	87.44	90.00

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HYDROGRAPH AT STATION 6DSWP

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DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	80.0	28	FEB	0915	34	0.	.0	80.0	28	FEB	1730	67	115.	10.7	83.6
28	FEB	0115	2	0.	.0	80.0	28	FEB	0930	35	0.	.0	80.0	28	FEB	1745	68	109.	9.2	8
28	FEB	0130	3	0.	.0	80.0	28	FEB	0945	36	0.	.0	80.0	28	FEB	1800	69	103.	7.8	82.
28	FEB	0145	4	0.	.0	80.0	28	FEB	1000	37	1.	.0	80.0	28	FEB	1815	70	97.	6.5	82.6
28	FEB	0200	5	0.	.0	80.0	28	FEB	1015	38	2.	.1	80.0	28	FEB	1830	71	90.	5.3	82.2
28	FEB	0215	6	0.	.0	80.0	28	FEB	1030	39	3.	.1	80.1	28	FEB	1845	72	82.	4.2	81.9
28	FEB	0230	7	0.	.0	80.0	28	FEB	1045	40	4.	.2	80.1	28	FEB	1900	73	65.	3.4	81.5
28	FEB	0245	8	0.	.0	80.0	28	FEB	1100	41	5.	.3	80.1	28	FEB	1915	74	54.	2.8	81.2
28	FEB	0300	9	0.	.0	80.0	28	FEB	1115	42	7.	.4	80.2	28	FEB	1930	75	46.	2.4	81.1
28	FEB	0315	10	0.	.0	80.0	28	FEB	1130	43	10.	.5	80.2	28	FEB	1945	76	40.	2.0	80.9
28	FEB	0330	11	0.	.0	80.0	28	FEB	1145	44	12.	.6	80.3	28	FEB	2000	77	35.	1.8	80.8
28	FEB	0345	12	0.	.0	80.0	28	FEB	1200	45	15.	.8	80.4	28	FEB	2015	78	32.	1.6	80.7
28	FEB	0400	13	0.	.0	80.0	28	FEB	1215	46	19.	1.0	80.4	28	FEB	2030	79	29.	1.5	80.7
28	FEB	0415	14	0.	.0	80.0	28	FEB	1230	47	25.	1.3	80.6	28	FEB	2045	80	27.	1.4	80.6
28	FEB	0430	15	0.	.0	80.0	28	FEB	1245	48	35.	1.8	80.8	28	FEB	2100	81	25.	1.3	80.6
28	FEB	0445	16	0.	.0	80.0	28	FEB	1300	49	53.	2.7	81.2	28	FEB	2115	82	24.	1.2	80.5
28	FEB	0500	17	0.	.0	80.0	28	FEB	1315	50	88.	4.9	82.1	28	FEB	2130	83	23.	1.2	80.5
28	FEB	0515	18	0.	.0	80.0	28	FEB	1330	51	111.	9.6	83.4	28	FEB	2145	84	22.	1.1	80.5
28	FEB	0530	19	0.	.0	80.0	28	FEB	1345	52	129.	15.8	84.6	28	FEB	2200	85	21.	1.1	80.5
28	FEB	0545	20	0.	.0	80.0	28	FEB	1400	53	140.	20.9	85.4	28	FEB	2215	86	21.	1.1	80.5
28	FEB	0600	21	0.	.0	80.0	28	FEB	1415	54	146.	23.9	85.8	28	FEB	2230	87	20.	1.0	80.5
28	FEB	0615	22	0.	.0	80.0	28	FEB	1430	55	148.	25.4	86.0	28	FEB	2245	88	20.	1.0	80.5
28	FEB	0630	23	0.	.0	80.0	28	FEB	1445	56	148.	25.6	86.0	28	FEB	2300	89	19.	1.0	80.4
28	FEB	0645	24	0.	.0	80.0	28	FEB	1500	57	147.	25.1	85.9	28	FEB	2315	90	19.	1.0	80.4
28	FEB	0700	25	0.	.0	80.0	28	FEB	1515	58	146.	24.2	85.8	28	FEB	2330	91	18.	.9	80.4
28	FEB	0715	26	0.	.0	80.0	28	FEB	1530	59	144.	22.9	85.7	28	FEB	2345	92	18.	.9	80.4
28	FEB	0730	27	0.	.0	80.0	28	FEB	1545	60	141.	21.6	85.5	1	MAR	0000	93	18.	.9	80
28	FEB	0745	28	0.	.0	80.0	28	FEB	1600	61	138.	20.1	85.2	1	MAR	0015	94	17.	.9	8
28	FEB	0800	29	0.	.0	80.0	28	FEB	1615	62	135.	18.6	85.0	1	MAR	0030	95	17.	.9	80.4
28	FEB	0815	30	0.	.0	80.0	28	FEB	1630	63	132.	17.0	84.8	1	MAR	0045	96	17.	.9	80.4
28	FEB	0830	31	0.	.0	80.0	28	FEB	1645	64	128.	15.4	84.5	1	MAR	0100	97	16.	.8	80.4
28	FEB	0845	32	0.	.0	80.0	28	FEB	1700	65	124.	13.8	84.2							

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28 FEB 0900  33       0.       .0    80.0 * 28 FEB 1715  66     119.     12.2    83.9 *
                                          *                                          *
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 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     24.00-HR
+  (CFS)       (HR)
                          (CFS)
+     148.     13.75                 122.         39.         39.         39.
                        (INCHES)    2.687      3.411       3.411       3.411
                         (AC-FT)     60.         77.         77.         77.

 PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     24.00-HR
+  (AC-FT)      (HR)
      26.      13.75                  15.          4.          4.          4.

 PEAK STAGE     TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     24.00-HR
+   (FEET)      (HR)
    86.00      13.75                84.23      81.25       81.25       81.25

                        CUMULATIVE AREA =     .42 SQ MI


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 220 KK     *    6CSWP   *
            *            *
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 221 KO          OUTPUT CONTROL VARIABLES
                      IPRNT          1  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE
                              STORAGE ROUTING THROUGH 6C

              HYDROGRAPH ROUTING DATA

 223 RS          STORAGE ROUTING
                      NSTPS          1  NUMBER OF SUBREACHES
                       ITYP       ELEV  TYPE OF INITIAL CONDITION
                     RSVRIC      76.00  INITIAL CONDITION
                          X        .00 WORKING R AND D COEFFICIENT

 224 SA               AREA         .0       2.3      12.6      24.4      33.5

 225 SE          ELEVATION      74.50     76.00     78.00     80.00     82.00

 226 SL          LOW-LEVEL OUTLET
                      ELEVL      74.50  ELEVATION AT CENTER OF OUTLET
                      CAREA      19.64  CROSS-SECTIONAL AREA
                       COQL        .60  COEFFICIENT
                       EXPL        .50  EXPONENT OF HEAD
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227 SS SPILLWAY

CREL	81.90	SPILLWAY CREST ELEVATION
SPWID	.00	SPILLWAY WIDTH
COQW	.00	WEIR COEFFICIENT
EXPW	1.50	EXPONENT OF HEAD

***

COMPUTED STORAGE-ELEVATION DATA

STORAGE	.00	1.16	14.69	50.99	108.68
ELEVATION	74.50	76.00	78.00	80.00	82.00

COMPUTED OUTFLOW-ELEVATION DATA

OUTFLOW	.00	144.90	153.26	162.65	173.25	185.34	199.24	215.40	234.40	257.09
ELEVATION	74.50	76.85	77.13	77.46	77.86	78.35	78.94	79.69	80.65	81.90

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	1.16	4.47	6.25	8.92	13.01	14.69	19.34	28.89	43.85
OUTFLOW	.00	115.75	144.90	153.26	162.65	173.25	176.81	185.34	199.24	215.40
ELEVATION	74.50	76.00	76.85	77.13	77.46	77.86	78.00	78.35	78.94	79.69

STORAGE	50.99	67.80	105.35	108.68
OUTFLOW	221.64	234.40	257.09	258.82
ELEVATION	80.00	80.65	81.90	82.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 0. TO 116.
THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

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HYDROGRAPH AT STATION 6CSWP

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DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	*	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE
28 FEB 0100	1	116.	1.2	76.0	*	28 FEB 0915	34	0.	.0	74.5	*	28 FEB 1730	67	179.	15.7	78.1
28 FEB 0115	2	0.	.0	74.5	*	28 FEB 0930	35	0.	.0	74.5	*	28 FEB 1745	68	177.	15.0	78.0
28 FEB 0130	3	0.	.0	74.5	*	28 FEB 0945	36	1.	.0	74.5	*	28 FEB 1800	69	176.	14.2	78.0
28 FEB 0145	4	0.	.0	74.5	*	28 FEB 1000	37	2.	.0	74.5	*	28 FEB 1815	70	174.	13.3	77.9
28 FEB 0200	5	0.	.0	74.5	*	28 FEB 1015	38	4.	.0	74.5	*	28 FEB 1830	71	172.	12.4	77.8
28 FEB 0215	6	0.	.0	74.5	*	28 FEB 1030	39	6.	.1	74.6	*	28 FEB 1845	72	169.	11.3	77.7
28 FEB 0230	7	0.	.0	74.5	*	28 FEB 1045	40	8.	.1	74.6	*	28 FEB 1900	73	166.	10.1	77.6
28 FEB 0245	8	0.	.0	74.5	*	28 FEB 1100	41	11.	.1	74.6	*	28 FEB 1915	74	162.	8.6	77.4
28 FEB 0300	9	0.	.0	74.5	*	28 FEB 1115	42	14.	.1	74.7	*	28 FEB 1930	75	156.	7.1	77.2
28 FEB 0315	10	0.	.0	74.5	*	28 FEB 1130	43	18.	.2	74.7	*	28 FEB 1945	76	150.	5.5	77.0
28 FEB 0330	11	0.	.0	74.5	*	28 FEB 1145	44	23.	.2	74.8	*	28 FEB 2000	77	140.	3.9	76.7
28 FEB 0345	12	0.	.0	74.5	*	28 FEB 1200	45	28.	.3	74.9	*	28 FEB 2015	78	128.	2.5	76.3
28 FEB 0400	13	0.	.0	74.5	*	28 FEB 1215	46	36.	.4	75.0	*	28 FEB 2030	79	117.	1.3	76.0
28 FEB 0415	14	0.	.0	74.5	*	28 FEB 1230	47	51.	.5	75.2	*	28 FEB 2045	80	67.	.7	7
28 FEB 0430	15	0.	.0	74.5	*	28 FEB 1245	48	73.	.7	75.5	*	28 FEB 2100	81	60.	.6	75.
28 FEB 0445	16	0.	.0	74.5	*	28 FEB 1300	49	116.	1.2	76.0	*	28 FEB 2115	82	59.	.6	75.3
28 FEB 0500	17	0.	.0	74.5	*	28 FEB 1315	50	137.	3.6	76.6	*	28 FEB 2130	83	58.	.6	75.3
28 FEB 0515	18	0.	.0	74.5	*	28 FEB 1330	51	160.	8.1	77.4	*	28 FEB 2145	84	57.	.6	75.2
28 FEB 0530	19	0.	.0	74.5	*	28 FEB 1345	52	172.	12.4	77.8	*	28 FEB 2200	85	57.	.6	75.2

28 FEB 0545	20	0.	.0	74.5	*	28 FEB 1400	53	177.	15.0	78.0	*	28 FEB 2215	86	57.	.6	75.2
28 FEB 0600	21	0.	.0	74.5	*	28 FEB 1415	54	181.	16.7	78.2	*	28 FEB 2230	87	56.	.6	75.2
28 FEB 0615	22	0.	.0	74.5	*	28 FEB 1430	55	182.	17.7	78.2	*	28 FEB 2245	88	56.	.6	75.2
28 FEB 0630	23	0.	.0	74.5	*	28 FEB 1445	56	183.	18.2	78.3	*	28 FEB 2300	89	56.	.6	75.2
FEB 0645	24	0.	.0	74.5	*	28 FEB 1500	57	184.	18.5	78.3	*	28 FEB 2315	90	56.	.6	75.2
FEB 0700	25	0.	.0	74.5	*	28 FEB 1515	58	184.	18.7	78.3	*	28 FEB 2330	91	56.	.6	75.2
28 FEB 0715	26	0.	.0	74.5	*	28 FEB 1530	59	184.	18.7	78.3	*	28 FEB 2345	92	56.	.6	75.2
28 FEB 0730	27	0.	.0	74.5	*	28 FEB 1545	60	184.	18.6	78.3	*	1 MAR 0000	93	55.	.6	75.2
28 FEB 0745	28	0.	.0	74.5	*	28 FEB 1600	61	184.	18.4	78.3	*	1 MAR 0015	94	55.	.6	75.2
28 FEB 0800	29	0.	.0	74.5	*	28 FEB 1615	62	183.	18.1	78.3	*	1 MAR 0030	95	55.	.6	75.2
28 FEB 0815	30	0.	.0	74.5	*	28 FEB 1630	63	182.	17.8	78.2	*	1 MAR 0045	96	55.	.6	75.2
28 FEB 0830	31	0.	.0	74.5	*	28 FEB 1645	64	182.	17.4	78.2	*	1 MAR 0100	97	55.	.6	75.2
28 FEB 0845	32	0.	.0	74.5	*	28 FEB 1700	65	181.	16.9	78.2	*					
28 FEB 0900	33	0.	.0	74.5	*	28 FEB 1715	66	180.	16.3	78.1	*					
					*						*					

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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 184.	14.50		177.	68.	68.	68.
		(INCHES)	.870	1.336	1.336	1.336
		(AC-FT)	88.	135.	135.	135.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (AC-FT)	(HR)				
19.	14.50	15.	4.	4.	4.

K STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	24.00-HR
+ (FEET)	(HR)				
78.30	14.50	78.03	75.71	75.71	75.71

CUMULATIVE AREA = 1.89 SQ MI

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              *            *
228 KK        *   SUBBAB   *
              *            *
              **************

229 KO            OUTPUT CONTROL VARIABLES
                       IPRNT          4  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                              SCS RUNOFF CALCULATION

                 SUBBASIN RUNOFF DATA

231 BA            SUBBASIN CHARACTERISTICS
                       TAREA        .02  SUBBASIN AREA
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                PRECIPITATION DATA

232 PH                              DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......   ................ TP-40 ................   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                STORM AREA =     .02

233 LS          SCS LOSS RATE
                      STRTL         .70  INITIAL ABSTRACTION
                     CRVNBR       74.00  CURVE NUMBER
                      RTIMP         .00  PERCENT IMPERVIOUS AREA

234 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG         .23  LAG

                                                          ***

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

                                                     UNIT HYDROGRAPH
                                                 7 END-OF-PERIOD ORDINATES
              18.       16.        5.        2.        1.        0.        0.


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          *            *
235 KK    *    8ABCHL  *
          *            *
          **************

236 KO          OUTPUT CONTROL VARIABLES
                     IPRNT           1  PRINT CONTROL
                     IPLOT           0  PLOT CONTROL
                     QSCAL          0.  HYDROGRAPH PLOT SCALE
                              STORAGE ROUTING THROUGH 8AB CHANNEL

              HYDROGRAPH ROUTING DATA

238 RS          STORAGE ROUTING
                     NSTPS           1  NUMBER OF SUBREACHES
                      ITYP        STOR  TYPE OF INITIAL CONDITION
                    RSVRIC         .00  INITIAL CONDITION
                         X         .00 WORKING R AND D COEFFICIENT

239 RC          NORMAL DEPTH CHANNEL ROUTING
                       ANL        .080  LEFT OVERBANK N-VALUE
                      ANCH        .030  MAIN CHANNEL N-VALUE
                       ANR        .080  RIGHT OVERBANK N-VALUE
                     RLNTH        300.  REACH LENGTH
                       SEL       .0250  ENERGY SLOPE
                     ELMAX        86.0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                          CROSS-SECTION DATA
                         --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
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241 RY	ELEVATION	86.00	85.00	84.00	78.00	78.00	84.00	85.00	86.00
240 RX	DISTANCE	.00	25.00	50.00	55.00	60.00	65.00	75.00	85.00

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COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	.02	.03	.05	.07	.10	.12	.15	.18	.21
OUTFLOW	.00	9.11	28.80	56.89	92.92	136.85	188.83	249.09	317.89	395.52
ELEVATION	78.00	78.42	78.84	79.26	79.68	80.11	80.53	80.95	81.37	81.79
STORAGE	.25	.28	.32	.36	.40	.46	.55	.69	.88	1.10
OUTFLOW	482.30	578.53	684.52	800.59	927.05	1091.48	1287.27	1514.96	1781.60	2093.43
ELEVATION	82.21	82.63	83.05	83.47	83.89	84.32	84.74	85.16	85.58	86.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 0. TO 2093.
THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

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HYDROGRAPH AT STATION BABCHL

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DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE
28 FEB 0100	1	0.	.0	78.0	28 FEB 0915	34	0.	.0	78.0	28 FEB 1730	67	2.	.0	78.1
28 FEB 0115	2	0.	.0	78.0	28 FEB 0930	35	0.	.0	78.0	28 FEB 1745	68	1.	.0	78.1
FEB 0130	3	0.	.0	78.0	28 FEB 0945	36	0.	.0	78.0	28 FEB 1800	69	1.	.0	78.1
FEB 0145	4	0.	.0	78.0	28 FEB 1000	37	0.	.0	78.0	28 FEB 1815	70	1.	.0	78.1
28 FEB 0200	5	0.	.0	78.0	28 FEB 1015	38	0.	.0	78.0	28 FEB 1830	71	1.	.0	78.1
28 FEB 0215	6	0.	.0	78.0	28 FEB 1030	39	0.	.0	78.0	28 FEB 1845	72	1.	.0	78.1
28 FEB 0230	7	0.	.0	78.0	28 FEB 1045	40	1.	.0	78.0	28 FEB 1900	73	1.	.0	78.1
28 FEB 0245	8	0.	.0	78.0	28 FEB 1100	41	1.	.0	78.0	28 FEB 1915	74	1.	.0	78.1
28 FEB 0300	9	0.	.0	78.0	28 FEB 1115	42	1.	.0	78.0	28 FEB 1930	75	1.	.0	78.0
28 FEB 0315	10	0.	.0	78.0	28 FEB 1130	43	1.	.0	78.0	28 FEB 1945	76	1.	.0	78.0
28 FEB 0330	11	0.	.0	78.0	28 FEB 1145	44	1.	.0	78.1	28 FEB 2000	77	1.	.0	78.0
28 FEB 0345	12	0.	.0	78.0	28 FEB 1200	45	1.	.0	78.1	28 FEB 2015	78	1.	.0	78.0
28 FEB 0400	13	0.	.0	78.0	28 FEB 1215	46	2.	.0	78.1	28 FEB 2030	79	1.	.0	78.0
28 FEB 0415	14	0.	.0	78.0	28 FEB 1230	47	3.	.0	78.1	28 FEB 2045	80	1.	.0	78.0
28 FEB 0430	15	0.	.0	78.0	28 FEB 1245	48	4.	.0	78.2	28 FEB 2100	81	1.	.0	78.0
28 FEB 0445	16	0.	.0	78.0	28 FEB 1300	49	8.	.0	78.4	28 FEB 2115	82	1.	.0	78.0
28 FEB 0500	17	0.	.0	78.0	28 FEB 1315	50	21.	.0	78.7	28 FEB 2130	83	1.	.0	78.0
28 FEB 0515	18	0.	.0	78.0	28 FEB 1330	51	22.	.0	78.7	28 FEB 2145	84	1.	.0	78.0
28 FEB 0530	19	0.	.0	78.0	28 FEB 1345	52	13.	.0	78.5	28 FEB 2200	85	1.	.0	78.0
28 FEB 0545	20	0.	.0	78.0	28 FEB 1400	53	9.	.0	78.4	28 FEB 2215	86	1.	.0	78.0
28 FEB 0600	21	0.	.0	78.0	28 FEB 1415	54	6.	.0	78.3	28 FEB 2230	87	1.	.0	78.0
28 FEB 0615	22	0.	.0	78.0	28 FEB 1430	55	4.	.0	78.2	28 FEB 2245	88	1.	.0	78.0
28 FEB 0630	23	0.	.0	78.0	28 FEB 1445	56	3.	.0	78.2	28 FEB 2300	89	1.	.0	78.0
28 FEB 0645	24	0.	.0	78.0	28 FEB 1500	57	3.	.0	78.1	28 FEB 2315	90	1.	.0	78.0
28 FEB 0700	25	0.	.0	78.0	28 FEB 1515	58	3.	.0	78.1	28 FEB 2330	91	1.	.0	78.0
28 FEB 0715	26	0.	.0	78.0	28 FEB 1530	59	3.	.0	78.1	28 FEB 2345	92	1.	.0	78.0
28 FEB 0730	27	0.	.0	78.0	28 FEB 1545	60	2.	.0	78.1	1 MAR 0000	93	1.	.0	78.0
28 FEB 0745	28	0.	.0	78.0	28 FEB 1600	61	2.	.0	78.1	1 MAR 0015	94	1.	.0	78.0
FEB 0800	29	0.	.0	78.0	28 FEB 1615	62	2.	.0	78.1	1 MAR 0030	95	1.	.0	78.0
28 FEB 0815	30	0.	.0	78.0	28 FEB 1630	63	2.	.0	78.1	1 MAR 0045	96	1.	.0	78.0
28 FEB 0830	31	0.	.0	78.0	28 FEB 1645	64	2.	.0	78.1	1 MAR 0100	97	1.	.0	78.0
28 FEB 0845	32	0.	.0	78.0	28 FEB 1700	65	2.	.0	78.1					

```
 28 FEB 0900  33      0.       .0    78.0 * 28 FEB 1715  66       2.       .0    78.1 *
                                          *                                          *
*****************************************************************************************************************

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR       24-HR       72-HR     24.00-HR
+   (CFS)      (HR)
                          (CFS)
+      22.     12.50                  5.          2.          2.          2.
                        (INCHES)    2.955       3.675       3.675       3.675
                         (AC-FT)      3.          3.          3.          3.

PEAK STORAGE   TIME                         MAXIMUM AVERAGE STORAGE
                                     6-HR       24-HR       72-HR     24.00-HR
+  (AC-FT)     (HR)
       0.     12.25                  0.          0.          0.          0.

 PEAK STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                     6-HR       24-HR       72-HR     24.00-HR
+   (FEET)     (HR)
    78.69     12.50                 78.21       78.07       78.07       78.07

                        CUMULATIVE AREA =     .02 SQ MI


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


           **************
           *            *
 242 KK    *     SUB8B  *
           *            *
           **************

 243 KO          OUTPUT CONTROL VARIABLES
                       IPRNT          4  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
                                SCS RUNOFF CALCULATION

              SUBBASIN RUNOFF DATA

 245 BA          SUBBASIN CHARACTERISTICS
                       TAREA        .33  SUBBASIN AREA

                 PRECIPITATION DATA

 246 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                   STORM AREA =     .33

 247 LS          SCS LOSS RATE
                       STRTL        .70  INITIAL ABSTRACTION
                      CRVNBR      74.00  CURVE NUMBER
                       RTIMP        .00  PERCENT IMPERVIOUS AREA
```

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248 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG          .40  LAG

                                                    ***

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

                                                UNIT HYDROGRAPH
                                          10 END-OF-PERIOD ORDINATES
            133.      306.      231.      101.      47.       22.       10.       5.        2.        1.


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


          **************
          *            *
252 KK    *     88CHL  *
          *            *
          **************

253 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           1  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                               STORAGE ROUTING THROUGH 8B

            HYDROGRAPH ROUTING DATA

__ RS           STORAGE ROUTING
                      NSTPS           1  NUMBER OF SUBREACHES
                       ITYP        STOR  TYPE OF INITIAL CONDITION
                     RSVRIC         .00  INITIAL CONDITION
                          X         .00 WORKING R AND D COEFFICIENT

256 RC          NORMAL DEPTH CHANNEL ROUTING
                        ANL        .080  LEFT OVERBANK N-VALUE
                       ANCH        .030  MAIN CHANNEL N-VALUE
                        ANR        .080  RIGHT OVERBANK N-VALUE
                      RLNTH       1200.  REACH LENGTH
                        SEL       .0030  ENERGY SLOPE
                      ELMAX        82.0  MAX. ELEV. FOR STORAGE/OUTFLOW CALCULATION

                                      CROSS-SECTION DATA
                          --- LEFT OVERBANK --- + ------ MAIN CHANNEL ------- + --- RIGHT OVERBANK ---
258 RY        ELEVATION    84.00     83.00     82.00     75.00     75.00     82.00     83.00     84.00
257 RX        DISTANCE       .00      5.00     10.00     20.00     25.00     35.00     40.00     45.00

                                                    ***

                                      COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE       .00       .06       .12       .20       .29       .39       .50       .62       .75       .89
          OUTFLOW       .00      2.61      8.53     17.35     29.10     43.92     61.94     83.36    108.33    137.04
        ELEVATION     75.00     75.37     75.74     76.11     76.47     76.84     77.21     77.58     77.95     78.32

          STORAGE      1.04      1.20      1.38      1.56      1.76      1.96      2.18      2.41      2.64      2.89
          OUTFLOW    169.67    206.38    247.34    292.73    342.72    397.46    457.12    521.86    591.83    667.20
```

ELEVATION	78.68	79.05	79.42	79.79	80.16	80.53	80.89	81.26	81.63	82.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 9. TO 667.
THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

****

HYDROGRAPH AT STATION 8BCHL

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DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA MON HRMN	ORD	OUTFLOW	STORAGE	STAGE
28 FEB 0100	1	0.	.0	75.0	28 FEB 0915	34	1.	.0	75.1	28 FEB 1730	67	35.	.3	76.6
28 FEB 0115	2	0.	.0	75.0	28 FEB 0930	35	1.	.0	75.2	28 FEB 1745	68	33.	.3	76.6
28 FEB 0130	3	0.	.0	75.0	28 FEB 0945	36	2.	.0	75.3	28 FEB 1800	69	32.	.3	76.5
28 FEB 0145	4	0.	.0	75.0	28 FEB 1000	37	3.	.1	75.4	28 FEB 1815	70	30.	.3	76.5
28 FEB 0200	5	0.	.0	75.0	28 FEB 1015	38	5.	.1	75.5	28 FEB 1830	71	29.	.3	76.5
28 FEB 0215	6	0.	.0	75.0	28 FEB 1030	39	6.	.1	75.6	28 FEB 1845	72	28.	.3	76.5
28 FEB 0230	7	0.	.0	75.0	28 FEB 1045	40	8.	.1	75.7	28 FEB 1900	73	27.	.3	76.4
28 FEB 0245	8	0.	.0	75.0	28 FEB 1100	41	11.	.1	75.8	28 FEB 1915	74	26.	.3	76.4
28 FEB 0300	9	0.	.0	75.0	28 FEB 1115	42	13.	.2	75.9	28 FEB 1930	75	24.	.3	76.3
28 FEB 0315	10	0.	.0	75.0	28 FEB 1130	43	16.	.2	76.1	28 FEB 1945	76	22.	.2	76.3
28 FEB 0330	11	0.	.0	75.0	28 FEB 1145	44	20.	.2	76.2	28 FEB 2000	77	21.	.2	76.2
28 FEB 0345	12	0.	.0	75.0	28 FEB 1200	45	24.	.2	76.3	28 FEB 2015	78	20.	.2	76.2
28 FEB 0400	13	0.	.0	75.0	28 FEB 1215	46	30.	.3	76.5	28 FEB 2030	79	19.	.2	76.2
28 FEB 0415	14	0.	.0	75.0	28 FEB 1230	47	44.	.4	76.8	28 FEB 2045	80	19.	.2	76.1
28 FEB 0430	15	0.	.0	75.0	28 FEB 1245	48	65.	.5	77.3	28 FEB 2100	81	18.	.2	7
28 FEB 0445	16	0.	.0	75.0	28 FEB 1300	49	109.	.8	78.0	28 FEB 2115	82	18.	.2	7[illegible]
28 FEB 0500	17	0.	.0	75.0	28 FEB 1315	50	245.	1.4	79.4	28 FEB 2130	83	17.	.2	76.[illegible]
28 FEB 0515	18	0.	.0	75.0	28 FEB 1330	51	408.	2.0	80.6	28 FEB 2145	84	17.	.2	76.1
28 FEB 0530	19	0.	.0	75.0	28 FEB 1345	52	389.	1.9	80.5	28 FEB 2200	85	17.	.2	76.1
28 FEB 0545	20	0.	.0	75.0	28 FEB 1400	53	272.	1.5	79.6	28 FEB 2215	86	16.	.2	76.1
28 FEB 0600	21	0.	.0	75.0	28 FEB 1415	54	194.	1.2	78.9	28 FEB 2230	87	16.	.2	76.0
28 FEB 0615	22	0.	.0	75.0	28 FEB 1430	55	141.	.9	78.4	28 FEB 2245	88	16.	.2	76.0
28 FEB 0630	23	0.	.0	75.0	28 FEB 1445	56	104.	.7	77.9	28 FEB 2300	89	15.	.2	76.0
28 FEB 0645	24	0.	.0	75.0	28 FEB 1500	57	84.	.6	77.6	28 FEB 2315	90	15.	.2	76.0
28 FEB 0700	25	0.	.0	75.0	28 FEB 1515	58	73.	.6	77.4	28 FEB 2330	91	15.	.2	76.0
28 FEB 0715	26	0.	.0	75.0	28 FEB 1530	59	65.	.5	77.3	28 FEB 2345	92	14.	.2	76.0
28 FEB 0730	27	0.	.0	75.0	28 FEB 1545	60	58.	.5	77.1	1 MAR 0000	93	14.	.2	76.0
28 FEB 0745	28	0.	.0	75.0	28 FEB 1600	61	54.	.4	77.0	1 MAR 0015	94	14.	.2	76.0
28 FEB 0800	29	0.	.0	75.0	28 FEB 1615	62	50.	.4	77.0	1 MAR 0030	95	14.	.2	76.0
28 FEB 0815	30	0.	.0	75.0	28 FEB 1630	63	45.	.4	76.9	1 MAR 0045	96	13.	.2	75.9
28 FEB 0830	31	0.	.0	75.0	28 FEB 1645	64	41.	.4	76.8	1 MAR 0100	97	13.	.2	75.9
28 FEB 0845	32	0.	.0	75.0	28 FEB 1700	65	39.	.4	76.7					
28 FEB 0900	33	0.	.0	75.0	28 FEB 1715	66	36.	.3	76.7					

****

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
+		(CFS)				
+ 408.	12.50		110.	34.	34.	34.
		(INCHES)	2.947	3.653	3.653	3.653
		(AC-FT)	55.	68.	68.	68.

PEAK STORAGE TIME MAXIMUM AVERAGE STORAGE

```
                                    6-HR       24-HR       72-HR     24.00-HR
+  (AC-FT)      (HR)
       2.     12.50                  1.          0.          0.          0.

   K STAGE    TIME                          MAXIMUM AVERAGE STAGE
                                    6-HR       24-HR       72-HR     24.00-HR
+   (FEET)      (HR)
    80.59     12.50                77.66       76.08       76.08       76.08

                      CUMULATIVE AREA =     .35 SQ MI
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            **************
            *            *
 259 KK     *     SUB8C  *
            *            *
            **************

 260 KO          OUTPUT CONTROL VARIABLES
                       IPRNT           4  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE
                                SCS RUNOFF CALCULATION

              SUBBASIN RUNOFF DATA

 BA           SUBBASIN CHARACTERISTICS
                       TAREA         .12  SUBBASIN AREA

              PRECIPITATION DATA

 263 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
              ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
              5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                .60    1.30    2.50    3.30    3.70    4.60    5.60    6.60     .00     .00     .00     .00

                                                STORM AREA =     .12

 264 LS       SCS LOSS RATE
                       STRTL         .70  INITIAL ABSTRACTION
                      CRVNBR       74.00  CURVE NUMBER
                       RTIMP         .00  PERCENT IMPERVIOUS AREA

 265 UD       SCS DIMENSIONLESS UNITGRAPH
                        TLAG         .26  LAG

                                                          ***

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

                                                     UNIT HYDROGRAPH
                                                 7 END-OF-PERIOD ORDINATES
            107.      125.      44.      16.       5.       2.       1.
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*** ***

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          **************
          *            *
269 KK    *     8CSWP  *
          *            *
          **************

270 KO         OUTPUT CONTROL VARIABLES
                     IPRNT          1  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE
                             STORAGE ROUTING THROUGH 8C

            HYDROGRAPH ROUTING DATA

272 RS         STORAGE ROUTING
                     NSTPS          1  NUMBER OF SUBREACHES
                      ITYP       ELEV  TYPE OF INITIAL CONDITION
                    RSVRIC      64.00  INITIAL CONDITION
                         X        .00 WORKING R AND D COEFFICIENT

273 SA              AREA        1.1       1.9       3.3       5.7       8.8      11.1

274 SE         ELEVATION      64.00     66.00     68.00     70.00     72.00     74.00

275 SS         SPILLWAY
                      CREL      64.00  SPILLWAY CREST ELEVATION
                     SPWID      12.00  SPILLWAY WIDTH
                      COQW       3.00  WEIR COEFFICIENT
                      EXPW       1.50  EXPONENT OF HEAD
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COMPUTED STORAGE-ELEVATION DATA

STORAGE	.00	3.00	8.12	16.99	31.37	51.20
ELEVATION	64.00	66.00	68.00	70.00	72.00	74.00

COMPUTED OUTFLOW-ELEVATION DATA

OUTFLOW	.00	.00	.20	1.56	5.27	12.49	24.40	42.16	66.95	99.94
ELEVATION	64.00	64.00	64.03	64.12	64.28	64.49	64.77	65.11	65.51	65.98
OUTFLOW	142.30	195.20	259.81	337.31	428.86	535.64	658.81	799.55	959.03	1138.42
ELEVATION	66.50	67.09	67.73	68.44	69.22	70.05	70.94	71.90	72.92	74.00

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	.03	.14	.32	.60	.97	1.47	2.12	2.95	3.00
OUTFLOW	.00	.20	1.56	5.27	12.49	24.40	42.16	66.95	99.94	101.82
ELEVATION	64.00	64.03	64.12	64.28	64.49	64.77	65.11	65.51	65.98	66.00
STORAGE	4.03	5.44	7.28	8.12	9.69	12.93	16.99	17.28	23.01	30.51
OUTFLOW	142.30	195.20	259.81	288.00	337.31	428.86	529.09	535.64	658.81	799.55
ELEVATION	66.50	67.09	67.73	68.00	68.44	69.22	70.00	70.05	70.94	71.90

STORAGE	31.37	39.92	51.20
OUTFLOW	814.59	959.03	1138.42
ELEVATION	72.00	72.92	74.00

HYDROGRAPH AT STATION 8CSWP

DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE	DA	MON	HRMN	ORD	OUTFLOW	STORAGE	STAGE
28	FEB	0100	1	0.	.0	64.0	28	FEB	0915	34	0.	.0	64.0	28	FEB	1730	67	49.	1.6	65.2
28	FEB	0115	2	0.	.0	64.0	28	FEB	0930	35	0.	.1	64.0	28	FEB	1745	68	47.	1.6	65.2
28	FEB	0130	3	0.	.0	64.0	28	FEB	0945	36	1.	.1	64.1	28	FEB	1800	69	44.	1.5	65.1
28	FEB	0145	4	0.	.0	64.0	28	FEB	1000	37	2.	.2	64.1	28	FEB	1815	70	42.	1.5	65.1
28	FEB	0200	5	0.	.0	64.0	28	FEB	1015	38	3.	.2	64.2	28	FEB	1830	71	41.	1.4	65.1
28	FEB	0215	6	0.	.0	64.0	28	FEB	1030	39	5.	.3	64.3	28	FEB	1845	72	39.	1.4	65.1
28	FEB	0230	7	0.	.0	64.0	28	FEB	1045	40	7.	.4	64.3	28	FEB	1900	73	38.	1.4	65.0
28	FEB	0245	8	0.	.0	64.0	28	FEB	1100	41	10.	.5	64.4	28	FEB	1915	74	37.	1.3	65.0
28	FEB	0300	9	0.	.0	64.0	28	FEB	1115	42	13.	.6	64.5	28	FEB	1930	75	35.	1.3	65.0
28	FEB	0315	10	0.	.0	64.0	28	FEB	1130	43	17.	.7	64.6	28	FEB	1945	76	32.	1.2	64.9
28	FEB	0330	11	0.	.0	64.0	28	FEB	1145	44	21.	.9	64.7	28	FEB	2000	77	30.	1.1	64.9
28	FEB	0345	12	0.	.0	64.0	28	FEB	1200	45	26.	1.0	64.8	28	FEB	2015	78	28.	1.1	64.8
28	FEB	0400	13	0.	.0	64.0	28	FEB	1215	46	33.	1.2	64.9	28	FEB	2030	79	27.	1.0	64.8
28	FEB	0415	14	0.	.0	64.0	28	FEB	1230	47	44.	1.5	65.1	28	FEB	2045	80	26.	1.0	64.8
28	FEB	0430	15	0.	.0	64.0	28	FEB	1245	48	64.	2.1	65.5	28	FEB	2100	81	25.	1.0	64.8
28	FEB	0445	16	0.	.0	64.0	28	FEB	1300	49	103.	3.0	66.0	28	FEB	2115	82	24.	1.0	64.8
28	FEB	0500	17	0.	.0	64.0	28	FEB	1315	50	202.	5.6	67.2	28	FEB	2130	83	24.	1.0	64.8
	FEB	0515	18	0.	.0	64.0	28	FEB	1330	51	343.	9.9	68.5	28	FEB	2145	84	23.	.9	64.7
	FEB	0530	19	0.	.0	64.0	28	FEB	1345	52	425.	12.8	69.2	28	FEB	2200	85	23.	.9	64.7
28	FEB	0545	20	0.	.0	64.0	28	FEB	1400	53	419.	12.6	69.1	28	FEB	2215	86	22.	.9	64.7
28	FEB	0600	21	0.	.0	64.0	28	FEB	1415	54	360.	10.5	68.6	28	FEB	2230	87	22.	.9	64.7
28	FEB	0615	22	0.	.0	64.0	28	FEB	1430	55	287.	8.1	68.0	28	FEB	2245	88	21.	.9	64.7
28	FEB	0630	23	0.	.0	64.0	28	FEB	1445	56	216.	6.0	67.3	28	FEB	2300	89	21.	.9	64.7
28	FEB	0645	24	0.	.0	64.0	28	FEB	1500	57	162.	4.6	66.7	28	FEB	2315	90	20.	.8	64.7
28	FEB	0700	25	0.	.0	64.0	28	FEB	1515	58	127.	3.6	66.3	28	FEB	2330	91	20.	.8	64.7
28	FEB	0715	26	0.	.0	64.0	28	FEB	1530	59	105.	3.1	66.0	28	FEB	2345	92	20.	.8	64.7
28	FEB	0730	27	0.	.0	64.0	28	FEB	1545	60	90.	2.7	65.8	1	MAR	0000	93	19.	.8	64.7
28	FEB	0745	28	0.	.0	64.0	28	FEB	1600	61	80.	2.5	65.7	1	MAR	0015	94	19.	.8	64.6
28	FEB	0800	29	0.	.0	64.0	28	FEB	1615	62	73.	2.3	65.6	1	MAR	0030	95	19.	.8	64.6
28	FEB	0815	30	0.	.0	64.0	28	FEB	1630	63	66.	2.1	65.5	1	MAR	0045	96	18.	.8	64.6
28	FEB	0830	31	0.	.0	64.0	28	FEB	1645	64	61.	2.0	65.4	1	MAR	0100	97	18.	.8	64.6
28	FEB	0845	32	0.	.0	64.0	28	FEB	1700	65	56.	1.8	65.3							
28	FEB	0900	33	0.	.0	64.0	28	FEB	1715	66	52.	1.7	65.3							

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
		(CFS)				
+ 425.	12.75		147.	45.	45.	45.
		(INCHES)	2.939	3.627	3.627	3.627
		(AC-FT)	73.	90.	90.	90.

PEAK STORAGE (AC-FT)	TIME (HR)	MAXIMUM AVERAGE STORAGE 6-HR	24-HR	72-HR	24.00-HR
+ 13.	12.75	4.	1.	1.	1.

PEAK STAGE (FEET)	TIME (HR)	MAXIMUM AVERAGE STAGE 6-HR	24-HR	72-HR	24.00-HR
69.19	12.75	66.37	64.86	64.86	64.86

CUMULATIVE AREA = .46 SQ MI

1

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

OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
HYDROGRAPH AT	SUB7A	193.	12.50	46.	14.	14.	.13		
ROUTED TO	7ASWP	30.	14.00	29.	14.	14.	.13	113.10	14.00
HYDROGRAPH AT	SUB7B	133.	12.75	40.	12.	12.	.12		
2 COMBINED AT	7AB	161.	12.75	67.	26.	26.	.25		
ROUTED TO	7BSWP	28.	21.75	27.	19.	19.	.25	111.24	21.75
HYDROGRAPH AT	SUB7C	77.	12.50	18.	6.	6.	.05		
2 COMBINED AT	7BC	97.	12.50	42.	24.	24.	.30		
ROUTED TO	7CHNL	99.	12.50	42.	24.	24.	.30	96.98	12.50
HYDROGRAPH AT	SUB7D	141.	12.50	36.	11.	11.	.10		
ROUTED TO	7DSWP	71.	13.00	33.	10.	10.	.10	93.08	13.00
HYDROGRAPH AT	SUB7E	91.	12.25	16.	5.	5.	.05		
3 COMBINED AT	7CDE	201.	12.25	89.	39.	39.	.45		
ROUTED TO	7ECHN	152.	13.00	88.	38.	38.	.45	91.36	13.00

	HYDROGRAPH AT								
+		SUB7F	300.	12.50	71.	22.	22.	.21	
	2 COMBINED AT								
		7EF	432.	12.50	156.	60.	60.	.66	
	ROUTED TO								
+		7FCHN	435.	12.50	156.	60.	60.	.66	
+								91.16	12.50
	HYDROGRAPH AT								
+		SUB7G	91.	12.50	22.	7.	7.	.06	
	2 COMBINED AT								
+		7FG	526.	12.50	177.	67.	67.	.72	
	ROUTED TO								
+		7GSWP	219.	13.50	169.	66.	66.	.72	
+								91.87	13.50
	HYDROGRAPH AT								
+		SUB7H	269.	12.50	64.	20.	20.	.19	
	2 COMBINED AT								
+		7GH	424.	12.50	229.	86.	86.	.91	
	ROUTED TO								
+		7HSWP	248.	14.25	217.	85.	85.	.91	
+								88.09	14.25
	HYDROGRAPH AT								
+		SUB8AA	83.	12.25	19.	6.	6.	.06	
	2 COMBINED AT								
+		7H8AA	260.	14.00	232.	91.	91.	.97	
	ROUTED TO								
+		8AASWP	33.	24.00	31.	15.	15.	.97	
+								98.10	24.00
	HYDROGRAPH AT								
+		SUB6A	97.	12.75	29.	9.	9.	.10	
	2 COMBINED AT								
+		8AA6A	109.	12.75	48.	24.	24.	1.06	
	ROUTED TO								
+		6ASWP	38.	14.50	37.	18.	18.	1.06	
+								86.75	14.50
	HYDROGRAPH AT								
+		SUB6B	271.	12.25	53.	16.	16.	.18	
	2 COMBINED AT								
		6AB	282.	12.25	83.	34.	34.	1.24	
	ROUTED TO								
+		6BSWP	30.	24.00	24.	7.	7.	1.24	
+								81.26	24.00

```
        HYDROGRAPH AT
+                       SUB6C     298.  12.50      70.      22.      22.     .23

        HYDROGRAPH AT
+                       SUB6D     425.  12.75     126.      39.      39.     .42

        ROUTED TO
+                       6DSWP     148.  13.75     122.      39.      39.     .42
+                                                                          86.00     13.75

        3 COMBINED AT
+                        6BCD     408.  12.50     194.      68.      68.    1.89

        ROUTED TO
+                       6CSWP     184.  14.50     177.      68.      68.    1.89
+                                                                          78.30     14.50

        HYDROGRAPH AT
+                      SUB8AB      22.  12.25       5.       2.       2.     .02

        ROUTED TO
+                      8ABCHL      22.  12.50       5.       2.       2.     .02
+                                                                          78.69     12.50

        HYDROGRAPH AT
+                       SUB8B     405.  12.50     105.      33.      33.     .33

        2 COMBINED AT
+                        8ABB     427.  12.50     110.      34.      34.     .35

        ROUTED TO
+                       8BCHL     408.  12.50     110.      34.      34.     .35
+                                                                          80.59     12.50

        HYDROGRAPH AT
+                       SUB8C     156.  12.50      37.      11.      11.     .12

        2 COMBINED AT
+                         8BC     565.  12.50     147.      46.      46.     .46

        ROUTED TO
+                       8CSWP     425.  12.75     147.      45.      45.     .46
+                                                                          69.19     12.75


*** NORMAL END OF HEC-1 ***
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APPENDIX 10-D

Analysis of On-Site Subwatersheds (Existing Conditions)

Subwatershed Areas

Golder Associates	SUBJECT ISRT Drainage Areas - On Site		
	Job No. 903-6400.310 Ref. 05010	Made by RD/DP Checked UEE7 Reviewed CRM	Date 6/25/91 Sheet 1 of 3

Objective: To find the areas of the subwatersheds that flow onto & through the site for existing conditions.

Methods: Using the digital planimeter, the perimeter of each subwatershed was outlined. Upon completing the loop around the subarea, a reading was taken. This was done two or three times to each subwatershed. The average of the readings was used as the actual area for use in the HEC-1 modeling.

Golder Associates

SUBJECT ISRT Drainage Areas - Existing		
Job No. 903-6400 313	Made by KD/DP	Date 6/25/91
Ref. 9590	Checked VEEF	Sheet 2 of 3
	Reviewed CLM	

Subwatershed	Area (ft^2)	Area (mi^2)
NB1	428,000	0.015
NB2	242,600	0.009
NB3	98,100	0.004
NB4	1,002,400	0.036
NB5	475,500	0.017
SB1	894,600	0.032
SB2	308,000	0.011
SB3	458,300	0.016
SB4	38,000	0.001
SB5	426,500	0.015
SB6	106,100	0.004
SB7	404,200	0.014
HB1A	371,000	0.013
HB1B	586,500	0.021
HB2A	556,500	0.020
HB2B	354,600	0.013
HB3A	561,700	0.020
HB3B	265,400	0.010
HB3C	271,600	0.010

Golder Associates

SUBJECT ISRT Drainage Areas - Existing		
Job No. 903-6400.310 Ref. 95010	Made by RDIDP Checked VEE7 Reviewed CRM	Date 6/25/91 Sheet 3 of 3

Subwatershed	Area (ft^2)	Area (mi^2)
HB4A	635,500	0.023
HB4B	1,838,000	0.066
HP3A	956,500	0.035
HP3B	359,300	0.013
HP4	376,300	0.013
HP5	405,500	0.015
CW1	310,000	0.011
CW2	737,500	0.026

Curve Numbers

Golder Associates	SUBJECT CN Calculations - on Site - Exist		
	Job No. 903-6400	Made by DP	Date 6/17/91
	Ref. ISRT-95%	Checked WMS	Sheet 1 of 22
		Reviewed CLN	

Objective: To calculate the weighted CN number for each on-site subwatershed for existing conditions

Method: For each subwatershed, determine the percentage of each hydrologic soil type (A, B, C, D) that exists. Within each soil type, determine the percentage & accompanying CN for each land use. Calculate the weighted CN for each soil type by summing the multiplication of the land use CN by the percentage of land use & divide by 100

$$\left[CN_f = \frac{\Sigma(CN_{LU} \times \% LU}{100} \right].$$

Calculate the subwatershed weighted CN by summing the mult. of the percentage by the CN_f for each soil type & divide by 100

$$\left[\text{weighted } CN = \frac{\Sigma(CN_f \times \% \text{ Area})}{100} \right].$$

The percentages were derived by means of a planimeter

Golder Associates

SUBJECT CN Calculations - On-Site-Exist.

Job No. 903-6400310 | Made by DP | Date 6/20/91

Ref. ISRT-95% | Checked JEE7 | Sheet 2 of 22

Reviewed CAM

Subwatershed	CN
NB1	78
NB2	70
NB3	70
NB4	78
NB5	79
SB1	88
SB2	95
SB3	87
SB4	86
SB5	85
SB6	73
SB7	73
HB1AN	81
HB1AS	90
HB1B	84
HB2A	86
HB2B	77
HB3A	85
HB3B	88
HB3C	76

Golder Associates

SUBJECT CN Calculations - On-Site - Exist

Job No. 903-6400.310 | Made by DP | Date 6/20/91

Ref. ISRT - 95% | Checked DEF | Sheet 3 of 22

Reviewed CRM

Subwatershed	CN
HB4A	84
HB4B	93
HP3A	80
HP3B	76
HP4	76
HP5	84
CW1	80
CW2	92

Golder Associates

SUBJECT CN Calcs. — Exist Conditions (Site)

Job No. 903 6400 310 | Made by R. DePasquale | Date 7/20/91

Ref. ISRT-95% | Checked USEZ | Sheet 4 of 22

Reviewed CRM

CALCULATIONS:

For: NB 2

Soil Type	% Area	Use	CN#/Use	CN_f	% Area x CN_f
B	20	N.A.L., Woods, Good Cond.	55	55	1100
C*	45	N.A.L., Woods, Good	70	70	3150
D	35	N.A.L., Woods, Fair	79	79	2765
Total	100	—	—	—	7015

Weighted CN = $\frac{7015}{100}$ = 70

For: NB 1

Soil Type	% Area	Use	CN#/Use		CN_f	% Area x CN_f
C*	35	N.A.L., Woods, Fair	73		73	2555
D	65	N.A.L., Woods, Good	72	40%	80	5200
		N.A.L., Woods, Fair	79	50%		
		Impervi. Area, Streets & Roads, Open Ditches	93	10%		
Total	100	—	—		—	7755

Weighted CN = $\frac{7755}{100}$ = 78

Golder Associates	SUBJECT CN Calcs. – Exist Conditions (On Site)		
	Job No. 903 6400 310	Made by R. Defasquale	Date 2/20/91
	Ref. ISRT-9590	Checked VEEZ	Sheet 5 of 22
		Reviewed CMM	

CALCULATIONS:

For: NB 4

Soil Type	% Area	Use	CN#/Use		CN_c	% Area x CN_c
B	5%	- N.A.L., Woods, Good - N.A.L., Brush, Poor	55 67	50% 50%	61	305
D	95%	- N.A.L., Woods, Good - N.A.L., Brush, Poor - North Branch Aberjona River: treat as impervious paved area as contrib dir. to Flow.	77 83 98	75% 20% 5%	79	7505
Total	100	—	—		—	7810

Weighted CN = $\frac{7810}{100}$ = 78

For: NB 3

Soil Type	% Area	Use	CN#/Use	CN_c	% Area x CN_c
B	45	- N.A.L., Woods, Fair	60	60	2700
D	55	- N.A.L., Woods, Fair	79	79	4345
Total	100	—	—	—	7045

Weighted CN = $\frac{7045}{100}$ = 70

Golder Associates

SUBJECT CN Calculations - On-site - Exist		
Job No. 903-6400.310	Made by RDIDP	Date 7/9/91
Ref. ISRT-95%	Checked [illegible]	Sheet 6 of 22
	Reviewed [illegible]	

Subwatershed NB.5 : 475,500 sf

Soil Type	% Area	Use	CN# / % Use	CNc	% A x CNc
B	10	Brush - good	48 / 50%	52	520
		Woods - good	55 / 50%		
D	90	Impervious - pave	98 / 10%	82	7380
		Brush - poor	83 / 45%		
		Woods - good	77 / 45%		
TOTAL	100				7900

weighted CN = $\frac{7900}{100}$ = 79

Golder Associates	SUBJECT CN Calculations Onsite		
	Job No. 903-6400.310	Made by DP	Date 7/9/91
	Ref. ISRT - 95%	Checked MMS	Sheet 7 of 22
		Reviewed CAM	

Subwatershed 38.1 : 894,600 sf

Soil Type	% Area	Use	CN# / % Use	CN_c	% A x CN_c
C	373,900 / 894,600	Impervious, pave	98 / 61%	87	3654
	42%	Phil pond (226,400)			
		wood - good cond (147,500 sf)	70 / 39%		
D	520,700 / 894,600	Impervious (211,600)	98 / 41%	89	3162
	58%	Dirt (127,700)	89 / 25%		
		Brush - fair (181,400)	77 / 34%		
TOTAL	100%	—	—	—	8816

weighted CN = $\frac{8816}{100}$ = 88

Golder Associates	SUBJECT CN Calcs. — Exist Conditions (On Site)		
	Job No. 903 6400 310	Made by R. Defasquale	Date 2/20/91
	Ref. ISRT-9590	Checked UEET	Sheet 8 of 22
		Reviewed CNM	

CALCULATIONS:

For: SB 3

Soil Type	% Area	Use	CN#/Use	CN$_c$	% Area x CN$_c$
C	30	Dirt Parking Lot	87	87	2610
D	70	- Noncult. Agric. Land, Brush, Poor Cond. - Imper. Area, St. & Rds. (P.L.), Dirt	83 35% 89 65%	87	6090
Total	100	—	—	—	8700

Weighted CN = $\frac{8700}{100}$ = 87

For: SB 2

Soil Type	% Area	Use	CN#/Use	CN$_c$	% Area x CN$_c$
C	80	- Imperv. Area, Paved Parking Lot - Open Space, Fair Condition	98 90% 79 10%	96	7680
D	20	- Imper. Area Paved, P.L. - Imper. Area St. & Rds. (P.L.), Dirt	98 35% 89 65%	92	1840
Total	100	—	—	—	9520

Weighted CN = $\frac{9520}{100}$ = 95

Golder Associates

SUBJECT CN Calcs. — Exist. Conditions (On Site)		
Job No. 903 6400 310	Made by R. DeFasquale	Date 2/20/91
Ref. ISRT-95%	Checked UEZ7	Sheet 9 of 22
	Reviewed CRM	

CALCULATIONS:

For: SB5

Soil Type	% Area	Use	CN#/Use		CN_f	% Area x CN_f
C	15	- Noncult. Agric. Land, Woods, Fair Cond.	73	40%	87	1305
		- Lake; treat as imperv. paved area since contributes directly to Flow.	98	50%		
		- Gravel Lot	89	10%		
D	85	- Noncult. Agric. Land, Woods, Fair Cond.	79	35%	85	7225
		- Lake; treat as imperv. paved area since contrib. directly to Flow.	98	20%		
		- Noncult. Agric. Land, Brush, Poor Cond.	83	45%		
Total	100	—	—		—	8530

Weighted CN = $\frac{8530}{100}$ = 85

For: SB4

Soil Type	% Area	Use	CN#/Use		CN_f	% Area x CN_f
C	100	- Noncult. Agric. Land, Woods, Fair Cond.	73	50%	86	8600
		- Lake; treat as imperv. paved area since contrib. dir. to Flow.	98	50%		

Weighted CN $\frac{8600}{100}$ = 86

Golder Associates

SUBJECT CN Calcs. – Exist Conditions (On Site)		
Job No. 903 6400 310	Made by R. DeFasquale	Date 2/20/91
Ref. ISRT-9590	Checked VEEF	Sheet 10 of 22
	Reviewed CRM	

CALCULATIONS:

For: SB 7

Soil Type	% Area	Use	CN#/Use	CN_f	% Area x CN_f
C	25	- Open Space, Fair Cond.	79 30%	73	1825
		- Noncultivated Agric. Land Woods, Good Cond.	70 70%		
D	75	- Noncult. Agric. Land, Brush, Good Cond.	73	73	5475
Total	100	—	—	—	7300

Weighted CN = $\frac{7300}{100}$ = 73

For: SB 6

Soil Type	% Area	Use	CN#/Use	CN_f	% Area x CN_f
D	100	Noncult. Agric. Land, Brush, Good Cond.	73	73	7300

Weighted CN = $\frac{7300}{100}$ = 73

Golder Associates	SUBJECT CN Calculations - Existing		
	Job No. 903-6400.310 Ref. ISRT-9590	Made by DP Checked [illegible] Reviewed [illegible]	Date 7/17/91 Sheet 11 of 22

Subwatershed HBIAN : 214,000 sf

Soil Type	% Area	Use	CN#/Use	CNc	%A x CNc
C	112,320/214000	Impervious (16740)	98/15%	78	4056
	52%	Open Space (95,580)	74/85%		
D	101,680/214000	Impervious (23560)	98/23%	85	4080
	48%	Open Space (70,620)	80/70%		
		Gravel (7500)	91/7%		
TOTAL	100				8136

weighted CN = $\frac{8136}{100}$ = 81

Subwatershed HBIAS : 157,000 sf

Soil Type	% Area	Use	CN#/Use	CNc	%A x CNc
C	118,960/157,000	Impervious (87,420)	98/73%	92	6992
	76%	Open Space (26040)	74/22%		
		Gravel (5500)	89/5%		
D	38040/157,000	Impervious (6820)	98/18%	84	2016
	24%	Open Space (28720)	80/75%		
		Gravel (2500)	91/7%		
TOTAL	100				9008

weighted CN = $\frac{9008}{100}$ = 90

Golder Associates

SUBJECT OnSite Existing CN Calculations

Job No. 903-6460.310 | Made by MJC/DP | Date 6/20/91

Ref. ISRT-954 | Checked [illegible] | Sheet 12 of 22

Reviewed [illegible]

Subwatershed HB.1B

Soil Type	% Area	Use	CN # / Use %	CN_c	% A x CN_c
C	50	Impervious	98 / 66	88	4400
		Brush - fair	70 / 34		
D	50	Impervious -	98 / 15	80	4000
		Brush - fair	77 / 85		
					8400

$$\text{weighted CN} = \frac{8400}{100} = \underline{\underline{84}}$$

Golder Associates	SUBJECT CN # CALCULATION		
	Job No. 913 6400 210 Ref. ISPT-9590	Made by MRT Checked DP Reviewed CNM	Date 06-18-91 Sheet 13 of 22

SUBWATER SHED H8-2A

	COVER TYPE & HYDROLOGIC CONDITION	SOIL NAME & MAP SYMBOL	HYDROLOGIC GROUP	AREA (A)	CURVE NUMBER	A * CN
1	IMPERVIOUS	555	D	16800	98	1646400
2		259	C	295945	98	29002610
3	BRUSH (Good)	555	D	6200	73	452600
4		259	C	18 2841	65	11 8846 65
5	WOOD (FAIR)	555	D	0	79	0
6		259	C	0	73	0
7	GRAVEL	555	D	0	91	0
8		259	C	37000	89	3293000
9	GRASS (Good)	555	D	0	80	0
10		259	C	13020	74	963480
				551806		47242755

WEIGHTED CN NUMBER = $\frac{47193155}{551806}$ = 85.6

≃ 86

Golder Associates	SUBJECT CN # CALCULATION		
	Job No. 913 6100 210 Ref. ISRP -9590	Made by MRT Checked DP Reviewed CRM	Date 06-18-91 Sheet 14 of 22

SUBWATER SHED HB-2B

	COVER TYPE & HYDROLOGIC CONDITION	SOIL NAME & MAP SYMBOL	HYDROLOGIC GROUP	AREA (FT^2) (A) *	CURVE NUMBER (CN)	A * CN
1	IMPERVIOUS	555	D	80 60	98	7898 80
2		259	C	1116.20	98	10,93 87 60
3	BRUSH (GOOD)	555	D	9360	73	68 32 80
4		259	C	204,383	65	13 28 48
5	WOOD (FAIR)	555	D	0	79	0
6		259	C	1480	73	108 62 40
				3483 03		26,78 30 55

WEIGHTED CN NUMBER = $\frac{2678 3055}{348303} = 76.90$

≈ 77

Golder Associates	SUBJECT CN Calculations - On Site		
	Job No. 903-6400.310 Ref. ISRT-9590	Made by DP Checked MMS Reviewed CRM	Date 6/17/91 Sheet 15 of 22

Subwatershed HB 3A 561,720 ft²

Soil Type	% Area	Use	CN#/Use(%)	CN_c	%Area x CN_c
C	146,940/561,720	Impervious:			
		roof (7446 ft²)	98/ 5.08		
	26.2%	dirt lot (131,434 ft²)	87/ 89.45	88	2306
		R.R (gravel) (8060 ft²)	89/ 5.49		
D	414,780/561,720	Impervious			
		roof/pkg lot (80,600)	98/ 19.43		
	73.8%	dirt lot (84,320)	89/ 20.33	84	6199
		R.R (8060)	91/ 1.94		
		Brush-gd (42,160)	73/ 10.16		
		fair (91,760)	77/ 22.12		
		Open Space gd (107,860)	80/ 26.01		
TOTAL	100		—	—	8505

$$\text{weighted CN} = \frac{8505}{100} \approx 85$$

Golder Associates	SUBJECT CN Calculations - OnSite		
	Job No. 903-6400.310 Ref. ISRT-95%	Made by DP Checked MMS Reviewed CRM	Date 6/14/91 Sheet 16 of 22

Subwatershed HB3B 265,360 ft²

Soil Type	% Area	Use	CN#/Use	CNf	% Area x CNf
C	237,400/265,360 89.5%	Impervious: roof (28,520 ft²) dirt lot (192200) R.R. gravel (16,740)	98/12.01 87/80.94 89/7.05	88	7876
D	27900/265360 10.5%	Impervious dirt lot (27900)	89/100	89	935
TOTAL	100		—	—	8811

weighted CN $\frac{8811}{100} = 88$

Subwatershed HB3C 271,560 ft²

Soil	% Area	Use	CN#/Use	CNf	%A x CNf
C	100%	Impervious: Chromium (18,600) foundation (1860) R.R gravel (15,500) Wooded: gd (24,180) Brush: gd (9,920) open Space gd (201,560)	98/6.85 98/.69 89/5.71 70/8.90 65/3.65 74/74.22	76	7600
TOTAL	100		—	—	7600

weighted CN = 76

Golder Associates	SUBJECT CN Calculations - OnSite		
	Job No. 903-6400.310 Ref. ISRT-95%	Made by DP Checked MMS Reviewed CEM	Date 6/17/91 Sheet 17 of 22

Subwatershed HB 4A 635,500 ft²

Soil Type	% Area	Use	CN#/use	CN#	% Area x CN#
C	612560/635,500 96%	Impervious: roof/pkg lot (249,240)	98/ 41%	84	8064
		water (24,180)	98/ 3%		
		dirt (6,126)	87/ 1%		
		open space-gd (33,6782)	74/ 54%		
	22940/635,500 4%	open space good (22940)	80/100	80	320
					8384

weighted CN = $\frac{8384}{100} \approx 84$

Golder Associates	SUBJECT CN Calculations - OnSite		
	Job No. 903-6400 310	Made by DP	Date 6/27/91
	Ref. ISRT - 95%	Checked MMS	Sheet 18 of 22
		Reviewed CRM	

Subwatershed HB4B : 1,837,990 sf

Soil Type	% Area	Use	CN#/use	CN_F	%A x CN_F
C	100	- Impervious - pkg lot, bldg 988,590 sf	98 / 54%	93	93
		- Open Space - poor 750,820 sf	86 / 41%		
		- gravel (R.R. tracks) 98580 sf	89 / 5%		

$CN_F = 93$

Golder Associates	SUBJECT CN Calculations - OnSite		
	Job No. 903-6400.310 Ref. ISRT-9590	Made by RD/DP Checked VEEF Reviewed CKM	Date 6/20/91 Sheet 19 of 22

Subwatershed HP3A

Soil Type	% Area	Use	CN# / Use	CNf	%A X CNf
B	18	NAL., Brush, Poor	67	67	1206
C	7	N.A.L, Brush Poor	77	77	539
D	75	-EW HP Pond, treat as imperv paved -NAL, Wood, Good -NAL, Wood, Fair	98 30% 77 35% 79 35%	84	6300
Total	100		—	—	8045

weighted CN: $\frac{8045}{100} = \underline{\underline{80}}$

Subwatershed HP3B

Soil Type	% Area	Use	CN# / Use	CNf	%A X CNf
C	10	Wooded, Poor	77	77	770
D	90	-Brush, Good Cond -Wood, Good Cond	73 30% 77 70%	76	6840
TOTAL	100		—	—	7610

weighted CN $= \frac{7610}{100} \approx \underline{\underline{76}}$

Golder Associates	SUBJECT CN Calcs		
	Job No. 903-6400 Ref. ISRT-9596	Made by DP Checked MMS Reviewed CRM	Date 6/17/91 Sheet 20 of 22

Subwatershed HP4 376,340 ft²

Soil Type	% Area	Use	CN#/Use	CNc	% Area x CNc
C	83,080/376,340 22.08%	Open Space: good cond (12,400) poor cond (3720) Brush: good (66,960)	74/14.93 86/4.48 65/80.60	67	1479
D	293,260/376,340 77.92	Impervious: lake (23,560) foundation (9300) dirt (41,540) Brush: gd (218,860)	98/8.03 98/3.17 89/14.16 73/74.63	78	6078
TOTAL	100				7557

weighted CN $\frac{7557}{100} \approx 76$

Subwatershed HP5 405,480 ft²

Soil Type	% Area	Use	CN#/Use	CNc	% Area x CNc
C	251,720/405,480 62.1%	Impervious roof (7440) dirt (139,500) Open Space: gd (104,780)	98/2.95 87/55.42 74/41.63	82	5092
D	153,760/405,480 37.9%	Impervious foundation (6820) dirt (122,140) open Space gd (24,800)	98/4.44 89/79.44 80/16.13	88	3335
TOTAL	100				8427

weighted CN $\frac{8427}{100} \approx 84$

Golder Associates	SUBJECT CN Calculations - On Site		
	Job No. 903-6400 310 Ref. ISRT - 95%	Made by RD/DP Checked UEEF Reviewed CRM	Date 6/20/91 Sheet 21 of 22

Subwatershed CW1

Soil Type	% Area	Use	CN#	/Use	CNc	% A x CNc
C	60	- Imperv Area	98	35%	79	4740
		- Brush, poor cond	77	15%		
		- Brush, good cond	65	45%		
		- Open space, good	74	5%		
D	40	- Imperv. Area	98	30%	82	3280
		- Brush, good cond	73	60%		
		- Open space, good	80	5%		
		- Dirt	89	5%		
TOTAL	100		—		—	8020

weighted CN = $\frac{8020}{100}$ = **80**

Golder Associates	SUBJECT CN Calculations - OnSite		
	Job No. 903-6400 310 Ref. ISRT-959o	Made by DP Checked MMS Reviewed CRM	Date 6/20/91 Sheet 22 of 22

Subwatershed CW2 : 737,490 sf

Soil Type	% Area	Use	CN / Use	CNc
C	100	Impervious 238,150	98 / 73%	92
		Wood - good 43,700 sf	70 / 6%	
		open space gd 117,200	74 / 16%	
		Gravel - R.R. tracks 38440	89 / 5%	

$CN_c = 92$

Soils

Soil #	Description	Hydrologic Group
5	Udorthents	D
7B	Charlton-Hollis-Rock Outcrop complex, 3-8%	B
7C	" " " " " , 8-15%	B
7D	" " " " " , 15-25%	B
8B	Chatfield-Hollis-Rock Outcrop Complex, 0-8%	C
8C	" " " " " , 3-15%	C
8D	" " " " " , 15-35%	C
9	Rock Outcrop-Hollis Complex	D
17B	Chatfield Hollis Rock Outcrop Complex, 0-3%	C
23	Montauk sandy loam, extremely stony	C
27B	Scituate fine sandy loam, 3-8%	C
28B	Scituate very stony fine sandy loam, 3-8%	C
33A	Whitman loam, 0-5% slopes	D
34	Whitman loam, extremely stony	D
35B	Hinckley loamy sand, 3-8%	A
35C	" " " , 8-15%	A
35D	" " " , 15-25%	A
37A	Merrimac fine sandy loam, 0-3%	A
38B	Sudbury fine sandy loam, 2-8%	B
39	Walpole fine sandy loam, 0-3%	C
40	Scarboro muck, 0-3%	D
41	Scarboro muck, 0-3%	D
45	Swansea muck	D
46	Freetown muck	D
55	Udorthents	D
63B	Haven silt loam, 3-8%	B

Soil #	Description	Hydrologic Group
67B	Windsor loamy sand, 3-8%	A
67C	" " " , 8-15%	A
81B	Woodbridge fine sandy loam, 3-8%	C
99	Freetown Muck	D
100B	Tisbury very fine sandy loam, 3-8%	B
100A	Tisbury very fine sandy loam, 0-3%	B
113C	Canton fine sandy loam, 8-15%	B
114B	Canton fine sandy loam, 3-8%, extremely stony	B
114C	" " " " , 8-15%, " "	B
115D	Canton fine sandy loam, 15-25%, extremely bouldery	B
122B	Paxton fine sandy loam, 3-8%	C
122C	" " " " , 8-15%	C
122E	" " " " , 25-40%	C
123B	Paxton fine sandy loam, 3-8%, extremely stony	C
130A	Deerfield loamy sand, 0-3%	B
222B	Montauk fine sandy loam, 3-8%	C
222C	" " " " , 8-15%	C
222D	" " " " , 15-25%	C
223C	Montauk sandy loam, 8-15%, extremely stony	C
223D	Montauk sandy loam, 15-25%, "	C
259	Urban Land	C*
260	Urban Land	C*
260X	Urban Land, wet substratum	C*
261	Merrimac-Urban land complex, 0-8%	C*
263	Woodbridge-Urban land complex, 3-15%	C*
264	Urban land Canton-Charlton-complex, 3-15%	B
265	Charlton-Urban land-Hollis Complex, 3-15%, rocky	B
267	Scio-Urban land complex, 0-8%	B

7-26-90

* Note: Soils that were classified as "Urban land" were maintained as Hydrologic Group C because of their locality to other soils groups in the area in question. Additionally, these soils are located in developed areas. Therefore, lot coverage (roofs, s.w., driveways, patios, etc.) affects permeability and runoff.

TOPS FORM
7524

APPENDIX - A

Table 2-2a.—Runoff curve numbers for urban areas[1]

Cover description		Curve numbers for hydrologic soil group—			
Cover type and hydrologic condition	Average percent impervious area[2]	A	B	C	D
Fully developed urban areas (vegetation established)					
Open space (lawns, parks, golf courses, cemeteries, etc.)[3]:					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50% to 75%)		49	69	79	84
Good condition (grass cover > 75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only)[4]		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96	96	96	96
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses)	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
Developing urban areas					
Newly graded areas (pervious areas only, no vegetation)[5]		77	86	91	94
Idle lands (CN's are determined using cover types similar to those in table 2-2c).					

[1]Average runoff condition, and $I_a = 0.2S$.
[2]The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.
[3]CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.
[4]Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.
[5]Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4, based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.

Table 2-2c.—Runoff curve numbers for other agricultural lands[1]

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

[1]Average runoff condition, and $I_a = 0.2S$.

[2]*Poor:* <50% ground cover or heavily grazed with no mulch.
Fair: 50 to 75% ground cover and not heavily grazed.
Good: >75% ground cover and lightly or only occasionally grazed.

[3]*Poor:* <50% ground cover.
Fair: 50 to 75% ground cover.
Good: >75% ground cover.

[4]Actual curve number is less than 30; use CN = 30 for runoff computations.

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

[6]*Poor:* Forest litter, small trees, and brush are destroyed by heavy grazing or regular burning.
Fair: Woods are grazed but not burned, and some forest litter covers the soil.
Good: Woods are protected from grazing, and litter and brush adequately cover the soil.

Times of Concentration

Golder Associates	SUBJECT Existing OnSite Tc Calculations		
	Job No. 9036400.310	Made by DP	Date 7/27/91
	Ref. ISRT - 95%	Checked VEB7	Sheet 1 of 30
		Reviewed CLM	

Objective: To determine the time of concentrations (Tc) for the existing onsite subwatersheds flowing onto and through the Site.

Methods: Using the methods and formulas outlined in Chapter 3 of the U.S. Department of Agriculture SCS TR-55 manual, determine the Tc for each subwatershed.

Assumptions: The wood chip piles delineated on MA01-601 drawing 10-1 no longer exist, therefore, a constant grade was maintained.

References: USDA, SCS TR-55 manual

Golder Associates

SUBJECT Existing OnSite Tc Calculations

Job No. 903-6400.310 | Made by DP | Date 7/27/91

Ref. ISRT-9590 | Checked | Sheet 2 of 30

Reviewed CLM

Subwatershed	Tc (hr)
NB1	0.73
NB2	0.81
NB3	0.56
NB4	0.75
NB5	0.54
SB1	0.25
SB2	0.10
SB3&4	0.12
SB5	0.44
SB6	0.35
SB7	0.42
HB1AN	0.47
HB1AS	0.78
HB1B	0.52
HB2A	0.69
HB2B	0.40
HB3A	0.43
HB3B	0.17
HB3C	0.47

Golder Associates

SUBJECT Tc for onsite subwatersheds - Exist		
Job No. 903-6400.310	Made by DP	Date 7/27/91
Ref. 95%	Checked TYT	Sheet 3 of 30
	Reviewed CLM	

Subwatershed	Tc (hr)
HB4A	0.41
HB4B	0.53
HP3A	0.83
HP3B	0.31
HP4	0.56
HP5	0.31
CW1	0.29
CW2	0.27

Golder Associates

SUBJECT T_c for Subwatersheds Around ISRT Site - NB1		
Job No. 903 6400 310	Made by RD	Date 7-1-91
Ref. ISRT-95%	Checked MRT	Sheet 4 of 30
	Reviewed CRM	

For Subwatershed NB1:

A Sheet Flow

$L = 300'$
$\Delta h = 126.5 - 114 = 12.5$
$S = \Delta h / L = 12.5/300 = .0417$

From TR55, Table 3-1, $n = .40$ (Woods - light underbrush)

$$T_{t_{sf}} = \frac{.007(nL)^{0.8}}{P_2^{0.5}\ S^{0.4}} = \frac{.007(.40 \times 300)^{0.8}}{(3.2)^{0.5}\ (.0417)^{0.4}} = .64 \text{ hr}$$

B Shallow Concentrated Flow

$L = 1050'$
$\Delta h = 114 - 70' = 44'$
$S = 44/1050 = .0419$

Using TR55, Fig 3-1, for unpaved surfaces, $V = 3.3$ fps

$$T_{t_{scf}} = \frac{L}{3600V} = \frac{1050}{3600(3.3)} = .09 \text{ hr}$$

$$T_c = T_{t_{sf}} + T_{t_{scf}} = 0.64 + 0.09 = \underline{0.73 \text{ hr}}$$

Golder Associates	SUBJECT Existing OnSite Tc Calculations		
	Job No. 903-6400.310 Ref. ISRT-95%	Made by DP Checked VEEF Reviewed CMM	Date 7/27/91 Sheet 5 of 30

Subwatershed NB2

Sheet Flow

① $L = 200'$
$\Delta h = 89.3 - 86 = 3.3'$
$S = 3.3/200 = 0.0165\%$
$n = 0.40$ woods from Table 3-1

$$T_{SF} = \frac{0.007(0.40(200))^{.8}}{(3.2)^{.5}(0.0165)^{.4}} = \underline{0.673\,hr}$$

② $L = 90'$
$\Delta h = 86 - 70 = 16'$
$S = 16/90 = 0.1778\%$
$n = 0.40$

$$T_{SF} = \frac{0.007(0.40(90))^{.8}}{(3.2)^{.5}(0.1778)^{.4}} = \underline{0.137\,hr}$$

Shallow Concentrated Flow

$L = 60'$
$\Delta h = 70 - 66 = 4'$
$S = 4/60 = 0.067\%$
$V = 4.2$ fps from fig. 3-1

$$T_{SC} = \frac{60}{3600(4.2)} = \underline{0.004\,hr}$$

$$T_C = 0.673 + 0.137 + 0.004 = 0.814\,hr$$

$$T_C = \underline{\underline{0.81\,hr}}$$

Golder Associates	SUBJECT Existing OnSite Tc Calculation		
	Job No. 903-6400.310	Made by DP	Date 7/27/91
	Ref. ISRT-95%	Checked VEEF	Sheet 6 of 30
		Reviewed CRM	

Subwatershed NB3

Sheet Flow

$L = 300'$
$\Delta h = 89.5 - 71.5 = 18'$
$S = 18/300 = 0.06\ \%$
$n = 0.40$ woods from table 3-1

$$T_{SF} = \frac{0.007(0.40(300))^{.8}}{(3.2)^{.5}(0.06)^{.4}} = \underline{0.555\ hr}$$

Shallow Concentrated Flow

$L = 100'$
$\Delta h = 71.5 - 67 = 4.5'$
$S = 4.5/100 = 0.045\ \%$
$V = 3.4$ fps from fig 3-1

$$T_{SC} = \frac{100}{3600(3.4)} = \underline{0.008\ hr}$$

$$T_c = 0.555 + 0.008 = 0.563\ hr$$

$$T_c = \underline{\underline{0.56\ hr}}$$

Golder Associates	SUBJECT Existing OnSite Tc Calculations		
	Job No. 903-6400.370 Ref. 1SRT-95%	Made by DP Checked VEE7 Reviewed CRS	Date 7/26/91 Sheet 7 of 30

Subwatershed NB4

Sheet Flow:

$L = 178'$
$\Delta h = 128.2 - 126 = 2.2'$
$S = 2.2/175 = 0.0126\%$
$n = 0.40$ woods - From Table 3-1

$$T_{SF} = \frac{0.007(.4(175))^{.8}}{(3.2)^{.5}(0.0126)^{.4}} = \underline{0.674\ hr}$$

Shallow Concentrated Flow

① $L = 175'$
$\Delta h = 126 - 120 = 6'$
$S = 6/175 = 0.034\%$
$V = 3.0$ fps from Fig 3-1

$$T_{SC} = \frac{175}{3600(3)} = \underline{0.016\ hr}$$

② $L = 188'$
$\Delta h = 120 - 70 = 50'$
$S = 50/188 = 0.266\%$
$V = 8.5$ fps from fig 3-1

$$T_{SC} = \frac{188}{3600(8.5)} = \underline{0.006\ hr}$$

③ $L = 337.5'$
$\Delta h = 70 - 66 = 4'$
$S = 4/337.5 = 0.012$
$V = 1.8$ fps from fig 3-1

$$T_{SC} = \frac{337.5}{3600(1.8)} = 0.052\ hr$$

$T_c = 0.674 + 0.016 + 0.006 + 0.052 = 0.748 \approx$

$T_c = \underline{0.75\ hr}$

Golder Associates	SUBJECT Existing OnSite Tc Calculations		
	Job No. 903-6400.310	Made by RD/DP	Date 7/27/91
	Ref. ISRT-95%	Checked VEET	Sheet 8 of 30
		Reviewed CAM	

Subwatershed NB5

Sheet Flow:

$L = 230'$

$\Delta h = 77 - 68.2 = 8.8$

$S = 8.8/230 = 0.0383'/'$

$n = 0.40$ woods from table 3-1

$$T_{SF} = \frac{0.007(0.40(230))^{.8}}{(3.2)^{.5}(0.0383)^{.4}} = \underline{0.54}\ hr$$

$$T_c = \underline{0.54}\ hr$$

Existing Conditions

Golder Associates	SUBJECT T_c For Subwatershed – SB1		
	Job No. 703 6400 310 Ref. 1SRT-9590	Made by RD Checked MRT Reviewed	Date 3-8-91 Sheet 9 of 30

For Subwatershed SB 1

A Sheet Flow

$L = 300'$
$\Delta h = 120 - 100 = 20'$
$S = 20/300 = .0667$

From Tbl 3-1 $n = \frac{1}{2}[.13 + .15] = .14$
(.13 ↑ range, .15 ↑ prairie grass)

$$T_{t_{sf}} = \frac{.007(nL)^{0.8}}{P_2^{0.5}\, S^{0.4}} = \frac{.007(.14 \times 300)}{3.2^{0.5} \times .0667^{0.4}} = .23 \text{ hr}$$

B Shallow Concentrated Flow.

1. unpaved
$L = 90$ $\Delta h = 100 - 70 = 30$ $S = 30/90 = .333$

From Fig 3-1, $V_{unpaved} = 9.4$ fps, $T_{t_{scf_u}} = \frac{L}{3600V} = \frac{90}{3600(9.4)} = .003 \sim 0.0$ hr

2. paved
$L = 180$ $\Delta h = 70 - 66 = 4$ $S = 4/180 = .0222$

From Fig 3-1, $V_{paved} = 3.0$ fps

$$T_{t_{scf_p}} = \frac{L}{3600V} = \frac{180}{3600(3.0)} = .02 \text{ hr}$$

$$T_c = T_{t_{sf}} + T_{t_{scf_{unpaved}}} + T_{t_{scf_{paved}}}$$

$$= 0.23 + 0.0 + 0.02 = \underline{0.25 \text{ hr}}$$

Existing Conditions

Golder Associates	SUBJECT T_c For Subwatershed Around Site – SB2		
	Job No. 903 6600 310 Ref. ISRT-959a	Made by AP Checked MRT Reviewed CRM	Date 3-6-91 Sheet 10 of 30

For SB2:

A Sheet Flow

1. $L = 200'$ unpaved...
$\Delta h = 74.2 - 70 = 4.2$ $S = \Delta h / L = 4.2/200 = .021$

From Tbl 3-1, $n = .011$ (bare soil, parking lot)

$$T_{t_{SF}} = \frac{.007(nL)^{0.8}}{P_2^{0.5} \times S^{0.4}} = \frac{.007(.011 \times 200)^{0.8}}{3.2^{0.5} \times (.021)^{0.4}} = .03 \text{ hr}$$

2. $L = 100'$
$\Delta h = 70 - 69 = 1$ $S = 1/100 = .01$

From Tbl 3-1, $n = .011$ (asphalt)

$$T_{t_{SF}} = \frac{.007(.011 \times 100)^{0.8}}{3.2^{0.5} \times (.01)^{0.4}} = .03 \text{ hr}$$

B Shallow Concentrated Flow

1. paved
$L = 270'$
$\Delta h = 69 - 67.5 = \cancel{2.5}\ 1.5$ $S = \cancel{2.5}\ 1.5/270 = \cancel{.0093}\ .006$

From Fig 3-1, $V_{paved} = \cancel{20}\ 1.8$

$$T_{t_{scf_p}} = \frac{L}{3600 V} = \frac{270}{3600\ 20} = .04 \text{ hr} \checkmark$$

2. unpaved
$L = 10'$ $T_{t_{scf_u}} \approx 0.0$ hr

$$\therefore T_c = T_{t_{SF_{unpav}}} + T_{t_{SF_{pave}}} + T_{t_{scf_p}} + T_{t_{scf_u}} = .03 + .03 + .04 + 0.0 = 0.10 \text{ hr}$$

$$T_c = 0.10 \text{ hr}$$

Existing Conditions:

Golder Associates	SUBJECT T_c For Subwatersheds SB3 & SB4		
	Job No. 903 (700 310 Ref. 9590	Made by RD Checked MRT Reviewed CM	Date 3-3-91 Sheet 11 of 30

Subwatersheds SB3 & SB4: Treat as single basin.

A Sheet Flow

$L = 300'$
$\Delta h = 77.4 - 74.5 = 2.9'$
$S = .0097$

From Table 3-1, $n = .011$ Bare soil, parking lot

$$T_{t_{SF}} = \frac{.007(nL)^{0.8}}{P_2^{0.5}\, S^{0.4}} = \frac{.007(.011 \times 300)^{0.8}}{3.2^{0.5} \times .0097^{0.4}} = .06 \text{ hr.}$$

B Shallow Concentrated Flow

$L = 460'$
$\Delta h = 74.5' - 66' = 8.5'$
$S = 8.5/460 = .0185$

From Fig 3-1, $V_{unpaved} = 2.2$ fps

$$T_{t_{SF}} = \frac{L}{3600\,V} = \frac{460}{3600(2.2)} = .06 \text{ hr}$$

$$T_c = .06 \text{ hr} + .06 \text{ hr} = 0.12 \text{ hr}$$

Existing Conditions:

Golder Associates	SUBJECT T_c For Subwatersheds Onsite - SB5		
	Job No. 903 6440 310	Made by RD	Date 3-4-91
	Ref. 15RT-95%	Checked MRT	Sheet 12 of 30
		Reviewed CAM	

For Subwatershed SB5:

A Sheet Flow:

$L = 300'$
$\Delta h = 76.5 - 72 = 4.5$
$S = \Delta h / L = 4.5/300 = .0150$

From Table 3.1, $n = 0.13$, range

$$T_{t_{SF}} = \frac{.007(nL)^{0.8}}{P_2^{0.5}\, S^{0.4}} = \frac{.007(.13 \times 300)^{0.8}}{3.2^{0.5}(.0150)^{0.4}} = 0.39 \text{ hr}$$

B Shallow Concentrated Flow

$L = 390'$
$\Delta h = 72 - 64 = 8'$
$S = 8/390 = .0205$

From Fig 3-1, $V_{unpaved} = 2.3$ fps

$$T_{t_{SCF}} = \frac{L}{3600V} = \frac{390}{3600(2.3)} = .05 \text{ hr}$$

$$T_c = T_{t_{SF}} + T_{t_{SCF}} = 0.39 + 0.05 = \underline{0.44 \text{ hr}}$$

Existing Conditions:

Golder Associates	SUBJECT T_c For Subwatersheds Onsite - SB6		
	Job No. 903-6400.310	Made by RJ	Date 3/4/91
	Ref. ISRT-9590	Checked MRT	Sheet 13 of 30
		Reviewed CRM	

For Subwatershed SB6

A Sheet Flow

$L = 300'$
$\Delta h = 77 - 71 = 6$
$S = \Delta h / L = 6/300 = .0200$

From Table 3-1, $n = 0.13$, range

$$T_{t_{sf}} = \frac{.007(nL)^{0.8}}{P_2^{0.5}\, S^{0.4}} = \frac{.007(.13 \times 300)^{0.8}}{3.2^{0.5}\,(.02)^{0.4}} = .35 \text{ hr}$$

B Shallow Concentrated Flow

$L = 60$
$\Delta h = 71 - 66 = 5'$
$S = \Delta h / L = 5/60 = .0833$

From Fig. 3-1, $V_{unpaved} = 4.8$ fps

$$T_{t_{scf}} = \frac{L}{3600\,V} = \frac{60}{3600(4.8)} = .003 \sim 0.0$$

$$T_c = .35 + 0.0 = \underline{0.35 \text{ hr}}$$

Existing Conditions:

Golder Associates	SUBJECT T_c For Subwatersheds Onsite - SB7		
	Job No. 903 6400 310 Ref. 15RT-959	Made by AD Checked MRT Reviewed CRM	Date 3-4-91 Sheet 14 of 30

For SB7:

A Sheet Flow:

$L = 300'$
$\Delta h = 76.5 - 72.5 = 4'$
$S = \Delta h / L = 4/300 = .0133$

Table 3-1, $n = 0.13$, range

$$T_{t_{sf}} = \frac{.007(nL)^{0.8}}{P_2^{0.5}\, S^{0.4}} = \frac{.007(.13 \times 300)^{0.8}}{3.2^{0.5} \times (.0133)^{0.4}} = .41\,hr$$

B Shallow Concentrated Flow:

$L = 140$
$\Delta h = 72.5 - 68 = 4.5$
$S = 4.5/140 = .0321$

From Fig 3-1, $V_{unpaved} = 2.9$ fps

$$T_{t_{scf}} = \frac{L}{3600V} = \frac{140}{3600(2.9)} = .01$$

$$T_c = T_{t_{sf}} + T_{t_{scf}} = .41 + .01 = 0.42\ hr$$

Subwatershed HBIAN

Sheet Flow:

$L = 263'$

$\Delta h = 72.5 - 70 = 2.5$

$S = 2.5/263 = 0.010\%$

$n = 0.15$ short grass from Table 3-1

$$T_{SF} = \frac{0.007(.15(263))^{.8}}{(3.2)^{.5}(0.010)^{.4}} = \underline{0.47\,hr}$$

Subwatershed HBIAS

Sheet Flow:

$L = 300'$

$\Delta h = 72.3 - 71.2 = 1.1'$

$S = 1.1/300 = 0.004\%$

$n = 0.15$ short grass from Table 3-1.

$$T_{SF} = \frac{0.007(.15(300))^{.8}}{(3.2)^{.5}(0.004)^{.4}} = \underline{0.75\,hr}$$

Shallow Concentrated Flow

$L = 150'$

$\Delta h = 71.2 - 70 = 1.2'$

$S = 1.2/150 = 0.008\%$

$V = 1.4$ fps from fig. 3-1

$$T_{SC} = \frac{150}{3600(1.4)} = \underline{0.03\,hr}$$

$$T_C = 0.75 + 0.03 = \underline{0.78\,hr}$$

Golder Associates	SUBJECT T_c for subwatersheds		
	Job No. 903 6400.310 Ref. 95%	Made by mjc Checked TYT Reviewed CMM	Date 6/26/91 Sheet 16 of 30

Subwatershed HB1B

A. SHEET FLOW

$L = 90$ ft.

$\Delta h = 88.2 - 78 = 10.2$ ft.

$S = \Delta h / L = 10.2/90 = 0.11$ ft/ft

FROM QTR55 TABLE 3-1 $n = 0.15$ (short grass)

$$T_{tSF1} = \frac{0.007\,[(0.15)(90)]^{0.8}}{(3.2)^{0.5}\,(0.11)^{0.4}} = 0.08 \text{ hr.}$$

$L = 115$ ft.

$\Delta h = 78 - 77.5 = 0.5$ ft

$S = \Delta h / L = 0.5\text{ ft}/115\text{ ft} = 0.00435$ ft/ft $n = 0.15$

$n = 0.15$ (short grass)

$$T_{tSF2} = \frac{0.007\,[(0.15)(115)]^{0.8}}{(3.2)^{0.5}\,(0.00435)^{0.4}} = 0.34 \text{ hr.}$$

$L = 95$ ft.

$\Delta h = 77.5 - 77 = 0.5$ ft.

$S = \Delta h / L = 0.5/95 = 0.01$ ft/ft $n = 0.011$ (bare soil/asphalt)

$$T_{tSF3} = \frac{0.007\,[(0.011)(95)]^{0.8}}{(3.2)^{0.5}\,(0.01)^{0.4}} = 0.03 \text{ hr.}$$

$$T_{tSFTOT} = (0.08 + 0.34 + 0.03)\text{ hr.} = \underline{0.45 \text{ hr.}}$$

Golder Associates	SUBJECT T_c for subwatersheds - Exist		
	Job No. 903-6400.310 Ref. 95%	Made by MJC Checked TYT Reviewed CRM	Date 6/26/91 Sheet 17 of 30

Subwatershed HB1B

B. Shallow Concentrated Flow

$L_1 = 240'$
$\Delta h = 77' - 76 = 1$ ft.
$S = 1/240 = 0.00417$ ft/ft.

USING TR55 FIG 3-1, for paved surfaces $V = 1.3$ ft/sec.

$$T_{t_{SCF_1}} = \frac{L}{3600\,V} = \frac{240'}{3600(1.3)} = 0.05 \text{ hr.}$$

$L_2 = 200'$
$\Delta h = 76 - 72 = 4$ ft.
$S = 4/200 = 0.02$ ft/ft. $\quad V(\text{UNPAVED}) = 2.3$ ft/sec.

$$T_{t_{SCF_2}} = \frac{200'}{3600(2.3)} = 0.02 \text{ hr.}$$

$$T_{t_{SCF\,TOT}} = (0.05 + 0.02)\text{ hr} = \underline{0.07 \text{ hr.}}$$

$$T_c = T_{t_{SF\,TOT}} + T_{t_{SCF\,TOT}} = 0.45 \text{ hr.} + 0.07 \text{ hr.} = \underline{\underline{0.52 \text{ hr.}}}$$

Golder Associates	SUBJECT T_c for onsite subwatersheds EXISTING		
	Job No. 903-6400.310 Ref. 95%	Made by mf. Checked TYT Reviewed CRM	Date 6/27/01 Sheet 18 of 30

Subwatershed HB2A :

A. Sheet Flow

$L = 300$
$\Delta h = 71.7 - 70 = 1.7$ ft.
$S = 1.7/300 = 0.01$ ft/ft $\qquad n = 0.15$ (short grass)

$$T_{tsf} = \frac{0.007\left[(0.15)(300)\right]^{0.8}}{(3.2)^{.5}\,(0.01)^{0.4}} = \underline{0.52 \text{ hr}}$$

B. Shallow Concentrated Flow

$L = 1070$ ft.
$\Delta h = 70 - 62 = 8$ ft
$S = 8/1070 = 0.01$ ft/ft. $\qquad n = 0.15$ (short grass)
from TR55 Eq. 3-1 $\quad V$ (unpaved) $= 1.8$ ft/s.

$$T_{tsc} = \frac{L}{3600\,V} = \frac{1070 \text{ ft}}{3600(1.8)} = \underline{0.17 \text{ hr}}$$

$$T_c = T_{tsf} + T_{tsc} = 0.52 \text{ hr} + 0.17 \text{ hr.} = \underline{\underline{0.69 \text{ hr.}}}$$

Golder Associates	SUBJECT Existing OnSite Tc Calculations		
	Job No. 903-6400.310	Made by DP	Date 7/25/91
	Ref. ISRT-95%	Checked VEF	Sheet 19 of 30
		Reviewed CRM	

Subwatershed HBZB

Sheet Flow:

$L = 300'$

$\Delta H = 74 - 68 = 6'$

$S = 6/300 = 0.02\%$

$n = 0.15$ From Table 3-1

$$T_{sf} = \frac{0.007(nL)^{.8}}{(P)^{.5}(S)^{.4}}$$

$$T_{sf} = \frac{0.007[.15(300)]^{.8}}{(3.2)^{.5}(0.02)^{.4}} = \underline{0.39 \text{ hr}}$$

Shallow Concentrated Flow

$L = 137.5'$

$\Delta H = 68 - 63.8 = 4.2'$

$S = 4.2/137.5 = 0.031\%$

$V = 2.8$ fps From Fig 3-1

$$T_{sc} = \frac{L}{3600V}$$

$$T_{sc} = \frac{137.5}{3600(2.8)} = \underline{0.01 \text{ hr}}$$

$$T_c = 0.39 + 0.01 = \underline{0.40 \text{ hr}}$$

Golder Associates	SUBJECT Existing OnSite Tc Calculations		
	Job No. 903-6400.315 Ref. ISRT-95%	Made by DP Checked VEE7 Reviewed CRM	Date 7/27/91 Sheet 20 of 30

Subwatershed HB3A

Sheet Flow:

$L = 50'$
$\Delta h = 86 - 74 = 12'$
$S = 12/50 = 0.24\%$
$n = 0.15$ short grass from Table 3-1

$$T_{SF} = \frac{0.007(0.15(50))^{.8}}{(3.2)^{.5}(0.24)^{.4}} = \underline{0.035\ hr}$$

Shallow Concentrated Flow

$L = 1262.5$
$\Delta h = 74 - 70 = 4$
$S = 4/1262.5 = 0.003$
$V = 16.1345(0.003)^{0.5} = 0.88$ fps from App 7 TR55

$$T_{SC} = \frac{1262.5}{3600(0.88)} = \underline{0.399\ hr}$$

$T_c = 0.035 + 0.399 = 0.434\ hr$

$T_c = \underline{0.43\ hr}$

Golder Associates	SUBJECT T_c Subwatersheds - Existing		
	Job No. 903-6400.310	Made by DP	Date 6/26/91
	Ref. 95%	Checked TYT	Sheet 21 of 30
		Reviewed CNM	

Subwatershed: HB3B:

A Sheet Flow

$L = 300'$

$\Delta h = 71' - 70.9 = .1$

$S = 1'/300' = 0.0033\%$

$$T_{sf} = \frac{0.007(nL)^{.8}}{(P_2)^{.5}(S)^{.4}}$$

Table 3-1 $n = 0.011$

$$T_{sf} = \frac{0.007[(.011)(300)]^{.8}}{(3.2)^{.5}(0.0033)^{.4}} = 0.10$$

B Shallow Concentrated Flow

$L = 262'$

$\Delta H = 70 - 68.8 = 1.2'$

$S = 1.2'/262' = 0.0046\%$

$$T_{sc} = \frac{L}{3600V}$$

$V = 16.1345(s)^{.5}$ for slope < 0.005 $\quad V = 1.09$ fps

$$T_{sc} = \frac{262}{(3600)(1.09)} = 0.067 = 0.07$$

$T_c = 0.10 + 0.07$

$T_c = 0.17$ hr

Note: water will pond in depression of 68.8', & then will tend to run into HB3C & into Chromium Lagoons.

Golder Associates	SUBJECT Existing OnSite Tc Calculations		
	Job No. 903-6400.310	Made by DP	Date 6/26/91
	Ref. 95%	Checked TYT	Sheet 22 of 30
		Reviewed CRM	

Subwatershed HB3C:

A Sheet Flow

L = 300'
ΔH = 69' - 65' = 4'
S = 4'/300 = 0.0133

$$T_{sc} = \frac{0.007(nL)^{.8}}{(P_2)^{.5}(S)^{.4}}$$

Table 3-1 n = 0.15 (short grass)

$$T_{sc} = \frac{0.007(.15(300))^{.8}}{(3.2)^{.5}(0.0133)^{.4}} = \underline{0.46\ hr}$$

B Shallow Concentrated Flow

L = 113'
Δh = 65' - 61' = 4'
S = 4'/113' = 0.0354'/'

$$T_{sc} = \frac{L}{3600V}$$

Fig 3-1 $V_{unpaved}$ = 3.0 fps.

$$T_{sc} = \frac{113}{3600(3.0)} = \underline{0.01\ hr}$$

T_c = 0.46 + 0.01

$$\boxed{T_c = 0.47\ hr}$$

Note: flow is coming from overflow of HB3B & HB3A & will continue into Chromium Lagoons.

Existing Conditions:

Golder Associates	SUBJECT T_c for Subwatershed Onsite - HB4A		
	Job No. 903 6100 310	Made by AP	Date 3-5-91
	Ref. ISRT-959	Checked MRT	Sheet 23 of 30
		Reviewed CRM	

Subwatershed HB4A

A Sheet Flow

$L = 300'$

$\Delta h = 80.2 - 74.5 = 5.7$

$S = \Delta h / L = 5.7/300 = .019$

From Tbl. 3-1: $n = \frac{1}{2}(.13 + .15) = 0.14$

(.13 ↑ range; .15 ↑ short prairie grass)

$$T_{t_{sf}} = \frac{.007(nL)^{0.8}}{P_2^{0.5}\, S^{0.4}} = \frac{.007(.14 \times 300)^{0.8}}{3.2^{0.5} \cdot (.019)^{0.4}} = \underline{\underline{.38}}\ hr$$

B Shallow Concentrated Flow:

1. Unpaved

$L = 90 \qquad \Delta h = 74.5 - 72 = 2.5$

$S = \Delta h / L = 2.5/90 = .0278$

From Fig. 3-1: $V_{unpaved} = 2.7$ fps

$$T_{t_{scf_1}} = \frac{L}{3600\, V} = \frac{90}{3600(2.7)} = \underline{\underline{.01}}\ hr$$

2. Paved

$L = 70 \qquad \Delta h = 72 - 71 = 1'$

$S = 1/70 = .0143$

From Fig 3-1: $V_{paved} = 2.4$ $\qquad T_{t_{scf_2}} = \frac{L}{3600\, V} = \frac{70}{3600(2.4)} = \underline{\underline{.01}}\ hr$

C Pipe Flow: 36" RCP

$L = 220 + 120 = 340 \qquad \Delta h = 71 - 3.5 = 67.5' - 63 = 4.5'$

(3.5 ↑ assumed rim to invert; 63 ↑ assumed 2' cutfill ↑ From sheet #44 taken 11/29/90.)

$S = 4.5/340 = .0132$

$R_h = D/4 = 3/4 \qquad n = .015$

$$V = \frac{1.49}{n} R_h^{2/3} S^{1/2} = \frac{1.49}{.015}(.75)^{2/3}(.0132)^{1/2} = 9.4\ fps$$

$$T_{t_{pp}} = \frac{L}{3600\, V} = \frac{340}{3600(9.4)} = \underline{\underline{.01}}\ hr$$

$$\boxed{T_c = .38 + .01 + .01 + 0.1 = 0.41\ hr}$$

Golder Associates	SUBJECT T_c for subwatersheds (EXISTING)		
	Job No. 903-6400.310 Ref. 95%	Made by mpl Checked TYT Reviewed CLM	Date 6/27/91 Sheet 24 of 30

Subwatershed HB4B : PATH 1

A. Sheet Flow

$L = 300'$
$\Delta h = 70.3 - 67.2 = 3.1$ ft.
$s = 3.1/300 = 0.01$ ft/ft

From TR 55 table 3-1 $n = 0.15$ (short grass)

$$T_{tsf} = \frac{0.007(nL)^{0.8}}{P_2^{0.5}\, S^{0.4}} = \frac{0.007[(0.15)(300)]^{0.8}}{(3.2)^{0.5}(0.01)^{0.4}} = \underline{0.52 \text{ hr.}}$$

B. Shallow Concentrated Flow.

$L = 130'$
$\Delta h = 67.2 - 60 = 7.2$ ft.
$s = 7.2/130 = 0.06$ ft/ft

FROM QTR 55 fig 3-1 V(unpaved) $= 3.9$ ft/s

$$T_{tscp} = \frac{L}{3600\,V} = \frac{130}{3600(3.9)} = \underline{0.01 \text{ hr.}}$$

$$T_c = T_{tsf} + T_{tscp} = 0.52 + 0.01 = \underline{\underline{0.53 \text{ hr}}}$$

Existing Conditions

Golder Associates	SUBJECT T_c For Subwatersheds Onsite - HP 3A		
	Job No. 903 6400 310 Ref. 15RT-9590	Made by AD Checked TYT Reviewed CPM	Date 3-11-91 Sheet 25 of 30

HP 3A

A Sheet Flow:

$L = 300'$

$\Delta h = 127.5 - 112 = 15.5$

$S = 15.5/300 = .0517\ ft/ft$

$n =$ Woods → medium underbrush $= .60$ $(.4 + .8)\frac{1}{2}$ light / dense underbrush...

$$T_{t_{sf}} = \frac{.007(.60 \times 300)^{0.8}}{3.2^{0.5} \times (.0517)^{0.4}} = .82\ hr.$$

B Shallow Concentrated Flow

$L = 270'$

$\Delta h = 112 - 71 = 41'$ $S = 41/270 = .1519$

From Fig 3-1, $V_{unpaved} = 6.3$ fps

$$T_{t_{sf}} = \frac{L}{3600V} = \frac{270}{3600(6.3)} = .01$$

$$T_c = .82 + .01 = .83$$

$$T_c = \underline{\underline{0.83\ hr}}$$

Existing Conditions:

Golder Associates

SUBJECT	T_c for Onsite Subwatersheds – HP3B	
Job No. 903 6400 310 Ref. 15RT-9590	Made by AP Checked TYT Reviewed CRM	Date 3-11-91 Sheet 26 of 30

For Subwatershed HP 3B

A Sheet Flow

$L = 100'$ $\Delta h = 127.5 - 120 = 7.5$

$S = \Delta h / L = 7.5/100 = 0.075$

Table 3-1, $n = \frac{1}{2}(.4 + .8) = .6$

(.4: woods, light underbrush; .8: woods, dense underbrush)

$$T_{t_{sf}} = \frac{.007(.6 \times 100)^{0.8}}{3.2^{0.5} \times (.075)^{0.4}} = .29 \text{ hr}$$

B Shallow Concentrated Flow

$L = 450'$ $\Delta h = 120 - 70 = 50$ $S = 50/450 = .111$

From Fig 3-1, $V_{unpaved} = 5.6$ fps

$$T_{t_{scf}} = \frac{450}{3600(5.6)} = .022 \sim .02 \text{ hr}$$

$$T_c = T_{t_{sf}} + T_{t_{scf}} = .29 + .02 = \underline{0.31 \text{ hr}}$$

Golder Associates	SUBJECT Tc - On-Site - Exist. Cond.		
	Job No. 903-6400 Ref. ISRT-9570	Made by VEZ Checked DP Reviewed CCM	Date 7-27-91 Sheet 27 of 30

Subwatershed HP4

A: Sheet flow

$L = 120$ ft
$\Delta h = 100 - 84 = 16$ ft
$S = 16/120 = 0.133$ ft/ft
$n = 0.40$

$$T_{sf} = \frac{0.007\,[(0.4)(120)]^{0.8}}{(3.2)^{0.5}(0.133)^{0.4}} = 0.194 \text{ hr}$$

$L = 120$ ft
$\Delta h = 84 - 80 = 4$ ft
$S = 4/120 = 0.033$ ft/ft
$n = 0.40$

$$T_{sf} = \frac{(0.007)[(0.4)(120)]^{0.8}}{(3.2)^{0.5}(0.033)^{0.4}} = 0.339 \text{ hr}$$

B: Shallow Conc flow

$L = 270$ ft
$\Delta h = 80 - 69 = 11$ ft
$S = 11/270 = 0.041$ ft/ft

$V = 3.2$ fps

$$T_{scf} = \frac{L}{3600V} = \frac{270}{(3600)(3.2)} = 0.023 \text{ hr}$$

$$T_c = 0.194 + 0.339 + 0.023 = 0.556 \text{ hr} \approx 0.56 \text{ hr}$$

Golder Associates	SUBJECT T_c for onsite subwatersheds (EXISTING)		
	Job No. 903-6400.310 Ref. 95%	Made by MJC Checked TYT Reviewed CNM	Date 6/26/91 Sheet 28 of 30

Subwatershed HP5 :

A. SHEET FLOW

$L = 300'$
$\Delta h = 100' - 78' = 22'$
$S = 22'/300 = 0.07$ ft/ft

$$T_{tsf} = \frac{0.007(nL)^{0.8}}{P_2^{0.5}\, S^{0.4}}$$

from TR55, TABLE 3-1 $n = 0.15$ short grass

$$T_{tsf} = \frac{0.007[(0.15)(300)]^{0.8}}{(3.2)^{0.5}(0.07)^{0.4}} = 0.24$$

B. SHALLOW CONCENTRATED FLOW

$L = 600'$
$\Delta h = 78' - 68.5' = 9.5'$
$S = 9.5'/600 = 0.02\ \%$

$$T_{tsc} = \frac{L}{3600\,V}$$

from Fig. 3-1 $V_{unpaved} = 2.3$ ft/s

$$T_{tsc} = \frac{600'}{3600(2.3)} = 0.07 \text{ hr}$$

$T_c = T_{sf} + T_{sc}$

$T_c = 0.24 + 0.07 = 0.31$ hr

$\underline{T_c = 0.31 \text{ hr}}$

Golder Associates	SUBJECT T_c for Onsite Watersheds - Existing		
	Job No. 203 6400 310 Ref. ISRT-95%	Made by RJ Checked MRT Reviewed CNM	Date 3-8-91 Sheet 29 of 30

For CW1

A Sheet Flow:

$L = 300'$

$\Delta h = 80.6 - 70 = 10.6 \qquad S = 10.6/300 = .0353$

From Tbl 3-1, $n = .13$ Range

$$T_{t_{SF}} = \frac{.007(nL)}{P_2^{0.5} S^{0.4}} = \frac{.007(.13 \times 300)^{0.8}}{3.2^{0.5} \times .0353^{0.4}} = .28$$

B Shallow Concentrated Flow

$L = 170, \quad \Delta h = 70 - 64 = 6, \quad S = 6/170 = .0353$

From Fig 3-1, $V_{paved} = 3.8$ fps

$$T_{t_{SCF}} = \frac{L}{3600\,V} = \frac{170}{3600 \times 3.8} = .01$$

$$T_c = T_{t_{SF}} + T_{t_{SCF}} = .28 + .01 = 0.29$$

$$T_c = \underline{0.29} \text{ hr}$$

Golder Associates	SUBJECT Tc Subwatersheds - Exist		
	Job No 903-6400.310	Made by DP	Date 6/26/91
	Ref. 959o	Checked TYT	Sheet 30 of 30
		Reviewed CMA	

Subwatershed CW2:

A sheet flow

$L = 75'$
$\Delta h = 90' - 70' = 20'$
$S = 20/75' = 0.2667\%$

$$T_{SF} = \frac{.007(nL)^{.8}}{(3.2)^{.5}(S)^{.4}}$$

Table 3-1 $n = 0.15$ (short grass)

$$T_{SF} = \frac{0.007[.15(75)]^{.8}}{(3.2)^{.5}(0.2667)^{.4}} = \underline{0.05\,hr}$$

$L = 225'$
$\Delta h = 70' - 66' = 4'$
$S = 4'/225' = 0.0178\%$

$$T_{SF} = \frac{.007(nL)^{.8}}{(P_2)^{.5}(S)^{.4}}$$

Table 3-1 $n = 0.011$ (pavement)

$$T_{SF} = \frac{0.007(.011(225))^{.8}}{(3.2)^{.5}(0.0178)^{.4}} = \underline{0.04\,hr}$$

B shallow Concentrated Flow

$L = 563'$
$\Delta h = 66 - 65 = 1'$
$S = 1'/563' = 0.0018\%$

$$T_{SC} = \frac{L}{3600V}$$

$V_{paved} = 20.3282(S)^{.5}$ for slope < 0.005 $V = 0.86$ fps

$$T_{SC} = \frac{563}{(3600(.86)} = 0.18\,hr$$

$T_c = 0.05 + 0.04 + 0.18$

$$\boxed{T_c = 0.27\,hr}$$

Storage vs Elevation Relationships

Golder Associates	SUBJECT Storage vs. Elevation - On Site-Exist.		
	Job No. 903-6400 Ref. ISRT-95%	Made by VEET Checked CEB Reviewed CLM	Date 7/27/91 Sheet 1 of 12

Objective: To evaluate the storage vs. elevation relationship of the swamp / storage basins on-site.

Methods: Using the 100' scale topographic drawing from SAIC Engineers, determine the upper limits of the storage area. Then, using a planimeter, determine the area that each contour within the storage area occupies (in sf and acres). Using the average end method, evaluate, the storage/volume capabilities for each contour interval. The sum of the volume for each interval yields the total storage/volume of the swamp/storage area. For depressions/wetlands where bathymetric information is available, these plans were used.

Golder Associates	SUBJECT Storage vs. Elevation		
	Job No. 903-6400 Ref. ISRT-95%	Made by UEE7 Checked DP Reviewed CM	Date 7-27-91 Sheet 2 of 12

Note: A. The minimum storage elevation for the on-site storage areas was determined using one of the following sources.

1. the water level elevation as shown on the SAK topography, dated April, 1990.

2. the top of aquifer elevations as on the "top of aquifer plan" by GAI in progress.

3. the invert elevation of the outlet, if any.

4. the water elevation at the time of the bathymetric survey by TWM Northeast

B. The surface area vs. elevation relationships were provided to HEC-1. The volume calculations provided herein were determined for comparison with HEC-1.

Golder Associates	SUBJECT Subwatershed Storage Capacities		
	Job No. 903-6400.310 Ref. ISRT-959o	Made by DP/RD Checked VEE7 Reviewed CLM	Date 6/29/91 Sheet 3 of 12

Subwatershed NB5 (wetland 3B)

Elev (ft)	Area (ft^2)	Avg Area (ft^2)	Depth (ft)	Volume (ft^3)	Cum Volume (ft^3)
66.5	47,200 (1.084ac)	58,150	0.7	40,705	40,705
67.2	69,100 (1.586ac)	115,950	1.0	115,950	156,655
68.2	162,800 (3.737ac)				

Maximum Storage Elevation: 68.2'

Minimum Storage Elevation: 66.5'

Total Storage Volume ≅ 156,700 ft^3

Golder Associates	SUBJECT Subwatershed Storage Capacities		
	Job No. 903-6400.310 Ref. ISRT-9590	Made by RD/DP Checked VEE7 Reviewed CNM	Date 6/29/91 Sheet 4 of 12

Subwatershed SB1 (Phillips Pond)

Elev (ft)	Area (ft^2)	Avg. Area (ft^2)	Depth	Volume (ft^3)	Cum Volume ft^3
57	170,500 (3.914 ac)	190,450	2.5	476,125	476,125
59.5	210,400 (4.83 ac)	225,300	1.1	247,830	723,955
60.6	240,200 (5.514 ac)	284,100	1.4	397,740	1,121,695
62	328,000 (7.530 ac)	355,850	2	711,700	1,833,395
64	383,700 (8.809 ac)	450,850	2	901,700	2,735,095
66	518,000 (11.892 ac)				

Maximum Storage Elevation: 66'

Minimum Storage Elevation: 57' (see Note)

Total Storage Volume ≅ 2,735,100 ft^3

Note: The minimum storage elevation is based upon the invert elevation of the outlet culvert and field observations

Existing Conditions

Golder Associates	SUBJECT: ISRT/Woburn/Mass. Subwatershed Storage Capacities		
	Job No. 903 6400 310 Ref. ISRT-95%	Made by UEE7 Checked DP Reviewed CRM	Date 7-18-91 Sheet 5 of 12

Location: SB 3 & SB 4

✓ O.K. w/ Roux Assoc.
G.W.T. elev. map
G.W.T. ≈ 62.5' MSL ~ April

Elev. (Ft.)	Area (Ft.²)	Average Area (Ft.²)	Depth (Ft.)	Volume (Ft.³)	Cumulative Volume (Ft.³) Max. elev. = 66
63.5	9920 (.23 ac)				
		15,500	2.2	34,100	
65.7	21,080 (.484 ac)				
		47,740	0.3	14,322	~48,422 Ft³
66.0	74,400 (1.708 ac)				

Maximum Storage Elevation = 66'

Minimum Storage Elevation = 63.5'

Total Storage Volume = 48,422 Ft³

Golder Associates	SUBJECT: ISRT/Woburn/Mass. Subwatershed Storage Capacities		
	Job No. 903 6400 310	Made by RD	Date 3-19-91
	Ref. ISRT-9590	Checked UEEZ	Sheet 6 of 12
		Reviewed CRM	

Location: SB5 (Wetland 3c)

Elev. (Ft.)	Area (Ft.²)	Average Area (Ft.²)	Depth (Ft.)	Volume (Ft³)	Cumulative Volume (ft.³) Max. elev. = 65.5'
62.0	44,446 (1.020ac)				
		71,173	1.0	71,173	
63.0	97,900 (2.2ac)				
		117,150	1.0	117,150	188,323
64.0	136,400 (3.13ac.)				
		151,700	1.0	151,700	340,023
65.0	167,000 (3.83ac.)				

Maximum Storage Elevation = 65.0'

Minimum Storage Elevation = 62.0'

Total Storage Volume = 340023

Note: The min. storage elevation provided to the HEC-1 model is 62.4 because it is the invert of the outlet. Elevation 62 is shown on this calculation because the bathymetry from TWM Northeast shows a 62 contour.

Golder Associates	SUBJECT SUBWATERSHED STORAGE CAPACITIES		
	Job No. 503-6400.310 Ref. 95%	Made by MJC Checked MKS Reviewed CM	Date 7/1/91 Sheet 7 of 12

SUBWATERSHED HB2A

ELEV (ft)	AREA (ft^2)	AVG. AREA $(ft)^2$	DEPTH (ft)	VOLUME (ft^3)	CUM. VOLUME (ft^3)
59.3	34,875 (0.80 ac)				
		43,090	0.7	30,163	
60	51,305 (1.18 ac)				
		67,658	2	135,316	165,479 (3.80 ac-ft)
62	84,010 (1.93 ac)				

Maximum Storage Elevation = 62

Minimum Storage Elevation = 59.3

Total Storage Volume = 165,479 ft^3 (3.80 ac-ft)

Golder Associates	SUBJECT SUBWATERSHED STORAGE CAPACITIES		
	Job No. 903-6400.310 Ref. 95%	Made by MJC Checked MKS Reviewed CAM	Date 6/28/91 Sheet 8 of 12

SUBWATERSHED HB 3B

ELEV (ft)	AREA (ft^2)	AVG AREA (ft^2)	DEPTH (ft)	VOLUME (ft^3)	CUM. VOLUME (ft^3)
68.8	0				
		16,237	0.4	6,495	
69.2	32,473 (0.75 ac)				
		56,924	0.3	17,077	23,572 (0.54 ac-ft)
69.5	81,375 (1.87 ac)				

Maximum Storage Elevation = 69.5

Minimum Storage Elevation = 68.8

TOTAL STORAGE VOLUME = 23,572 ft^3 (0.54 ac-ft)

Golder Associates	SUBJECT SUBWATERSHED STORAGE CAPACITIES		
	Job No. 903-6400 310 Ref. 75%	Made by MJC Checked MMB Reviewed CRM	Date 7/1/91 Sheet 9 of 12

CHROMIUM LAGOONS (WETLANDS 7A & 7B) (HB3C)

ELEV (ft)	AREA (ft^2)	AVG AREA (ft^2)	DEPTH (ft)	VOLUME (ft^3)	CUM. VOLUME (ft^3)
	① 12,750				
	② 13,250				
59	AVG 13,000 (0.30 Ac)				
		15,750	1.2	18,900	
	① 18,000				
	② 19,000				
60.2	AVG 18,500 (0.43 Ac)				
		25,250	1.8	45,450	64,350
	① 32,500				
	② 31,500				
62	AVG 32,000 (0.73 Ac)				
		42,375	1.0	42,375	106,725
	① 53,000				
	② 52,500				
63	AVG 52,750 (1.21 ac)				

MAXIMUM STORAGE ELEVATION = 63

MINIMUM STORAGE ELEVATION = 59

TOTAL STORAGE VOLUME = 106,725 ft^3

OR

2.45 acre-ft.

Golder Associates	SUBJECT Subwatershed Storage Capacities		
	Job No. 903-6400.310	Made by DP	Date 6/29/91
	Ref. ISRT-9590	Checked VEZ	Sheet 10 of 12
		Reviewed CKr	

Location: East-West Hidepile (Wetland 1C) - HP3A

Elev (ft)	Area (ft²)	Avg Area (ft²)	Depth (ft)	Volume (ft³)	Cum Volume ft³
69	82,100 (1.885ac)	110,150	1	110,150	110,150
70	138,200 (3.173ac)	229,350	1.5	344,025	454,175
71.5	320,500 (7.358ac)				

Maximum Storage Elevation: 71.5'

Minimum Storage Elevation: 69'

Total Storage Volume ≅ 454,200 ft³

Golder Associates	SUBJECT SUBWATERSHED STORAGE CAPACITIES		
	Job No. 903-6400.310 Ref. 95%	Made by MJC Checked MHS Reviewed CRM	Date 7/1/91 Sheet 11 of 12

SUBWATERSHED HP4

ELEV (ft)	AREA (ft^2)	AVG. AREA (ft^2)	DEPTH (ft)	VOLUME (ft^3)	CUM. VOLUME (ft^3)
68	14,570 (0.334 ac)				
		21,042	1	21,042	
69	27,513 (0.632 ac)				
		55,064	1	55,064	76,106 (1.75 ac-ft)
70	82,615 (1.89 ac)				

Maximum Storage Elevation = 70

Minimum Storage Elevation = 68

Total Storage Volume = 76,106 ft^3 (1.75 ac-ft)

Golder Associates	SUBJECT SUBWATERSHED STORAGE CAPACITIES		
	Job No. 903-6400.310 Ref. 95%	Made by MJC Checked MMJ Reviewed CRM	Date 7/1/91 Sheet 12 of 12

SUBWATERSHED HP5

ELEV. (ft)	AREA (ft^2)	AVG. AREA (ft^2)	DEPTH (ft)	VOLUME ft^3	CUM VOLUME ft^3
68	0				
		6,627	1	6,627	6,627
69	13,253 (0.30 ac)				

Maximum Storage Elevation = 69

Minimum Storage Elevation = 68

Total Storage Capacity = 6,627 ft^3 (0.15 ac-ft)

Golder Associates	SUBJECT Surface Area vs Elevation - Existing		
	Job No. 903-6400 310	Made by DP	Date 7/17/91
	Ref. ISRT - 9590	Checked UEF	Sheet 1 of 8
		Reviewed CRM	

Objective: To calculate surface areas for specific elevations in existing on-site channels and swamps/storage basins.

Methods: 1.) Using channel cross sections provided by TWM NorthEast, Inc, the width of the channels at specified elevations were calculated. The widths of adjacent channel sections were averaged. These averaged widths were then multiplied by the distance between the channel SECTIONS resulting in the surface area.

2) Where only one channel cross section was given, a typical cross section of that channel was mantained throughout the channel using the As-builts of Commerce Way, as provided by the city of Woburn. For example, CW1CHL and SB34CHL.

Golder Associates	SUBJECT Surface Area vs. Elevation - Existing		
	Job No. 903-6400.310 Ref. 1SRT - 9590	Made by DP Checked VFE 7 Reviewed CRM	Date 7/17/91 Sheet 2 of 8

3) For areas containing depressions, the cross sections from TWM NorthEast, Inc, were utilized along with the bathymetric topography from TWM NorthEast, Inc. to analyze total surface area per elevation.

4) For HBIA the surface area of the depression was planimetered using the SAIC Engineers 100' scale topographic drawing. For elevation 69 in the channel, the cross-sections by TWM Northeast were used and the area of the channel was added to the depression area to result in total surface area at elevation 69.

References: 1.) As-builts of Commerce Way by Dana F. Perkins and Assoc., Inc.

Golder Associates	SUBJECT Surface Area / Elevation relationships		
	Job No. 903-6400.310	Made by DP/MJC	Date 7/19/91
	Ref. ISRT-95%	Checked VEET	Sheet 3 of 8
		Reviewed CAM	

Subwatershed NB4 & NB4CHL (Ditch 6)

Section	Distance between sections	Distance across channel at elevation: 64	64.5	65	66
1&2 area (sf)	60'	$\frac{60}{2}(0+12.4)$ 372	$\frac{60}{2}(6.4+13)$ 582	$\frac{60}{2}(7.9+13.7)$ 648	$\frac{60}{2}(10.9+14.9)$ 774
2&4 area (sf)	95	$\frac{95}{2}(12.4+33.1)$ 2161	$\frac{95}{2}(13+46.9)$ 2845	$\frac{95}{2}(13.7+63.1)$ 3648	$\frac{95}{2}(14.9+137.9)$ 7239
4&7 area (sf)	185	$\frac{185}{2}(33.1+52.5)$ 7918	$\frac{185}{2}(46.9+53.3)$ 9269	$\frac{185}{2}(63.1+74.9)$ 12765	$\frac{185}{2}(137.3+81.3)$ 20239
7&9 area (sf)	150	$\frac{150}{2}(52.5+31.2)$ 6278	$\frac{150}{2}(53.3+33.4)$ 6503	$\frac{150}{2}(74.9+36.3)$ 8340	$\frac{150}{2}(81.3+56.3)$ 10320
9&12 area (sf)	160	$\frac{160}{2}(31.2+21.7)$ 4232	$\frac{160}{2}(33.4+22.6)$ 4480	$\frac{160}{2}(36.3+25.3)$ 4928	$\frac{160}{2}(56.3+30.6)$ 6952
12&13 area (sf)	130	$\frac{130}{2}(21.7+0)$ 1411	$\frac{130}{2}(22.6+69.1)$ 5961	$\frac{130}{2}(26.3+73.9)$ 6448	$\frac{130}{2}(30.6+87)$ 7644
13&15 area (sf)	60	$\frac{60}{2}(0+0)$ 0	$\frac{60}{2}(69.1+22.1)$ 2736	$\frac{60}{2}(73.9+23.8)$ 2931	$\frac{60}{2}(87+27.6)$ 3438
TOTAL		22,372 (0.514ac)	32,376 (0.743ac)	39,708 (0.912ac)	56,606 (1.300ac)

Golder Associates	SUBJECT: Subwatershed Storage Capacity Surface Area / Elevation		
	Job No. 903-6400.310 Ref. ISLT-9570	Made by DP/MJC Checked UEZZ Reviewed CRM	Date 7/10/91 Sheet 4 of 8

Subwatershed CW1 - CW1CHL (Ditch D)

ELEV Dist between sect (ft)	Sec 1 & Sec 2 145'	Sec 2 & Sec 4 230'	Sec 4 & Sec 5 130'	Sec 5 & Sec 7 145'	Sec 7 & Sec 9 125	Total
63	—	—	—	—	$\frac{125}{2}(0+11.7)$ 731.3	731.3 (0.017ac)
64	$\frac{145}{2}(0+12.2)$ 884.5	$\frac{230}{2}(12.2+0)$ 1403	$\frac{130}{2}(0+9.2)$ 598	$\frac{145}{2}(9.2+10.7)$ 1442.8	$\frac{125}{2}(10.7+13.9)$ 1537.5	5865.8 (0.135ac)
65	$\frac{145}{2}(0+13.1)$ 1094.8	$\frac{230}{2}(13.1+11.6)$ 3070.5	$\frac{130}{2}(11.6+11.5)$ 1501.5	$\frac{145}{2}(11.5+13.5)$ 1812.5	$\frac{125}{2}(13.5+16.1)$ 1850	9329.3 (0.214ac)
66	$\frac{145}{2}(0+18.6)$ 1348.5	$\frac{230}{2}(18.6+14.3)$ 3783.5	$\frac{130}{2}(14.3+13.7)$ 1820	$\frac{145}{2}(13.7+16.4)$ 2182.3	$\frac{125}{2}(16.4+18.5)$ 2181.3	11,315.6 (0.260ac)

Golder Associates	SUBJECT: SUBWATERSHED STORAGE CAPACITY SURFACE AREA / ELEVATION RELATIONSHIP.		
	Job No. 903-6400.310 Ref. ISRT 95%	Made by MJK Checked SMH Reviewed CAM	Date 7/9/91 Sheet 5 of 8

SUBWATERSHED CW2: CW2 CHL

USING SECTION @ STA 54+0 AS TYPICAL (see As-builts)

ELEV	DISTANCE ACROSS CHANNEL	LENGTH OF CHANNEL	SURFACE AREA ft²
61	10.2 ft.	350 ft.	3570 (0.082 ac)
63	16.0 ft	350	5600 (0.129 ac)
65	22.2 ft.	350	7770 (0.178 ac)
67	28.0 ft.	350	9800 (0.225 ac)
67.7	30.0 ft.	350	10,500 (0.241 ac)

SUBWATERSHED CW2 ; SB 34 CHL

USING SECTION @ STA 49+20 AS TYPICAL (see As-builts)

ELEV	DISTANCE ACROSS CHANNEL (ft)	LENGTH OF CHANNEL	SURFACE AREA ft²
60	8.8	165 ft	1452 (0.033 ac)
62	16.8	165	2772 (0.064 ac)
64	25.0	165	4125 (0.095 ac)
66	32.5	165	5363 (0.123)

Golder Associates

SUBJECT: Subwatershed Storage Capacity Surface Area / Elevation

Job No. 903-6400.310 | Made by DP | Date 7/19/81

Ref. ISRT-9590 | Checked JEET | Sheet 6 of 8

Reviewed CLM

Subwatershed HB4B : HB4BCL

Using section @ STA 47+0 as typical (see As-builts)

Elev	Distance across channel	Length of Channel	Area ft²
59	11.0 ft	186 ft	2046 (0.047 ac)
61	15.8 ft	186 ft	2939 (0.067 ac)
63	20.7 ft	186 ft	3850 (0.088 ac)
65	25.8 ft	186 ft	4799 (0.110 ac)
66.8	30.0 ft	186 ft	5580 (0.128 ac)

Golder Associates	SUBJECT Existing OnSite Surface v. Existing		
	Job No. 903-6400.310	Made by SMM/DP	Date 7/9/91
	Ref. ISRT - 95%	Checked VEE7	Sheet 7 of 8
		Reviewed CKM	

Subwatershed HBIAN (Ditch A)

Section	Distance between sections (ft)	Distance across channel (ft) at Elevation 69	70	71
Swamp area (sf)	N/A	N/A 11,393	N/A 31,385	N/A 40,770
2 & 3 area (sf)	110	½(0+4.9) 110 270	*	*
3 & 4 area (sf)	210	½(4.9+4.8) 210 1019	*	*
		12682 (0.291 ac)	31,385 (0.721 ac)	40,770 (0.936 ac)

* The surface area for elevations 70 & 71 was included in the swamp surface area by planimetering the 70 & 71 contour elevations. For sections 2-4, the surface area for elevation 69 was calculated using the cross sections made by TWM Northeast, Inc.

Golder Associates

SUBJECT Existing OnSite Surface Area v. Elev

Job No. 903-6400.310 | Made by DP | Date 7/19/91

Ref. ISRT-95% | Checked VEGT | Sheet 8 of 8

Reviewed CRM

Subwatershed HBIAS : Ditch A

Section	Distance between sections	Distance across channel (ft) at Elev. 66.5	67	67.5	68	69	69.4
5 & 6 area (sf)	112 ft	0	0	$\frac{112}{2}(0+3.95)$ 221.2	$\frac{112}{2}(0+5.62)$ 314.7	$\frac{112}{2}(8.+8.95)$ 949.2	$\frac{112}{2}(9.16+10.28)$ 1088.6
6 & 7 area (sf)	110 ft	$\frac{110}{2}(0+7.37)$ 416.4	$\frac{110}{2}(0+9.13)$ 503.3	$\frac{110}{2}(3.95+10.72)$ 806.9	$\frac{110}{2}(5.62+12.29)$ 985.1	$\frac{110}{2}(8.95+15.43)$ 1340.9	$\frac{110}{2}(10.28+16.61)$ 1483.4
7 & 8 area (sf)	38 ft	$\frac{38}{2}(7.37+7.18)$ 280.3	$\frac{38}{2}(9.15+8.9)$ 3420	$\frac{38}{2}(10.72+10.63)$ 405.7	$\frac{38}{2}(12.29+12.37)$ 468.5	$\frac{38}{2}(15.43+15.82)$ 593.8	$\frac{38}{2}(16.69+17.2)$ 643.9
TOTAL		696.7 (0.016ac)	846.3 (0.019ac)	1433.8 (0.033ac)	1768.3 (0.041ac)	2883.9 (0.066ac)	3215.9 (0.074ac)