HEC-1

```
1*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             FEBRUARY 1981             *
*           REVISED 02 AUG 88           *
*                                       *
*  RUN DATE  09/13/2002  TIME  08:36:26 *
*                                       *
*****************************************
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*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*  THE HYDROLOGIC ENGINEERING CENTER    *
*         609 SECOND STREET             *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 551-1748              *
*                                       *
*****************************************
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X     X  XXXXXXX   XXXXX          X
X     X  X        X     X       XX
X     X  X        X             X
XXXXXXX  XXXX     X       XXXXX X
X     X  X        X             X
X     X  X        X     X       X
X     X  XXXXXXX   XXXXX        XXX
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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

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

1 HEC-1 INPUT PAGE 1

```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
   1          ID        Remington Place Second
   2          ID        2, 10, 25 & 100 year storms
   3          ID        Professional Engineering Consultants
   4          ID        Wichita, Ks
   5          ID        SPL 08/23/02
   6          ID        File:  O:\SPL\HEC1\REM4.IH1
   7          IT      6 12DEC97    0000     300
   8          IN     30 12DEC97    0600
   9          IO      3     0
  10          JR    PREC .448718 .679487  .78947   1.000
              *
              *DIAGRAM
              *
  11          KK    BAS1     Basin to Pond 1 via street and SWS (offsite, 1B, 1C, 1D, and 1E)
  12          BA  .01672
  13          PB     7.8
  14          PC    0.08     .09     .10     .11     .12     .133    .147    .163    .181    .204
  15          PC    .235     .283    .663    .735    .772    .799    .820    .835    .850    .865
  16          PC    .880     .890    .900    .910    .916    .925    .934    .943    .952    .958
  17          PC    .964     .970    .976    .982    .988    .994   1.000
  18          LS       0      87       0
  19          UD     .15
              *
  20          KK    BAS1A       Basin 1A directly to pond 1 including pond 1
  21          BA  .00156
  22          PB     7.8
  23          PC    0.08     .09     .10     .11     .12     .133    .147    .163    .181    .204
  24          PC    .235     .283    .663    .735    .772    .799    .820    .835    .850    .865
  25          PC    .880     .890    .900    .910    .916    .925    .934    .943    .952    .958
  26          PC    .964     .970    .976    .982    .988    .994   1.000
  27          LS       0      94       0
  28          UD     .15
              *
  29          KK    COMB1
  30          KO        5
  31          HC        2
              *
  32          KK    POND1
  33          RS        1    ELEV     202
  34          SA      .20     .27
  35          SE      202     204
  36          SS      202      10     3.2     1.5
              *
              *
  37          KK    BAS2        Basin 2 to Pond 2
  38          BA  .00469
  39          PB     7.8
  40          PC    0.08     .09     .10     .11     .12     .133    .147    .163    .181    .204
  41          PC    .235     .283    .663    .735    .772    .799    .820    .835    .850    .865
  42          PC    .880     .890    .900    .910    .916    .925    .934    .943    .952    .958
```

1 HEC-1 INPUT PAGE 2

```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
  43          PC    .964     .970    .976    .982    .988    .994   1.000
  44          LS       0      94       0
  45          UD     .15
              *
              *
              *
  46          KK    COMB2
  47          KO        5
  48          HC        2
              *
              *
  49          KK    POND2
  50          RS        1    ELEV     199
  51          SA      .43     .64
  52          SE      199     202
  53          SS    199.0       5     3.2     1.5
              *
              *
  54          KK    BAS3        Basin 3 to Pond 3
  55          BA  .00125
  56          PB     7.8
  57          PC    0.08     .09     .10     .11     .12     .133    .147    .163    .181    .204
  58          PC    .235     .283    .663    .735    .772    .799    .820    .835    .850    .865
  59          PC    .880     .890    .900    .910    .916    .925    .934    .943    .952    .958
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 60          PC    .964    .970    .976    .982    .988    .994   1.000
 61          LS       0      94       0
 62          UD     .15
             *
             *

 63          KK   COMB3
 64          KO       5
 65          HC       2
             *
             *

 66          KK   POND3
 67          RS       1    ELEV     195
 68          SA     .30     .50
 69          SE     195     198
 70          SS   195.0       5     3.2     1.5
             *
             *
 71          ZZ
1
          SCHEMATIC DIAGRAM OF STREAM NETWORK
INPUT
 LINE     (V) ROUTING            (--->) DIVERSION OR PUMP FLOW

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

  11        BAS1
             .
  20         .          BAS1A
             .             .
  29      COMB1.............
             V
             V
  32      POND1
             .
  37         .          BAS2
             .             .
  46      COMB2.............
             V
             V
  49      POND2
             .
  54         .          BAS3
             .             .
  63      COMB3.............
             V
             V
  66      POND3
(***) RUNOFF ALSO COMPUTED AT THIS LOCATION
*****************************************          *****************************************
*                                       *          *                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *          *   U.S. ARMY CORPS OF ENGINEERS        *
*           FEBRUARY 1981               *          *   THE HYDROLOGIC ENGINEERING CENTER   *
*          REVISED 02 AUG 88            *          *         609 SECOND STREET             *
*                                       *          *       DAVIS, CALIFORNIA 95616         *
* RUN DATE  09/13/2002  TIME  08:36:26  *          *         (916) 551-1748                *
*                                       *          *                                       *
*****************************************          *****************************************


                     Remington Place Second
                     2, 10, 25 & 100 year storms
                     Professional Engineering Consultants
                     Wichita, Ks
                     SPL 08/23/02
                     File:  O:\SPL\HEC1\REM4.IH1

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

    IT        HYDROGRAPH TIME DATA
                   NMIN          6  MINUTES IN COMPUTATION INTERVAL
                  IDATE    12DEC97  STARTING DATE
                  ITIME       0000  STARTING TIME
                     NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                 NDDATE    13DEC97  ENDING DATE
                 NDTIME       0554  ENDING TIME
                  ICENT         19  CENTURY MARK

                COMPUTATION INTERVAL      .10 HOURS
                     TOTAL TIME BASE    29.90 HOURS

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

    JP        MULTI-PLAN OPTION
                  NPLAN          1  NUMBER OF PLANS

    JR        MULTI-RATIO OPTION
                RATIOS OF PRECIPITATION
                  .45      .68      .79     1.00

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

          **************
          *            *
  11 KK   *    BAS1    *        Basin to Pond 1 via street and SWS (offsite, 1B, 1C, 1D, and 1E)
          *            *
          **************

  8 IN        TIME DATA FOR INPUT TIME SERIES
                  JXMIN         30  TIME INTERVAL IN MINUTES
```

```
                  JXDATE     12DEC97  STARTING DATE
                  JXTIME         600  STARTING TIME

             SUBBASIN RUNOFF DATA

  12 BA         SUBBASIN CHARACTERISTICS
                  TAREA          .02  SUBBASIN AREA

                PRECIPITATION DATA

  13 PB           STORM         7.80  BASIN TOTAL PRECIPITATION

  14 PI           INCREMENTAL PRECIPITATION PATTERN
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .01      .01      .01      .01      .01
                  .01      .01      .01      .01      .01      .08      .08      .08      .08      .08
                  .01      .01      .01      .01      .01      .01      .01      .01      .01      .01
                  .01      .01      .01      .01      .01      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00

  18 LS         SCS LOSS RATE
                  STRTL          .30  INITIAL ABSTRACTION
                 CRVNBR        87.00  CURVE NUMBER
                  RTIMP          .00  PERCENT IMPERVIOUS AREA

  19 UD         SCS DIMENSIONLESS UNITGRAPH
                  TLAG           .15  LAG

                                              ***

                                         UNIT HYDROGRAPH
                                      10 END-OF-PERIOD ORDINATES
            19.        41.        28.       11.         5.        2.        1.        0.        0.        0.

    TOTAL RAINFALL =     7.80, TOTAL LOSS =     1.54, TOTAL EXCESS =     6.26

   PEAK FLOW     TIME                            MAXIMUM AVERAGE FLOW
                                    6-HR          24-HR         72-HR       29.90-HR
 +   (CFS)       (HR)
                          (CFS)
 +     60.      12.00                  9.            3.            2.            2.
                        (INCHES)     5.112         6.255         6.255         6.255
                         (AC-FT)        5.            6.            6.            6.

                          CUMULATIVE AREA =      .02 SQ MI

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

                          HYDROGRAPH AT STATION       BAS1
                            FOR PLAN 1, RATIO =  .45

    TOTAL RAINFALL =     3.50, TOTAL LOSS =     1.32, TOTAL EXCESS =     2.18

   PEAK FLOW     TIME                            MAXIMUM AVERAGE FLOW
                                    6-HR          24-HR         72-HR       29.90-HR
 +   (CFS)       (HR)
                          (CFS)
 +     21.      12.00                  3.            1.            1.            1.
                        (INCHES)     1.796         2.182         2.182         2.182
                         (AC-FT)        2.            2.            2.            2.

                          CUMULATIVE AREA =      .02 SQ MI

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

                          HYDROGRAPH AT STATION       BAS1
                            FOR PLAN 1, RATIO =  .68

    TOTAL RAINFALL =     5.30, TOTAL LOSS =     1.45, TOTAL EXCESS =     3.85

   PEAK FLOW     TIME                            MAXIMUM AVERAGE FLOW
                                    6-HR          24-HR         72-HR       29.90-HR
 +   (CFS)       (HR)
                          (CFS)
 +     38.      12.00                  6.            2.            1.            1.
                        (INCHES)     3.162         3.851         3.851         3.851
                         (AC-FT)        3.            3.            3.            3.

                          CUMULATIVE AREA =      .02 SQ MI

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

                          HYDROGRAPH AT STATION       BAS1
                            FOR PLAN 1, RATIO =  .79

    TOTAL RAINFALL =     6.16, TOTAL LOSS =     1.49, TOTAL EXCESS =     4.67

   PEAK FLOW     TIME                            MAXIMUM AVERAGE FLOW
                                    6-HR          24-HR         72-HR       29.90-HR
 +   (CFS)       (HR)
                          (CFS)
 +     46.      12.00                  7.            2.            2.            2.
                        (INCHES)     3.827         4.668         4.668         4.668
                         (AC-FT)        3.            4.            4.            4.

                          CUMULATIVE AREA =      .02 SQ MI

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

                          HYDROGRAPH AT STATION       BAS1
                            FOR PLAN 1, RATIO = 1.00
```

```
                                                                                 REM4.OH1
     TOTAL RAINFALL =     7.80, TOTAL LOSS =     1.54, TOTAL EXCESS =     6.26

   PEAK FLOW      TIME                               MAXIMUM AVERAGE FLOW
                                            6-HR          24-HR         72-HR        29.90-HR
 +   (CFS)        (HR)
                               (CFS)
        60.      12.00                         9.            3.            2.            2.
                             (INCHES)      5.112         6.255         6.255         6.255
                              (AC-FT)         5.            6.            6.            6.

                              CUMULATIVE AREA =      .02 SQ MI


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

               **************
               *            *
  20 KK        *    BAS1A   *                 Basin 1A directly to pond 1 including pond 1
               *            *
               **************

   8 IN            TIME DATA FOR INPUT TIME SERIES
                         JXMIN         30  TIME INTERVAL IN MINUTES
                         JXDATE   12DEC97  STARTING DATE
                         JXTIME       600  STARTING TIME

                 SUBBASIN RUNOFF DATA

  21 BA            SUBBASIN CHARACTERISTICS
                         TAREA        .00  SUBBASIN AREA

                   PRECIPITATION DATA

  22 PB                  STORM       7.80  BASIN TOTAL PRECIPITATION

  23 PI              INCREMENTAL PRECIPITATION PATTERN
                           .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                           .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                           .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                           .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                           .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                           .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                           .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                           .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                           .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                           .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                           .00       .00       .00       .00       .00       .01       .01       .01       .01       .01
                           .01       .01       .01       .01       .01       .08       .08       .08       .08       .08
                           .01       .01       .01       .01       .01       .01       .01       .01       .01       .01
                           .01       .01       .01       .01       .01       .00       .00       .00       .00       .00
                           .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                           .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                           .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                           .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                           .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                           .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                           .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                           .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                           .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                           .00       .00       .00       .00       .00       .00       .00       .00       .00       .00

  27 LS            SCS LOSS RATE
                        STRTL         .13  INITIAL ABSTRACTION
                       CRVNBR       94.00  CURVE NUMBER
                        RTIMP         .00  PERCENT IMPERVIOUS AREA

  28 UD            SCS DIMENSIONLESS UNITGRAPH
                         TLAG         .15  LAG

                                                            ***

                                                        UNIT HYDROGRAPH
                                                   10 END-OF-PERIOD ORDINATES
               2.        4.        3.        1.        0.        0.        0.        0.        0.        0.

     TOTAL RAINFALL =     7.80, TOTAL LOSS =      .72, TOTAL EXCESS =     7.08

   PEAK FLOW      TIME                               MAXIMUM AVERAGE FLOW
                                            6-HR          24-HR         72-HR        29.90-HR
 +   (CFS)        (HR)
                               (CFS)
 +       6.      12.00                         1.            0.            0.            0.
                             (INCHES)      5.681         7.083         7.083         7.083
                              (AC-FT)         0.            1.            1.            1.

                              CUMULATIVE AREA =      .00 SQ MI

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

                               HYDROGRAPH AT STATION    BAS1A
                                 FOR PLAN 1, RATIO =  .45

     TOTAL RAINFALL =     3.50, TOTAL LOSS =      .66, TOTAL EXCESS =     2.84

   PEAK FLOW      TIME                               MAXIMUM AVERAGE FLOW
                                            6-HR          24-HR         72-HR        29.90-HR
 +   (CFS)        (HR)
                               (CFS)
 +       3.      12.00                         0.            0.            0.            0.
                             (INCHES)      2.316         2.836         2.836         2.836
                              (AC-FT)         0.            0.            0.            0.

                              CUMULATIVE AREA =      .00 SQ MI

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

                               HYDROGRAPH AT STATION    BAS1A
                                 FOR PLAN 1, RATIO =  .68

     TOTAL RAINFALL =     5.30, TOTAL LOSS =      .70, TOTAL EXCESS =     4.60

   PEAK FLOW      TIME                               MAXIMUM AVERAGE FLOW
                                            6-HR          24-HR         72-HR        29.90-HR
 +   (CFS)        (HR)
                               (CFS)
 +       4.      12.00                         1.            0.            0.            0.
                             (INCHES)      3.729         4.604         4.604         4.604
                              (AC-FT)         0.            0.            0.            0.
```

CUMULATIVE AREA = .00 SQ MI

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

HYDROGRAPH AT STATION BAS1A
FOR PLAN 1, RATIO = .79

TOTAL RAINFALL = 6.16, TOTAL LOSS = .70, TOTAL EXCESS = 5.45

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)					
		(CFS)				
+ 5.	12.00		1.	0.	0.	0.
		(INCHES)	4.400	5.453	5.453	5.453
		(AC-FT)	0.	0.	0.	0.

CUMULATIVE AREA = .00 SQ MI

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

HYDROGRAPH AT STATION BAS1A
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 7.80, TOTAL LOSS = .72, TOTAL EXCESS = 7.08

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)					
		(CFS)				
+ 6.	12.00		1.	0.	0.	0.
		(INCHES)	5.681	7.083	7.083	7.083
		(AC-FT)	0.	1.	1.	1.

CUMULATIVE AREA = .00 SQ MI

*** ***

```
           **************
           *            *
29 KK      *    COMB1   *
           *            *
           **************

30 KO         OUTPUT CONTROL VARIABLES
                 IPRNT           5  PRINT CONTROL
                 IPLOT           0  PLOT CONTROL
                 QSCAL          0.  HYDROGRAPH PLOT SCALE
```

*** ***

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           **************
           *            *
32 KX      *    POND1   *
           *            *
           **************

           HYDROGRAPH ROUTING DATA

33 RS         STORAGE ROUTING
                 NSTPS           1  NUMBER OF SUBREACHES
                 ITYP         ELEV  TYPE OF INITIAL CONDITION
                 RSVRIC     202.00  INITIAL CONDITION
                 X             .00  WORKING R AND D COEFFICIENT

34 SA            AREA           .2        .3

35 SE         ELEVATION     202.00    204.00

36 SS         SPILLWAY
                 CREL       202.00  SPILLWAY CREST ELEVATION
                 SPWID       10.00  SPILLWAY WIDTH
                 COQW         3.20  WEIR COEFFICIENT
                 EXPW         1.50  EXPONENT OF HEAD
```

***

COMPUTED STORAGE-ELEVATION DATA

STORAGE	.00	.47
ELEVATION	202.00	204.00

COMPUTED OUTFLOW-ELEVATION DATA

OUTFLOW	.00	.00	.02	.12	.42	.99	1.94	3.35	5.32	7.95
ELEVATION	202.00	202.00	202.01	202.02	202.06	202.10	202.15	202.22	202.30	202.40
OUTFLOW	11.31	15.52	20.66	26.82	34.10	42.59	52.38	63.57	76.25	90.51
ELEVATION	202.50	202.62	202.75	202.89	203.04	203.21	203.39	203.58	203.78	204.00

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	.00	.01	.02	.03	.05	.06	.08	.10	.13
OUTFLOW	.00	.12	.42	.99	1.94	3.35	5.32	7.95	11.31	15.52
ELEVATION	202.00	202.02	202.06	202.10	202.15	202.22	202.30	202.40	202.50	202.62
STORAGE	.16	.19	.23	.27	.31	.36	.41	.47		
OUTFLOW	20.66	26.82	34.10	42.59	52.38	63.57	76.25	90.51		
ELEVATION	202.75	202.89	203.04	203.21	203.39	203.58	203.78	204.00		

** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 76. TO 91.
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 POND1
FOR PLAN 1, RATIO = .45

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)					
		(CFS)				
+ 23.	12.10		4.	1.	1.	1.

```
                                                                    REM4.OH1
                    (INCHES)      1.836        2.238        2.238        2.238
                    (AC-FT)          2.           2.           2.           2.

  PEAK STORAGE    TIME                        MAXIMUM AVERAGE STORAGE
                                    6-HR         24-HR        72-HR     29.90-HR
+   (AC-FT)       (HR)
        0.        12.10               0.           0.           0.           0.

  PEAK STAGE      TIME                        MAXIMUM AVERAGE STAGE
                                    6-HR         24-HR        72-HR     29.90-HR
+   (FEET)        (HR)
      202.80      12.10           202.20       202.07       202.06       202.06

                  CUMULATIVE AREA =     .02 SQ MI

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

                  HYDROGRAPH AT STATION     POND1
                    FOR PLAN 1, RATIO =  .68

  PEAK FLOW       TIME                        MAXIMUM AVERAGE FLOW
                                    6-HR         24-HR        72-HR     29.90-HR
+   (CFS)         (HR)
                                   (CFS)
+       40.       12.10               6.           2.           2.           2.
                    (INCHES)      3.207        3.915        3.915        3.915
                    (AC-FT)          3.           4.           4.           4.

  PEAK STORAGE    TIME                        MAXIMUM AVERAGE STORAGE
                                    6-HR         24-HR        72-HR     29.90-HR
+   (AC-FT)       (HR)
        0.        12.00               0.           0.           0.           0.

  PEAK STAGE      TIME                        MAXIMUM AVERAGE STAGE
                                    6-HR         24-HR        72-HR     29.90-HR
+   (FEET)        (HR)
      203.15      12.10           202.29       202.11       202.09       202.09

                  CUMULATIVE AREA =     .02 SQ MI

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

                  HYDROGRAPH AT STATION     POND1
                    FOR PLAN 1, RATIO =  .79

  PEAK FLOW       TIME                        MAXIMUM AVERAGE FLOW
                                    6-HR         24-HR        72-HR     29.90-HR
+   (CFS)         (HR)
                                   (CFS)
+       48.       12.00               8.           2.           2.           2.
                    (INCHES)      3.873        4.735        4.735        4.735
                    (AC-FT)          4.           5.           5.           5.

  PEAK STORAGE    TIME                        MAXIMUM AVERAGE STORAGE
                                    6-HR         24-HR        72-HR     29.90-HR
+   (AC-FT)       (HR)
        0.        12.00               0.           0.           0.           0.

  PEAK STAGE      TIME                        MAXIMUM AVERAGE STAGE
                                    6-HR         24-HR        72-HR     29.90-HR
+   (FEET)        (HR)
      203.31      12.00           202.33       202.12       202.10       202.10

                  CUMULATIVE AREA =     .02 SQ MI

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

                  HYDROGRAPH AT STATION     POND1
                    FOR PLAN 1, RATIO = 1.00

  PEAK FLOW       TIME                        MAXIMUM AVERAGE FLOW
                                    6-HR         24-HR        72-HR     29.90-HR
+   (CFS)         (HR)
                                   (CFS)
+       64.       12.00              10.           3.           2.           2.
                    (INCHES)      5.157        6.326        6.326        6.326
                    (AC-FT)          5.           6.           6.           6.

  PEAK STORAGE    TIME                        MAXIMUM AVERAGE STORAGE
                                    6-HR         24-HR        72-HR     29.90-HR
+   (AC-FT)       (HR)
        0.        12.00               0.           0.           0.           0.

  PEAK STAGE      TIME                        MAXIMUM AVERAGE STAGE
                                    6-HR         24-HR        72-HR     29.90-HR
+   (FEET)        (HR)
      203.59      12.00           202.40       202.15       202.12       202.12

                  CUMULATIVE AREA =     .02 SQ MI

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

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            *            *
 37 KK      *    BAS2    *          Basin 2 to Pond 2
            *            *
            **************

  8 IN        TIME DATA FOR INPUT TIME SERIES
                JXMIN        30  TIME INTERVAL IN MINUTES
                JXDATE    12DEC97  STARTING DATE
                JXTIME       600  STARTING TIME

              SUBBASIN RUNOFF DATA

 38 BA        SUBBASIN CHARACTERISTICS
                TAREA        .00  SUBBASIN AREA

              PRECIPITATION DATA

 39 PB          STORM       7.80  BASIN TOTAL PRECIPITATION

 40 PI        INCREMENTAL PRECIPITATION PATTERN
                .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
                .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
                .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
                .00   .00   .00   .00   .00   .00   .00   .00   .00   .00
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                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .01       .01       .01       .01       .01
                        .01       .01       .01       .01       .01       .08       .08       .08       .08       .08
                        .01       .01       .01       .01       .01       .01       .01       .01       .01       .01
                        .01       .01       .01       .01       .01       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00

  44 LS           SCS LOSS RATE
                        STRTL          .13  INITIAL ABSTRACTION
                        CRVNBR       94.00  CURVE NUMBER
                        RTIMP          .00  PERCENT IMPERVIOUS AREA

  45 UD           SCS DIMENSIONLESS UNITGRAPH
                        TLAG           .15  LAG

                                                            ***

                                                     UNIT HYDROGRAPH
                                                 10 END-OF-PERIOD ORDINATES
                  5.       11.        8.        3.        1.        1.        0.        0.        0.        0.

      TOTAL RAINFALL =     7.80, TOTAL LOSS =      .72, TOTAL EXCESS =      7.08

    PEAK FLOW     TIME                           MAXIMUM AVERAGE FLOW
                                        6-HR        24-HR       72-HR      29.90-HR
 +    (CFS)        (HR)
                             (CFS)
 +      18.       12.00                    3.          1.          1.          1.
                            (INCHES)    5.681       7.083       7.083       7.083
                             (AC-FT)       1.          2.          2.          2.

                             CUMULATIVE AREA =      .00 SQ MI


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

                              HYDROGRAPH AT STATION      BAS2
                                FOR PLAN 1, RATIO =  .45

      TOTAL RAINFALL =     3.50, TOTAL LOSS =      .66, TOTAL EXCESS =      2.84

    PEAK FLOW     TIME                           MAXIMUM AVERAGE FLOW
                                        6-HR        24-HR       72-HR      29.90-HR
      (CFS)        (HR)
                             (CFS)
         8.       12.00                    1.          0.          0.          0.
                            (INCHES)    2.316       2.836       2.836       2.836
                             (AC-FT)       1.          1.          1.          1.

                             CUMULATIVE AREA =      .00 SQ MI


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

                              HYDROGRAPH AT STATION      BAS2
                                FOR PLAN 1, RATIO =  .68

      TOTAL RAINFALL =     5.30, TOTAL LOSS =      .70, TOTAL EXCESS =      4.60

    PEAK FLOW     TIME                           MAXIMUM AVERAGE FLOW
                                        6-HR        24-HR       72-HR      29.90-HR
 +    (CFS)        (HR)
                             (CFS)
 +      12.       12.00                    2.          1.          0.          0.
                            (INCHES)    3.729       4.604       4.604       4.604
                             (AC-FT)       1.          1.          1.          1.

                             CUMULATIVE AREA =      .00 SQ MI


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

                              HYDROGRAPH AT STATION      BAS2
                                FOR PLAN 1, RATIO =  .79

      TOTAL RAINFALL =     6.16, TOTAL LOSS =      .70, TOTAL EXCESS =      5.45

    PEAK FLOW     TIME                           MAXIMUM AVERAGE FLOW
                                        6-HR        24-HR       72-HR      29.90-HR
 +    (CFS)        (HR)
                             (CFS)
 +      14.       12.00                    2.          1.          1.          1.
                            (INCHES)    4.400       5.453       5.453       5.453
                             (AC-FT)       1.          1.          1.          1.

                             CUMULATIVE AREA =      .00 SQ MI


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

                              HYDROGRAPH AT STATION      BAS2
                                FOR PLAN 1, RATIO = 1.00

      TOTAL RAINFALL =     7.80, TOTAL LOSS =      .72, TOTAL EXCESS =      7.08

     EAK FLOW     TIME                           MAXIMUM AVERAGE FLOW
                                        6-HR        24-HR       72-HR      29.90-HR
 +    (CFS)        (HR)
                             (CFS)
 +      18.       12.00                    3.          1.          1.          1.
                            (INCHES)    5.681       7.083       7.083       7.083
                             (AC-FT)       1.          2.          2.          2.

                             CUMULATIVE AREA =      .00 SQ MI


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          *            *
46 KK     *    COMB2   *
          *            *
          **************

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


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

          **************
          *            *
49 KK     *    POND2   *
          *            *
          **************

            HYDROGRAPH ROUTING DATA

50 RS          STORAGE ROUTING
                    NSTPS          1  NUMBER OF SUBREACHES
                     ITYP       ELEV  TYPE OF INITIAL CONDITION
                   RSVRIC     199.00  INITIAL CONDITION
                        X        .00 WORKING R AND D COEFFICIENT

51 SA               AREA          .4        .6

52 SE          ELEVATION     199.00    202.00

53 SS          SPILLWAY
                     CREL     199.00  SPILLWAY CREST ELEVATION
                    SPWID       5.00  SPILLWAY WIDTH
                     COQW       3.20  WEIR COEFFICIENT
                     EXPW       1.50  EXPONENT OF HEAD

                                                    ***

                                        COMPUTED STORAGE-ELEVATION DATA

          STORAGE        .00      1.59
        ELEVATION     199.00    202.00

                                        COMPUTED OUTFLOW-ELEVATION DATA

          OUTFLOW        .00      .00       .01       .11       .38       .91      1.78      3.08      4.89      7.30
        ELEVATION     199.00    199.00    199.01    199.04    199.08    199.15    199.23    199.33    199.45    199.59

          OUTFLOW      10.39     14.26     18.97     24.63     31.32     39.12     48.11     58.39     70.04     83.14
        ELEVATION     199.75    199.93    200.12    200.33    200.56    200.81    201.08    201.37    201.68    202.00

                                        COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

          STORAGE        .00       .02       .04       .06       .10       .15       .20       .27       .34       .43
          OUTFLOW        .00       .11       .38       .91      1.78      3.08      4.89      7.30     10.39     14.26
        ELEVATION     199.00    199.04    199.08    199.15    199.23    199.33    199.45    199.59    199.75    199.93

          STORAGE        .52       .63       .75       .89      1.04      1.21      1.39      1.59
          OUTFLOW      18.97     24.63     31.32     39.12     48.11     58.39     70.04     83.14
        ELEVATION     200.12    200.33    200.56    200.81    201.08    201.37    201.68    202.00

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

                    HYDROGRAPH AT STATION    POND2
                      FOR PLAN 1, RATIO =  .45

  PEAK FLOW     TIME                                MAXIMUM AVERAGE FLOW
                                          6-HR        24-HR        72-HR     29.90-HR
+   (CFS)       (HR)
                                (CFS)
+      23.     12.20                        5.           1.           1.           1.
                              (INCHES)    1.912        2.359        2.359        2.359
                              (AC-FT)        2.           3.           3.           3.

  PEAK STORAGE  TIME                             MAXIMUM AVERAGE STORAGE
                                          6-HR        24-HR        72-HR     29.90-HR
+  (AC-FT)      (HR)
        1.     12.20                        0.           0.           0.           0.

  PEAK STAGE    TIME                              MAXIMUM AVERAGE STAGE
                                          6-HR        24-HR        72-HR     29.90-HR
+   (FEET)      (HR)
     200.26     12.20                   199.39       199.15       199.12       199.12

                    CUMULATIVE AREA =     .02 SQ MI

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

                    HYDROGRAPH AT STATION    POND2
                      FOR PLAN 1, RATIO =  .68

  PEAK FLOW     TIME                                MAXIMUM AVERAGE FLOW
                                          6-HR        24-HR        72-HR     29.90-HR
+   (CFS)       (HR)
                                (CFS)
+      41.     12.20                        8.           3.           2.           2.
                              (INCHES)    3.290        4.054        4.054        4.054
                              (AC-FT)        4.           5.           5.           5.

  PEAK STORAGE  TIME                             MAXIMUM AVERAGE STORAGE
                                          6-HR        24-HR        72-HR     29.90-HR
  (AC-FT)       (HR)
        1.     12.20                        0.           0.           0.           0.

  PEAK STAGE    TIME                              MAXIMUM AVERAGE STAGE
                                          6-HR        24-HR        72-HR     29.90-HR
+   (FEET)      (HR)
     200.88     12.20                   199.56       199.21       199.17       199.17

                    CUMULATIVE AREA =     .02 SQ MI

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

                    HYDROGRAPH AT STATION    POND2
                      FOR PLAN 1, RATIO =  .79
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PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)					
		(CFS)				
+ 50.	12.20		10.	3.	2.	2.
		(INCHES)	3.957	4.880	4.880	4.880
		(AC-FT)	5.	6.	6.	6.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	29.90-HR
+ (AC-FT)	(HR)				
1.	12.20	0.	0.	0.	0.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	29.90-HR
+ (FEET)	(HR)				
201.15	12.20	199.63	199.24	199.19	199.19

CUMULATIVE AREA = .02 SQ MI

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

HYDROGRAPH AT STATION POND2
FOR PLAN 1, RATIO = 1.00

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)					
		(CFS)				
+ 67.	12.20		13.	4.	3.	3.
		(INCHES)	5.240	6.479	6.479	6.479
		(AC-FT)	6.	8.	8.	8.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	29.90-HR
+ (AC-FT)	(HR)				
1.	12.20	0.	0.	0.	0.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	29.90-HR
+ (FEET)	(HR)				
201.61	12.20	199.76	199.29	199.24	199.24

CUMULATIVE AREA = .02 SQ MI

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              **************
              *            *
   54 KK      *    BAS3    *          Basin 3 to Pond 3
              *            *
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8 IN TIME DATA FOR INPUT TIME SERIES
JXMIN 30 TIME INTERVAL IN MINUTES
JXDATE 12DEC97 STARTING DATE
JXTIME 600 STARTING TIME

SUBBASIN RUNOFF DATA

55 BA SUBBASIN CHARACTERISTICS
TAREA .00 SUBBASIN AREA

PRECIPITATION DATA

56 PB STORM 7.80 BASIN TOTAL PRECIPITATION

57 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.08	.08	.08	.08	.08
.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

61 LS SCS LOSS RATE
STRTL .13 INITIAL ABSTRACTION
CRVNBR 94.00 CURVE NUMBER
RTIMP .00 PERCENT IMPERVIOUS AREA

62 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .15 LAG

***

UNIT HYDROGRAPH
10 END-OF-PERIOD ORDINATES

1.	3.	2.	1.	0.	0.	0.	0.	0.	0.

TOTAL RAINFALL = 7.80, TOTAL LOSS = .72, TOTAL EXCESS = 7.08

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)					
		(CFS)				
+ 5.	12.00		1.	0.	0.	0.
		(INCHES)	5.681	7.083	7.083	7.083
		(AC-FT)	0.	0.	0.	0.

CUMULATIVE AREA = .00 SQ MI

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

                           HYDROGRAPH AT STATION      BAS3
                             FOR PLAN 1, RATIO =   .45

         TOTAL RAINFALL =     3.50, TOTAL LOSS =       .66, TOTAL EXCESS =      2.84

     PEAK FLOW      TIME                                MAXIMUM AVERAGE FLOW
                                           6-HR           24-HR          72-HR         29.90-HR
  +   (CFS)          (HR)
                                 (CFS)
  +      2.         12.00                  0.             0.             0.               0.
                                (INCHES)   2.316          2.836          2.836            2.836
                                (AC-FT)    0.             0.             0.               0.

                                CUMULATIVE AREA =        .00 SQ MI

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

                           HYDROGRAPH AT STATION      BAS3
                             FOR PLAN 1, RATIO =   .68

         TOTAL RAINFALL =     5.30, TOTAL LOSS =       .70, TOTAL EXCESS =      4.60

     PEAK FLOW      TIME                                MAXIMUM AVERAGE FLOW
                                           6-HR           24-HR          72-HR         29.90-HR
  +   (CFS)          (HR)
                                 (CFS)
  +      3.         12.00                  1.             0.             0.               0.
                                (INCHES)   3.729          4.604          4.604            4.604
                                (AC-FT)    0.             0.             0.               0.

                                CUMULATIVE AREA =        .00 SQ MI

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

                           HYDROGRAPH AT STATION      BAS3
                             FOR PLAN 1, RATIO =   .79

         TOTAL RAINFALL =     6.16, TOTAL LOSS =       .70, TOTAL EXCESS =      5.45

     PEAK FLOW      TIME                                MAXIMUM AVERAGE FLOW
                                           6-HR           24-HR          72-HR         29.90-HR
  +   (CFS)          (HR)
                                 (CFS)
  +      4.         12.00                  1.             0.             0.               0.
                                (INCHES)   4.400          5.453          5.453            5.453
                                (AC-FT)    0.             0.             0.               0.

                                CUMULATIVE AREA =        .00 SQ MI

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

                           HYDROGRAPH AT STATION      BAS3
                             FOR PLAN 1, RATIO =  1.00

         TOTAL RAINFALL =     7.80, TOTAL LOSS =       .72, TOTAL EXCESS =      7.08

     PEAK FLOW      TIME                                MAXIMUM AVERAGE FLOW
                                           6-HR           24-HR          72-HR         29.90-HR
  +   (CFS)          (HR)
                                 (CFS)
  +      5.         12.00                  1.             0.             0.               0.
                                (INCHES)   5.681          7.083          7.083            7.083
                                (AC-FT)    0.             0.             0.               0.

                                CUMULATIVE AREA =        .00 SQ MI

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

              **************
              *            *
   63 KK      *   COMB3    *
              *            *
              **************

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

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

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              *            *
   66 KK      *   POND3    *
              *            *
              **************

                HYDROGRAPH ROUTING DATA

   67 RS          STORAGE ROUTING
                        NSTPS          1  NUMBER OF SUBREACHES
                         ITYP       ELEV  TYPE OF INITIAL CONDITION
                       RSVRIC     195.00  INITIAL CONDITION
                            X        .00  WORKING R AND D COEFFICIENT

   68 SA               AREA         .3          .5

   69 SE          ELEVATION     195.00      198.00

   70 SS          SPILLWAY
                         CREL     195.00  SPILLWAY CREST ELEVATION
                        SPWID       5.00  SPILLWAY WIDTH
                         COQW       3.20  WEIR COEFFICIENT
                         EXPW       1.50  EXPONENT OF HEAD

                                                                 ***

                                                  COMPUTED STORAGE-ELEVATION DATA

          STORAGE         .00        1.19
        ELEVATION      195.00      198.00
```

COMPUTED OUTFLOW-ELEVATION DATA

OUTFLOW	.00	.00	.01	.11	.38	.91	1.78	3.08	4.89	7.30
ELEVATION	195.00	195.00	195.01	195.04	195.08	195.15	195.23	195.33	195.45	195.59
OUTFLOW	10.39	14.26	18.97	24.63	31.32	39.12	48.11	58.39	70.04	83.14
ELEVATION	195.75	195.93	196.12	196.33	196.56	196.81	197.08	197.37	197.68	198.00

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	.00	.01	.03	.05	.07	.10	.14	.19	.24	.30
OUTFLOW	.00	.11	.38	.91	1.78	3.08	4.89	7.30	10.39	14.26
ELEVATION	195.00	195.04	195.08	195.15	195.23	195.33	195.45	195.59	195.75	195.93
STORAGE	.37	.45	.54	.65	.76	.89	1.03	1.19		
OUTFLOW	18.97	24.63	31.32	39.12	48.11	58.39	70.04	83.14		
ELEVATION	196.12	196.33	196.56	196.81	197.08	197.37	197.68	198.00		

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HYDROGRAPH AT STATION POND3
FOR PLAN 1, RATIO = .45

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)				
		(CFS)			
+ 20.	12.40	5.	2.	1.	1.
		(INCHES) 1.919	2.381	2.381	2.381
		(AC-FT) 2.	3.	3.	3.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	29.90-HR
+ (AC-FT)	(HR)				
0.	12.40	0.	0.	0.	0.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	29.90-HR
+ (FEET)	(HR)				
196.17	12.40	195.42	195.16	195.13	195.13

CUMULATIVE AREA = .02 SQ MI

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

HYDROGRAPH AT STATION POND3
FOR PLAN 1, RATIO = .68

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)				
		(CFS)			
+ 38.	12.30	9.	3.	2.	2.
		(INCHES) 3.300	4.080	4.080	4.080
		(AC-FT) 4.	5.	5.	5.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	29.90-HR
+ (AC-FT)	(HR)				
1.	12.30	0.	0.	0.	0.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	29.90-HR
+ (FEET)	(HR)				
196.78	12.30	195.59	195.23	195.18	195.18

CUMULATIVE AREA = .02 SQ MI

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

HYDROGRAPH AT STATION POND3
FOR PLAN 1, RATIO = .79

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)				
		(CFS)			
+ 47.	12.30	10.	3.	3.	3.
		(INCHES) 3.967	4.907	4.907	4.907
		(AC-FT) 5.	6.	6.	6.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	29.90-HR
+ (AC-FT)	(HR)				
1.	12.30	0.	0.	0.	0.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	29.90-HR
+ (FEET)	(HR)				
197.05	12.30	195.67	195.25	195.20	195.20

CUMULATIVE AREA = .02 SQ MI

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

HYDROGRAPH AT STATION POND3
FOR PLAN 1, RATIO = 1.00

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	29.90-HR
+ (CFS)	(HR)				
		(CFS)			
64.	12.30	14.	4.	3.	3.
		(INCHES) 5.250	6.507	6.507	6.507
		(AC-FT) 7.	8.	8.	8.

PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
		6-HR	24-HR	72-HR	29.90-HR
+ (AC-FT)	(HR)				
1.	12.30	0.	0.	0.	0.

PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
		6-HR	24-HR	72-HR	29.90-HR
+ (FEET)	(HR)				
197.51	12.30	195.80	195.31	195.25	195.25

CUMULATIVE AREA = .02 SQ MI

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

OPERATION	STATION	AREA	PLAN		RATIOS APPLIED TO PRECIPITATION RATIO 1 .45	RATIO 2 .68	RATIO 3 .79	RATIO 4 1.00
HYDROGRAPH AT								
+	BAS1	.02	1	FLOW	21.	38.	46.	60.
				TIME	12.00	12.00	12.00	12.00
HYDROGRAPH AT								
+	BAS1A	.00	1	FLOW	3.	4.	5.	6.
				TIME	12.00	12.00	12.00	12.00
2 COMBINED AT								
+	COMB1	.02	1	FLOW	24.	42.	50.	67.
				TIME	12.00	12.00	12.00	12.00
ROUTED TO								
+	POND1	.02	1	FLOW	23.	40.	48.	64.
				TIME	12.10	12.10	12.00	12.00
			** PEAK STAGES IN FEET **					
			1	STAGE	202.80	203.15	203.31	203.59
				TIME	12.10	12.10	12.00	12.00
HYDROGRAPH AT								
+	BAS2	.00	1	FLOW	8.	12.	14.	18.
				TIME	12.00	12.00	12.00	12.00
2 COMBINED AT								
+	COMB2	.02	1	FLOW	30.	52.	62.	83.
				TIME	12.00	12.00	12.00	12.00
ROUTED TO								
+	POND2	.02	1	FLOW	23.	41.	50.	67.
				TIME	12.20	12.20	12.20	12.20
			** PEAK STAGES IN FEET **					
			1	STAGE	200.26	200.88	201.15	201.61
				TIME	12.20	12.20	12.20	12.20
HYDROGRAPH AT								
+	BAS3	.00	1	FLOW	2.	3.	4.	5.
				TIME	12.00	12.00	12.00	12.00
2 COMBINED AT								
+	COMB3	.02	1	FLOW	24.	43.	53.	71.
				TIME	12.20	12.20	12.20	12.10
ROUTED TO								
+	POND3	.02	1	FLOW	20.	38.	47.	64.
				TIME	12.40	12.30	12.30	12.30
			** PEAK STAGES IN FEET **					
			1	STAGE	196.17	196.78	197.05	197.51
				TIME	12.40	12.30	12.30	12.30

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