FLOOD CONTROL DISTRICT
OF MARICOPA COUNTY

FOUNTAIN HILLS SOUTH FLOODPLAIN DELINEATION STUDY

FCD 92-05

TECHNICAL DATA NOTEBOOK HYDROLOGY

VOLUME 4 OF 4

AUGUST 1995
Revised November 1996

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Registered Professional Engineer (Civil)
25737
HERNAN A.
ARISTIZABAL
Date Signed 11-1-96
ARIZONA, U.S.A.

Prepared by

AGK ENGINEERS, INC.
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Registered Professional Engineer (Civil)
10283
SAMUEL E.
KAO
Date Signed 11-1-96
ARIZONA, U.S.A.

APPENDIX L

HEC-1 OUTPUT FOR 100-YEAR, 6-HOUR STORM (FUTURE CONDITION)

L.1

POWDER WASH

```
*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*              MAY   1991               *
*            VERSION 4.0.1E             *
*     Lahey F77L-EM/32 version 5.01     *
*       Dodson & Associates, Inc.       *
*  RUN DATE  04/05/95  TIME  14:01:02   *
*****************************************
```

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

```
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
```

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

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

  1           ID   POWDER WASH - FUTURE CONDITIONS, AGK ENGINEERS, 04-05-95
  2           ID   First routing 4-3-93
  3           ID   Time steps at 2 minutes
  4           ID   6-Hour 100-Year storm
  5           ID   File: 110-6CF.DAT
  6           ID
              *Diagram
  7           IT       2                    180
  8           IO       5
  9           IN      15
 10           JD    3.20    0.01
 11           PC    .000    .008    .016    .025    .033    .041    .050    .058    .066    .074
 12           PC    .087    .099    .118    .138    .216    .377    .834    .911    .931    .950
 13           PC    .962    .972    .983    .991   1.000
 14           JD    3.18    0.50
 15           JD    3.14    2.80
 16           PC    .000    .009    .016    .025    .034    .042    .051    .059    .067    .076
 17           PC    .087    .100    .120    .163    .252    .451    .694    .837    .900    .938
 18           PC    .950    .963    .975    .988   1.000
 19           JD    2.95    16.0
 20           PC    .000    .015    .020    .030    .048    .063    .076    .090    .105    .119
 21           PC    .135    .152    .175    .222    .304    .472    .670    .796    .868    .912
 22           PC    .946    .960    .973    .987   1.000

 23           KK    110A
 24           KM   SUB-BASIN 110A
 25           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 26           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 27           BA    .022
 28           LG    .150    .156   7.300    .110  40.130
 29           UC    .188    .209
 30           UA       0       5      16      30      65      77      84      90      94      97
 31           UA     100

 32           KK    110B
 33           KM   SUB-BASIN 110B
 34           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 35           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 36           BA    .036
 37           LG    .150    .170   6.800    .134  38.920
 38           UC    .204    .203
 39           UA       0       5      16      30      65      77      84      90      94      97
 40           UA     100

 41           KK     PW1
 42           KM   POWDER WASH CONSENTRATION POINT 1 - COMBINE BASINS 110A AND 110B
 43           HC       2

 44           KK    RPW1
 45           KM   ROUTE FLOWS THROUGH BASIN 110C
 46           RS       1    FLOW       0
 47           RC     .04     .04     .04     379    .026    1710
 48           RX    9895    9930    9957    9995   10005   10043   10073   10110
 49           RY    1710    1700    1692    1682    1682    1692    1700    1710
```

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

  50          KK    110C
  51          KM   SUB-BASIN 110C
  52          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  53          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  54          BA    .004
  55          LG    .150    .190   6.600    .146  37.410
  56          UC    .125    .167
  57          UA       0       5      16      30      65      77      84      90      94      97
  58          UA     100

  59          KK    110D
  60          KM   SUB-BASIN 110D
  61          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  62          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
  63          BA    .071
  64          LG    .150    .150   7.300    .110  40.500
  65          UC    .200    .135
  66          UA       0       5      16      30      65      77      84      90      94      97
  67          UA     100

  68          KK     PW2
  69          KM   POWDER WASH CONCENTRASTION POINT 2 - COMBINE RPW1, 110C AND 110D
  70          HC       3

  71          KK    RPW2
  72          KM   NORMAL DEPTH ROUTING THROUGH BASIN 110E
  73          RS       2    FLOW      -1
  74          RC     .04     .04     .04    1128    .019    1710
  75          RX    9875    9905    9955   10000   10030   10085   10120   10140
  76          RY    1696    1690    1680    1668    1668    1680    1690  1694.5

  77          KK    110E
  78          KM   SUB-BASIN 110E
  79          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  80          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  81          BA    .025
  82          LG    .150    .230   6.200    .171  36.250
  83          UC    .162    .129
  84          UA       0       5      16      30      65      77      84      90      94      97
  85          UA     100

  86          KK    *PW3
  87          KM   UPSTREM MAIN CHANNEL FLOW
  88          HC       2

  89          KK    110F
  90          KM   SUB-BASIN 110F
  91          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  92          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  93          BA    .008
  94          LG    .150    .230   6.200    .171  36.250
  95          UC    .146    .174
  96          UA       0       5      16      30      65      77      84      90      94      97
  97          UA     100
```

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

 98           KK    110G
 99           KM   SUB-BASIN 110G
100           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
101           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
102           BA    .006
103           LG    .150    .230   6.200    .171  36.250
104           UC    .117    .115
105           UA       0       5      16      30      65      77      84      90      94      97
106           UA     100

107           KK     PW3
108           KM   POWDER WASH CONSENTRATION POINT 3 - COMBINE (RPW2, 110E), 110F, 110G
109           HC       3

110           KK    RPW3
111           KM   ROUTE PW3 THROUGH BASIN 110H
112           RS       3    FLOW      -1
113           RC     .04     .04     .04    1893    .021    1650
114           RX    9810    9870    9955    9980   10050   10068   10100   10110
115           RY    1648    1641    1642    1634    1634    1642    1650    1652

116           KK    110H
117           KM   SUB-BASIN 110H
118           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
119           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
120           BA    .031
121           LG    .120    .250   6.000    .173  42.470
122           UC    .267    .297
123           UA       0       5      16      30      65      77      84      90      94      97
124           UA     100

125           KK    *PW4
126           KM   UPSTREAM MAIN CHANNEL FLOW
127           HC       2

128           KK    110I
129           KM   SUB-BASIN 110I
130           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
131           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
132           BA    .020
133           LG    .150    .262   6.000    .183  16.440
134           UC    .208    .242
135           UA       0       5      16      30      65      77      84      90      94      97
136           UA     100

137           KK     PW4
138           KM   POWDER WASH CONCENTRATION POINT 4 - COMBINES (RPW3, 110H), 110I
139           HC       2
```

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

 140          KK    SPW4
 141          KM   ROUTE PW4 THROUGH 5 48" CMP CULVERT UNDER LEO DRIVE
 142          RS       1    STOR       0
 143          SQ       0     110     325     625     650
 144          SE  1612.6  1614.6  1616.6  1620.6  6121.0
 145          SA       0    0.07    1.51
 146          SE  1612.6    1614  1621.5

 147          KK    110J
 148          KM   SUB-BASIN 110J
 149          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 150          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 151          BA    .007
 152          LG    .150    .250   6.000    .183  19.530
 153          UC    .108    .129
 154          UA       0       5      16      30      65      77      84      90      94      97
 155          UA     100

 156          KK    110K
 157          KM   SUB-BASIN 110K
 158          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 159          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 160          BA    .012
 161          LG    .050    .250   6.000    .150  90.950
 162          UC    .083    .064
 163          UA       0       5      16      30      65      77      84      90      94      97
 164          UA     100

 165          KK   R110K
 166          KM   ROUTE 110K THROUGH SUB-BASIN 110L TO CON. POINT PW5
 167          RS       2    FLOW       0
 168          RC    0.04    0.04    0.04     900   0.013
 169          RX    9956    9961    9966  9966.5 10033.5   10034   10039   10044
 170          RY  1626.5  1626.5  1626.5    1626    1626  1626.5  1626.5  1626.5

 171          KK    110L
 172          KM   SUB-BASIN 110L
 173          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 174          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 175          BA    .024
 176          LG    .092    .250   6.000    .177  38.170
 177          UC    .154    .187
 178          UA       0       5      16      30      65      77      84      90      94      97
 179          UA     100

 180          KK     PW5
 181          KM   POWEDER WASH CONSENTRATION POINT 5 - COMBINNES RPW4, 110J, R110K
 182          HC       4
```

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

 183          KK    RPW5
 184          KM   ROUTE PW5 THROUGH BASIN 110M
 185          RS       3    FLOW      -1
 186          RC     .04     .04     .04    1728    .018    1610
 187          RX    9855    9910    9962    9995   10010   10060   10123   10190
 188          RY    1606    1604    1602    1598    1598    1602    1599    1610

 189          KK    110M
 190          KM   SUB-BASIN 110M
 191          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 192          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 193          BA    .031
 194          LG    .121    .250   6.000    .173  36.750
 195          UC    .183    .176
 196          UA       0       5      16      30      65      77      84      90      94      97
 197          UA     100

 198          KK    *PW6
 199          KM   UPSTREAM MAIN CHANNEL FLOW
 200          HC       2

 201          KK    110N
 202          KM   SUB-BASIN 110N
 203          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 204          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 205          BA    .015
 206          LG    .150    .250   6.000    .183  15.000
 207          UC    .162    .217
 208          UA       0       5      16      30      65      77      84      90      94      97
 209          UA     100

 210          KK    110O
 211          KM   SUB-BASIN 110O
 212          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 213          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 214          BA    .004
 215          LG    .120    .250   6.000    .173  37.500
 216          UC    .108    .116
 217          UA       0       5      16      30      65      77      84      90      94      97
 218          UA     100

 219          KK     PW6
 220          KM   POWDER WASH CONCENTRATION POINT 6 - COMBINE (RPW5, 110M), 100N, 110O
 221          HC       3
 222          ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
LINE     (V) ROUTING          (--->) DIVERSION OR PUMP FLOW
NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW
 23        110A
              .
              .
 32           .        110B
              .           .
              .           .
 41         PW1............
              V
              V
 44        RPW1
              .
              .
 50           .        110C
              .           .
              .           .
 59           .           .        110D
              .           .           .
              .           .           .
 68         PW2........................
              V
              V
 71        RPW2
              .
              .
 77           .        110E
              .           .
              .           .
 86        *PW3............
              .
              .
 89           .        110F
              .           .
              .           .
 98           .           .        110G
              .           .           .
              .           .           .
107         PW3........................
              V
              V
110        RPW3
              .
              .
116           .        110H
              .           .
              .           .
125       *PW4............
              .
              .
128           .        110I
              .           .
              .           .
137         PW4............
              V
              V
140        SPW4
              .
              .
147           .        110J
              .           .
              .           .
156           .           .        110K
              .           .           V
              .           .           V
              .           .       R110K
              .           .           .
```

```
            .          .          .
            .          .          .        110L
            .          .          .          .
            .          .          .          .
180       PW5.....................................
            V
            V
183      RPW5
            .
            .
189         .       110M
            .          .
            .          .
198      *PW6............
            .
            .
201         .       110N
            .          .
            .          .
210         .          .       1100
            .          .          .
            .          .          .
219       PW6........................
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
*****************************************
*                                       *
*  FLOOD HYDROGRAPH PACKAGE  (HEC-1)    *
*              MAY   1991               *
*            VERSION 4.0.1E             *
*     Lahey F77L-EM/32 version 5.01     *
*       Dodson & Associates, Inc.       *
*  RUN DATE  04/05/95  TIME  14:01:02   *
*****************************************
```

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

```
                    POWDER WASH - FUTURE CONDITIONS, AGK ENGINEERS, 04-05-95
                    First routing 4-3-93
                    Time steps at 2 minutes
                    6-Hour 100-Year storm
                    File: 110-6CF.DAT

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

   IT        HYDROGRAPH TIME DATA
                   NMIN          2  MINUTES IN COMPUTATION INTERVAL
                  IDATE     1    0  STARTING DATE
                  ITIME       0000  STARTING TIME
                     NQ        180  NUMBER OF HYDROGRAPH ORDINATES
                 NDDATE     1    0  ENDING DATE
                 NDTIME       0558  ENDING TIME
                  ICENT         19  CENTURY MARK

            COMPUTATION INTERVAL    0.03 HOURS
                 TOTAL TIME BASE    5.97 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

10 JD        INDEX STORM NO. 1
                  STRM       3.20  PRECIPITATION DEPTH
                  TRDA       0.01  TRANSPOSITION DRAINAGE AREA

11 PI          PRECIPITATION PATTERN
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.01      0.01      0.01
                 0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.02      0.02
                 0.02      0.02      0.04      0.06      0.06      0.06      0.06      0.06      0.06      0.06
                 0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

   JD        INDEX STORM NO. 2
```

```
                STRM        3.18  PRECIPITATION DEPTH
                TRDA        0.50  TRANSPOSITION DRAINAGE AREA

0 PI          PRECIPITATION PATTERN
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.02      0.02
                0.02      0.02      0.04      0.06      0.06      0.06      0.06      0.06      0.06      0.06
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

15 JD         INDEX STORM NO. 3
                STRM        3.14  PRECIPITATION DEPTH
                TRDA        2.80  TRANSPOSITION DRAINAGE AREA

16 PI         PRECIPITATION PATTERN
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.03      0.03      0.03      0.03      0.03
                0.03      0.03      0.03      0.03      0.03      0.03      0.03      0.03      0.03      0.03
                0.02      0.02      0.02      0.02      0.02      0.02      0.02      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

19 JD         INDEX STORM NO. 4
                STRM        2.95  PRECIPITATION DEPTH
                TRDA       16.00  TRANSPOSITION DRAINAGE AREA

20 PI         PRECIPITATION PATTERN
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.02      0.02
                0.02      0.02      0.02      0.03      0.03      0.03      0.03      0.03      0.03      0.03
                0.02      0.02      0.02      0.02      0.02      0.02      0.02      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO
WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO
```

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	110A	57.	4.07	6.	6.	6.	0.02		
+	HYDROGRAPH AT	110B	94.	4.07	10.	10.	10.	0.04		
+	2 COMBINED AT	PW1	151.	4.07	16.	16.	16.	0.06		
+	ROUTED TO	RPW1	151.	4.07	16.	16.	16.	0.06		
+	HYDROGRAPH AT	110C	11.	4.03	1.	1.	1.	0.00		
+	HYDROGRAPH AT	110D	213.	4.03	19.	19.	19.	0.07		
+	3 COMBINED AT	PW2	371.	4.07	36.	36.	36.	0.13		
+	ROUTED TO	RPW2	364.	4.10	36.	36.	36.	0.13		
+	HYDROGRAPH AT	110E	75.	4.03	6.	6.	6.	0.03		
+	2 COMBINED AT	*PW3	430.	4.07	42.	42.	42.	0.16		
+	HYDROGRAPH AT	110F	22.	4.03	2.	2.	2.	0.01		
+	HYDROGRAPH AT	110G	19.	4.03	2.	2.	2.	0.01		
+	3 COMBINED AT	PW3	468.	4.07	46.	46.	46.	0.17		
+	ROUTED TO	RPW3	457.	4.13	46.	46.	46.	0.17		
+	HYDROGRAPH AT	110H	66.	4.10	8.	8.	8.	0.03		
+	2 COMBINED AT	*PW4	520.	4.13	54.	54.	54.	0.20		
+	HYDROGRAPH AT	110I	45.	4.07	4.	4.	4.	0.02		
+	2 COMBINED AT	PW4	562.	4.10	58.	58.	58.	0.22		
+	ROUTED TO	SPW4	492.	4.20	58.	58.	58.	0.22		
+	HYDROGRAPH AT	110J	21.	4.03	2.	2.	2.	0.01		
+	HYDROGRAPH AT	110K	44.	4.00	4.	4.	4.	0.01		

+	ROUTED TO R110K	41.	4.03	4.	4.	4.	0.01
+	HYDROGRAPH AT 110L	64.	4.03	6.	6.	6.	0.02
+	4 COMBINED AT PW5	563.	4.17	69.	69.	69.	0.27
+	ROUTED TO RPW5	556.	4.23	69.	69.	69.	0.27
+	HYDROGRAPH AT 110M	83.	4.03	8.	8.	8.	0.03
+	2 COMBINED AT *PW6	601.	4.23	77.	77.	77.	0.30
+	HYDROGRAPH AT 110N	36.	4.03	3.	3.	3.	0.01
+	HYDROGRAPH AT 110O	12.	4.00	1.	1.	1.	0.00
+	3 COMBINED AT PW6	629.	4.20	81.	81.	81.	0.32

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

L.2

CEREUS WASH

```
****************************************
*                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*              MAY   1991              *
*           VERSION 4.0.1E             *
*     Lahey F77L-EM/32 version 5.01    *
*       Dodson & Associates, Inc.      *
* RUN DATE  01/20/97  TIME  09:30:42   *
****************************************
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****************************************
*                                      *
*    U.S. ARMY CORPS OF ENGINEERS      *
*    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
```

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

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

  1           ID   CEREUS WASH - FUTURE DEVELOPMENT, AGK ENGINEERS
  2           ID   First routing 5-28-93
  3           ID   time steps at 2 minutes
  4           ID   6-Hr 100-Yr storm
  5           ID
  6           IT       2                     200
  7           IO       5
              *DIAGRAM
  8           IN      15
  9           JD    3.20    0.01
 10           PC    .000    .008    .016    .025    .033    .041    .050    .058    .066    .074
 11           PC    .087    .099    .118    .138    .216    .377    .834    .911    .931    .950
 12           PC    .962    .972    .983    .991   1.000
 13           JD    3.18    0.50
 14           JD    3.14    2.80
 15           PC    .000    .009    .016    .025    .034    .042    .051    .059    .067    .076
 16           PC    .087    .100    .120    .163    .252    .451    .694    .837    .900    .938
 17           PC    .950    .963    .975    .988   1.000
 18           JD    2.95    16.0
 19           PC    .000    .015    .020    .030    .048    .063    .076    .090    .105    .119
 20           PC    .135    .152    .175    .222    .304    .472    .670    .796    .868    .912
 21           PC    .946    .960    .973    .987   1.000

 22           KK    120A
 23           KM   SUB-BASIN 120A
 24           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 25           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 26           BA    .016
 27           LG    .100    .250   5.700    .170  45.000
 28           UC    .183    .336
 29           UA       0       5      16      30      65      77      84      90      94      97
 30           UA     100

 31           KK    120B
 32           KM   SUB-BASIN 120B
 33           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 34           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 35           BA    .053
 36           LG    .150    .250   5.700    .207  45.000
 37           UC    .233    .215
 38           UA       0       5      16      30      65      77      84      90      94      97
 39           UA     100

 40           KK    160A
 41           KM   SUB-BASIN 160A
 42           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 43           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 44           BA    .006
 45           LG    .100    .250   5.700    .170  45.000
 46           UC    .096    .099
 47           UA       0       5      16      30      65      77      84      90      94      97
 48           UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  49          KK   R160A
  50          KM   ROUTE 160A THROUGH SUB-BASIN 120B TO CON. POINT CER1
  51          RS       5    FLOW       0
  52          RC    0.04    0.04    0.04    2300   0.054
  53          RX    9920    9942    9975    9997   10003   10050   10060   10085
  54          RY    1810    1806    1800    1791    1791    1802    1804    1810

  55          KK    CER1
  56          KM   CEREUS WASH CONCENTRATION POINT 1 - COMBINE R160A, 120A AND 120B
  57          HC       3

  58          KK   SCER1
  59          KM   ROUTE CER1 THROUGH 60" CULVERT AT FOUNTAIN HILLS BLVD.
  60          KO       3
  61          RS       1    ELEV    1756
  62          SQ       0      37     115     222     355    1000
  63          SE    1757  1759.5    1762    1767  1778.7    1779
  64          SA     .04     .23    2.68
  65          SE    1756    1760    1780

  66          KK    120C
  67          KM   SUB-BASIN 120C
  68          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  69          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  70          BA    .005
  71          LG    .100    .250   5.700    .170  41.330
  72          UC    .121    .176
  73          UA       0       5      16      30      65      77      84      90      94      97
  74          UA     100

  75          KK    CER2
  76          KM   CEREUS WASH CONCENTRATION POINT 2 - COMBINE SCER1 WITH SUB-BASIN 120C
  77          HC       2

  78          KK   RCER2
  79          KM   ROUTE CER2 THROUGH SUB-BASIN 120D
  80          RS       4    FLOW       0
  81          RC     .04     .04     .04    2012    .029
  82          RX    9927    9935    9965   10000   10007   10035   10063   10080
  83          RY    1720    1718    1712    1706    1706    1710    1716    1720

  84          KK    120D
  85          KM   SUB-BASIN 120D
  86          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  87          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
  88          BA    .069
  89          LG    .132    .250   5.800    .187  24.210
  90          UC    .213    .191
  91          UA       0       5      16      30      65      77      84      90      94      97
  92          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  93          KK   *CER3
  94          KM   CEREUS WASH CONCENTRATION POINT *3 - COMBINE RCER2, 120D
  95          HC       2

  96          KK    120H
  97          KM   SUB-BASIN 120H
  98          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  99          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 100          BA    .005
 101          LG    .085    .250   5.800    .160  39.120
 102          UC    .154    .373
 103          UA       0       5      16      30      65      77      84      90      94      97
 104          UA     100

 105          KK   R120H
 106          KM   ROUTE 120H THROUGH 120I
 107          RS       1    FLOW       0
 108          RC     .04     .04     .04     557    .115
 109          RX    9870    9910    9960    9999   10001   10080   10125   10225
 110          RY    1732    1726    1718    1712    1712    1718    1724    1730

 111          KK    120I
 112          KM   SUB-BASIN 120I
 113          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 114          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 115          BA    .007
 116          LG    .150    .250   5.700    .207  25.000
 117          UC    .154    .199
 118          UA       0       5      16      30      65      77      84      90      94      97
 119          UA     100

 120          KK   CER3A
 121          KM   COMBINE R120H AND 120I
 122          HC       2

 123          KK  SCER3A
 124          KM   ROUTE CER3A BY STAGE DISCHARGE TO CER3 - PONDED STORAGE
 125          RS       1    ELEV    1694
 126          SQ       0    25.2     160     473    1019    1850
 127          SE    1700    1701    1702    1703    1704    1705
 128          SA       0     .22     .22
 129          SE    1694    1700    1710

 130          KK    CER3
 131          KM   CEREUS WASH CONCENTRATION POINT 3 - COMBINE (RCER2, 120D),RCER3A
 132          HC       2

 133          KK   SCER3
 134          KM   ROUTE CER3 THROUGH 1-84" CULVERTS AT SHEA BLVD.
 135          KO       3
 136          RS       1    ELEV  1687.3
 137          SQ       0      96     300     610     850     900
 138          SE  1687.3  1690.8  1694.3  1701.3    1710    1711
 139          SA       0     .08    1.47    4.98
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 140          SE  1687.3    1692    1700    1710

 141          KK   RCER3
 142          KM   ROUTE CER3 THROUGH SUB-AREA 120E TO CONFLUENCE WITH WALNUT WASH
 143          RS       1    FLOW       0
 144          RC     .04     .04     .04     768    .034
 145          RX    9920    9974    9985    9999   10001   10021   10135   10222
 146          RY    1690    1678    1674    1670    1670    1674    1680    1690

 147          KK    120E
 148          KM   SUB-BASIN 120E
 149          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 150          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 151          BA    .018
 152          LG    .050    .250   5.800    .160  20.530
 153          UC    .204    .342
 154          UA       0       5      16      30      65      77      84      90      94      97
 155          UA     100

 156          KK   *CER4
 157          KM   CEREUS WASH CONCENTRATION POINT *4 - RCER3, 120E
 158          HC       2

 159          KK    126A
 160          KM   SUB-BASIN 126A
 161          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 162          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 163          BA    .007
 164          LG    .100    .250   5.700    .170  45.000
 165          UC    .142    .197
 166          UA       0       5      16      30      65      77      84      90      94      97
 167          UA     100

 168          KK   R126A
 169          KM   ROUTE SUB-BASIN 126A THROUGH SUB-BASIN 126B
 170          RS       4    FLOW       0
 171          RC     .04    .017     .04    2348    .035
 172          RX    9975    9980    9985    9986   10014   10015   10020   10025
 173          RY  1922.5  1922.5  1922.5    1922    1922  1922.5  1922.5  1922.5

 174          KK    126B
 175          KM   SUB-BASIN 126B
 176          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 177          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 178          BA    .021
 179          LG    .100    .250   5.700    .179  45.000
 180          UC    .192    .292
 181          UA       0       5      16      30      65      77      84      90      94      97
 182          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 183          KK     WW1
 184          KM   WALNUT WASH CONCENTRATION POINT 1 - COMBINE R126A AND 126B
 185          HC       2

 186          KK    RWW1
 187          KM   ROUTE WW1 THROUGH SUB-BASIN 126D
 188          RS       1    FLOW       0
 189          RC     .04     .04     .04     546    .019
 190          RX    9895    9935    9955    9962   10003   10010   10020   10045
 191          RY    1830    1818    1816    1813    1813    1816    1820    1830

 192          KK    126C
 193          KM   SUB-BASIN 126C
 194          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 195          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .998
 196          BA    .142
 197          LG    .140    .320   5.700    .204  13.770
 198          UC    .354    .350
 199          UA       0       5      16      30      65      77      84      90      94      97
 200          UA     100

 201          KK   R126C
 202          KM   ROUTE 126C THROUGH SUB-BASIN 126D
 203          RS       2    FLOW       0
 204          RC     .04     .04     .04    1291    .029
 205          RX    9895    9935    9955    9962   10003   10010   10020   10045
 206          RY    1830    1818    1816    1813    1813    1816    1820    1830

 207          KK    126D
 208          KM   SUB-BASIN 126D
 209          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 210          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 211          BA    .028
 212          LG    .146    .250   5.700    .204  23.160
 213          UC    .196    .187
 214          UA       0       5      16      30      65      77      84      90      94      97
 215          UA     100

 216          KK     WW3
 217          KM   WALNUT WASH CONCENTRATION POINT 3 - RWW1 AND RWW2 AND 126D
 218          HC       3

 219          KK    RWW3
 220          KM   ROUTE WW3 THROUGH 126H
 221          RS       2    FLOW       0
 222          RC     .04     .04     .04     894    .027
 223          RX    9910    9940    9985    9995   10020   10080   10105   10145
 224          RY    1810    1800    1790    1786    1786    1792    1800    1810
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 225          KK    126E
 226          KM   SUB-BASIN 126E
 227          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 228          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 229          BA    .090
 230          LG    .150    .360   6.800    .134  21.880
 231          UC    .242    .187
 232          UA      0       3       5       8      12      20      43      75      90      96
 233          UA    100

 234          KK    126F
 235          KM   SUB-BASIN 126F
 236          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 237          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 238          BA    .055
 239          LG    .150    .330   7.300    .110  30.000
 240          UC    .208    .169
 241          UA      0       3       5       8      12      20      43      75      90      96
 242          UA    100

 243          KK     WW4
 244          KM   WALNUT WASH CONCENTRATION POINT 4 - 126E AND 126F
 245          HC      2

 246          KK    RWW4
 247          KM   ROUTE WW4 THROUGH 126G
 248          RS      7    FLOW      0
 249          RC    .04     .04     .04    4158    .031
 250          RX   9870    9940    9980    9995   10005   10015   10040   10090
 251          RY   1820    1802    1800    1796    1796    1800    1810    1820

 252          KK    126G
 253          KM   SUB-BASIN 126G
 254          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 255          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .998
 256          BA    .136
 257          LG    .150    .240   6.600    .146  27.550
 258          UC    .304    .273
 259          UA      0       5      16      30      65      77      84      90      94      97
 260          UA    100

 261          KK    126H
 262          KM   SUB-BASIN 126H
 263          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 264          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 265          BA    .020
 266          LG    .127    .250   5.700    .199  28.710
 267          UC    .183    .194
 268          UA      0       5      16      30      65      77      84      90      94      97
 269          UA    100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 270          KK     WW5
 271          KM   WALNUT WASH CONCENTRATION POINT 5 - RWW3, RWW4, 126H AND 126G
 272          HC       4

 273          KK    RWW5
 274          KM   ROUTE WW5 THROUGH 126I
 275          RS       3    FLOW       0
 276          RC     .04     .04     .04    1740     .02
 277          RX    9790    9860    9910    9975   10010   10055   10090   10150
 278          RY    1780    1764    1762    1758    1758    1766    1768    1780

 279          KK    126I
 280          KM   SUB-BASIN 126I
 281          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 282          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 283          BA    .082
 284          LG    .133    .190   6.600    .144  38.280
 285          UC    .225    .163
 286          UA       0       5      16      30      65      77      84      90      94      97
 287          UA     100

 288          KK    126J
 289          KM   SUB-BASIN 126J
 290          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 291          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 292          BA    .002
 293          LG    .100    .250   5.700    .179  45.000
 294          UC    .133    .299
 295          UA       0       5      16      30      65      77      84      90      94      97
 296          UA     100

 297          KK   R126J
 298          KM   ROUTE 126J THROUGH 126I
 299          RS       4    FLOW       0
 300          RC     .04     .02     .04    2299    .066
 301          RX    9790    9860    9910    9975   10010   10055   10090   10150
 302          RY    1780    1764    1762    1758    1758    1766    1768    1780

 303          KK     WW6
 304          KM   WALNUT WASH CONCENTRATION POINT 6 - RWW5, R126J AND 126I
 305          HC       3

 306          KK    RWW6
 307          KM   ROUTE WW6 THROUGH 126M
 308          RS       2    FLOW       0
 309          RC     .04     .04     .04    1206    .019
 310          RX    9830    9890    9925    9985   10005   10020   10055   10100
 311          RY    1738    1736    1722    1720    1720    1722    1730    1740
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 312          KK    126M
 313          KM   SUB-BASIN 126M
 314          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 315          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 316          BA    .025
 317          LG    .144    .230   6.200    .169  25.370
 318          UC    .208    .235
 319          UA       0       5      16      30      65      77      84      90      94      97
 320          UA     100

 321          KK    *WW7
 322          KM   WALNUT WASH CONCENTRATION POIT *7 - RWW6, 126M
 323          HC       2

 324          KK    126K
 325          KM   SUB-BASIN 126K
 326          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 327          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 328          BA    .012
 329          LG    .100    .250   5.700    .179  45.000
 330          UC    .158    .263
 331          UA       0       5      16      30      65      77      84      90      94      97
 332          UA     100

 333          KK   R126K
 334          KM   ROUTE 126K THROUGH 126M
 335          RS       2    FLOW       0
 336          RC     .04     .04     .04    1061    .072
 337          RX    9830    9890    9925    9985   10005   10020   10055   10100
 338          RY    1738    1736    1722    1720    1720    1722    1730    1740

 339          KK    126L
 340          KM   SUB-BASIN 126L
 341          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 342          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 343          BA    .023
 344          LG    .150    .210   6.400    .159  38.360
 345          UC    .217    .274
 346          UA       0       5      16      30      65      77      84      90      94      97
 347          UA     100

 348          KK     WW7
 349          KM   WALNUT WASH CONCENTRATION POINT 7 - (RWW6, 126M), R126K, 126L
 350          HC       3

 351          KK    SWW7
 352          KM   ROUTE WW7 THROUGH 10'BY 10' RCB UNDER SHEA BLVD.
 353          RS       1    ELEV    1704
 354          SQ       0     290     800    1650    1850
 355          SE    1704    1709    1714    1724    1727
 356          SA       0     .01     .44    2.44
 357          SE    1704    1710    1716  1728.5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 358          KK    127A
 359          KM   SUB-BASIN 127A
 360          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 361          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 362          BA    .028
 363          LG    .150    .250   5.700    .207  15.000
 364          UC    .204    .215
 365          UA       0       5      16      30      65      77      84      90      94      97
 366          UA     100

 367          KK    127B
 368          KM   SUB-BASIN 127B
 369          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 370          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 371          BA    .039
 372          LG    .100    .250   5.700    .189  15.000
 373          UC    .192    .159
 374          UA       0       5      16      30      65      77      84      90      94      97
 375          UA     100

 376          KK    CAP1
 377          KM   CAP WASH CONCENTRATION POINT 1 - SUB-BASINS 127A AND 127B
 378          HC       2

 379          KK   RCAP1
 380          KM   ROUTE CAP1 THROUGH 127D
 381          RS       2    FLOW       0
 382          RC     .04     .04     .04    1146    .026
 383          RX    9870    9910    9955    9985   10000   10020   10050   10100
 384          RY    1760    1756    1750    1742    1742    1744    1750    1760

 385          KK    127C
 386          KM   SUB-BASIN 127C
 387          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 388          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 389          BA    .042
 390          LG    .150    .170   6.800    .134  33.710
 391          UC    .208    .186
 392          UA       0       5      16      30      65      77      84      90      94      97
 393          UA     100

 394          KK    127D
 395          KM   SUB-BASIN 127D
 396          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 397          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 398          BA    .024
 399          LG    .150    .250   5.800    .195  15.000
 400          UC    .188    .185
 401          UA       0       5      16      30      65      77      84      90      94      97
 402          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 403          KK    CAP2
 404          KM   CAP WASH CONCENTRATION POINT 2 - RCAP1, 127C, AND 127D
 405          HC       3

 406          KK   RCAP2
 407          KM   ROUTE CAP2 THROUGH 127H
 408          RS       1    FLOW       0
 409          RC     .04     .04     .04     545    .017
 410          RX    9895    9940    9950    9995   10005   10047   10105   10180
 411          RY    1741    1740    1738    1732    1732    1736    1739    1748

 412          KK    127E
 413          KM   SUB-BASIN 127E
 414          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 415          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 416          BA    .103
 417          LG    .150    .204   6.800    .134  28.410
 418          UC    .258    .216
 419          UA       0       5      16      30      65      77      84      90      94      97
 420          UA     100

 421          KK    127F
 422          KM   SUB-BASIN 127F
 423          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 424          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .998
 425          BA    .147
 426          LG    .150    .229   7.300    .110  40.450
 427          UC    .283    .230
 428          UA       0       5      16      30      65      77      84      90      94      97
 429          UA     100

 430          KK    CAP3
 431          KM   CAP WASH CONCENTRATION POINT 3 - SUB-BASINS 127E AND 127F
 432          HC       2

 433          KK   RCAP3
 434          KM   ROUTE CAP3 THROUGH 127G
 435          RS       2    FLOW       0
 436          RC     .04     .04     .04    1253    .025
 437          RX    9870    9920    9940    9974   10007   10055   10075   10130
 438          RY    1780    1770    1768    1758    1758    1770    1774    1780

 439          KK    127G
 440          KM   SUB-BASIN 127G
 441          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 442          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 443          BA    .057
 444          LG    .150    .150   7.000    .122  45.570
 445          UC    .204    .156
 446          UA       0       5      16      30      65      77      84      90      94      97
 447          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 448          KK    CAP4
 449          KM   CAP WASH CONCENTRATION POINT 4 - RCAP3 AND SUB-BASIN 127G
 450          HC       2

 451          KK   SCAP4
 452          KM   ROUTE CAP4 THROUGH 2-72" CULVERTS UNDER SHEA BLVD.
 453          KO       3
 454          RS       1    ELEV  1742.2
 455          SQ       0     130     410     830    1300
 456          SE  1742.2  1742.5  1748.2  1754.2  1766.5
 457          SA       0    .008    .037    3.31
 458          SE  1742.2    1746    1752    1766

 459          KK  R2CAP4
 460          KM   ROUTE CAP4 THROUGH 127I
 461          RS       1    FLOW       0
 462          RC     .04     .04     .04     743     .02
 463          RX    9800    9837    9985    9995   10020   10070   10180   10200
 464          RY    1760  1745.5    1738    1736    1736    1742    1752    1756

 465          KK    127I
 466          KM   SUB-BASIN 127I
 467          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 468          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 469          BA    .010
 470          LG    .100    .250   6.000    .158  15.000
 471          UC    .158    .292
 472          UA       0       5      16      30      65      77      84      90      94      97
 473          UA     100

 474          KK   *CAP5
 475          KM   CAP WASH CONCENTRATION POINT *5 - RCAP4, 127I
 476          HC       2

 477          KK    127H
 478          KM   SUB-BASIN 127H
 479          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 480          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 481          BA    .018
 482          LG    .150    .150   7.000    .122  36.740
 483          UC    .171    .180
 484          UA       0       5      16      30      65      77      84      90      94      97
 485          UA     100

 486          KK    CAP5
 487          KM   CAP WASH CONCENTRATION POINT 5 - RCAP4, 127H, (RCAP4,127I)
 488          HC       3

 489          KK   RCAP5
 490          KM   ROUTE CAP5 THROUGH 127J TO WALNUT WASH (WW8)
 491          RS       2    FLOW       0
 492          RC     .04     .04     .04    1382    .018
 493          RX    9895    9937    9960    9982   10005   10030   10075   10125
 494          RY    1730    1714  1711.5    1710    1710    1714    1720    1730
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 495          KK    127J
 496          KM   SUB-BASIN 127J
 497          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 498          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 499          BA    .032
 500          LG    .100    .170   6.800    .122  31.060
 501          UC    .204    .212
 502          UA       0       5      16      30      65      77      84      90      94      97
 503          UA     100

 504          KK    CAP6
 505          KM   CAP WASH COMBINATION POINT 6 - RCAP5, 127J
 506          HC       2

 507          KK     WW8
 508          KM   WALNUT WASH CONCENTRATION POINT 8 - SWW7,CAP6
 509          KM   CONFLUENCE OF CAP WASH AND WALNUT WASH
 510          HC       2

 511          KK    RWW8
 512          KM   ROUTE WW8 THROUGH 126N TO CONFLUENCE WITH CEREUS WASH
 513          RS       5    FLOW       0
 514          RC     .04     .04     .04    2789    .016
 515          RX    9850    9915    9930    9990   10005   10030   10142   10205
 516          RY    1700    1686    1682    1678    1678    1680 1685.25    1700

 517          KK    126N
 518          KM   SUB-BASIN 126N
 519          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 520          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 521          BA    .077
 522          LG    .150    .230   6.200    .171  27.920
 523          UC    .271    .272
 524          UA       0       5      16      30      65      77      84      90      94      97
 525          UA     100

 526          KK     WW9
 527          KM    WALNUT WASH CONCENTRATION POIT 9 - RWW8, 126N
 528          HC       2

 529          KK    CER4
 530          KM   CEREUS WASH CONCENTRATION POINT 4 - (RCER3,120E), (WW9, 126N)
 531          KM   CONFLUENCE OF CEREUS WASH AND WALNUT WASH
 532          HC       2

 533          KK   RCER4
 534          KM   ROUTE CER4 THROUGH SUB-BASIN 120F TO CONFLUENCE WITH CHUKAR WASH
 535          RS       2    FLOW       0
 536          RC     .04     .04     .04    1183    .015
 537          RX    9967    9973    9982    9999   10055   10135   10235   10325
 538          RY    1766    1762    1756    1744    1744    1756  1753.5    1756
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 539          KK    120F
 540          KM   SUB-BASIN 120F
 541          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 542          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 543          BA    .022
 544          LG    .150    .250   6.000    .183  34.960
 545          UC    .162    .174
 546          UA       0       5      16      30      65      77      84      90      94      97
 547          UA     100

 548          KK   *CER5
 549          KM   CEREUS WASH CONCENTRATION POIT *5 - RCER4, 120F
 550          HC       2

 551          KK    125A
 552          KM   SUB-BASIN 125A
 553          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 554          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 555          BA    .077
 556          LG    .150    .150   7.300    .110  40.500
 557          UC    .279    .298
 558          UA       0       5      16      30      65      77      84      90      94      97
 559          UA     100

 560          KK    125B
 561          KM   SUB-BASIN 125B
 562          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 563          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 564          BA    .113
 565          LG    .150    .150   7.300    .110  40.250
 566          UC    .292    .254
 567          UA       0       5      16      30      65      77      84      90      94      97
 568          UA     100

 569          KK    CHK1
 570          KM   CHUKAR WASH CONCENTRATION POINT 1 - SUB-BASINS 125A AND 125B
 571          HC       2

 572          KK   RCHK1
 573          KM   ROUTE CHK1 THROUGH 125D
 574          RS       1    FLOW       0
 575          RC     .04     .04     .04     544    .004
 576          RX    9830    9880    9915    9955   10005   10032   10140   10190
 577          RY    1700    1696    1690    1682    1682    1690    1690    1698

 578          KK    125C
 579          KM   SUB-BASIN 125C
 580          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 581          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 582          BA    .030
 583          LG    .150    .150   7.300    .110  40.060
 584          UC    .200    .198
 585          UA       0       5      16      30      65      77      84      90      94      97
 586          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 587          KK   R125C
 588          KM   ROUTE 125C THROUGH SUB-BASIN 125D TO CON. POINT CHK2
 589          RS       1    FLOW       0
 590          RC    0.04    0.04    0.04     290  0.0001
 591          RX    9905    9930    9945    9972   10025   10080   10090   10130
 592          RY    1680    1674    1670  1665.5  1665.5    1668    1670    1680

 593          KK    125D
 594          KM   SUB-BASIN 125D
 595          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 596          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 597          BA    .018
 598          LG    .100    .210   6.400    .159  37.030
 599          UC    .471    .454
 600          UA       0       5      16      30      65      77      84      90      94      97
 601          UA     100

 602          KK    CHK2
 603          KM   CHUKAR WASH CONCENTRATION POINT 2 - RCHK1 AND SUB BASINS 125C AND 125D
 604          HC       3

 605          KK  R2CHK2
 606          KM   ROUTE CHK2 THROUGH SUB-BASIN 125E TO CONFLUENCE WITH CEREUS WASH
 607          RS       3    FLOW       0
 608          RC     .04     .04     .04    1780    .027
 609          RX    9905    9930    9945    9972   10025   10080   10090   10130
 610          RY    1680    1674    1670  1665.5  1665.5    1668    1670    1680

 611          KK    125E
 612          KM   SUB-BASIN 125E
 613          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 614          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 615          BA    .047
 616          LG    .150    .230   6.200    .171  42.460
 617          UC    .196    .170
 618          UA       0       5      16      30      65      77      84      90      94      97
 619          UA     100

 620          KK    CHK3
 621          KM   CHUKAR WASH CONCENTRATON POINT 3 - RCHK2, 125E
 622          HC       2

 623          KK    CER5
 624          KM   CEREUS WASH CONCENTRATION POINT 5 - (RCER4, 120F), CHK3
 625          KM   CONFLUENCE OF CHUKAR WASH AND CEREUS WASH
 626          HC       2

 627          KK   RCER5
 628          KM   ROUTE CEREUS WASH (CER5) THROUGH 120G TO CONFLUENCE WITH LOGAN WASH
 629          RS       2    FLOW       0
 630          RC     .04     .04     .04    1119    .017
 631          RX    9885    9930    9970    9999   10001   10006   10200   10299
 632          RY    1650    1645    1640    1630    1630    1634    1631    1640
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 633          KK    120G
 634          KM   SUB-BASIN 120G
 635          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 636          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 637          BA    .037
 638          LG    .150    .170   6.800    .134  37.920
 639          UC    .204    .192
 640          UA       0       5      16      30      65      77      84      90      94      97
 641          UA     100

 642          KK   *CER6
 643          KM   CEREUS WASH CONCENTRATION POINT *6 - RCER5, 120G
 644          HC       2

 645          KK    124A
 646          KM   SUB-BASIN 124A
 647          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 648          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 649          BA    .071
 650          LG    .150    .150   7.000    .122  36.170
 651          UC    .254    .252
 652          UA       0       5      16      30      65      77      84      90      94      97
 653          UA     100

 654          KK    124B
 655          KM   SUB-BASIN 124B
 656          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 657          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 658          BA    .043
 659          LG    .150    .170   6.800    .134  38.180
 660          UC    .179    .126
 661          UA       0       5      16      30      65      77      84      90      94      97
 662          UA     100

 663          KK    LOG1
 664          KM   LOGAN WASH CONCENTRATION POINT 1 - SUB-BASINS 124A AND 124B
 665          HC       2

 666          KK   RLOG1
 667          KM   ROUTE LOG1 THROUGH 124D
 668          RS       1    FLOW       0
 669          RC     .04     .04     .04     647    .015
 670          RX    9920    9940    9965    9993   10008   10040   10057   10090
 671          RY    1670    1666    1660  1655.5  1655.5    1658    1662    1663

 672          KK    124D
 673          KM   SUB-BASIN 124D
 674          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 675          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 676          BA    .009
 677          LG    .150    .230   6.200    .171  50.840
 678          UC    .213    .439
 679          UA       0       5      16      30      65      77      84      90      94      97
 680          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 681          KK   *LOG2
 682          KM   LOGAN WASH CONCENTRATION POINT *2 - (RLOG1, 124D)
 683          HC       2

 684          KK    124C
 685          KM   SUB-BASIN 124C
 686          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 687          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 688          BA    .020
 689          LG    .150    .230   6.200    .171  43.540
 690          UC    .213    .278
 691          UA       0       5      16      30      65      77      84      90      94      97
 692          UA     100

 693          KK    LOG2
 694          KM   LOGAN WASH CONCENTRATION POINT 2 - (RLOG1, 124D),124C
 695          HC       2

 696          KK   RLOG2
 697          KM   ROUTE LOG2 THROUGH 124E TO CONFLUENCE WITH CEREUS WASH
 698          RS       3    FLOW       0
 699          RC     .04     .04     .04    1436    .014
 700          RX    9885    9920    9965   10005   10030   10060   10090   10140
 701          RY    1660    1650    1642    1640    1640    1650    1660    1670

 702          KK    124E
 703          KM   SUB-BASIN 124E
 704          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 705          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 706          BA    .051
 707          LG    .150    .210   6.400    .159  49.150
 708          UC    .217    .192
 709          UA       0       5      16      30      65      77      84      90      94      97
 710          UA     100

 711          KK    LOG3
 712          KM   LOGAN WASH CONCENTRATION POINT 3 - RLOG2, 124E
 713          HC       2

 714          KK    CER6
 715          KM   CEREUS WASH CONCENTRATION POINT 6 - (RCER5, 120G), RLOG2
 716          KM   CONFLUENCE OF LOGAN AND CEREUS WASH
 717          HC       2

 718          KK   RCER6
 719          KM   ROUTE CER6 THROUGH 120L
 720          RS       3    FLOW       0
 721          RC     .04     .04     .04    1481    .011
 722          RX    9945    9955    9970    9990   10020   10150   10180   10210
 723          RY    1628    1627    1626    1612    1612    1618    1624    1630
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 724          KK    120L
 725          KM   SUB-BASIN 120L
 726          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 727          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 728          BA    .036
 729          LG    .150    .150   7.000    .122  66.320
 730          UC    .204    .199
 731          UA       0       5      16      30      65      77      84      90      94      97
 732          UA     100

 733          KK   *CER7
 734          KM   CEREUS WASH PONCENTRATION POINT *7 - RCER6, 120L
 735          HC       2

 736          KK    120J
 737          KM   SUB-BASIN 120J
 738          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 739          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 740          BA    .006
 741          LG    .100    .250   5.700    .170  25.000
 742          UC    .225    .524
 743          UA       0       5      16      30      65      77      84      90      94      97
 744          UA     100

 745          KK   R120J
 746          KM   ROUTE 120J THROUGH 120K
 747          RS       1    FLOW       0
 748          RC     .04     .04     .04     624    .159
 749          RX    9840    9940    9985    9993   10005   10040   10047   10110
 750          RY    1710    1690    1685  1682.5  1682.5    1690    1692    1710

 751          KK    120K
 752          KM   SUB-BASIN 120K
 753          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 754          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 755          BA    .034
 756          LG    .150    .250   5.700    .207  25.000
 757          UC    .237    .262
 758          UA       0       5      16      30      65      77      84      90      94      97
 759          UA     100

 760          KK   CER7A
 761          KM   CEREUS WASH CONCENTRATION POINT 7A- R120J AND 120K
 762          HC       2

 763          KK  SCER7A
 764          KM   ROUTE CER7A THROUGH 48" CULVERT UNDER SHEA BLVD.
 765          KO       3
 766          RS       1    ELEV  1640.9
 767          SQ       0      24      73     150     240
 768          SE  1640.9  1642.9  1644.9  1648.9    1658
 769          SA       0     .81
 770          SE  1640.9    1658
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 771          KK  RCER7A
 772          KM   ROUTE CER7A THROUGH SUB-BASIN 120M TO CON. POINT CER7
 773          RS       3    FLOW       0
 774          RC     .04     .04     .04    1400    .027
 775          RX    9895    9920    9950    9975   10015   10110   10140   10200
 776          RY    1640    1636    1632    1628    1628    1632    1634    1640

 777          KK    120M
 778          KM   SUB-BASIN 120M
 779          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 780          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 781          BA    .040
 782          LG    .100    .250   5.800    .186  43.850
 783          UC    .242    .360
 784          UA       0       5      16      30      65      77      84      90      94      97
 785          UA     100

 786          KK    123B
 787          KM   SUB-BASIN 123B
 788          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 789          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 790          BA    .019
 791          LG    .150    .250   5.700    .207  25.000
 792          UC    .175    .174
 793          UA       0       5      16      30      65      77      84      90      94      97
 794          UA     100

 795          KK   S123B
 796          KM   ROUTE 123B THROUGH 36" CMP CULVERT UNDER SHEA BLVD
 797          KO       3
 798          RS       1    ELEV  1624.7
 799          SQ       0      11      33      63      77
 800          SE  1624.7  1626.2  1627.7  1630.7  1633.1
 801          SA       0   0.004    0.01
 802          SE  1624.7    1628    1629

 803          KK   R123B
 804          KM   ROUTE S123B THROUGH SUB-BASIN 120M TO WASH
 805          RS       2    FLOW       0
 806          RC    0.04    0.04    0.04     412   0.034
 807          RX    9965    9970    9980    9995   10005   10080  100115   10160
 808          RY    1630    1628    1623    1616    1616    1624    1628    1634

 809          KK   R123B
 810          KM   ROUTE R123B THROUGH SUB-BASIN 120M (IN WASH) TO CON. POINT CER7
 811          RS       1    FLOW       0
 812          RC    0.04    0.04    0.04     193    0.36
 813          RX    9895    9920    9950    9975   10015   10110   10140   10200
 814          RY    1640    1636    1632    1628    1628    1632    1634    1640
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 815          KK    CER7
 816          KM   CEREUS WASH CONCENTRATION POINT 7 - (RCER6, 120L), RCER7A, 120M 123B
 817          HC       4

 818          KK   RCER7
 819          KM   ROUTE CER7 THROUGH SUB-BASIN 120N
 820          RS       4    FLOW       0
 821          RC     .04     .04     .04    2006    .013
 822          RX    9860    9910    9945    9985   10010   10150   10180   10300
 823          RY    1597    1596    1594    1582    1582    1586    1590    1592

 824          KK    120N
 825          KM   SUB-BASIN 120N
 826          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 827          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 828          BA    .044
 829          LG    .136    .150   7.000    .117  69.710
 830          UC    .183    .183
 831          UA       0       5      16      30      65      77      84      90      94      97
 832          UA     100

 833          KK   *CER8
 834          KM   CEREUS WASH CONCENTRATION POINT *8 - RCER7, 120N
 835          HC       2

 836          KK    123A
 837          KM   SUB-BASIN 123A
 838          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 839          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 840          BA    .075
 841          LG    .150    .250   5.700    .207  25.000
 842          UC    .246    .205
 843          UA       0       5      16      30      65      77      84      90      94      97
 844          UA     100

 845          KK   S123A
 846          KM   ROUTE 123A THROUGH 2 60" CULVERT AT TRAVINO DRIVE
 847          KO       3
 848          RS       1    ELEV  1594.5
 849          SQ       0      74     130     360     444
 850          SE  1594.5    1597  1599.5    1602  1604.5
 851          SA       0    0.01    0.69
 852          SE  1594.5    1596    1604

 853          KK    123D
 854          KM   SUB-BASIN 123D
 855          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 856          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 857          BA    .010
 858          LG    .100    .250   5.700    .189  25.000
 859          UC    .225    .469
 860          UA       0       5      16      30      65      77      84      90      94      97
 861          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 862          KK    TRV1
 863          KM   TREVINO WASH CONCENTRATION POINT 1 - S123A AND 123D
 864          HC       2

 865          KK   STRV1
 866          KM   ROUTE TRV1 THROUGH 84" CMP CULVERT UNDER SHEA BLVD
 867          KO       3
 868          RS       1    ELEV  1588.7
 869          SQ       0      97     300     435     620
 870          SE  1588.7  1591.7  1595.7  1602.7    1598
 871          SA       0    0.01    0.14
 872          SE  1588.7    1589    1598

 873          KK   RTRV1
 874          KM   ROUTE TRV1 THROUGH SUB-BASIN 120N TO *CER8
 875          RS       2    FLOW       0
 876          RC     .04     .04     .04     971    .007
 877          RX    9860    9910    9945    9985   10010   10150   10180   10300
 878          RY    1597    1596    1594    1582    1582    1586    1590    1592

 879          KK    123C
 880          KM   SUB-BASIN 123C
 881          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 882          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 883          BA    .003
 884          LG    .150    .250   5.700    .207  25.000
 885          UC    .092    .085
 886          UA       0       5      16      30      65      77      84      90      94      97
 887          UA     100

 888          KK   S123C
 889          KM   ROUTE 123C THROUGH 24" CMP CULVERT UNDER SHEA BLVD
 890          KO       3
 891          RS       1    ELEV    1618
 892          SQ       0       4      12      22      28
 893          SE    1618    1619    1620    1622    1624
 894          SA       0    0.01
 895          SE    1618    1623

 896          KK   R123C
 897          KM   ROUTE R123C THROUGH SUB-BASIN 120N TO WASH
 898          RS       1    FLOW       0
 899          RC    0.04    0.04    0.04     136   0.147
 900          RX    9965    9970    9980    9995   10005   10080   10115   10160
 901          RY    1630    1628    1623    1616    1616    1624    1628    1634

 902          KK   R123C
 903          KM   ROUTE 123C THROUGH SUB-BASIN 120N (WASH) TO CON. POINT CER8
 904          RS       5    FLOW       0
 905          RC    0.04    0.04    0.04    1688   0.012
 906          RX    9860    9910    9945    9985   10010   10150   10180   10300
 907          RY    1597    1596    1594    1582    1582    1586    1590    1592
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 908          KK    CER8
 909          KM   CEREUS WASH CONCENTRATION POINT 8 - (RCER7, 120N), R2TREV, 123C
 910          KM   CONFLUENCE WITH TREVINO WASH
 911          HC       3

 912          KK   RCER8
 913          KM   ROUTE CER8 THROUGH SUB-BASIN 120Q
 914          RS       3    FLOW       0
 915          RC     .04     .04     .04    1703    .013
 916          RX    9890    9920    9980    9999   10001   10055   10095   10180
 917          RY    1571    1570    1558    1556    1556    1560    1570    1574

 918          KK    120O
 919          KM   SUB-BASIN 120O
 920          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 921          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 922          BA    .008
 923          LG    .100    .250   5.700    .189  25.000
 924          UC    .117    .104
 925          UA       0       5      16      30      65      77      84      90      94      97
 926          UA     100

 927          KK   S120O
 928          KM   ROUTE 120O THROUGH 2 30" CMP CULVERT UNDER SHEA BLVD
 929          KO       3
 930          RS       1    ELEV    1587
 931          SQ       0      15      44      90     180     400
 932          SE    1585  1588.8  1590.6  1594.2    1595    1596
 933          SA       0    0.01    0.02
 934          SE    1587    1589    1594

 935          KK   R120O
 936          KM   ROUTE 120O TO WASH THROUGH 120Q
 937          RS       1    FLOW       0
 938          RC     .04     .04     .04     572    .028
 939          RX    9860    9910    9945    9985   10010   10150   10180   10300
 940          RY    1597    1596    1594    1582    1582    1586    1590    1590

 941          KK   R120O
 942          KM   ROUTE 120O THROUGH SUB-BASIN 120Q FROM WASH TO *CER9
 943          RS       3    FLOW       0
 944          RC     .04     .04     .04    1503    .013
 945          RX    9890    9920    9980    9999   10001   10055   10095   10180
 946          RY    1571    1570    1558    1556    1556    1560    1570    1574

 947          KK    120Q
 948          KM   SUB-BASIN 120Q
 949          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 950          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 951          BA    .035
 952          LG    .138    .150   7.000    .118  68.920
 953          UC    .208    .215
 954          UA       0       5      16      30      65      77      84      90      94      97
 955          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 956          KK   *CER9
 957          KM   CEREUS WASH CONCENTRATION POINT *9 - RCER8, 120Q, R120O
 958          HC       3

 959          KK    120P
 960          KM   SUB-BASIN 120P
 961          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 962          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 963          BA    .028
 964          LG    .150    .250   5.700    .198  25.000
 965          UC    .117    .051
 966          UA       0       5      16      30      65      77      84      90      94      97
 967          UA     100

 968          KK   S120P
 969          KM   ROUTE 120P THROUGH 36" CMP CULVERT UNDER SHEA BLVD
 970          KO       3
 971          RS       1    ELEV    1580
 972          SQ       0      11      35      70
 973          SE    1580  1581.5    1583    1586
 974          SA       0    0.02    0.25
 975          SE    1580    1990    1593

 976          KK   R120P
 977          KM   ROUTE 120P THROUGH SUB-BASIN 120Q
 978          RS       2    FLOW       0
 979          RC     .04     .04     .04    1168    .025
 980          RX    9890    9920    9980    9999   10001   10055   10095   10180
 981          RY    1571    1570    1558    1556    1556  1560.5    1570    1574

 982          KK    CER9
 983          KM   CEREUS WASH CONCENTRATION POINT 9 - (RCER8, 120Q), R120P
 984          HC       2

 985          KK   SCER9
 986          KM   ROUTE CER9 THROUGH 2 10' X 8' BOX CULVERT UNDER SAGUARO BLVD
 987          KM   ******* NEW CULVERT CULVERT INSTALLED TO REPLACE 2-60" CMP  *********
 988          KO       3
 989          RS       1    ELEV 1549.37
 990          SQ       0     226     480    1500    2400    3786
 991          SE  1549.4 1551.77 1553.37 1557.37 1563.53 1565.37
 992          SA       0    0.02    0.48    2.43
 993          SE  1549.4    1552    1556    1564

 994          KK    120R
 995          KM   SUB-BASIN 120R
 996          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 997          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 998          BA    .012
 999          LG    .140    .250   6.000    .178  76.820
1000          UC    .200    .310
1001          UA       0       5      16      30      65      77      84      90      94      97
1002          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1003          KK    120S
1004          KM   SUB-BASIN 120S
1005          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1006          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1007          BA    .007
1008          LG    .054    .150   8.000    .070  49.670
1009          UC    .162    .239
1010          UA       0       5      16      30      65      77      84      90      94      97
1011          UA     100

1012          KK   CER10
1013          KM   CEREUS WASH CONCENTRATION POINT 10- SCER9, 120R, 120S
1014          HC       3

1015          KK  RCER10
1016          KM   ROUTE CER10 THROUGH SUB-BASIN 120T
1017          RS       1    FLOW       0
1018          RC     .04     .04     .04     405     .01
1019          RX    9790    9815    9895    9965   10030   10065   10150   10220
1020          RY    1562    1560    1558    1546    1546    1558    1558    1562

1021          KK    120T
1022          KM   SUB-BASIN 120T
1023          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1024          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1025          BA    .002
1026          LG    .150    .150   8.000    .085  80.750
1027          UC    .125    .201
1028          UA       0       5      16      30      65      77      84      90      94      97
1029          UA     100

1030          KK  *CER11
1031          KM   CEREUS WASH CONCENTRATION POINT *11 - RCER10, 120T
1032          HC       2

1033          KK    122C
1034          KM   SUB-BASIN 122C
1035          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1036          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1037          BA    .014
1038          LG    .150    .250   6.000    .163  42.100
1039          UC    .158    .162
1040          UA       0       5      16      30      65      77      84      90      94      97
1041          UA     100

1042          KK   D122C
1043          KM   DIVERTION AT 122C INTO 122A
1044          DT  DO122C
1045          DI       0      10     100    1000
1046          DQ     0.5       5      50     500
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1047          KK   R122C
1048          KM   ROUTE 122C THROUGH SUB-BASIN 122E TO CON. POINT LZR2B
1049          RS       2    FLOW       0
1050          RC    0.02    0.02    0.02    1000   0.032
1051          RX    9975    9980    9985    9986   10014   10015   10020   10025
1052          RY  1614.5  1614.5  1614.5    1614    1614  1614.5  1614.5  1614.5

1053          KK    122E
1054          KM   SUB-BASIN 122E
1055          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1056          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1057          BA    .032
1058          LG    .144    .250   6.000    .168  57.930
1059          UC    .188    .169
1060          UA       0       5      16      30      65      77      84      90      94      97
1061          UA     100

1062          KK   LSR2B
1063          KM   LASER WASH CONSENTRATION POINT 2B - COMBINE RD122E, 122E
1064          HC       2

1065          KK  RLSR2B
1066          KM   ROUTE LASER WASH LSR2B THROUGH SUB-BASIN 120G TO CON. POINT LSR2
1067          RS       2    FLOW       0
1068          RC    0.02    0.02    0.02    1281   0.017
1069          RX    9780    9905    9955    9975   10015   10050   10060   10085
1070          RY    1600    1598    1596    1592    1590  1591.5    1592  1592.5

1071          KK    122D
1072          KM   SUB-BASIN 122D
1073          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1074          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1075          BA    .032
1076          LG    .150    .250   6.000    .183  37.090
1077          UC    .192    .190
1078          UA       0       5      16      30      65      77      84      90      94      97
1079          UA     100

1080          KK   R122D
1081          KM   ROUTE 122D THROUGH SUB-BASIN 122G TO CON. POIT LSR2
1082          RS       2    FLOW       0
1083          RC    0.02    0.02    0.02     480   0.015
1084          RX    9780    9905    9955    9975   10015   10050   10060   10085
1085          RY    1600    1598    1596    1592    1590  1591.5    1592   10085

1086          KK    122F
1087          KM   SUB-BASIN 122F
1088          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1089          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1090          BA    .010
1091          LG    .150    .230   6.200    .171  80.110
1092          UC    .196    .319
1093          UA       0       5      16      30      65      77      84      90      94      97
1094          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1095          KK   R122F
1096          KM   ROUTE 122F THROUGH SUB-BAASIN 122G TO CON. POINT LSR2
1097          RS       2    FLOW       0
1098          RC    0.02    0.02    0.02     430   0.032
1099          RX    9780    9905    9955    9975   10015   10050   10060   10085
1100          RY    1600    1598    1596    1592    1590  1591.5    1592  1592.5

1101          KK    122G
1102          KM   SUB-BASIN 122G
1103          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1104          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1105          BA    .022
1106          LG    .100    .250   6.000    .158  75.000
1107          UC    .125    .124
1108          UA       0       5      16      30      65      77      84      90      94      97
1109          UA     100

1110          KK    LSR2
1111          KM   LASER DRAIN CONCENTRATION POINT 2 - RLSR2B, R122F, R122D, 122D
1112          HC       4

1113          KK   RLSR2
1114          KM   ROUTE LSR2 THROUGH SUB-BASIN 122I TO CON. POINT LSR3
1115          RS       2    FLOW       0
1116          RC    0.02    0.02    0.02     826   0.017
1117          RX    9790    9875    9895    9985   10015   10070   10130   10170
1118          RY    1576    1576  1574.5    1571  1570.5    1574    1576    1578

1119          KK    122A
1120          KM   SUB-BASIN 122A
1121          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1122          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1123          BA    .020
1124          LG    .115    .250   6.000    .162  43.160
1125          UC    .208    .335
1126          UA       0       5      16      30      65      77      84      90      94      97
1127          UA     100

1128          KK   D122C
1129          KM   FLOW FROM DIVERSION OUT OF 122C INTO 122A
1130          DR  DO122C

1131          KK  RD122C
1132          KM   ROUTE D122C THROUGH SUB-BASIN 122A TO CON. POINT LSR1B
1133          RS       4    FLOW       0
1134          RC    0.02    0.02    0.02    2050   0.019
1135          RX    9956    9961    9966  9966.5 10033.5   10034   10039   10044
1136          RY  1606.5  1606.5  1606.5    1606    1606  1606.5  1606.5  1606.5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1137          KK   LSR1B
1138          KM   LASER WASH CONCENTRATION POINT 1B - COMBINE 122A, RD122C
1139          HC       2

1140          KK  RLSR1B
1141          KM   ROUTE LSR1B THROUGH SUB-BASIN 122B TO CON. POINT LSR1
1142          RS       2    FLOW       0
1143          RC     .04     .04     .04    1052    .019
1144          RX    9840    9870    9890    9930   10045   10105   10130   10170
1145          RY    1582    1582    1582    1578    1577    1582    1582    1582

1146          KK    122B
1147          KM   SUB-BASIN 122B
1148          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1149          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1150          BA    .034
1151          LG    .110    .250   6.000    .162  77.600
1152          UC    .175    .148
1153          UA       0       5      16      30      65      77      84      90      94      97
1154          UA     100

1155          KK    LSR1
1156          KM   LASER DRAIN CONCENTRATION POINT 1 - R122A AND 122B
1157          HC       2

1158          KK   RLSR1
1159          KM   ROUTE LSR1 THROUGH SUB-BASIN 122H TO CON. POINT LSR3
1160          RS       2    FLOW       0
1161          RC    0.02    0.02    0.02     500   0.018
1162          RX    9885    9905    9935    9960   10030   10050   10110   10130
1163          RY  1574.5    1574    1570  1568.5  1568.5    1572    1572    1574

1164          KK    122H
1165          KM   SUB-BASIN 122H
1166          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1167          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1168          BA    .006
1169          LG    .150    .250   6.000    .181  73.320
1170          UC    .129    .163
1171          UA       0       5      16      30      65      77      84      90      94      97
1172          UA     100

1173          KK    122I
1174          KM   SUB-BASIN 122I
1175          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1176          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1177          BA    .007
1178          LG    .150    .250   6.000    .175  75.000
1179          UC    .171    .233
1180          UA       0       5      16      30      65      77      84      90      94      97
1181          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1182          KK    LSR3
1183          KM   LASER DRAIN CONCENTRATION POINT 3 - RLSR1,RLSR2,122H,122I
1184          HC       4

1185          KK   RLSR3
1186          KM   ROUTE LSR3 THROUGH SUB-BASIN 122J TO CON. POINT LSR4
1187          RS       2    FLOW       0
1188          RC    0.04    0.04    0.04     422   0.017
1189          RX    9835    9875    9890    9910   10045   10055   10070   10080
1190          RY    1570    1568    1564    1562    1562    1564    1566    1568

1191          KK    122J
1192          KM   SUB-BASIN 122J
1193          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1194          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1195          BA    .025
1196          LG    .150    .250   6.000    .183  38.780
1197          UC    .208    .240
1198          UA       0       5      16      30      65      77      84      90      94      97
1199          UA     100

1200          KK    LSR4
1201          KM   LASER DRAIN CONCENTRATION POINT 4 - RLSR3 AND 122J
1202          HC       2

1203          KK    RLS4
1204          KM   ROUTE LSR4 THROUGH SUB-BASIN 122K TO CONFLUENCE WITH CEREUS WASH CER11
1205          RS       2    FLOW       0
1206          RC    0.04    0.04    0.04     666    0.02
1207          RX    9790    9815    9895    9965   10030   10065   10150   10220
1208          RY    1562    1560    1558    1546    1546    1556    1558    1562

1209          KK    122K
1210          KM   SUB-BASIN 122K
1211          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1212          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1213          BA    .003
1214          LG    .134    .210   6.400    .152  56.900
1215          UC    .175    .372
1216          UA       0       5      16      30      65      77      84      90      94      97
1217          UA     100

1218          KK    LSR5
1219          KM   LASER CONCENTRATION POINT 5 - RLSR5, 122K
1220          HC       2

1221          KK   CER11
1222          KM   CEREUS WASH CONCENTRATION POINT 11 - (RCER10, 120T), (RLSR5, 122K)
1223          KM   CONFLUENCE OF CEREUS WASH AND LASER DRAIN
1224          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1225          KK  RCER11
1226          KM   ROUTE CER11 THROUGH SUB-BASIN 120U TO CON. POINT CER12
1227          RS       2    FLOW       0
1228          RC     .04     .04     .04     821    .012
1229          RX    9885    9920    9965    9995   10020   10070   10120   10270
1230          RY    1570    1560    1548    1540    1540    1550    1554    1556

1231          KK    120U
1232          KM   SUB-BASIN 120U
1233          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1234          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1235          BA    .019
1236          LG    .128    .170   6.800    .128  63.010
1237          UC    .154    .151
1238          UA       0       5      16      30      65      77      84      90      94      97
1239          UA     100

1240          KK  *CER12
1241          KM   CEREUS WASH CONCENTRATION POINT *12 - RCER11, 120U
1242          HC       2

1243          KK    121A
1244          KM   SUB-BASIN 121A
1245          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1246          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1247          BA    .050
1248          LG    .150    .250   6.000    .175  15.000
1249          UC    .258    .273
1250          UA       0       5      16      30      65      77      84      90      94      97
1251          UA     100

1252          KK   R121A
1253          KM   ROUTE 121A THROUGH SUB-BASIN 121B TO CON. POINT CER12
1254          RS       2    FLOW       0
1255          RC    0.04    0.04    0.04     446   0.036
1256          RX    9870    9905    9925    9990   10010   10052   10065   10100
1257          RY    1552    1550    1548    1542    1542    1550    1552    1554

1258          KK    121B
1259          KM   SUB-BASIN 121B
1260          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1261          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1262          BA    .020
1263          LG    .150    .250   6.000    .175  15.910
1264          UC    .225    .341
1265          UA       0       5      16      30      65      77      84      90      94      97
1266          UA     100

1267          KK    LTD1
1268          KM   LAST TRAIL CONCENTRATION POINT 1 - R121A, 121B
1269          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1270          KK   CER12
1271          KM   CEREUS WASH CONCENTRATION POINT 12 - (RCER11, 120U), (R121A, 121B)
1272          KM   CONFLUENCE WITH LAST TRAIL DRAIN
1273          HC       2

1274          KK  RCER13
1275          KM   ROUTE CER12 THROUGH SUB-BASIN 120V TO CON. POINT CER13
1276          RS       1    FLOW       0
1277          RC    0.04    0.04    0.04     317   0.006
1278          RX    9820    9900    9950    9995   10030   10075   10120   10150
1279          RY    1550    1548    1540    1532    1532    1542    1552    1556

1280          KK    120V
1281          KM   SUB-BASIN 120V
1282          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1283          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1284          BA    .010
1285          LG    .150    .190   6.600    .146  19.820
1286          UC    .158    .182
1287          UA       0       5      16      30      65      77      84      90      94      97
1288          UA     100

1289          KK   CER13
1290          KM   CEREUS WASH CONCENTRATION POINT 13 - RCER12, 120V UPSTREAM OF SHEA BLVD
1291          HC       2

1292          KK  SCER13
1293          KM   ROUTE CER13 THROGH 3 12'X12' BOX CULVERTS UNDER SHEA BLVD
1294          KO       3
1295          RS       1    ELEV 1530.30
1296          SQ       0    1332    3780    6300
1297          SE  1530.3  1536.3  1542.3  1549.1
1298          SA       0   0.011    0.95    3.40    6.46
1299          SE  1530.3    1532    1536    1544    1548

1300          KK  RCER13
1301          KM   ROUTE SCER13 THROUGHT SUB-BASIN 120X TO CON. POINT CER14
1302          RS       2    FLOW       0
1303          RC    0.04    0.04    0.04     868   0.013
1304          RX    9785    9850    9875    9910   10090   10135   10200   10280
1305          RY    1539    1538    1536    1525    1524    1536    1537    1538

1306          KK    120X
1307          KM   SUB-BASIN 120X
1308          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1309          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1310          BA    .016
1311          LG    .117    .150   7.600    .092  73.460
1312          UC    .133    .115
1313          UA       0       5      16      30      65      77      84      90      94      97
1314          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1315          KK  *CER14
1316          KM   CEREUS WASH CONCENTRATION POINT *14 - RCER13, 120X
1317          HC       2

1318          KK    120W
1319          KM   SUB-BASIN 120W
1320          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1321          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1322          BA    .005
1323          LG    .147    .250   6.000    .181  16.710
1324          UC    .087    .067
1325          UA       0       5      16      30      65      77      84      90      94      97
1326          UA     100

1327          KK   S120W
1328          KM   ROUTE 120W THROUGH 2 30" CMP CULVERT UNDER SHEA BLVD
1329          KO       3
1330          RS       1    ELEV 1540.94
1331          SQ       0      28      60     100
1332          SE  1540.9  1542.8  1544.6  1548.2
1333          SA       0    0.06    0.46
1334          SE    1539    1540    1543

1335          KK   R120W
1336          KM   ROUTE S120W THROUGH SUB-BASIN 120X TO CON. POINT CER14
1337          RS       2    FLOW       0
1338          RC    0.04    0.04    0.04     500   0.042
1339          RX    9970    9985    9995    9998   10002   10015   10050   10065
1340          RY    1532    1530    1528  1527.5  1527.5    1530    1536    1538

1341          KK   CER14
1342          KM   CEREUS WASH POINT OF CONCENTRATION 13 - (SCER13,120X), R120W
1343          HC       2
1344          ZZ
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SCHEMATIC DIAGRAM OF STREAM NETWORK

(V) ROUTING (---->) DIVERSION OR PUMP FLOW

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

```
 22      120A
          .
          .
 31       .        120B
          .          .
          .          .
 40       .          .        160A
          .          .          V
          .          .          V
 49       .          .       R160A
          .          .          .
          .          .          .
 55     CER1.......................
         V
         V
 58    SCER1
          .
          .
 66       .        120C
          .          .
          .          .
 75     CER2............
         V
         V
 78    RCER2
          .
          .
 84       .        120D
          .          .
          .          .
 93    *CER3............
          .
          .
 96       .        120H
          .          V
          .          V
          .       R120H
          .          .
          .          .
111       .          .        120I
          .          .          .
          .          .          .
120       .       CER3A............
          .          V
          .          V
123       .      SCER3A
          .          .
          .          .
130     CER3............
         V
         V
133    SCER3
         V
         V
141    RCER3
          .
          .
147       .        120E
          .          .
          .          .
156    *CER4............
          .
          .
159       .        126A
          .          V
          .          V
168       .       R126A
          .          .
          .          .
174       .          .        126B
          .          .          .
          .          .          .
183       .         WW1............
          .          V
          .          V
186       .        RWW1
          .          .
          .          .
2         .          .        126C
          .          .          V
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                    V
                 R126C
                    .
                    .
207                 .        126D
                    .           .
                    .           .
216              WW3.......................
                   V
                   V
219             RWW3
                    .
                    .
225                 .     126E
                    .        .
                    .        .
234                 .        .        126F
                    .        .           .
                    .        .           .
243                 .     WW4............
                    .        V
                    .        V
246                 .     RWW4
                    .        .
                    .        .
252                 .        .        126G
                    .        .           .
                    .        .           .
261                 .        .           .        126H
                    .        .           .           .
                    .        .           .           .
270              WW5.................................
                   V
                   V
273             RWW5
                    .
                    .
279                 .     126I
                    .        .
                    .        .
288                 .        .        126J
                    .        .           V
                    .        .           V
                    .        .        R126J
                    .        .           .
                    .        .           .
303              WW6.......................
                   V
                   V
306             RWW6
                    .
                    .
312                 .     126M
                    .        .
                    .        .
321             *WW7............
                    .
                    .
324                 .     126K
                    .        V
                    .        V
333                 .     R126K
                    .        .
                    .        .
339                 .        .        126L
                    .        .           .
                    .        .           .
348              WW7.......................
                   V
                   V
351             SWW7
                    .
                    .
358                 .     127A
                    .        .
                    .        .
367                 .        .        127B
                    .        .           .
                    .        .           .
376                 .     CAP1............
                    .        V
                    .        V
379                 .     RCAP1
                    .        .
                    .        .
                    .        .        127C
                    .        .           .
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```
                                                  127D
403                      CAP2.......................
                            V
                            V
406                     RCAP2

412                                  127E

421                                                127F

430                                  CAP3............
                                        V
                                        V
433                                  RCAP3

439                                                127G

448                                  CAP4............
                                        V
                                        V
451                                  SCAP4
                                        V
                                        V
459                                 R2CAP4

465                                                127I

474                                 *CAP5............

477                                                127H

                         CAP5.......................
                            V
                            V
489                     RCAP5

495                                  127J

504                      CAP6............

507                 WW8............
                       V
                       V
511                RWW8

517                      126N

526                 WW9............

529          CER4............
                V
                V
533         RCER4

539                 120F

548         *CER5............

551                 125A

560                      125B

                    CHK1............
                       V
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```
                V
          RCHK1
                .
                .
578             .        125C
                .           V
                .           V
587             .       R125C
                .           .
                .           .
593             .           .        125D
                .           .          .
                .           .          .
602             .      CHK2.......................
                .         V
                .         V
605             .     R2CHK2
                .           .
                .           .
611             .        125E
                .           .
                .           .
620             .      CHK3............
                .           .
                .           .
623        CER5............
              V
              V
627       RCER5
                .
                .
633             .      120G
                .           .
                .           .
642       *CER6............
                .
                .
645             .      124A
                .           .
                .           .
654             .        124B
                .           .
                .           .
                .      LOG1............
                .         V
                .         V
666             .     RLOG1
                .           .
                .           .
672             .        124D
                .           .
                .           .
681             .     *LOG2............
                .           .
                .           .
684             .        124C
                .           .
                .           .
693             .      LOG2............
                .         V
                .         V
696             .     RLOG2
                .           .
                .           .
702             .        124E
                .           .
                .           .
711             .      LOG3............
                .           .
                .           .
714        CER6............
              V
              V
718       RCER6
                .
                .
724             .      120L
                .           .
                .           .
733       *CER7............
                .
                .
736             .      120J
                .         V
                .         V
                .     R120J
                .           .
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                .          .
                .          .        120K
                .          .          .
                .          .          .
760             .       CER7A...........
                .          V
                .          V
763             .      SCER7A
                .          V
                .          V
771             .      RCER7A
                .          .
                .          .
777             .          .        120M
                .          .          .
                .          .          .
786             .          .          .        123B
                .          .          .          V
                .          .          .          V
795             .          .          .       S123B
                .          .          .          V
                .          .          .          V
803             .          .          .       R123B
                .          .          .          V
                .          .          .          V
809             .          .          .       R123B
                .          .          .          .
                .          .          .          .
815          CER7.................................
                V
                V
818         RCER7
                .
                .
824             .    ,     120N
                .          .
                .          .
833         *CER8...........
                .
                .
836             .       123A
                .          V
                .          V
                .      S123A
                .          .
                .          .
853             .          .        123D
                .          .          .
                .          .          .
862             .       TRV1...........
                .          V
                .          V
865             .      STRV1
                .          V
                .          V
873             .      RTRV1
                .          .
                .          .
879             .          .        123C
                .          .          V
                .          .          V
888             .          .       S123C
                .          .          V
                .          .          V
896             .          .       R123C
                .          .          V
                .          .          V
902             .          .       R123C
                .          .          .
                .          .          .
908          CER8.......................
                V
                V
912         RCER8
                .
                .
918             .       1200
                .          V
                .          V
927             .      S1200
                .          V
                .          V
935             .      R1200
                .          V
                .          V
                .      R1200
                .          .
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                .           .
                .           .        120Q
                .           .           .
                .           .           .
956        *CER9.......................
                .
                .
959             .        120P
                .           V
                .           V
968             .       S120P
                .           V
                .           V
976             .       R120P
                .           .
                .           .
982         CER9............
                V
                V
985        SCER9
                .
                .
994             .        120R
                .           .
                .           .
1003            .           .        120S
                .           .           .
                .           .           .
1012        CER10......................
                V
                V
1015      RCER10
                .
                .
1021            .        120T
                .           .
                .           .
1030      *CER11............
                .
                .
1033            .        122C
                .           .
                .           .
                .           .-------> DO122C
                .       D122C
                .           V
                .           V
1047            .       R122C
                .           .
                .           .
1053            .           .        122E
                .           .           .
                .           .           .
1062            .       LSR2B............
                .           V
                .           V
1065            .      RLSR2B
                .           .
                .           .
1071            .           .        122D
                .           .           V
                .           .           V
1080            .           .       R122D
                .           .           .
                .           .           .
1086            .           .           .        122F
                .           .           .           V
                .           .           .           V
1095            .           .           .       R122F
                .           .           .           .
                .           .           .           .
1101            .           .           .           .        122G
                .           .           .           .           .
                .           .           .           .           .
1110            .        LSR2.................................
                .           V
                .           V
1113            .       RLSR2
                .           .
                .           .
1119            .           .        122A
                .           .           .
                .           .           .
1130            .           .           .           .<-------  DO122C
                .           .           .       D122C
                .           .           .           V
                .           .           .           V
```

```
1131                                  RD122C
                                         .
                                         .
                                LSR1B............
                                    V
                                    V
1140                            RLSR1B
                                    .
                                    .
1146                                    122B
                                         .
                                         .
1155                             LSR1............
                                    V
                                    V
1158                            RLSR1
                                    .
                                    .
1164                                    122H
                                         .
                                         .
1173                                     .        122I
                                         .          .
                                         .          .
1182                     LSR3.................................
                            V
                            V
1185                     RLSR3
                            .
                            .
1191                            122J
                                    .
                                    .
1200                     LSR4............
                            V
                            V
1203                     RLS4
                            .
                            .
1209                            122K
                                    .
                                    .
1218                     LSR5............
                            .
                            .
1221            CER11............
                    V
                    V
1225            RCER11
                    .
                    .
1231                     120U
                            .
                            .
1240            *CER12...........
                    .
                    .
1243                     121A
                            V
                            V
1252                    R121A
                            .
                            .
1258                            121B
                                    .
                                    .
1267                     LTD1............
                            .
                            .
1270            CER12............
                    V
                    V
1274            RCER13
                    .
                    .
1280                     120V
                            .
                            .
1289            CER13............
                    V
                    V
1292            SCER13
                    V
                    V
1300            RCER13
                    .
                    .
```

```
1306          .        120X
              .           .
              .           .
1315     *CER14...........
              .
              .
1318          .        120W
              .           V
              .           V
              .       S120W
              .           V
              .           V
1335          .       R120W
              .           .
              .           .
1341      CER14...........
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(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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	120A	33.	4.07	4.	4.	4.	0.02		
+	HYDROGRAPH AT	120B	130.	4.07	14.	12.	12.	0.05		
+	HYDROGRAPH AT	160A	20.	4.00	2.	1.	1.	0.01		
+	ROUTED TO	R160A	19.	4.07	2.	1.	1.	0.01		
+	3 COMBINED AT	CER1	182.	4.07	19.	18.	18.	0.08		
+	ROUTED TO	SCER1	138.	4.20	19.	18.	18.	0.08		
+	HYDROGRAPH AT	120C	14.	4.03	1.	1.	1.	0.00		
+	2 COMBINED AT	CER2	146.	4.17	21.	19.	19.	0.08		
+	ROUTED TO	RCER2	145.	4.27	21.	19.	19.	0.08		
+	HYDROGRAPH AT	120D	174.	4.07	16.	14.	14.	0.07		
+	2 COMBINED AT	*CER3	294.	4.10	37.	33.	33.	0.15		
+	HYDROGRAPH AT	120H	10.	4.07	1.	1.	1.	0.00		
+	ROUTED TO	R120H	10.	4.07	1.	1.	1.	0.00		
+	HYDROGRAPH AT	120I	18.	4.03	2.	1.	1.	0.01		
+	2 COMBINED AT	CER3A	27.	4.03	3.	3.	3.	0.01		
+	ROUTED TO	SCER3A	21.	4.17	2.	2.	2.	0.01		
+	2 COMBINED AT	CER3	313.	4.10	39.	35.	35.	0.16		
+	ROUTED TO	SCER3	301.	4.13	39.	35.	35.	0.16		
+	ROUTED TO	RCER3	301.	4.17	39.	35.	35.	0.16		
+	HYDROGRAPH AT	120E	36.	4.07	4.	4.	4.	0.02		
+	2 COMBINED AT	*CER4	332.	4.17	43.	39.	39.	0.18		
+	HYDROGRAPH AT	126A	19.	4.03	2.	2.	2.	0.01		
+	ROUTED TO	R126A	18.	4.13	2.	2.	2.	0.01		
+	HYDROGRAPH AT	126B	46.	4.07	6.	5.	5.	0.02		
+	2 COMBINED AT	WW1	63.	4.07	7.	7.	7.	0.03		
+	ROUTED TO	RWW1	62.	4.10	7.	7.	7.	0.03		

+	HYDROGRAPH AT	126C	243.	4.13	29.	26.	26.	0.14
+	ROUTED TO	R126C	241.	4.17	29.	26.	26.	0.14
+	HYDROGRAPH AT	126D	71.	4.07	6.	6.	6.	0.03
+	3 COMBINED AT	WW3	353.	4.17	43.	39.	39.	0.20
+	ROUTED TO	RWW3	348.	4.20	43.	39.	39.	0.20
+	HYDROGRAPH AT	126E	227.	4.13	20.	18.	18.	0.09
+	HYDROGRAPH AT	126F	149.	4.10	13.	12.	12.	0.05
+	2 COMBINED AT	WW4	372.	4.13	34.	30.	30.	0.15
+	ROUTED TO	RWW4	358.	4.20	34.	30.	30.	0.15
+	HYDROGRAPH AT	126G	290.	4.10	33.	30.	30.	0.14
+	HYDROGRAPH AT	126H	51.	4.03	5.	4.	4.	0.02
+	4 COMBINED AT	WW5	997.	4.17	113.	103.	103.	0.50
+	ROUTED TO	RWW5	986.	4.23	113.	103.	103.	0.50
+	HYDROGRAPH AT	126I	227.	4.07	21.	19.	19.	0.08
+	HYDROGRAPH AT	126J	4.	4.03	1.	0.	0.	0.00
+	ROUTED TO	R126J	4.	4.07	1.	0.	0.	0.00
+	3 COMBINED AT	WW6	1094.	4.20	134.	122.	122.	0.58
+	ROUTED TO	RWW6	1090.	4.23	134.	122.	122.	0.58
+	HYDROGRAPH AT	126M	59.	4.07	6.	5.	5.	0.03
+	2 COMBINED AT	*WW7	1119.	4.23	140.	127.	127.	0.61
+	HYDROGRAPH AT	126K	28.	4.03	3.	3.	3.	0.01
+	ROUTED TO	R126K	28.	4.10	3.	3.	3.	0.01
+	HYDROGRAPH AT	126L	52.	4.07	6.	5.	5.	0.02
+	3 COMBINED AT	WW7	1162.	4.23	148.	135.	135.	0.64
+	ROUTED TO	SWW7	1089.	4.30	148.	135.	135.	0.64
+	HYDROGRAPH AT	127A	66.	4.07	6.	5.	5.	0.03
+	HYDROGRAPH AT	127B	105.	4.03	9.	8.	8.	0.04
+	2 COMBINED AT	CAP1	170.	4.07	15.	13.	13.	0.07
+	ROUTED TO	RCAP1	167.	4.10	15.	13.	13.	0.07

+	HYDROGRAPH AT	127C	112.	4.07	11.	10.	10.	0.04
+	HYDROGRAPH AT	127D	61.	4.03	5.	5.	5.	0.02
+	3 COMBINED AT	CAP2	338.	4.07	30.	28.	28.	0.13
+	ROUTED TO	RCAP2	333.	4.10	30.	28.	28.	0.13
+	HYDROGRAPH AT	127E	251.	4.07	25.	23.	23.	0.10
+	HYDROGRAPH AT	127F	350.	4.10	39.	35.	35.	0.15
+	2 COMBINED AT	CAP3	597.	4.10	64.	58.	58.	0.25
+	ROUTED TO	RCAP3	592.	4.10	64.	58.	58.	0.25
+	HYDROGRAPH AT	127G	163.	4.03	16.	14.	14.	0.06
+	2 COMBINED AT	CAP4	743.	4.10	80.	72.	72.	0.31
+	ROUTED TO	SCAP4	735.	4.10	80.	72.	72.	0.31
+	ROUTED TO	R2CAP4	732.	4.13	80.	72.	72.	0.31
+	HYDROGRAPH AT	127I	21.	4.07	2.	2.	2.	0.01
+	2 COMBINED AT	*CAP5	750.	4.13	82.	74.	74.	0.32
+	HYDROGRAPH AT	127H	50.	4.03	5.	4.	4.	0.02
+	3 COMBINED AT	CAP5	1112.	4.10	117.	106.	106.	0.47
+	ROUTED TO	RCAP5	1102.	4.13	117.	106.	106.	0.47
+	HYDROGRAPH AT	127J	82.	4.07	8.	8.	8.	0.03
+	2 COMBINED AT	CAP6	1174.	4.13	125.	114.	114.	0.50
+	2 COMBINED AT	WW8	1867.	4.17	267.	242.	242.	1.14
+	ROUTED TO	RWW8	1852.	4.27	267.	242.	242.	1.14
+	HYDROGRAPH AT	126N	165.	4.10	18.	17.	17.	0.08
+	2 COMBINED AT	WW9	1934.	4.23	284.	257.	257.	1.22
+	2 COMBINED AT	CER4	2143.	4.23	323.	293.	293.	1.40
+	ROUTED TO	RCER4	2139.	4.27	323.	293.	293.	1.40
+	HYDROGRAPH AT	120F	60.	4.03	5.	5.	5.	0.02
+	2 COMBINED AT	*CER5	2158.	4.27	328.	297.	297.	1.42
+	HYDROGRAPH AT	125A	167.	4.10	21.	19.	19.	0.08
	HYDROGRAPH AT	125B	262.	4.10	31.	28.	28.	0.11

+	2 COMBINED AT	CHK1	428.	4.10	51.	47.	47.	0.19
+	ROUTED TO	RCHK1	422.	4.13	51.	47.	47.	0.19
+	HYDROGRAPH AT	125C	80.	4.07	8.	7.	7.	0.03
+	ROUTED TO	R125C	65.	4.13	8.	7.	7.	0.03
+	HYDROGRAPH AT	125D	28.	4.20	5.	4.	4.	0.02
+	3 COMBINED AT	CHK2	514.	4.13	64.	58.	58.	0.24
+	ROUTED TO	R2CHK2	504.	4.20	64.	58.	58.	0.24
+	HYDROGRAPH AT	125E	128.	4.03	12.	11.	11.	0.05
+	2 COMBINED AT	CHK3	592.	4.17	76.	69.	69.	0.28
+	2 COMBINED AT	CER5	2503.	4.27	399.	362.	362.	1.71
+	ROUTED TO	RCER5	2490.	4.30	399.	361.	361.	1.71
+	HYDROGRAPH AT	120G	98.	4.07	10.	9.	9.	0.04
+	2 COMBINED AT	*CER6	2526.	4.27	408.	370.	370.	1.74
+	HYDROGRAPH AT	124A	166.	4.07	19.	17.	17.	0.07
+	HYDROGRAPH AT	124B	131.	4.03	11.	10.	10.	0.04
+	2 COMBINED AT	LOG1	292.	4.07	30.	27.	27.	0.11
+	ROUTED TO	RLOG1	287.	4.07	30.	27.	27.	0.11
+	HYDROGRAPH AT	124D	16.	4.10	2.	2.	2.	0.01
+	2 COMBINED AT	*LOG2	303.	4.07	32.	29.	29.	0.12
+	HYDROGRAPH AT	124C	45.	4.07	5.	5.	5.	0.02
+	2 COMBINED AT	LOG2	348.	4.07	38.	34.	34.	0.14
+	ROUTED TO	RLOG2	340.	4.13	38.	34.	34.	0.14
+	HYDROGRAPH AT	124E	135.	4.07	14.	13.	13.	0.05
+	2 COMBINED AT	LOG3	458.	4.13	51.	47.	47.	0.19
+	2 COMBINED AT	CER6	2748.	4.27	456.	413.	413.	1.94
+	ROUTED TO	RCER6	2734.	4.30	456.	412.	412.	1.94
+	HYDROGRAPH AT	120L	97.	4.07	11.	10.	10.	0.04
+	2 COMBINED AT	*CER7	2769.	4.30	466.	422.	422.	1.97
	HYDROGRAPH AT	120J	9.	4.10	1.	1.	1.	0.01

+	ROUTED TO	R120J	9.	4.10	1.	1.	1.	0.01
+	HYDROGRAPH AT	120K	74.	4.07	8.	7.	7.	0.03
+	2 COMBINED AT	CER7A	83.	4.07	9.	8.	8.	0.04
+	ROUTED TO	SCER7A	80.	4.13	9.	8.	8.	0.04
+	ROUTED TO	RCER7A	77.	4.20	9.	8.	8.	0.04
+	HYDROGRAPH AT	120M	77.	4.10	10.	9.	9.	0.04
+	HYDROGRAPH AT	123B	50.	4.03	4.	4.	4.	0.02
+	ROUTED TO	S123B	50.	4.07	4.	4.	4.	0.02
+	ROUTED TO	R123B	49.	4.07	4.	4.	4.	0.02
+	ROUTED TO	R123B	49.	4.07	4.	4.	4.	0.02
+	4 COMBINED AT	CER7	2860.	4.30	487.	441.	441.	2.07
+	ROUTED TO	RCER7	2843.	4.37	486.	440.	440.	2.07
+	HYDROGRAPH AT	120N	123.	4.03	13.	12.	12.	0.04
+	2 COMBINED AT	*CER8	2877.	4.37	499.	451.	451.	2.12
+	HYDROGRAPH AT	123A	181.	4.07	17.	15.	15.	0.08
+	ROUTED TO	S123A	175.	4.10	17.	15.	15.	0.08
+	HYDROGRAPH AT	123D	16.	4.10	2.	2.	2.	0.01
+	2 COMBINED AT	TRV1	191.	4.10	19.	18.	18.	0.09
+	ROUTED TO	STRV1	189.	4.13	19.	18.	18.	0.09
+	ROUTED TO	RTRV1	181.	4.20	19.	18.	18.	0.09
+	HYDROGRAPH AT	123C	10.	4.00	1.	1.	1.	0.00
+	ROUTED TO	S123C	10.	4.00	1.	1.	1.	0.00
+	ROUTED TO	R123C	10.	4.00	1.	1.	1.	0.00
+	ROUTED TO	R123C	9.	4.13	1.	1.	1.	0.00
+	3 COMBINED AT	CER8	2961.	4.37	516.	467.	467.	2.20
+	ROUTED TO	RCER8	2954.	4.40	515.	466.	466.	2.20
+	HYDROGRAPH AT	120O	25.	4.00	2.	2.	2.	0.01
+	ROUTED TO	S120O	25.	4.03	2.	2.	2.	0.01
+	ROUTED TO	R120O	24.	4.03	2.	2.	2.	0.01

+	ROUTED TO	R120O	21.	4.17	2.	2.	2.	0.01
+	HYDROGRAPH AT	120Q	92.	4.07	11.	10.	10.	0.04
+	3 COMBINED AT	*CER9	2988.	4.40	527.	477.	477.	2.25
+	HYDROGRAPH AT	120P	96.	4.00	6.	6.	6.	0.03
+	ROUTED TO	S120P	96.	4.00	6.	6.	6.	0.03
+	ROUTED TO	R120P	94.	4.03	6.	6.	6.	0.03
+	2 COMBINED AT	CER9	2998.	4.40	532.	482.	482.	2.28
+	ROUTED TO	SCER9	2957.	4.43	532.	482.	482.	2.28
+	HYDROGRAPH AT	120R	27.	4.07	4.	3.	3.	0.01
+	HYDROGRAPH AT	120S	18.	4.03	2.	2.	2.	0.01
+	3 COMBINED AT	CER10	2971.	4.43	538.	487.	487.	2.29
+	ROUTED TO	RCER10	2970.	4.47	537.	486.	486.	2.29
+	HYDROGRAPH AT	120T	6.	4.03	1.	1.	1.	0.00
+	2 COMBINED AT	*CER11	2971.	4.47	538.	487.	487.	2.30
+	HYDROGRAPH AT	122C	40.	4.03	4.	3.	3.	0.01
+	DIVERSION TO	DO122C	20.	4.03	2.	2.	2.	0.01
+	HYDROGRAPH AT	D122C	20.	4.03	2.	1.	1.	0.01
+	ROUTED TO	R122C	19.	4.07	2.	1.	1.	0.01
+	HYDROGRAPH AT	122E	89.	4.03	9.	8.	8.	0.03
+	2 COMBINED AT	LSR2B	108.	4.03	11.	10.	10.	0.05
+	ROUTED TO	RLSR2B	105.	4.10	11.	10.	10.	0.05
+	HYDROGRAPH AT	122D	83.	4.07	8.	7.	7.	0.03
+	ROUTED TO	R122D	83.	4.07	8.	7.	7.	0.03
+	HYDROGRAPH AT	122F	22.	4.07	3.	3.	3.	0.01
+	ROUTED TO	R122F	22.	4.10	3.	3.	3.	0.01
+	HYDROGRAPH AT	122G	70.	4.03	7.	6.	6.	0.02
+	4 COMBINED AT	LSR2	272.	4.07	28.	26.	26.	0.11
+	ROUTED TO	RLSR2	269.	4.07	28.	26.	26.	0.11
+	HYDROGRAPH AT	122A	41.	4.07	5.	5.	5.	0.02

+	HYDROGRAPH AT	D122C	20.	4.03	2.	2.	2.	0.01
+	ROUTED TO	RD122C	17.	4.17	2.	2.	2.	0.01
+	2 COMBINED AT	LSR1B	56.	4.10	7.	7.	7.	0.02
+	ROUTED TO	RLSR1B	53.	4.20	7.	7.	7.	0.02
+	HYDROGRAPH AT	122B	103.	4.03	11.	10.	10.	0.03
+	2 COMBINED AT	LSR1	136.	4.07	18.	16.	16.	0.05
+	ROUTED TO	RLSR1	136.	4.07	18.	16.	16.	0.05
+	HYDROGRAPH AT	122H	18.	4.03	2.	2.	2.	0.01
+	HYDROGRAPH AT	122I	18.	4.03	2.	2.	2.	0.01
+	4 COMBINED AT	LSR3	439.	4.07	50.	45.	45.	0.18
+	ROUTED TO	RLSR3	437.	4.10	50.	45.	45.	0.18
+	HYDROGRAPH AT	122J	59.	4.07	6.	6.	6.	0.03
+	2 COMBINED AT	LSR4	494.	4.10	56.	51.	51.	0.20
+	ROUTED TO	RLS4	491.	4.10	56.	51.	51.	0.20
+	HYDROGRAPH AT	122K	6.	4.07	1.	1.	1.	0.00
+	. COMBINED AT	LSR5	497.	4.10	57.	52.	52.	0.21
+	2 COMBINED AT	CER11	3136.	4.43	591.	535.	535.	2.50
+	ROUTED TO	RCER11	3138.	4.47	590.	534.	534.	2.50
+	HYDROGRAPH AT	120U	57.	4.03	6.	5.	5.	0.02
+	2 COMBINED AT	*CER12	3147.	4.47	595.	539.	539.	2.52
+	HYDROGRAPH AT	121A	105.	4.10	11.	10.	10.	0.05
+	ROUTED TO	R121A	105.	4.10	11.	10.	10.	0.05
+	HYDROGRAPH AT	121B	38.	4.10	4.	4.	4.	0.02
+	2 COMBINED AT	LTD1	143.	4.10	15.	14.	14.	0.07
+	2 COMBINED AT	CER12	3190.	4.47	609.	551.	551.	2.59
+	ROUTED TO	RCER13	3194.	4.47	608.	551.	551.	2.59
+	HYDROGRAPH AT	120V	27.	4.03	2.	2.	2.	0.01
+	2 COMBINED AT	CER13	3198.	4.47	611.	553.	553.	2.60
	ROUTED TO	SCER13	3133.	4.53	611.	553.	553.	2.60

+	ROUTED TO	RCER13	3129.	4.57	609.	551.	551.	2.60
+	HYDROGRAPH AT	120X	52.	4.03	5.	5.	5.	0.02
+	2 COMBINED AT	*CER14	3133.	4.57	614.	555.	555.	2.62
+	HYDROGRAPH AT	120W	17.	4.00	1.	1.	1.	0.00
+	ROUTED TO	S120W	11.	4.07	1.	1.	1.	0.00
+	ROUTED TO	R120W	11.	4.10	1.	1.	1.	0.00
+	2 COMBINED AT	CER14	3135.	4.57	615.	556.	556.	2.62

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

L.3

CYPRUS POINT WASH

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*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*              MAY   1991               *
*            VERSION 4.0.1E             *
*     Lahey F77L-EM/32 version 5.01     *
*       Dodson & Associates, Inc.       *
*  RUN DATE  04/05/95  TIME  14:09:33   *
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*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    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

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

  1           ID   CYPRUS POINT WASH - FUTURE CONDITIONS, AGK ENGINEERS, 04-05-95
  2           ID   First routing 5-6-93
  3           ID   Time steps at 2 minutes
  4           ID   6-Hour 100-year storm
  5           ID   File: 130-6CE.DAT
  6           ID
  7           IT       2                    180
  8           IO       5
              *DIAGRAM
  9           IN      15
 10           JD    3.20    0.01
 11           PC    .000    .008    .016    .025    .033    .041    .050    .058    .066    .074
 12           PC    .087    .099    .118    .138    .216    .377    .834    .911    .931    .950
 13           PC    .962    .972    .983    .991   1.000
 14           JD    3.18    0.50
 15           JD    3.14    2.80
 16           PC    .000    .009    .016    .025    .034    .042    .051    .059    .067    .076
 17           PC    .087    .100    .120    .163    .252    .451    .694    .837    .900    .938
 18           PC    .950    .963    .975    .988   1.000
 19           JD    2.95    16.0
 20           PC    .000    .015    .020    .030    .048    .063    .076    .090    .105    .119
 21           PC    .135    .152    .175    .222    .304    .472    .670    .796    .868    .912
 22           PC    .946    .960    .973    .987   1.000

 23           KK    130A
 24           KM   SUB-BASIN 130A
 25           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 26           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 27           BA    .008
 28           LG    .062    .250   5.700    .170  29.620
 29           UC    .183    .441
 30           UA       0       5      16      30      65      77      84      90      94      97
 31           UA     100

 32           KK    130B
 33           KM   SUB-BASIN 130B
 34           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 35           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 36           BA    .031
 37           LG    .150    .250   5.700    .207  28.790
 38           UC    .175    .136
 39           UA       0       5      16      30      65      77      84      90      94      97
 40           UA     100

 41           KK    130C
 42           KM   SUB-BASIN 130C
 43           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 44           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 45           BA    .005
 46           LG    .050    .250   5.700    .170  25.000
 47           UC    .142    .331
 48           UA       0       5      16      30      65      77      84      90      94      97
 49           UA     100
```

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

  50          KK   R130C
  51          KM   ROUTE 130C THROUGH 130D
  52          RS       3    FLOW       0
  53          RC    .025    .013    .025    1767    .054
  54          RX    9975    9980    9985    9986   10014   10015   10020   10025
  55          RY  1640.5  1640.5  1640.5    1640    1640  1640.5  1640.5  1640.5

  56          KK    130D
  57          KM   SUB-BASIN 130D
  58          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  59          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  60          BA    .004
  61          LG    .100    .250   5.700    .170  39.850
  62          UC    .158    .470
  63          UA       0       5      16      30      65      77      84      90      94      97
  64          UA     100

  65          KK     CP1
  66          KM   CYPRUS POINT WASH CONC. POINT 1 - 130A, 130B, R130C, 130D
  67          HC       4

  68          KK    RCP1
  69          KM   ROUTE CP1 THROUGH SUB-BASIN 130F TO CON. POINT CP2
  70          RS       4    FLOW       0
  71          RC     .04     .04     .04    1902    .034
  72          RX    9840    9870    9955    9996   10004   10060   10105   10190
  73          RY    1596    1594    1576    1575    1575    1578    1582    1600

  74          KK    130F
  75          KM   SUB-BASIN 130F
  76          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  77          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
  78          BA    .039
  79          LG    .130    .250   5.700    .189  45.000
  80          UC    .237    .243
  81          UA       0       5      16      30      65      77      84      90      94      97
  82          UA     100

  83          KK    *CP2
  84          KM   CYPRUS POINT WASH CONCENTRATION POINT *2 - RCP1, 130F
  85          HC       2

  86          KK    130E
  87          KM   SUB-BASIN 130E
  88          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  89          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  90          BA    .004
  91          LG    .050    .250   5.700    .170  45.000
  92          UC    .150    .389
  93          UA       0       5      16      30      65      77      84      90      94      97
  94          UA     100
```

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

 95           KK     CP2
 96           KM   CYPRUS POINT WASH CONC. POINT 2 - (RCP1, 130F), 130E
 97           HC       2

 98           KK    RCP2
 99           KM   ROUTE CP2 THROUGH SUB-BASIN 131A TO CON. POINT CP3
100           RS       1    FLOW       0
101           RC     .04     .04     .04     553    .026
102           RX    9820    9840    9910    9965   10050   10120   10160   10190
103           RY    1546    1544    1534  1530.5  1530.5    1534    1538    1542

104           KK    131A
105           KM   SUB-BASIN 131A
106           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
107           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
108           BA    .049
109           LG    .121    .250   5.700    .189  36.660
110           UC    .237    .229
111           UA       0       5      16      30      65      77      84      90      94      97
112           UA     100

113           KK     CP3
114           KM   CYPRUS POINT WASH CONC. POINT 3 - RCP2, 131A
115           HC       2

116           KK    SCP3
117           KM   ROUTE CP3 THROUGH CULVERT UNDER SAGUARO BLVD.
118           RS       1    STOR       0
119           SQ       0      14      50      60     202    1075
120           SE    1522    1523    1524  1524.5    1525    1526
121           SV       0    .002    .009    .017
122           SE    1522    1523    1524    1525

123           KK    RCP3
124           KM   ROUTE CP3 THROUGH SUB-BASIN 130G TO CON. POINT CP4
125           RS       2    FLOW       0
126           RC    0.04    0.04    0.04     768   0.029
127           RX    9915    9950    9980    9998   10002   10025   10030   10090
128           RY    1519    1518    1516   15122    1512    1520    1522    1530

129           KK    130G
130           KM   SUB-BASIN 130G
131           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
132           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
133           BA    .011
134           LG    .150    .250   5.300    .222  65.000
135           UC    .125    .117
136           UA       0       5      16      30      65      77      84      90      94      97
137           UA     100
```

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

 138          KK   CP4
 139          KM   CYPRUS POINT WASH CONC. POINT 4 - RCP3, 130G
 140          HC       2
 141          ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW
NO.       (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

 23        130A
            .
            .
 32         .        130B
            .          .
            .          .
 41         .          .        130C
            .          .          V
            .          .          V
 50         .          .       R130C
            .          .          .
            .          .          .
 56         .          .          .        130D
            .          .          .          .
            .          .          .          .
 65        CP1.................................
            V
            V
 68       RCP1
            .
            .
 74         .        130F
            .          .
            .          .
 83       *CP2............
            .
            .
 86         .        130E
            .          .
            .          .
 95        CP2............
            V
            V
 98       RCP2
            .
            .
104         .        131A
            .          .
            .          .
113        CP3............
            V
            V
116       SCP3
            V
            V
123       RCP3
            .
            .
129         .        130G
            .          .
            .          .
138       CP4 ............
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             MAY   1991                *
*           VERSION 4.0.1E              *
*     Lahey F77L-EM/32 version 5.01     *
*       Dodson & Associates, Inc.       *
*  RUN DATE  04/05/95  TIME  14:09:33   *
*****************************************
```

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

```
                    CYPRUS POINT WASH - FUTURE CONDITIONS, AGK ENGINEERS, 04-05-95
                    First routing 5-6-93
                    Time steps at 2 minutes
                    6-Hour 100-year storm
                    File: 130-6CE.DAT

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

   IT        HYDROGRAPH TIME DATA
                   NMIN          2  MINUTES IN COMPUTATION INTERVAL
                  IDATE      1   0  STARTING DATE
                  ITIME       0000  STARTING TIME
                     NQ        180  NUMBER OF HYDROGRAPH ORDINATES
                 NDDATE      1   0  ENDING DATE
                 NDTIME       0558  ENDING TIME
                  ICENT         19  CENTURY MARK

            COMPUTATION INTERVAL    0.03 HOURS
                 TOTAL TIME BASE    5.97 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

10 JD        INDEX STORM NO. 1
                  STRM       3.20  PRECIPITATION DEPTH
                  TRDA       0.01  TRANSPOSITION DRAINAGE AREA

11 PI          PRECIPITATION PATTERN
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.01      0.01      0.01
                 0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.02      0.02
                 0.02      0.02      0.04      0.06      0.06      0.06      0.06      0.06      0.06      0.06
                 0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

14 JD        INDEX STORM NO. 2
```

```
            STRM        3.18  PRECIPITATION DEPTH
            TRDA        0.50  TRANSPOSITION DRAINAGE AREA

0 PI      PRECIPITATION PATTERN
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.02      0.02
            0.02      0.02      0.04      0.06      0.06      0.06      0.06      0.06      0.06      0.06
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

15 JD     INDEX STORM NO. 3
            STRM        3.14  PRECIPITATION DEPTH
            TRDA        2.80  TRANSPOSITION DRAINAGE AREA

16 PI     PRECIPITATION PATTERN
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.03      0.03      0.03      0.03      0.03
            0.03      0.03      0.03      0.03      0.03      0.03      0.03      0.03      0.03      0.03
            0.02      0.02      0.02      0.02      0.02      0.02      0.02      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

19 JD     INDEX STORM NO. 4
            STRM        2.95  PRECIPITATION DEPTH
            TRDA       16.00  TRANSPOSITION DRAINAGE AREA

20 PI     PRECIPITATION PATTERN
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.02      0.02
            0.02      0.02      0.02      0.03      0.03      0.03      0.03      0.03      0.03      0.03
            0.02      0.02      0.02      0.02      0.02      0.02      0.02      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
```

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	130A	14.	4.07	2.	2.	2.	0.01		
+	HYDROGRAPH AT	130B	90.	4.03	7.	7.	7.	0.03		
+	HYDROGRAPH AT	130C	10.	4.07	1.	1.	1.	0.00		
+	ROUTED TO	R130C	10.	4.13	1.	1.	1.	0.00		
+	HYDROGRAPH AT	130D	7.	4.07	1.	1.	1.	0.00		
+	4 COMBINED AT	CP1	118.	4.03	11.	11.	11.	0.05		
+	ROUTED TO	RCP1	112.	4.13	11.	11.	11.	0.05		
+	HYDROGRAPH AT	130F	92.	4.07	10.	10.	10.	0.04		
+	2 COMBINED AT	*CP2	201.	4.10	22.	22.	22.	0.09		
+	HYDROGRAPH AT	130E	8.	4.07	1.	1.	1.	0.00		
+	2 COMBINED AT	CP2	208.	4.10	23.	23.	23.	0.09		
+	ROUTED TO	RCP2	204.	4.13	23.	23.	23.	0.09		
+	HYDROGRAPH AT	131A	117.	4.07	12.	12.	12.	0.05		
+	2 COMBINED AT	CP3	315.	4.10	35.	35.	35.	0.14		
+	ROUTED TO	SCP3	314.	4.10	35.	35.	35.	0.14		
+	ROUTED TO	RCP3	314.	4.10	35.	35.	35.	0.14		
+	HYDROGRAPH AT	130G	35.	4.03	3.	3.	3.	0.01		
+	2 COMBINED AT	CP4	341.	4.10	38.	38.	38.	0.15		

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

L.4

JACKLIN WASH

```
*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*              MAY   1991               *
*            VERSION 4.0.1E             *
*     Lahey F77L-EM/32 version 5.01     *
*       Dodson & Associates, Inc.       *
*  RUN DATE  04/05/95  TIME  14:11:15   *
*****************************************
```

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

```
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
```

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

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

  1           ID   JACKLIN WASH - FUTURE CONDITIONS, AGK ENGINEERS, 04-05-95
  2           ID   100-Year 6-Hour Storm
  3           ID   time steps at 2 minutes
  4           ID   File:  150-6CF.DAT
  5           ID
  6           IT      2                    200
  7           IO      5
              *DIAGRAM
  8           IN     15
  9           JD   3.20    0.01
 10           PC    .000    .008    .016    .025    .033    .041    .050    .058    .066    .074
 11           PC    .087    .099    .118    .138    .216    .377    .834    .911    .931    .950
 12           PC    .962    .972    .983    .991   1.000
 13           JD   3.18    0.50
 14           JD   3.14    2.80
 15           PC    .000    .009    .016    .025    .034    .042    .051    .059    .067    .076
 16           PC    .087    .100    .120    .163    .252    .451    .694    .837    .900    .938
 17           PC    .950    .963    .975    .988   1.000
 18           JD   2.95    16.0
 19           PC    .000    .015    .020    .030    .048    .063    .076    .090    .105    .119
 20           PC    .135    .152    .175    .222    .304    .472    .670    .796    .868    .912
 21           PC    .946    .960    .973    .987   1.000

 22           KK    151A
 23           KM   SUB-BASIN 151A
 24           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 25           BA    .003
 26           LG    .050    .250   5.700    .170  37.530
 27           UC    .096    .156
 28           UA       0       5      16      30      65      77      84      90      94      97
 29           UA     100

 30           KK   D151A
 31           KM   DIVERSION AT INTERSECTION OF KINGSTREE AND KEOTA
 32           DT  DO151A
 33           DI       0      10     100    1000
 34           DQ       0     2.5      25     250

 35           KK   R151A
 36           KM   ROUTE 151A THROUGH SUB-BASIN 151B TO POINT OF CON. KGT1
 37           RS       2    FLOW       0
 38           RC    0.02    0.02    0.02     775    .021
 39           RX    9975    9980    9985    9986   10014   10015   10020   10025
 40           RY  1774.5  1774.5  1774.5    1774    1774  1774.5  1774.5  1774.5

 41           KK    151B
 42           KM   SUB-BASIN 151B
 43           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 44           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 45           BA    .005
 46           LG    .050    .250   5.700    .170  25.000
 47           UC    .125    .272
 48           UA       0       5      16      30      65      77      84      90      94      97
 49           UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  50          KK   D151B
  51          KM   DIVERTION AT INTERSECTION OF KINGSTREE AND FRISCO
  52          DT  DO151B
  53          DI       1      10     100    1000
  54          DQ     0.5       5      50     500

  55          KK    KGT1
  56          KM   KINGSTREE DRAIN CONCENTRATION POINT 1 - COMBINE R151A WITH R151B
  57          HC       2

  58          KK   RKGT1
  59          KM   ROUTE KGT1 THROUGH SUB-BASIN 151C TO POINT OF CON. KGT2
  60          RS       4    FLOW       0
  61          RC    0.02    0.02    0.02    2023   0.026
  62          RX  9956.5  9961.5  9966.5  9966.5 10033.5 10033.5 10038.5 10043.5
  63          RY  1740.5  1740.5  1740.5    1740    1740  1740.5  1740.5  1740.5

  64          KK    151C
  65          KM   SUB-BASIN 151C
  66          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  67          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  68          BA    .005
  69          LG    .050    .250   5.700    .170  25.000
  70          UC    .121    .247
  71          UA       0       5      16      30      65      77      84      90      94      97
  72          UA     100

  73          KK    KGT2
  74          KM   KINGSTREE DRAIN CONCENTRATION POINT 2 - COMBINE RKGT1 WITH 151C
  75          HC       2

  76          KK   RKGT2
  77          KM   ROUTE KGT2 THROUGH SUB-BASIN 151I TO POINT OF CON. KGT3
  78          RS       3    FLOW       0
  79          RC    0.02    0.02    0.02    1577    .082
  80          RX  9956.5  9961.5  9966.5  9966.5 10033.5 10033.5 10038.5 10043.5
  81          RY  1660.5  1660.5  1660.5    1660    1660  1660.5  1660.5  1660.5

  82          KK    151D
  83          KM   SUB-BASIN 151D
  84          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  85          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
  86          BA    .039
  87          LG    .147    .250   5.700    .179  26.030
  88          UC    .183    .147
  89          UA       0       5      16      30      65      77      84      90      94      97
  90          UA     100

  91          KK    151F
  92          KM   SUB-BASIN 151F
  93          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  94          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  95          BA    .003
  96          LG    .050    .250   5.700    .170  25.000
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  97          UC    .142    .358
  98          UA       0       5      16      30      65      77      84      90      94      97
  99          UA     100

 100          KK   D151F
 101          KM   DIVERSION AT INTERSECTION OF EMERALD AND FRISCO
 102          DT  DO151F
 103          DI       1      10     100    1000
 104          DQ     0.5       5      50     500

 105          KK  RD151F
 106          KM   ROUTE THE D151F THROUGH SUB-BASIN 151E TO CON. POINT KGT3
 107          RS       1    FLOW       0
 108          RC    0.02    0.02    0.02     400   0.065
 109          RX    9975    9980    9985    9986   10014   10015   10020   10025
 110          RY  1715.5  1715.5  1715.5    1715    1715  1715.5  1715.5  1715.5

 111          KK   D151B
 112          KM   FLOW FROM DIVERSION AT KINGSTREE AND FRISCO
 113          DR  DO151B

 114          KK  RD151B
 115          KM   ROUTE DIVERTED FLOW THROUGH SUB-BASIN 151E TO CON. POINT KGT3
 116          RS       2    FLOW       0
 117          RC    0.02    0.02    0.02     488    0.98
 118          RX    9975    9980    9985    9986   10014   10015   10020   10025
 119          RY  1730.5  1730.5  1730.5    1730    1730  1730.5  1730.5  1730.5

 120          KK   KGT3A
 121          KM   KINGSTREE CONCENTRATION POINT 3A - COMBINE RD151F, RD151B, 151D
 122          HC       3

 123          KK   R151D
 124          KM   ROUTE KGT3A THROUGH SUB-BASIN 151E TO POINT OF CON. KGT3
 125          RS       7    FLOW       0
 126          RC    0.04    0.04    0.04    3243    .033
 127          RX    9830    9895    9970    9998   10002   10045   10055   10095
 128          RY    1650    1636    1626    1620    1620    1638    1640    1650

 129          KK   151E
 130          KM   SUB-BASIN 151E
 131          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 132          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 133          BA    .066
 134          LG    .150    .250   5.700    .179  25.000
 135          UC    .217    .245
 136          UA       0       5      16      30      65      77      84      90      94      97
 137          UA     100

 138          KK   *KGT3
 139          KM   KINGSTREE DRAIN CONCENTRATION POINT *3 - RKGT3A, 151E, RKGT2
 140          HC       3
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 141          KK    151I
 142          KM   SUB-BASIN 151I
 143          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 144          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 145          BA    .006
 146          LG    .050    .250   5.700    .170  25.000
 147          UC    .142    .298
 148          UA       0       5      16      30      65      77      84      90      94      97
 149          UA     100

 150          KK    KGT3
 151          KM   KINGSTREE DRAIN CONCENTRATION POINT 3 - COMBINE (RKGT2, RKGT3A, 151E), 151I
 152          HC       2

 153          KK   RKGT3
 154          KM   ROUTE KGT3 THROUGH SUB-BASIN 151I TO POINT OF CON. KGT4
 155          RS       1    FLOW       0
 156          RC    0.02    0.02    0.02     120   0.042
 157          RX  9956.5  9961.5  9966.5  9966.5 10033.5 10033.5 10038.5 10043.5
 158          RY  1583.5  1583.5  1583.5    1583    1583  1583.5  1583.5  1853.5

 159          KK    151J
 160          KM   SUB-BASIN 151J
 161          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 162          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 163          BA    .003
 164          LG    .064    .250   5.700    .170  37.090
 165          UC    .083    .102
 166          UA       0       5      16      30      65      77      84      90      94      97
 167          UA     100

 168          KK   *KGT4
 169          KM   KINGSTREE CONCENTRATION POINT *4 - RKGR3, 151J
 170          HC       2

 171          KK    151H
 172          KM   SUB-BASIN 151H
 173          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 174          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 175          BA    .005
 176          LG    .050    .250   5.700    .170  25.000
 177          UC    .179    .518
 178          UA       0       5      16      30      65      77      84      90      94      97
 179          UA     100

 180          KK   R151H
 181          KM   ROUTE 151H THROUGH SUB-BASIN 151J TO POINT OF CON. KGT4
 182          RS       1    FLOW       0
 183          RC    0.02    0.02    0.02     424   0.092
 184          RX  9956.5  9961.5  9966.5  9966.5 10033.5 10033.5 10038.5 10043.5
 185          RY  1660.5  1660.5  1660.5    1660    1660  1660.5  1660.5  1660.5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  186         KK    KGT4
  187         KM   KINGSTREE DRAIN CONCENTRATION POINT 4 - COMBINE (RKGT3, 151I), R151H
  188         HC       2

  189         KK   RKGT4
  190         KM   ROUTE KGT4 THROUGH SUB-BASIN 151K TO POINT OF CON. KGT5
  191         RS       2    FLOW       0
  192         RC   0.002    0.02    0.02    1007    0.03
  193         RX    9765    9815    9930    9960   10010   10070   10185   10220
  194         RY    1546    1544    1540  1539.5  1539.5    1542    1546    1548

  195         KK    151K
  196         KM   SUB-BASIN 151K
  197         KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  198         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  199         BA    .033
  200         LG    .100    .250   5.700    .171  35.680
  201         UC    .146    .101
  202         UA       0       5      16      30      65      77      84      90      94      97
  203         UA     100

  204         KK    KGT5
  205         KM   KINGSTREE DRAIN CONCENTRATION POINT 5 - COMBINE  RKGT4 AND 151K
  206         HC       2

  207         KK   RKGT5
  208         KM   ROUTE KGT5 THROUGH SUB-BASIN 151L TO POINT OF CON. JKL8
  209         RS       4    FLOW       0
  210         RC    0.02    0.02    0.02    1733   0.019
  211         RX  9956.5  9961.5  9966.5  9966.5 10033.5 10033.5 10038.5 10043.5
  212         RY  1540.7  1540.6  1540.5    1540    1540  1540.5  1540.6  1540.7

  213         KK    151L
  214         KM   SUB-BASIN 151L
  215         KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  216         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
  217         BA    .052
  218         LG    .063    .250   5.700    .170  57.730
  219         UC    .196    .166
  220         UA       0       5      16      30      65      77      84      90      94      97
  221         UA     100

  222         KK    KGT6
  223         KM   KINGSTREE DRAIN CONCENTRATION POINT 6 - RKGT5, 151L
  224         HC       2

  225         KK    152A
  226         KM   SUB-BASIN 152A
  227         KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  228         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
  229         BA    .040
  230         LG    .150    .250   5.700    .179  25.000
  231         UC    .200    .171
  232         UA       0       5      16      30      65      77      84      90      94      97
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 233          UA     100

 234          KK   R152A
 235          KM   ROUTE 152A THROUGH SUB-BASIN 152B TO POINT OF CON. MNG1
 236          RS       2    FLOW       0
 237          RC    0.04    0.04    0.04    1056   0.034
 238          RX    9920    9955    9972    9996   10004   10010   10020   10100
 239          RY    1630    1620    1614    1606    1606    1608    1610    1630

 240          KK    152B
 241          KM   SUB-BASIN 152B
 242          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 243          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 244          BA    .016
 245          LG    .150    .250   5.700    .179  25.000
 246          UC    .179    .197
 247          UA       0       5      16      30      65      77      84      90      94      97
 248          UA     100

 249          KK   *MNG1
 250          KM   MANGRUM DRAIN CONCENTRATION POINT *1 - 152A, 152B
 251          HC       2

 252          KK    152C
 253          KM   SUB-BASIN 152C
 254          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 255          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 256          BA    .013
 257          LG    .150    .250   5.700    .179  25.000
 258          UC    .167    .186
 259          UA       0       5      16      30      65      77      84      90      94      97
 260          UA     100

 261          KK    MNG1
 262          KM   MANGRUM DRAIN CONCENTRATION POINT 1 - COMBINE (R152A, 152B), 152C
 263          HC       2

 264          KK   RMNG1
 265          KM   ROUTE RMNG1 THROUGH SUB-BASIN 152D TO POINT OF CON. MNG1
 266          RS       3    FLOW       0
 267          RC    0.04    0.04    0.04    1214   0.021
 268          RX    9870    9920    9945    9980   10020   10045   10060   10100
 269          RY    1610    1600    1594  1589.5  1589.5    1596    1600    1610

 270          KK    152D
 271          KM   SUB-BASIN 152D
 272          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 273          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 274          BA    .018
 275          LG    .150    .250   5.700    .179  35.690
 276          UC    .192    .223
 277          UA       0       5      16      30      65      77      84      90      94      97
 278          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 279          KK   *MNG2
 280          KM   MANGRUM DRAIN CONCENTRATION POINT *2 - RMNG1, 152D
 281          HC       2

 282          KK    152E
 283          KM   SUB-BASIN 152E
 284          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 285          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 286          BA    .017
 287          LG    .198    .250   5.700    .179  25.790
 288          UC    .196    .242
 289          UA       0       5      16      30      65      77      84      90      94      97
 290          UA     100

 291          KK    MNG2
 292          KM   MANGRUM DRAIN CONCENTRATION POINT 2 - COMBINE (RMNG1,152D), 152E
 293          HC       2

 294          KK   RMNG2
 295          KM   ROUTE MNG2 THROUGH SUB-BASIN 152F TO POINT OF CON. JKL7
 296          RS      2     FLOW       0
 297          RC   0.04    0.04    0.04    1066   0.027
 298          RX   9885    9920    9950    9970   10050   10110   10150   10200
 299          RY   1560    1559    1558    1557    1557    1562    1566    1572

 300          KK    152F
 301          KM   SUB-BASIN 152F
 302          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 303          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 304          BA    .014
 305          LG    .154    .250   5.700    .179  43.470
 306          UC    .183    .225
 307          UA       0       5      16      30      65      77      84      90      94      97
 308          UA     100

 309          KK    MNG3
 310          KM   MANGRUM DRAIN CONCENTRATION POINT 3 - RMNG2, 152F
 311          HC       2

 312          KK    150A
 313          KM   SUB-BASIN 150A
 314          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 315          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 316          BA    .010
 317          LG    .096    .250   5.800    .168  43.560
 318          UC    .138    .192
 319          UA       0       5      16      30      65      77      84      90      94      97
 320          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 321          KK   S150A
 322          KM   ROUTE 150A THROUGH 3- 3'X2' GRATES AWAY FROM THE ROAD
 323          RS       1    ELEV    1746
 324          SQ       0       0      17      50      90
 325          SE    1746    1751  1751.5    1752  1752.5
 326          SA    0.03    0.06    0.35    0.59
 327          SE    1746    1748    1750  1753.5

 328          KK    150B
 329          KM   SUB-BASIN 150B
 330          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 331          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 332          BA    .003
 333          LG    .100    .250   5.700    .170  45.000
 334          UC    .112    .228
 335          UA       0       5      16      30      65      77      84      90      94      97
 336          UA     100

 337          KK   R150B
 338          KM   ROUTE 150B THROUGH SUB-BASIN 150C TO STREET CATCH BASIN
 339          RS       1    FLOW       0
 340          RC    0.04    0.04    0.04     287     0.1
 341          RX    9895    9925    9955    9995   10005   10020   10030   10080
 342          RY    1760    1756    1750    1742    1742    1749    1752    1752

 343          KK   S150B
 344          KM   ROUTE R150B THROUGH 36" CULVERT (STREET CATCH BASIN) TO JKL1
 345          RS       1    ELEV    1753
 346          SQ       0      10      27      39
 347          SE    1753  1753.2  1753.4  1753.5
 348          SA       0     0.1
 349          SE    1753  1753.5

 350          KK    JKL1
 351          KM   JACKLIN WASH CONCENTRATION POINT 1 - COMBINE S150A WITH S150B
 352          HC       2

 353          KK   RJKL1
 354          KM   ROUTE JKL1 THROUGH SUB-BASIN 150C TO POINT OF CON. JKL2
 355          RS       3    FLOW       0
 356          RC    0.04    0.04    0.04    1469   0.061
 357          RX    9900    9940    9975    9992   10008   10025   10050   10115
 358          RY    1720    1710    1700    1694    1694    1698    1704    1720

 359          KK    150C
 360          KM   SUB-BASIN 150C
 361          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 362          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 363          BA    .022
 364          LG    .150    .250   5.700    .179  25.000
 365          UC    .142    .146
 366          UA       0       5      16      30      65      77      84      90      94      97
 367          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 368          KK    150D
 369          KM   SUB-BASIN 150D
 370          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 371          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 372          BA    .055
 373          LG    .132    .250   5.700    .176  32.220
 374          UC    .279    .316
 375          UA       0       5      16      30      65      77      84      90      94      97
 376          UA     100

 377          KK    JKL2
 378          KM   JACKLIN WASH CONCENTRATION POINT 2 - COMBINE RJKL1 WITH 150D AND 150C
 379          HC       3

 380          KK   RJKL2
 381          KM   ROUTE JKL2 THROUGH SUB-BASIN 150E TO POINT OF CON. JKL3
 382          RS       1    FLOW       0
 383          RC    0.04    0.04    0.04     573    .003
 384          RX    9840    9920    9980    9992   10008   10045   10070   10165
 385          RY    1690    1668    1666    1664    1664    1668    1670    1690

 386          KK    150E
 387          KM   SUB-BASIN 150E
 388          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 389          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 390          BA    .020
 391          LG    .150    .250   5.700    .179  25.000
 392          UC    .108    .077
 393          UA       0       5      16      30      65      77      84      90      94      97
 394          UA     100

 395          KK    JKL3
 396          KM   JACKLIN WASH CONCENTRATION POINT 3 - COMBINE 150E WITH RJKL2
 397          HC       2

 398          KK   SJKL3
 399          KM   ROUTE JKL3 THROUGH CULVERT AT KEOTA DRIVE
 400          RS       1    ELEV    1664
 401          SQ       0      16      48      92     115
 402          SE    1664 1665.75  1667.5    1671    1674
 403          SA    0.17    1.42    4.15
 404          SE    1664    1668    1674

 405          KK    150F
 406          KM   SUB-BASIN 150F
 407          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 408          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 409          BA    .004
 410          LG    .150    .250   5.700    .179  25.000
 411          UC    .108    .169
 412          UA       0       5      16      30      65      77      84      90      94      97
 413          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 414          KK    150G
 415          KM   SUB-BASIN 150G
 416          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 417          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 418          BA    .005
 419          LG    .050    .250   5.700    .170  25.000
 420          UC    .154    .392
 421          UA       0       5      16      30      65      77      84      90      94      97
 422          UA     100

 423          KK   D151A
 424          KM   FLOW FROM DIVERSION AT KINGSTRE AND KEOTA
 425          DR  DO151A

 426          KK  RD151A
 427          KM   ROUTE DIVERTED FLOW THROUGH 150G TO CON. POINT JKL4
 428          RS       4    FLOW       0
 429          RC    0.02    0.02    0.02    1713   0.062
 430          RX    9975    9980    9985    9986   10014   10015   10020   10025
 431          RY  1750.5  1750.5  1750.5    1750    1750  1750.5  1750.5  1750.5

 432          KK    JKL4
 433          KM   JACKLIN WASH CONCENTRATION POINT 4 - COMBINE SJKL3, 150F, 150G, RD151A
 434          HC       4

 435          KK   RJKL4
 436          KM   ROUTE JKL4 THROUGH SUB-BASIN 150H TO POINT OF CON. JKL5
 437          RS       1    FLOW       0
 438          RC    0.04    0.04    0.04     119   0.067
 439          RX    9780    9835    9920    9990   10003   10010   10035   10045
 440          RY    1560    1550    1546    1536    1536    1540    1554    1560

 441          KK    150H
 442          KM   SUB-BASIN 150H
 443          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 444          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 445          BA    .032
 446          LG    .150    .250   5.700    .179  25.000
 447          UC    .146    .137
 448          UA       0       5      16      30      65      77      84      90      94      97
 449          UA     100

 450          KK    JKL5
 451          KM   JACKLIN WASH CONCENTRATION POINT 5 - COMBINE RJKL4 WITH 150H
 452          HC       2

 453          KK   RJKL5
 454          KM   ROUTE JKL5 THROUGH SUB-BASIN 150I TO POINT OF CON. JKL6
 455          RS       8    FLOW       0
 456          RC    0.04    0.04    0.04    4453    0.02
 457          RX    9795    9920    9955    9990   10010   10045   10090   10120
 458          RY    1626    1610    1604    1602    1602    1610    1622    1630
```

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

 459          KK    150I
 460          KM   SUB-BASIN 150I
 461          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 462          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .998
 463          BA    .117
 464          LG    .162    .250   5.700    .178  35.170
 465          UC    .346    .346
 466          UA       0       5      16      30      65      77      84      90      94      97
 467          UA     100

 468          KK    JKL6
 469          KM   JACKLIN WASH CONCENTRATION POINT 6 - COMBINE RJKL5 WITH 150I
 470          HC       2

 471          KK   RJKL6
 472          KM   ROUTE JKL6 THROUGHT SUB-BASIN 150K TO POINT OF CON. JKL6
 473          RS       1    FLOW       0
 474          RC    0.04    0.04    0.04     345    0.02
 475          RX    9765    9815    9930    9960   10010   10070   10185   10220
 476          RY    1546    1544    1540  1539.5  1539.5    1542    1546    1548

 477          KK    150J
 478          KM   SUB-BASIN 150J
 479          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 480          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 481          BA    .010
 482          LG    .050    .250   5.700    .170  34.720
 483          UC    .225    .742
 484          UA       0       5      16      30      65      77      84      90      94      97
 485          UA     100

 486          KK   R150J
 487          KM   ROUTE 150J THROUGH SUB-BASIN 150K TO POINT OF CON. JKL7
 488          RS       1    FLOW       0
 489          RC    0.04    0.04    0.04     437   0.032
 490          RX    9765    9815    9930    9960   10010   10070   10185   10220
 491          RY    1546    1544    1540  1539.5  1539.5    1542    1546    1548

 492          KK    150K
 493          KM   SUB-BASIN 150K
 494          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 495          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 496          BA    .009
 497          LG    .100    .250   5.700    .170  45.000
 498          UC    .121    .149
 499          UA       0       5      16      30      65      77      84      90      94      97
 500          UA     100

 501          KK   *JKL7
 502          KM   JAKLIN WASH CONCENTRATION POINT *7 COMBINES RJKL6, 150J, 150K
 503          HC       3
```

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

 504          KK    JKL7
 505          KM   JACKLIN WASH CONCENTRATION POINT 7 - COMBINE (RJKL6, 150J, 150K), MNG3
 506          HC       2

 507          KK   RJKL7
 508          KM   ROUTE JKL7 THROUGH SUB-BASIN 150L TO POINT OF CON. JKL8
 509          RS       2    FLOW       0
 510          RC    0.04    0.04    0.04    1073    .020
 511          RX    9875    9895    9925    9965   10035   10070   10090   10112
 512          RY    1536    1536    1528    1525    1525    1528    1532    1537

 513          KK    150L
 514          KM   SUB-BASIN 150L
 515          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 516          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 517          BA    .010
 518          LG    .200    .250   5.700    .179  45.000
 519          UC    .167    .245
 520          UA       0       5      16      30      65      77      84      90      94      97
 521          UA     100

 522          KK   *JKL8
 523          KM   JACKLING WASH CONCENTRATION POINT *8 - COMBINE  RJKL7, 150L
 524          HC       2

 525          KK    JKL8
 526          KM   JACKLING WASH CONCENTRATION POINT 8 - COMBINE  (RJKL7, 150L), RKGT5
 527          HC       2

 528          KK   SJKL8
 529          KM   ROUTE JKL8 THROUGH 7x14 BOX CULVERT AT SAGUARO BLV.
 530          KO       3
 531          RS       1    ELEV  1514.3
 532          SQ       0     273     504     756    1190
 533          SE  1514.3  1517.8  1519.6  1521.3  1524.8
 534          SA       0    0.04    1.19
 535          SE  1514.3    1518    1525

 536          KK   RJKL8
 537          KM   ROUTE RJKL8 THROUGH SUB-BASIN 150M TO POINT OF CON. JKL9
 538          RS       2    FLOW       0
 539          RC     .04    0.04    0.04     603    0.02
 540          RX    9760    9820    9890    9975   10000   10060   10120   10220
 541          RY    1515    1514    1512    1508    1508    1512    1516    1520

 542          KK    150M
 543          KM   SUB-BASIN 150M
 544          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 545          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 546          BA    .023
 547          LG    .200    .250   5.100    .232  45.000
 548          UC    .150    .119
 549          UA       0       5      16      30      65      77      84      90      94      97
 550          UA     100
```

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

 551          KK    JKL9
 552          KM   JACKLING WASH CONCENTRATION POINT 9 - COMBINE  SJKL8, 150M
 553          HC       2

 554          KK   SJKL9
 555          KM   ROUTE JKL9 THROUGH CULVERT AT INDIAN WELLS DRIVE.
 556          RS       1    ELEV 1501.73
 557          SQ       0      74     224     440     640     800    1350
 558          SE  1501.7  1504.2  1506.7  1511.7  1512.2  1512.7  1513.2
 559          SA       0    0.03    1.03
 560          SE  501.73    1504    1511

 561          KK    150N
 562          KM   SUB-BASIN 150N
 563          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 564          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 565          BA    .001
 566          LG    .050    .250   5.600    .180  45.000
 567          UC    .096    .223
 568          UA       0       5      16      30      65      77      84      90      94      97
 569          UA     100

 570          KK    1500
 571          KM   SUB-BASIN 1500
 572          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 573          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 574          BA    .004
 575          LG    .050    .250   4.350    .330  45.000
 576          UC    .175    .370
 577          UA       0       5      16      30      65      77      84      90      94      97
 578          UA     100

 579          KK   JKL10
 580          KM   JACKLING WASH CONCENTRATION POINT 10 - COMBINE  SJKL9, 150N, 1500
 581          HC       3

 582          KK  RJKL10
 583          KM   ROUTE RJKL10 THROUGH SUB-BASIN 150P TO POINT OF CON. JKL11
 584          RS       1    FLOW       0
 585          RC    0.04    0.04    0.04     231    .022
 586          RX    9945    9950    9970    9995   10010   10025   10045   10170
 587          RY    1516    1514    1508  1499.5  1499.5    1504    1510    1511

 588          KK    150P
 589          KM   SUB-BASIN 150P
 590          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 591          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 592          BA    .001
 593          LG    .250    .250   4.800    .443  45.000
 594          UC    .112    .200
 595          UA       0       3       5       8      12      20      43      75      90      96
 596          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 597          KK   JKL11
 598          KM   JACKLING WASH CONCENTRATION POINT 11 - COMBINE  RJKL10, 150DP
 599          HC       2
 600          ZZ
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            SCHEMATIC DIAGRAM OF STREAM NETWORK
LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

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

 22         151A
            .
            .
 32         .-------> DO151A
 30       D151A
            V
            V
 35       R151A
            .
            .
 41         .        151B
            .           .
            .           .
 52         .           .-------> DO151B
 50         .       D151B
            .           .
            .           .
 55        KGT1............
            V
            V
 58       RKGT1
            .
            .
 64         .        151C
            .           .
            .           .
 73        KGT2............
            V
            V
          RKGT2
            .
            .
 82         .        151D
            .           .
            .           .
 91         .           .        151F
            .           .          .
            .           .          .
102         .           .          .-------> DO151F
100         .           .      D151F
            .           .          V
            .           .          V
105         .           .     RD151F
            .           .          .
            .           .          .
113         .           .          .          .<-------  DO151B
111         .           .          .      D151B
            .           .          .          V
            .           .          .          V
114         .           .          .     RD151B
            .           .          .          .
            .           .          .          .
120         .       KGT3A.......................
            .           V
            .           V
123         .       R151D
            .           .
            .           .
129         .           .      151E
            .           .          .
            .           .          .
138       *KGT3.......................
            .
            .
            .        151I
```

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          .          .
          .          .
      KGT3............
          V
          V
153     RKGT3
          .
          .
159       .        151J
          .          .
          .          .
168    *KGT4............
          .
          .
171       .        151H
          .          V
          .          V
180       .       R151H
          .          .
          .          .
186     KGT4............
          V
          V
189     RKGT4
          .
          .
195       .        151K
          .          .
          .          .
204     KGT5............
          V
          V
207     RKGT5
          .
          .
          .        151L
          .          .
          .          .
222     KGT6............
          .
          .
225       .        152A
          .          V
          .          V
234       .       R152A
          .          .
          .          .
240       .          .        152B
          .          .          .
          .          .          .
249       .       *MNG1............
          .          .
          .          .
252       .          .        152C
          .          .          .
          .          .          .
261       .        MNG1............
          .          V
          .          V
264       .       RMNG1
          .          .
          .          .
270       .          .        152D
          .          .          .
          .          .          .
279       .       *MNG2............
          .          .
          .          .
282       .          .        152E
          .          .          .
          .          .          .
          .        MNG2............
```

```
        .        V
        .        V
        .     RMNG2
        .        .
        .        .
300     .        .      152F
        .        .        .
        .        .        .
309     .     MNG3............
        .        .
        .        .
312     .        .      150A
        .        .        V
        .        .        V
321     .        .     S150A
        .        .        .
        .        .        .
328     .        .        .      150B
        .        .        .        V
        .        .        .        V
337     .        .        .     R150B
        .        .        .        V
        .        .        .        V
343     .        .        .     S150B
        .        .        .        .
        .        .        .        .
350     .        .      JKL1............
        .        .        V
        .        .        V
353     .        .     RJKL1
        .        .        .
        .        .        .
359     .        .        .      150C
        .        .        .        .
        .        .        .        .
        .        .        .        .        150D
        .        .        .        .          .
        .        .        .        .          .
377     .        .      JKL2......................
        .        .        V
        .        .        V
380     .        .     RJKL2
        .        .        .
        .        .        .
386     .        .        .      150E
        .        .        .        .
        .        .        .        .
395     .        .      JKL3............
        .        .        V
        .        .        V
398     .        .     SJKL3
        .        .        .
        .        .        .
405     .        .        .      150F
        .        .        .        .
        .        .        .        .
414     .        .        .        .        150G
        .        .        .        .          .
        .        .        .        .          .
425     .        .        .        .          .          .<-------  DO151A
423     .        .        .        .          .      D151A
        .        .        .        .          .          V
        .        .        .        .          .          V
426     .        .        .        .          .     RD151A
        .        .        .        .          .          .
        .        .        .        .          .          .
432     .        .      JKL4...................................
        .        .        V
        .        .        V
435     .        .     RJKL4
        .        .        .
        .        .        .
```

```
441          .          .          .        150H
             .          .          .          .
             .          .          .          .
450          .          .       JKL5............
             .          .          V
             .          .          V
453          .          .      RJKL5
             .          .          .
             .          .          .
459          .          .          .        150I
             .          .          .          .
             .          .          .          .
468          .          .       JKL6............
             .          .          V
             .          .          V
471          .          .      RJKL6
             .          .          .
             .          .          .
477          .          .          .        150J
             .          .          .          V
             .          .          .          V
486          .          .          .       R150J
             .          .          .          .
             .          .          .          .
492          .          .          .          .        150K
             .          .          .          .          .
             .          .          .          .          .
501          .          .      *JKL7........................
             .          .          .
             .          .          .
504          .       JKL7............
             .          V
             .          V
507          .      RJKL7
             .          .
             .          .
             .          .       150L
             .          .          .
             .          .          .
522          .      *JKL8............
             .          .
             .          .
525       JKL8............
             V
             V
528      SJKL8
             V
             V
536      RJKL8
             .
             .
542          .       150M
             .          .
             .          .
551       JKL9............
             V
             V
554      SJKL9
             .
             .
561          .       150N
             .          .
             .          .
570          .          .       1500
             .          .          .
             .          .          .
579      JKL10........................
             V
             V
582     RJKL10
             .
             .
```

```
588          .        150P
             :          :
             :          :
597      JKL11...........
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
*****************************************
*                                       *
*  FLOOD HYDROGRAPH PACKAGE  (HEC-1)    *
*              MAY   1991               *
*           VERSION 4.0.1E              *
*     Lahey F77L-EM/32 version 5.01     *
*       Dodson & Associates, Inc.       *
*  RUN DATE  04/05/95  TIME  14:11:15   *
*****************************************
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*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 551-1748              *
*                                       *
*****************************************
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```
                    JACKLIN WASH - FUTURE CONDITIONS, AGK ENGINEERS, 04-05-95
                    100-Year 6-Hour Storm
                    time steps at 2 minutes
                    File:  150-6CF.DAT

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

    IT        HYDROGRAPH TIME DATA
                     NMIN          2  MINUTES IN COMPUTATION INTERVAL
                    IDATE      1   0  STARTING DATE
                    ITIME       0000  STARTING TIME
                       NQ        200  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE      1   0  ENDING DATE
                   NDTIME       0638  ENDING TIME
                    ICENT         19  CENTURY MARK

              COMPUTATION INTERVAL    0.03 HOURS
                   TOTAL TIME BASE    6.63 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

  9 JD        INDEX STORM NO. 1
                    STRM       3.20  PRECIPITATION DEPTH
                    TRDA       0.01  TRANSPOSITION DRAINAGE AREA

 10 PI          PRECIPITATION PATTERN
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.01      0.01      0.01
                  0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.02      0.02
                  0.02      0.02      0.04      0.06      0.06      0.06      0.06      0.06      0.06      0.06
                  0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

  JD        INDEX STORM NO. 2
                    STRM       3.18  PRECIPITATION DEPTH
```

TRDA 0.50 TRANSPOSITION DRAINAGE AREA

PI PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
0.02	0.02	0.04	0.06	0.06	0.06	0.06	0.06	0.06	0.06
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

14 JD INDEX STORM NO. 3

STRM 3.14 PRECIPITATION DEPTH

TRDA 2.80 TRANSPOSITION DRAINAGE AREA

15 PI PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.03	0.03	0.03	0.03	0.03
0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

18 JD INDEX STORM NO. 4

STRM 2.95 PRECIPITATION DEPTH

TRDA 16.00 TRANSPOSITION DRAINAGE AREA

19 PI PRECIPITATION PATTERN

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03
0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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	151A	9.	4.00	1.	1.	1.	0.00		
+	DIVERSION TO	DO151A	2.	4.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	D151A	7.	4.00	1.	1.	1.	0.00		
+	ROUTED TO	R151A	6.	4.07	1.	1.	1.	0.00		
+	HYDROGRAPH AT	151B	11.	4.03	1.	1.	1.	0.00		
+	DIVERSION TO	DO151B	6.	4.03	1.	1.	1.	0.00		
+	HYDROGRAPH AT	D151B	6.	4.03	1.	0.	0.	0.00		
+	2 COMBINED AT	KGT1	12.	4.07	1.	1.	1.	0.01		
+	ROUTED TO	RKGT1	10.	4.23	1.	1.	1.	0.01		
+	HYDROGRAPH AT	151C	12.	4.03	1.	1.	1.	0.00		
+	2 COMBINED AT	KGT2	18.	4.17	2.	2.	2.	0.01		
+	ROUTED TO	RKGT2	18.	4.23	2.	2.	2.	0.01		
+	HYDROGRAPH AT	151D	110.	4.03	9.	8.	8.	0.04		
+	HYDROGRAPH AT	151F	6.	4.07	1.	1.	1.	0.00		
+	DIVERSION TO	DO151F	3.	4.07	0.	0.	0.	0.00		
+	HYDROGRAPH AT	D151F	3.	4.07	0.	0.	0.	0.00		
+	ROUTED TO	RD151F	3.	4.07	0.	0.	0.	0.00		
+	HYDROGRAPH AT	D151B	6.	4.03	1.	1.	1.	0.00		
+	ROUTED TO	RD151B	6.	4.07	1.	1.	1.	0.00		
+	3 COMBINED AT	KGT3A	118.	4.03	10.	9.	9.	0.04		
+	ROUTED TO	R151D	116.	4.13	10.	9.	9.	0.04		

+	HYDROGRAPH AT	151E	151.	4.07	15.	14.	14.	0.07
+	3 COMBINED AT	*KGT3	271.	4.10	28.	25.	25.	0.12
+	HYDROGRAPH AT	151I	13.	4.03	1.	1.	1.	0.01
+	2 COMBINED AT	KGT3	283.	4.10	29.	26.	26.	0.13
+	ROUTED TO	RKGT3	283.	4.10	29.	26.	26.	0.13
+	HYDROGRAPH AT	151J	10.	4.00	1.	1.	1.	0.00
+	2 COMBINED AT	*KGT4	289.	4.10	30.	27.	27.	0.13
+	HYDROGRAPH AT	151H	8.	4.07	1.	1.	1.	0.00
+	ROUTED TO	R151H	8.	4.10	1.	1.	1.	0.00
+	2 COMBINED AT	KGT4	297.	4.10	31.	28.	28.	0.13
+	ROUTED TO	RKGT4	296.	4.13	31.	28.	28.	0.13
+	HYDROGRAPH AT	151K	105.	4.03	8.	8.	8.	0.03
+	2 COMBINED AT	KGT5	368.	4.10	39.	36.	36.	0.17
+	ROUTED TO	RKGT5	367.	4.13	39.	36.	36.	0.17
+	HYDROGRAPH AT	151L	146.	4.03	15.	13.	13.	0.05
+	2 COMBINED AT	KGT6	496.	4.10	54.	49.	49.	0.22
+	HYDROGRAPH AT	152A	106.	4.07	9.	8.	8.	0.04
+	ROUTED TO	R152A	105.	4.07	9.	8.	8.	0.04
+	HYDROGRAPH AT	152B	41.	4.03	4.	3.	3.	0.02
+	2 COMBINED AT	*MNG1	145.	4.07	13.	12.	12.	0.06
+	HYDROGRAPH AT	152C	34.	4.03	3.	3.	3.	0.01
+	2 COMBINED AT	MNG1	178.	4.07	16.	15.	15.	0.07
+	ROUTED TO	RMNG1	171.	4.13	16.	15.	15.	0.07
+	HYDROGRAPH AT	152D	44.	4.07	4.	4.	4.	0.02

+	2 COMBINED AT	*MNG2	209.	4.13	21.	19.	19.	0.09
+	HYDROGRAPH AT	152E	39.	4.07	4.	4.	4.	0.02
+	2 COMBINED AT	MNG2	247.	4.10	24.	22.	22.	0.10
+	ROUTED TO	RMNG2	246.	4.17	24.	22.	22.	0.10
+	HYDROGRAPH AT	152F	35.	4.07	4.	3.	3.	0.01
+	2 COMBINED AT	MNG3	273.	4.17	28.	25.	25.	0.12
+	HYDROGRAPH AT	150A	27.	4.03	3.	2.	2.	0.01
+	ROUTED TO	S150A	10.	4.33	1.	1.	1.	0.01
+	HYDROGRAPH AT	150B	8.	4.03	1.	1.	1.	0.00
+	ROUTED TO	R150B	8.	4.03	1.	1.	1.	0.00
+	ROUTED TO	S150B	8.	4.03	1.	1.	1.	0.00
+	2 COMBINED AT	JKL1	14.	4.30	2.	2.	2.	0.01
+	ROUTED TO	RJKL1	14.	4.33	2.	2.	2.	0.01
+	HYDROGRAPH AT	150C	63.	4.03	5.	5.	5.	0.02
+	HYDROGRAPH AT	150D	110.	4.10	13.	12.	12.	0.05
+	3 COMBINED AT	JKL2	175.	4.07	20.	18.	18.	0.09
+	ROUTED TO	RJKL2	167.	4.10	20.	18.	18.	0.09
+	HYDROGRAPH AT	150E	67.	4.00	5.	4.	4.	0.02
+	2 COMBINED AT	JKL3	215.	4.07	25.	23.	23.	0.11
+	ROUTED TO	SJKL3	74.	4.50	24.	22.	22.	0.11
+	HYDROGRAPH AT	150F	11.	4.03	1.	1.	1.	0.00
+	HYDROGRAPH AT	150G	9.	4.07	1.	1.	1.	0.00
+	HYDROGRAPH AT	D151A	2.	4.00	0.	0.	0.	0.00
+	ROUTED TO	RD151A	2.	4.13	0.	0.	0.	0.00

+	4 COMBINED AT	JKL4	82.	4.30	27.	24.	24.	0.12
+	ROUTED TO	RJKL4	82.	4.30	27.	24.	24.	0.12
+	HYDROGRAPH AT	150H	94.	4.03	7.	7.	7.	0.03
+	2 COMBINED AT	JKL5	169.	4.03	34.	31.	31.	0.15
+	ROUTED TO	RJKL5	151.	4.27	34.	30.	30.	0.15
+	HYDROGRAPH AT	150I	219.	4.13	29.	26.	26.	0.12
+	2 COMBINED AT	JKL6	346.	4.20	62.	57.	57.	0.27
+	ROUTED TO	RJKL6	345.	4.23	62.	56.	56.	0.27
+	HYDROGRAPH AT	150J	12.	4.10	2.	2.	2.	0.01
+	ROUTED TO	R150J	12.	4.17	2.	2.	2.	0.01
+	HYDROGRAPH AT	150K	27.	4.03	2.	2.	2.	0.01
+	3 COMBINED AT	*JKL7	369.	4.20	67.	61.	61.	0.29
+	2 COMBINED AT	JKL7	638.	4.17	95.	86.	86.	0.41
+	ROUTED TO	RJKL7	634.	4.20	95.	86.	86.	0.41
+	HYDROGRAPH AT	150L	24.	4.03	3.	2.	2.	0.01
+	2 COMBINED AT	*JKL8	651.	4.20	97.	88.	88.	0.41
+	2 COMBINED AT	JKL8	1044.	4.17	150.	136.	136.	0.63
+	ROUTED TO	SJKL8	1004.	4.23	150.	136.	136.	0.63
+	ROUTED TO	RJKL8	1000.	4.23	150.	136.	136.	0.63
+	HYDROGRAPH AT	150M	71.	4.03	6.	5.	5.	0.02
+	2 COMBINED AT	JKL9	1019.	4.23	155.	141.	141.	0.66
+	ROUTED TO	SJKL9	1016.	4.27	155.	141.	141.	0.66
+	HYDROGRAPH AT	150N	3.	4.03	0.	0.	0.	0.00
+	HYDROGRAPH AT	150O	8.	4.07	1.	1.	1.	0.00

+	3 COMBINED AT	JKL10	1021.	4.27	156.	142.	142.	0.66
+	ROUTED TO	RJKL10	1019.	4.27	156.	142.	142.	0.66
+	HYDROGRAPH AT	150P	2.	4.07	0.	0.	0.	0.00
+	2 COMBINED AT	JKL11	1020.	4.27	157.	142.	142.	0.66

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

L.5

EMERALD WASH

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*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*              MAY   1991               *
*            VERSION 4.0.1E             *
*     Lahey F77L-EM/32 version 5.01     *
*       Dodson & Associates, Inc.       *
*  RUN DATE  04/05/95  TIME  14:51:30   *
*****************************************
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*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    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

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

  1           ID   EMERALD WASH WATERSHED - FUTURE CONDITIONS, AGK ENGINEERS, 00-05-95
  2           ID   100 Year 6-Hour Storm
  3           ID   Time step at 2 minutes
  4           ID   File:  160-6CF.DAT
  5           ID
  6           IT       2                    200
  7           IO       5
              *DIAGRAM
  8           IN      15
  9           JD    3.20    0.01
 10           PC    .000    .008    .016    .025    .033    .041    .050    .058    .066    .074
 11           PC    .087    .099    .118    .138    .216    .377    .834    .911    .931    .950
 12           PC    .962    .972    .983    .991   1.000
 13           JD    3.18    0.50
 14           JD    3.14    2.80
 15           PC    .000    .009    .016    .025    .034    .042    .051    .059    .067    .076
 16           PC    .087    .100    .120    .163    .252    .451    .694    .837    .900    .938
 17           PC    .950    .963    .975    .988   1.000
 18           JD    2.95    16.0
 19           PC    .000    .015    .020    .030    .048    .063    .076    .090    .105    .119
 20           PC    .135    .152    .175    .222    .304    .472    .670    .796    .868    .912
 21           PC    .946    .960    .973    .987   1.000

 22           KK    160V
 23           KM   SUB-BASIN 160V
 24           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 25           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 26           BA    .005
 27           LG    .050    .250   5.700    .170  25.000
 28           UC    .108    .192
 29           UA       0       5      16      30      65      77      84      90      94      97
 30           UA     100

 31           KK   R160V
 32           KM   ROUTE 160V THROUGH SUB-BASIN 160W TO POINT OF CON. EMR13A
 33           RS       1    FLOW       0
 34           RC    0.02    0.02    0.02     550   0.022
 35           RX    9975    9980    9985    9986   10014   10015   10020   10025
 36           RY  1730.5  1730.5  1730.5    1730    1730  1730.5  1730.5  1730.5

 37           KK    160W
 38           KM   SUB-BASIN 160W
 39           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 40           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 41           BA    .002
 42           LG    .050    .250   5.700    .170  25.000
 43           UC    .083    .139
 44           UA       0       5      16      30      65      77      84      90      94      97
 45           UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  46          KK  EMR13A
  47          KM   EMERAL WASH CONCENTRATION POIT 13A - COMBINE  R160V, 160W
  48          HC       2

  49          KK   D160W
  50          KM   DIVERSION AT INCA AV. AND BARON DR.
  51          DT  DO160W
  52          DI       1      10     100    1000
  53          DQ     0.2       2      20     200

  54          KK  REM13A
  55          KM   ROUTE EMR13A THROUGH SUB-BASIN 160X TO POINT OF CON. EMR13B
  56          RS       3    FLOW       0
  57          RC    0.02    0.02    0.02    1678   0.046
  58          RX    9975    9980    9985    9986   10014   10015   10020   10025
  59          RY  1660.5  1660.5  1660.5    1660    1660  1660.5  1660.5  1660.5

  60          KK    160X
  61          KM   SUB-BASIN 160X
  62          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  63          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  64          BA    .029
  65          LG    .150    .250   5.700    .196  26.300
  66          UC    .200    .187
  67          UA       0       5      16      30      65      77      84      90      94      97
  68          UA     100

  69          KK  EMR13B
  70          KM   EMERAL WASH CONCENTRATION POIT 13B - COMBINE REM13A, 160X
  71          HC       2

  72          KK  REM13B
  73          KM   ROUTE EMR13B THROUGH SUB-BASIN 160Z TO POINT OF CON. EMR13C
  74          RS       7    FLOW       0
  75          RC    0.02    0.02    0.02    4072   0.029
  76          RX    9975    9980    9985    9986   10014   10015   10020   10025
  77          RY  1560.5  1560.5  1560.5    1560    1560  1560.5  1560.5  1560.5

  78          KK    160Y
  79          KM   SUB-BASIN 160Y
  80          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  81          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  82          BA    .004
  83          LG    .100    .250   5.700    .189  45.000
  84          UC    .117    .183
  85          UA       0       5      16      30      65      77      84      90      94      97
  86          UA     100

  87          KK   R160Y
  88          KM   ROUTE 160Y THROUGH SUB-BASIN 160Z TO POINT OF CON. EMR13C
  89          RS       1    FLOW       0
  90          RC    0.02    0.02    0.02     347   0.046
  91          RX    9975    9980    9985    9986   10014   10015   10020   10025
  92          RY  1560.5  1560.5  1560.5    1560    1560  1560.5  1560.5  1560.5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  93          KK    160Z
  94          KM   SUB-BASIN 160Z
  95          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  96          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
  97          BA    .061
  98          LG    .099    .250   5.700    .178  45.650
  99          UC    .250    .343
 100          UA       0       5      16      30      65      77      84      90      94      97
 101          UA     100

 102          KK   EMR13C
 103          KM   EMERAL WASH CONCENTRATION POIT 13C - COMBINE REM13C, R160Y, 160Z
 104          HC       3

 105          KK    160G
 106          KM   SUB-BASIN 160G
 107          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 108          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 109          BA    .023
 110          LG    .100    .250   5.700    .170  45.000
 111          UC    .229    .373
 112          UA       0       5      16      30      65      77      84      90      94      97
 113          UA     100

 114          KK   R160G
 115          KM   ROUTE 160G THROUGH SUB-BASIN 160H TO POINT OF CON. EMR1
 116          RS       6    FLOW       0
 117          RC    0.02    0.02    0.02    3056    0.29
 118          RX    9975    9980    9985    9986   10014   10015   10020   10025
 119          RY  1910.5  1910.5  1910.5    1910    1910  1910.5  1910.5  1910.5

 120          KK    160H
 121          KM   SUB-BASIN 160H
 122          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 123          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 124          BA    .020
 125          LG    .086    .250   5.700    .170  39.350
 126          UC    .162    .308
 127          UA       0       5      16      30      65      77      84      90      94      97
 128          UA     100

 129          KK    EMR1
 130          KM   EMERAL WASH CONCENTRATION POIT 1 - COMBINE R160G AND 160H
 131          HC       2

 132          KK   REMR1
 133          KM   ROUTE EMR1 THROUGH SUB-BASIN 160I TO POINT OF CON. EMR2
 134          RS       2    FLOW       0
 135          RC    0.02    0.02    0.02     695   0.058
 136          RX    9975    9980    9985    9986   10014   10015   10020   10025
 137          RY  1830.5  1830.5  1830.5    1830    1830  1830.5  1830.5  1830.5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 138          KK    160I
 139          KM   SUB-BASIN 160I
 140          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 141          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 142          BA    .005
 143          LG    .085    .250   5.700    .170  39.150
 144          UC    .150    .234
 145          UA       0       5      16      30      65      77      84      90      94      97
 146          UA     100

 147          KK    160J
 148          KM   SUB-BASIN 160J
 149          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 150          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 151          BA    .008
 152          LG    .093    .250   5.700    .170  42.000
 153          UC    .083    .058
 154          UA       0       5      16      30      65      77      84      90      94      97
 155          UA     100

 156          KK    EMR2
 157          KM   EMERAL WASH CONCENTRATION POIT 2 - COMBINE REMR1, 160I, 160J
 158          HC       3

 159          KK   REMR2
 160          KM   ROUTE EMR2 THROUGH SUB-BASIN 160K TO POINT OF CON. EMR3
 161          RS       2    FLOW       0
 162          RC    0.04    0.04    0.04    1113    .073
 163          RX    9860    9930    9975    9980   10030   10055   10095   10130
 164          RY    1764    1750    1744    1742    1742    1748    1756    1760

 165          KK    160K
 166          KM   SUB-BASIN 160K
 167          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 168          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 169          BA    .028
 170          LG    .150    .250   5.800    .195  33.500
 171          UC    .171    .132
 172          UA       0       5      16      30      65      77      84      90      94      97
 173          UA     100

 174          KK    EMR3
 175          KM   EMERAL WASH CONCENTRATION POIT 3 - COMBINE REMR2, 160K
 176          HC       2

 177          KK   REMR3
 178          KM   ROUTE EMR3 THROUGH SUB-BASIN 160M TO POINT OF CON. EMR4
 179          RS       3    FLOW       0
 180          RC    0.04    0.04    0.04    1604    .032
 181          RX    9885    9920    9945    9980   10010   10040   10060   10075
 182          RY    1730    1720    1714    1712    1710    1720    1726    1730
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 183          KK    160M
 184          KM   SUB-BASIN 160M
 185          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 186          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 187          BA    .059
 188          LG    .150    .250   5.800    .195  32.200
 189          UC    .221    .180
 190          UA       0       5      16      30      65      77      84      90      94      97
 191          UA     100

 192          KK   *EMR4
 193          KM   EMERALD WASH CONCENTRATION POINT *4 - REMR3, 160M
 194          HC       2

 195          KK    160L
 196          KM   SUB-BASIN 160L
 197          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 198          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 199          BA    .008
 200          LG    .091    .250   5.700    .170  41.550
 201          UC    .142    .219
 202          UA       0       5      16      30      65      77      84      90      94      97
 203          UA     100

 204          KK   R160L
 205          KM   ROUTE 160L THROUGH SUB-BASIN 160M TO POINT OF CON. EMR4
 206          RS       2    FLOW       0
 207          RC    0.04    0.04    0.04    1059   0.097
 208          RX    9885    9920    9945    9980   10010   10040   10060   10075
 209          RY    1730    1720    1714    1712    1710    1720    1726    1730

 210          KK    160N
 211          KM   SUB-BASIN 160N
 212          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 213          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 214          BA    .022
 215          LG    .150    .250   5.700    .207  25.000
 216          UC    .117    .093
 217          UA       0       5      16      30      65      77      84      90      94      97
 218          UA     100

 219          KK    EMR4
 220          KM   EMERAL WASH CONCENTRATION POIT 4 - COMBINE (REMR3, 160M), R160L, 160N
 221          HC       3

 222          KK   SEMR4
 223          KM   ROUTE EMR4 THROUGH 60" CMP CULVERT AT FOUNTAIN HILLS BLVD TO EMR5
 224          KO       3
 225          RS       1    ELEV 1689.28
 226          SQ       0      33      98     190     290
 227          SE  1689.3  1691.6  1693.9  1698.5  1708.2
 228          SA       0   0.004    3.72
 229          SE  1689.3    1690    1710
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 230          KK    160B
 231          KM   SUB-BASIN 160B
 232          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 233          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 234          BA    .007
 235          LG    .100    .250   5.700    .170  45.000
 236          UC    .117    .178
 237          UA       0       5      16      30      65      77      84      90      94      97
 238          UA     100

 239          KK   R160B
 240          KM   ROUTE 160B THROUGH SUB-BASIN 160D TO POINT OF CON. EMR5A
 241          RS       7    FLOW       0
 242          RC    0.02    0.02    0.02    4084    .041
 243          RX  9950.5  9955.5  9960.5  9960.5 10039.5 10039.5 10044.5 10049.5
 244          RY  1820.5  1820.5  1820.5    1820    1820  1820.5  1820.5  1820.5

 245          KK    160C
 246          KM   SUB-BASIN 160C
 247          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 248          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 249          BA    .016
 250          LG    .100    .250   5.700    .170  34.800
 251          UC    .125    .160
 252          UA       0       5      16      30      65      77      84      90      94      97
 253          UA     100

 254          KK   R160C
 255          KM   ROUTE 160C THROUGH SUB-BASIN 160D TO POINT OF CON. EMR5A
 256          RS       4    FLOW       0
 257          RC    0.02    0.02    0.02    1943    .058
 258          RX  9950.5  9955.5  9960.5  9960.5 10039.5 10039.5 10044.5 10049.5
 259          RY  1820.5  1820.5  1820.5    1820    1820  1820.5  1820.5  1820.5

 260          KK   EMR5A
 261          KM   EMERAL WASH CONCENTRATION POIT 5A - COMBINE R160C, R160B
 262          HC       2

 263          KK    160D
 264          KM   SUB-BASIN 160D
 265          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 266          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 267          BA    .041
 268          LG    .102    .250   5.700    .170  48.270
 269          UC    .325    .544
 270          UA       0       5      16      30      65      77      84      90      94      97
 271          UA     100

 272          KK    160F
 273          KM   SUB-BASIN 160F
 274          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 275          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 276          BA    .018
 277          LG    .100    .250   5.700    .170  30.500
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 278          UC    .217    .526
 279          UA       0       5      16      30      65      77      84      90      94      97
 280          UA     100

 281          KK    EMR5
 282          KM   EMERAL WASH CONCENTRATION POIT 5 - COMBINE REMR5A, SEMR4, 160F, 160D
 283          HC       4

 284          KK   REMR5
 285          KM   ROUTE EMR5 THROUGH SUB-BASIN 1600 TO POINT OF CON. EMR6
 286          RS       4    FLOW       0
 287          RC    0.04    0.04    0.04    2176    .034
 288          RX    9805    9850    9920    9993   10010   10035   10075   10110
 289          RY    1670    1660    1652    1646    1646    1650    1660    1670

 290          KK    1600
 291          KM   SUB-BASIN 1600
 292          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 293          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 294          BA    .065
 295          LG    .150    .250   5.700    .207  25.000
 296          UC    .237    .191
 297          UA       0       5      16      30      65      77      84      90      94      97
 298          UA     100

 299          KK   *EMR6
 300          KM   EMERALD WASH CONCENTRATION POINT *6 - REMR5, 1600
 301          HC       2

 302          KK    151F
 303          KM   SUB-BASIN 151F
 304          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 305          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 306          BA    .003
 307          LG    .050    .250   5.700    .170  25.000
 308          UC    .142    .358
 309          UA       0       5      16      30      65      77      84      90      94      97
 310          UA     100

 311          KK   D151F
 312          KM   DIVERSION AT INTERSECTION OF EMERAL AND FRISCO
 313          DT  DO151F
 314          DI       1      10     100    1000
 315          DQ     0.5       5      50     500

 316          KK   R151F
 317          KM   ROUTE 151F THROUGH SUB-BASIN 151G TO POINT OF CON. EMR6A
 318          RS       2    FLOW       0
 319          RC    0.02    0.02    0.20    1011    .016
 320          RX    9975    9980    9985    9986   10014   10015   10020   10025
 321          RY  1730.5  1730.5  1730.5    1730    1730  1730.5  1730.5  1730.5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 322          KK    151G
 323          KM   SUB-BASIN 151G
 324          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 325          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 326          BA    .003
 327          LG    .100    .250   5.700    .170  25.000
 328          UC    .179    .589
 329          UA       0       5      16      30      65      77      84      90      94      97
 330          UA     100

 331          KK   EMR6A
 332          KM   EMERAL WASH CONCENTRATION POINT 6A - COMBINES R151F, 151G
 333          HC       2

 334          KK  REMR6A
 335          KM   ROUTE 151G THROUGH SUB-BASIN 1600 TO  CON. POINT EMR6
 336          RS       1    FLOW       0
 337          RC    0.04    0.04    0.04     350   0.062
 338          RX    9960    9980    9995  9997.5 10002.5   10005   10030   10050
 339          RY    1672    1672    1672    1668    1668    1672    1672    1672

 340          KK    EMR6
 341          KM   EMERAL WASH CONCENTRATION POIT 6 - COMBINE (REMR5, 1600), REMR6A
 342          HC       2

 343          KK   REMR6
 344          KM   ROUTE EMR6 THROUGH SUB-BASIN 160P TO POINT OF CON. EMR7
 345          RS       2    FLOW       0
 346          RC    0.04    0.04    0.04     855    .007
 347          RX    9760    9820    9870    9980   10020   10045   10065   10080
 348          RY    1650    1640    1636    1634    1634    1640    1646    1650

 349          KK    160P
 350          KM   SUB-BASIN 160P
 351          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 352          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 353          BA    .023
 354          LG    .150    .250   5.700    .207  25.000
 355          UC    .179    .160
 356          UA       0       5      16      30      65      77      84      90      94      97
 357          UA     100

 358          KK    EMR7
 359          KM   EMERAL WASH CONCENTRATION POIT 7 - COMBINE REMR6, 160P
 360          HC       2

 361          KK   SEMR7
 362          KM   ROUTE EMR7 THROUGH CULVERT AT BARON DRIVE TO POINT OF CON. EMR7
 363          KO       3
 364          RS       1    ELEV  1628.0
 365          SQ       0      37     115     130     222
 366          SE    1628  1630.5    1633  1633.6  1638.0
 367          SA       0     .02    2.09
 368          SE    1628    1632    1635
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 369          KK    160Q
 370          KM   SUB-BASIN 160Q
 371          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 372          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 373          BA    .006
 374          LG    .050    .250   5.700    .170  25.000
 375          UC    .112    .160
 376          UA       0       5      16      30      65      77      84      90      94      97
 377          UA     100

 378          KK   D160W
 379          KM   FLOW FROM DIVERSION AT BARON AND INCA
 380          DR  DO160W

 381          KK  RD160W
 382          KM   ROUTE DIVERION INFLOW THROUGH SUB-BASIN 160Q
 383          RS       3    FLOW       0
 384          RC    0.02    0.02    0.02     980   0.087
 385          RX    9975    9980    9985    9986   10014   10015   10020   10025
 386          RY  1670.5  1617.5  1617.5    1617    1617  1617.5  1617.5  1617.5

 387          KK    EMR8
 388          KM   EMERAL WASH CONCENTRATION POIT 8 - COMBINE SEMR7, 160Q, RD160W
 389          HC       3

 390          KK   REMR8
 391          KM   ROUTE EMR8 THROUGH SUB-BASIN 160R TO POINT OF CON. EMR9
 392          RS       3    FLOW       0
 393          RC    0.04    0.04    0.04    1264   0.029
 394          RX    9780    9900    9960    9974   10045   10065   10120   10165
 395          RY    1630    1616    1614  1607.5  1607.5    1616    1624    1636

 396          KK    160R
 397          KM   SUB-BASIN 160R
 398          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 399          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 400          BA    .053
 401          LG    .150    .250   5.700    .207  25.000
 402          UC    .217    .174
 403          UA       0       5      16      30      65      77      84      90      94      97
 404          UA     100

 405          KK    EMR9
 406          KM   EMERAL WASH CONCENTRATION POIT 9 - COMBINE REMR8, 160R
 407          HC       2

 408          KK   REMR9
 409          KM   ROUTE EMR9 THROUGH SUB-BASIN 160S TO POINT OF CON. EMR10
 410          RS       1    FLOW       0
 411          RC    0.04    0.04    0.04     510    0.02
 412          RX    9830    9910    9940    9986   10008   10063   10135   10195
 413          RY    1610    1592    1590  1585.5  1585.5    1597    1602    1610
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 414          KK    160S
 415          KM   SUB-BASIN 160S
 416          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 417          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 418          BA    .011
 419          LG    .150    .250   5.700    .207  27.810
 420          UC    .100    .082
 421          UA       0       5      16      30      65      77      84      90      94      97
 422          UA     100

 423          KK   EMR10
 424          KM   EMERAL WASH CONCENTRATION POIT 10 - COMBINE REMR9, 160S
 425          HC       2

 426          KK  SEMR10
 427          KM   ROUTE EMR10 THROUGH CULVERT AT INCA AV. TO POINT OF CON. EMR11
 428          KO       3
 429          RS       1    ELEV    1583
 430          SQ       0      37     115     222     235
 431          SE    1583  1585.5    1588    1593  1593.7
 432          SA       0    .003     1.3
 433          SE    1583    1584    1595

 434          KK    160T
 435          KM   SUB-BASIN 160T
 436          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 437          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 438          BA    .009
 439          LG    .100    .250   5.700    .179  35.620
 440          UC    .112    .127
 441          UA       0       5      16      30      65      77      84      90      94      97
 442          UA     100

 443          KK   EMR11
 444          KM   EMERAL WASH CONCENTRATION POIT 11 - COMBINE SEMR10, 160T
 445          HC       2

 446          KK  REMR11
 447          KM   ROUTE EMR11 THROUGH SUB-BASIN 160U TO POINT OF CON. EMR12
 448          RS       6    FLOW       0
 449          RC    0.04    0.04    0.04    3300   0.021
 450          RX    9835    9945    9955    9995   10005   10030   10080   10145
 451          RY    1564    1561    1556    1550    1550    1558    1558    1568

 452          KK    160U
 453          KM   SUB-BASIN 160U
 454          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 455          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 456          BA    .077
 457          LG    .104    .250   5.700    .188  50.230
 458          UC    .233    .247
 459          UA       0       5      16      30      65      77      84      90      94      97
 460          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 461          KK  *EMR12
 462          KM   EMERALD WASH CONCENTRATION POINT *12 - REMR11, 160U
 463          HC       2

 464          KK   EMR12
 465          KM   EMERAL WASH CONCENTRATION POIT 12 - COMBINE (REMR11, 160U), EMR13C
 466          HC       2

 467          KK  SEMR12
 468          KM   ROUTE EMR12 THROUGH CULVERT  AT SAGUARO BLV.
 469          KO       3
 470          RS       1    ELEV 1514.86
 471          SQ       0      74     230     410     459     700    1370
 472          SE  1514.9  1517.4  1519.9 1523.75    1524    1525    1526
 473          SA       0     .02     .87
 474          SE  1514.9    1516    1526

 475          KK  REMR12
 476          KM   ROUTE EMR12 THROUGH SUB-BASIN 160AA TO POINT OF CON. EMR13
 477          RS       1  FLOW 0
 478          RC    0.04    0.04    0.04     290    .021
 479          RX    9810    9880    9920    9950   10030   10050   10100   10150
 480          RY    1524    1522    1514    1512    1512    1520    1521    1522

 481          KK   160AA
 482          KM   SUB-BASIN 160AA
 483          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 484          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 485          BA    .005
 486          LG    .083    .250   5.700    .192  60.090
 487          UC    .125    .174
 488          UA       0       5      16      30      65      77      84      90      94      97
 489          UA     100

 490          KK   EMR13
 491          KM   EMERAL WASH CONCENTRATION POIT 13 - COMBINE SEMR12, 160AA
 492          HC       2
 493          ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

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

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

 22        160V
              V
              V
 31       R160V
              .
              .
 37           .        160W
              .           .
              .           .
 46      EMR13A............
              .
              .
 51           .-------> DO160W
 49       D160W
              V
              V
 54      REM13A
              .
              .
 60           .        160X
              .           .
              .           .
 69      EMR13B............
              V
              V
 72      REM13B
              .
              .
              .        160Y
              .           V
              .           V
 87           .       R160Y
              .           .
              .           .
 93           .           .        160Z
              .           .           .
              .           .           .
102       EMR13........................
              .
              .
105           .        160G
              .           V
              .           V
114           .       R160G
              .           .
              .           .
120           .           .        160H
              .           .           .
              .           .           .
129           .        EMR1............
              .           V
              .           V
132           .       REMR1
              .           .
              .           .
138           .           .        160I
              .           .           .
              .           .           .
147           .           .           .        160J
              .           .           .           .
              .           .           .           .
156           .        EMR2........................
              .           V
              .           V
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```
158   .   REMR2
      .      .
      .      .
165   .      .        160K
      .      .          .
      .      .          .
174   .   EMR3............
      .      V
      .      V
177   .   REMR3
      .      .
      .      .
183   .      .        160M
      .      .          .
      .      .          .
192   .   *EMR4...........
      .      .
      .      .
195   .      .        160L
      .      .          V
      .      .          V
204   .      .       R160L
      .      .          .
      .      .          .
210   .      .          .        160N
      .      .          .          .
      .      .          .          .
219   .   EMR4.......................
      .      V
      .      V
222   .   SEMR4
      .      .
      .      .
230   .      .        160B
      .      .          V
      .      .          V
239   .      .       R160B
      .      .          .
      .      .          .
245   .      .          .        160C
      .      .          .          V
      .      .          .          V
254   .      .          .       R160C
      .      .          .          .
      .      .          .          .
260   .      .       EMR5A...........
      .      .          .
      .      .          .
263   .      .          .        160D
      .      .          .          .
      .      .          .          .
272   .      .          .          .        160F
      .      .          .          .          .
      .      .          .          .          .
281   .   EMR5.................................
      .      V
      .      V
284   .   REMR5
      .      .
      .      .
290   .      .        160O
      .      .          .
      .      .          .
299   .   *EMR6...........
      .      .
      .      .
302   .      .        151F
      .      .          .
      .      .          .
313   .      .          .-------> DO151F
311   .      .       D151F
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```
                 V
                 V
            R151F
                 .
                 .
322              .        151G
                 .          .
                 .          .
331         EMR6A.............
                 V
                 V
334         REMR6A
                 .
                 .
340     EMR6.............
         V
         V
343     REMR6
         .
         .
349          160P
             .
             .
358     EMR7.............
         V
         V
361     SEMR7
         .
         .
369          160Q
             .
             .
380          .          .<-------  D0160W
378          .       D160W
             .          V
             .          V
             .      RD160W
             .          .
             .          .
387     EMR8........................
         V
         V
390     REMR8
         .
         .
396          160R
             .
             .
405     EMR9.............
         V
         V
408     REMR9
         .
         .
414          160S
             .
             .
423     EMR10............
         V
         V
426     SEMR10
         .
         .
434          160T
             .
             .
443     EMR11............
         V
         V
        REMR11
         .
```

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          .          .
          .          .       160U
          .          .         .
          .          .         .
461       .      *EMR12.........
          .          .
          .          .
464     EMR12........
            V
            V
467     SEMR12
            V
            V
475     REMR12
            .
            .
481         .      160AA
            .          .
            .          .
490     EMR13........
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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*****************************************
*                                       *
*  FLOOD HYDROGRAPH PACKAGE  (HEC-1)    *
*              MAY   1991               *
*            VERSION 4.0.1E             *
*     Lahey F77L-EM/32 version 5.01     *
*       Dodson & Associates, Inc.       *
*  RUN DATE  04/05/95  TIME  14:51:30   *
*****************************************
```

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

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                    EMERALD WASH WATERSHED - FUTURE CONDITIONS, AGK ENGINEERS, 00-05-95
                    100 Year 6-Hour Storm
                    Time step at 2 minutes
                    File:  160-6CF.DAT

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

   IT         HYDROGRAPH TIME DATA
                     NMIN          2  MINUTES IN COMPUTATION INTERVAL
                    IDATE      1   0  STARTING DATE
                    ITIME       0000  STARTING TIME
                       NQ        200  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE      1   0  ENDING DATE
                   NDTIME       0638  ENDING TIME
                    ICENT         19  CENTURY MARK

             COMPUTATION INTERVAL    0.03 HOURS
                  TOTAL TIME BASE    6.63 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

  9 JD       INDEX STORM NO. 1
                    STRM       3.20  PRECIPITATION DEPTH
                    TRDA       0.01  TRANSPOSITION DRAINAGE AREA

 10 PI         PRECIPITATION PATTERN
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.01      0.01      0.01
                 0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.02      0.02
                 0.02      0.02      0.04      0.06      0.06      0.06      0.06      0.06      0.06      0.06
                 0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

 13 JD       INDEX STORM NO. 2
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                STRM        3.18  PRECIPITATION DEPTH
                TRDA        0.50  TRANSPOSITION DRAINAGE AREA

0 PI          PRECIPITATION PATTERN
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.01        0.01        0.01
                0.01        0.01        0.01        0.01        0.01        0.02        0.02        0.02        0.02        0.02
                0.02        0.02        0.04        0.06        0.06        0.06        0.06        0.06        0.06        0.06
                0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00

14 JD         INDEX STORM NO. 3
                STRM        3.14  PRECIPITATION DEPTH
                TRDA        2.80  TRANSPOSITION DRAINAGE AREA

15 PI         PRECIPITATION PATTERN
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01
                0.01        0.01        0.01        0.01        0.01        0.03        0.03        0.03        0.03        0.03
                0.03        0.03        0.03        0.03        0.03        0.03        0.03        0.03        0.03        0.03
                0.02        0.02        0.02        0.02        0.02        0.02        0.02        0.01        0.01        0.01
                0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01
                0.01        0.01        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00

18 JD         INDEX STORM NO. 4
                STRM        2.95  PRECIPITATION DEPTH
                TRDA       16.00  TRANSPOSITION DRAINAGE AREA

19 PI         PRECIPITATION PATTERN
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01
                0.01        0.01        0.01        0.01        0.01        0.02        0.02        0.02        0.02        0.02
                0.02        0.02        0.02        0.03        0.03        0.03        0.03        0.03        0.03        0.03
                0.02        0.02        0.02        0.02        0.02        0.02        0.02        0.01        0.01        0.01
                0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01
                0.01        0.01        0.01        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
                0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
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RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	160V	13.	4.03	1.	1.	1.	0.00		
+	ROUTED TO	R160V	13.	4.07	1.	1.	1.	0.00		
+	HYDROGRAPH AT	160W	6.	4.00	0.	0.	0.	0.00		
+	2 COMBINED AT	EMR13A	19.	4.03	2.	2.	2.	0.01		
+	DIVERSION TO	DO160W	4.	4.03	0.	0.	0.	0.01		
+	HYDROGRAPH AT	D160W	15.	4.03	1.	1.	1.	0.01		
+	ROUTED TO	REM13A	14.	4.10	1.	1.	1.	0.01		
+	HYDROGRAPH AT	160X	74.	4.07	7.	6.	6.	0.03		
+	2 COMBINED AT	EMR13B	88.	4.07	8.	7.	7.	0.04		
+	ROUTED TO	REM13B	85.	4.17	8.	7.	7.	0.04		
+	HYDROGRAPH AT	160Y	11.	4.03	1.	1.	1.	0.00		
+	ROUTED TO	R160Y	11.	4.03	1.	1.	1.	0.00		
+	HYDROGRAPH AT	160Z	122.	4.10	16.	15.	15.	0.06		
+	3 COMBINED AT	EMR13	209.	4.13	25.	23.	23.	0.10		

+	HYDROGRAPH AT	160G	44.	4.10	6.	6.	6.	0.02
+	ROUTED TO	R160G	44.	4.13	6.	6.	6.	0.02
+	HYDROGRAPH AT	160H	43.	4.07	5.	5.	5.	0.02
+	2 COMBINED AT	EMR1	84.	4.10	11.	10.	10.	0.04
+	ROUTED TO	REMR1	84.	4.10	11.	10.	10.	0.04
+	HYDROGRAPH AT	160I	12.	4.03	1.	1.	1.	0.00
+	HYDROGRAPH AT	160J	28.	4.00	2.	2.	2.	0.01
+	3 COMBINED AT	EMR2	113.	4.03	15.	13.	13.	0.06
+	ROUTED TO	REMR2	111.	4.07	15.	13.	13.	0.06
+	HYDROGRAPH AT	160K	82.	4.03	7.	6.	6.	0.03
+	2 COMBINED AT	EMR3	190.	4.07	21.	19.	19.	0.08
+	ROUTED TO	REMR3	189.	4.10	21.	19.	19.	0.08
+	HYDROGRAPH AT	160M	153.	4.07	14.	13.	13.	0.06
+	2 COMBINED AT	*EMR4	336.	4.10	35.	32.	32.	0.14
+	HYDROGRAPH AT	160L	20.	4.03	2.	2.	2.	0.01
+	ROUTED TO	R160L	20.	4.07	2.	2.	2.	0.01
+	HYDROGRAPH AT	160N	70.	4.00	5.	5.	5.	0.02
+	3 COMBINED AT	EMR4	413.	4.07	42.	39.	39.	0.17
+	ROUTED TO	SEMR4	209.	4.30	42.	39.	39.	0.17
+	HYDROGRAPH AT	160B	20.	4.03	2.	2.	2.	0.01
+	ROUTED TO	R160B	16.	4.30	2.	2.	2.	0.01
+	HYDROGRAPH AT	160C	46.	4.03	4.	4.	4.	0.02
+	ROUTED TO	R160C	44.	4.10	4.	4.	4.	0.02
	2 COMBINED AT							

+		EMR5A	49.	4.13	6.	5.	5.	0.02
	HYDROGRAPH AT							
+		160D	62.	4.13	11.	10.	10.	0.04
	HYDROGRAPH AT							
+		160F	28.	4.10	4.	4.	4.	0.02
	4 COMBINED AT							
+		EMR5	341.	4.17	64.	58.	58.	0.25
	ROUTED TO							
+		REMR5	340.	4.20	64.	58.	58.	0.25
	HYDROGRAPH AT							
+		160O	162.	4.07	15.	13.	13.	0.06
	2 COMBINED AT							
+		*EMR6	474.	4.10	78.	71.	71.	0.32
	HYDROGRAPH AT							
+		151F	6.	4.07	1.	1.	1.	0.00
	DIVERSION TO							
+		DO151F	3.	4.07	0.	0.	0.	0.00
	HYDROGRAPH AT							
+		D151F	3.	4.07	0.	0.	0.	0.00
	ROUTED TO							
+		R151F	3.	4.17	0.	0.	0.	0.00
	HYDROGRAPH AT							
+		151G	4.	4.07	1.	1.	1.	0.00
	2 COMBINED AT							
+		EMR6A	7.	4.13	1.	1.	1.	0.01
	ROUTED TO							
+		REMR6A	7.	4.17	1.	1.	1.	0.01
	2 COMBINED AT							
+		EMR6	480.	4.10	79.	72.	72.	0.33
	ROUTED TO							
+		REMR6	470.	4.20	79.	72.	72.	0.33
	HYDROGRAPH AT							
+		160P	62.	4.03	5.	5.	5.	0.02
	2 COMBINED AT							
+		EMR7	508.	4.17	84.	77.	77.	0.35
	ROUTED TO							
+		SEMR7	217.	4.93	84.	77.	77.	0.35
	HYDROGRAPH AT							
+		160Q	17.	4.03	1.	1.	1.	0.01
	HYDROGRAPH AT							
+		D160W	4.	4.03	0.	0.	0.	0.01
	ROUTED TO							
+		RD160W	4.	4.03	0.	0.	0.	0.01
	3 COMBINED AT							
+		EMR8	218.	4.93	86.	78.	78.	0.36
	ROUTED TO							
		REMR8	218.	4.97	86.	78.	78.	0.36

+	HYDROGRAPH AT	160R	137.	4.07	12.	11.	11.	0.05
+	2 COMBINED AT	EMR9	310.	4.07	98.	89.	89.	0.41
+	ROUTED TO	REMR9	310.	4.10	98.	89.	89.	0.41
+	HYDROGRAPH AT	160S	36.	4.00	3.	2.	2.	0.01
+	2 COMBINED AT	EMR10	333.	4.07	101.	91.	91.	0.42
+	ROUTED TO	SEMR10	240.	4.40	101.	91.	91.	0.42
+	HYDROGRAPH AT	160T	27.	4.03	2.	2.	2.	0.01
+	2 COMBINED AT	EMR11	246.	4.27	103.	93.	93.	0.43
+	ROUTED TO	REMR11	246.	4.37	102.	92.	92.	0.43
+	HYDROGRAPH AT	160U	181.	4.07	21.	19.	19.	0.08
+	2 COMBINED AT	*EMR12	373.	4.17	122.	111.	111.	0.51
+	2 COMBINED AT	EMR12	563.	4.13	146.	132.	132.	0.61
+	ROUTED TO	SEMR12	554.	4.20	146.	132.	132.	0.61
+	ROUTED TO	REMR12	555.	4.20	146.	132.	132.	0.61
+	HYDROGRAPH AT	160AA	14.	4.03	1.	1.	1.	0.00
+	2 COMBINED AT	EMR13	562.	4.20	147.	133.	133.	0.61

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

L.6

MALTA DRAIN

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****************************************
*                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*              MAY   1991              *
*           VERSION 4.0.1E             *
*     Lahey F77L-EM/32 version 5.01    *
*       Dodson & Associates, Inc.      *
*  RUN DATE  04/05/95  TIME  14:54:43  *
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****************************************
*                                      *
*    U.S. ARMY CORPS OF ENGINEERS      *
*    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

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

  1           ID   MALTA DRAIN - FUTURE CONDITIONS, AGK ENGINEERS, 04-05-95
  2           ID   100-Year 6-Hour Storm
  3           ID   time steps at 2 minutes
  4           ID   File: 170-6CF.DAT
  5           ID
  6           ID
  7           IT       2                    200
  8           IO       5
              *DIAGRAM
  9           IN      15
 10           JD    3.20    0.01
 11           PC    .000    .008    .016    .025    .033    .041    .050    .058    .066    .074
 12           PC    .087    .099    .118    .138    .216    .377    .834    .911    .931    .950
 13           PC    .962    .972    .983    .991   1.000
 14           JD    3.18    0.50
 15           JD    3.14    2.80
 16           PC    .000    .009    .016    .025    .034    .042    .051    .059    .067    .076
 17           PC    .087    .100    .120    .163    .252    .451    .694    .837    .900    .938
 18           PC    .950    .963    .975    .988   1.000
 19           JD    2.95    16.0
 20           PC    .000    .015    .020    .030    .048    .063    .076    .090    .105    .119
 21           PC    .135    .152    .175    .222    .304    .472    .670    .796    .868    .912
 22           PC    .946    .960    .973    .987   1.000

 23           KK    160V
 24           KM   SUB-BASIN 160V
 25           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 26           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 27           BA    .005
 28           LG    .050    .250   5.700    .170  25.000
 29           UC    .108    .192
 30           UA       0       5      16      30      65      77      84      90      94      97
 31           UA     100

 32           KK   R160V
 33           KM   ROUTE 160V THROUGH SUB-BASIN 160W TO POINT OF CON. EMR13A
 34           RS       1    FLOW       0
 35           RC    0.02    0.02    0.02     550   0.022
 36           RX    9975    9980    9985    9986   10014   10015   10020   10025
 37           RY  1730.5  1730.5  1730.5    1730    1730  1730.5  1730.5  1730.5

 38           KK    160W
 39           KM   SUB-BASIN 160W
 40           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 41           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 42           BA    .002
 43           LG    .050    .250   5.700    .170  25.000
 44           UC    .083    .139
 45           UA       0       5      16      30      65      77      84      90      94      97
 46           UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  47          KK  EMR13A
  48          KM   EMERAL WASH CONCENTRATION POIT 13A - COMBINE  R160V, 160W
  49          HC       2

  50          KK   D160W
  51          KM   DIVERSION AT INCA AV. AND BARON DR.
  52          DT  DO160W
  53          DI       1      10     100    1000
  54          DQ     0.8       8      80     800

  55          KK   R160W
  56          KM   ROUTE 160W THROUGH SUB-BASIN 170B TO CON. POINT MLT1
  57          RS       1    FLOW       0
  58          RC    0.02    0.02    0.02     460   0.091
  59          RX    9975    9980    9985    9986   10014   10015   10020   10025
  60          RY  1700.5  1700.5  1700.5    1700    1700  1700.5  1700.5  1700.5

  61          KK    170A
  62          KM   SUB-BASIN 170A
  63          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  64          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  65          BA    .024
  66          LG    .150    .250   5.700    .207  25.000
  67          UC    .133    .116
  68          UA       0       5      16      30      65      77      84      90      94      97
  69          UA     100

  70          KK   170B
  71          KM   SUB-BASIN 170B
  72          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  73          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  74          BA    .004
  75          LG    .050    .250   5.700    .170  25.000
  76          UC    .083    .087
  77          UA       0       5      16      30      65      77      84      90      94      97
  78          UA     100

  79          KK    MLT1
  80          KM   MALTA DRAIN CONCENTRATION POINT 1 - COBINE R160W, 170A, 170B
  81          HC       3

  82          KK   RMLT1
  83          KM   ROUTE MLT1 THROUGH SUB-BASIN 170C TO POINT OF CON. MLT2
  84          RS       4    FLOW       0
  85          RC    0.04    0.04    0.04    1844   0.029
  86          RX    9850    9950    9975    9990   10005   10020   10055   10100
  87          RY    1680    1660    1658    1656    1656    1660    1670    1680

  88          KK    170C
  89          KM   SUB-BASIN 170C
  90          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  91          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  92          BA    .034
  93          LG    .150    .250   5.700    .207  25.000
```

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

  94          UC    .171    .179
  95          UA       0       5      16      30      65      77      84      90      94      97
  96          UA     100

  97          KK    MLT2
  98          KM   MALTA DRAIN CONCENTRATION POINT 2 - COBINE RMLT1, 170C
  99          HC       2

 100          KK    170D
 101          KM   SUB-BASIN 170D
 102          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 103          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 104          BA    .007
 105          LG    .050    .250   5.700    .170  25.000
 106          UC    .138    .250
 107          UA       0       5      16      30      65      77      84      90      94      97
 108          UA     100

 109          KK    MLT3
 110          KM   MALTA DRAIN CONCENTRATION POINT 3 - COBINE RMLT2, 170D
 111          HC       2

 112          KK   RMLT3
 113          KM   ROUTE MLT3 THROUGH SUB-BASIN 170E TO POINT OF CON. MLT4
 114          RS       7    FLOW       0
 115          RC    0.04    0.04    0.04    3852   0.023
 116          RX    9805    9890    9955    9990   10005   10010   10137   10180
 117          RY    1574    1573    1572    1562    1562    1564    1566    1580

 118          KK    170E
 119          KM   SUB-BASIN 170E
 120          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 121          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 122          BA    .095
 123          LG    .142    .250   5.700    .187  46.080
 124          UC    .242    .245
 125          UA       0       5      16      30      65      77      84      90      94      97
 126          UA     100

 127          KK    MLT4
 128          KM   MALTA DRAIN CONCENTRATION POINT 4 - COBINE RMLT3, 170E
 129          HC       2

 130          KK    170F
 131          KM   SUB-BASIN 170F
 132          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 133          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 134          BA    .018
 135          LG    .092    .250   5.700    .170  61.750
 136          UC    .158    .171
 137          UA       0       5      16      30      65      77      84      90      94      97
 138          UA     100
```

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

 139          KK   R170F
 140          KM   ROUTE 170F THROUGH SUB-BASIN 170G  TO POINT OF CON. MLT4A
 141          RS       1    FLOW       0
 142          RC    0.02    0.02    0.02     288   0.035
 143          RX    9975    9980    9985    9986   10014   10015   10020   10025
 144          RY  1540.5  1540.5  1540.5    1540    1540  1540.5  1540.5  1450.5

 145          KK    170G
 146          KM   SUB-BASIN 170G
 147          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 148          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 149          BA    .003
 150          LG    .050    .250   5.700    .170  50.110
 151          UC    .133    .334
 152          UA       0       5      16      30      65      77      84      90      94      97
 153          UA     100

 154          KK   MLT4A
 155          KM   MALTA DRAIN CONCENTRATION POINT 4A - COBINE RMLT4, 170G, 170F
 156          HC       3

 157          KK  RMLT4A
 158          KM   ROUTE MLT4A THROUGH SUB-BASIN 170H TO POINT OF CON. MLT5
 159          RS       2    FLOW       0
 160          RC    0.04    0.04    0.04     626   0.034
 161          RX    9825    9870    9955    9995   10005   10020   10140   10175
 162          RY    1556    1550  1547.5    1537    1537    1544  1545.5    1550

 163          KK    170H
 164          KM   SUB-BASIN 170H
 165          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 166          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 167          BA    .009
 168          LG    .114    .250   5.700    .178  59.820
 169          UC    .108    .090
 170          UA       0       5      16      30      65      77      84      90      94      97
 171          UA     100

 172          KK    MLT5
 173          KM   MALTA DRAIN CONCENTRATION POINT 5 - COBINE RMLT4A, 170H
 174          HC       2

 175          KK   SMLT5
 176          KM   ROUTE MLT5 THROUGH 2-48" CMP CULVERT AT SAGUARO BLV.
 177          RS       1    ELEV 1516.23
 178          SQ       0      44     132     240     560
 179          SE  1516.2  1518.2  1520.2  1523.8  1524.2
 180          SA    0.02     0.1
 181          SE    1516    1524
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 182          KK   RMLT5
 183          KM   ROUTE MLT5 THROUGH SUB-BASIN 170I-3 TO POINT OF CON. MLT6
 184          RS       1    FLOW       0
 185          RC    0.04    0.04    0.04     296   0.017
 186          RX    9890   9930     9950    9995   10007   10035   10060   10110
 187          RY    1522    1522    1518    1514    1514    1516    1523    1524

 188          KK   170I1
 189          KM   SUB-BASIN 170I-1
 190          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 191          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 192          BA    .022
 193          LG    .075    .250   5.700    .170  61.690
 194          UC    .192    .260
 195          UA       0       5      16      30      65      77      84      90      94      97
 196          UA     100

 197          KK  D179I1
 198          KM   DIVERSION AT INTERSECTION OF SAGUARO AND PANORAME
 199          DT  D0180S
 200          DI       1      10     100    1000
 201          DQ     0.5       5      50     500

 202          KK  R170I1
 203          KM   ROUTE 170I1 (NON-DIVERTED) THROUGH SUB-BASIN 170I2 TO MLT6A
 204          RS       4    FLOW       0
 205          RC    0.02    0.02    0.02    1738   0.025
 206          RX    9945    9952    9960  9960.5 10039.5   10040   10048   10055
 207          RY  1570.5  1570.5  1570.5    1570    1570  1570.5  1570.5  1570.5

 208          KK   170I2
 209          KM   SUB-BASIN 170I-2
 210          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 211          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 212          BA    .012
 213          LG    .050    .250   5.700    .170  70.780
 214          UC    .125    .184
 215          UA       0       5      16      30      65      77      84      90      94      97
 216          UA     100

 217          KK   MLT6A
 218          KM   MALTA DRAIN CONCENTRATION POINT 6A - COBINE R170I1, 170I2
 219          HC       2

 220          KK  DMLT6A
 221          KM   DIVERSION AT INTERSECTION OF SAGUARO AND EL PUEBLO
 222          DT  D0180R
 223          DI       1      10     100    1000
 224          DQ     0.5       5      50     500
```

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

 225          KK  RMLT6A
 226          KM   ROUTE MLT6A (NON-DIVERDED) THROUGH SUB-BASIN 170I3 TO MLT6
 227          RS       2    FLOW       0
 228          RC    0.02    0.02    0.02    1040   0.040
 229          RX    9945    9952    9960  9960.5 10039.5   10040   10048   10055
 230          RY  1576.5  1576.5  1576.5    1576    1576  1576.5  1576.5  1576.5

 231          KK   170I3
 232          KM   SUB-BASIN 170I-3
 233          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 234          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 235          BA    .006
 236          LG    .066    .250   5.700    .170  61.830
 237          UC    .142    .241
 238          UA       0       5      16      30      65      77      84      90      94      97
 239          UA     100

 240          KK    MLT6
 241          KM   MALTA DRAIN CONCENTRATION POINT 6 - COBINE RMLT5, RMLT6A, 170I3
 242          HC       3
 243          ZZ
```

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

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

 23         160V
               V
               V
 32        R160V
               .
               .
 38            .        160W
               .           .
               .           .
 47       EMR13A............
               .
               .
 52            .-------> DO160W
 50        D160W
               V
               V
 55        R160W
               .
               .
 61            .        170A
               .           .
               .           .
 70            .           .       170B
               .           .           .
               .           .           .
 79         MLT1........................
               V
               V
            RMLT1
               .
               .
 88            .        170C
               .           .
               .           .
 97         MLT2............
               .
               .
100            .        170D
               .           .
               .           .
109         MLT3............
               V
               V
112        RMLT3
               .
               .
118            .        170E
               .           .
               .           .
127         MLT4............
               .
               .
130            .        170F
               .           V
               .           V
139            .       R170F
               .           .
               .           .
145            .           .       170G
               .           .           .
               .           .           .
154        MLT4A........................
               V
               V
           RMLT4A
```

```
            .
            .
            .        170H
            .          .
            .          .
172       MLT5............
            V
            V
175      SMLT5
            V
            V
182      RMLT5
            .
            .
188         .       17011
            .          .
            .          .
199         .          .-------> DO180S
197         .      D17911
            .          V
            .          V
202         .      R17011
            .          .
            .          .
208         .          .       17012
            .          .          .
            .          .          .
217         .       MLT6A............
            .          .
            .          .
222         .          .-------> DO180R
220         .      DMLT6A
            .          V
            .          V
225         .      RMLT6A
            .          .
            .          .
231         .          .       17013
            .          .          .
            .          .          .
240       MLT6........................
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*              MAY   1991               *
*            VERSION 4.0.1E             *
*     Lahey F77L-EM/32 version 5.01     *
*       Dodson & Associates, Inc.       *
* RUN DATE  04/05/95  TIME  14:54:43    *
*****************************************
```

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

```
                    MALTA DRAIN - FUTURE CONDITIONS, AGK ENGINEERS, 04-05-95
                    100-Year 6-Hour Storm
                    time steps at 2 minutes
                    File: 170-6CF.DAT


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

   IT         HYDROGRAPH TIME DATA
                     NMIN          2  MINUTES IN COMPUTATION INTERVAL
                    IDATE      1    0  STARTING DATE
                    ITIME       0000  STARTING TIME
                       NQ        200  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE      1    0  ENDING DATE
                   NDTIME       0638  ENDING TIME
                    ICENT         19  CENTURY MARK

             COMPUTATION INTERVAL    0.03 HOURS
                  TOTAL TIME BASE    6.63 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

 10 JD        INDEX STORM NO. 1
                    STRM       3.20  PRECIPITATION DEPTH
                    TRDA       0.01  TRANSPOSITION DRAINAGE AREA

 11 PI          PRECIPITATION PATTERN
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.01      0.01      0.01
                  0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.02      0.02
                  0.02      0.02      0.04      0.06      0.06      0.06      0.06      0.06      0.06      0.06
                  0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

 12 JD        INDEX STORM NO. 2
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            STRM        3.18  PRECIPITATION DEPTH
            TRDA        0.50  TRANSPOSITION DRAINAGE AREA

0 PI      PRECIPITATION PATTERN
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.02      0.02
            0.02      0.02      0.04      0.06      0.06      0.06      0.06      0.06      0.06      0.06
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

15 JD     INDEX STORM NO. 3
            STRM        3.14  PRECIPITATION DEPTH
            TRDA        2.80  TRANSPOSITION DRAINAGE AREA

16 PI     PRECIPITATION PATTERN
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.03      0.03      0.03      0.03      0.03
            0.03      0.03      0.03      0.03      0.03      0.03      0.03      0.03      0.03      0.03
            0.02      0.02      0.02      0.02      0.02      0.02      0.02      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

19 JD     INDEX STORM NO. 4
            STRM        2.95  PRECIPITATION DEPTH
            TRDA       16.00  TRANSPOSITION DRAINAGE AREA

20 PI     PRECIPITATION PATTERN
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.02      0.02
            0.02      0.02      0.02      0.03      0.03      0.03      0.03      0.03      0.03      0.03
            0.02      0.02      0.02      0.02      0.02      0.02      0.02      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
```

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	160V	13.	4.03	1.	1.	1.	0.00		
+	ROUTED TO	R160V	13.	4.07	1.	1.	1.	0.00		
+	HYDROGRAPH AT	160W	6.	4.00	0.	0.	0.	0.00		
+	2 COMBINED AT	EMR13A	19.	4.03	2.	2.	2.	0.01		
+	DIVERSION TO	DO160W	15.	4.03	1.	1.	1.	0.01		
+	HYDROGRAPH AT	D160W	4.	4.03	0.	0.	0.	0.01		
+	ROUTED TO	R160W	4.	4.07	0.	0.	0.	0.01		
+	HYDROGRAPH AT	170A	73.	4.03	5.	5.	5.	0.02		
+	HYDROGRAPH AT	170B	13.	4.00	1.	1.	1.	0.00		
+	3 COMBINED AT	MLT1	88.	4.03	7.	6.	6.	0.04		
+	ROUTED TO	RMLT1	85.	4.10	7.	6.	6.	0.04		
+	HYDROGRAPH AT	170C	89.	4.03	8.	7.	7.	0.03		
+	2 COMBINED AT	MLT2	171.	4.07	14.	13.	13.	0.07		
+	HYDROGRAPH AT	170D	17.	4.03	2.	2.	2.	0.01		
+	2 COMBINED AT	MLT3	187.	4.07	16.	15.	15.	0.08		
+	ROUTED TO	RMLT3	178.	4.17	16.	15.	15.	0.08		
+	HYDROGRAPH AT	170E	222.	4.07	25.	23.	23.	0.09		
+	2 COMBINED AT	MLT4	378.	4.13	41.	37.	37.	0.17		
+	HYDROGRAPH AT	170F	51.	4.03	5.	5.	5.	0.02		
+	ROUTED TO	R170F	51.	4.03	5.	5.	5.	0.02		
+	HYDROGRAPH AT	170G	6.	4.03	1.	1.	1.	0.00		

+	3 COMBINED AT	MLT4A	430.	4.10	47.	43.	43.	0.19
+	ROUTED TO	RMLT4A	428.	4.10	47.	43.	43.	0.19
+	HYDROGRAPH AT	170H	30.	4.00	3.	2.	2.	0.01
+	2 COMBINED AT	MLT5	448.	4.10	49.	45.	45.	0.20
+	ROUTED TO	SMLT5	447.	4.13	49.	45.	45.	0.20
+	ROUTED TO	RMLT5	446.	4.13	49.	45.	45.	0.20
+	HYDROGRAPH AT	170I1	53.	4.07	6.	6.	6.	0.02
+	DIVERSION TO	D0180S	26.	4.07	3.	3.	3.	0.02
+	HYDROGRAPH AT	D179I1	26.	4.07	3.	3.	3.	0.02
	ROUTED TO							

+		R17011	25.	4.17	3.	3.	3.	0.02
+	HYDROGRAPH AT	17012	34.	4.03	4.	3.	3.	0.01
+	2 COMBINED AT	MLT6A	53.	4.07	7.	6.	6.	0.03
+	DIVERSION TO	DO180R	26.	4.07	3.	3.	3.	0.03
+	HYDROGRAPH AT	DMLT6A	26.	4.07	3.	3.	3.	0.03
+	ROUTED TO	RMLT6A	26.	4.13	3.	3.	3.	0.03
+	HYDROGRAPH AT	17013	15.	4.03	2.	2.	2.	0.01
+	3 COMBINED AT	MLT6	483.	4.13	54.	49.	49.	0.24

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

L.7

COLONY WASH

```
*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*              MAY   1991               *
*            VERSION 4.0.1E             *
*     Lahey F77L-EM/32 version 5.01     *
*       Dodson & Associates, Inc.       *
*  RUN DATE  04/05/95  TIME  14:55:59   *
*****************************************
```

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*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    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
```

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

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

  1           ID   COLONY WASH - FUTURE CONDITIONS, AGK ENGINEERS, 04-05-95
  2           ID   100-Year 6-Hour storm
  3           ID   Time step at 2 minutes
  4           ID   File: 180-6CF.DAT
  5           ID
  6           IT       2                    200
  7           IO       5
              *DIAGRAM
  8           IN      15
  9           JD    3.20    0.01
 10           PC    .000    .008    .016    .025    .033    .041    .050    .058    .066    .074
 11           PC    .087    .099    .118    .138    .216    .377    .834    .911    .931    .950
 12           PC    .962    .972    .983    .991   1.000
 13           JD    3.18    0.50
 14           JD    3.14    2.80
 15           PC    .000    .009    .016    .025    .034    .042    .051    .059    .067    .076
 16           PC    .087    .100    .120    .163    .252    .451    .694    .837    .900    .938
 17           PC    .950    .963    .975    .988   1.000
 18           JD    2.95    16.0
 19           PC    .000    .015    .020    .030    .048    .063    .076    .090    .105    .119
 20           PC    .135    .152    .175    .222    .304    .472    .670    .796    .868    .912
 21           PC    .946    .960    .973    .987   1.000

 22           KK    185A
 23           KM   SUB-BASIN 185A
 24           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 25           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 26           BA    .041
 27           LG    .100    .250   5.700    .189  45.000
 28           UC    .175    .193
 29           UA       0       5      16      30      65      77      84      90      94      97
 30           UA     100

 31           KK   R185A
 32           KM   ROUTE 185A THROUGH SUB-BASIN 185B TO CON. POINT IRW1
 33           RS       7    FLOW       0
 34           RC    0.04    0.04    0.04    4042    0.04
 35           RX    9885    9940    9980   10000   10015   10105   10120   10170
 36           RY    1710    1700    1696    1692    1692    1704    1710    1720

 37           KK    185B
 38           KM   SUB-BASIN 185B
 39           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 40           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 41           BA    .081
 42           LG    .150    .250   5.700    .207  29.780
 43           UC    .308    .330
 44           UA       0       5      16      30      65      77      84      90      94      97
 45           UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  46          KK    IRW1
  47          KM   IRONWOOD WASH CONCENTRATION POINT 1 - COMBINES R185A, 185B
  48          HC       2

  49          KK   SIRW1
  50          KM   ROUTE THROUGH A 48" CMP CULVERT UNDER CHOLA DRIVE BY FOUNTAIN HILLS BLVD
  51          RS       1    ELEV  1663.5
  52          SQ       0      25      76     150     180
  53          SE  1663.5  1665.5  1667.5  1671.5    1674
  54          SA       0    0.11    0.69    1.70
  55          SE  1663.5    1664    1668    1676

  56          KK    180A
  57          KM   SUB-BASIN 180A
  58          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  59          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  60          BA    .025
  61          LG    .150    .250   5.700    .207  25.000
  62          UC    .158    .184
  63          UA       0       5      16      30      65      77      84      90      94      97
  64          UA     100

  65          KK   R180A
  66          KM   ROUTE 180A THROUGH SUB-BASIN 180B TO CON. POINT IRW2
  67          RS       1    FLOW       0
  68          RC    0.02    0.02    0.02     366   0.045
  69          RX    9975    9980    9985    9986   10014   10015   10020   10025
  70          RY  1680.5  1680.5  1680.5    1680    1680  1680.5  1680.5  1680.5

  71          KK    180B
  72          KM   SUB-BASIN 180B
  73          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  74          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  75          BA    .029
  76          LG    .067    .250   5.700    .183  38.160
  77          UC    .300    .858
  78          UA       0       5      16      30      65      77      84      90      94      97
  79          UA     100

  80          KK    IRW2
  81          KM   IRONWOOD WASH CONCENTRATION POINT 2 - COMBINE SIRW1, R108A, 180B
  82          HC       3

  83          KK   RIRW2
  84          KM   ROUTE IRW2 THROUGH SUB-BASIN 180F TO CON. POIT CLN1
  85          RS       1    FLOW       0
  86          RC    0.04    0.04    0.04     283   0.060
  87          RX    9870    9960    9980    9995   10010   10055   10085   10090
  88          RY    1668    1665    1664    1658    1658    1666    1670    1674
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  89          KK    186A
  90          KM   SUB-BASIN 186A
  91          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  92          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
  93          BA    .099
  94          LG    .142    .250   5.700    .203  17.450
  95          UC    .267    .223
  96          UA       0       5      16      30      65      77      84      90      94      97
  97          UA     100

  98          KK    186B
  99          KM   SUB-BASIN 186B
 100          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 101          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 102          BA    .005
 103          LG    .149    .250   5.700    .207  19.150
 104          UC    .138    .164
 105          UA       0       5      16      30      65      77      84      90      94      97
 106          UA     100

 107          KK   R186B
 108          KM   ROUTE R186B THROUGH SUB-BASIN 186D (PALISADES BLV)
 109          RS       3    FLOW       0
 110          RC    0.02    0.02    0.02    1349    0.08
 111          RX    9975    9980    9985    9986   10014   10015   10020   10025
 112          RY  1900.6  1900.5  1900.5    1900    1900  1900.5  1900.5  1900.6

 113          KK   SNB1A
 114          KM   SUNBURST CONCENTRATION POINT 1A - COMBINE 186A, R186B
 115          HC       2

 116          KK  RSNB1A
 117          KM   ROUTE SNB1A THROUGH SUB-BASIN 186D (WASH) TO CON. POINT SNB1
 118          RS       7    FLOW       0
 119          RC    0.04    0.04    0.04    3780   0.055
 120          RX    9850    9910    9970    9995   10005   10030   10060   10090
 121          RY    1920    1904    1899    1892    1892    1900    1910    1920

 122          KK    186C
 123          KM   SUB-BASIN 186C
 124          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 125          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 126          BA    .017
 127          LG    .081    .250   5.700    .175  37.200
 128          UC    .158    .225
 129          UA       0       5      16      30      65      77      84      90      94      97
 130          UA     100

 131          KK   R186C
 132          KM   ROUTE 186C THROUGH SUB-BASIN 186D (MANCHESTER DR.) TO CON. POINT SNB1
 133          RS       1    FLOW       0
 134          RC    0.02    0.02    0.02     407   0.125
 135          RX  9947.5  9952.5  9957.5    9960   10040 10042.5 10047.5 10052.5
 136          RY  2040.5  2040.5  2040.5    2040    2040  2040.5  2040.5  2040.5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 137          KK    186D
 138          KM   SUB-BASIN 186D
 139          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 140          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 141          BA    .081
 142          LG    .150     .250    5.800     .195   26.520
 143          UC    .304     .329
 144          UA       0        5       16       30       65       77       84       90       94       97
 145          UA     100

 146          KK    SNB1
 147          KM   SUNBURST WASH CONSENTRATION POINT 1 - COMBINE RSNB1A, R186C, 186D
 148          HC       3

 149          KK   RSNB1
 150          KM   ROUTE SNB1 THROUGH SUB-BASIN 186F  TO CON. POINT SNB2
 151          RS       4    FLOW       0
 152          RC    0.04     0.04     0.04     1961    0.042
 153          RX    9935     9963     9985     9997    10003    10050    10090    10125
 154          RY    1840     1830     1820     1814     1814     1820     1830     1840

 155          KK    186E
 156          KM   SUB-BASIN 186E
 157          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 158          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 159          BA    .036
 160          LG    .144     .250    5.700     .205   27.410
 161          UC    .200     .178
 162          UA       0        5       16       30       65       77       84       90       94       97
 163          UA     100

 164          KK    186F
 165          KM   SUB-BASIN 186F
 166          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 167          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 168          BA    .029
 169          LG    .150     .250    5.800     .195   30.300
 170          UC    .217     .235
 171          UA       0        5       16       30       65       77       84       90       94       97
 172          UA     100

 173          KK    SNB2
 174          KM   SUNBURST WASH CONSENTRATION POINT 2 - COMBINE RSNB1, 186E, 186F
 175          HC       3

 176          KK   RSNB2
 177          KM   ROUTE SNB2 THROUGH SUB-BASIN 186G  TO CON. POINT SNB3
 178          RS       5    FLOW       0
 179          RC    0.04     0.04     0.04     2408    0.026
 180          RX    9865     9930     9960     9995    10005    10040    10060    10140
 181          RY    1790     1772     1766     1762     1762     1764     1772     1790
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 182          KK    186G
 183          KM   SUB-BASIN 186G
 184          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 185          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 186          BA    .066
 187          LG    .150    .250   5.700    .207  25.000
 188          UC    .258    .254
 189          UA       0       5      16      30      65      77      84      90      94      97
 190          UA     100

 191          KK    SNB3
 192          KM   SUNBURST WASH CONSENTRATION POINT 3 - COMBINE RSNB2, 186G
 193          HC       2

 194          KK   SSNB3
 195          KM   ROUTE SNB3 THROUGH CULVERT AT SYCAMORE DRIVE
 196          RS       1    ELEV  1746.4
 197          SQ       0      21      66     127     185
 198          SE  1746.4  1748.4  1750.4  1754.4  1761.1
 199          SA       0    0.02    2.03
 200          SE  1746.4    1722    1740

 201          KK    186H
 202          KM   SUB-BASIN 186H
 203          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 204          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 205          BA    .025
 206          LG    .050    .250   5.700    .170  34.970
 207          UC    .258    .575
 208          UA       0       5      16      30      65      77      84      90      94      97
 209          UA     100

 210          KK    160E
 211          KM   SUB-BASIN 160E
 212          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 213          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 214          BA    .004
 215          LG    .092    .250   5.700    .170  41.880
 216          UC    .129    .255
 217          UA       0       5      16      30      65      77      84      90      94      97
 218          UA     100

 219          KK   R160E
 220          KM   ROUTE 160E THROUGH SUB-BASIN 186H TO CON. POINT SNB4
 221          RS       2    FLOW       0
 222          RC    0.02    0.02    0.02     700   0.174
 223          RX    9975    9980    9985    9986   10014   10015   10020   10025
 224          RY  1733.5  1733.5  1733.5    1733    1733  1733.5  1733.5  1733.5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 225          KK    SNB4
 226          KM   SUNBURST WASH CONSENTRATION POINT 4 - COMBINE SSNB3, 186H, R160E
 227          HC       3

 228          KK   RSNB4
 229          KM   ROUTE SNB4 THROUGH SUB-BASIN 186I  TO CON. POINT SNB5
 230          RS       2    FLOW       0
 231          RC    0.04    0.04    0.04    1004   0.023
 232          RX    9905    9945    9965    9990   10015   10070   10100   10140
 233          RY    1726    1716    1710    1702    1702    1704    1716    1724

 234          KK    186I
 235          KM   SUB-BASIN 186I
 236          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 237          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 238          BA    .029
 239          LG    .150    .250   5.700    .207  25.000
 240          UC    .200    .197
 241          UA       0       5      16      30      65      77      84      90      94      97
 242          UA     100

 243          KK   *SNB5
 244          KM   SUNBURST WASH CONCENTRATION POINT *5 - RSNB4, 186I
 245          HC       2

 246          KK    187A
 247          KM   SUB-BASIN 187A
 248          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 249          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 250          BA    .009
 251          LG    .150    .250   5.800    .195  26.770
 252          UC    .125    .092
 253          UA       0       5      16      30      65      77      84      90      94      97
 254          UA     100

 255          KK   R187A
 256          KM   ROUTE 187A THROUGHT SUB-BASIN 187B TO POINT OF CON. GRS1
 257          RS       1    FLOW       0
 258          RC    0.04    0.04    0.04     445   0.022
 259          RX    9785    9845    9940    9988   10010   10030   10125   10170
 260          RY    1870    1861    1858    1852    1852    1858    1872    1876

 261          KK    187B
 262          KM   SUB-BASIN 187B
 263          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 264          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 265          BA    .008
 266          LG    .150    .250   5.800    .195  48.740
 267          UC    .162    .204
 268          UA       0       5      16      30      65      77      84      90      94      97
 269          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 270          KK    GRS1
 271          KM    GREYSTONE WASH CONCENTRATION POINT 1 - COMBINE R187A, 187B
 272          HC       2

 273          KK   RGRS1
 274          KM   ROUTE GRS1 THROUGHT SUB-BASIN 187D TO POINT OF CON. GRS2
 275          RS       6    FLOW       0
 276          RC    0.04    0.04    0.04    3514    .044
 277          RX    9920    9955    9980    9995   10005   10040   40075   10110
 278          RY    1780    1770    1760    1754    1754    1760    1770    1780

 279          KK    187C
 280          KM   SUB-BASIN 187C
 281          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 282          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 283          BA    .012
 284          LG    .150    .250   5.700    .198  38.760
 285          UC    .125    .141
 286          UA       0       5      16      30      65      77      84      90      94      97
 287          UA     100

 288          KK   R187C
 289          KM   ROUTE 187C THROUGHT SUB-BASIN 187D TO POINT OF CON. GRS2
 290          RS       4    FLOW       0
 291          RC    0.04    0.04    0.04    2181    .061
 292          RX    9920    9955    9980    9995   10005   10040   40075   10110
 293          RY    1780    1770    1760    1754    1754    1760    1770    1780

 294          KK    187D
 295          KM   SUB-BASIN 187D
 296          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 297          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 298          BA    .070
 299          LG    .150    .250   5.700    .207  28.650
 300          UC    .308    .363
 301          UA       0       5      16      30      65      77      84      90      94      97
 302          UA     100

 303          KK   *GRS2
 304          KM   GREYSTONE WASH CONCENTRATION POINT *2 - RGRS1, R187C, 187D
 305          HC       3

 306          KK    188A
 307          KM   SUB-BASIN 188A
 308          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 309          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 310          BA    .009
 311          LG    .086    .250   5.700    .185  40.180
 312          UC    .129    .185
 313          UA       0       5      16      30      65      77      84      90      94      97
 314          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 315          KK   R188A
 316          KM   ROUTE 188A THROUGH SUB-BASIN 188B TO CON. POINT SYC1
 317          RS       2    FLOW       0
 318          RC    0.04    0.04    0.04     747   0.173
 319          RX    9770    9810    9940    9960   10020   10045   10120   10180
 320          RY    1716    1711    1708    1708    1709    1712    1720    1728

 321          KK    188B
 322          KM   SUB-BASIN 188B
 323          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 324          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 325          BA    .066
 326          LG    .149    .250   6.000    .183  44.690
 327          UC    .217    .171
 328          UA       0       5      16      30      65      77      84      90      94      97
 329          UA     100

 330          KK    188C
 331          KM   SUB-BASIN 188C
 332          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 333          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 334          BA    .022
 335          LG    .145    .250   5.800    .194  26.990
 336          UC    .196    .225
 337          UA       0       5      16      30      65      77      84      90      94      97
 338          UA     100

 339          KK    SYR1
 340          KM   SYCAMORE WASH CONCENTRATION POINT 1 - COMBINE SUB-BASINS R188A, 188B, 188C
 341          HC       3

 342          KK   RSYC1
 343          KM   ROUTE SYC1 THROUGH SUB-BASIN 188D TO CON. POINT SYC2
 344          RS       4    FLOW       0
 345          RC    0.04    0.04    0.04    2280   0.034
 346          RX    9915    9950    9985   10000   10008   10020   10055   10085
 347          RY    1850    1840    1830    1826    1826    1830    1840    1850

 348          KK    188D
 349          KM   SUB-BASIN 188D
 350          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 351          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 352          BA    .055
 353          LG    .150    .250   5.800    .195  22.890
 354          UC    .242    .248
 355          UA       0       5      16      30      65      77      84      90      94      97
 356          UA     100

 357          KK    188E
 358          KM   SUB-BASIN 188E
 359          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 360          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 361          BA    .052
 362          LG    .136    .250   5.700    .202  26.220
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 363          UC    .271    .328
 364          UA       0       5      16      30      65      77      84      90      94      97
 365          UA     100

 366          KK    SYR2
 367          KM   SYCAMORE WASH CONCENTRATION POINT 2 - COMBINE SUB-BASINS RSYC1, 188D, 188E
 368          HC       3

 369          KK   RSYC2
 370          KM   ROUTE SYC2 THROUGH SUB-BASIN 188F TO CON. POINT SYC3
 371          RS       6    FLOW       0
 372          RC    0.04    0.04    0.04    3003    0.02
 373          RX    9910    9935    9950    9980   10010   10060   10075   10110
 374          RY    1780    1770    1764    1760    1760    1766    1770    1780

 375          KK    188F
 376          KM   SUB-BASIN 188F
 377          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 378          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 379          BA    .072
 380          LG    .146    .250   5.700    .205  25.800
 381          UC    .271    .272
 382          UA       0       5      16      30      65      77      84      90      94      97
 383          UA     100

 384          KK    SYR3
 385          KM   SYCAMORE WASH CONCENTRATION POINT 3 - COMBINE SUB-BASINS RSYC2, 188F
 386          HC       2

 387          KK   SSYC3
 388          KM   ROUTE SYC3 THROUGH 60" CMP CULVERT AT GREYSTONE DRIVE
 389          RS       1    ELEV    1708
 390          SQ       0      37     115     222     280
 391          SE    1708  1710.5    1713    1718    1722
 392          SA    0.05    1.29
 393          SE    1708    1717

 394          KK   RSYC3
 395          KM   ROUTE SSYC3 THROUGH SUB-BASIN 188G TO CON. POINT SYC4
 396          RS       1    FLOW       0
 397          RC    0.04    0.04    0.04     249   0.024
 398          RX    9770    9810    9940    9960   10020   10045   10120   10180
 399          RY    1716    1711    1708    1702    1702    1712    1720    1728

 400          KK    188G
 401          KM   SUB-BASIN 188G
 402          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 403          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 404          BA    .001
 405          LG    .150    .250   5.700    .207  25.000
 406          UC    .100    .176
 407          UA       0       5      16      30      65      77      84      90      94      97
 408          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 409          KK    SYR4
 410          KM   SYCAMORE WASH CONCENTRATION POINT 4 - COMBINE SUB-BASINS RSYC3, 188G
 411          HC       2

 412          KK    GRS2
 413          KM   GREYSTONE WASH POINT OF CONCENTRATION 2 - COMBINE (RGRS1,R187C,187D0,SYR4
 414          HC       2

 415          KK   SGRS2
 416          KM   ROUTE GRS2 THROUGH 2-60" AND 48" CULVERT AT SYCAMORE DRIVE TO GRS3
 417          RS       1    ELEV  1595.5
 418          SQ       0     106     226     317     500     594
 419          SE  1595.5    1598  1599.5  1600.5  1603.5  1605.4
 420          SA       0    0.01    0.47    0.73
 421          SE  1595.5    1698    1700 1705.75

 422          KK    187E
 423          KM   SUB-BASIN 187E
 424          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 425          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 426          BA    .005
 427          LG    .050    .250   5.700    .170  39.100
 428          UC    .121    .292
 429          UA       0       5      16      30      65      77      84      90      94      97
 430          UA     100

 431          KK   R187E
 432          KM   ROUTE 187E THROUGHT SUB-BASIN 187F TO POINT OF CON. GRS3A
 433          RS       3    FLOW       0
 434          RC    0.02    0.02    0.02    1707   0.076
 435          RX    9975    9980    9985    9986   10014   10015   10020   10025
 436          RY  1780.5  1780.5  1780.5    1810    1810  1810.5  1780.5  1780.5

 437          KK    187F
 438          KM   SUB-BASIN 187F
 439          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 440          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 441          BA    .003
 442          LG    .050    .250   5.700    .170  25.000
 443          UC    .154    .524
 444          UA       0       5      16      30      65      77      84      90      94      97
 445          UA     100

 446          KK   GRS3A
 447          KM   GREYSTONE WASH POINT OF CONCENTRATION 3A - COMBINE R187E, 187F
 448          HC       2

 449          KK  RGRS3A
 450          KM   ROUTE GRS3A THROUGHT SUB-BASIN 187G TO POINT OF CON. GRS3
 451          RS       1    FLOW       0
 452          RC    0.02    0.02    0.02     337   0.033
 453          RX    9975    9980    9985    9986   10014   10015   10020   10025
 454          RY  1710.5  1710.5  1710.5    1710    1710  1710.5  1710.5  1710.5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 455          KK    187G
 456          KM   SUB-BASIN 187G
 457          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 458          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 459          BA    .043
 460          LG    .100    .250   5.700    .189  39.180
 461          UC    .350    .643
 462          UA      0       5      16      30      65      77      84      90      94      97
 463          UA     100

 464          KK    GRS3
 465          KM   GREYSTONE WASH POINT OF CONCENTRATION 3 - COMBINE SGRS2, RGRS3A, 187G
 466          HC       3

 467          KK   RGRS3
 468          KM   ROUTE GRS3 THROUGHT SUB-BASIN 187H TO POINT OF CON. GRS4
 469          RS       4    FLOW       0
 470          RC    0.04    0.04    0.04     442   0.045
 471          RX    9705    9755    9965    9990   10030   10065   10085   10130
 472          RY    1708  1699.3  1699.3    1690    1690    1696    1700    1710

 473          KK    187H
 474          KM   SUB-BASIN 187H
 475          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 476          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 477          BA    .004
 478          LG    .150    .250   5.700    .207  25.000
 479          UC    .138    .186
 480          UA      0       5      16      30      65      77      84      90      94      97
 481          UA     100

 482          KK   *SNB5
 483          KM   SUNBURST WASH CONCENTRATION POINT *5 - RGRS3, 187H
 484          HC       2

 485          KK    SNB5
 486          KM   SUNBURST WASH CONSENTRATION POINT 5 - COMBINE (RSNB4,186I), (RGRS3, 187H)
 487          HC       2

 488          KK   RSNB5
 489          KM   ROUTE SNB5 THROUGH SUB-BASIN 187I  TO CON. POINT SNB6
 490          RS       1    FLOW       0
 491          RC    0.04    0.04    0.04     295    0.02
 492          RX    9685    9760    9870    9950   10005   10035   10225   10255
 493          RY    1710  1691.5  1691.5    1682    1682    1692    1700    1710

 494          KK    187I
 495          KM   SUB-BASIN 187I
 496          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 497          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 498          BA    .024
 499          LG    .150    .250   5.700    .207  25.000
 500          UC    .171    .144
 501          UA      0       5      16      30      65      77      84      90      94      97
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 502          UA     100

 503          KK    SNB6
 504          KM   SUNBURST WASH CONSENTRATION POINT 6 - COMBINE RSNB5, 187I
 505          HC       2

 506          KK   SSNB6
 507          KM   ROUTE THROUGH 30" CMP UNDER DAM AT SUB-BASIN 187I
 508          RS       1    ELEV 1678.86
 509          SQ       0     7.2      22      45      85     100     379     886    1540
 510          SE  1678.9  1680.2  1681.4  1683.9  1693.9  1702.7  1703.7  1704.7  1705.7
 511          SA       0    0.01    0.93    3.47    8.55
 512          SE  1678.9    1680    1686    1694    1704

 513          KK   RSNB6
 514          KM   ROUTE SSNB6 THROUGH SUB-BASIN 180F TO CON. POINT CLN1
 515          RS       4    FLOW       0
 516          RC    0.04    0.04    0.04    1840   0.014
 517          RX    9870    9960    9980    9995   10010   10055   10085   10090
 518          RY    1668    1665    1664    1658    1658    1666    1670    1674

 519          KK    180F
 520          KM   SUB-BASIN 180F
 521          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 522          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 523          BA    .074
 524          LG    .150    .250   5.700    .207  25.190
 525          UC    .225    .165
 526          UA       0       5      16      30      65      77      84      90      94      97
 527          UA     100

 528          KK   *CLN1
 529          KM   COLONY WASH CONCENTRATION POINT *1 - RSNB6, 180F
 530          HC       2

 531          KK    CLN1
 532          KM   COLONY WASH CONCENTRATION POINT 1 - COMBINE RIRW2, (180F, RSNB6)
 533          HC       2

 534          KK   SCLN1
 535          KM   ROUTE CLN1 THROUGH 2-60" ONE WITH SEWER CULVERTS AT FOUNTAIN HILL BLV.
 536          RS       1    ELEV 1649.63
 537          SQ       0      16      68     215     345     415
 538          SE  1649.6  1650.6  1652.1  1654.6  1657.1  1659.1
 539          SA       0    0.13    1.06    8.03
 540          SE  1649.6    1652    1654    1664

 541          KK    180C
 542          KM   SUB-BASIN 180C
 543          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 544          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 545          BA    .010
 546          LG    .098    .250   5.700    .179  26.710
 547          UC    .112    .125
 548          UA       0       5      16      30      65      77      84      90      94      97
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 549          UA     100

 550          KK   R180C
 551          KM   ROUTE 180C THROUGH SUB-BASIN 180D TO CON. POIT CLN2
 552          RS       3    FLOW       0
 553          RC    0.02    0.02    0.02    1228    0.05
 554          RX    9975    9980    9985    9986   10014   10015   10020   10025
 555          RY  1670.5  1670.5  1670.5    1670    1670  1670.5  1670.5  1670.5

 556          KK    180D
 557          KM   SUB-BASIN 180D
 558          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 559          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 560          BA    .003
 561          LG    .064    .250   5.700    .170  35.910
 562          UC    .138    .370
 563          UA       0       5      16      30      65      77      84      90      94      97
 564          UA     100

 565          KK    180E
 566          KM   SUB-BASIN 180E
 567          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 568          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 569          BA    .019
 570          LG    .100    .250   5.700    .183  25.370
 571          UC    .146    .168
 572          UA       0       5      16      30      65      77      84      90      94      97
 573          UA     100

 574          KK    CLN2
 575          KM   COLONY WASH CONCENTRATION POINT 2 - COMBINE SCLN1, R180C, 180D, 180E
 576          HC       4

 577          KK   RCLN2
 578          KM   ROUTE CLN2 THROUGH SUB-BASIN 180G TO CON. POIT CLN3
 579          RS       3    FLOW       0
 580          RC    0.04    0.04    0.04    1364   0.022
 581          RX    9840    9940    9958    9990   10010   10030   10120   10140
 582          RY    1640    1638    1634    1624    1624    1628    1628    1640

 583          KK    180G
 584          KM   SUB-BASIN 180G
 585          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 586          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 587          BA    .029
 588          LG    .150    .250   5.700    .207  32.350
 589          UC    .204    .187
 590          UA       0       5      16      30      65      77      84      90      94      97
 591          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 592          KK    CLN3
 593          KM   COLONY WASH CONCENTRATION POINT 3 - COMBINE RCLN2, 180G
 594          HC       2

 595          KK   SCLN3
 596          KM   ROUTE CLN1 THROUGH 2-60" CMP CULVERT AT ARROLLO VISTA DRIVE.
 597          RS       1    ELEV 1616.64
 598          SQ       0      74     230     444     470
 599          SE  1616.6  1619.1  1621.6  1626.6  1628.8
 600          SA       0    0.01    1.09    3.99
 601          SE  1616.6    1618    1622    1630

 602          KK    180H
 603          KM   SUB-BASIN 180H
 604          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 605          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 606          BA    .021
 607          LG    .150    .250   5.700    .207  65.000
 608          UC    .242    .346
 609          UA       0       5      16      30      65      77      84      90      94      97
 610          UA     100

 611          KK   R180H
 612          KM   ROUTE 180H THROUGH SUB-BASIN 180J TO CON. POIT CLN6B
 613          RS       1    FLOW       0
 614          RC    0.02    0.02    0.02     394   0.010
 615          RX    9975    9980    9985    9986   10014   10015   10020   10025
 616          RY  1670.5  1670.5  1670.5    1670    1670  1670.5  1670.5  1670.5

 617          KK    180I
 618          KM   SUB-BASIN 180I
 619          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 620          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 621          BA    .004
 622          LG    .050    .250   5.700    .170  65.000
 623          UC    .121    .190
 624          UA       0       5      16      30      65      77      84      90      94      97
 625          UA     100

 626          KK   R180I
 627          KM   ROUTE 180I THROUGH SUB-BASIN 180J TO CON. POIT CLN6B
 628          RS       2    FLOW       0
 629          RC    0.02    0.02    0.02    1161   0.051
 630          RX    9975    9980    9985    9986   10014   10015   10020   10025
 631          RY  1670.5  1670.5  1670.5    1670    1670  1670.5  1670.5  1670.5

 632          KK    180J
 633          KM   SUB-BASIN 180J
 634          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 635          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 636          BA    .034
 637          LG    .100    .250   5.700    .189  65.000
 638          UC    .200    .241
 639          UA       0       5      16      30      65      77      84      90      94      97
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 640          UA     100

 641          KK   CLN4B
 642          KM   COLONY WASH CONCENTRATION POINT 4B - COMBINE R180I, 180H, 180J
 643          HC       3

 644          KK  RCLN4B
 645          KM   ROUTE CLN4B THROUGH SUB-BASIN 180M TO CON. POIT CLN4
 646          RS       1    FLOW       0
 647          RC    0.02    0.02    0.02     217   0.010
 648          RX    9977    9980    9985    9986   10014   10015   10020   10027
 649          RY  1630.8  1630.5  1630.5    1630    1630  1630.5  1630.5  1630.8

 650          KK    180M
 651          KM   SUB-BASIN 180M
 652          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 653          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 654          BA    .005
 655          LG    .050    .250   5.700    .170  26.780
 656          UC    .150    .362
 657          UA       0       5      16      30      65      77      84      90      94      97
 658          UA     100

 659          KK    CLN4
 660          KM   COLONY WASH CONCENTRATION POINT 4 - COMBINE SCLN3, RCLN4A, 180M
 661          HC       3

 662          KK   RCLN4
 663          KM   ROUTE CLN4 THROUGH SUB-BASIN 180N TO CON. POIT CLN5
 664          RS       4    FLOW       0
 665          RC    0.04    0.04    0.04    1882   0.014
 666          RX    9890    9915    9940    9990   10010   10050   10080   10115
 667          RY    1610    1598    1596    1590    1590    1596    1598    1612

 668          KK    180N
 669          KM   SUB-BASIN 180N
 670          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 671          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 672          BA    .041
 673          LG    .142    .250   5.700    .205  43.950
 674          UC    .200    .150
 675          UA       0       5      16      30      65      77      84      90      94      97
 676          UA     100

 677          KK    184C
 678          KM   SUB-BASIN 184C
 679          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 680          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 681          BA    .014
 682          LG    .097    .250   5.700    .170  46.030
 683          UC    .133    .163
 684          UA       0       5      16      30      65      77      84      90      94      97
 685          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 686          KK    184D
 687          KM   SUB-BASIN 184D
 688          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 689          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 690          BA    .007
 691          LG    .050    .250   5.700    .170  45.880
 692          UC    .171    .440
 693          UA       0       5      16      30      65      77      84      90      94      97
 694          UA     100

 695          KK    NCL1
 696          KM   NORTH COLONY WASH CONCENTRATION POINT 1 - COMBINES 184C, 184D
 697          HC       2

 698          KK   RNCL1
 699          KM   ROUTE NCL1 THROUGH SUB-BASIN 184E TO CON. POINT NCL2
 700          RS       1    FLOW       0
 701          RC    0.04    0.04    0.04     321    .097
 702          RX    9795    9850    9925    9970   10010   10055   10080   10115
 703          RY    1566    1562    1558    1544    1544    1552    1560    1570

 704          KK    184E
 705          KM   SUB-BASIN 184E
 706          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 707          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 708          BA    .109
 709          LG    .148    .250   5.700    .206  45.380
 710          UC    .383    .477
 711          UA       0       5      16      30      65      77      84      90      94      97
 712          UA     100

 713          KK    NCL2
 714          KM   NORTH COLONY WASH CONCENTRATION POINT 2 - COMBINES RNCL1, 184E
 715          HC       2

 716          KK   SNCL2
 717          KM   ROUTE THROUGH 60" CMP CULVER AT MIMOSA DRIVE
 718          RS       1    ELEV 1739.67
 719          SQ       0      37     115     222     350
 720          SE  1739.7  1742.2  1744.7  1749.7  1759.9
 721          SA   0.001    0.04     1.4
 722          SE    1742    1744    1758

 723          KK    184F
 724          KM   SUB-BASIN 184F
 725          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 726          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 727          BA    .007
 728          LG    .050    .250   5.700    .170  48.870
 729          UC    .162    .384
 730          UA       0       5      16      30      65      77      84      90      94      97
 731          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 732          KK   R184F
 733          KM   ROUTE 184F THROUGH SUB-BASIN 184G TO CON. POINT NCL3
 734          RS       1    FLOW       0
 735          RC    0.04    0.04    0.04     349   0.136
 736          RX    9975    9980    9985    9986   10014   10015   10020   10025
 737          RY  1725.5  1725.5  1725.5    1725    1725  1725.5  1725.5  1725.5

 738          KK    NCL3
 739          KM   NORTH COLONY WASH CONCENTRATION POINT 3 - COMBINES SNCL2, R184F
 740          HC       2

 741          KK   RNCL3
 742          KM   ROUTE NCL3 THROUGH SUB-BASIN 184G TO MOUNTAIN SITE CULVERT INLET
 743          RS       1    FLOW       0
 744          RC    0.04    0.04    0.04     365   0.016
 745          RX    9875    9950    9970    9995   10010   10020   10055   10130
 746          RY    1756    1752    1740    1736    1736    1738    1758    1762

 747          KK   SNCL3
 748          KM   ROUTE THROUGH 60" CMP CULVER AT MOUNTAIN SIDE DRIVE
 749          RS       1    ELEV 1732.65
 750          SQ       0      37     115     222     255
 751          SE  1732.7  1735.2  1737.7  1742.7  1744.7
 752          SA       0    0.03    0.32
 753          SE    1732    1734    1746

 754          KK    184A
 755          KM   SUB-BASIN 184A
 756          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 757          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 758          BA    .019
 759          LG    .051    .250   5.700    .170  46.020
 760          UC    .162    .213
 761          UA       0       5      16      30      65      77      84      90      94      97
 762          UA     100

 763          KK   R184A
 764          KM   ROUTE 184A THROUGH SUB-BASIN 184B TO CON. POINT NCL4A
 765          RS            FLOW       0
 766          RC    0.02    0.02    0.02    4359   0.037
 767          RX    9975    9980    9985    9986   10014   10015   10020   10025
 768          RY  1870.5  1870.5  1870.5    1870    1870  1870.5  1870.5  1870.5

 769          KK    184B
 770          KM   SUB-BASIN 184B
 771          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 772          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 773          BA    .023
 774          LG    .099    .250   5.700    .188  45.270
 775          UC    .204    .376
 776          UA       0       5      16      30      65      77      84      90      94      97
 777          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 778          KK   NCL4A
 779          KM   NORTH COLONY WASH CONCENTRATION POINT 4A - COMBINES R184A, 184B
 780          HC       2

 781          KK  RNCL4A
 782          KM   ROUTE NCL4A THROUGH SUB-BASIN 184G TO CON. POINT NCL4
 783          RS       3    FLOW       0
 784          RC    0.02    0.02    0.02     863   0.103
 785          RX    9975    9980    9985    9986   10014   10015   10020   10025
 786          RY  1810.5  1810.5  1810.5    1810    1810  1810.5  1810.5  1810.5

 787          KK    NCL4
 788          KM   NORTH COLONY WASH CONCENTRATION POINT 4 - COMBINES SNCL3, RNC4A
 789          HC       2

 790          KK   RNCL4
 791          KM   ROUTE NCL4 THROUGH SUB-BASIN 184G TO CON. POINT NCL5
 792          RS       3    FLOW       0
 793          RC    0.04    0.04    0.04    1350   0.027
 794          RX    9865    9930    9960    9995   10005   10020   10133   10200
 795          RY    1730    1720    1716    1708    1708    1710    1714    1730

 796          KK    184G
 797          KM   SUB-BASIN 184G
 798          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 799          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 800          BA    .053
 801          LG    .150    .250   5.700    .207  58.920
 802          UC    .213    .173
 803          UA       0       5      16      30      65      77      84      90      94      97
 804          UA     100

 805          KK    NCL5
 806          KM   NORTH COLONY WASH CONCENTRATION POINT 5 - COMBINES RNCL4, 184G
 807          HC       2

 808          KK   SNCL5
 809          KM   ROUTE THROUGH 60" CMP CULVER AT FOUNTAIN HILL BLV
 810          RS       1    ELEV 1691.39
 811          SQ       0      37     115     222     340
 812          SE  1691.4  1693.9  1696.4  1701.4    1706
 813          SA       0   0.005    2.15
 814          SE  1691.4    1694    1706

 815          KK    184H
 816          KM   SUB-BASIN 184H
 817          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 818          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 819          BA    .012
 820          LG    .100    .250   5.700    .179  65.000
 821          UC    .175    .287
 822          UA       0       5      16      30      65      77      84      90      94      97
 823          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 824          KK    183A
 825          KM   SUB-BASIN 183A
 826          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 827          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 828          BA    .043
 829          LG    .150    .250   5.700    .198  48.100
 830          UC    .146    .118
 831          UA       0       5      16      30      65      77      84      90      94      97
 832          UA     100

 833          KK   R183A
 834          KM   ROUTE 183A THROUGH SUB-BASIN 183B TO CON. POINT NCL6A
 835          RS       4    FLOW       0
 836          RC    0.04    0.04    0.04    1450    0.03
 837          RX    9870    9925    9960    9985   10040   10108   10155   10210
 838          RY    1750    1740    1734    1732    1732    1734    1742    1754

 839          KK    183B
 840          KM   SUB-BASIN 183B
 841          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 842          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 843          BA    .041
 844          LG    .150    .250   5.700    .207  65.000
 845          UC    .213    .177
 846          UA       0       5      16      30      65      77      84      90      94      97
 847          UA     100

 848          KK   NCL6A
 849          KM   NORTH COLONY CONCENTRATION POINT 6A - COMBINE R183A, 183B
 850          HC       2

 851          KK  SNCL6A
 852          KM   STORAGE PONDING BY FOUNTAIN HILLS BLVD
 853          RS       1    ELEV    1722
 854          SQ       0       1     120    1030
 855          SE    1722    1729    1730    1731
 856          SA    0.99    3.14    3.24
 857          SE    1722    1729    1730

 858          KK  RNCL6A
 859          KM   ROUTE SNCL6A THROUGH SUB-BASIN 184H TO CON. POINT NCL6
 860          RS       2    FLOW       0
 861          RC    0.02    0.02    0.02     910   0.027
 862          RX    9975    9980    9985    9986   10014   10015   10020   10025
 863          RY  1716.5  1716.5  1716.5    1716    1716  1716.5  1716.5  1716.5

 864          KK    NCL6
 865          KM   NORTH COLONY WASH CONCENTRATION POINT 6 - COMBINES SNCL5, RNCL6A
 866          HC       3
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 867          KK   RNCL6
 868          KM   ROUTE NCL6 THROUGH SUB-BASIN 184I TO CON. POINT NCL7
 869          RS       3    FLOW       0
 870          RC    0.04    0.04    0.04    1492   0.032
 871          RX    9800    9865    9940    9975   10005   10040   10110   10190
 872          RY    1690    1680    1670    1666    1666    1676    1676    1690

 873          KK    184I
 874          KM   SUB-BASIN 184I
 875          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 876          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 877          BA    .031
 878          LG    .150    .250   5.700    .198  65.000
 879          UC    .175    .182
 880          UA       0       5      16      30      65      77      84      90      94      97
 881          UA     100

 882          KK    NCL7
 883          KM   NORTH COLONY WASH CONCENTRATION POINT 7 - COMBINES RNCL6, 184I
 884          HC       2

 885          KK   SNCL7
 886          KM   ROUTE THROUGH A 66" AND 60" CMP CULVER AT LA MONTANA DRIVE
 887          RS       1    ELEV  1656.9
 888          SQ       0      90     240     278     525
 889          SE  1656.9  1659.7  1661.9  1662.4  1667.9
 890          SA       0    0.06    1.11
 891          SE  1656.9    1660    1668

 892          KK   RNCL7
 893          KM   ROUTE SRNCL7 THROUGH SUB-BASIN 184J TO CON. POINT NCL8
 894          RS       2    FLOW       0
 895          RC    0.04    0.04    0.04     885    0.02
 896          RX    9955    9963    9980    9995   10005   10040   10070   10240
 897          RY    1678    1674    1666    1660    1660    1674    1686    1688

 898          KK    184J
 899          KM   SUB-BASIN 184J
 900          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 901          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 902          BA    .008
 903          LG    .150    .250   5.700    .187  65.000
 904          UC    .158    .199
 905          UA       0       5      16      30      65      77      84      90      94      97
 906          UA     100

 907          KK    NCL8
 908          KM   NORTH COLONY WASH CONCENTRATION POINT 8 - COMBINES RNCL7, 184J
 909          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 910          KK   SNCL8
 911          KM   ROUTE THROUGH 60" CMP CULVER AT CHANA
 912          RS       1    ELEV 1629.38
 913          SQ       0      37     115     195     952
 914          SE  1629.4  1631.9  1634.4  1637.8  1639.4
 915          SA       0   .0002     .08
 916          SE  1639.4    1632    1638

 917          KK   RNCL8
 918          KM   ROUTE SNCL8 THROUGH SUB-BASIN 184K TO CON. POINT NCL9
 919          RS       1    FLOW       0
 920          RC    0.04    0.04    0.04     448   0.084
 921          RX    9930    9945    9970    9990   10000   10035   10065   10080
 922          RY    1646    1640    1628    1618    1618    1622    1630    1632

 923          KK    184K
 924          KM   SUB-BASIN 184K
 925          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 926          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 927          BA    .004
 928          LG    .150    .250   5.700    .198  65.000
 929          UC    .121    .141
 930          UA       0       5      16      30      65      77      84      90      94      97
 931          UA     100

 932          KK    NCL9
 933          KM   NORTH COLONY WASH CONCENTRATION POINT 9 - COMBINES RNCL9, 184K
 934          HC       2

 935          KK   RNCL9
 936          KM   ROUTE NCL  THROUGH SUB-BASIN 180N
 937          RS       2    FLOW       0
 938          RC    0.04    0.04    0.04    1065   0.011
 939          RX    9890    9915    9940    9990   10010   10050   10080   10115
 940          RY    1610    1598    1596    1590    1590    1596    1598    1612

 941          KK    CLN5
 942          KM   COLONY WASH CONCENTRATION POINT 5 - COMBINE  RCLN4, 180N, RNCL9
 943          HC       3

 944          KK   SCLN5
 945          KM   ROUTE CLN5 THROUGH 72" CMP CULVERT AT SAGUARO BLV.
 946          RS       1    ELEV  1584.8
 947          SQ       0      45     145     310     345     755
 948          SE  1584.8  1587.3  1589.8  1594.8  1595.9    1598
 949          SA       0    0.18    2.09
 950          SE  1584.8    1588    1596

 951          KK    180K
 952          KM   SUB-BASIN 180K
 953          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 954          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 955          BA    .029
 956          LG    .050    .250   5.700    .170  66.090
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 957          UC    .179    .202
 958          UA       0       5      16      30      65      77      84      90      94      97
 959          UA     100

 960          KK   R180K
 961          KM   ROUTE 180K THROUGH SUB-BASIN 180L TO CON. POINT CLN6
 962          RS       1    FLOW       0
 963          RC    0.02    0.02    0.02     390  0.0018
 964          RX    9945    9952    9960  9960.5 10039.5   10040   10048   10055
 965          RY  1600.5  1600.5  1600.5    1600    1600  1600.5  1600.5  1600.5

 966          KK    180L
 967          KM   SUB-BASIN 180L
 968          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 969          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 970          BA    .013
 971          LG    .061    .250   5.700    .170  71.340
 972          UC    .112    .103
 973          UA       0       5      16      30      65      77      84      90      94      97
 974          UA     100

 975          KK    CLN6
 976          KM   COLONY WASH CONCENTRATION POINT 6 - COMBINE RCLN6A, SCLN5, 180L
 977          HC       3

 978          KK   RCLN6
 979          KM   ROUTE CLN6 THROUGH SUB-BASIN 1800 TO CON. POINT CLN7
 980          RS       3    FLOW       0
 981          RC    0.04    0.04    0.04    1427   0.018
 982          RX    9790    9900    9920    9993   10000   10045   10085   10100
 983          RY    1586    1584    1580    1572    1572    1586    1588    1590

 984          KK    1800
 985          KM   SUB-BASIN 1800
 986          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 987          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 988          BA    .019
 989          LG    .080    .250   5.700    .176  90.000
 990          UC    .158    .179
 991          UA       0       5      16      30      65      77      84      90      94      97
 992          UA     100

 993          KK   *CLN7
 994          KM   COLONY WASH CONCENTRATION POINT *7 - RCLN6, 1800
 995          HC       2

 996          KK    182G
 997          KM   SUB-BASIN 182G
 998          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 999          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1000          BA    .048
1001          LG    .061    .250   5.700    .170  82.370
1002          UC    .275    .392
1003          UA       0       5      16      30      65      77      84      90      94      97
1004          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1005          KK    182I
1006          KM   SUB-BASIN 182I
1007          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1008          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1009          BA    .040
1010          LG    .070    .250   5.700    .170  72.940
1011          UC    .267    .346
1012          UA       0       5      16      30      65      77      84      90      94      97
1013          UA     100

1014          KK     FC1
1015          KM   FOUNTAIN CHANNEL CONC. POINT 1 - COMBINE 182G, 182I
1016          HC       2

1017          KK    RFC1
1018          KM   ROUTE FC1 THROUGH SUB-BASIN 182E
1019          RS       1    FLOW       0
1020          RC     .02     .02     .02     570    .012
1021          RX    9958    9963    9968  9968.5 10031.5   10032   10037   10042
1022          RY  1610.6  1610.5  1610.5    1610    1610  1610.5  1610.5  1610.6

1023          KK    182D
1024          KM   SUB-BASIN 182D
1025          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1026          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1027          BA    .094
1028          LG    .100    .250   5.700    .188  89.780
1029          UC    .217    .173
1030          UA       0       5      16      30      65      77      84      90      94      97
1031          UA     100

1032          KK   R182D
1033          KM   ROUTE 182D THROUGH SUB-BASIN 182E
1034          RS       4    FLOW       0
1035          RC     .02     .02     .02    1994    .021
1036          RX    9958    9963    9968  9968.5 10031.5   10032   10037   10042
1037          RY  1610.6  1610.5  1610.5    1610    1610  1610.5  1610.5  1610.6

1038          KK    182E
1039          KM   SUB-BASIN 182E
1040          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1041          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1042          BA    .064
1043          LG    .091    .250   5.700    .170  74.290
1044          UC    .221    .187
1045          UA       0       5      16      30      65      77      84      90      94      97
1046          UA     100

1047          KK    182F
1048          KM   SUB-BASIN 182F
1049          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1050          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1051          BA    .015
1052          LG    .050    .250   5.700    .170  65.490
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1053          UC    .233    .448
1054          UA       0       5      16      30      65      77      84      90      94      97
1055          UA     100

1056          KK     FC2
1057          KM   FOUNTAIN CHANNEL CONC. POINT 2 - COMBINE RFC1, R182D, 182E, 182F
1058          HC       4

1059          KK    SFC2
1060          KM   CATCH BASIN(2X3 AND TRIANGULAR),CULVERT UNDER SAGUARO BLVD AND SPILLWAYS
1061          RS       1    ELEV    1596
1062          SQ       0    10.4      41     181     482     913
1063          SE    1596  1596.2  1596.5    1597  1597.5    1598
1064          SA   0.001    0.48    0.80
1065          SE    1596  1596.5    1597

1066          KK    RFC2
1067          KM   ROUTE SFC2 TO THROUGH SUB-BASIN 182J TO FC3 IN MIDDLE OF 182J
1068          RS       2    FLOW       0
1069          RC     .04     .04     .04    1050    .011
1070          RX    9960    9970    9975    9980   10040   10090   10150   10220
1071          RY  1584.5    1584    1583    1582    1582    1590    1592    1594

1072          KK    DFC2
1073          KM   FLOW SPILL INTO THE LAKE
1074          DT   DOFC2
1075          DI       0     250     350     400     500     650     750     800
1076          DQ       0       0       4      19      63     184     274     320

1077          KK    182A
1078          KM   SUB-BASIN 182A
1079          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1080          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1081          BA    .050
1082          LG    .150    .250   5.700    .189  90.000
1083          UC    .175    .136
1084          UA       0       5      16      30      65      77      84      90      94      97
1085          UA     100

1086          KK   R182A
1087          KM   ROUTE SUB-BASIN 182A THROUGH SUB-BASIN 182B
1088          RS       4    FLOW       0
1089          RC     .02     .02     .02    1950    .025
1090          RX    9975    9980    9985    9986   10014   10015   10020   10025
1091          RY  1620.6  1620.5  1620.5    1620    1620  1620.5  1620.5  1620.6

1092          KK    182B
1093          KM   SUB-BASIN 182B
1094          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1095          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1096          BA    .039
1097          LG    .095    .250   5.700    .170  80.670
1098          UC    .213    .222
1099          UA       0       5      16      30      65      77      84      90      94      97
1100          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1101          KK    FC3A
1102          KM   FOUNTAIN CHANNEL CONC. POINT 3A - COMBINE R182A, 182B
1103          HC       2

1104          KK   SFC3A
1105          KM   CATCH BASIN AND SPILL WAY AT SAGUARO BLVD
1106          RS       1    ELEV    1596
1107          SQ       0     6.4    18.1    45.6    68.2     820    1450
1108          SE    1596  1596.2  1596.4  1596.7    1597    1598  1598.5
1109          SA       0     0.6
1110          SE    1596    1597

1111          KK    182C
1112          KM   SUB-BASIN 182C
1113          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1114          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1115          BA    .022
1116          LG    .078    .250   5.700    .170  83.060
1117          UC    .200    .273
1118          UA       0       5      16      30      65      77      84      90      94      97
1119          UA     100

1120          KK    FC3B
1121          KM   FOUNTAIN CHANNEL CONC. POINT 3B - COMBINE 182C, SFC3A
1122          HC       2

1123          KK   RFC3B
1124          KM   ROUTE FC3B THROUGH 182J TO MAIN CHANNEL IN MIDDLE OF 182J
1125          RS       3    FLOW       0
1126          RC     .03     .02     .03     210   0.067
1127          RX    9900    9950    9993    9996   10004   10007   10050   10100
1128          RY    1583    1582  1581.5    1580    1580  1581.5    1582    1583

1129          KK     FC3
1130          KM   FOUNTAIN CHANNEL CONC. POINT 3 - COMBINE RFC3B, DFC2
1131          HC       2

1132          KK    RFC4
1133          KM   ROUTE FC5 THROUGH REMAINDER OF 182J
1134          RS       1    FLOW       0
1135          RC     .04     .04     .04     572    .009
1136          RX    9960    9970    9975    9980   10040   10090   10150   10220
1137          RY  1584.5    1584    1583    1582    1582    1590    1592    1594

1138          KK    182J
1139          KM   SUB-BASIN 182J
1140          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1141          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1142          BA    .015
1143          LG    .134    .250   5.700    .193  28.330
1144          UC    .237    .330
1145          UA       0       5      16      30      65      77      84      90      94      97
1146          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1147          KK     FC4
1148          KM   FOUNTAIN CHANNEL CONC. POINT 4 - COMBINE RFC3, 182J
1149          HC       2

1150          KK    SFC4
1151          KM   ROUTE FC4 THROUGH 2-4'X10 BOX CULVERTS UNDER EL LAGO BLVD
1152          RS       1    ELEV  1577.4
1153          SQ       0     170     460     780    1110
1154          SE  1577.4  1579.4  1581.4  1583.8  1585.4
1155          SA       0     .34       2
1156          SE  1577.4    1580    1584

1157          KK    DFHN
1158          KM   DIVERTED FLOW FROM FOUNTAIN HILLS NORTH (INPUT SABOL HYDROGRAPH)
1159          BA       1
1160          QI       0

1161          KK    183F
1162          KM   SUB-BASIN 183F
1163          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1164          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1165          BA    .049
1166          LG    .150    .250   5.700    .207  65.000
1167          UC    .208    .231
1168          UA       0       5      16      30      65      77      84      90      94      97
1169          UA     100

1170          KK    183G
1171          KM   SUB-BASIN 183G
1172          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1173          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1174          BA    .093
1175          LG    .150    .250   5.700    .207  76.740
1176          UC    .250    .229
1177          UA       0       5      16      30      65      77      84      90      94      97
1178          UA     100

1179          KK    183H
1180          KM   SUB-BASIN 183H
1181          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1182          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1183          BA    .018
1184          LG    .150    .250   5.700    .204  65.000
1185          UC    .133    .125
1186          UA       0       5      16      30      65      77      84      90      94      97
1187          UA     100

1188          KK     LC1
1189          KM   LAGO CHANNEL CONC. POINT 2 - COMBINE 183F, 183G, 183H, DFHN
1190          HC       4
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1191          KK    RLC1
1192          KM   ROUTE LC1 THROUGH SUB-BASIN 183I
1193          RS       4    FLOW       0
1194          RC     .02     .02     .02    2002    .023
1195          RX    9958    9963    9968  9968.5 10031.5   10032   10037   10042
1196          RY  1620.7  1620.6  1620.5    1620    1620  1620.5  1620.6  1620.7

1197          KK    183I
1198          KM   SUB-BASIN 183I
1199          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1200          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1201          BA    .057
1202          LG    .100    .250   5.700    .170  77.810
1203          UC    .221    .197
1204          UA       0       5      16      30      65      77      84      90      94      97
1205          UA     100

1206          KK    183J
1207          KM   SUB-BASIN 183J
1208          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1209          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1210          BA    .005
1211          LG    .050    .250   5.700    .170  88.590
1212          UC    .100    .122
1213          UA       0       5      16      30      65      77      84      90      94      97
1214          UA     100

1215          KK     LC2
1216          KM   LAGO CHANNEL CONC. POINT 2 - COMBINE RLC1, 183I, 183J
1217          HC       3

1218          KK    SLC2
1219          KM   ROUTE LC3 THROUGH ACROSS ROAD CATCH BASIN AT SAGUARO BLVD & EL LAGO BLVD
1220          RS       1    ELEV    1598
1221          SQ       0      27     110     300     966
1222          SE    1598  1598.2  1598.5    1599    1600
1223          SA   0.002    0.37
1224          SE    1598    1599

1225          KK    RLC2
1226          KM   ROUTE SLC2 THROUGH SUB-BASIN 183K
1227          RS       1    FLOW       0
1228          RC     .02     .02     .02     521    .029
1229          RX    9958    9963    9968  9968.5 10031.5   10032   10037   10042
1230          RY  1592.7  1592.6  1592.5    1592    1592  1592.5  1592.6  1592.7

1231          KK    183K
1232          KM   SUB-BASIN 183K
1233          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1234          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1235          BA    .002
1236          LG    .050    .250   5.700    .170  90.000
1237          UC    .083    .128
1238          UA       0       5      16      30      65      77      84      90      94      97
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1239          UA     100

1240          KK     LC3
1241          KM   LAGO CHANNEL CONC. POINT 3 - COMBINE RLC2, 183K
1242          HC       2

1243          KK   D183K
1244          KM   DIVERSION OF 183K INTO 181B
1245          DT  DO183K
1246          DI       1      10     100    1000
1247          DQ       0       0       5     100

1248          KK     FC5
1249          KM   FOUNTAIN CHANNEL CONC. POINT 5 - COMBINE SFC4, RFC5
1250          HC       2

1251          KK    RFC5
1252          KM   ROUTE FC5 THROUGH SUB-BASIN 182K TO CONC. POINT
1253          RS       1    FLOW       0
1254          RC     .04     .04     .04     502    .005
1255          RX    9930    9940    9960    9980   10015   10035   10085   10180
1256          RY    1586    1584    1580    1576    1576    1578    1588    1590

1257          KK    182K
1258          KM   SUB-BASIN 182K
1259          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1260          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1261          BA    .024
1262          LG    .093    .250   5.700    .170  86.270
1263          UC    .138    .091
1264          UA       0       5      16      30      65      77      84      90      94      97
1265          UA     100

1266          KK     FC6
1267          KM   FOUNTAIN CHANNEL CONC. POINT 6 - COMBINE RFC5, 182K
1268          HC       2

1269          KK    RFC6
1270          KM   ROUTE FC6 THROUGH SUB-BASIN 182L TO CONC. POINT FC7
1271          RS       2    FLOW       0
1272          RC     .04     .04     .04     670    .021
1273          RX    9880    9920    9960    9975   10025   10035   10045   10250
1274          RY    1582    1581    1580    1574    1574    1576    1578    1580

1275          KK    182L
1276          KM   SUB-BASIN 182L
1277          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1278          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1279          BA    .005
1280          LG    .111    .250   5.700    .174  70.390
1281          UC    .108    .126
1282          UA       0       5      16      30      65      77      84      90      94      97
1283          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1284          KK     FC7
1285          KM   FOUNTAIN CHANNEL CONC. POINT 7 - COMBINE RFC6, 182L
1286          HC       2

1287          KK    CLN7
1288          KM   COLONY WASH CONCENTRATION POINT 7 - COMBINE (RCLN6, 180O), FC7
1289          HC       2

1290          KK   RCLN7
1291          KM   ROUTE CLN7 THROUGH SUB-BASIN 180P TO CON. POINT CLN8
1292          RS       2    FLOW       0
1293          RC    0.04    0.04    0.04     631   0.022
1294          RX    9847    9860    9985    9995   10005   10040   10075   10125
1295          RY    1562    1554    1552    1550    1550    1552    1558    1556

1296          KK    180P
1297          KM   SUB-BASIN 180P
1298          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1299          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1300          BA    .011
1301          LG    .092    .250   5.400    .202  76.730
1302          UC    .129    .127
1303          UA       0       5      16      30      65      77      84      90      94      97
1304          UA     100

1305          KK   *CLN8
1306          KM   COLONY WASH CONCENTRATION POINT *8 - RCLN7, 180P
1307          HC       2

1308          KK    181A
1309          KM   SUB-BASIN 181A
1310          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1311          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1312          BA    .079
1313          QI       0

1314          KK   R181A
1315          KM   ROUTE R181A THROUGH SUB-BASIN 181B
1316          RS       3    FLOW       0
1317          RC     .04     .04     .04    1268    .022
1318          RX    9960    9960    9970    9985   10005   10035   10110   10220
1319          RY    1574    1568    1568    1566    1566    1572    1574    1578

1320          KK    181B
1321          KM   SUB-BASIN 181B
1322          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1323          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1324          BA    .022
1325          LG    .063    .250   5.300    .204  64.590
1326          UC    .225    .311
1327          UA       0       5      16      30      65      77      84      90      94      97
1328          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1329          KK   D183K
1330          KM   FLOW FROM DIVERSION AT 183K THROUGH SUB-BASIN 181B
1331          DR  DO183K

1332          KK   R183K
1333          KM   ROUTE DIVERTED FLOW FROM 183K THROUGH SUB-BASIN 181B THROUGH STREET
1334          RS       2    FLOW       0
1335          RC    0.02    0.02    0.02    1145   0.011
1336          RX    9955    9963    9968  9968.5 10031.5   10032   10034   10045
1337          RY  1580.7  1580.6  1580.5    1580    1580  1580.5  1580.6  1580.7

1338          KK   R183K
1339          KM   ROUTE DIVERTED FLOW FROM STREET THROUGH 181B
1340          RS       3    FLOW       0
1341          RC    0.04   0.004    0.04    1145   0.023
1342          RX    9960    9960    9970    9985   10005   10035   10110   10220
1343          RY    1574    1574    1568    1566    1566    1572    1574    1578

1344          KK    CLN8
1345          KM   COLONY WASH CONCENTRATION POINT 8 - COMBINE (RCLN7,180P),R181A,180B,RD183K
1346          HC       4

1347          KK   SCLN8
1348          KM   ROUTE CLN8 THROUGH 4-6'X8' BOX CULVERT AT PANORAMA BLV.
1349          RS       1    ELEV 1546.44
1350          SQ       0     416    1184    2368
1351          SE  1546.4  1549.4  1552.4    1558
1352          SA       0     0.1    1.71
1353          SE  1546.4    1548    1555

1354          KK    180S
1355          KM   SUB-BASIN 180S
1356          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1357          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1358          BA    .035
1359          LG    .052    .250   5.600    .180  87.410
1360          UC    .129    .124
1361          UA       0       5      16      30      65      77      84      90      94      97
1362          UA     100

1363          KK   170I1
1364          KM   SUB-BASIN 170I-1
1365          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1366          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1367          BA    .022
1368          LG    .075    .250   5.700    .170  61.690
1369          UC    .192    .260
1370          UA       0       5      16      30      65      77      84      90      94      97
1371          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1329          KK   D183K
1330          KM   FLOW FROM DIVERSION AT 183K THROUGH SUB-BASIN 181B
1331          DR  DO183K

1332          KK   R183K
1333          KM   ROUTE DIVERTED FLOW FROM 183K THROUGH SUB-BASIN 181B THROUGH STREET
1334          RS       2    FLOW       0
1335          RC    0.02    0.02    0.02    1145   0.011
1336          RX    9955    9963    9968  9968.5 10031.5   10032   10034   10045
1337          RY  1580.7  1580.6  1580.5    1580    1580  1580.5  1580.6  1580.7

1338          KK   R183K
1339          KM   ROUTE DIVERTED FLOW FROM STREET THROUGH 181B
1340          RS       3    FLOW       0
1341          RC    0.04   0.004    0.04    1145   0.023
1342          RX    9960    9960    9970    9985   10005   10035   10110   10220
1343          RY    1574    1574    1568    1566    1566    1572    1574    1578

1344          KK    CLN8
1345          KM   COLONY WASH CONCENTRATION POINT 8 - COMBINE (RCLN7,180P),R181A,180B,RD183K
1346          HC       4

1347          KK   SCLN8
1348          KM   ROUTE CLN8 THROUGH 4-6'X8' BOX CULVERT AT PANORAMA BLV.
1349          RS       1    ELEV 1546.44
1350          SQ       0     416    1184    2368
1351          SE  1546.4  1549.4  1552.4    1558
1352          SA       0     0.1    1.71
1353          SE  1546.4    1548    1555

1354          KK    180S
1355          KM   SUB-BASIN 180S
1356          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1357          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1358          BA    .035
1359          LG    .052    .250   5.600    .180  87.410
1360          UC    .129    .124
1361          UA       0       5      16      30      65      77      84      90      94      97
1362          UA     100

1363          KK   17011
1364          KM   SUB-BASIN 170I-1
1365          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1366          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1367          BA    .022
1368          LG    .075    .250   5.700    .170  61.690
1369          UC    .192    .260
1370          UA       0       5      16      30      65      77      84      90      94      97
1371          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1372          KK  D170I1
1373          KM   DIVERSION AT INTERSECTION OF SAGUARO AND PANORAME
1374          DT  D170I1
1375          DI       1      10     100    1000
1376          DQ     0.5       5      50     500

1377          KK  R170I1
1378          KM   ROUTE 170I1 (DIVERTED FLOW) THROUGH SUB-BASIN 180S TO CLN9
1379          RS       2    FLOW       0
1380          RC    0.02    0.02    0.02    1088   0.035
1381          RX    9975    9980    9985    9986   10014   10015   10020   10025
1382          RY  1575.5  1575.5  1575.5    1575    1575  1575.5  1575.5  1575.5

1383          KK    CLN9
1384          KM   COLONY WASH CONCENTRATION POINT 9 - COMBINE SCLN8, RD170I-1, 180S
1385          HC       3

1386          KK   RCLN9
1387          KM   ROUTE CLN9 THROUGH SUB-BASIN 180U TO CON. POINT CLN10
1388          RS       4    FLOW       0
1389          RC    0.04    0.04    0.04    1999   0.015
1390          RX    9790    9805    9945    9965   10035   10060   10100   10110
1391          RY    1534    1532    1532    1528    1528    1530    1538  1538.5

1392          KK    180U
1393          KM   SUB-BASIN 180U
1394          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1395          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1396          BA    .019
1397          LG    .145    .250   3.810    .540  67.340
1398          UC    .208    .286
1399          UA       0       5      16      30      65      77      84      90      94      97
1400          UA     100

1401          KK  *CLN10
1402          KM   COLONY WASH CONCENTRATION POINT *10 - CONBINE RCLN9, 180U
1403          HC       2

1404          KK    180Q
1405          KM   SUB-BASIN 180Q
1406          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1407          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1408          BA    .032
1409          LG    .107    .250   5.400    .190  87.960
1410          UC    .196    .227
1411          UA       0       5      16      30      65      77      84      90      94      97
1412          UA     100

1413          KK    180R
1414          KM   SUB-BASIN 180R
1415          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1416          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1417          BA    .027
1418          LG    .150    .250   4.800    .305  90.000
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1419          UC    .175    .168
1420          UA       0       5      16      30      65      77      84      90      94      97
1421          UA     100

1422          KK   170I2
1423          KM   SUB-BASIN 170I-2
1424          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1425          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1426          BA    .012
1427          LG    .050    .250   5.700    .170  70.780
1428          UC    .125    .184
1429          UA       0       5      16      30      65      77      84      90      94      97
1430          UA     100

1431          KK  D170I1
1432          KM   FLOW FROM SUB-BASIN 170I-1
1433          DR  D170I1

1434          KK  R170I1
1435          KM   ROUTED FLOW FROM 170I1 THROUGH 170I2 TO MLT6A
1436          RS       4    FLOW       0
1437          RC    0.02    0.02    0.02    1738   0.025
1438          RX    9945    9952    9960  9960.5 10039.5   10040   10048   10055
1439          RY  1570.5  1570.5  1570.5    1570    1570  1570.5  1570.5  1570.5

1440          KK   MLT6A
1441          KM   MALTA DRAIN CONCENTRATION POINT 6A - COBINE R170I1, 170I2
1442          HC       2

1443          KK  DMLT6A
1444          KM   DIVERSION AT INTERSECTION OF SAGUARO AND EL PUEBLO
1445          DT  D170I2
1446          DI       1      10     100    1000
1447          DQ     0.5       5      50     500

1448          KK  RMLT6A
1449          KM   ROUTE MLT6A (DIVERTED FLOW) THROUGH SUB-BASIN 180R TO CLN10A
1450          RS       2    FLOW       0
1451          RC    0.02    0.02    0.02    1050   0.020
1452          RX    9975    9980    9985    9986   10014   10015   10020   10025
1453          RY  1540.5  1540.5  1540.5    1540    1540  1540.5  1540.5  1540.5

1454          KK   CL10A
1455          KM   COLONY WASH CONCENTRATION POINT 10A - COMBINE 180Q, 180R, RMLT6A
1456          HC       3

1457          KK  RCL10A
1458          KM   ROUTE CLN10A THROUGH SUB-BASIN 180U TO CON. POINT CLN10
1459          RS       1    FLOW       0
1460          RC    0.04    0.04    0.04     572   0.026
1461          RX    9790    9805    9945    9965   10035   10060   10100   10110
1462          RY    1534    1532    1532    1528    1528    1530    1538  1538.5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1463          KK  *CLN10
1464          KM   COLONY WASH CONCENTRATION POINT *10 - CONBINE (RCLN9, 180U), RCL10A
1465          HC       2

1466          KK    180T
1467          KM   SUB-BASIN 180T
1468          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1469          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1470          BA    .023
1471          LG    .100    .250   5.000    .230  90.000
1472          UC    .154    .176
1473          UA       0       5      16      30      65      77      84      90      94      97
1474          UA     100

1475          KK   CLN10
1476          KM   COLONY WASH CONCENTRATION POINT 10 - COMBINE ((RCLN9, 180U), RCLN10A), 180T
1477          HC       2
1478          ZZ
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SCHEMATIC DIAGRAM OF STREAM NETWORK

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LINE     (V) ROUTING          (--->) DIVERSION OR PUMP FLOW
NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

 22       185A
             V
             V
 31      R185A
             .
             .
 37          .        185B
             .           .
             .           .
 46       IRW1............
             V
             V
 49      SIRW1
             .
             .
 56          .        180A
             .           V
             .           V
 65          .       R180A
             .           .
             .           .
 71          .           .        180B
             .           .           .
             .           .           .
 80       IRW2........................
             V
             V
 83      RIRW2
             .
             .
 89          .        186A
             .           .
             .           .
 98          .           .        186B
             .           .           V
             .           .           V
107          .           .       R186B
             .           .           .
             .           .           .
113          .       SNB1A............
             .           V
             .           V
116          .      RSNB1A
             .           .
             .           .
122          .           .        186C
             .           .           V
             .           .           V
131          .           .       R186C
             .           .           .
             .           .           .
137          .           .           .        186D
             .           .           .           .
             .           .           .           .
146          .        SNB1........................
             .           V
             .           V
149          .       RSNB1
             .           .
             .           .
155          .           .        186E
             .           .           .
             .           .           .
             .           .           .        186F
             .           .           .           .
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        .        .        .        .
        .      SNB2.......................
        .        V
        .        V
176     .      RSNB2
        .        .
        .        .
182     .        .      186G
        .        .        .
        .        .        .
191     .      SNB3............
        .        V
        .        V
194     .      SSNB3
        .        .
        .        .
201     .        .      186H
        .        .        .
        .        .        .
210     .        .        .      160E
        .        .        .        V
        .        .        .        V
219     .        .        .     R160E
        .        .        .        .
        .        .        .        .
225     .      SNB4.......................
        .        V
        .        V
228     .      RSNB4
        .        .
        .        .
234     .        .      186I
        .        .        .
        .        .        .
243     .     *SNB5............
        .        .
        .        .
246     .        .      187A
        .        .        V
        .        .        V
255     .        .     R187A
        .        .        .
        .        .        .
261     .        .        .      187B
        .        .        .        .
        .        .        .        .
270     .        .     GRS1............
        .        .        V
        .        .        V
273     .        .     RGRS1
        .        .        .
        .        .        .
279     .        .        .      187C
        .        .        .        V
        .        .        .        V
288     .        .        .     R187C
        .        .        .        .
        .        .        .        .
294     .        .        .        .      187D
        .        .        .        .        .
        .        .        .        .        .
303     .        .     *GRS2.......................
        .        .        .
        .        .        .
306     .        .        .      188A
        .        .        .        V
        .        .        .        V
315     .        .        .     R188A
        .        .        .        .
        .        .        .        .
        .        .        .        .      188B
        .        .        .        .        .
```

```
                                                  188C
339                    SYR1.......................
                          V
                          V
342                   RSYC1
                          .
                          .
348                       .        188D
                          .          .
                          .          .
357                       .          .        188E
                          .          .          .
                          .          .          .
366                    SYR2.......................
                          V
                          V
369                   RSYC2
                          .
                          .
375                       .        188F
                          .          .
                          .          .
384                    SYR3............
                          V
                          V
387                   SSYC3
                          V
                          V
394                   RSYC3
                          .
                          .
400                       .        188G
                          .          .
                          .          .
                       SYR4............
                          .
                          .
412                 GRS2............
                       V
                       V
415                 SGRS2
                       .
                       .
422                    187E
                          V
                          V
431                   R187E
                          .
                          .
437                       .        187F
                          .          .
                          .          .
446                   GRS3A...........
                          V
                          V
449                  RGRS3A
                          .
                          .
455                       .        187G
                          .          .
                          .          .
464                 GRS3......................
                       V
                       V
467                 RGRS3
                       .
                       .
                    187H
                       .
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                .          .          .          .
                .          .       *SNB5.........
                .          .          .
                .          .          .
485             .       SNB5.........
                .          V
                .          V
488             .      RSNB5
                .          .
                .          .
494             .          .       187I
                .          .          .
                .          .          .
503             .       SNB6.........
                .          V
                .          V
506             .      SSNB6
                .          V
                .          V
513             .      RSNB6
                .          .
                .          .
519             .          .       180F
                .          .          .
                .          .          .
528             .      *CLN1.........
                .          .
                .          .
531          CLN1.........
                V
                V
534         SCLN1
                .
                .
541             .       180C
                .          V
                .          V
550             .      R180C
                .          .
                .          .
556             .          .       180D
                .          .          .
                .          .          .
565             .          .          .       180E
                .          .          .          .
                .          .          .          .
574          CLN2..................................
                V
                V
577         RCLN2
                .
                .
583             .       180G
                .          .
                .          .
592          CLN3.........
                V
                V
595         SCLN3
                .
                .
602             .       180H
                .          V
                .          V
611             .      R180H
                .          .
                .          .
617             .          .       180I
                .          .          V
                .          .          V
                .          .       R180I
                .          .          .
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                .          .          .
                .          .          .       180J
                .          .          .          .
                .          .          .          .
641             .      CLN4B.......................
                .          V
                .          V
644             .     RCLN4B
                .          .
                .          .
650             .          .       180M
                .          .          .
                .          .          .
659         CLN4........................
                V
                V
662        RCLN4
                .
                .
668             .       180N
                .          .
                .          .
677             .          .       184C
                .          .          .
                .          .          .
686             .          .          .       184D
                .          .          .          .
                .          .          .          .
695             .          .      NCL1............
                .          .         V
                .          .         V
698             .          .     RNCL1
                .          .          .
                .          .          .
704             .          .          .       184E
                .          .          .          .
                .          .          .          .
713             .          .      NCL2............
                .          .         V
                .          .         V
716             .          .     SNCL2
                .          .          .
                .          .          .
723             .          .          .       184F
                .          .          .          V
                .          .          .          V
732             .          .          .      R184F
                .          .          .          .
                .          .          .          .
738             .          .      NCL3............
                .          .         V
                .          .         V
741             .          .     RNCL3
                .          .         V
                .          .         V
747             .          .     SNCL3
                .          .          .
                .          .          .
754             .          .          .       184A
                .          .          .          V
                .          .          .          V
763             .          .          .      R184A
                .          .          .          .
                .          .          .          .
769             .          .          .          .       184B
                .          .          .          .          .
                .          .          .          .          .
778             .          .          .      NCL4A............
                .          .          .          V
                .          .          .          V
                .          .          .     RNCL4A
                .          .          .          .
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```
                 NCL4............
                    V
                    V
790              RNCL4
                    .
                    .
796                 .        184G
                    .          .
                    .          .
805              NCL5............
                    V
                    V
808              SNCL5
                    .
                    .
815                 .        184H
                    .          .
                    .          .
824                 .          .        183A
                    .          .          V
                    .          .          V
833                 .          .      R183A
                    .          .          .
                    .          .          .
839                 .          .          .        183B
                    .          .          .          .
                    .          .          .          .
848                 .          .      NCL6A............
                    .          .          V
                    .          .          V
851                 .          .     SNCL6A
                    .          .          V
                    .          .          V
858                 .          .     RNCL6A
                    .          .          .
                    .          .          .
864              NCL6........................
                    V
                    V
867              RNCL6
                    .
                    .
873                 .        184I
                    .          .
                    .          .
882              NCL7............
                    V
                    V
885              SNCL7
                    V
                    V
892              RNCL7
                    .
                    .
898                 .        184J
                    .          .
                    .          .
907              NCL8............
                    V
                    V
910              SNCL8
                    V
                    V
917              RNCL8
                    .
                    .
923                 .        184K
                    .          .
                    .          .
                 NCL9............
                    V
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          .          .          V
          .          .       RNCL9
          .          .          .
          .          .          .
941     CLN5.......................
          V
          V
944     SCLN5
          .
          .
951       .       180K
          .          V
          .          V
960       .      R180K
          .          .
          .          .
966       .          .       180L
          .          .          .
          .          .          .
975     CLN6.......................
          V
          V
978     RCLN6
          .
          .
984       .       180O
          .          .
          .          .
993     *CLN7............
          .
          .
996       .       182G
          .          .
          .          .
1005      .          .       182I
          .          .          .
          .          .          .
1014      .        FC1............
          .          V
          .          V
1017      .      RFC1
          .          .
          .          .
1023      .          .       182D
          .          .          V
          .          .          V
1032      .          .      R182D
          .          .          .
          .          .          .
1038      .          .          .       182E
          .          .          .          .
          .          .          .          .
1047      .          .          .          .       182F
          .          .          .          .          .
          .          .          .          .          .
1056      .        FC2.................................
          .          V
          .          V
1059      .      SFC2
          .          V
          .          V
1066      .      RFC2
          .          .
          .          .
1074      .          .-------->   DOFC2
1072      .      DFC2
          .          .
          .          .
1077      .          .       182A
          .          .          V
          .          .          V
1086      .          .      R182A
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```
                                  182B
                                    .
                                    .
1101                        FC3A............
                              V
                              V
1104                       SFC3A
                                  .
                                  .
1111                              .        182C
                                  .          .
                                  .          .
1120                        FC3B............
                              V
                              V
1123                       RFC3B
                                  .
                                  .
1129                  FC3............
                        V
                        V
1132                 RFC4
                        .
                        .
1138                        182J
                                  .
                                  .
1147                  FC4............
                        V
                        V
1150                 SFC4
                        .
                        .
1157                       DFHN
                                  .
                                  .
1161                              .        183F
                                  .          .
                                  .          .
1170                              .          .        183G
                                  .          .          .
                                  .          .          .
1179                              .          .          .        183H
                                  .          .          .          .
                                  .          .          .          .
1188                        LC1.................................
                              V
                              V
1191                       RLC1
                                  .
                                  .
1197                              .        183I
                                  .          .
                                  .          .
1206                              .          .        183J
                                  .          .          .
                                  .          .          .
1215                        LC2......................
                              V
                              V
1218                       SLC2
                              V
                              V
1225                       RLC2
                                  .
                                  .
1231                              .        183K
                                  .          .
                                  .          .
                            LC3............
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          .          .          .
          .          .          .
          .          .          .-------> DO183K
1243      .          .      D183K
          .          .          .
          .          .          .
1248      .        FC5...........
          .          V
          .          V
1251      .       RFC5
          .          .
          .          .
1257      .          .       182K
          .          .          .
          .          .          .
1266      .        FC6...........
          .          V
          .          V
1269      .       RFC6
          .          .
          .          .
1275      .          .       182L
          .          .          .
          .          .          .
1284      .        FC7...........
          .          .
          .          .
1287    CLN7...........
          V
          V
1290    RCLN7
          .
          .
1296      .       180P
          .          .
          .          .
       *CLN8...........
          .
          .
1308      .       181A
          .          V
          .          V
1314      .      R181A
          .          .
          .          .
1320      .          .       181B
          .          .          .
          .          .          .
1331      .          .          .          .<-------  DO183K
1329      .          .          .      D183K
          .          .          .          V
          .          .          .          V
1332      .          .          .      R183K
          .          .          .          V
          .          .          .          V
1338      .          .          .      R183K
          .          .          .          .
          .          .          .          .
1344    CLN8.................................
          V
          V
1347    SCLN8
          .
          .
1354      .       180S
          .          .
          .          .
1363      .          .      17011
          .          .          .
          .          .          .
          .          .          .-------> D17011
          .          .     D17011
```

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                 .          .          V
                 .          .          V
                 .          .     R170I1
                 .          .          .
                 .          .          .
1383          CLN9.......................
                 V
                 V
1386         RCLN9
                 .
                 .
1392             .       180U
                 .          .
                 .          .
1401        *CLN10............
                 .
                 .
1404             .       180Q
                 .          .
                 .          .
1413             .          .       180R
                 .          .          .
                 .          .          .
1422             .          .          .      170I2
                 .          .          .          .
                 .          .          .          .
1433             .          .          .          .          .<-------  D170I1
1431             .          .          .          .     D170I1
                 .          .          .          .          V
                 .          .          .          .          V
1434             .          .          .          .     R170I1
                 .          .          .          .          .
                 .          .          .          .          .
1440             .          .          .      MLT6A............
                 .          .          .          .
                 .          .          .          .
                 .          .          .          .-------> D170I2
1443             .          .          .     DMLT6A
                 .          .          .          V
                 .          .          .          V
1448             .          .          .     RMLT6A
                 .          .          .          .
                 .          .          .          .
1454             .       CL10A........................
                 .          V
                 .          V
1457             .      RCL10A
                 .          .
                 .          .
1463        *CLN10............
                 .
                 .
1466             .       180T
                 .          .
                 .          .
1475         CLN10............
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
****************************************
*                                      *
*  OOD HYDROGRAPH PACKAGE  (HEC-1)     *
*            MAY   1991                *
*          VERSION 4.0.1E              *
*    Lahey F77L-EM/32 version 5.01     *
*      Dodson & Associates, Inc.       *
* RUN DATE  04/05/95  TIME  14:55:59   *
****************************************
```

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

```
                    COLONY WASH - FUTURE CONDITIONS, AGK ENGINEERS, 04-05-95
                    100-Year 6-Hour storm
                    Time step at 2 minutes
                    File: 180-6CF.DAT

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

   IT         HYDROGRAPH TIME DATA
                     NMIN          2  MINUTES IN COMPUTATION INTERVAL
                    IDATE      1   0  STARTING DATE
                    ITIME       0000  STARTING TIME
                       NQ        200  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE      1   0  ENDING DATE
                   NDTIME       0638  ENDING TIME
                    ICENT         19  CENTURY MARK

             COMPUTATION INTERVAL    0.03 HOURS
                  TOTAL TIME BASE    6.63 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

  9 JD        INDEX STORM NO. 1
                    STRM       3.20  PRECIPITATION DEPTH
                    TRDA       0.01  TRANSPOSITION DRAINAGE AREA

 10 PI          PRECIPITATION PATTERN
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.01      0.01      0.01
                  0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.02      0.02
                  0.02      0.02      0.04      0.06      0.06      0.06      0.06      0.06      0.06      0.06
                  0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

  JD        INDEX STORM NO. 2
                    STRM       3.18  PRECIPITATION DEPTH
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                TRDA        0.50  TRANSPOSITION DRAINAGE AREA

PI            PRECIPITATION PATTERN
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.02      0.02
                0.02      0.02      0.04      0.06      0.06      0.06      0.06      0.06      0.06      0.06
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

14 JD         INDEX STORM NO. 3
                STRM        3.14  PRECIPITATION DEPTH
                TRDA        2.80  TRANSPOSITION DRAINAGE AREA

15 PI         PRECIPITATION PATTERN
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.03      0.03      0.03      0.03      0.03
                0.03      0.03      0.03      0.03      0.03      0.03      0.03      0.03      0.03      0.03
                0.02      0.02      0.02      0.02      0.02      0.02      0.02      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

18 JD         INDEX STORM NO. 4
                STRM        2.95  PRECIPITATION DEPTH
                TRDA       16.00  TRANSPOSITION DRAINAGE AREA

19 PI         PRECIPITATION PATTERN
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.02      0.02
                0.02      0.02      0.02      0.03      0.03      0.03      0.03      0.03      0.03      0.03
                0.02      0.02      0.02      0.02      0.02      0.02      0.02      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO
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RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	185A	108.	4.03	11.	10.	10.	0.04		
+	ROUTED TO	R185A	101.	4.20	11.	10.	10.	0.04		
+	HYDROGRAPH AT	185B	153.	4.10	19.	17.	17.	0.08		
+	2 COMBINED AT	IRW1	249.	4.13	30.	27.	27.	0.12		
+	ROUTED TO	SIRW1	147.	4.40	30.	27.	27.	0.12		
+	HYDROGRAPH AT	180A	65.	4.03	6.	5.	5.	0.03		
+	ROUTED TO	R180A	65.	4.03	6.	5.	5.	0.03		
+	HYDROGRAPH AT	180B	32.	4.17	7.	6.	6.	0.03		
+	3 COMBINED AT	IRW2	200.	4.27	42.	38.	38.	0.18		
+	ROUTED TO	RIRW2	200.	4.27	42.	38.	38.	0.18		
+	HYDROGRAPH AT	186A	224.	4.07	22.	19.	19.	0.10		
+	HYDROGRAPH AT	186B	14.	4.03	1.	1.	1.	0.00		
+	ROUTED TO	R186B	13.	4.07	1.	1.	1.	0.00		
+	2 COMBINED AT	SNB1A	238.	4.07	23.	20.	20.	0.10		
+	ROUTED TO	RSNB1A	236.	4.13	23.	20.	20.	0.10		
+	HYDROGRAPH AT	186C	42.	4.03	4.	4.	4.	0.02		
+	ROUTED TO	R186C	42.	4.07	4.	4.	4.	0.02		
+	HYDROGRAPH AT	186D	154.	4.10	19.	17.	17.	0.08		
+	3 COMBINED AT	SNB1	424.	4.13	46.	41.	41.	0.20		
+	ROUTED TO	RSNB1	416.	4.20	46.	41.	41.	0.20		
+	HYDROGRAPH AT	186E	93.	4.07	8.	8.	8.	0.04		

+	HYDROGRAPH AT	186F	68.	4.07	7.	6.	6.	0.03
+	3 COMBINED AT	SNB2	533.	4.17	61.	55.	55.	0.27
+	ROUTED TO	RSNB2	526.	4.23	61.	55.	55.	0.27
+	HYDROGRAPH AT	186G	143.	4.07	15.	14.	14.	0.07
+	2 COMBINED AT	SNB3	636.	4.20	76.	69.	69.	0.33
+	ROUTED TO	SSNB3	100.	4.93	38.	34.	34.	0.33
+	HYDROGRAPH AT	186H	36.	4.10	6.	6.	6.	0.03
+	HYDROGRAPH AT	160E	10.	4.03	1.	1.	1.	0.00
+	ROUTED TO	R160E	10.	4.07	1.	1.	1.	0.00
+	3 COMBINED AT	SNB4	116.	4.63	45.	41.	41.	0.36
+	ROUTED TO	RSNB4	116.	4.70	45.	40.	40.	0.36
+	HYDROGRAPH AT	186I	72.	4.07	7.	6.	6.	0.03
+	2 COMBINED AT	*SNB5	135.	4.30	51.	46.	46.	0.39
+	HYDROGRAPH AT	187A	29.	4.00	2.	2.	2.	0.01
+	ROUTED TO	R187A	29.	4.03	2.	2.	2.	0.01
+	HYDROGRAPH AT	187B	21.	4.03	2.	2.	2.	0.01
+	2 COMBINED AT	GRS1	49.	4.03	4.	4.	4.	0.02
+	ROUTED TO	RGRS1	46.	4.13	4.	4.	4.	0.02
+	HYDROGRAPH AT	187C	35.	4.03	3.	3.	3.	0.01
+	ROUTED TO	R187C	34.	4.07	3.	3.	3.	0.01
+	HYDROGRAPH AT	187D	126.	4.13	16.	15.	15.	0.07
+	3 COMBINED AT	*GRS2	203.	4.13	23.	21.	21.	0.10
+	HYDROGRAPH AT	188A	25.	4.03	2.	2.	2.	0.01
+	ROUTED TO	R188A	24.	4.07	2.	2.	2.	0.01

+	HYDROGRAPH AT	188B	178.	4.07	17.	16.	16.	0.07
+	HYDROGRAPH AT	188C	52.	4.07	5.	5.	5.	0.02
+	3 COMBINED AT	SYR1	254.	4.07	25.	22.	22.	0.10
+	ROUTED TO	RSYC1	249.	4.10	25.	22.	22.	0.10
+	HYDROGRAPH AT	188D	122.	4.07	12.	11.	11.	0.05
+	HYDROGRAPH AT	188E	100.	4.10	12.	11.	11.	0.05
+	3 COMBINED AT	SYR2	469.	4.10	49.	44.	44.	0.20
+	ROUTED TO	RSYC2	455.	4.20	49.	44.	44.	0.20
+	HYDROGRAPH AT	188F	152.	4.10	17.	15.	15.	0.07
+	2 COMBINED AT	SYR3	584.	4.17	65.	59.	59.	0.28
+	ROUTED TO	SSYC3	259.	4.50	65.	59.	59.	0.28
+	ROUTED TO	RSYC3	259.	4.50	65.	59.	59.	0.28
+	HYDROGRAPH AT	188G	3.	4.03	0.	0.	0.	0.00
+	2 COMBINED AT	SYR4	259.	4.50	66.	59.	59.	0.28
+	2 COMBINED AT	GRS2	414.	4.17	89.	81.	81.	0.38
+	ROUTED TO	SGRS2	414.	4.17	89.	81.	81.	0.38
+	HYDROGRAPH AT	187E	11.	4.03	1.	1.	1.	0.00
+	ROUTED TO	R187E	11.	4.07	1.	1.	1.	0.00
+	HYDROGRAPH AT	187F	5.	4.07	1.	1.	1.	0.00
+	2 COMBINED AT	GRS3A	16.	4.07	2.	2.	2.	0.01
+	ROUTED TO	RGRS3A	16.	4.07	2.	2.	2.	0.01
+	HYDROGRAPH AT	187G	56.	4.17	11.	10.	10.	0.04
+	3 COMBINED AT	GRS3	484.	4.17	102.	92.	92.	0.43
+	ROUTED TO	RGRS3	482.	4.17	102.	92.	92.	0.43

+	HYDROGRAPH AT	187H	11.	4.03	1.	1.	1.	0.00
+	2 COMBINED AT	*SNB5	489.	4.17	102.	93.	93.	0.43
+	2 COMBINED AT	SNB5	580.	4.20	150.	136.	136.	0.82
+	ROUTED TO	RSNB5	579.	4.20	150.	136.	136.	0.82
+	HYDROGRAPH AT	187I	68.	4.03	5.	5.	5.	0.02
+	2 COMBINED AT	SNB6	610.	4.17	155.	141.	141.	0.85
+	ROUTED TO	SSNB6	96.	6.20	50.	46.	46.	0.85
+	ROUTED TO	RSNB6	96.	6.30	49.	44.	44.	0.85
+	HYDROGRAPH AT	180F	195.	4.07	17.	15.	15.	0.07
+	2 COMBINED AT	*CLN1	225.	4.07	65.	59.	59.	0.92
+	2 COMBINED AT	CLN1	387.	4.10	106.	96.	96.	1.10
+	ROUTED TO	SCLN1	302.	4.47	105.	95.	95.	1.10
+	HYDROGRAPH AT	180C	30.	4.03	2.	2.	2.	0.01
+	ROUTED TO	R180C	30.	4.07	2.	2.	2.	0.01
+	HYDROGRAPH AT	180D	6.	4.07	1.	1.	1.	0.00
+	HYDROGRAPH AT	180E	52.	4.03	4.	4.	4.	0.02
+	4 COMBINED AT	CLN2	326.	4.30	112.	102.	102.	1.13
+	ROUTED TO	RCLN2	325.	4.37	111.	100.	100.	1.13
+	HYDROGRAPH AT	180G	74.	4.07	7.	6.	6.	0.03
+	2 COMBINED AT	CLN3	366.	4.13	117.	106.	106.	1.16
+	ROUTED TO	SCLN3	315.	4.63	117.	106.	106.	1.16
+	HYDROGRAPH AT	180H	43.	4.10	6.	5.	5.	0.02
+	ROUTED TO	R180H	43.	4.10	6.	5.	5.	0.02
+	HYDROGRAPH AT	180I	11.	4.03	1.	1.	1.	0.00

+	ROUTED TO R180I	11.	4.07	1.	1.	1.	0.00
+	HYDROGRAPH AT 180J	84.	4.07	10.	9.	9.	0.03
+	3 COMBINED AT CLN4B	136.	4.07	17.	15.	15.	0.06
+	ROUTED TO RCLN4B	135.	4.10	17.	15.	15.	0.06
+	HYDROGRAPH AT 180M	10.	4.07	1.	1.	1.	0.00
+	3 COMBINED AT CLN4	382.	4.17	134.	122.	122.	1.22
+	ROUTED TO RCLN4	382.	4.27	132.	120.	120.	1.22
+	HYDROGRAPH AT 180N	115.	4.03	11.	10.	10.	0.04
+	HYDROGRAPH AT 184C	40.	4.03	4.	3.	3.	0.01
+	HYDROGRAPH AT 184D	13.	4.07	2.	2.	2.	0.01
+	2 COMBINED AT NCL1	53.	4.03	6.	5.	5.	0.02
+	ROUTED TO RNCL1	52.	4.03	6.	5.	5.	0.02
+	HYDROGRAPH AT 184E	170.	4.17	28.	25.	25.	0.11
+	2 COMBINED AT NCL2	210.	4.13	34.	30.	30.	0.13
+	ROUTED TO SNCL2	194.	4.23	34.	31.	31.	0.13
+	HYDROGRAPH AT 184F	14.	4.07	2.	2.	2.	0.01
+	ROUTED TO R184F	14.	4.07	2.	2.	2.	0.01
+	2 COMBINED AT NCL3	205.	4.23	35.	32.	32.	0.14
+	ROUTED TO RNCL3	205.	4.23	35.	32.	32.	0.14
+	ROUTED TO SNCL3	198.	4.33	35.	32.	32.	0.14
+	HYDROGRAPH AT 184A	49.	4.03	5.	5.	5.	0.02
+	ROUTED TO R184A	38.	4.13	5.	5.	5.	0.02
+	HYDROGRAPH AT 184B	44.	4.07	6.	5.	5.	0.02
+	2 COMBINED AT NCL4A	81.	4.10	11.	10.	10.	0.04

+	ROUTED TO	RNCL4A	81.	4.13	11.	10.	10.	0.04
+	2 COMBINED AT	NCL4	264.	4.27	46.	42.	42.	0.18
+	ROUTED TO	RNCL4	263.	4.30	46.	42.	42.	0.18
+	HYDROGRAPH AT	184G	145.	4.07	15.	13.	13.	0.05
+	2 COMBINED AT	NCL5	351.	4.13	61.	56.	56.	0.23
+	ROUTED TO	SNCL5	262.	4.47	61.	56.	56.	0.23
+	HYDROGRAPH AT	184H	28.	4.07	3.	3.	3.	0.01
+	HYDROGRAPH AT	183A	133.	4.03	11.	10.	10.	0.04
+	ROUTED TO	R183A	128.	4.07	11.	10.	10.	0.04
+	HYDROGRAPH AT	183B	112.	4.07	12.	11.	11.	0.04
+	2 COMBINED AT	NCL6A	240.	4.07	23.	21.	21.	0.08
+	ROUTED TO	SNCL6A	1.	6.13	0.	0.	0.	0.08
+	ROUTED TO	RNCL6A	1.	6.33	0.	0.	0.	0.08
+	3 COMBINED AT	NCL6	273.	4.43	65.	59.	59.	0.33
+	ROUTED TO	RNCL6	273.	4.50	65.	59.	59.	0.33
+	HYDROGRAPH AT	184I	86.	4.03	9.	8.	8.	0.03
+	2 COMBINED AT	NCL7	305.	4.20	74.	67.	67.	0.36
+	ROUTED TO	SNCL7	297.	4.37	74.	67.	67.	0.36
+	ROUTED TO	RNCL7	296.	4.40	74.	67.	67.	0.36
+	HYDROGRAPH AT	184J	22.	4.03	2.	2.	2.	0.01
+	2 COMBINED AT	NCL8	304.	4.33	76.	69.	69.	0.37
+	ROUTED TO	SNCL8	304.	4.33	76.	69.	69.	0.37
+	ROUTED TO	RNCL8	304.	4.30	76.	69.	69.	0.37
+	HYDROGRAPH AT	184K	12.	4.03	1.	1.	1.	0.00

+	2 COMBINED AT	NCL9	308.	4.30	77.	70.	70.	0.37
+	ROUTED TO	RNCL9	307.	4.33	77.	70.	70.	0.37
+	3 COMBINED AT	CLN5	698.	4.30	216.	196.	196.	1.63
+	ROUTED TO	SCLN5	662.	4.57	214.	194.	194.	1.63
+	HYDROGRAPH AT	180K	77.	4.03	9.	8.	8.	0.03
+	ROUTED TO	R180K	75.	4.07	9.	8.	8.	0.03
+	HYDROGRAPH AT	180L	43.	4.00	4.	4.	4.	0.01
+	3 COMBINED AT	CLN6	688.	4.50	226.	205.	205.	1.67
+	ROUTED TO	RCLN6	688.	4.53	224.	203.	203.	1.67
+	HYDROGRAPH AT	180O	55.	4.03	6.	6.	6.	0.02
+	2 COMBINED AT	*CLN7	699.	4.53	230.	209.	209.	1.69
+	HYDROGRAPH AT	182G	94.	4.10	15.	14.	14.	0.05
+	HYDROGRAPH AT	182I	83.	4.10	12.	11.	11.	0.04
+	2 COMBINED AT	FC1	177.	4.10	27.	25.	25.	0.09
+	ROUTED TO	RFC1	176.	4.13	27.	25.	25.	0.09
+	HYDROGRAPH AT	182D	269.	4.07	31.	28.	28.	0.09
+	ROUTED TO	R182D	263.	4.10	31.	28.	28.	0.09
+	HYDROGRAPH AT	182E	175.	4.07	20.	18.	18.	0.06
+	HYDROGRAPH AT	182F	27.	4.10	4.	4.	4.	0.01
+	4 COMBINED AT	FC2	632.	4.10	81.	74.	74.	0.26
+	ROUTED TO	SFC2	624.	4.13	81.	74.	74.	0.26
+	ROUTED TO	RFC2	617.	4.17	81.	74.	74.	0.26
+	DIVERSION TO	DOFC2	158.	4.17	6.	6.	6.	0.26
+	HYDROGRAPH AT	DFC2	460.	4.17	75.	68.	68.	0.26

+	HYDROGRAPH AT	182A	156.	4.03	16.	15.	15.	0.05
+	ROUTED TO	R182A	152.	4.10	16.	15.	15.	0.05
+	HYDROGRAPH AT	182B	101.	4.07	12.	11.	11.	0.04
+	2 COMBINED AT	FC3A	252.	4.07	28.	26.	26.	0.09
+	ROUTED TO	SFC3A	250.	4.10	28.	26.	26.	0.09
+	HYDROGRAPH AT	182C	53.	4.07	7.	6.	6.	0.02
+	2 COMBINED AT	FC3B	301.	4.10	35.	32.	32.	0.11
+	ROUTED TO	RFC3B	301.	4.10	35.	32.	32.	0.11
+	2 COMBINED AT	FC3	755.	4.10	110.	100.	100.	0.37
+	ROUTED TO	RFC4	752.	4.13	110.	100.	100.	0.37
+	HYDROGRAPH AT	182J	29.	4.10	4.	3.	3.	0.01
+	2 COMBINED AT	FC4	780.	4.13	114.	103.	103.	0.39
+	ROUTED TO	SFC4	712.	4.23	114.	103.	103.	0.39
+	HYDROGRAPH AT	DFHN	0.	0.03	0.	0.	0.	1.00
+	HYDROGRAPH AT	183F	122.	4.07	14.	13.	13.	0.05
+	HYDROGRAPH AT	183G	233.	4.07	28.	26.	26.	0.09
+	HYDROGRAPH AT	183H	56.	4.03	5.	5.	5.	0.02
+	4 COMBINED AT	LC1	330.	4.07	47.	42.	42.	1.16
+	ROUTED TO	RLC1	326.	4.10	47.	42.	42.	1.16
+	HYDROGRAPH AT	183I	154.	4.07	18.	16.	16.	0.06
+	HYDROGRAPH AT	183J	16.	4.00	2.	1.	1.	0.00
+	3 COMBINED AT	LC2	451.	4.10	65.	59.	59.	1.22
+	ROUTED TO	SLC2	450.	4.10	65.	59.	59.	1.22
+	ROUTED TO	RLC2	450.	4.10	65.	59.	59.	1.22

+	HYDROGRAPH AT	183K	7.	4.00	1.	1.	1.	0.00
+	2 COMBINED AT	LC3	454.	4.10	66.	60.	60.	1.22
+	DIVERSION TO	DO183K	42.	4.10	5.	4.	4.	1.22
+	HYDROGRAPH AT	D183K	411.	4.10	61.	56.	56.	1.22
+	2 COMBINED AT	FC5	954.	4.17	176.	160.	160.	1.61
+	ROUTED TO	RFC5	951.	4.17	176.	160.	160.	1.61
+	HYDROGRAPH AT	182K	82.	4.00	8.	7.	7.	0.02
+	2 COMBINED AT	FC6	982.	4.17	184.	167.	167.	1.63
+	ROUTED TO	RFC6	981.	4.20	184.	167.	167.	1.63
+	HYDROGRAPH AT	182L	16.	4.00	2.	1.	1.	0.00
+	2 COMBINED AT	FC7	987.	4.20	185.	168.	168.	1.64
+	2 COMBINED AT	CLN7	1452.	4.33	409.	371.	371.	3.33
+	ROUTED TO	RCLN7	1451.	4.37	408.	370.	370.	3.33
+	HYDROGRAPH AT	180P	35.	4.03	3.	3.	3.	0.01
+	2 COMBINED AT	*CLN8	1460.	4.37	411.	373.	373.	3.35
+	HYDROGRAPH AT	181A	0.	0.03	0.	0.	0.	0.08
+	ROUTED TO	R181A	0.	0.03	0.	0.	0.	0.08
+	HYDROGRAPH AT	181B	48.	4.07	6.	6.	6.	0.02
+	HYDROGRAPH AT	D183K	42.	4.10	5.	4.	4.	1.22
+	ROUTED TO	R183K	41.	4.17	5.	4.	4.	1.22
+	ROUTED TO	R183K	41.	4.17	5.	4.	4.	1.22
+	4 COMBINED AT	CLN8	1506.	4.33	421.	382.	382.	3.45
+	ROUTED TO	SCLN8	1486.	4.43	421.	382.	382.	3.45
+	HYDROGRAPH AT	180S	113.	4.03	11.	10.	10.	0.04

+	HYDROGRAPH AT	170I1	53.	4.07	6.	6.	6.	0.02
+	DIVERSION TO	D170I1	26.	4.07	3.	3.	3.	0.02
+	HYDROGRAPH AT	D170I1	26.	4.07	3.	3.	3.	0.02
+	ROUTED TO	R170I1	26.	4.10	3.	3.	3.	0.02
+	3 COMBINED AT	CLN9	1523.	4.40	434.	394.	394.	3.50
+	ROUTED TO	RCLN9	1521.	4.47	430.	389.	389.	3.50
+	HYDROGRAPH AT	180U	42.	4.07	5.	5.	5.	0.02
+	2 COMBINED AT	*CLN10	1536.	4.43	435.	394.	394.	3.52
+	HYDROGRAPH AT	180Q	84.	4.07	10.	9.	9.	0.03
+	HYDROGRAPH AT	180R	79.	4.03	9.	8.	8.	0.03
+	HYDROGRAPH AT	170I2	34.	4.03	4.	3.	3.	0.01
+	HYDROGRAPH AT	D170I1	26.	4.07	3.	3.	3.	0.02
+	ROUTED TO	R170I1	25.	4.17	3.	3.	3.	0.02
+	2 COMBINED AT	MLT6A	53.	4.07	7.	6.	6.	0.01
+	DIVERSION TO	D170I2	26.	4.07	3.	3.	3.	0.01
+	HYDROGRAPH AT	DMLT6A	26.	4.07	3.	3.	3.	0.01
+	ROUTED TO	RMLT6A	26.	4.13	3.	3.	3.	0.01
+	3 COMBINED AT	CL10A	185.	4.07	22.	20.	20.	0.07
+	ROUTED TO	RCL10A	183.	4.07	22.	20.	20.	0.07
+	2 COMBINED AT	*CLN10	1606.	4.43	456.	413.	413.	3.59
+	HYDROGRAPH AT	180T	67.	4.03	7.	7.	7.	0.02
+	2 COMBINED AT	CLN10	1625.	4.43	463.	420.	420.	3.62

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

L.8

PANORAMA CHANNEL

```
*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*              MAY   1991               *
*            VERSION 4.0.1E             *
*     Lahey F77L-EM/32 version 5.01     *
*       Dodson & Associates, Inc.       *
* RUN DATE  04/05/95  TIME  15:00:30    *
*****************************************
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*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    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
```

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

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

  1           ID   PANORAMA CHANNEL - FUTURE CONDITIONS, AGK ENGINEERS, 04-05-95
  2           ID   First routing 06-29-93
  3           ID   100-Year 6-Hour storm
  4           ID   time steps at 2 minutes
  5           ID   File:  190-6CF.DAT
  6           ID
  7           IT       2                    200
  8           IO       5
              *DIAGRAM
  9           IN      15
 10           JD    3.20    0.01
 11           PC    .000    .008    .016    .025    .033    .041    .050    .058    .066    .074
 12           PC    .087    .099    .118    .138    .216    .377    .834    .911    .931    .950
 13           PC    .962    .972    .983    .991   1.000
 14           JD    3.18    0.50
 15           JD    3.14    2.80
 16           PC    .000    .009    .016    .025    .034    .042    .051    .059    .067    .076
 17           PC    .087    .100    .120    .163    .252    .451    .694    .837    .900    .938
 18           PC    .950    .963    .975    .988   1.000
 19           JD    2.95    16.0
 20           PC    .000    .015    .020    .030    .048    .063    .076    .090    .105    .119
 21           PC    .135    .152    .175    .222    .304    .472    .670    .796    .868    .912
 22           PC    .946    .960    .973    .987   1.000

 23           KK    182H
 24           KM   SUB-BASIN 182H
 25           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 26           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 27           BA    .027
 28           LG    .150    .250   5.700    .207  65.000
 29           UC    .188    .173
 30           UA       0       5      16      30      65      77      84      90      94      97
 31           UA     100

 32           KK   S182H
 33           KM   STORAGE PONDED AREA ON SUB-BASIN 182H
 34           RS       1    ELEV    1601
 35           SQ       0       0       0      82     405
 36           SE    1601    1604    1606    1607    1608
 37           SA       0    0.01    0.06    0.25
 38           SE    1601    1602    1604    1606

 39           KK   R182H
 40           KM   ROUTE S182H THROUGH SUB-BASIN 190A TO CON. POINT PNR1A
 41           RS       1    FLOW       0
 42           RC    0.02    0.02    0.02     290   0.014
 43           RX    9958    9963    9968  9968.5 10031.5   10032   10037   10042
 44           RY  1598.5  1598.5  1598.5    1598    1598  1598.5  1598.5  1598.5

 45           KK    190A
 46           KM   SUB-BASIN 190A
 47           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 48           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 49           BA    .019
 50           LG    .150    .250   5.700    .207  65.000
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  51          UC    .175    .174
  52          UA       0       5      16      30      65      77      84      90      94      97
  53          UA     100

  54          KK   PNR1A
  55          KM   PANORAMA CONSENTRATION POINT 1A - COMBINE R182H, 190A
  56          HC       2

  57          KK  SPNR1A
  58          KM   STORAGE PONDED AREA ON SUB-BASIN 190A
  59          RS       1    ELEV    1594
  60          SQ       0       0      90    1051
  61          SE    1594    1601    1602    1603
  62          SA       0   0.005    0.08    0.44
  63          SE    1594    1596    1598    1601

  64          KK  RPNR1A
  65          KM   ROUTE SPNR1A THROUGH SUB-BASIN 190B TO CON. POINT PNR1
  66          RS       2    FLOW       0
  67          RC    0.02    0.02    0.02     567    0.02
  68          RX    9958    9963    9968  9968.5 10031.5   10032   10037   10042
  69          RY  1590.5  1590.5  1590.5    1590    1590  1590.5  1590.5  1590.5

  70          KK    190B
  71          KM   SUB-BASIN 190B
  72          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  73          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  74          BA    .007
  75          LG    .150    .250   5.700    .189  65.000
  76          UC    .154    .208
  77          UA       0       5      16      30      65      77      84      90      94      97
  78          UA     100

  79          KK    PNR1
  80          KM   PANORAMA CONSENTRATION POINT 1 - COMBINE RPNR1A, 190B
  81          HC       2

  82          KK   RPNR1
  83          KM   ROUTE PNR1 THROUGH SUB-BASIN 190C TO CON. POINT PNR2
  84          RS       2    FLOW       0
  85          RC    0.02    0.02    0.02     449    0.01
  86          RX    9958    9963    9968  9968.5 10031.5   10032   10037   10042
  87          RY  1588.5  1588.5  1588.5    1588    1588  1588.5  1588.5  1588.5

  88          KK    190C
  89          KM   SUB-BASIN 190C
  90          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  91          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  92          BA    .022
  93          LG    .150    .250   5.700    .189  65.000
  94          UC    .175    .160
  95          UA       0       5      16      30      65      77      84      90      94      97
  96          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 97           KK    PNR2
 98           KM   PANORAMA CONSENTRATION POINT 2 - COMBINE RPNR1, 190C
 99           HC       2

100           KK   RPNR2
101           KM   ROUTE PNR2 THROUGH SUB-BASIN 190I TO CON. POINT PNR3
102           RS       2    FLOW       0
103           RC    0.02    0.02    0.02     779   0.012
104           RX    9958    9963    9968  9968.5 10031.5   10032   10037   10042
105           RY  1578.5  1578.5  1578.5    1578    1578  1578.5  1578.5  1578.5

106           KK    190D
107           KM   SUB-BASIN 190D
108           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
109           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
110           BA    .005
111           LG    .100    .250   5.700    .189  65.000
112           UC    .087    .060
113           UA       0       5      16      30      65      77      84      90      94      97
114           UA     100

115           KK   R190D
116           KM   ROUTE 190D THROUGH SUB-BASIN 190F TO CON. POINT PNR3A
117           RS       3    FLOW       0
118           RC    0.04    0.04    0.04     722   0.059
119           RX    9890    9910    9955    9995   10005   10045   10185   10210
120           RY    1612    1608    1602    1588    1588    1602    1602    1606

121           KK    190E
122           KM   SUB-BASIN 190E
123           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
124           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
125           BA    .003
126           LG    .050    .250   5.700    .170  65.000
127           UC    .112    .228
128           UA       0       5      16      30      65      77      84      90      94      97
129           UA     100

130           KK    190F
131           KM   SUB-BASIN 190F
132           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
133           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
134           BA    .006
135           LG    .100    .250   5.700    .170  65.000
136           UC    .150    .202
137           UA       0       5      16      30      65      77      84      90      94      97
138           UA     100

139           KK    190G
140           KM   SUB-BASIN 190G
141           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
142           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
143           BA    .006
144           LG    .100    .250   5.700    .170  65.000
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 145          UC    .167    .279
 146          UA       0       5      16      30      65      77      84      90      94      97
 147          UA     100

 148          KK   PNR3A
 149          KM   PANORAMA CONSENTRATION POINT 3A - COMBINE R190D, 190E, 190F, 190G
 150          HC       4

 151          KK  RPNR3A
 152          KM   ROUTE PNR3A THROUGH SUB-BASIN 190J TO CON. POINT PNR3
 153          RS       1    FLOW       0
 154          RC    0.02    0.02    0.02     287   0.003
 155          RX    9980    9980    9985    9986   10014   10015   10020   10030
 156          RY  1576.7  1576.6  1576.5    1576    1576  1576.5  1576.6  1576.7

 157          KK    190H
 158          KM   SUB-BASIN 190H
 159          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 160          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 161          BA    .075
 162          LG    .150    .250   5.700    .207  65.000
 163          UC    .217    .154
 164          UA       0       5      16      30      65      77      84      90      94      97
 165          UA     100

 166          KK   R190H
 167          KM   ROUTE 190H THROUGH SUB-BASIN 190J TO CON. POINT PNR3
 168          RS       2    FLOW       0
 169          RC    0.02    0.02    0.02     660    0.01
 170          RX    9980    9980    9985    9986   10014   10015   10020   10030
 171          RY  1576.9  1576.6  1576.5    1576    1576  1576.5  1576.6  1576.9

 172          KK    190I
 173          KM   SUB-BASIN 190I
 174          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 175          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 176          BA    .012
 177          LG    .105    .250   5.700    .174  59.850
 178          UC    .121    .136
 179          UA       0       5      16      30      65      77      84      90      94      97
 180          UA     100

 181          KK    190J
 182          KM   SUB-BASIN 190J
 183          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 184          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 185          BA    .009
 186          LG    .140    .250   5.700    .196  65.000
 187          UC    .167    .221
 188          UA       0       5      16      30      65      77      84      90      94      97
 189          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 190          KK    PNR3
 191          KM   PANORAMA CONSENTRATION POINT 3 - COMBINE RPNR2, RPNR3A, R190H, 190J, 190I
 192          HC       5

 193          KK   RPNR3
 194          KM   ROUTE PNR3 THROUGH SUB-BASIN 190L TO CON. POINT *PNR4
 195          RS       3    FLOW       0
 196          RC    0.02    0.02    0.02    1048   0.022
 197          RX    9948    9963    9968  9968.5 10031.5   10032   10037   10052
 198          RY  1570.8  1570.6  1570.5    1570    1570  1570.5  1570.6  1570.8

 199          KK    190K
 200          KM   SUB-BASIN 190K
 201          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 202          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 203          BA    .008
 204          LG    .150    .250   5.700    .207  65.000
 205          UC    .158    .215
 206          UA       0       5      16      30      65      77      84      90      94      97
 207          UA     100

 208          KK   R190K
 209          KM   ROUTE R910K THROUGH SUB-BASIN 190L TO CON. POINT *PNR4
 210          RS       2    FLOW       0
 211          RC    0.02    0.02    0.02     620   0.027
 212          RX    9958    9963    9968  9968.5 10031.5   10032   10037   10042
 213          RY  1570.5  1570.5  1570.5    1570    1570  1570.5  1570.5  1570.5

 214          KK    190L
 215          KM   SUB-BASIN 190L
 216          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 217          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 218          BA    .011
 219          LG    .102    .250   5.400    .218  62.760
 220          UC    .142    .171
 221          UA       0       5      16      30      65      77      84      90      94      97
 222          UA     100

 223          KK   *PNR4
 224          KM   PANORAMA CHANNEL CONC. POINT *4 - RPNR3, R190K, 190L
 225          HC       3

 226          KK    190M
 227          KM   SUB-BASIN 190M
 228          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 229          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 230          BA    .009
 231          LG    .116    .250   4.600    .311  72.940
 232          UC    .167    .237
 233          UA       0       5      16      30      65      77      84      90      94      97
 234          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 235          KK    190N
 236          KM   SUB-BASIN 190N
 237          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 238          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 239          BA    .018
 240          LG    .150    .250   5.700    .207  65.000
 241          UC    .167    .160
 242          UA       0       5      16      30      65      77      84      90      94      97
 243          UA     100

 244          KK    PNR4
 245          KM   PANORAMA CONSENTRATION POINT 3 - COMBINE (RPNR3, R190K, 190L), 190M, 190N
 246          HC       3

 247          KK   RPNR4
 248          KM   ROUTE PNR4 THROUGH SUB-BASIN 190Q TO CON. POINT PNR5
 249          RS       3    FLOW       0
 250          RC    0.04    0.04    0.04    1232   0.015
 251          RX    9790    9855    9910    9990   10015   10045   10160   10220
 252          RY    1546    1544    1538    1536    1536    1540    1540    1558

 253          KK    1900
 254          KM   SUB-BASIN 190O
 255          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 256          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 257          BA    .006
 258          LG    .050    .250   4.400    .320    .650
 259          UC    .125    .180
 260          UA       0       5      16      30      65      77      84      90      94      97
 261          UA     100

 262          KK   R190O
 263          KM   ROUTE 190O THROUGH SUB-BASIN 190P TO CON. POINT PNR5A
 264          RS       2    FLOW       0
 265          RC    0.02    0.02    0.02     701   0.027
 266          RX    9958    9963    9968  9968.5 10031.5   10032   10037   10042
 267          RY  1570.5  1570.5  1570.5    1570  1570.5  1570.5  1570.5  1570.5

 268          KK    190P
 269          KM   SUB-BASIN 190P
 270          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 271          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 272          BA    .021
 273          LG    .080    .250   4.100    .380  65.000
 274          UC    .100    .075
 275          UA       0       5      16      30      65      77      84      90      94      97
 276          UA     100

 277          KK   PNR5A
 278          KM   PANORAMA CONSENTRATION POINT 5A - COMBINE R190O, 190P
 279          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 280          KK  RPNR5A
 281          KM   ROUTE PNR5A THROUGH SUB-BASIN 190Q TO CON. POINT PNR5
 282          RS       2    FLOW       0
 283          RC    0.04    0.04    0.04     625   0.019
 284          RX    9790    9855    9910    9990   10015   10045   10160   10220
 285          RY    1576    1544    1538    1536    1536    1540    1540    1558

 286          KK    190Q
 287          KM   SUB-BASIN 190Q
 288          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 289          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 290          BA    .012
 291          LG    .150    .250   4.000    .605    .000
 292          UC    .179    .239
 293          UA       0       3       5       8      12      20      43      75      90      96
 294          UA     100

 295          KK   *PNR5
 296          KM   PANORAMA CHANNEL CONCENTRATION POINT *5 - RPNR4, RPNR5A, 190Q
 297          HC       3

 298          KK    190R
 299          KM   SUB-BASIN 190R
 300          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 301          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 302          BA    .015
 303          LG    .150    .250   5.400    .232  65.000
 304          UC    .175    .193
 305          UA       0       5      16      30      65      77      84      90      94      97
 306          UA     100

 307          KK    PNR5
 308          KM   PANORAMA CONSENTRATION POINT 5 - COMBINE (RPNR4, RPNR5A, 190Q), 190R
 309          HC       2

 310          KK   RPNR5
 311          KM   ROUTE PNR5 THROUGH SUB-BASIN 190S TO CON. POINT PNR6
 312          RS       2    FLOW       0
 313          RC    0.04    0.04    0.04     438   0.009
 314          RX    9785    9810    9845    9880   10060   10080   10100   10105
 315          RY    1550    1540    1528    1526    1526    1530    1536    1536

 316          KK    190S
 317          KM   SUB-BASIN 190S
 318          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 319          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 320          BA    .008
 321          LG    .150    .250   4.350    .512    .000
 322          UC    .167    .201
 323          UA       0       3       5       8      12      20      43      75      90      96
 324          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 325          KK   *PNR6
 326          KM   PANORAMA CHANNEL CONCENTRATION POINT *6 - RPNR5, 190S
 327          HC       2

 328          KK    190T
 329          KM   SUB-BASIN 190T
 330          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 331          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .998
 332          BA    .129
 333          LG    .150    .330   5.700    .207  13.950
 334          UC    .304    .249
 335          UA       0       5      16      30      65      77      84      90      94      97
 336          UA     100

 337          KK    PNR6
 338          KM   PANORAMA CONSENTRATION POINT 5 - COMBINE (RPNR5, 190S), 190T
 339          HC       2

 340          KK   RPNR6
 341          KM   ROUTE PNR6 THROUGH SUB-BASIN 190V TO CON. POINT PNR7
 342          RS       2    FLOW       0
 343          RC    0.04    0.04    0.04     854   0.008
 344          RX    9775    9805    9840    9970   10040   10070   10115   10150
 345          RY    1540    1530    1520    1518    1518    1520    1526    1530

 346          KK    190V
 347          KM   SUB-BASIN 190V
 348          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 349          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 350          BA    .018
 351          LG    .049    .317   4.350    .385   7.080
 352          UC    .196    .222
 353          UA       0       5      16      30      65      77      84      90      94      97
 354          UA     100

 355          KK   *PNR7
 356          KM   PANORAMA CHANNEL CONCENTRATION POINT *7 - RPNR6, 190V
 357          HC       2

 358          KK    190U
 359          KM   SUB-BASIN 190U
 360          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 361          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 362          BA    .021
 363          LG    .100    .250   4.150    .370  65.000
 364          UC    .158    .191
 365          UA       0       5      16      30      65      77      84      90      94      97
 366          UA     100
```

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

 367          KK   R190U
 368          KM   ROUTE 190U THROUGH SUB-BASIN 190V TO CON. POINT PNR7
 369          RS       1    FLOW       0
 370          RC    0.04    0.04    0.04     286   0.035
 371          RX    9775    9805    9840    9970   10040   10070   10115   10150
 372          RY    1540    1530    1520    1518    1518    1520    1526    1530

 373          KK    PNR7
 374          KM   PANORAMA CONSENTRATION POINT 7 - COMBINE (RPNR6, 190V), R190U
 375          HC       2
 376          ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
LINE     (V) ROUTING          (--->) DIVERSION OR PUMP FLOW
 NO.     (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW
 23        182H
              V
              V
 32       S182H
              V
              V
 39       R182H
              .
              .
 45           .        190A
              .           .
              .           .
 54       PNR1A............
              V
              V
 57      SPNR1A
              V
              V
 64      RPNR1A
              .
              .
 70           .        190B
              .           .
              .           .
 79        PNR1............
              V
              V
 82       RPNR1
              .
              .
 88           .        190C
              .           .
              .           .
 97        PNR2............
              V
              V
100       RPNR2
              .
              .
106           .        190D
              .           V
              .           V
115           .       R190D
              .           .
              .           .
121           .           .        190E
              .           .           .
              .           .           .
130           .           .           .        190F
              .           .           .           .
              .           .           .           .
139           .           .           .           .        190G
              .           .           .           .           .
              .           .           .           .           .
148           .       PNR3A.................................
              .           V
              .           V
151           .      RPNR3A
              .           .
              .           .
157           .           .        190H
              .           .           V
              .           .           V
              .           .       R190H
              .           .           .
```

```
        .         .         .       190I
        .         .         .         .
        .         .         .         .
181     .         .         .         .       190J
        .         .         .         .         .
        .         .         .         .         .
190   PNR3.......................................
        V
        V
193   RPNR3
        .
        .
199     .       190K
        .         V
        .         V
208     .      R190K
        .         .
        .         .
214     .         .       190L
        .         .         .
        .         .         .
223   *PNR4......................
        .
        .
226     .       190M
        .         .
        .         .
235     .         .       190N
        .         .         .
        .         .         .
244   PNR4......................
        V
        V
247   RPNR4
        .
        .
        .       1900
        .         V
        .         V
262     .      R1900
        .         .
        .         .
268     .         .       190P
        .         .         .
        .         .         .
277     .      PNR5A............
        .         V
        .         V
280     .     RPNR5A
        .         .
        .         .
286     .         .       190Q
        .         .         .
        .         .         .
295   *PNR5......................
        .
        .
298     .       190R
        .         .
        .         .
307   PNR5............
        V
        V
310   RPNR5
        .
        .
316     .       190S
        .         .
        .         .
      *PNR6............
        .
```

```
            .
            .        190T
            .           .
            .           .
337       PNR6...........
            V
            V
340      RPNR6
            .
            .
346         .        190V
            .           .
            .           .
355      *PNR7...........
            .
            .
358         .        190U
            .           V
            .           V
367         .       R190U
            .           .
            .           .
373       PNR7...........
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*             MAY   1991                *
*           VERSION 4.0.1E              *
*     Lahey F77L-EM/32 version 5.01     *
*       Dodson & Associates, Inc.       *
*  RUN DATE  04/05/95  TIME  15:00:30   *
*****************************************
```

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

PANORAMA CHANNEL - FUTURE CONDITIONS, AGK ENGINEERS, 04-05-95
First routing 06-29-93
100-Year 6-Hour storm
time steps at 2 minutes
File: 190-6CF.DAT

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

   IT        HYDROGRAPH TIME DATA
                   NMIN          2  MINUTES IN COMPUTATION INTERVAL
                  IDATE      1   0  STARTING DATE
                  ITIME       0000  STARTING TIME
                     NQ        200  NUMBER OF HYDROGRAPH ORDINATES
                 NDDATE      1   0  ENDING DATE
                 NDTIME       0638  ENDING TIME
                  ICENT         19  CENTURY MARK

            COMPUTATION INTERVAL    0.03 HOURS
                 TOTAL TIME BASE    6.63 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

10 JD        INDEX STORM NO. 1
                  STRM       3.20  PRECIPITATION DEPTH
                  TRDA       0.01  TRANSPOSITION DRAINAGE AREA

11 PI          PRECIPITATION PATTERN
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.01      0.01      0.01
                 0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.02      0.02
                 0.02      0.02      0.04      0.06      0.06      0.06      0.06      0.06      0.06      0.06
                 0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00

   JD        INDEX STORM NO. 2
```

```
            STRM        3.18  PRECIPITATION DEPTH
            TRDA        0.50  TRANSPOSITION DRAINAGE AREA

0 PI      PRECIPITATION PATTERN
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.01        0.01        0.01
            0.01        0.01        0.01        0.01        0.01        0.02        0.02        0.02        0.02        0.02
            0.02        0.02        0.04        0.06        0.06        0.06        0.06        0.06        0.06        0.06
            0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00

15 JD     INDEX STORM NO. 3
            STRM        3.14  PRECIPITATION DEPTH
            TRDA        2.80  TRANSPOSITION DRAINAGE AREA

16 PI     PRECIPITATION PATTERN
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01
            0.01        0.01        0.01        0.01        0.01        0.03        0.03        0.03        0.03        0.03
            0.03        0.03        0.03        0.03        0.03        0.03        0.03        0.03        0.03        0.03
            0.02        0.02        0.02        0.02        0.02        0.02        0.02        0.01        0.01        0.01
            0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01
            0.01        0.01        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00

19 JD     INDEX STORM NO. 4
            STRM        2.95  PRECIPITATION DEPTH
            TRDA       16.00  TRANSPOSITION DRAINAGE AREA

20 PI     PRECIPITATION PATTERN
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01
            0.01        0.01        0.01        0.01        0.01        0.02        0.02        0.02        0.02        0.02
            0.02        0.02        0.02        0.03        0.03        0.03        0.03        0.03        0.03        0.03
            0.02        0.02        0.02        0.02        0.02        0.02        0.02        0.01        0.01        0.01
            0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01        0.01
            0.01        0.01        0.01        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
            0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00        0.00
```

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	182H	75.	4.03	8.	7.	7.	0.03		
+	ROUTED TO	S182H	72.	4.10	7.	6.	6.	0.03		
+	ROUTED TO	R182H	72.	4.10	7.	6.	6.	0.03		
+	HYDROGRAPH AT	190A	53.	4.03	5.	5.	5.	0.02		
+	2 COMBINED AT	PNR1A	122.	4.07	13.	11.	11.	0.05		
+	ROUTED TO	SPNR1A	123.	4.07	11.	10.	10.	0.05		
+	ROUTED TO	RPNR1A	123.	4.10	11.	10.	10.	0.05		
+	HYDROGRAPH AT	190B	19.	4.03	2.	2.	2.	0.01		
+	2 COMBINED AT	PNR1	140.	4.10	13.	12.	12.	0.05		
+	ROUTED TO	RPNR1	138.	4.10	13.	12.	12.	0.05		
+	HYDROGRAPH AT	190C	64.	4.03	6.	6.	6.	0.02		
+	2 COMBINED AT	PNR2	195.	4.10	19.	17.	17.	0.08		
+	ROUTED TO	RPNR2	191.	4.13	19.	17.	17.	0.08		
+	HYDROGRAPH AT	190D	18.	4.00	1.	1.	1.	0.00		
+	ROUTED TO	R190D	18.	4.00	1.	1.	1.	0.00		
+	HYDROGRAPH AT	190E	8.	4.03	1.	1.	1.	0.00		
+	HYDROGRAPH AT	190F	16.	4.03	2.	2.	2.	0.01		
+	HYDROGRAPH AT	190G	14.	4.07	2.	2.	2.	0.01		
+	4 COMBINED AT	PNR3A	55.	4.03	6.	5.	5.	0.02		
+	ROUTED TO	RPNR3A	54.	4.03	6.	5.	5.	0.02		
+	HYDROGRAPH AT	190H	214.	4.07	22.	20.	20.	0.08		

+	ROUTED TO	R190H	213.	4.07	22.	20.	20.	0.08
+	HYDROGRAPH AT	190I	37.	4.03	3.	3.	3.	0.01
+	HYDROGRAPH AT	190J	23.	4.03	3.	2.	2.	0.01
+	5 COMBINED AT	PNR3	495.	4.10	52.	48.	48.	0.19
+	ROUTED TO	RPNR3	493.	4.10	52.	48.	48.	0.19
+	HYDROGRAPH AT	190K	21.	4.03	2.	2.	2.	0.01
+	ROUTED TO	R190K	21.	4.07	2.	2.	2.	0.01
+	HYDROGRAPH AT	190L	31.	4.03	3.	3.	3.	0.01
+	3 COMBINED AT	*PNR4	540.	4.10	58.	52.	52.	0.21
+	HYDROGRAPH AT	190M	23.	4.03	3.	2.	2.	0.01
+	HYDROGRAPH AT	190N	52.	4.03	5.	5.	5.	0.02
+	3 COMBINED AT	PNR4	606.	4.10	66.	60.	60.	0.24
+	ROUTED TO	RPNR4	596.	4.13	66.	60.	60.	0.24
+	HYDROGRAPH AT	190O	15.	4.03	1.	1.	1.	0.01
+	ROUTED TO	R190O	15.	4.07	1.	1.	1.	0.01
+	HYDROGRAPH AT	190P	72.	4.00	6.	5.	5.	0.02
+	2 COMBINED AT	PNR5A	85.	4.00	7.	6.	6.	0.03
+	ROUTED TO	RPNR5A	83.	4.03	7.	6.	6.	0.03
+	HYDROGRAPH AT	190Q	23.	4.10	2.	2.	2.	0.01
+	3 COMBINED AT	*PNR5	670.	4.13	74.	67.	67.	0.28
+	HYDROGRAPH AT	190R	40.	4.03	4.	4.	4.	0.01
+	2 COMBINED AT	PNR5	703.	4.13	78.	71.	71.	0.29
+	ROUTED TO	RPNR5	698.	4.13	78.	71.	71.	0.29
+	HYDROGRAPH AT	190S	17.	4.10	1.	1.	1.	0.01

+	2 COMBINED AT	*PNR6	714.	4.13	80.	72.	72.	0.30
+	HYDROGRAPH AT	190T	266.	4.10	26.	24.	24.	0.13
+	2 COMBINED AT	PNR6	973.	4.13	106.	96.	96.	0.43
+	ROUTED TO	RPNR6	956.	4.17	106.	96.	96.	0.43
+	HYDROGRAPH AT	190V	38.	4.07	3.	3.	3.	0.02
+	2 COMBINED AT	*PNR7	985.	4.17	109.	99.	99.	0.45
+	HYDROGRAPH AT	190U	57.	4.03	6.	5.	5.	0.02
+	ROUTED TO	R190U	56.	4.07	6.	5.	5.	0.02
+	2 COMBINED AT	PNR7	1027.	4.17	115.	104.	104.	0.47

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

APPENDIX M

HEC-1 OUTPUT FOR 10-YEAR, 6-HOUR STORM (FUTURE CONDITION)

M.1

POWDER WASH

```
****************************************
*                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*              MAY   1991              *
*            VERSION 4.0.1E            *
*     Lahey F77L-EM/32 version 5.01    *
*       Dodson & Associates, Inc.      *
*  RUN DATE  04/13/95  TIME  09:56:14  *
****************************************
```

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

```
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
```

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

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

  1           ID   POWDER WASH - FUTURE CONDITIONS, AGK ENGINEERS, 04-05-95
  2           ID   First routing 4-3-93
  3           ID   10-Year 6-Hour Storm
  4           ID   time steps at 2 minutes
  5           ID   File:  110-6XF.DAT
  6           ID
  7           ID
  8           IT       5                    300
  9           IO       5
              *DIAGRAM
 10           IN      15
 11           JD    2.00    0.01
 12           PC    .000    .008    .016    .025    .033    .041    .050    .058    .066    .074
 13           PC    .087    .099    .118    .138    .216    .377    .834    .911    .931    .950
 14           PC    .962    .972    .983    .991   1.000
 15           JD    1.99    0.50
 16           JD    1.96    2.80
 17           PC    .000    .009    .016    .025    .034    .042    .051    .059    .067    .076
 18           PC    .087    .100    .120    .163    .252    .451    .694    .837    .900    .938
 19           PC    .950    .963    .975    .988   1.000
 20           JD    1.84    16.0
 21           PC    .000    .015    .020    .030    .048    .063    .076    .090    .105    .119
 22           PC    .135    .152    .175    .222    .304    .472    .670    .796    .868    .912
 23           PC    .946    .960    .973    .987   1.000
 24           JD    1.62    90.0
 25           PC    .000    .021    .035    .051    .071    .087    .105    .125    .143    .160
 26           PC    .179    .201    .232    .281    .364    .500    .658    .773    .841    .888
 27           PC    .927    .945    .964    .982   1.000
 28           JD    1.14   500.0
 29           PC    .000    .024    .043    .059    .078    .098    .119    .141    .162    .186
 30           PC    .212    .239    .271    .321    .408    .515    .627    .735    .814    .864
 31           PC    .907    .930    .954    .977   1.000

 32           KK    110A
 33           KM   SUB-BASIN 110A
 34           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 35           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 36           BA    .022
 37           LG    .150    .156   7.300    .110  40.130
 38           UC    .188    .209
 39           UA       0       5      16      30      65      77      84      90      94      97
 40           UA     100

 41           KK    110B
 42           KM   SUB-BASIN 110B
 43           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 44           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 45           BA    .036
 46           LG    .150    .170   6.800    .134  38.920
 47           UC    .204    .203
 48           UA       0       5      16      30      65      77      84      90      94      97
 49           UA     100
```

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

  50          KK     PW1
  51          KM   POWDER WASH CONSENTRATION POINT 1 - COMBINE BASINS 110A AND 110B
  52          HC       2

  53          KK    RPW1
  54          KM   ROUTE FLOWS THROUGH BASIN 110C
  55          RS       5    FLOW       0
  56          RC    0.04    0.04    0.04    2300   0.054
  57          RX    9992    9994    9998    9999   10001   10002   10006   10008
  58          RY    1794    1793    1792    1791    1791    1792    1793    1794

  59          KK    110C
  60          KM   SUB-BASIN 110C
  61          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  62          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  63          BA    .004
  64          LG    .150    .190   6.600    .146  37.410
  65          UC    .125    .167
  66          UA       0       5      16      30      65      77      84      90      94      97
  67          UA     100

  68          KK    110D
  69          KM   SUB-BASIN 110D
  70          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  71          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
  72          BA    .071
  73          LG    .150    .150   7.300    .110  40.500
  74          UC    .200    .135
  75          UA       0       5      16      30      65      77      84      90      94      97
  76          UA     100

  77          KK     PW2
  78          KM   POWDER WASH CONCENTRASTION POINT 2 - COMBINE RPW1, 110C AND 110D
  79          HC       3

  80          KK    RPW2
  81          KM   NORMAL DEPTH ROUTING THROUGH BASIN 110E
  82          RS       5    FLOW      -1
  83          RC     .04     .04     .04    1128    .019  1694.5
  84          RX    9875    9905    9955   10000   10030   10085   10120   10140
  85          RY    1696    1690    1680    1668    1668    1680    1690  1694.5

  86          KK    110E
  87          KM   SUB-BASIN 110E
  88          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  89          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  90          BA    .025
  91          LG    .150    .230   6.200    .171  36.250
  92          UC    .162    .129
  93          UA       0       5      16      30      65      77      84      90      94      97
  94          UA     100
```

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

 95           KK    *PW3
 96           KM   UPSTREM MAIN CHANNEL FLOW
 97           HC       2

 98           KK    110F
 99           KM   SUB-BASIN 110F
100           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
101           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
102           BA    .008
103           LG    .150    .230   6.200    .171  36.250
104           UC    .146    .174
105           UA       0       5      16      30      65      77      84      90      94      97
106           UA     100

107           KK    110G
108           KM   SUB-BASIN 110G
109           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
110           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
111           BA    .006
112           LG    .150    .230   6.200    .171  36.250
113           UC    .117    .115
114           UA       0       5      16      30      65      77      84      90      94      97
115           UA     100

116           KK     PW3
117           KM   POWDER WASH CONSENTRATION POINT 3 - COMBINE (RPW2, 110E), 110F, 110G
118           HC       3

119           KK    RPW3
120           KM   ROUTE PW3 THROUGH BASIN 110H
121           RS       3    FLOW      -1
122           RC     .04     .04     .04    1893    .021    1650
123           RX    9810    9870    9955    9980   10050   10068   10100   10110
124           RY    1648    1641    1642    1634    1634    1642    1650    1652

125           KK    110H
126           KM   SUB-BASIN 110H
127           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
128           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
129           BA    .031
130           LG    .120    .250   6.000    .173  42.470
131           UC    .267    .297
132           UA       0       5      16      30      65      77      84      90      94      97
133           UA     100

134           KK    *PW4
135           KM   UPSTREAM MAIN CHANNEL FLOW
136           HC       2
```

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

 137          KK    110I
 138          KM   SUB-BASIN 110I
 139          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 140          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 141          BA    .020
 142          LG    .150    .262   6.000    .183  16.440
 143          UC    .208    .242
 144          UA       0       5      16      30      65      77      84      90      94      97
 145          UA     100

 146          KK     PW4
 147          KM   POWDER WASH CONCENTRATION POINT 4 - COMBINES (RPW3, 110H), 110I
 148          HC       2

 149          KK    SPW4
 150          KM   ROUTE PW4 THROUGH 5 48" CMP CULVERT UNDER LEO DRIVE
 151          RS       1    STOR       0
 152          SQ       0     110     325     625     650
 153          SE  1612.6  1614.6  1616.6  1620.6  6121.0
 154          SA       0    0.07    1.51
 155          SE  1612.6    1614  1621.5

 156          KK    110J
 157          KM   SUB-BASIN 110J
 158          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 159          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 160          BA    .007
 161          LG    .150    .250   6.000    .183  19.530
 162          UC    .108    .129
 163          UA       0       5      16      30      65      77      84      90      94      97
 164          UA     100

 165          KK    110K
 166          KM   SUB-BASIN 110K
 167          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 168          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 169          BA    .012
 170          LG    .050    .250   6.000    .150  90.950
 171          UC    .083    .064
 172          UA       0       5      16      30      65      77      84      90      94      97
 173          UA     100

 174          KK   R110K
 175          KM   ROUTE 110K THROUGH SUB-BASIN 110L TO CON. POINT PW5
 176          RS       2    FLOW       0
 177          RC    0.04    0.04    0.04     900   0.013
 178          RX    9956    9961    9966  9966.5 10033.5   10034   10039   10044
 179          RY  1626.5  1626.5  1626.5    1626    1626  1626.5  1626.5  1626.5
```

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

 180          KK    110L
 181          KM   SUB-BASIN 110L
 182          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 183          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 184          BA    .024
 185          LG    .092    .250   6.000    .177  38.170
 186          UC    .154    .187
 187          UA       0       5      16      30      65      77      84      90      94      97
 188          UA     100

 189          KK     PW5
 190          KM   POWEDER WASH CONSENTRATION POINT 5 - COMBINNES RPW4, 110J, R110K
 191          HC       4

 192          KK    RPW5
 193          KM   ROUTE PW5 THROUGH BASIN 110M
 194          RS       3    FLOW      -1
 195          RC     .04     .04     .04    1728    .018    1610
 196          RX    9855    9910    9962    9995   10010   10060   10123   10190
 197          RY    1606    1604    1602    1598    1598    1602    1599    1610

 198          KK    110M
 199          KM   SUB-BASIN 110M
 200          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 201          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 202          BA    .031
 203          LG    .121    .250   6.000    .173  36.750
 204          UC    .183    .176
 205          UA       0       5      16      30      65      77      84      90      94      97
 206          UA     100

 207          KK    *PW6
 208          KM   UPSTREAM MAIN CHANNEL FLOW
 209          HC       2

 210          KK    110N
 211          KM   SUB-BASIN 110N
 212          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 213          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 214          BA    .015
 215          LG    .150    .250   6.000    .183  15.000
 216          UC    .162    .217
 217          UA       0       5      16      30      65      77      84      90      94      97
 218          UA     100

 219          KK    1100
 220          KM   SUB-BASIN 1100
 221          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 222          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 223          BA    .004
 224          LG    .120    .250   6.000    .173  37.500
 225          UC    .108    .116
 226          UA       0       5      16      30      65      77      84      90      94      97
 227          UA     100
```

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

  228         KK     PW6
  229         KM   POWDER WASH CONCENTRATION POINT 6 - COMBINE (RPW5, 110M), 100N, 1100
  230         HC       3
  231         ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
LINE     (V) ROUTING          (--->) DIVERSION OR PUMP FLOW
NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

 32       110A
           .
           .
 41        .        110B
           .          .
           .          .
 50       PW1.............
           V
           V
 53       RPW1
           .
           .
 59        .        110C
           .          .
           .          .
 68        .          .        110D
           .          .          .
           .          .          .
 77       PW2.........................
           V
           V
 80       RPW2
           .
           .
 86        .        110E
           .          .
           .          .
 95       *PW3............
           .
           .
 98        .        110F
           .          .
           .          .
107        .          .        110G
           .          .          .
           .          .          .
116       PW3.........................
           V
           V
119       RPW3
           .
           .
125        .        110H
           .          .
           .          .
134      *PW4............
           .
           .
137        .        110I
           .          .
           .          .
146       PW4............
           V
           V
149       SPW4
           .
           .
156        .        110J
           .          .
           .          .
165        .          .        110K
           .          .          V
           .          .          V
           .          .        R110K
           .          .          .
```

```
                .          .          .
                .          .          .        110L
                .          .          .          .
                .          .          .          .
189           PW5.....................................
                V
                V
192          RPW5
                .
                .
198             .        110M
                .          .
                .          .
207          *PW6............
                .
                .
210             .        110N
                .          .
                .          .
219             .          .        1100
                .          .          .
                .          .          .
228           PW6........................
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*              MAY   1991               *
*            VERSION 4.0.1E             *
*     Lahey F77L-EM/32 version 5.01     *
*       Dodson & Associates, Inc.       *
*  RUN DATE  04/13/95  TIME  09:56:14   *
*****************************************
```

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

```
                    POWDER WASH - FUTURE CONDITIONS, AGK ENGINEERS, 04-05-95
                    First routing 4-3-93
                    10-Year 6-Hour Storm
                    time steps at 2 minutes
                    File:  110-6XF.DAT


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

   IT         HYDROGRAPH TIME DATA
                     NMIN          5  MINUTES IN COMPUTATION INTERVAL
                    IDATE      1   0  STARTING DATE
                    ITIME       0000  STARTING TIME
                       NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE      2   0  ENDING DATE
                   NDTIME       0055  ENDING TIME
                    ICENT         19  CENTURY MARK

              COMPUTATION INTERVAL    0.08 HOURS
                   TOTAL TIME BASE   24.92 HOURS

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

 11 JD        INDEX STORM NO. 1
                   STRM       2.00  PRECIPITATION DEPTH
                   TRDA       0.01  TRANSPOSITION DRAINAGE AREA

 12 PI          PRECIPITATION PATTERN
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01      0.01      0.03
                  0.03      0.03      0.05      0.05      0.05      0.15      0.15      0.15      0.03      0.03
                  0.03      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00

 15 JD        INDEX STORM NO. 2
                   STRM       1.99  PRECIPITATION DEPTH
                   TRDA       0.50  TRANSPOSITION DRAINAGE AREA

  0 PI          PRECIPITATION PATTERN
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01      0.01      0.03
                  0.03      0.03      0.05      0.05      0.05      0.15      0.15      0.15      0.03      0.03
```

+	ROUTED TO	R110K	24.	4.08	2.	1.	1.	0.01
+	HYDROGRAPH AT	110L	36.	4.00	3.	1.	1.	0.02
+	4 COMBINED AT	PW5	334.	4.17	39.	10.	9.	0.27
+	ROUTED TO	RPW5	328.	4.25	39.	10.	9.	0.27
+	HYDROGRAPH AT	110M	46.	4.00	4.	1.	1.	0.03
+	2 COMBINED AT	*PW6	351.	4.25	43.	11.	10.	0.30
+	HYDROGRAPH AT	110N	19.	4.08	2.	0.	0.	0.01
+	HYDROGRAPH AT	110O	7.	4.00	1.	0.	0.	0.00
+	3 COMBINED AT	PW6	363.	4.25	46.	11.	11.	0.32

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

M.2

CEREUS WASH

```
****************************************
*                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*              MAY   1991              *
*            VERSION 4.0.1E            *
*     Lahey F77L-EM/32 version 5.01    *
*       Dodson & Associates, Inc.      *
*  RUN DATE  01/20/97  TIME  09:34:48  *
****************************************
```

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

```
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
```

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

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

  1           ID   CEREUS WASH - FUTURE CONDITIONS, AGK ENGINEERS 04-05-95
  2           ID   First routing 5-28-93
  3           ID   10-Year 6-Hour Storm
  4           ID   time steps at 2 minutes
  5           ID   File:  120-6XF.DAT
  6           ID
  7           ID
  8           IT       5                    300
  9           IO       5
              *DIAGRAM
 10           IN      15
 11           JD    2.00    0.01
 12           PC    .000    .008    .016    .025    .033    .041    .050    .058    .066    .074
 13           PC    .087    .099    .118    .138    .216    .377    .834    .911    .931    .950
 14           PC    .962    .972    .983    .991   1.000
 15           JD    1.99    0.50
 16           JD    1.96    2.80
 17           PC    .000    .009    .016    .025    .034    .042    .051    .059    .067    .076
 18           PC    .087    .100    .120    .163    .252    .451    .694    .837    .900    .938
 19           PC    .950    .963    .975    .988   1.000

 20           KK    120A
 21           KM   SUB-BASIN 120A
 22           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 23           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 24           BA    .016
 25           LG    .100    .250   5.700    .170  45.000
 26           UC    .183    .336
 27           UA       0       5      16      30      65      77      84      90      94      97
 28           UA     100

 29           KK    120B
 30           KM   SUB-BASIN 120B
 31           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 32           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 33           BA    .053
 34           LG    .150    .250   5.700    .207  45.000
 35           UC    .233    .215
 36           UA       0       5      16      30      65      77      84      90      94      97
 37           UA     100

 38           KK    160A
 39           KM   SUB-BASIN 160A
 40           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 41           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 42           BA    .006
 43           LG    .100    .250   5.700    .170  45.000
 44           UC    .096    .099
 45           UA       0       5      16      30      65      77      84      90      94      97
 46           UA     100
```

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

  47          KK   R160A
  48          KM   ROUTE 160A THROUGH SUB-BASIN 120B TO CON. POINT CER1
  49          RS       2    FLOW       0
  50          RC    0.04    0.04    0.04    2300   0.054
  51          RX    9920    9942    9975    9997   10003   10050   10060   10085
  52          RY    1810    1806    1800    1791    1791    1802    1804    1810

  53          KK    CER1
  54          KM   CEREUS WASH CONCENTRATION POINT 1 - COMBINE R160A, 120A AND 120B
  55          HC       3

  56          KK   SCER1
  57          KM   ROUTE CER1 THROUGH 60" CULVERT AT FOUNTAIN HILLS BLVD.
  58          RS       1    ELEV    1756
  59          SQ       0      37     115     222     355    1000
  60          SE    1757  1759.5    1762    1767  1778.7    1779
  61          SA     .04     .23    2.68
  62          SE    1756    1760    1780

  63          KK    120C
  64          KM   SUB-BASIN 120C
  65          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  66          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  67          BA    .005
  68          LG    .100    .250   5.700    .170  41.330
  69          UC    .121    .176
  70          UA       0       5      16      30      65      77      84      90      94      97
  71          UA     100

  72          KK    CER2
  73          KM   CEREUS WASH CONCENTRATION POINT 2 - COMBINE SCER1 WITH SUB-BASIN 120C
  74          HC       2

  75          KK   RCER2
  76          KM   ROUTE CER2 THROUGH SUB-BASIN 120D
  77          RS       1    FLOW       0
  78          RC     .04     .04     .04    2012    .029
  79          RX    9927    9935    9965   10000   10007   10035   10063   10080
  80          RY    1720    1718    1712    1706    1706    1710    1716    1720

  81          KK    120D
  82          KM   SUB-BASIN 120D
  83          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  84          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
  85          BA    .069
  86          LG    .132    .250   5.800    .187  24.210
  87          UC    .213    .191
  88          UA       0       5      16      30      65      77      84      90      94      97
  89          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  90          KK   *CER3
  91          KM   CEREUS WASH CONCENTRATION POINT *3 - COMBINE RCER2, 120D
  92          HC       2

  93          KK    120H
  94          KM   SUB-BASIN 120H
  95          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  96          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  97          BA    .005
  98          LG    .085    .250   5.800    .160  39.120
  99          UC    .154    .373
 100          UA       0       5      16      30      65      77      84      90      94      97
 101          UA     100

 102          KK   R120H
 103          KM   ROUTE 120H THROUGH 120I
 104          KM   LENGTH 557 INCREASED FOR STABILITY
 105          RS       1    FLOW       0
 106          RC     .04     .04     .04    1500    .115
 107          RX    9870    9910    9960    9997   10001   10080   10125   10225
 108          RY    1732    1726    1718    1712    1712    1718    1724    1730

 109          KK    120I
 110          KM   SUB-BASIN 120I
 111          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 112          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 113          BA    .007
 114          LG    .150    .250   5.700    .207  25.000
 115          UC    .154    .199
 116          UA       0       5      16      30      65      77      84      90      94      97
 117          UA     100

 118          KK   CER3A
 119          KM   COMBINE R120H AND 120I
 120          HC       2

 121          KK  SCER3A
 122          KM   ROUTE CER3A BY STAGE DISCHARGE TO CER3 - PONDED STORAGE
 123          RS       1    ELEV    1694
 124          SQ       0    25.2     160     473    1019    1850
 125          SE    1700    1701    1702    1703    1704    1705
 126          SA       0     .22      .5
 127          SE    1694    1700    1710

 128          KK    CER3
 129          KM   CEREUS WASH CONCENTRATION POINT 3 - COMBINE (RCER2, 120D),RCER3A
 130          HC       2

 131          KK   SCER3
 132          KM   ROUTE CER3 THROUGH 1-84" CULVERTS AT SHEA BLVD.
 133          RS       1    ELEV  1687.3
 134          SQ       0      98     300     610     850     900
 135          SE  1687.3  1690.8  1694.3  1701.3    1710    1711
 136          SA       0      .3    1.69    4.69
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 137          SE  1687.3    1692    1700    1710

 138          KK   RCER3
 139          KM   ROUTE CER3 THROUGH SUB-AREA 120E TO CONFLUENCE WITH WALNUT WASH
 140          KM   LENGHT 768 INCREASED FOR STABILITY
 141          RS       1    FLOW       0
 142          RC     .04     .04     .04    1400    .034
 143          RX    9920    9974    9985    9999   10001   10021   10135   10222
 144          RY    1690    1678    1674    1670    1670    1674    1680    1690

 145          KK    120E
 146          KM   SUB-BASIN 120E
 147          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 148          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 149          BA    .018
 150          LG    .050    .250   5.800    .160  20.530
 151          UC    .204    .342
 152          UA       0       5      16      30      65      77      84      90      94      97
 153          UA     100

 154          KK   *CER4
 155          KM   CEREUS WASH CONCENTRATION POINT *4 - RCER3, 120E
 156          HC       2

 157          KK    126A
 158          KM   SUB-BASIN 126A
 159          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 160          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 161          BA    .007
 162          LG    .100    .250   5.700    .170  45.000
 163          UC    .142    .197
 164          UA       0       5      16      30      65      77      84      90      94      97
 165          UA     100

 166          KK   R126A
 167          KM   ROUTE SUB-BASIN 126A THROUGH SUB-BASIN 126B
 168          RS       1    FLOW       0
 169          RC     .04    .017     .04    2348    .035
 170          RX    9975    9980    9985    9986   10014   10015   10020   10025
 171          RY  1922.5  1922.5  1922.5    1922    1922  1922.5  1922.5  1922.5

 172          KK    126B
 173          KM   SUB-BASIN 126B
 174          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 175          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 176          BA    .021
 177          LG    .100    .250   5.700    .179  45.000
 178          UC    .192    .292
 179          UA       0       5      16      30      65      77      84      90      94      97
 180          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 181          KK     WW1
 182          KM   WALNUT WASH CONCENTRATION POINT 1 - COMBINE R126A AND 126B
 183          HC       2

 184          KK    RWW1
 185          KM   ROUTE WW1 THROUGH SUB-BASIN 126D
 186          KM   LENGTH 546 INCREASED FOR STABILITY
 187          RS       1    FLOW       0
 188          RC     .04     .04     .04     800    .019
 189          RX    9895    9935    9955    9962   10003   10010   10020   10045
 190          RY    1830    1818    1816    1813    1813    1816    1820    1830

 191          KK    126C
 192          KM   SUB-BASIN 126C
 193          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 194          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .998
 195          BA    .142
 196          LG    .140    .320   5.700    .204  13.770
 197          UC    .354    .350
 198          UA       0       5      16      30      65      77      84      90      94      97
 199          UA     100

 200          KK   R126C
 201          KM   ROUTE 126C THROUGH SUB-BASIN 126D
 202          RS       1    FLOW       0
 203          RC     .04     .04     .04    1291    .029
 204          RX    9895    9935    9955    9962   10003   10010   10020   10045
 205          RY    1830    1818    1816    1813    1813    1816    1820    1830

 206          KK    126D
 207          KM   SUB-BASIN 126D
 208          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 209          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 210          BA    .028
 211          LG    .146    .250   5.700    .204  23.160
 212          UC    .196    .187
 213          UA       0       5      16      30      65      77      84      90      94      97
 214          UA     100

 215          KK     WW3
 216          KM   WALNUT WASH CONCENTRATION POINT 3 - RWW1 AND RWW2 AND 126D
 217          HC       3

 218          KK    RWW3
 219          KM   ROUTE WW3 THROUGH 126H
 220          KM   LENGTH 894 INCREASED FOR STABILITY
 221          RS       1    FLOW       0
 222          RC     .04     .04     .04    1400    .027
 223          RX    9910    9940    9985    9995   10020   10080   10105   10145
 224          RY    1810    1800    1790    1786    1786    1792    1800    1810
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 225          KK    126E
 226          KM   SUB-BASIN 126E
 227          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 228          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 229          BA    .090
 230          LG    .150    .360   6.800    .134  21.880
 231          UC    .242    .187
 232          UA       0       3       5       8      12      20      43      75      90      96
 233          UA     100

 234          KK    126F
 235          KM   SUB-BASIN 126F
 236          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 237          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 238          BA    .055
 239          LG    .150    .330   7.300    .110  30.000
 240          UC    .208    .169
 241          UA       0       3       5       8      12      20      43      75      90      96
 242          UA     100

 243          KK     WW4
 244          KM   WALNUT WASH CONCENTRATION POINT 4 - 126E AND 126F
 245          HC       2

 246          KK    RWW4
 247          KM   ROUTE WW4 THROUGH 126G
 248          KM   LENGTH 4158 INCEASED FOR STABILITY
 249          RS       3    FLOW       0
 250          RC     .04     .04     .04    6000    .031
 251          RX    9870    9940    9980    9995   10005   10015   10040   10090
 252          RY    1820    1802    1800    1796    1796    1800    1810    1820

 253          KK    126G
 254          KM   SUB-BASIN 126G
 255          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 256          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .998
 257          BA    .136
 258          LG    .150    .240   6.600    .146  27.550
 259          UC    .304    .273
 260          UA       0       5      16      30      65      77      84      90      94      97
 261          UA     100

 262          KK    126H
 263          KM   SUB-BASIN 126H
 264          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 265          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 266          BA    .020
 267          LG    .127    .250   5.700    .199  28.710
 268          UC    .183    .194
 269          UA       0       5      16      30      65      77      84      90      94      97
 270          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 271          KK     WW5
 272          KM   WALNUT WASH CONCENTRATION POINT 5 - RWW3, RWW4, 126H AND 126G
 273          HC       4

 274          KK    RWW5
 275          KM   ROUTE WW5 THROUGH 126I
 276          RS       1    FLOW       0
 277          RC     .04     .04     .04    1740     .02
 278          RX    9790    9860    9910    9975   10010   10055   10090   10150
 279          RY    1780    1764    1762    1758    1758    1766    1768    1780

 280          KK    126I
 281          KM   SUB-BASIN 126I
 282          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 283          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 284          BA    .082
 285          LG    .133    .190   6.600    .144  38.280
 286          UC    .225    .163
 287          UA       0       5      16      30      65      77      84      90      94      97
 288          UA     100

 289          KK    126J
 290          KM   SUB-BASIN 126J
 291          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 292          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 293          BA    .002
 294          LG    .100    .250   5.700    .179  45.000
 295          UC    .133    .299
 296          UA       0       5      16      30      65      77      84      90      94      97
 297          UA     100

 298          KK   R126J
 299          KM   ROUTE 126J THROUGH 126I
 300          KM   LENGHT 2299 INCREASED FOR STABILITY
 301          RS      20    FLOW       0
 302          RC     .04     .02     .04    4000    .066
 303          RX    9790    9860    9910    9975   10010   10055   10090   10150
 304          RY    1780    1764    1762    1758    1758    1766    1768    1780

 305          KK     WW6
 306          KM   WALNUT WASH CONCENTRATION POINT 6 - RWW5, R126J AND 126I
 307          HC       3

 308          KK    RWW6
 309          KM   ROUTE WW6 THROUGH 126M
 310          RS       1    FLOW       0
 311          RC     .04     .04     .04    1206    .019
 312          RX    9830    9890    9925    9985   10005   10020   10055   10100
 313          RY    1738    1736    1722    1720    1720    1722    1730    1740
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 314          KK    126M
 315          KM   SUB-BASIN 126M
 316          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 317          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 318          BA    .025
 319          LG    .144    .230   6.200    .169  25.370
 320          UC    .208    .235
 321          UA       0       5      16      30      65      77      84      90      94      97
 322          UA     100

 323          KK    *WW7
 324          KM   WALNUT WASH CONCENTRATION POIT *7 - RWW6, 126M
 325          HC       2

 326          KK    126K
 327          KM   SUB-BASIN 126K
 328          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 329          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 330          BA    .012
 331          LG    .100    .250   5.700    .179  45.000
 332          UC    .158    .263
 333          UA       0       5      16      30      65      77      84      90      94      97
 334          UA     100

 335          KK   R126K
 336          KM   ROUTE 126K THROUGH 126M
 337          RS       1    FLOW       0
 338          RC     .04     .04     .04    1061    .072
 339          RX    9830    9890    9925    9985   10005   10020   10055   10100
 340          RY    1738    1736    1722    1720    1720    1722    1730    1740

 341          KK    126L
 342          KM   SUB-BASIN 126L
 343          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 344          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 345          BA    .023
 346          LG    .150    .210   6.400    .159  38.360
 347          UC    .217    .274
 348          UA       0       5      16      30      65      77      84      90      94      97
 349          UA     100

 350          KK     WW7
 351          KM   WALNUT WASH CONCENTRATION POINT 7 - (RWW6, 126M), R126K, 126L
 352          HC       3

 353          KK    SWW7
 354          KM   ROUTE WW7 THROUGH 10'BY 10' RCB UNDER SHEA BLVD.
 355          RS       1    ELEV    1704
 356          SQ       0     290     800    1650    1850
 357          SE    1704    1709    1714    1724    1727
 358          SA       0     .01     .44    2.44
 359          SE    1704    1710    1716  1728.5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 360          KK    127A
 361          KM   SUB-BASIN 127A
 362          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 363          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 364          BA    .028
 365          LG    .150    .250   5.700    .207  15.000
 366          UC    .204    .215
 367          UA      0       5      16      30      65      77      84      90      94      97
 368          UA    100

 369          KK    127B
 370          KM   SUB-BASIN 127B
 371          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 372          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 373          BA    .039
 374          LG    .100    .250   5.700    .189  15.000
 375          UC    .192    .159
 376          UA      0       5      16      30      65      77      84      90      94      97
 377          UA    100

 378          KK    CAP1
 379          KM   CAP WASH CONCENTRATION POINT 1 - SUB-BASINS 127A AND 127B
 380          HC      2

 381          KK   RCAP1
 382          KM   ROUTE CAP1 THROUGH 127D
 383          RS      1    FLOW       0
 384          RC    .04     .04     .04    1146    .026
 385          RX   9870    9910    9955    9985   10000   10020   10050   10100
 386          RY   1760    1756    1750    1742    1742    1744    1750    1760

 387          KK    127C
 388          KM   SUB-BASIN 127C
 389          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 390          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 391          BA    .042
 392          LG    .150    .170   6.800    .134  33.710
 393          UC    .208    .186
 394          UA      0       5      16      30      65      77      84      90      94      97
 395          UA    100

 396          KK    127D
 397          KM   SUB-BASIN 127D
 398          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 399          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 400          BA    .024
 401          LG    .150    .250   5.800    .195  15.000
 402          UC    .188    .185
 403          UA      0       5      16      30      65      77      84      90      94      97
 404          UA    100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 405          KK    CAP2
 406          KM   CAP WASH CONCENTRATION POINT 2 - RCAP1, 127C, AND 127D
 407          HC       3

 408          KK   RCAP2
 409          KM   ROUTE CAP2 THROUGH 127H
 410          RS       1    FLOW       0
 411          RC     .04     .04     .04     545    .017
 412          RX    9895    9940    9950    9995   10005   10047   10105   10180
 413          RY    1741    1740    1738    1732    1732    1736    1739    1748

 414          KK    127E
 415          KM   SUB-BASIN 127E
 416          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 417          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 418          BA    .103
 419          LG    .150    .204   6.800    .134  28.410
 420          UC    .258    .216
 421          UA       0       5      16      30      65      77      84      90      94      97
 422          UA     100

 423          KK    127F
 424          KM   SUB-BASIN 127F
 425          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 426          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .998
 427          BA    .147
 428          LG    .150    .229   7.300    .110  40.450
 429          UC    .283    .230
 430          UA       0       5      16      30      65      77      84      90      94      97
 431          UA     100

 432          KK    CAP3
 433          KM   CAP WASH CONCENTRATION POINT 3 - SUB-BASINS 127E AND 127F
 434          HC       2

 435          KK   RCAP3
 436          KM   ROUTE CAP3 THROUGH 127G
 437          RS       1    FLOW       0
 438          RC     .04     .04     .04    1253    .025
 439          RX    9870    9920    9940    9974   10007   10055   10075   10130
 440          RY    1780    1770    1768    1758    1758    1770    1774    1780

 441          KK    127G
 442          KM   SUB-BASIN 127G
 443          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 444          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 445          BA    .057
 446          LG    .150    .150   7.000    .122  45.570
 447          UC    .204    .156
 448          UA       0       5      16      30      65      77      84      90      94      97
 449          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 450          KK    CAP4
 451          KM   CAP WASH CONCENTRATION POINT 4 - RCAP3 AND SUB-BASIN 127G
 452          HC       2

 453          KK   SCAP4
 454          KM   ROUTE CAP4 THROUGH 2-72" CULVERTS UNDER SHEA BLVD.
 455          RS       1    ELEV  1742.2
 456          SQ       0     130     410     830    1300
 457          SE  1742.2  1742.5  1748.2  1754.2  1766.5
 458          SA       0    .008    .037    3.31
 459          SE  1742.2    1746    1752    1766

 460          KK  R2CAP4
 461          KM   ROUTE CAP4 THROUGH 127I
 462          KM   LENGTH 743 INCREASED FOR STABILITY
 463          RS       1    FLOW       0
 464          RC     .04     .04     .04    1500     .02
 465          RX    9800    9837    9985    9995   10020   10070   10180   10200
 466          RY    1760  1745.5    1738    1736    1736    1742    1752    1756

 467          KK    127I
 468          KM   SUB-BASIN 127I
 469          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 470          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 471          BA    .010
 472          LG    .100    .250   6.000    .158  15.000
 473          UC    .158    .292
 474          UA       0       5      16      30      65      77      84      90      94      97
 475          UA     100

 476          KK   *CAP5
 477          KM   CAP WASH CONCENTRATION POINT *5 - RCAP4, 127I
 478          HC       2

 479          KK    127H
 480          KM   SUB-BASIN 127H
 481          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 482          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 483          BA    .018
 484          LG    .150    .150   7.000    .122  36.740
 485          UC    .171    .180
 486          UA       0       5      16      30      65      77      84      90      94      97
 487          UA     100

 488          KK    CAP5
 489          KM   CAP WASH CONCENTRATION POINT 5 - RCAP4, 127H, (RCAP4,127I)
 490          HC       3

 491          KK   RCAP5
 492          KM   ROUTE CAP5 THROUGH 127J TO WALNUT WASH (WW8)
 493          RS       1    FLOW       0
 494          RC     .04     .04     .04    1382    .018
 495          RX    9895    9937    9960    9982   10005   10030   10075   10125
 496          RY    1730    1714  1711.5    1710    1710    1714    1720    1730
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 497          KK    127J
 498          KM   SUB-BASIN 127J
 499          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 500          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 501          BA    .032
 502          LG    .100    .170   6.800    .122  31.060
 503          UC    .204    .212
 504          UA       0       5      16      30      65      77      84      90      94      97
 505          UA     100

 506          KK    CAP6
 507          KM   CAP WASH COMBINATION POINT 6 - RCAP5, 127J
 508          HC       2

 509          KK     WW8
 510          KM   WALNUT WASH CONCENTRATION POINT 8 - SWW7,CAP6
 511          KM   CONFLUENCE OF CAP WASH AND WALNUT WASH
 512          HC       2

 513          KK    RWW8
 514          KM   ROUTE WW8 THROUGH 126N TO CONFLUENCE WITH CEREUS WASH
 515          RS       4    FLOW       0
 516          RC     .04     .04     .04    2789    .016
 517          RX    9850    9915    9930    9990   10005   10030   10142   10205
 518          RY    1700    1686    1682    1678    1678    1680 1685.25    1700

 519          KK    126N
 520          KM   SUB-BASIN 126N
 521          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 522          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 523          BA    .077
 524          LG    .150    .230   6.200    .171  27.920
 525          UC    .271    .272
 526          UA       0       5      16      30      65      77      84      90      94      97
 527          UA     100

 528          KK     WW9
 529          KM    WALNUT WASH CONCENTRATION POIT 9 - RWW8, 126N
 530          HC       2

 531          KK    CER4
 532          KM   CEREUS WASH CONCENTRATION POINT 4 - (RCER3,120E), (WW9, 126N)
 533          KM   CONFLUENCE OF CEREUS WASH AND WALNUT WASH
 534          HC       2

 535          KK   RCER4
 536          KM   ROUTE CER4 THROUGH SUB-BASIN 120F TO CONFLUENCE WITH CHUKAR WASH
 537          KM   LENGTH 1183 INCREASSED FOR STABITITY
 538          RS       1    FLOW       0
 539          RC     .04     .04     .04    2000    .015
 540          RX    9967    9973    9982    9999   10055   10135   10235   10325
 541          RY    1766    1762    1756    1744    1744    1756  1753.5    1756
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 542          KK    120F
 543          KM   SUB-BASIN 120F
 544          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 545          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 546          BA    .022
 547          LG    .150    .250   6.000    .183  34.960
 548          UC    .162    .174
 549          UA       0       5      16      30      65      77      84      90      94      97
 550          UA     100

 551          KK   *CER5
 552          KM   CEREUS WASH CONCENTRATION POIT *5 - RCER4, 120F
 553          HC       2

 554          KK    125A
 555          KM   SUB-BASIN 125A
 556          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 557          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 558          BA    .077
 559          LG    .150    .150   7.300    .110  40.500
 560          UC    .279    .298
 561          UA       0       5      16      30      65      77      84      90      94      97
 562          UA     100

 563          KK    125B
 564          KM   SUB-BASIN 125B
 565          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 566          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 567          BA    .113
 568          LG    .150    .150   7.300    .110  40.250
 569          UC    .292    .254
 570          UA       0       5      16      30      65      77      84      90      94      97
 571          UA     100

 572          KK    CHK1
 573          KM   CHUKAR WASH CONCENTRATION POINT 1 - SUB-BASINS 125A AND 125B
 574          HC       2

 575          KK   RCHK1
 576          KM   ROUTE CHK1 THROUGH 125D
 577          RS       1    FLOW       0
 578          RC     .04     .04     .04     544    .004
 579          RX    9830    9880    9915    9955   10005   10032   10140   10190
 580          RY    1700    1696    1690    1682    1682    1690    1690    1698

 581          KK    125C
 582          KM   SUB-BASIN 125C
 583          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 584          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 585          BA    .030
 586          LG    .150    .150   7.300    .110  40.060
 587          UC    .200    .198
 588          UA       0       5      16      30      65      77      84      90      94      97
 589          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 590          KK   R125C
 591          KM   ROUTE 125C THROUGH SUB-BASIN 125D TO CON. POINT CHK2
 592          RS       1    FLOW       0
 593          RC    0.04    0.04    0.04     290  0.0001
 594          RX    9905    9930    9945    9972   10025   10080   10090   10130
 595          RY    1680    1674    1670  1665.5  1665.5    1668    1670    1680

 596          KK    125D
 597          KM   SUB-BASIN 125D
 598          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 599          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 600          BA    .018
 601          LG    .100    .210   6.400    .159  37.030
 602          UC    .471    .454
 603          UA       0       5      16      30      65      77      84      90      94      97
 604          UA     100

 605          KK    CHK2
 606          KM   CHUKAR WASH CONCENTRATION POINT 2 - RCHK1 AND SUB BASINS 125C AND 125D
 607          HC       3

 608          KK  R2CHK2
 609          KM   ROUTE CHK2 THROUGH SUB-BASIN 125E TO CONFLUENCE WITH CEREUS WASH
 610          RS       2    FLOW       0
 611          RC     .04     .04     .04    1780    .027
 612          RX    9905    9930    9945    9972   10025   10080   10090   10130
 613          RY    1680    1674    1670  1665.5  1665.5    1668    1670    1680

 614          KK    125E
 615          KM   SUB-BASIN 125E
 616          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 617          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 618          BA    .047
 619          LG    .150    .230   6.200    .171  42.460
 620          UC    .196    .170
 621          UA       0       5      16      30      65      77      84      90      94      97
 622          UA     100

 623          KK    CHK3
 624          KM   CHUKAR WASH CONCENTRATON POINT 3 - RCHK2, 125E
 625          HC       2

 626          KK    CER5
 627          KM   CEREUS WASH CONCENTRATION POINT 5 - (RCER4, 120F), CHK3
 628          KM   CONFLUENCE OF CHUKAR WASH AND CEREUS WASH
 629          HC       2

 630          KK   RCER5
 631          KM   ROUTE CEREUS WASH (CER5) THROUGH 120G TO CONFLUENCE WITH LOGAN WASH
 632          RS       1    FLOW       0
 633          RC     .04     .04     .04    1119    .017
 634          RX    9885    9930    9970    9999   10001   10006   10200   10299
 635          RY    1650    1645    1640    1630    1630    1634    1631    1640
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 636          KK    120G
 637          KM   SUB-BASIN 120G
 638          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 639          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 640          BA    .037
 641          LG    .150    .170   6.800    .134  37.920
 642          UC    .204    .192
 643          UA       0       5      16      30      65      77      84      90      94      97
 644          UA     100

 645          KK   *CER6
 646          KM   CEREUS WASH CONCENTRATION POINT *6 - RCER5, 120G
 647          HC       2

 648          KK    124A
 649          KM   SUB-BASIN 124A
 650          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 651          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 652          BA    .071
 653          LG    .150    .150   7.000    .122  36.170
 654          UC    .254    .252
 655          UA       0       5      16      30      65      77      84      90      94      97
 656          UA     100

 657          KK    124B
 658          KM   SUB-BASIN 124B
 659          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 660          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 661          BA    .043
 662          LG    .150    .170   6.800    .134  38.180
 663          UC    .179    .126
 664          UA       0       5      16      30      65      77      84      90      94      97
 665          UA     100

 666          KK    LOG1
 667          KM   LOGAN WASH CONCENTRATION POINT 1 - SUB-BASINS 124A AND 124B
 668          HC       2

 669          KK   RLOG1
 670          KM   ROUTE LOG1 THROUGH 124D
 671          RS       1    FLOW       0
 672          RC     .04     .04     .04     647    .015
 673          RX    9920    9940    9965    9993   10008   10040   10057   10090
 674          RY    1670    1666    1660  1655.5  1655.5    1658    1662    1663

 675          KK    124D
 676          KM   SUB-BASIN 124D
 677          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 678          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 679          BA    .009
 680          LG    .150    .230   6.200    .171  50.840
 681          UC    .213    .439
 682          UA       0       5      16      30      65      77      84      90      94      97
 683          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 684          KK   *LOG2
 685          KM   LOGAN WASH CONCENTRATION POINT *2 - (RLOG1, 124D)
 686          HC       2

 687          KK    124C
 688          KM   SUB-BASIN 124C
 689          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 690          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 691          BA    .020
 692          LG    .150    .230   6.200    .171  43.540
 693          UC    .213    .278
 694          UA       0       5      16      30      65      77      84      90      94      97
 695          UA     100

 696          KK    LOG2
 697          KM   LOGAN WASH CONCENTRATION POINT 2 - (RLOG1, 124D),124C
 698          HC       2

 699          KK   RLOG2
 700          KM   ROUTE LOG2 THROUGH 124E TO CONFLUENCE WITH CEREUS WASH
 701          RS       2    FLOW       0
 702          RC     .04     .04     .04    1436    .014
 703          RX    9885    9920    9965   10005   10030   10060   10090   10140
 704          RY    1660    1650    1642    1640    1640    1650    1660    1670

 705          KK    124E
 706          KM   SUB-BASIN 124E
 707          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 708          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 709          BA    .051
 710          LG    .150    .210   6.400    .159  49.150
 711          UC    .217    .192
 712          UA       0       5      16      30      65      77      84      90      94      97
 713          UA     100

 714          KK    LOG3
 715          KM   LOGAN WASH CONCENTRATION POINT 3 - RLOG2, 124E
 716          HC       2

 717          KK    CER6
 718          KM   CEREUS WASH CONCENTRATION POINT 6 - (RCER5, 120G), RLOG2
 719          KM   CONFLUENCE OF LOGAN AND CEREUS WASH
 720          HC       2

 721          KK   RCER6
 722          KM   ROUTE CER6 THROUGH 120L
 723          RS       1    FLOW       0
 724          RC     .04     .04     .04    1481    .011
 725          RX    9945    9955    9970    9990   10020   10150   10180   10210
 726          RY    1628    1627    1626    1612    1612    1618    1624    1630
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 727          KK    120L
 728          KM   SUB-BASIN 120L
 729          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 730          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 731          BA    .036
 732          LG    .150    .150   7.000    .122  66.320
 733          UC    .204    .199
 734          UA       0       5      16      30      65      77      84      90      94      97
 735          UA     100

 736          KK   *CER7
 737          KM   CEREUS WASH PONCENTRATION POINT *7 - RCER6, 120L
 738          HC       2

 739          KK    120J
 740          KM   SUB-BASIN 120J
 741          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 742          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 743          BA    .006
 744          LG    .100    .250   5.700    .170  25.000
 745          UC    .225    .524
 746          UA       0       5      16      30      65      77      84      90      94      97
 747          UA     100

 748          KK   R120J
 749          KM   ROUTE 120J THROUGH 120K
 750          RS       1    FLOW       0
 751          RC     .04     .04     .04     624    .159
 752          RX    9840    9940    9985    9993   10005   10040   10047   10110
 753          RY    1710    1690    1685  1682.5  1682.5    1690    1692    1710

 754          KK    120K
 755          KM   SUB-BASIN 120K
 756          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 757          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 758          BA    .034
 759          LG    .150    .250   5.700    .207  25.000
 760          UC    .237    .262
 761          UA       0       5      16      30      65      77      84      90      94      97
 762          UA     100

 763          KK   CER7A
 764          KM   CEREUS WASH CONCENTRATION POINT 7A- R120J AND 120K
 765          HC       2

 766          KK  SCER7A
 767          KM   ROUTE CER7A THROUGH 48" CULVERT UNDER SHEA BLVD.
 768          RS       1    ELEV  1640.9
 769          SQ       0      24      73     150     240
 770          SE  1640.9  1642.9  1644.9  1648.9    1658
 771          SA       0     .81
 772          SE  1640.9    1658
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 773          KK  RCER7A
 774          KM   ROUTE CER7A THROUGH SUB-BASIN 120M TO CON. POINT CER7
 775          RS       2    FLOW       0
 776          RC     .04     .04     .04    1400    .027
 777          RX    9895    9920    9950    9975   10015   10110   10140   10200
 778          RY    1640    1636    1632    1628    1628    1632    1634    1640

 779          KK    120M
 780          KM   SUB-BASIN 120M
 781          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 782          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 783          BA    .040
 784          LG    .100    .250   5.800    .186  43.850
 785          UC    .242    .360
 786          UA       0       5      16      30      65      77      84      90      94      97
 787          UA     100

 788          KK    123B
 789          KM   SUB-BASIN 123B
 790          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 791          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 792          BA    .019
 793          LG    .150    .250   5.700    .207  25.000
 794          UC    .175    .174
 795          UA       0       5      16      30      65      77      84      90      94      97
 796          UA     100

 797          KK   S123B
 798          KM   ROUTE 123B THROUGH 36" CMP CULVERT UNDER SHEA BLVD
 799          RS       1    ELEV  1624.7
 800          SQ       0      11      33      63      77
 801          SE  1624.7  1626.2  1627.7  1630.7  1633.1
 802          SA       0   0.004    0.01
 803          SE  1624.7    1628    1629

 804          KK   R123B
 805          KM   ROUTE S123B THROUGH SUB-BASIN 120M TO WASH
 806          RS       1    FLOW       0
 807          RC    0.04    0.04    0.04     412   0.034
 808          RX    9965    9970    9980    9995   10005   10080  100115   10160
 809          RY    1630    1628    1623    1616    1616    1624    1628    1634

 810          KK   R123B
 811          KM   ROUTE R123B THROUGH SUB-BASIN 120M (IN WASH) TO CON. POINT CER7
 812          RS       1    FLOW       0
 813          RC    0.04    0.04    0.04     193    0.36
 814          RX    9895    9920    9950    9975   10015   10110   10140   10200
 815          RY    1640    1636    1632    1628    1628    1632    1634    1640
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 816          KK    CER7
 817          KM   CEREUS WASH CONCENTRATION POINT 7 - (RCER6, 120L), RCER7A, 120M 123B
 818          HC       4

 819          KK   RCER7
 820          KM   ROUTE CER7 THROUGH SUB-BASIN 120N
 821          RS       3    FLOW       0
 822          RC     .04     .04     .04    2006    .013
 823          RX    9860    9910    9945    9985   10010   10150   10180   10300
 824          RY    1597    1596    1594    1582    1582    1586    1590    1592

 825          KK    120N
 826          KM   SUB-BASIN 120N
 827          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 828          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 829          BA    .044
 830          LG    .136    .150   7.000    .117  69.710
 831          UC    .183    .183
 832          UA       0       5      16      30      65      77      84      90      94      97
 833          UA     100

 834          KK   *CER8
 835          KM   CEREUS WASH CONCENTRATION POINT *8 - RCER7, 120N
 836          HC       2

 837          KK    123A
 838          KM   SUB-BASIN 123A
 839          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 840          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 841          BA    .075
 842          LG    .150    .250   5.700    .207  25.000
 843          UC    .246    .205
 844          UA       0       5      16      30      65      77      84      90      94      97
 845          UA     100

 846          KK   S123A
 847          KM   ROUTE 123A THROUGH 2 60" CULVERT AT TRAVINO DRIVE
 848          RS       1    ELEV  1594.5
 849          SQ       0      74     130     360     444
 850          SE  1594.5    1597  1599.5    1602  1604.5
 851          SA       0    0.01    0.69
 852          SE  1594.5    1596    1604

 853          KK    123D
 854          KM   SUB-BASIN 123D
 855          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 856          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 857          BA    .010
 858          LG    .100    .250   5.700    .189  25.000
 859          UC    .225    .469
 860          UA       0       5      16      30      65      77      84      90      94      97
 861          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 862          KK    TRV1
 863          KM   TREVINO WASH CONCENTRATION POINT 1 - S123A AND 123D
 864          HC       2
 865          KM   STRV1
 866          KM   ROUTE TRV1 THROUGH 84" CMP CULVERT UNDER SHEA BLVD
 867          KM   ELIMINATED FOR STABILITY
 868          KM
 869          KM
 870          KM
 871          KM
 872          KM

 873          KK   RTRV1
 874          KM   ROUTE TRV1 THROUGH SUB-BASIN 120N TO *CER8
 875          KM   LENGTH 971 INCREASED FOR STABILITY
 876          RS       1    FLOW       0
 877          RC     .04     .04     .04    1200    .007
 878          RX    9860    9910    9945    9985   10010   10150   10180   10300
 879          RY    1597    1596    1594    1582    1582    1586    1590    1592

 880          KK    123C
 881          KM   SUB-BASIN 123C
 882          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 883          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 884          BA    .003
 885          LG    .150    .250   5.700    .207  25.000
 886          UC    .092    .085
 887          UA       0       5      16      30      65      77      84      90      94      97
 888          UA     100

 889          KK   S123C
 890          KM   ROUTE 123C THROUGH 24" CMP CULVERT UNDER SHEA BLVD
 891          RS       1    ELEV    1618
 892          SQ       0       4      12      22      28
 893          SE    1618    1619    1620    1622    1624
 894          SA       0    0.01
 895          SE    1618    1623

 896          KK   R123C
 897          KM   ROUTE R123C THROUGH SUB-BASIN 120N TO WASH
 898          RS       1    FLOW       0
 899          RC    0.04    0.04    0.04     136   0.147
 900          RX    9965    9970    9980    9995   10005   10080   10115   10160
 901          RY    1630    1628    1623    1616    1616    1624    1628    1634

 902          KK   R123C
 903          KM   ROUTE 123C THROUGH SUB-BASIN 120N (WASH) TO CON. POINT CER8
 904          RS       5    FLOW       0
 905          RC    0.04    0.04    0.04    1688   0.012
 906          RX    9860    9910    9945    9985   10010   10150   10180   10300
 907          RY    1597    1596    1594    1582    1582    1586    1590    1592
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 908          KK    CER8
 909          KM   CEREUS WASH CONCENTRATION POINT 8 - (RCER7, 120N), R2TREV, 123C
 910          KM   CONFLUENCE WITH TREVINO WASH
 911          HC       3

 912          KK   RCER8
 913          KM   ROUTE CER8 THROUGH SUB-BASIN 120Q
 914          RS       1    FLOW       0
 915          RC     .04     .04     .04    1703    .013
 916          RX    9890    9920    9980    9999   10001   10055   10095   10180
 917          RY    1571    1570    1558    1556    1556    1560    1570    1574

 918          KK    120O
 919          KM   SUB-BASIN 120O
 920          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 921          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 922          BA    .008
 923          LG    .100    .250   5.700    .189  25.000
 924          UC    .117    .104
 925          UA       0       5      16      30      65      77      84      90      94      97
 926          UA     100

 927          KK   S120O
 928          KM   ROUTE 120O THROUGH 2 30" CMP CULVERT UNDER SHEA BLVD
 929          RS       1    ELEV    1587
 930          SQ       0      15      44      90     180     400
 931          SE    1585  1588.8  1590.6  1594.2    1595    1596
 932          SA       0    0.01    0.02
 933          SE    1587    1589    1594

 934          KK   R120O
 935          KM   ROUTE 120O TO WASH THROUGH 120Q
 936          RS       1    FLOW       0
 937          RC     .04     .04     .04     572    .028
 938          RX    9860    9910    9945    9985   10010   10150   10180   10300
 939          RY    1597    1596    1594    1582    1582    1586    1590    1590

 940          KK   R120O
 941          KM   ROUTE 120O THROUGH SUB-BASIN 120Q FROM WASH TO *CER9
 942          RS       2    FLOW       0
 943          RC     .04     .04     .04    1503    .013
 944          RX    9890    9920    9980    9999   10001   10055   10095   10180
 945          RY    1571    1570    1558    1556    1556    1560    1570    1574

 946          KK    120Q
 947          KM   SUB-BASIN 120Q
 948          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 949          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 950          BA    .035
 951          LG    .138    .150   7.000    .118  68.920
 952          UC    .208    .215
 953          UA       0       5      16      30      65      77      84      90      94      97
 954          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 955          KK   *CER9
 956          KM   CEREUS WASH CONCENTRATION POINT *9 - RCER8, 120Q, R120O
 957          HC       3

 958          KK    120P
 959          KM   SUB-BASIN 120P
 960          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 961          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 962          BA    .028
 963          LG    .150    .250   5.700    .198  25.000
 964          UC    .117    .051
 965          UA       0       5      16      30      65      77      84      90      94      97
 966          UA     100

 967          KK   S120P
 968          KM   ROUTE 120P THROUGH 36" CMP CULVERT UNDER SHEA BLVD
 969          RS       1    ELEV    1580
 970          SQ       0      11      35      70
 971          SE    1580  1581.5    1583    1586
 972          SA       0    0.02    0.25
 973          SE    1580    1990    1593

 974          KK   R120P
 975          KM   ROUTE 120P THROUGH SUB-BASIN 120Q
 976          RS       1    FLOW       0
 977          RC     .04     .04     .04    1168    .025
 978          RX    9890    9920    9980    9999   10001   10055   10095   10180
 979          RY    1571    1570    1558    1556    1556  1560.5    1570    1574

 980          KK    CER9
 981          KM   CEREUS WASH CONCENTRATION POINT 9 - (RCER8, 120Q), R120P
 982          HC       2

 983          KK   SCER9
 984          KM   ROUTE CER9 THROUGH 2 10' X 8' BOX CULVERT UNDER SAGUARO BLVD
 985          KM   ******* NEW CULVERT CULVERT INSTALLED TO REPLACE 2-60" CMP  *********
 986          KO       3
 987          RS       1    ELEV 1549.37
 988          SQ       0     226     480    1500    2400    3786
 989          SE  1549.4 1551.77 1553.37 1557.37 1563.53 1565.37
 990          SA       0    0.02    0.48    2.43
 991          SE  1549.4    1552    1556    1564

 992          KK    120R
 993          KM   SUB-BASIN 120R
 994          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 995          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 996          BA    .012
 997          LG    .140    .250   6.000    .178  76.820
 998          UC    .200    .310
 999          UA       0       5      16      30      65      77      84      90      94      97
1000          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1001          KK    120S
1002          KM   SUB-BASIN 120S
1003          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1004          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1005          BA    .007
1006          LG    .054    .150   8.000    .070  49.670
1007          UC    .162    .239
1008          UA       0       5      16      30      65      77      84      90      94      97
1009          UA     100

1010          KK   CER10
1011          KM   CEREUS WASH CONCENTRATION POINT 10- SCER9, 120R, 120S
1012          HC       3

1013          KK  RCER10
1014          KM   ROUTE CER10 THROUGH SUB-BASIN 120T
1015          KM   LENGTH 405 INCREASED FOR STABILITY
1016          RS       1    FLOW       0
1017          RC     .04     .04     .04    1000     .01
1018          RX    9790    9815    9895    9965   10030   10065   10150   10220
1019          RY    1562    1560    1558    1546    1546    1558    1558    1562

1020          KK    120T
1021          KM   SUB-BASIN 120T
1022          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1023          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1024          BA    .002
1025          LG    .150    .150   8.000    .085  80.750
1026          UC    .125    .201
1027          UA       0       5      16      30      65      77      84      90      94      97
1028          UA     100

1029          KK  *CER11
1030          KM   CEREUS WASH CONCENTRATION POINT *11 - RCER10, 120T
1031          HC       2

1032          KK    122C
1033          KM   SUB-BASIN 122C
1034          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1035          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1036          BA    .014
1037          LG    .150    .250   6.000    .163  42.100
1038          UC    .158    .162
1039          UA       0       5      16      30      65      77      84      90      94      97
1040          UA     100

1041          KK   D122C
1042          KM   DIVERTION AT 122C INTO 122A
1043          DT  DO122C
1044          DI       0      10     100    1000
1045          DQ     0.5       5      50     500
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1046          KK   R122C
1047          KM   ROUTE 122C THROUGH SUB-BASIN 122E TO CON. POINT LZR2B
1048          RS       1    FLOW       0
1049          RC    0.02    0.02    0.02    1000   0.032
1050          RX    9975    9980    9985    9986   10014   10015   10020   10025
1051          RY  1614.5  1614.5  1614.5    1614    1614  1614.5  1614.5  1614.5

1052          KK    122E
1053          KM   SUB-BASIN 122E
1054          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1055          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1056          BA    .032
1057          LG    .144    .250   6.000    .168  57.930
1058          UC    .188    .169
1059          UA       0       5      16      30      65      77      84      90      94      97
1060          UA     100

1061          KK   LSR2B
1062          KM   LASER WASH CONSENTRATION POINT 2B - COMBINE RD122E, 122E
1063          HC       2

1064          KK  RLSR2B
1065          KM   ROUTE LASER WASH LSR2B THROUGH SUB-BASIN 120G TO CON. POINT LSR2
1066          RS       2    FLOW       0
1067          RC    0.02    0.02    0.02    1281   0.017
1068          RX    9780    9905    9955    9975   10015   10050   10060   10085
1069          RY    1600    1598    1596    1592    1590  1591.5    1592  1592.5

1070          KK    122D
1071          KM   SUB-BASIN 122D
1072          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1073          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1074          BA    .032
1075          LG    .150    .250   6.000    .183  37.090
1076          UC    .192    .190
1077          UA       0       5      16      30      65      77      84      90      94      97
1078          UA     100

1079          KK   R122D
1080          KM   ROUTE 122D THROUGH SUB-BASIN 122G TO CON. POIT LSR2
1081          RS       1    FLOW       0
1082          RC    0.02    0.02    0.02     480   0.015
1083          RX    9780    9905    9955    9975   10015   10050   10060   10085
1084          RY    1600    1598    1596    1592    1590  1591.5    1592   10085

1085          KK    122F
1086          KM   SUB-BASIN 122F
1087          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1088          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1089          BA    .010
1090          LG    .150    .230   6.200    .171  80.110
1091          UC    .196    .319
1092          UA       0       5      16      30      65      77      84      90      94      97
1093          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1094          KK   R122F
1095          KM   ROUTE 122F THROUGH SUB-BAASIN 122G TO CON. POINT LSR2
1096          RS       1    FLOW       0
1097          RC    0.02    0.02    0.02     430   0.032
1098          RX    9780    9905    9955    9975   10015   10050   10060   10085
1099          RY    1600    1598    1596    1592    1590  1591.5    1592  1592.5

1100          KK    122G
1101          KM   SUB-BASIN 122G
1102          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1103          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1104          BA    .022
1105          LG    .100    .250   6.000    .158  75.000
1106          UC    .125    .124
1107          UA       0       5      16      30      65      77      84      90      94      97
1108          UA     100

1109          KK    LSR2
1110          KM   LASER DRAIN CONCENTRATION POINT 2 - RLSR2B, R122F, R122D, 122D
1111          HC       4

1112          KK   RLSR2
1113          KM   ROUTE LSR2 THROUGH SUB-BASIN 122I TO CON. POINT LSR3
1114          KM   LENGTH 826 INCERRASED FOR STABILITY
1115          RS       1    FLOW       0
1116          RC    0.02    0.02    0.02    1600   0.017
1117          RX    9790    9875    9895    9985   10015   10070   10130   10170
1118          RY    1576    1576  1574.5    1571  1570.5    1574    1576    1578

1119          KK    122A
1120          KM   SUB-BASIN 122A
1121          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1122          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1123          BA    .020
1124          LG    .115    .250   6.000    .162  43.160
1125          UC    .208    .335
1126          UA       0       5      16      30      65      77      84      90      94      97
1127          UA     100

1128          KK   D122C
1129          KM   FLOW FROM DIVERSION OUT OF 122C INTO 122A
1130          DR  DO122C

1131          KK  RD122C
1132          KM   ROUTE D122C THROUGH SUB-BASIN 122A TO CON. POINT LSR1B
1133          RS       3    FLOW       0
1134          RC    0.02    0.02    0.02    2050   0.019
1135          RX    9956    9961    9966  9966.5 10033.5   10034   10039   10044
1136          RY  1606.5  1606.5  1606.5    1606    1606  1606.5  1606.5  1606.5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1137          KK   LSR1B
1138          KM   LASER WASH CONCENTRATION POINT 1B - COMBINE 122A, RD122C
1139          HC       2

1140          KK  RLSR1B
1141          KM   ROUTE LSR1B THROUGH SUB-BASIN 122B TO CON. POINT LSR1
1142          RS       1    FLOW       0
1143          RC     .04     .04     .04    1052    .019
1144          RX    9840    9870    9890    9930   10045   10105   10130   10170
1145          RY    1582    1582    1582    1578    1577    1582    1582    1582

1146          KK    122B
1147          KM   SUB-BASIN 122B
1148          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1149          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1150          BA    .034
1151          LG    .110    .250   6.000    .162  77.600
1152          UC    .175    .148
1153          UA       0       5      16      30      65      77      84      90      94      97
1154          UA     100

1155          KK    LSR1
1156          KM   LASER DRAIN CONCENTRATION POINT 1 - R122A AND 122B
1157          HC       2

1158          KK   RLSR1
1159          KM   ROUTE LSR1 THROUGH SUB-BASIN 122H TO CON. POINT LSR3
1160          RS       1    FLOW       0
1161          RC    0.02    0.02    0.02     500   0.018
1162          RX    9885    9905    9935    9960   10030   10050   10110   10130
1163          RY  1574.5    1574    1570  1568.5  1568.5    1572    1572    1574

1164          KK    122H
1165          KM   SUB-BASIN 122H
1166          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1167          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1168          BA    .006
1169          LG    .150    .250   6.000    .181  73.320
1170          UC    .129    .163
1171          UA       0       5      16      30      65      77      84      90      94      97
1172          UA     100

1173          KK    122I
1174          KM   SUB-BASIN 122I
1175          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1176          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1177          BA    .007
1178          LG    .150    .250   6.000    .175  75.000
1179          UC    .171    .233
1180          UA       0       5      16      30      65      77      84      90      94      97
1181          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1182          KK    LSR3
1183          KM   LASER DRAIN CONCENTRATION POINT 3 - RLSR1,RLSR2,122H,122I
1184          HC       4

1185          KK   RLSR3
1186          KM   ROUTE LSR3 THROUGH SUB-BASIN 122J TO CON. POINT LSR4
1187          RS       1    FLOW       0
1188          RC    0.04    0.04    0.04     422   0.017
1189          RX    9835    9875    9890    9910   10045   10055   10070   10080
1190          RY    1570    1568    1564    1562    1562    1564    1566    1568

1191          KK    122J
1192          KM   SUB-BASIN 122J
1193          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1194          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1195          BA    .025
1196          LG    .150    .250   6.000    .183  38.780
1197          UC    .208    .240
1198          UA       0       5      16      30      65      77      84      90      94      97
1199          UA     100

1200          KK    LSR4
1201          KM   LASER DRAIN CONCENTRATION POINT 4 - RLSR3 AND 122J
1202          HC       2

1203          KK    RLS4
1204          KM   ROUTE LSR4 THROUGH SUB-BASIN 122K TO CONFLUENCE WITH CEREUS WASH CER11
1205          RS       1    FLOW       0
1206          RC    0.04    0.04    0.04     666    0.02
1207          RX    9790    9815    9895    9965   10030   10065   10150   10220
1208          RY    1562    1560    1558    1546    1546    1556    1558    1562

1209          KK    122K
1210          KM   SUB-BASIN 122K
1211          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1212          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1213          BA    .003
1214          LG    .134    .210   6.400    .152  56.900
1215          UC    .175    .372
1216          UA       0       5      16      30      65      77      84      90      94      97
1217          UA     100

1218          KK    LSR5
1219          KM   LASER CONCENTRATION POINT 5 - RLSR5, 122K
1220          HC       2

1221          KK   CER11
1222          KM   CEREUS WASH CONCENTRATION POINT 11 - (RCER10, 120T), (RLSR5, 122K)
1223          KM   CONFLUENCE OF CEREUS WASH AND LASER DRAIN
1224          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1225          KK  RCER11
1226          KM   ROUTE CER11 THROUGH SUB-BASIN 120U TO CON. POINT CER12
1227          RS       1    FLOW       0
1228          RC     .04     .04     .04     821    .012
1229          RX    9885    9920    9965    9995   10020   10070   10120   10270
1230          RY    1570    1560    1548    1540    1540    1550    1554    1556

1231          KK    120U
1232          KM   SUB-BASIN 120U
1233          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1234          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1235          BA    .019
1236          LG    .128    .170   6.800    .128  63.010
1237          UC    .154    .151
1238          UA       0       5      16      30      65      77      84      90      94      97
1239          UA     100

1240          KK  *CER12
1241          KM   CEREUS WASH CONCENTRATION POINT *12 - RCER11, 120U
1242          HC       2

1243          KK    121A
1244          KM   SUB-BASIN 121A
1245          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1246          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1247          BA    .050
1248          LG    .150    .250   6.000    .175  15.000
1249          UC    .258    .273
1250          UA       0       5      16      30      65      77      84      90      94      97
1251          UA     100

1252          KK   R121A
1253          KM   ROUTE 121A THROUGH SUB-BASIN 121B TO CON. POINT CER12
1254          RS       1    FLOW       0
1255          RC    0.04    0.04    0.04     446   0.036
1256          RX    9870    9905    9925    9990   10010   10052   10065   10100
1257          RY    1552    1550    1548    1542    1542    1550    1552    1554

1258          KK    121B
1259          KM   SUB-BASIN 121B
1260          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1261          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1262          BA    .020
1263          LG    .150    .250   6.000    .175  15.910
1264          UC    .225    .341
1265          UA       0       5      16      30      65      77      84      90      94      97
1266          UA     100

1267          KK    LTD1
1268          KM   LAST TRAIL CONCENTRATION POINT 1 - R121A, 121B
1269          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1270          KK   CER12
1271          KM   CEREUS WASH CONCENTRATION POINT 12 - (RCER11, 120U), (R121A, 121B)
1272          KM   CONFLUENCE WITH LAST TRAIL DRAIN
1273          HC       2

1274          KK  RCER12
1275          KM   ROUTE CER12 THROUGH SUB-BASIN 120V TO CON. POINT CER13
1276          KM   LENGTH 317 INCREASED FORR STABILITY
1277          RS       1    FLOW       0
1278          RC    0.04    0.04    0.04     700   0.006
1279          RX    9820    9900    9950    9995   10030   10075   10120   10150
1280          RY    1550    1548    1540    1532    1532    1542    1552    1556

1281          KK    120V
1282          KM   SUB-BASIN 120V
1283          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1284          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1285          BA    .010
1286          LG    .150    .190   6.600    .146  19.820
1287          UC    .158    .182
1288          UA       0       5      16      30      65      77      84      90      94      97
1289          UA     100

1290          KK   CER13
1291          KM   CEREUS WASH CONCENTRATION POINT 13 - RCER12, 120V UPSTREAM OF SHEA BLVD
1292          HC       2
1293          KM  SCER13
1294          KM   ROUTE CER13 THROGH 3 12'X12' BOX CULVERTS UNDER SHEA BLVD
1295          KM       1    ELEV 1530.30
1296          KM       0    1332    3780    6300
1297          KM  1530.3  1536.3  1542.3  1549.1
1298          KM       0   0.011    0.95    3.40    6.46
1299          KM  1530.3    1532    1536    1544    1548

1300          KK  RCER13
1301          KM   ROUTE SCER13 THROUGHT SUB-BASIN 120X TO CON. POINT CER14
1302          RS       1    FLOW       0
1303          RC    0.04    0.04    0.04     868   0.013
1304          RX    9785    9850    9875    9910   10090   10135   10200   10280
1305          RY    1539    1538    1536    1525    1524    1536    1537    1538

1306          KK    120X
1307          KM   SUB-BASIN 120X
1308          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1309          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1310          BA    .016
1311          LG    .117    .150   7.600    .092  73.460
1312          UC    .133    .115
1313          UA       0       5      16      30      65      77      84      90      94      97
1314          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1315          KK  *CER14
1316          KM   CEREUS WASH CONCENTRATION POINT *14 - RCER13, 120X
1317          HC       2

1318          KK    120W
1319          KM   SUB-BASIN 120W
1320          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1321          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1322          BA    .005
1323          LG    .147    .250   6.000    .181  16.710
1324          UC    .087    .067
1325          UA       0       5      16      30      65      77      84      90      94      97
1326          UA     100

1327          KK   S120W
1328          KM   ROUTE 120W THROUGH 2 30" CMP CULVERT UNDER SHEA BLVD
1329          RS       1    ELEV 1540.94
1330          SQ       0      28      60     100
1331          SE  1540.9  1542.8  1544.6  1548.2
1332          SA       0    0.06    0.46
1333          SE    1539    1540    1543

1334          KK   R120W
1335          KM   ROUTE S120W THROUGH SUB-BASIN 120X TO CON. POINT CER14
1336          RS       1    FLOW       0
1337          RC    0.04    0.04    0.04     500   0.042
1338          RX    9970    9985    9995    9998   10002   10015   10050   10065
1339          RY    1532    1530    1528  1527.5  1527.5    1530    1536    1538

1340          KK   CER14
1341          KM   CEREUS WASH POINT OF CONCENTRATION 13 - (SCER13,120X), R120W
1342          HC       2
1343          ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
E      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

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

20      120A
         .
         .
29       .        120B
         .          .
         .          .
38       .          .        160A
         .          .          V
         .          .          V
47       .          .       R160A
         .          .          .
         .          .          .
53      CER1.......................
         V
         V
56     SCER1
         .
         .
63       .        120C
         .          .
         .          .
72      CER2............
         V
         V
75     RCER2
         .
         .
81       .        120D
         .          .
         .          .
90     *CER3............
         .
         .
93       .        120H
         .          V
         .          V
2        .       R120H
         .          .
         .          .
109      .          .        120I
         .          .          .
         .          .          .
118      .       CER3A............
         .          V
         .          V
121      .      SCER3A
         .          .
         .          .
128     CER3............
         V
         V
131    SCER3
         V
         V
138    RCER3
         .
         .
145      .        120E
         .          .
         .          .
154    *CER4............
         .
         .
157      .        126A
         .          V
         .          V
166      .       R126A
         .          .
         .          .
172      .          .        126B
         .          .          .
         .          .          .
181      .        WW1............
         .          V
         .          V
184      .        RWW1
         .          .
         .          .
1        .          .        126C
         .          .          V
```

```
                    V
0             R126C
                    .
                    .
206                 .        126D
                    .          .
                    .          .
215          WW3.......................
               V
               V
218         RWW3
               .
               .
225            .        126E
               .          .
               .          .
234            .          .        126F
               .          .          .
               .          .          .
243            .         WW4............
               .          V
               .          V
246            .        RWW4
               .          .
               .          .
253            .          .        126G
               .          .          .
               .          .          .
262            .          .          .        126H
               .          .          .          .
               .          .          .          .
271          WW5.................................
               V
               V
274         RWW5
               .
               .
280            .        126I
               .          .
               .          .
289            .          .        126J
               .          .          V
               .          .          V
8              .          .       R126J
               .          .          .
               .          .          .
305          WW6.......................
               V
               V
308         RWW6
               .
               .
314            .        126M
               .          .
               .          .
323         *WW7............
               .
               .
326            .        126K
               .          V
               .          V
335            .       R126K
               .          .
               .          .
341            .          .        126L
               .          .          .
               .          .          .
350          WW7.......................
               V
               V
353         SWW7
               .
               .
360            .        127A
               .          .
               .          .
369            .          .        127B
               .          .          .
               .          .          .
378            .        CAP1............
               .          V
               .          V
381            .       RCAP1
               .          .
               .          .
7              .          .        127C
               .          .          .
```

```
 6                                                  127D
                                                      .
                                                      .
405                          CAP2.......................
                               V
                               V
408                          RCAP2
                                 .
                                 .
414                                         127E
                                                 .
                                                 .
423                                                 .  127F
                                                 .      .
                                                 .      .
432                                         CAP3............
                                                 V
                                                 V
435                                         RCAP3
                                                 .
                                                 .
441                                                 .  127G
                                                 .      .
                                                 .      .
450                                         CAP4............
                                                 V
                                                 V
453                                         SCAP4
                                                 V
                                                 V
460                                        R2CAP4
                                                 .
                                                 .
467                                                 .  127I
                                                 .      .
                                                 .      .
476                                        *CAP5............
                                                 .
                                                 .
479                                                 .  127H
                                                 .      .
                                                 .      .
 8                           CAP5.......................
                               V
                               V
491                          RCAP5
                                 .
                                 .
497                                         127J
                                                 .
                                                 .
506                          CAP6............
                                 .
                                 .
509                     WW8............
                          V
                          V
513                    RWW8
                          .
                          .
519                          126N
                                 .
                                 .
528                     WW9............
                          .
                          .
531            CER4............
                 V
                 V
535           RCER4
                 .
                 .
542                    120F
                          .
                          .
551           *CER5............
                 .
                 .
554                    125A
                          .
                          .
563                          125B
                                 .
                                 .
 2                     CHK1............
                          V
```

```
                .          V
575             .       RCHK1
                .          .
                .          .
581             .          .        125C
                .          .           V
                .          .           V
590             .          .       R125C
                .          .           .
                .          .           .
596             .          .           .        125D
                .          .           .           .
                .          .           .           .
605             .       CHK2.......................
                .          V
                .          V
608             .     R2CHK2
                .          .
                .          .
614             .          .        125E
                .          .           .
                .          .           .
623             .       CHK3............
                .          .
                .          .
626          CER5............
                V
                V
630         RCER5
                .
                .
636             .       120G
                .          .
                .          .
645         *CER6............
                .
                .
648             .       124A
                .          .
                .          .
657             .          .        124B
                .          .           .
                .          .           .
676             .       LOG1............
                .          V
                .          V
669             .      RLOG1
                .          .
                .          .
675             .          .        124D
                .          .           .
                .          .           .
684             .     *LOG2............
                .          .
                .          .
687             .          .        124C
                .          .           .
                .          .           .
696             .       LOG2............
                .          V
                .          V
699             .      RLOG2
                .          .
                .          .
705             .          .        124E
                .          .           .
                .          .           .
714             .       LOG3............
                .          .
                .          .
717          CER6............
                V
                V
721         RCER6
                .
                .
727             .       120L
                .          .
                .          .
736         *CER7............
                .
                .
739             .       120J
                .          V
                .          V
748             .      R120J
                .          .
```

```
754                 120K
                      .
763            CER7A.........
                   V
                   V
766            SCER7A
                   V
                   V
773            RCER7A
                   .
                   .
779                 120M
                      .
                      .
788                      123B
                            V
                            V
797                      S123B
                            V
                            V
804                      R123B
                            V
                            V
810                      R123B
                            .
                            .
816       CER7.................................
             V
             V
819       RCER7
             .
             .
825            120N
                   .
                   .
834       *CER8...........
             .
             .
837            123A
                   V
                   V
846            S123A
                   .
                   .
853                 123D
                      .
                      .
862            TRV1...........
                   V
                   V
873            RTRV1
                   .
                   .
880                 123C
                      V
                      V
889                S123C
                      V
                      V
896                R123C
                      V
                      V
902                R123C
                      .
                      .
908       CER8......................
             V
             V
912       RCER8
             .
             .
918            1200
                   V
                   V
927            S1200
                   V
                   V
934            R1200
                   V
                   V
940            R1200
                   .
                   .
946                 120Q
                      .
```

```
 5        .          .          .
      *CER9.......................
          .
          .
958       .       120P
          .          V
          .          V
967       .      S120P
          .          V
          .          V
974       .      R120P
          .          .
          .          .
980    CER9............
          V
          V
983    SCER9
          .
          .
992       .       120R
          .          .
          .          .
1001      .          .        120S
          .          .          .
          .          .          .
1010   CER10......................
          V
          V
1013  RCER10
          .
          .
1020      .       120T
          .          .
          .          .
1029  *CER11............
          .
          .
1032      .       122C
          .          .
          .          .
1043      .          .-------> DO122C
1041      .      D122C
          .          V
          .          V
 6        .      R122C
          .          .
          .          .
1052      .          .        122E
          .          .          .
          .          .          .
1061      .      LSR2B............
          .          V
          .          V
1064      .     RLSR2B
          .          .
          .          .
1070      .          .        122D
          .          .          V
          .          .          V
1079      .          .       R122D
          .          .          .
          .          .          .
1085      .          .          .       122F
          .          .          .          V
          .          .          .          V
1094      .          .          .      R122F
          .          .          .          .
          .          .          .          .
1100      .          .          .          .        122G
          .          .          .          .          .
          .          .          .          .          .
1109      .       LSR2.................................
          .          V
          .          V
1112      .      RLSR2
          .          .
          .          .
1119      .          .        122A
          .          .          .
          .          .          .
1130      .          .          .          .<------- DO122C
1128      .          .          .      D122C
          .          .          .          V
          .          .          .          V
 31       .          .          .     RD122C
          .          .          .          .
          .          .          .          .
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1137                LSR1B............
                       V
                       V
1140               RLSR1B
                       .
                       .
1146                   .        122B
                       .          .
                       .          .
1155                LSR1............
                       V
                       V
1158               RLSR1
                       .
                       .
1164                   .        122H
                       .          .
                       .          .
1173                   .          .        122I
                       .          .          .
                       .          .          .
1182            LSR3.................................
                   V
                   V
1185           RLSR3
                   .
                   .
1191                   .       122J
                       .          .
                       .          .
1200            LSR4............
                   V
                   V
1203           RLS4
                   .
                   .
1209                   .       122K
                       .          .
                       .          .
1218            LSR5............
                   .
                   .
1221       CER11............
               V
               V
1225      RCER11
               .
               .
1231            .       120U
                .          .
                .          .
1240      *CER12............
               .
               .
1243            .       121A
                .          V
                .          V
1252           .      R121A
                .          .
                .          .
1258            .       121B
                .          .
                .          .
1267            .       LTD1............
                .          .
                .          .
1270       CER12............
               V
               V
1274      RCER12
               .
               .
1281            .       120V
                .          .
                .          .
1290       CER13............
               V
               V
1300      RCER13
               .
               .
1306            .       120X
                .          .
                .          .
1315      *CER14............
               .
               .
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```
1318          .        120W
              .           V
              .           V
1327          .       S120W
              .           V
              .           V
[illegible]4  .       R120W
              .           .
              .           .
1340       CER14...........
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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	120A	19.	4.08	2.	1.	1.	0.02		
+	HYDROGRAPH AT	120B	73.	4.08	8.	2.	2.	0.05		
+	HYDROGRAPH AT	160A	12.	4.00	1.	0.	0.	0.01		
+	ROUTED TO	R160A	11.	4.08	1.	0.	0.	0.01		
+	3 COMBINED AT	CER1	102.	4.08	11.	3.	3.	0.08		
+	ROUTED TO	SCER1	89.	4.17	11.	3.	3.	0.08		
+	HYDROGRAPH AT	120C	8.	4.00	1.	0.	0.	0.00		
+	2 COMBINED AT	CER2	94.	4.17	12.	3.	3.	0.08		
+	ROUTED TO	RCER2	88.	4.25	12.	3.	3.	0.08		
+	HYDROGRAPH AT	120D	94.	4.08	8.	2.	2.	0.07		
+	2 COMBINED AT	*CER3	163.	4.08	20.	5.	5.	0.15		
+	HYDROGRAPH AT	120H	6.	4.08	1.	0.	0.	0.00		
+	ROUTED TO	R120H	5.	4.08	1.	0.	0.	0.00		
+	HYDROGRAPH AT	120I	9.	4.00	1.	0.	0.	0.01		
+	2 COMBINED AT	CER3A	15.	4.08	2.	0.	0.	0.01		
+	ROUTED TO	SCER3A	7.	4.33	1.	0.	0.	0.01		
+	2 COMBINED AT	CER3	163.	4.08	21.	5.	5.	0.16		
+	ROUTED TO	SCER3	160.	4.17	21.	5.	5.	0.16		
+	ROUTED TO	RCER3	156.	4.25	21.	5.	5.	0.16		
+	HYDROGRAPH AT	120E	20.	4.08	2.	1.	1.	0.02		
+	2 COMBINED AT	*CER4	170.	4.25	23.	6.	6.	0.18		
+	HYDROGRAPH AT	126A	11.	4.00	1.	0.	0.	0.01		
+	ROUTED TO	R126A	9.	4.17	1.	0.	0.	0.01		
+	HYDROGRAPH AT	126B	26.	4.08	3.	1.	1.	0.02		
+	2 COMBINED AT	WW1	34.	4.08	4.	1.	1.	0.03		
	ROUTED TO	RWW1	33.	4.17	4.	1.	1.	0.03		

+	HYDROGRAPH AT	126C	124.	4.17	14.	4.	3.	0.14
+	ROUTED TO	R126C	117.	4.25	14.	4.	3.	0.14
+	HYDROGRAPH AT	126D	38.	4.08	3.	1.	1.	0.03
+	3 COMBINED AT	WW3	176.	4.17	22.	5.	5.	0.20
+	ROUTED TO	RWW3	169.	4.25	22.	5.	5.	0.20
+	HYDROGRAPH AT	126E	120.	4.08	10.	3.	3.	0.09
+	HYDROGRAPH AT	126F	85.	4.08	7.	2.	2.	0.05
+	2 COMBINED AT	WW4	205.	4.08	18.	4.	4.	0.15
+	ROUTED TO	RWW4	173.	4.25	18.	4.	4.	0.15
+	HYDROGRAPH AT	126G	159.	4.08	18.	4.	4.	0.14
+	HYDROGRAPH AT	126H	27.	4.08	3.	1.	1.	0.02
+	4 COMBINED AT	WW5	484.	4.25	60.	15.	14.	0.50
+	ROUTED TO	RWW5	460.	4.25	60.	15.	14.	0.50
+	HYDROGRAPH AT	126I	127.	4.08	12.	3.	3.	0.08
+	HYDROGRAPH AT	126J	2.	4.08	0.	0.	0.	0.00
+	ROUTED TO	R126J	2.	4.08	0.	0.	0.	0.00
+	3 COMBINED AT	WW6	514.	4.25	71.	18.	17.	0.58
+	ROUTED TO	RWW6	503.	4.33	71.	18.	17.	0.58
+	HYDROGRAPH AT	126M	32.	4.08	3.	1.	1.	0.03
+	2 COMBINED AT	*WW7	513.	4.33	74.	19.	18.	0.61
+	HYDROGRAPH AT	126K	16.	4.08	2.	0.	0.	0.01
+	ROUTED TO	R126K	16.	4.08	2.	0.	0.	0.01
+	HYDROGRAPH AT	126L	29.	4.08	3.	1.	1.	0.02
+	3 COMBINED AT	WW7	535.	4.25	79.	20.	19.	0.64
+	ROUTED TO	SWW7	534.	4.33	79.	20.	19.	0.64
+	HYDROGRAPH AT	127A	35.	4.08	3.	1.	1.	0.03
+	HYDROGRAPH AT	127B	56.	4.00	4.	1.	1.	0.04
+	2 COMBINED AT	CAP1	89.	4.08	7.	2.	2.	0.07
	ROUTED TO	RCAP1	84.	4.08	7.	2.	2.	0.07

+	HYDROGRAPH AT	127C	62.	4.08	6.	2.	1.	0.04
+	HYDROGRAPH AT	127D	32.	4.08	3.	1.	1.	0.02
+	3 COMBINED AT	CAP2	178.	4.08	16.	4.	4.	0.13
+	ROUTED TO	RCAP2	175.	4.08	16.	4.	4.	0.13
+	HYDROGRAPH AT	127E	142.	4.08	14.	4.	3.	0.10
+	HYDROGRAPH AT	127F	202.	4.08	22.	6.	5.	0.15
+	2 COMBINED AT	CAP3	343.	4.08	36.	9.	9.	0.25
+	ROUTED TO	RCAP3	330.	4.17	36.	9.	9.	0.25
+	HYDROGRAPH AT	127G	93.	4.00	9.	2.	2.	0.06
+	2 COMBINED AT	CAP4	412.	4.08	45.	11.	11.	0.31
+	ROUTED TO	SCAP4	407.	4.08	45.	11.	11.	0.31
+	ROUTED TO	R2CAP4	404.	4.17	45.	11.	11.	0.31
+	HYDROGRAPH AT	127I	12.	4.08	1.	0.	0.	0.01
+	2 COMBINED AT	*CAP5	413.	4.17	46.	12.	11.	0.32
+	HYDROGRAPH AT	127H	28.	4.00	3.	1.	1.	0.02
+	3 COMBINED AT	CAP5	596.	4.17	65.	16.	16.	0.47
+	ROUTED TO	RCAP5	579.	4.17	65.	16.	16.	0.47
+	HYDROGRAPH AT	127J	46.	4.08	5.	1.	1.	0.03
+	2 COMBINED AT	CAP6	616.	4.17	70.	17.	17.	0.50
+	2 COMBINED AT	WW8	954.	4.25	141.	35.	34.	1.14
+	ROUTED TO	RWW8	943.	4.33	141.	35.	34.	1.14
+	HYDROGRAPH AT	126N	91.	4.08	10.	2.	2.	0.08
+	2 COMBINED AT	WW9	979.	4.33	150.	38.	36.	1.22
+	2 COMBINED AT	CER4	1077.	4.33	169.	43.	41.	1.40
+	ROUTED TO	RCER4	1060.	4.33	169.	43.	41.	1.40
+	HYDROGRAPH AT	120F	33.	4.00	3.	1.	1.	0.02
+	2 COMBINED AT	*CER5	1067.	4.33	172.	43.	42.	1.42
+	HYDROGRAPH AT	125A	96.	4.08	12.	3.	3.	0.08
	HYDROGRAPH AT	125B	151.	4.08	18.	4.	4.	0.11

+	2 COMBINED AT	CHK1	247.	4.08	29.	7.	7.	0.19
+	ROUTED TO	RCHK1	244.	4.17	29.	7.	7.	0.19
+	HYDROGRAPH AT	125C	45.	4.08	5.	1.	1.	0.03
+	ROUTED TO	R125C	36.	4.17	5.	1.	1.	0.03
+	HYDROGRAPH AT	125D	16.	4.17	3.	1.	1.	0.02
+	3 COMBINED AT	CHK2	295.	4.17	37.	9.	9.	0.24
+	ROUTED TO	R2CHK2	290.	4.25	37.	9.	9.	0.24
+	HYDROGRAPH AT	125E	71.	4.00	7.	2.	2.	0.05
+	2 COMBINED AT	CHK3	327.	4.25	43.	11.	11.	0.28
+	2 COMBINED AT	CER5	1250.	4.33	211.	53.	51.	1.71
+	ROUTED TO	RCER5	1229.	4.42	211.	53.	51.	1.71
+	HYDROGRAPH AT	120G	55.	4.08	6.	1.	1.	0.04
+	2 COMBINED AT	*CER6	1241.	4.42	215.	54.	52.	1.74
+	HYDROGRAPH AT	124A	96.	4.08	11.	3.	3.	0.07
	HYDROGRAPH AT	124B	76.	4.00	6.	2.	2.	0.04
+	2 COMBINED AT	LOG1	166.	4.08	17.	4.	4.	0.11
+	ROUTED TO	RLOG1	165.	4.08	17.	4.	4.	0.11
+	HYDROGRAPH AT	124D	9.	4.08	1.	0.	0.	0.01
+	2 COMBINED AT	*LOG2	174.	4.08	18.	5.	4.	0.12
+	HYDROGRAPH AT	124C	25.	4.08	3.	1.	1.	0.02
+	2 COMBINED AT	LOG2	199.	4.08	21.	5.	5.	0.14
+	ROUTED TO	RLOG2	187.	4.17	21.	5.	5.	0.14
+	HYDROGRAPH AT	124E	76.	4.08	8.	2.	2.	0.05
+	2 COMBINED AT	LOG3	249.	4.17	29.	7.	7.	0.19
+	2 COMBINED AT	CER6	1342.	4.33	241.	61.	58.	1.94
+	ROUTED TO	RCER6	1335.	4.42	241.	61.	58.	1.94
+	HYDROGRAPH AT	120L	56.	4.08	6.	2.	2.	0.04
+	2 COMBINED AT	*CER7	1349.	4.42	247.	62.	60.	1.97
	HYDROGRAPH AT	120J	5.	4.08	1.	0.	0.	0.01

+	ROUTED TO	R120J	5.	4.08	1.	0.	0.	0.01
+	HYDROGRAPH AT	120K	40.	4.08	4.	1.	1.	0.03
+	2 COMBINED AT	CER7A	45.	4.08	5.	1.	1.	0.04
+	ROUTED TO	SCER7A	45.	4.08	5.	1.	1.	0.04
+	ROUTED TO	RCER7A	41.	4.17	5.	1.	1.	0.04
+	HYDROGRAPH AT	120M	44.	4.08	6.	1.	1.	0.04
+	HYDROGRAPH AT	123B	27.	4.00	2.	1.	1.	0.02
+	ROUTED TO	S123B	27.	4.00	2.	1.	1.	0.02
+	ROUTED TO	R123B	27.	4.08	2.	1.	1.	0.02
+	ROUTED TO	R123B	27.	4.08	2.	1.	1.	0.02
+	4 COMBINED AT	CER7	1386.	4.42	258.	65.	63.	2.07
+	ROUTED TO	RCER7	1374.	4.50	258.	65.	63.	2.07
+	HYDROGRAPH AT	120N	72.	4.00	8.	2.	2.	0.04
+	2 COMBINED AT	*CER8	1387.	4.50	265.	67.	64.	2.12
	HYDROGRAPH AT	123A	98.	4.08	9.	2.	2.	0.08
+	ROUTED TO	S123A	91.	4.17	9.	2.	2.	0.08
+	HYDROGRAPH AT	123D	9.	4.08	1.	0.	0.	0.01
+	2 COMBINED AT	TRV1	99.	4.17	10.	3.	2.	0.09
+	ROUTED TO	RTRV1	89.	4.25	10.	3.	2.	0.09
+	HYDROGRAPH AT	123C	6.	4.00	0.	0.	0.	0.00
+	ROUTED TO	S123C	6.	4.00	0.	0.	0.	0.00
+	ROUTED TO	R123C	6.	4.00	0.	0.	0.	0.00
+	ROUTED TO	R123C	5.	4.17	0.	0.	0.	0.00
+	3 COMBINED AT	CER8	1417.	4.50	273.	69.	66.	2.20
+	ROUTED TO	RCER8	1412.	4.50	273.	69.	66.	2.20
+	HYDROGRAPH AT	120O	15.	4.00	1.	0.	0.	0.01
+	ROUTED TO	S120O	15.	4.00	1.	0.	0.	0.01
+	ROUTED TO	R120O	13.	4.08	1.	0.	0.	0.01
	ROUTED TO	R120O	11.	4.17	1.	0.	0.	0.01

+	HYDROGRAPH AT	120Q	54.	4.08	6.	2.	2.	0.04
+	3 COMBINED AT	*CER9	1426.	4.50	280.	71.	68.	2.25
+	HYDROGRAPH AT	120P	57.	4.00	3.	1.	1.	0.03
+	ROUTED TO	S120P	57.	4.00	3.	1.	1.	0.03
+	ROUTED TO	R120P	48.	4.00	3.	1.	1.	0.03
+	2 COMBINED AT	CER9	1427.	4.50	282.	71.	69.	2.28
+	ROUTED TO	SCER9	1406.	4.58	282.	71.	69.	2.28
+	HYDROGRAPH AT	120R	16.	4.08	2.	1.	1.	0.01
+	HYDROGRAPH AT	120S	10.	4.08	1.	0.	0.	0.01
+	3 COMBINED AT	CER10	1412.	4.58	285.	72.	69.	2.29
+	ROUTED TO	RCER10	1417.	4.58	285.	72.	69.	2.29
+	HYDROGRAPH AT	120T	3.	4.00	0.	0.	0.	0.00
+	2 COMBINED AT	*CER11	1417.	4.58	286.	72.	69.	2.30
+	HYDROGRAPH AT	122C	22.	4.00	2.	1.	0.	0.01
+	DIVERSION TO	DO122C	11.	4.00	1.	0.	0.	0.01
+	HYDROGRAPH AT	D122C	11.	4.00	1.	0.	0.	0.01
+	ROUTED TO	R122C	11.	4.08	1.	0.	0.	0.01
+	HYDROGRAPH AT	122E	51.	4.00	5.	1.	1.	0.03
+	2 COMBINED AT	LSR2B	60.	4.08	6.	2.	1.	0.05
+	ROUTED TO	RLSR2B	60.	4.08	6.	2.	1.	0.05
+	HYDROGRAPH AT	122D	45.	4.08	4.	1.	1.	0.03
+	ROUTED TO	R122D	45.	4.08	4.	1.	1.	0.03
+	HYDROGRAPH AT	122F	13.	4.08	2.	0.	0.	0.01
+	ROUTED TO	R122F	13.	4.08	2.	0.	0.	0.01
+	HYDROGRAPH AT	122G	43.	4.00	4.	1.	1.	0.02
+	4 COMBINED AT	LSR2	155.	4.08	16.	4.	4.	0.11
+	ROUTED TO	RLSR2	147.	4.08	16.	4.	4.	0.11
+	HYDROGRAPH AT	122A	23.	4.08	3.	1.	1.	0.02
+	HYDROGRAPH AT	D122C	11.	4.00	1.	0.	0.	0.01

+	ROUTED TO	RD122C	9.	4.25	1.	0.	0.	0.01
+	2 COMBINED AT	LSR1B	29.	4.17	4.	1.	1.	0.02
+	ROUTED TO	RLSR1B	26.	4.25	4.	1.	1.	0.02
+	HYDROGRAPH AT	122B	61.	4.00	6.	2.	2.	0.03
+	2 COMBINED AT	LSR1	78.	4.08	10.	3.	3.	0.05
+	ROUTED TO	RLSR1	78.	4.08	10.	3.	3.	0.05
+	HYDROGRAPH AT	122H	10.	4.00	1.	0.	0.	0.01
+	HYDROGRAPH AT	122I	10.	4.08	1.	0.	0.	0.01
+	4 COMBINED AT	LSR3	245.	4.08	29.	7.	7.	0.18
+	ROUTED TO	RLSR3	241.	4.08	29.	7.	7.	0.18
+	HYDROGRAPH AT	122J	33.	4.08	3.	1.	1.	0.03
+	2 COMBINED AT	LSR4	273.	4.08	33.	8.	8.	0.20
+	ROUTED TO	RLS4	269.	4.17	33.	8.	8.	0.20
+	HYDROGRAPH AT	122K	4.	4.08	0.	0.	0.	0.00
+	2 COMBINED AT	LSR5	272.	4.17	33.	8.	8.	0.21
+	2 COMBINED AT	CER11	1494.	4.58	315.	80.	77.	2.50
+	ROUTED TO	RCER11	1496.	4.58	315.	80.	77.	2.50
+	HYDROGRAPH AT	120U	34.	4.00	3.	1.	1.	0.02
+	2 COMBINED AT	*CER12	1499.	4.58	318.	80.	77.	2.52
+	HYDROGRAPH AT	121A	56.	4.08	6.	1.	1.	0.05
+	ROUTED TO	R121A	54.	4.17	6.	1.	1.	0.05
+	HYDROGRAPH AT	121B	20.	4.08	2.	1.	1.	0.02
+	2 COMBINED AT	LTD1	74.	4.08	8.	2.	2.	0.07
+	2 COMBINED AT	CER12	1514.	4.58	323.	82.	79.	2.59
+	ROUTED TO	RCER12	1511.	4.58	323.	82.	79.	2.59
+	HYDROGRAPH AT	120V	15.	4.00	1.	0.	0.	0.01
+	2 COMBINED AT	CER13	1513.	4.58	324.	82.	79.	2.60
+	ROUTED TO	RCER13	1501.	4.58	324.	82.	79.	2.60
+	HYDROGRAPH AT	120X	32.	4.00	3.	1.	1.	0.02

+	2 COMBINED AT	*CER14	1504.	4.58	327.	83.	80.	2.62
+	HYDROGRAPH AT	120W	10.	4.00	1.	0.	0.	0.00
+	ROUTED TO	S120W	6.	4.08	1.	0.	0.	0.00
+	ROUTED TO	R120W	6.	4.17	1.	0.	0.	0.00
+	2 COMBINED AT	CER14	1505.	4.58	328.	83.	80.	2.62

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

M.3

CYPRUS POINT WASH

```
****************************************
*                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*              MAY   1991              *
*           VERSION 4.0.1E             *
*     Lahey F77L-EM/32 version 5.01    *
*       Dodson & Associates, Inc.      *
*  RUN DATE  04/13/95  TIME  10:01:27  *
****************************************
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****************************************
*                                      *
*    U.S. ARMY CORPS OF ENGINEERS      *
*    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
```

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

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

  1           ID   CYPRUS POINT WASH - FUTURE CONDITIONS, AGK ENGINEERS, 4-12-95
  2           ID   First routing 5-6-93
  3           ID   10-Year 6-Hour Storm
  4           ID   time steps at 2 minutes
  5           ID   File 130-6XF.DAT
  6           ID
  7           IT       5                    300
  8           IO       5
              *DIAGRAM
  9           IN      15
 10           JD    2.00    0.01
 11           PC    .000    .008    .016    .025    .033    .041    .050    .058    .066    .074
 12           PC    .087    .099    .118    .138    .216    .377    .834    .911    .931    .950
 13           PC    .962    .972    .983    .991   1.000
 14           JD    1.99    0.50
 15           JD    1.96    2.80
 16           PC    .000    .009    .016    .025    .034    .042    .051    .059    .067    .076
 17           PC    .087    .100    .120    .163    .252    .451    .694    .837    .900    .938
 18           PC    .950    .963    .975    .988   1.000
 19           JD    1.84    16.0
 20           PC    .000    .015    .020    .030    .048    .063    .076    .090    .105    .119
 21           PC    .135    .152    .175    .222    .304    .472    .670    .796    .868    .912
 22           PC    .946    .960    .973    .987   1.000
 23           JD    1.62    90.0
 24           PC    .000    .021    .035    .051    .071    .087    .105    .125    .143    .160
 25           PC    .179    .201    .232    .281    .364    .500    .658    .773    .841    .888
 26           PC    .927    .945    .964    .982   1.000
 27           JD    1.14   500.0
 28           PC    .000    .024    .043    .059    .078    .098    .119    .141    .162    .186
 29           PC    .212    .239    .271    .321    .408    .515    .627    .735    .814    .864
 30           PC    .907    .930    .954    .977   1.000

 31           KK    130A
 32           KM   SUB-BASIN 130A
 33           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 34           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 35           BA    .008
 36           LG    .062    .250   5.700    .170  29.620
 37           UC    .183    .441
 38           UA       0       5      16      30      65      77      84      90      94      97
 39           UA     100

 40           KK    130B
 41           KM   SUB-BASIN 130B
 42           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 43           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 44           BA    .031
 45           LG    .150    .250   5.700    .207  28.790
 46           UC    .175    .136
 47           UA       0       5      16      30      65      77      84      90      94      97
 48           UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  49          KK    130C
  50          KM   SUB-BASIN 130C
  51          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  52          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  53          BA    .005
  54          LG    .050    .250   5.700    .170  25.000
  55          UC    .142    .331
  56          UA       0       5      16      30      65      77      84      90      94      97
  57          UA     100

  58          KK   R130C
  59          KM   ROUTE 130C THROUGH 130D
  60          RS       3    FLOW       0
  61          RC    .025    .013    .025    1767    .054
  62          RX    9975    9980    9985    9986   10014   10015   10020   10025
  63          RY  1640.5  1640.5  1640.5    1640    1640  1640.5  1640.5  1640.5

  64          KK    130D
  65          KM   SUB-BASIN 130D
  66          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  67          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  68          BA    .004
  69          LG    .100    .250   5.700    .170  39.850
  70          UC    .158    .470
  71          UA       0       5      16      30      65      77      84      90      94      97
  72          UA     100

  73          KK     CP1
  74          KM   CYPRUS POINT WASH CONC. POINT 1 - 130A, 130B, R130C, 130D
  75          HC       4

  76          KK    RCP1
  77          KM   ROUTE CP1 THROUGH SUB-BASIN 130F TO CON. POINT CP2
  78          RS       4    FLOW       0
  79          RC     .04     .04     .04    1902    .034
  80          RX    9840    9870    9955    9996   10004   10060   10105   10190
  81          RY    1596    1594    1576    1575    1575    1578    1582    1600

  82          KK    130F
  83          KM   SUB-BASIN 130F
  84          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  85          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
  86          BA    .039
  87          LG    .130    .250   5.700    .189  45.000
  88          UC    .237    .243
  89          UA       0       5      16      30      65      77      84      90      94      97
  90          UA     100

  91          KK    *CP2
  92          KM   CYPRUS POINT WASH CONCENTRATION POINT *2 - RCP1, 130F
  93          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  94          KK    130E
  95          KM   SUB-BASIN 130E
  96          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  97          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  98          BA    .004
  99          LG    .050    .250   5.700    .170  45.000
 100          UC    .150    .389
 101          UA       0       5      16      30      65      77      84      90      94      97
 102          UA     100

 103          KK     CP2
 104          KM   CYPRUS POINT WASH CONC. POINT 2 - (RCP1, 130F), 130E
 105          HC       2

 106          KK    RCP2
 107          KM   ROUTE CP2 THROUGH SUB-BASIN 131A TO CON. POINT CP3
 108          RS       1    FLOW       0
 109          RC     .04     .04     .04     553    .026
 110          RX    9820    9840    9910    9965   10050   10120   10160   10190
 111          RY    1546    1544    1534  1530.5  1530.5    1534    1538    1542

 112          KK    131A
 113          KM   SUB-BASIN 131A
 114          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 115          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 116          BA    .049
 117          LG    .121    .250   5.700    .189  36.660
 118          UC    .237    .229
 119          UA       0       5      16      30      65      77      84      90      94      97
 120          UA     100

 121          KK     CP3
 122          KM   CYPRUS POINT WASH CONC. POINT 3 - RCP2, 131A
 123          HC       2

 124          KK    SCP3
 125          KM   ROUTE CP3 THROUGH CULVERT UNDER SAGUARO BLVD.
 126          RS       1    STOR       0
 127          SQ       0      14      50      60     202    1075
 128          SE    1522    1523    1524  1524.5    1525    1526
 129          SV       0    .002    .009    .017
 130          SE    1522    1523    1524    1525

 131          KK    RCP3
 132          KM   ROUTE CP3 THROUGH SUB-BASIN 130G TO CON. POINT CP4
 133          RS       2    FLOW       0
 134          RC    0.04    0.04    0.04     768   0.029
 135          RX    9915    9950    9980    9998   10002   10025   10030   10090
 136          RY    1519    1518    1516   15122    1512    1520    1522    1530
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 137          KK    130G
 138          KM   SUB-BASIN 130G
 139          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 140          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 141          BA    .011
 142          LG    .150    .250   5.300    .222  65.000
 143          UC    .125    .117
 144          UA       0       5      16      30      65      77      84      90      94      97
 145          UA     100

 146          KK   CP4
 147          KM   CYPRUS POINT WASH CONC. POINT 4 - RCP3, 130G
 148          HC       2
 149          ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW
NO.       (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

 31        130A
              .
              .
 40           .        130B
              .           .
              .           .
 49           .           .       130C
              .           .          V
              .           .          V
 58           .           .      R130C
              .           .          .
              .           .          .
 64           .           .          .       130D
              .           .          .          .
              .           .          .          .
 73         CP1.................................
              V
              V
 76        RCP1
              .
              .
 82           .        130F
              .           .
              .           .
 91        *CP2............
              .
              .
 94           .        130E
              .           .
              .           .
103         CP2............
              V
              V
106        RCP2
              .
              .
112           .        131A
              .           .
              .           .
121         CP3............
              V
              V
124        SCP3
              V
              V
131        RCP3
              .
              .
137           .        130G
              .           .
              .           .
146        CP4 ............
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
****************************************
*                                      *
*  FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*            MAY   1991                *
*          VERSION 4.0.1E              *
*    Lahey F77L-EM/32 version 5.01     *
*      Dodson & Associates, Inc.       *
* RUN DATE  04/13/95  TIME  10:01:27   *
****************************************
```

```
****************************************
*                                      *
*    U.S. ARMY CORPS OF ENGINEERS      *
*    HYDROLOGIC ENGINEERING CENTER     *
*          609 SECOND STREET           *
*       DAVIS, CALIFORNIA 95616        *
*           (916) 551-1748             *
*                                      *
****************************************
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                    CYPRUS POINT WASH - FUTURE CONDITIONS, AGK ENGINEERS, 4-12-95
                    First routing 5-6-93
                    10-Year 6-Hour Storm
                    time steps at 2 minutes
                    File 130-6XF.DAT

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

   IT        HYDROGRAPH TIME DATA
                   NMIN          5  MINUTES IN COMPUTATION INTERVAL
                  IDATE      1   0  STARTING DATE
                  ITIME       0000  STARTING TIME
                     NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                 NDDATE      2   0  ENDING DATE
                 NDTIME       0055  ENDING TIME
                  ICENT         19  CENTURY MARK

             COMPUTATION INTERVAL    0.08 HOURS
                  TOTAL TIME BASE   24.92 HOURS

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

10 JD        INDEX STORM NO. 1
                  STRM       2.00  PRECIPITATION DEPTH
                  TRDA       0.01  TRANSPOSITION DRAINAGE AREA

11 PI          PRECIPITATION PATTERN
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01      0.01      0.03
                 0.03      0.03      0.05      0.05      0.05      0.15      0.15      0.15      0.03      0.03
                 0.03      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00

14 JD        INDEX STORM NO. 2
                  STRM       1.99  PRECIPITATION DEPTH
                  TRDA       0.50  TRANSPOSITION DRAINAGE AREA

 0 PI          PRECIPITATION PATTERN
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                 0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01      0.01      0.03
                 0.03      0.03      0.05      0.05      0.05      0.15      0.15      0.15      0.03      0.03
                 0.03      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00      0.00
```

```
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00

15 JD     INDEX STORM NO. 3
              STRM        1.96  PRECIPITATION DEPTH
              TRDA        2.80  TRANSPOSITION DRAINAGE AREA

16 PI       PRECIPITATION PATTERN
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01      0.01      0.03
            0.03      0.03      0.07      0.07      0.07      0.08      0.08      0.08      0.05      0.05
            0.05      0.02      0.02      0.02      0.01      0.01      0.01      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00

19 JD     INDEX STORM NO. 4
              STRM        1.84  PRECIPITATION DEPTH
              TRDA       16.00  TRANSPOSITION DRAINAGE AREA

20 PI       PRECIPITATION PATTERN
            0.01      0.01      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.01
            0.01      0.01      0.00      0.01      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.01      0.00      0.00      0.00      0.00      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.03
            0.03      0.03      0.06      0.06      0.06      0.07      0.07      0.07      0.04      0.04
            0.04      0.02      0.02      0.02      0.01      0.01      0.01      0.01      0.01      0.01
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00

23 JD     INDEX STORM NO. 5
              STRM        1.62  PRECIPITATION DEPTH
              TRDA       90.00  TRANSPOSITION DRAINAGE AREA

PI          PRECIPITATION PATTERN
            0.01      0.01      0.01      0.00      0.00      0.00      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.03
            0.03      0.03      0.05      0.05      0.05      0.05      0.05      0.05      0.04      0.04
            0.04      0.02      0.02      0.02      0.02      0.02      0.02      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01

27 JD     INDEX STORM NO. 6
              STRM        1.14  PRECIPITATION DEPTH
              TRDA      500.00  TRANSPOSITION DRAINAGE AREA

28 PI       PRECIPITATION PATTERN
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.03
            0.03      0.03      0.04      0.04      0.04      0.04      0.04      0.04      0.04      0.04
            0.04      0.03      0.03      0.03      0.02      0.02      0.02      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01
```

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	130A	8.	4.08	1.	0.	0.	0.01		
+	HYDROGRAPH AT	130B	49.	4.00	4.	1.	1.	0.03		
+	HYDROGRAPH AT	130C	6.	4.08	1.	0.	0.	0.00		
+	ROUTED TO	R130C	5.	4.17	1.	0.	0.	0.00		
+	HYDROGRAPH AT	130D	4.	4.08	1.	0.	0.	0.00		
+	4 COMBINED AT	CP1	63.	4.00	6.	2.	1.	0.05		
+	ROUTED TO	RCP1	61.	4.17	6.	2.	1.	0.05		
+	HYDROGRAPH AT	130F	52.	4.08	6.	1.	1.	0.04		
+	2 COMBINED AT	*CP2	111.	4.08	12.	3.	3.	0.09		
+	HYDROGRAPH AT	130E	4.	4.08	1.	0.	0.	0.00		
+	2 COMBINED AT	CP2	115.	4.08	12.	3.	3.	0.09		
+	ROUTED TO	RCP2	113.	4.17	12.	3.	3.	0.09		
+	HYDROGRAPH AT	131A	65.	4.08	7.	2.	2.	0.05		
+	2 COMBINED AT	CP3	172.	4.08	19.	5.	5.	0.14		
+	ROUTED TO	SCP3	172.	4.08	19.	5.	5.	0.14		
+	ROUTED TO	RCP3	172.	4.08	19.	5.	5.	0.14		
+	HYDROGRAPH AT	130G	21.	4.00	2.	0.	0.	0.01		
+	2 COMBINED AT	CP4	189.	4.08	21.	5.	5.	0.15		

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

M.4

JACKLIN WASH

```
****************************************
*                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*              MAY   1991              *
*           VERSION 4.0.1E             *
*     Lahey F77L-EM/32 version 5.01    *
*       Dodson & Associates, Inc.      *
*  RUN DATE  04/13/95  TIME  10:02:13  *
****************************************
```

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

```
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
```

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

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

  1           ID   JACKLIN WASH - FUTURE CONDITIONS, AGK ENGINEERS, 04-12-95
  2           ID   10-Year 6-Hour Storm
  3           ID   time steps at 2 minutes
  4           ID   FILE:  150-6XF.DAT
  5           ID
  6           IT       5                    300
  7           IO       5
              *DIAGRAM
  8           IN      15
  9           JD    2.00    0.01
 10           PC    .000    .008    .016    .025    .033    .041    .050    .058    .066    .074
 11           PC    .087    .099    .118    .138    .216    .377    .834    .911    .931    .950
 12           PC    .962    .972    .983    .991   1.000
 13           JD    1.99    0.50
 14           JD    1.96    2.80
 15           PC    .000    .009    .016    .025    .034    .042    .051    .059    .067    .076
 16           PC    .087    .100    .120    .163    .252    .451    .694    .837    .900    .938
 17           PC    .950    .963    .975    .988   1.000
 18           JD    1.84    16.0
 19           PC    .000    .015    .020    .030    .048    .063    .076    .090    .105    .119
 20           PC    .135    .152    .175    .222    .304    .472    .670    .796    .868    .912
 21           PC    .946    .960    .973    .987   1.000
 22           JD    1.62    90.0
 23           PC    .000    .021    .035    .051    .071    .087    .105    .125    .143    .160
 24           PC    .179    .201    .232    .281    .364    .500    .658    .773    .841    .888
 25           PC    .927    .945    .964    .982   1.000
 26           JD    1.14   500.0
 27           PC    .000    .024    .043    .059    .078    .098    .119    .141    .162    .186
 28           PC    .212    .239    .271    .321    .408    .515    .627    .735    .814    .864
 29           PC    .907    .930    .954    .977   1.000

 30           KK    151A
 31           KM   SUB-BASIN 151A
 32           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 33           BA    .003
 34           LG    .050    .250   5.700    .170  37.530
 35           UC    .096    .156
 36           UA       0       5      16      30      65      77      84      90      94      97
 37           UA     100

 38           KK   D151A
 39           KM   DIVERSION AT INTERSECTION OF KINGSTREE AND KEOTA
 40           DT  DO151A
 41           DI       0      10     100    1000
 42           DQ       0     2.5      25     250

 43           KK   R151A
 44           KM   ROUTE 151A THROUGH SUB-BASIN 151B TO POINT OF CON. KGT1
 45           RS       2    FLOW       0
 46           RC    0.02    0.02    0.02     775    .021
 47           RX    9975    9980    9985    9986   10014   10015   10020   10025
 48           RY  1774.5  1774.5  1774.5    1774    1774  1774.5  1774.5  1774.5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  49          KK    151B
  50          KM   SUB-BASIN 151B
  51          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  52          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  53          BA    .005
  54          LG    .050    .250   5.700    .170  25.000
  55          UC    .125    .272
  56          UA       0       5      16      30      65      77      84      90      94      97
  57          UA     100

  58          KK   D151B
  59          KM   DIVERTION AT INTERSECTION OF KINGSTREE AND FRISCO
  60          DT  DO151B
  61          DI       1      10     100    1000
  62          DQ     0.5       5      50     500

  63          KK    KGT1
  64          KM   KINGSTREE DRAIN CONCENTRATION POINT 1 - COMBINE R151A WITH R151B
  65          HC       2

  66          KK   RKGT1
  67          KM   ROUTE KGT1 THROUGH SUB-BASIN 151C TO POINT OF CON. KGT2
  68          RS       4    FLOW       0
  69          RC    0.02    0.02    0.02    2023   0.026
  70          RX  9956.5  9961.5  9966.5  9966.5 10033.5 10033.5 10038.5 10043.5
  71          RY  1740.5  1740.5  1740.5    1740    1740  1740.5  1740.5  1740.5

  72          KK    151C
  73          KM   SUB-BASIN 151C
  74          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  75          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  76          BA    .005
  77          LG    .050    .250   5.700    .170  25.000
  78          UC    .121    .247
  79          UA       0       5      16      30      65      77      84      90      94      97
  80          UA     100

  81          KK    KGT2
  82          KM   KINGSTREE DRAIN CONCENTRATION POINT 2 - COMBINE RKGT1 WITH 151C
  83          HC       2

  84          KK   RKGT2
  85          KM   ROUTE KGT2 THROUGH SUB-BASIN 151I TO POINT OF CON. KGT3
  86          RS       3    FLOW       0
  87          RC    0.02    0.02    0.02    1577    .082
  88          RX  9956.5  9961.5  9966.5  9966.5 10033.5 10033.5 10038.5 10043.5
  89          RY  1660.5  1660.5  1660.5    1660    1660  1660.5  1660.5  1660.5

  90          KK    151D
  91          KM   SUB-BASIN 151D
  92          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  93          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
  94          BA    .039
  95          LG    .147    .250   5.700    .179  26.030
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  96          UC    .183    .147
  97          UA       0       5      16      30      65      77      84      90      94      97
  98          UA     100

  99          KK    151F
 100          KM   SUB-BASIN 151F
 101          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 102          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 103          BA    .003
 104          LG    .050    .250   5.700    .170  25.000
 105          UC    .142    .358
 106          UA       0       5      16      30      65      77      84      90      94      97
 107          UA     100

 108          KK   D151F
 109          KM   DIVERSION AT INTERSECTION OF EMERALD AND FRISCO
 110          DT  DO151F
 111          DI       1      10     100    1000
 112          DQ     0.5       5      50     500

 113          KK  RD151F
 114          KM   ROUTE THE D151F THROUGH SUB-BASIN 151E TO CON. POINT KGT3
 115          RS       1    FLOW       0
 116          RC    0.02    0.02    0.02     400   0.065
 117          RX    9975    9980    9985    9986   10014   10015   10020   10025
 118          RY  1715.5  1715.5  1715.5    1715    1715  1715.5  1715.5  1715.5

 119          KK   D151B
 120          KM   FLOW FROM DIVERSION AT KINGSTREE AND FRISCO
 121          DR  DO151B

 122          KK  RD151B
 123          KM   ROUTE DIVERTED FLOW THROUGH SUB-BASIN 151E TO CON. POINT KGT3
 124          RS       2    FLOW       0
 125          RC    0.02    0.02    0.02     488    0.98
 126          RX    9975    9980    9985    9986   10014   10015   10020   10025
 127          RY  1730.5  1730.5  1730.5    1730    1730  1730.5  1730.5  1730.5

 128          KK   KGT3A
 129          KM   KINGSTREE CONCENTRATION POINT 3A - COMBINE RD151F, RD151B, 151D
 130          HC       3

 131          KK   R151D
 132          KM   ROUTE KGT3A THROUGH SUB-BASIN 151E TO POINT OF CON. KGT3
 133          RS       7    FLOW       0
 134          RC    0.04    0.04    0.04    3243    .033
 135          RX    9830    9895    9970    9998   10002   10045   10055   10095
 136          RY    1650    1636    1626    1620    1620    1638    1640    1650

 137          KK   151E
 138          KM   SUB-BASIN 151E
 139          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 140          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 141          BA    .066
 142          LG    .150    .250   5.700    .179  25.000
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 143          UC    .217    .245
 144          UA       0       5      16      30      65      77      84      90      94      97
 145          UA     100

 146          KK   *KGT3
 147          KM   KINGSTREE DRAIN CONCENTRATION POINT *3 - RKGT3A, 151E, RKGT2
 148          HC       3

 149          KK    151I
 150          KM   SUB-BASIN 151I
 151          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 152          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 153          BA    .006
 154          LG    .050    .250   5.700    .170  25.000
 155          UC    .142    .298
 156          UA       0       5      16      30      65      77      84      90      94      97
 157          UA     100

 158          KK    KGT3
 159          KM   KINGSTREE DRAIN CONCENTRATION POINT 3 - COMBINE (RKGT2, RKGT3A, 151E), 151I
 160          HC       2

 161          KK   RKGT3
 162          KM   ROUTE KGT3 THROUGH SUB-BASIN 151I TO POINT OF CON. KGT4
 163          RS       1    FLOW       0
 164          RC    0.02    0.02    0.02     120   0.042
 165          RX  9956.5  9961.5  9966.5  9966.5 10033.5 10033.5 10038.5 10043.5
 166          RY  1583.5  1583.5  1583.5    1583    1583  1583.5  1583.5  1853.5

 167          KK    151J
 168          KM   SUB-BASIN 151J
 169          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 170          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 171          BA    .003
 172          LG    .064    .250   5.700    .170  37.090
 173          UC    .083    .102
 174          UA       0       5      16      30      65      77      84      90      94      97
 175          UA     100

 176          KK   *KGT4
 177          KM   KINGSTREE CONCENTRATION POINT *4 - RKGR3, 151J
 178          HC       2

 179          KK    151H
 180          KM   SUB-BASIN 151H
 181          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 182          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 183          BA    .005
 184          LG    .050    .250   5.700    .170  25.000
 185          UC    .179    .518
 186          UA       0       5      16      30      65      77      84      90      94      97
 187          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 188          KK   R151H
 189          KM   ROUTE 151H THROUGH SUB-BASIN 151J TO POINT OF CON. KGT4
 190          RS       1    FLOW       0
 191          RC    0.02    0.02    0.02     424   0.092
 192          RX  9956.5  9961.5  9966.5  9966.5 10033.5 10033.5 10038.5 10043.5
 193          RY  1660.5  1660.5  1660.5    1660    1660  1660.5  1660.5  1660.5

 194          KK    KGT4
 195          KM   KINGSTREE DRAIN CONCENTRATION POINT 4 - COMBINE (RKGT3, 151I), R151H
 196          HC       2

 197          KK   RKGT4
 198          KM   ROUTE KGT4 THROUGH SUB-BASIN 151K TO POINT OF CON. KGT5
 199          RS       2    FLOW       0
 200          RC   0.002    0.02    0.02    1007    0.03
 201          RX    9765    9815    9930    9960   10010   10070   10185   10220
 202          RY    1546    1544    1540  1539.5  1539.5    1542    1546    1548

 203          KK    151K
 204          KM   SUB-BASIN 151K
 205          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 206          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 207          BA    .033
 208          LG    .100    .250   5.700    .171  35.680
 209          UC    .146    .101
 210          UA       0       5      16      30      65      77      84      90      94      97
 211          UA     100

 212          KK    KGT5
 213          KM   KINGSTREE DRAIN CONCENTRATION POINT 5 - COMBINE  RKGT4 AND 151K
 214          HC       2

 215          KK   RKGT5
 216          KM   ROUTE KGT5 THROUGH SUB-BASIN 151L TO POINT OF CON. JKL8
 217          RS       4    FLOW       0
 218          RC    0.02    0.02    0.02    1733   0.019
 219          RX  9956.5  9961.5  9966.5  9966.5 10033.5 10033.5 10038.5 10043.5
 220          RY  1540.7  1540.6  1540.5    1540    1540  1540.5  1540.6  1540.7

 221          KK    151L
 222          KM   SUB-BASIN 151L
 223          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 224          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 225          BA    .052
 226          LG    .063    .250   5.700    .170  57.730
 227          UC    .196    .166
 228          UA       0       5      16      30      65      77      84      90      94      97
 229          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 230          KK    KGT6
 231          KM   KINGSTREE DRAIN CONCENTRATION POINT 6 - RKGT5, 151L
 232          HC       2

 233          KK    152A
 234          KM   SUB-BASIN 152A
 235          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 236          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 237          BA    .040
 238          LG    .150    .250   5.700    .179  25.000
 239          UC    .200    .171
 240          UA       0       5      16      30      65      77      84      90      94      97
 241          UA     100

 242          KK   R152A
 243          KM   ROUTE 152A THROUGH SUB-BASIN 152B TO POINT OF CON. MNG1
 244          RS       2    FLOW       0
 245          RC    0.04    0.04    0.04    1056   0.034
 246          RX    9920    9955    9972    9996   10004   10010   10020   10100
 247          RY    1630    1620    1614    1606    1606    1608    1610    1630

 248          KK    152B
 249          KM   SUB-BASIN 152B
 250          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 251          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 252          BA    .016
 253          LG    .150    .250   5.700    .179  25.000
 254          UC    .179    .197
 255          UA       0       5      16      30      65      77      84      90      94      97
 256          UA     100

 257          KK   *MNG1
 258          KM   MANGRUM DRAIN CONCENTRATION POINT *1 - 152A, 152B
 259          HC       2

 260          KK    152C
 261          KM   SUB-BASIN 152C
 262          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 263          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 264          BA    .013
 265          LG    .150    .250   5.700    .179  25.000
 266          UC    .167    .186
 267          UA       0       5      16      30      65      77      84      90      94      97
 268          UA     100

 269          KK    MNG1
 270          KM   MANGRUM DRAIN CONCENTRATION POINT 1 - COMBINE (R152A, 152B), 152C
 271          HC       2
```

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

 272          KK   RMNG1
 273          KM   ROUTE RMNG1 THROUGH SUB-BASIN 152D TO POINT OF CON. MNG1
 274          RS       3    FLOW       0
 275          RC    0.04    0.04    0.04    1214   0.021
 276          RX    9870    9920    9945    9980   10020   10045   10060   10100
 277          RY    1610    1600    1594  1589.5  1589.5    1596    1600    1610

 278          KK    152D
 279          KM   SUB-BASIN 152D
 280          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 281          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 282          BA    .018
 283          LG    .150    .250   5.700    .179  35.690
 284          UC    .192    .223
 285          UA       0       5      16      30      65      77      84      90      94      97
 286          UA     100

 287          KK   *MNG2
 288          KM   MANGRUM DRAIN CONCENTRATION POINT *2 - RMNG1, 152D
 289          HC       2

 290          KK    152E
 291          KM   SUB-BASIN 152E
 292          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 293          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 294          BA    .017
 295          LG    .198    .250   5.700    .179  25.790
 296          UC    .196    .242
 297          UA       0       5      16      30      65      77      84      90      94      97
 298          UA     100

 299          KK    MNG2
 300          KM   MANGRUM DRAIN CONCENTRATION POINT 2 - COMBINE (RMNG1,152D), 152E
 301          HC       2

 302          KK   RMNG2
 303          KM   ROUTE MNG2 THROUGH SUB-BASIN 152F TO POINT OF CON. JKL7
 304          RS       1    FLOW       0
 305          RC    0.04    0.04    0.04    1066   0.027
 306          RX    9885    9920    9950    9970   10050   10110   10150   10200
 307          RY    1560    1559    1558    1557    1557    1562    1566    1572

 308          KK    152F
 309          KM   SUB-BASIN 152F
 310          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 311          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 312          BA    .014
 313          LG    .154    .250   5.700    .179  43.470
 314          UC    .183    .225
 315          UA       0       5      16      30      65      77      84      90      94      97
 316          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 317          KK    MNG3
 318          KM   MANGRUM DRAIN CONCENTRATION POINT 3 - RMNG2, 152F
 319          HC       2

 320          KK    150A
 321          KM   SUB-BASIN 150A
 322          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 323          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 324          BA    .010
 325          LG    .096    .250   5.800    .168  43.560
 326          UC    .138    .192
 327          UA       0       5      16      30      65      77      84      90      94      97
 328          UA     100

 329          KK   S150A
 330          KM   ROUTE 150A THROUGH 3- 3'X2' GRATES AWAY FROM THE ROAD
 331          RS       1    ELEV    1746
 332          SQ       0       0      17      50      90
 333          SE    1746    1751  1751.5    1752  1752.5
 334          SA    0.03    0.06    0.35    0.59
 335          SE    1746    1748    1750  1753.5

 336          KK    150B
 337          KM   SUB-BASIN 150B
 338          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 339          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 340          BA    .003
 341          LG    .100    .250   5.700    .170  45.000
 342          UC    .112    .228
 343          UA       0       5      16      30      65      77      84      90      94      97
 344          UA     100

 345          KK   R150B
 346          KM   ROUTE 150B THROUGH SUB-BASIN 150C TO STREET CATCH BASIN
 347          RS       1    FLOW       0
 348          RC    0.04    0.04    0.04     287     0.1
 349          RX    9895    9925    9955    9995   10005   10020   10030   10080
 350          RY    1760    1756    1750    1742    1742    1749    1752    1752

 351          KK   S150B
 352          KM   ROUTE R150B THROUGH 36" CULVERT (STREET CATCH BASIN) TO JKL1
 353          RS       1    ELEV    1753
 354          SQ       0      10      27      39
 355          SE    1753  1753.2  1753.4  1753.5
 356          SA       0     0.1
 357          SE    1753  1753.5

 358          KK    JKL1
 359          KM   JACKLIN WASH CONCENTRATION POINT 1 - COMBINE S150A WITH S150B
 360          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 361          KK   RJKL1
 362          KM   ROUTE JKL1 THROUGH SUB-BASIN 150C TO POINT OF CON. JKL2
 363          RS      3     FLOW       0
 364          RC   0.04    0.04    0.04    1469   0.061
 365          RX   9900    9940    9975    9992   10008   10025   10050   10115
 366          RY   1720    1710    1700    1694    1694    1698    1704    1720

 367          KK    150C
 368          KM   SUB-BASIN 150C
 369          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 370          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 371          BA    .022
 372          LG    .150    .250   5.700    .179  25.000
 373          UC    .142    .146
 374          UA       0       5      16      30      65      77      84      90      94      97
 375          UA     100

 376          KK    150D
 377          KM   SUB-BASIN 150D
 378          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 379          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 380          BA    .055
 381          LG    .132    .250   5.700    .176  32.220
 382          UC    .279    .316
 383          UA       0       5      16      30      65      77      84      90      94      97
 384          UA     100

 385          KK    JKL2
 386          KM   JACKLIN WASH CONCENTRATION POINT 2 - COMBINE RJKL1 WITH 150D AND 150C
 387          HC       3

 388          KK   RJKL2
 389          KM   ROUTE JKL2 THROUGH SUB-BASIN 150E TO POINT OF CON. JKL3
 390          RS       1     FLOW       0
 391          RC   0.04    0.04    0.04     573    .003
 392          RX   9840    9920    9980    9992   10008   10045   10070   10165
 393          RY   1690    1668    1666    1664    1664    1668    1670    1690

 394          KK    150E
 395          KM   SUB-BASIN 150E
 396          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 397          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 398          BA    .020
 399          LG    .150    .250   5.700    .179  25.000
 400          UC    .108    .077
 401          UA       0       5      16      30      65      77      84      90      94      97
 402          UA     100

 403          KK    JKL3
 404          KM   JACKLIN WASH CONCENTRATION POINT 3 - COMBINE 150E WITH RJKL2
 405          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 406          KK   SJKL3
 407          KM   ROUTE JKL3 THROUGH CULVERT AT KEOTA DRIVE
 408          RS       1    ELEV    1664
 409          SQ       0      16      48      92     115
 410          SE    1664 1665.75  1667.5    1671    1674
 411          SA    0.17    1.42    4.15
 412          SE    1664    1668    1674

 413          KK    150F
 414          KM   SUB-BASIN 150F
 415          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 416          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 417          BA    .004
 418          LG    .150    .250   5.700    .179  25.000
 419          UC    .108    .169
 420          UA       0       5      16      30      65      77      84      90      94      97
 421          UA     100

 422          KK    150G
 423          KM   SUB-BASIN 150G
 424          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 425          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 426          BA    .005
 427          LG    .050    .250   5.700    .170  25.000
 428          UC    .154    .392
 429          UA       0       5      16      30      65      77      84      90      94      97
 430          UA     100

 431          KK   D151A
 432          KM   FLOW FROM DIVERSION AT KINGSTRE AND KEOTA
 433          DR  DO151A

 434          KK  RD151A
 435          KM   ROUTE DIVERTED FLOW THROUGH 150G TO CON. POINT JKL4
 436          RS       4    FLOW       0
 437          RC    0.02    0.02    0.02    1713   0.062
 438          RX    9975    9980    9985    9986   10014   10015   10020   10025
 439          RY  1750.5  1750.5  1750.5    1750    1750  1750.5  1750.5  1750.5

 440          KK    JKL4
 441          KM   JACKLIN WASH CONCENTRATION POINT 4 - COMBINE SJKL3, 150F, 150G, RD151A
 442          HC       4

 443          KK   RJKL4
 444          KM   ROUTE JKL4 THROUGH SUB-BASIN 150H TO POINT OF CON. JKL5
 445          RS       1    FLOW       0
 446          RC    0.04    0.04    0.04     119   0.067
 447          RX    9780    9835    9920    9990   10003   10010   10035   10045
 448          RY    1560    1550    1546    1536    1536    1540    1554    1560
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 449          KK    150H
 450          KM   SUB-BASIN 150H
 451          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 452          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 453          BA    .032
 454          LG    .150    .250   5.700    .179  25.000
 455          UC    .146    .137
 456          UA      0       5      16      30      65      77      84      90      94      97
 457          UA     100

 458          KK    JKL5
 459          KM   JACKLIN WASH CONCENTRATION POINT 5 - COMBINE RJKL4 WITH 150H
 460          HC      2

 461          KK   RJKL5
 462          KM   ROUTE JKL5 THROUGH SUB-BASIN 150I TO POINT OF CON. JKL6
 463          RS      8    FLOW      0
 464          RC   0.04    0.04    0.04    4453    0.02
 465          RX   9795    9920    9955    9990   10010   10045   10090   10120
 466          RY   1626    1610    1604    1602    1602    1610    1622    1630

 467          KK    150I
 468          KM   SUB-BASIN 150I
 469          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 470          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .998
 471          BA    .117
 472          LG    .162    .250   5.700    .178  35.170
 473          UC    .346    .346
 474          UA      0       5      16      30      65      77      84      90      94      97
 475          UA     100

 476          KK    JKL6
 477          KM   JACKLIN WASH CONCENTRATION POINT 6 - COMBINE RJKL5 WITH 150I
 478          HC      2

 479          KK   RJKL6
 480          KM   ROUTE JKL6 THROUGHT SUB-BASIN 150K TO POINT OF CON. JKL6
 481          KM   LENGTH 345 INCEREASED FOR STABILITY
 482          RS      1    FLOW      0
 483          RC   0.04    0.04    0.04     700    0.02
 484          RX   9765    9815    9930    9960   10010   10070   10185   10220
 485          RY   1546    1544    1540  1539.5  1539.5    1542    1546    1548

 486          KK    150J
 487          KM   SUB-BASIN 150J
 488          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 489          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 490          BA    .010
 491          LG    .050    .250   5.700    .170  34.720
 492          UC    .225    .742
 493          UA      0       5      16      30      65      77      84      90      94      97
 494          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 495          KK   R150J
 496          KM   ROUTE 150J THROUGH SUB-BASIN 150K TO POINT OF CON. JKL7
 497          RS       1    FLOW       0
 498          RC    0.04    0.04    0.04     437   0.032
 499          RX    9765    9815    9930    9960   10010   10070   10185   10220
 500          RY    1546    1544    1540  1539.5  1539.5    1542    1546    1548

 501          KK    150K
 502          KM   SUB-BASIN 150K
 503          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 504          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 505          BA    .009
 506          LG    .100    .250   5.700    .170  45.000
 507          UC    .121    .149
 508          UA       0       5      16      30      65      77      84      90      94      97
 509          UA     100

 510          KK   *JKL7
 511          KM   JAKLIN WASH CONCENTRATION POINT *7 COMBINES RJKL6, 150J, 150K
 512          HC       3

 513          KK    JKL7
 514          KM   JACKLIN WASH CONCENTRATION POINT 7 - COMBINE (RJKL6, 150J, 150K), MNG3
 515          HC       2

 516          KK   RJKL7
 517          KM   ROUTE JKL7 THROUGH SUB-BASIN 150L TO POINT OF CON. JKL8
 518          RS       2    FLOW       0
 519          RC    0.04    0.04    0.04    1073    .020
 520          RX    9875    9895    9925    9965   10035   10070   10090   10112
 521          RY    1536    1536    1528    1525    1525    1528    1532    1537

 522          KK    150L
 523          KM   SUB-BASIN 150L
 524          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 525          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 526          BA    .010
 527          LG    .200    .250   5.700    .179  45.000
 528          UC    .167    .245
 529          UA       0       5      16      30      65      77      84      90      94      97
 530          UA     100

 531          KK   *JKL8
 532          KM   JACKLING WASH CONCENTRATION POINT *8 - COMBINE  RJKL7, 150L
 533          HC       2

 534          KK    JKL8
 535          KM   JACKLING WASH CONCENTRATION POINT 8 - COMBINE  (RJKL7, 150L), RKGT5
 536          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 537          KK   SJKL8
 538          KM   ROUTE JKL8 THROUGH 7x14 BOX CULVERT AT SAGUARO BLV.
 539          RS       1    ELEV  1514.3
 540          SQ       0     273     504     756    1190
 541          SE  1514.3  1517.8  1519.6  1521.3  1524.8
 542          SA       0    0.04    1.19
 543          SE  1514.3    1518    1525

 544          KK   RJKL8
 545          KM   ROUTE RJKL8 THROUGH SUB-BASIN 150M TO POINT OF CON. JKL9
 546          KM   LENGTH 603 INCREASED FOR STABILITY
 547          RS       1    FLOW       0
 548          RC     .04    0.04    0.04    1000    0.02
 549          RX    9760    9820    9890    9975   10000   10060   10120   10220
 550          RY    1515    1514    1512    1508    1508    1512    1516    1520

 551          KK    150M
 552          KM   SUB-BASIN 150M
 553          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 554          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 555          BA    .023
 556          LG    .200    .250   5.100    .232  45.000
 557          UC    .150    .119
 558          UA       0       5      16      30      65      77      84      90      94      97
 559          UA     100

 560          KK    JKL9
 561          KM   JACKLING WASH CONCENTRATION POINT 9 - COMBINE  SJKL8, 150M
 562          HC       2

 563          KK   SJKL9
 564          KM   ROUTE JKL9 THROUGH CULVERT AT INDIAN WELLS DRIVE.
 565          RS       1    ELEV 1501.73
 566          SQ       0      74     224     440     640     800    1350
 567          SE  1501.7  1504.2  1506.7  1511.7  1512.2  1512.7  1513.2
 568          SA       0    0.03    1.03
 569          SE  501.73    1504    1511

 570          KK    150N
 571          KM   SUB-BASIN 150N
 572          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 573          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 574          BA    .001
 575          LG    .050    .250   5.600    .180  45.000
 576          UC    .096    .223
 577          UA       0       5      16      30      65      77      84      90      94      97
 578          UA     100

 579          KK    150O
 580          KM   SUB-BASIN 150O
 581          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 582          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 583          BA    .004
 584          LG    .050    .250   4.350    .330  45.000
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 585          UC    .175    .370
 586          UA       0       5      16      30      65      77      84      90      94      97
 587          UA     100

 588          KK   JKL10
 589          KM   JACKLING WASH CONCENTRATION POINT 10 - COMBINE  SJKL9, 150N, 150O
 590          HC       3

 591          KK  RJKL10
 592          KM   ROUTE RJKL10 THROUGH SUB-BASIN 150P TO POINT OF CON. JKL11
 593          RS       1    FLOW       0
 594          RC    0.04    0.04    0.04     231    .022
 595          RX    9945    9950    9970    9995   10010   10025   10045   10170
 596          RY    1516    1514    1508  1499.5  1499.5    1504    1510    1511

 597          KK    150P
 598          KM   SUB-BASIN 150P
 599          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 600          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 601          BA    .001
 602          LG    .250    .250   4.800    .443  45.000
 603          UC    .112    .200
 604          UA       0       3       5       8      12      20      43      75      90      96
 605          UA     100

 606          KK   JKL11
 607          KM   JACKLING WASH CONCENTRATION POINT 11 - COMBINE  RJKL10, 150DP
 608          HC       2
 609          ZZ
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            SCHEMATIC DIAGRAM OF STREAM NETWORK
LINE     (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

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

 30        151A
              .
              .
 40           .-------> DO151A
 38      D151A
              V
              V
 43      R151A
              .
              .
 49           .        151B
              .           .
              .           .
 60           .           .-------> DO151B
 58           .       D151B
              .           .
              .           .
 63       KGT1............
              V
              V
 66      RKGT1
              .
              .
 72           .        151C
              .           .
              .           .
 81       KGT2............
              V
              V
         RKGT2
              .
              .
 90           .        151D
              .           .
              .           .
 99           .           .        151F
              .           .           .
              .           .           .
110           .           .           .-------> DO151F
108           .           .       D151F
              .           .           V
              .           .           V
113           .           .      RD151F
              .           .           .
              .           .           .
121           .           .           .          .<-------  DO151B
119           .           .           .      D151B
              .           .           .          V
              .           .           .          V
122           .           .           .      RD151B
              .           .           .          .
              .           .           .          .
128           .       KGT3A.......................
              .           V
              .           V
131           .       R151D
              .           .
              .           .
137           .           .       151E
              .           .           .
              .           .           .
146      *KGT3........................
              .
              .
              .        151I
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        .          .
        .          .
    KGT3............
        V
        V
161 RKGT3
        .
        .
167     .       151J
        .          .
        .          .
176 *KGT4............
        .
        .
179     .       151H
        .          V
        .          V
188     .      R151H
        .          .
        .          .
194 KGT4............
        V
        V
197 RKGT4
        .
        .
203     .       151K
        .          .
        .          .
212 KGT5............
        V
        V
215 RKGT5
        .
        .
        .       151L
        .          .
        .          .
230 KGT6............
        .
        .
233     .       152A
        .          V
        .          V
242     .      R152A
        .          .
        .          .
248     .          .        152B
        .          .           .
        .          .           .
257     .     *MNG1............
        .          .
        .          .
260     .          .        152C
        .          .           .
        .          .           .
269     .      MNG1............
        .          V
        .          V
272     .     RMNG1
        .          .
        .          .
278     .          .        152D
        .          .           .
        .          .           .
287     .     *MNG2............
        .          .
        .          .
290     .          .        152E
        .          .           .
        .          .           .
        .      MNG2............
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```
        .        V
        .        V
        .     RMNG2
        .        .
        .        .
308     .        .      152F
        .        .        .
        .        .        .
317     .     MNG3............
        .        .
        .        .
320     .        .      150A
        .        .        V
        .        .        V
329     .        .     S150A
        .        .        .
        .        .        .
336     .        .        .      150B
        .        .        .        V
        .        .        .        V
345     .        .        .     R150B
        .        .        .        V
        .        .        .        V
351     .        .        .     S150B
        .        .        .        .
        .        .        .        .
358     .        .      JKL1............
        .        .        V
        .        .        V
361     .        .     RJKL1
        .        .        .
        .        .        .
367     .        .        .      150C
        .        .        .        .
        .        .        .        .
        .        .        .        .        150D
        .        .        .        .          .
        .        .        .        .          .
385     .        .      JKL2......................
        .        .        V
        .        .        V
388     .        .     RJKL2
        .        .        .
        .        .        .
394     .        .        .      150E
        .        .        .        .
        .        .        .        .
403     .        .      JKL3............
        .        .        V
        .        .        V
406     .        .     SJKL3
        .        .        .
        .        .        .
413     .        .        .      150F
        .        .        .        .
        .        .        .        .
422     .        .        .        .        150G
        .        .        .        .          .
        .        .        .        .          .
433     .        .        .        .          .          .<-------  DO151A
431     .        .        .        .          .      D151A
        .        .        .        .          .          V
        .        .        .        .          .          V
434     .        .        .        .          .     RD151A
        .        .        .        .          .          .
        .        .        .        .          .          .
440     .        .      JKL4.................................
        .        .        V
        .        .        V
443     .        .     RJKL4
        .        .        .
        .        .        .
```

```
449          .          .          .        150H
             .          .          .          .
             .          .          .          .
458          .          .       JKL5............
             .          .          V
             .          .          V
461          .          .      RJKL5
             .          .          .
             .          .          .
467          .          .          .        150I
             .          .          .          .
             .          .          .          .
476          .          .       JKL6............
             .          .          V
             .          .          V
479          .          .      RJKL6
             .          .          .
             .          .          .
486          .          .          .        150J
             .          .          .          V
             .          .          .          V
495          .          .          .       R150J
             .          .          .          .
             .          .          .          .
501          .          .          .          .        150K
             .          .          .          .          .
             .          .          .          .          .
510          .          .      *JKL7........................
             .          .          .
             .          .          .
513          .       JKL7............
             .          V
             .          V
516          .      RJKL7
             .          .
             .          .
             .          .       150L
             .          .          .
             .          .          .
531          .      *JKL8............
             .          .
             .          .
534       JKL8............
             V
             V
537      SJKL8
             V
             V
544      RJKL8
             .
             .
551          .       150M
             .          .
             .          .
560       JKL9............
             V
             V
563      SJKL9
             .
             .
570          .       150N
             .          .
             .          .
579          .          .       1500
             .          .          .
             .          .          .
588      JKL10........................
             V
             V
591      RJKL10
             .
             .
```

```
597          .        150P
             .          .
             .          .
606      JKL11..........
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
****************************************
*                                      *
*  FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*            MAY   1991                *
*          VERSION 4.0.1E              *
*    Lahey F77L-EM/32 version 5.01     *
*      Dodson & Associates, Inc.       *
* RUN DATE  04/13/95  TIME  10:02:13   *
****************************************
```

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

```
                    JACKLIN WASH - FUTURE CONDITIONS, AGK ENGINEERS, 04-12-95
                    10-Year 6-Hour Storm
                    time steps at 2 minutes
                    FILE:  150-6XF.DAT

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

    IT        HYDROGRAPH TIME DATA
                     NMIN          5  MINUTES IN COMPUTATION INTERVAL
                    IDATE      1   0  STARTING DATE
                    ITIME       0000  STARTING TIME
                       NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE      2   0  ENDING DATE
                   NDTIME       0055  ENDING TIME
                    ICENT         19  CENTURY MARK

              COMPUTATION INTERVAL    0.08 HOURS
                   TOTAL TIME BASE   24.92 HOURS

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

  9 JD        INDEX STORM NO. 1
                    STRM       2.00  PRECIPITATION DEPTH
                    TRDA       0.01  TRANSPOSITION DRAINAGE AREA

 10 PI          PRECIPITATION PATTERN
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01      0.01      0.03
                   0.03      0.03      0.05      0.05      0.05      0.15      0.15      0.15      0.03      0.03
                   0.03      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00

 13 JD        INDEX STORM NO. 2
                    STRM       1.99  PRECIPITATION DEPTH
                    TRDA       0.50  TRANSPOSITION DRAINAGE AREA

  0 PI          PRECIPITATION PATTERN
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01      0.01      0.03
                   0.03      0.03      0.05      0.05      0.05      0.15      0.15      0.15      0.03      0.03
                   0.03      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
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```
                0.00      0.00

JD          INDEX STORM NO. 3
                STRM        1.96  PRECIPITATION DEPTH
                TRDA        2.80  TRANSPOSITION DRAINAGE AREA

15 PI         PRECIPITATION PATTERN
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01      0.01      0.03
                0.03      0.03      0.07      0.07      0.07      0.08      0.08      0.08      0.05      0.05
                0.05      0.02      0.02      0.02      0.01      0.01      0.01      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00

18 JD       INDEX STORM NO. 4
                STRM        1.84  PRECIPITATION DEPTH
                TRDA       16.00  TRANSPOSITION DRAINAGE AREA

19 PI         PRECIPITATION PATTERN
                0.01      0.01      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.01
                0.01      0.01      0.00      0.01      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.01      0.00      0.00      0.00      0.00      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.03
                0.03      0.03      0.06      0.06      0.06      0.07      0.07      0.07      0.04      0.04
                0.04      0.02      0.02      0.02      0.01      0.01      0.01      0.01      0.01      0.01
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00

22 JD       INDEX STORM NO. 5
                STRM        1.62  PRECIPITATION DEPTH
                TRDA       90.00  TRANSPOSITION DRAINAGE AREA

23 PI         PRECIPITATION PATTERN
                0.01      0.01      0.01      0.00      0.00      0.00      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.03
                0.03      0.03      0.05      0.05      0.05      0.05      0.05      0.05      0.04      0.04
                0.04      0.02      0.02      0.02      0.02      0.02      0.02      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01

26 JD       INDEX STORM NO. 6
                STRM        1.14  PRECIPITATION DEPTH
                TRDA      500.00  TRANSPOSITION DRAINAGE AREA

27 PI         PRECIPITATION PATTERN
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.03
                0.03      0.03      0.04      0.04      0.04      0.04      0.04      0.04      0.04      0.04
                0.04      0.03      0.03      0.03      0.02      0.02      0.02      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01
WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO
```

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	151A	5.	4.00	0.	0.	0.	0.00		
+	DIVERSION TO	DO151A	1.	4.00	0.	0.	0.	0.00		
+	HYDROGRAPH AT	D151A	4.	4.00	0.	0.	0.	0.00		
+	ROUTED TO	R151A	4.	4.08	0.	0.	0.	0.00		
+	HYDROGRAPH AT	151B	6.	4.08	1.	0.	0.	0.00		
+	DIVERSION TO	DO151B	3.	4.08	0.	0.	0.	0.00		
+	HYDROGRAPH AT	D151B	3.	4.08	0.	0.	0.	0.00		
+	2 COMBINED AT	KGT1	7.	4.08	1.	0.	0.	0.01		
+	ROUTED TO	RKGT1	5.	4.33	1.	0.	0.	0.01		
+	HYDROGRAPH AT	151C	7.	4.00	1.	0.	0.	0.00		
+	2 COMBINED AT	KGT2	8.	4.25	1.	0.	0.	0.01		
+	ROUTED TO	RKGT2	8.	4.33	1.	0.	0.	0.01		
+	HYDROGRAPH AT	151D	60.	4.00	5.	1.	1.	0.04		
+	HYDROGRAPH AT	151F	3.	4.08	0.	0.	0.	0.00		
+	DIVERSION TO	DO151F	2.	4.08	0.	0.	0.	0.00		
+	HYDROGRAPH AT	D151F	2.	4.08	0.	0.	0.	0.00		
+	ROUTED TO	RD151F	2.	4.08	0.	0.	0.	0.00		
+	HYDROGRAPH AT	D151B	3.	4.08	0.	0.	0.	0.00		
+	ROUTED TO	RD151B	3.	4.08	0.	0.	0.	0.00		
+	3 COMBINED AT	KGT3A	64.	4.00	5.	1.	1.	0.04		
+	ROUTED TO	R151D	61.	4.17	5.	1.	1.	0.04		

+	HYDROGRAPH AT	151E	82.	4.08	8.	2.	2.	0.07
+	3 COMBINED AT	*KGT3	139.	4.08	15.	4.	4.	0.12
+	HYDROGRAPH AT	151I	7.	4.08	1.	0.	0.	0.01
+	2 COMBINED AT	KGT3	146.	4.08	16.	4.	4.	0.13
+	ROUTED TO	RKGT3	146.	4.08	16.	4.	4.	0.13
+	HYDROGRAPH AT	151J	6.	4.00	0.	0.	0.	0.00
+	2 COMBINED AT	*KGT4	150.	4.08	16.	4.	4.	0.13
+	HYDROGRAPH AT	151H	4.	4.08	1.	0.	0.	0.00
+	ROUTED TO	R151H	4.	4.17	1.	0.	0.	0.00
+	2 COMBINED AT	KGT4	155.	4.08	17.	4.	4.	0.13
+	ROUTED TO	RKGT4	154.	4.17	17.	4.	4.	0.13
+	HYDROGRAPH AT	151K	62.	4.00	5.	1.	1.	0.03
+	2 COMBINED AT	KGT5	192.	4.08	21.	5.	5.	0.17
+	ROUTED TO	RKGT5	191.	4.17	21.	5.	5.	0.17
+	HYDROGRAPH AT	151L	83.	4.00	9.	2.	2.	0.05
+	2 COMBINED AT	KGT6	261.	4.08	30.	7.	7.	0.22
+	HYDROGRAPH AT	152A	57.	4.08	5.	1.	1.	0.04
+	ROUTED TO	R152A	57.	4.08	5.	1.	1.	0.04
+	HYDROGRAPH AT	152B	22.	4.08	2.	0.	0.	0.02
+	2 COMBINED AT	*MNG1	79.	4.08	7.	2.	2.	0.06
+	HYDROGRAPH AT	152C	18.	4.00	2.	0.	0.	0.01
+	2 COMBINED AT	MNG1	97.	4.08	9.	2.	2.	0.07
+	ROUTED TO	RMNG1	93.	4.17	9.	2.	2.	0.07
+	HYDROGRAPH AT	152D	24.	4.08	2.	1.	1.	0.02

+	2 COMBINED AT	*MNG2	113.	4.08	11.	3.	3.	0.09
+	HYDROGRAPH AT	152E	21.	4.08	2.	1.	1.	0.02
+	2 COMBINED AT	MNG2	134.	4.08	13.	3.	3.	0.10
+	ROUTED TO	RMNG2	128.	4.17	13.	3.	3.	0.10
+	HYDROGRAPH AT	152F	19.	4.08	2.	1.	0.	0.01
+	2 COMBINED AT	MNG3	144.	4.17	15.	4.	4.	0.12
+	HYDROGRAPH AT	150A	15.	4.00	1.	0.	0.	0.01
+	ROUTED TO	S150A	0.	0.08	0.	0.	0.	0.01
+	HYDROGRAPH AT	150B	4.	4.00	0.	0.	0.	0.00
+	ROUTED TO	R150B	4.	4.00	0.	0.	0.	0.00
+	ROUTED TO	S150B	4.	4.08	0.	0.	0.	0.00
+	2 COMBINED AT	JKL1	4.	4.08	0.	0.	0.	0.01
+	ROUTED TO	RJKL1	4.	4.08	0.	0.	0.	0.01
+	HYDROGRAPH AT	150C	35.	4.00	3.	1.	1.	0.02
+	HYDROGRAPH AT	150D	61.	4.08	7.	2.	2.	0.05
+	3 COMBINED AT	JKL2	97.	4.08	11.	3.	3.	0.09
+	ROUTED TO	RJKL2	90.	4.17	11.	3.	3.	0.09
+	HYDROGRAPH AT	150E	39.	4.00	2.	1.	1.	0.02
+	2 COMBINED AT	JKL3	115.	4.08	13.	3.	3.	0.11
+	ROUTED TO	SJKL3	53.	4.42	13.	3.	3.	0.11
+	HYDROGRAPH AT	150F	6.	4.00	1.	0.	0.	0.00
+	HYDROGRAPH AT	150G	5.	4.08	1.	0.	0.	0.00
+	HYDROGRAPH AT	D151A	1.	4.00	0.	0.	0.	0.00
+	ROUTED TO	RD151A	1.	4.25	0.	0.	0.	0.00

+	4 COMBINED AT	JKL4	58.	4.25	14.	4.	3.	0.12
+	ROUTED TO	RJKL4	58.	4.25	14.	4.	3.	0.12
+	HYDROGRAPH AT	150H	52.	4.00	4.	1.	1.	0.03
+	2 COMBINED AT	JKL5	97.	4.08	18.	5.	4.	0.15
+	ROUTED TO	RJKL5	90.	4.33	18.	5.	4.	0.15
+	HYDROGRAPH AT	150I	121.	4.17	16.	4.	4.	0.12
+	2 COMBINED AT	JKL6	192.	4.25	34.	9.	8.	0.27
+	ROUTED TO	RJKL6	191.	4.25	34.	9.	8.	0.27
+	HYDROGRAPH AT	150J	7.	4.17	1.	0.	0.	0.01
+	ROUTED TO	R150J	7.	4.17	1.	0.	0.	0.01
+	HYDROGRAPH AT	150K	15.	4.00	1.	0.	0.	0.01
+	3 COMBINED AT	*JKL7	203.	4.25	36.	9.	9.	0.29
+	2 COMBINED AT	JKL7	336.	4.17	52.	13.	13.	0.41
+	ROUTED TO	RJKL7	336.	4.25	51.	13.	13.	0.41
+	HYDROGRAPH AT	150L	13.	4.08	1.	0.	0.	0.01
+	2 COMBINED AT	*JKL8	344.	4.25	53.	13.	13.	0.41
+	2 COMBINED AT	JKL8	558.	4.17	81.	21.	20.	0.63
+	ROUTED TO	SJKL8	549.	4.25	81.	21.	20.	0.63
+	ROUTED TO	RJKL8	547.	4.25	81.	21.	20.	0.63
+	HYDROGRAPH AT	150M	40.	4.00	3.	1.	1.	0.02
+	2 COMBINED AT	JKL9	556.	4.25	84.	21.	20.	0.66
+	ROUTED TO	SJKL9	536.	4.33	84.	21.	21.	0.66
+	HYDROGRAPH AT	150N	1.	4.00	0.	0.	0.	0.00
+	HYDROGRAPH AT	150O	4.	4.08	1.	0.	0.	0.00

	3 COMBINED AT						
+	JKL10	538.	4.33	85.	21.	21.	0.66
	ROUTED TO						
+	RJKL10	526.	4.33	85.	21.	21.	0.66
	HYDROGRAPH AT						
+	150P	1.	4.00	0.	0.	0.	0.00
	2 COMBINED AT						
+	JKL11	526.	4.33	85.	21.	21.	0.66

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

M.5

EMERALD WASH

```
*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*              MAY   1991               *
*            VERSION 4.0.1E             *
*     Lahey F77L-EM/32 version 5.01     *
*       Dodson & Associates, Inc.       *
*  RUN DATE  04/13/95  TIME  10:03:56   *
*****************************************
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*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    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
```

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

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

  1           ID   EMERALD WASH - FUTURE CONDITIONS, AGK ENGINEERS, 04-12-95
  2           ID   10-Year 6-Hour Storm
  3           ID   time steps at 2 minutes
  4           ID   FILE 160-6XF.DAT
  5           ID
  6           IT       5                    300
  7           IO       5
              *DIAGRAM
  8           IN      15
  9           JD    2.00    0.01
 10           PC    .000    .008    .016    .025    .033    .041    .050    .058    .066    .074
 11           PC    .087    .099    .118    .138    .216    .377    .834    .911    .931    .950
 12           PC    .962    .972    .983    .991   1.000
 13           JD    1.99    0.50
 14           JD    1.96    2.80
 15           PC    .000    .009    .016    .025    .034    .042    .051    .059    .067    .076
 16           PC    .087    .100    .120    .163    .252    .451    .694    .837    .900    .938
 17           PC    .950    .963    .975    .988   1.000
 18           JD    1.84    16.0
 19           PC    .000    .015    .020    .030    .048    .063    .076    .090    .105    .119
 20           PC    .135    .152    .175    .222    .304    .472    .670    .796    .868    .912
 21           PC    .946    .960    .973    .987   1.000
 22           JD    1.62    90.0
 23           PC    .000    .021    .035    .051    .071    .087    .105    .125    .143    .160
 24           PC    .179    .201    .232    .281    .364    .500    .658    .773    .841    .888
 25           PC    .927    .945    .964    .982   1.000
 26           JD    1.14   500.0
 27           PC    .000    .024    .043    .059    .078    .098    .119    .141    .162    .186
 28           PC    .212    .239    .271    .321    .408    .515    .627    .735    .814    .864
 29           PC    .907    .930    .954    .977   1.000

 30           KK    160V
 31           KM   SUB-BASIN 160V
 32           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 33           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 34           BA    .005
 35           LG    .050    .250   5.700    .170  25.000
 36           UC    .108    .192
 37           UA       0       5      16      30      65      77      84      90      94      97
 38           UA     100

 39           KK   R160V
 40           KM   ROUTE 160V THROUGH SUB-BASIN 160W TO POINT OF CON. EMR13A
 41           RS       1    FLOW       0
 42           RC    0.02    0.02    0.02     550   0.022
 43           RX    9975    9980    9985    9986   10014   10015   10020   10025
 44           RY  1730.5  1730.5  1730.5    1730    1730  1730.5  1730.5  1730.5

 45           KK    160W
 46           KM   SUB-BASIN 160W
 47           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 48           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 49           BA    .002
 50           LG    .050    .250   5.700    .170  25.000
 51           UC    .083    .139
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  52          UA       0       5      16      30      65      77      84      90      94      97
  53          UA     100

  54          KK  EMR13A
  55          KM   EMERAL WASH CONCENTRATION POIT 13A - COMBINE  R160V, 160W
  56          HC       2

  57          KK   D160W
  58          KM   DIVERSION AT INCA AV. AND BARON DR.
  59          DT  DO160W
  60          DI       1      10     100    1000
  61          DQ     0.2       2      20     200

  62          KK  REM13A
  63          KM   ROUTE EMR13A THROUGH SUB-BASIN 160X TO POINT OF CON. EMR13B
  64          RS       3    FLOW       0
  65          RC    0.02    0.02    0.02    1678   0.046
  66          RX    9975    9980    9985    9986   10014   10015   10020   10025
  67          RY  1660.5  1660.5  1660.5    1660    1660  1660.5  1660.5  1660.5

  68          KK    160X
  69          KM   SUB-BASIN 160X
  70          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  71          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  72          BA    .029
  73          LG    .150    .250   5.700    .196  26.300
  74          UC    .200    .187
  75          UA       0       5      16      30      65      77      84      90      94      97
  76          UA     100

  77          KK  EMR13B
  78          KM   EMERAL WASH CONCENTRATION POIT 13B - COMBINE REM13A, 160X
  79          HC       2

  80          KK  REM13B
  81          KM   ROUTE EMR13B THROUGH SUB-BASIN 160Z TO POINT OF CON. EMR13C
  82          RS       7    FLOW       0
  83          RC    0.02    0.02    0.02    4072   0.029
  84          RX    9975    9980    9985    9986   10014   10015   10020   10025
  85          RY  1560.5  1560.5  1560.5    1560    1560  1560.5  1560.5  1560.5

  86          KK    160Y
  87          KM   SUB-BASIN 160Y
  88          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  89          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  90          BA    .004
  91          LG    .100    .250   5.700    .189  45.000
  92          UC    .117    .183
  93          UA       0       5      16      30      65      77      84      90      94      97
  94          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 95           KK   R160Y
 96           KM   ROUTE 160Y THROUGH SUB-BASIN 160Z TO POINT OF CON. EMR13C
 97           RS       1    FLOW       0
 98           RC    0.02    0.02    0.02     347   0.046
 99           RX    9975    9980    9985    9986   10014   10015   10020   10025
100           RY  1560.5  1560.5  1560.5    1560    1560  1560.5  1560.5  1560.5

101           KK    160Z
102           KM   SUB-BASIN 160Z
103           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
104           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
105           BA    .061
106           LG    .099    .250   5.700    .178  45.650
107           UC    .250    .343
108           UA       0       5      16      30      65      77      84      90      94      97
109           UA     100

110           KK   EMR13C
111           KM   EMERAL WASH CONCENTRATION POIT 13C - COMBINE REM13C, R160Y, 160Z
112           HC       3

113           KK    160G
114           KM   SUB-BASIN 160G
115           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
116           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
117           BA    .023
118           LG    .100    .250   5.700    .170  45.000
119           UC    .229    .373
120           UA       0       5      16      30      65      77      84      90      94      97
121           UA     100

122           KK   R160G
123           KM   ROUTE 160G THROUGH SUB-BASIN 160H TO POINT OF CON. EMR1
124           RS       6    FLOW       0
125           RC    0.02    0.02    0.02    3056    0.29
126           RX    9975    9980    9985    9986   10014   10015   10020   10025
127           RY  1910.5  1910.5  1910.5    1910    1910  1910.5  1910.5  1910.5

128           KK    160H
129           KM   SUB-BASIN 160H
130           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
131           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
132           BA    .020
133           LG    .086    .250   5.700    .170  39.350
134           UC    .162    .308
135           UA       0       5      16      30      65      77      84      90      94      97
136           UA     100

137           KK    EMR1
138           KM   EMERAL WASH CONCENTRATION POIT 1 - COMBINE R160G AND 160H
139           HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 140          KK   REMR1
 141          KM   ROUTE EMR1 THROUGH SUB-BASIN 160I TO POINT OF CON. EMR2
 142          RS       2    FLOW       0
 143          RC    0.02    0.02    0.02     695   0.058
 144          RX    9975    9980    9985    9986   10014   10015   10020   10025
 145          RY  1830.5  1830.5  1830.5    1830    1830  1830.5  1830.5  1830.5

 146          KK    160I
 147          KM   SUB-BASIN 160I
 148          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 149          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 150          BA    .005
 151          LG    .085    .250   5.700    .170  39.150
 152          UC    .150    .234
 153          UA       0       5      16      30      65      77      84      90      94      97
 154          UA     100

 155          KK    160J
 156          KM   SUB-BASIN 160J
 157          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 158          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 159          BA    .008
 160          LG    .093    .250   5.700    .170  42.000
 161          UC    .083    .058
 162          UA       0       5      16      30      65      77      84      90      94      97
 163          UA     100

 164          KK    EMR2
 165          KM   EMERAL WASH CONCENTRATION POIT 2 - COMBINE REMR1, 160I, 160J
 166          HC       3

 167          KK   REMR2
 168          KM   ROUTE EMR2 THROUGH SUB-BASIN 160K TO POINT OF CON. EMR3
 169          RS       2    FLOW       0
 170          RC    0.04    0.04    0.04    1113    .073
 171          RX    9860    9930    9975    9980   10030   10055   10095   10130
 172          RY    1764    1750    1744    1742    1742    1748    1756    1760

 173          KK    160K
 174          KM   SUB-BASIN 160K
 175          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 176          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 177          BA    .028
 178          LG    .150    .250   5.800    .195  33.500
 179          UC    .171    .132
 180          UA       0       5      16      30      65      77      84      90      94      97
 181          UA     100

 182          KK    EMR3
 183          KM   EMERAL WASH CONCENTRATION POIT 3 - COMBINE REMR2, 160K
 184          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 185          KK   REMR3
 186          KM   ROUTE EMR3 THROUGH SUB-BASIN 160M TO POINT OF CON. EMR4
 187          RS     3     FLOW      0
 188          RC   0.04    0.04    0.04    1604    .032
 189          RX   9885    9920    9945    9980   10010   10040   10060   10075
 190          RY   1730    1720    1714    1712    1710    1720    1726    1730

 191          KK    160M
 192          KM   SUB-BASIN 160M
 193          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 194          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 195          BA    .059
 196          LG    .150    .250   5.800    .195  32.200
 197          UC    .221    .180
 198          UA      0       5      16      30      65      77      84      90      94      97
 199          UA    100

 200          KK   *EMR4
 201          KM   EMERALD WASH CONCENTRATION POINT *4 - REMR3, 160M
 202          HC      2

 203          KK    160L
 204          KM   SUB-BASIN 160L
 205          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 206          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 207          BA    .008
 208          LG    .091    .250   5.700    .170  41.550
 209          UC    .142    .219
 210          UA      0       5      16      30      65      77      84      90      94      97
 211          UA    100

 212          KK   R160L
 213          KM   ROUTE 160L THROUGH SUB-BASIN 160M TO POINT OF CON. EMR4
 214          RS      2     FLOW      0
 215          RC   0.04    0.04    0.04    1059   0.097
 216          RX   9885    9920    9945    9980   10010   10040   10060   10075
 217          RY   1730    1720    1714    1712    1710    1720    1726    1730

 218          KK    160N
 219          KM   SUB-BASIN 160N
 220          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 221          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 222          BA    .022
 223          LG    .150    .250   5.700    .207  25.000
 224          UC    .117    .093
 225          UA      0       5      16      30      65      77      84      90      94      97
 226          UA    100

 227          KK    EMR4
 228          KM   EMERAL WASH CONCENTRATION POIT 4 - COMBINE (REMR3, 160M), R160L, 160N
 229          HC      3
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 230          KK   SEMR4
 231          KM   ROUTE EMR4 THROUGH 60" CMP CULVERT AT FOUNTAIN HILLS BLVD TO EMR5
 232          RS       1    ELEV 1689.28
 233          SQ       0      33      98     190     290
 234          SE  1689.3  1691.6  1693.9  1698.5  1708.2
 235          SA       0   0.004    3.72
 236          SE  1689.3    1690    1710

 237          KK    160B
 238          KM   SUB-BASIN 160B
 239          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 240          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 241          BA    .007
 242          LG    .100    .250   5.700    .170  45.000
 243          UC    .117    .178
 244          UA       0       5      16      30      65      77      84      90      94      97
 245          UA     100

 246          KK   R160B
 247          KM   ROUTE 160B THROUGH SUB-BASIN 160D TO POINT OF CON. EMR5A
 248          RS       7    FLOW       0
 249          RC    0.02    0.02    0.02    4084    .041
 250          RX  9950.5  9955.5  9960.5  9960.5 10039.5 10039.5 10044.5 10049.5
 251          RY  1820.5  1820.5  1820.5    1820    1820  1820.5  1820.5  1820.5

 252          KK    160C
 253          KM   SUB-BASIN 160C
 254          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 255          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 256          BA    .016
 257          LG    .100    .250   5.700    .170  34.800
 258          UC    .125    .160
 259          UA       0       5      16      30      65      77      84      90      94      97
 260          UA     100

 261          KK   R160C
 262          KM   ROUTE 160C THROUGH SUB-BASIN 160D TO POINT OF CON. EMR5A
 263          RS       4    FLOW       0
 264          RC    0.02    0.02    0.02    1943    .058
 265          RX  9950.5  9955.5  9960.5  9960.5 10039.5 10039.5 10044.5 10049.5
 266          RY  1820.5  1820.5  1820.5    1820    1820  1820.5  1820.5  1820.5

 267          KK   EMR5A
 268          KM   EMERAL WASH CONCENTRATION POIT 5A - COMBINE R160C, R160B
 269          HC       2

 270          KK    160D
 271          KM   SUB-BASIN 160D
 272          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 273          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 274          BA    .041
 275          LG    .102    .250   5.700    .170  48.270
 276          UC    .325    .544
 277          UA       0       5      16      30      65      77      84      90      94      97
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 278          UA     100

 279          KK    160F
 280          KM   SUB-BASIN 160F
 281          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 282          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 283          BA    .018
 284          LG    .100    .250   5.700    .170  30.500
 285          UC    .217    .526
 286          UA       0       5      16      30      65      77      84      90      94      97
 287          UA     100

 288          KK    EMR5
 289          KM   EMERAL WASH CONCENTRATION POIT 5 - COMBINE REMR5A, SEMR4, 160F, 160D
 290          HC       4

 291          KK   REMR5
 292          KM   ROUTE EMR5 THROUGH SUB-BASIN 160O TO POINT OF CON. EMR6
 293          RS       4    FLOW       0
 294          RC    0.04    0.04    0.04    2176    .034
 295          RX    9805    9850    9920    9993   10010   10035   10075   10110
 296          RY    1670    1660    1652    1646    1646    1650    1660    1670

 297          KK    160O
 298          KM   SUB-BASIN 160O
 299          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 300          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 301          BA    .065
 302          LG    .150    .250   5.700    .207  25.000
 303          UC    .237    .191
 304          UA       0       5      16      30      65      77      84      90      94      97
 305          UA     100

 306          KK   *EMR6
 307          KM   EMERALD WASH CONCENTRATION POINT *6 - REMR5, 160O
 308          HC       2

 309          KK    151F
 310          KM   SUB-BASIN 151F
 311          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 312          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 313          BA    .003
 314          LG    .050    .250   5.700    .170  25.000
 315          UC    .142    .358
 316          UA       0       5      16      30      65      77      84      90      94      97
 317          UA     100

 318          KK   D151F
 319          KM   DIVERSION AT INTERSECTION OF EMERAL AND FRISCO
 320          DT  DO151F
 321          DI       1      10     100    1000
 322          DQ     0.5       5      50     500
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 323          KK   R151F
 324          KM   ROUTE 151F THROUGH SUB-BASIN 151G TO POINT OF CON. EMR6A
 325          RS       2    FLOW       0
 326          RC    0.02    0.02    0.20    1011    .016
 327          RX    9975    9980    9985    9986   10014   10015   10020   10025
 328          RY  1730.5  1730.5  1730.5    1730    1730  1730.5  1730.5  1730.5

 329          KK    151G
 330          KM   SUB-BASIN 151G
 331          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 332          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 333          BA    .003
 334          LG    .100    .250   5.700    .170  25.000
 335          UC    .179    .589
 336          UA       0       5      16      30      65      77      84      90      94      97
 337          UA     100

 338          KK   EMR6A
 339          KM   EMERAL WASH CONCENTRATION POINT 6A - COMBINES R151F, 151G
 340          HC       2

 341          KK  REMR6A
 342          KM   ROUTE 151G THROUGH SUB-BASIN 160O TO  CON. POINT EMR6
 343          RS       1    FLOW       0
 344          RC    0.04    0.04    0.04     350   0.062
 345          RX    9960    9980    9995  9997.5 10002.5   10005   10030   10050
 346          RY    1672    1672    1672    1668    1668    1672    1672    1672

 347          KK    EMR6
 348          KM   EMERAL WASH CONCENTRATION POIT 6 - COMBINE (REMR5, 160O), REMR6A
 349          HC       2

 350          KK   REMR6
 351          KM   ROUTE EMR6 THROUGH SUB-BASIN 160P TO POINT OF CON. EMR7
 352          RS       2    FLOW       0
 353          RC    0.04    0.04    0.04     855    .007
 354          RX    9760    9820    9870    9980   10020   10045   10065   10080
 355          RY    1650    1640    1636    1634    1634    1640    1646    1650

 356          KK    160P
 357          KM   SUB-BASIN 160P
 358          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 359          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 360          BA    .023
 361          LG    .150    .250   5.700    .207  25.000
 362          UC    .179    .160
 363          UA       0       5      16      30      65      77      84      90      94      97
 364          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 365          KK    EMR7
 366          KM   EMERAL WASH CONCENTRATION POIT 7 - COMBINE REMR6, 160P
 367          HC       2

 368          KK   SEMR7
 369          KM   ROUTE EMR7 THROUGH CULVERT AT BARON DRIVE TO POINT OF CON. EMR7
 370          RS       1    ELEV  1628.0
 371          SQ       0      37     115     130     222
 372          SE    1628  1630.5    1633  1633.6  1638.0
 373          SA       0     .02    2.09
 374          SE    1628    1632    1635

 375          KK    160Q
 376          KM   SUB-BASIN 160Q
 377          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 378          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 379          BA    .006
 380          LG    .050    .250   5.700    .170  25.000
 381          UC    .112    .160
 382          UA       0       5      16      30      65      77      84      90      94      97
 383          UA     100

 384          KK   D160W
 385          KM   FLOW FROM DIVERSION AT BARON AND INCA
 386          DR  DO160W

 387          KK  RD160W
 388          KM   ROUTE DIVERION INFLOW THROUGH SUB-BASIN 160Q
 389          RS       3    FLOW       0
 390          RC    0.02    0.02    0.02     980   0.087
 391          RX    9975    9980    9985    9986   10014   10015   10020   10025
 392          RY  1670.5  1617.5  1617.5    1617    1617  1617.5  1617.5  1617.5

 393          KK    EMR8
 394          KM   EMERAL WASH CONCENTRATION POIT 8 - COMBINE SEMR7, 160Q, RD160W
 395          HC       3

 396          KK   REMR8
 397          KM   ROUTE EMR8 THROUGH SUB-BASIN 160R TO POINT OF CON. EMR9
 398          RS       3    FLOW       0
 399          RC    0.04    0.04    0.04    1264   0.029
 400          RX    9780    9900    9960    9974   10045   10065   10120   10165
 401          RY    1630    1616    1614  1607.5  1607.5    1616    1624    1636

 402          KK    160R
 403          KM   SUB-BASIN 160R
 404          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 405          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 406          BA    .053
 407          LG    .150    .250   5.700    .207  25.000
 408          UC    .217    .174
 409          UA       0       5      16      30      65      77      84      90      94      97
 410          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 411          KK    EMR9
 412          KM   EMERAL WASH CONCENTRATION POIT 9 - COMBINE REMR8, 160R
 413          HC       2

 414          KK   REMR9
 415          KM   ROUTE EMR9 THROUGH SUB-BASIN 160S TO POINT OF CON. EMR10
 416          RS       1    FLOW       0
 417          RC    0.04    0.04    0.04     510    0.02
 418          RX    9830    9910    9940    9986   10008   10063   10135   10195
 419          RY    1610    1592    1590  1585.5  1585.5    1597    1602    1610

 420          KK    160S
 421          KM   SUB-BASIN 160S
 422          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 423          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 424          BA    .011
 425          LG    .150    .250   5.700    .207  27.810
 426          UC    .100    .082
 427          UA       0       5      16      30      65      77      84      90      94      97
 428          UA     100

 429          KK   EMR10
 430          KM   EMERAL WASH CONCENTRATION POIT 10 - COMBINE REMR9, 160S
 431          HC       2

 432          KK  SEMR10
 433          KM   ROUTE EMR10 THROUGH CULVERT AT INCA AV. TO POINT OF CON. EMR11
 434          RS       1    ELEV    1583
 435          SQ       0      37     115     222     235
 436          SE    1583  1585.5    1588    1593  1593.7
 437          SA       0    .003     1.3
 438          SE    1583    1584    1595

 439          KK    160T
 440          KM   SUB-BASIN 160T
 441          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 442          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 443          BA    .009
 444          LG    .100    .250   5.700    .179  35.620
 445          UC    .112    .127
 446          UA       0       5      16      30      65      77      84      90      94      97
 447          UA     100

 448          KK   EMR11
 449          KM   EMERAL WASH CONCENTRATION POIT 11 - COMBINE SEMR10, 160T
 450          HC       2

 451          KK  REMR11
 452          KM   ROUTE EMR11 THROUGH SUB-BASIN 160U TO POINT OF CON. EMR12
 453          RS       6    FLOW       0
 454          RC    0.04    0.04    0.04    3300   0.021
 455          RX    9835    9945    9955    9995   10005   10030   10080   10145
 456          RY    1564    1561    1556    1550    1550    1558    1558    1568
```

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

 457          KK    160U
 458          KM   SUB-BASIN 160U
 459          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 460          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 461          BA    .077
 462          LG    .104    .250   5.700    .188  50.230
 463          UC    .233    .247
 464          UA       0       5      16      30      65      77      84      90      94      97
 465          UA     100

 466          KK  *EMR12
 467          KM   EMERALD WASH CONCENTRATION POINT *12 - REMR11, 160U
 468          HC       2

 469          KK   EMR12
 470          KM   EMERAL WASH CONCENTRATION POIT 12 - COMBINE (REMR11, 160U), EMR13C
 471          HC       2

 472          KK  SEMR12
 473          KM   ROUTE EMR12 THROUGH CULVERT  AT SAGUARO BLV.
 474          RS       1    ELEV 1514.86
 475          SQ       0      74     230     410     459     700    1370
 476          SE  1514.9  1517.4  1519.9 1523.75    1524    1525    1526
 477          SA       0     .02     .87
 478          SE  1514.9    1516    1526

 479          KK  REMR12
 480          KM   ROUTE EMR12 THROUGH SUB-BASIN 160AA TO POINT OF CON. EMR13
 481          KM   LENGTH 290 INCREASED FOR STABILITY
 482          RS       1  FLOW 0
 483          RC    0.04    0.04    0.04     500    .021
 484          RX    9810    9880    9920    9950   10030   10050   10100   10150
 485          RY    1524    1522    1514    1512    1512    1520    1521    1522

 486          KK   160AA
 487          KM   SUB-BASIN 160AA
 488          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 489          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 490          BA    .005
 491          LG    .083    .250   5.700    .192  60.090
 492          UC    .125    .174
 493          UA       0       5      16      30      65      77      84      90      94      97
 494          UA     100

 495          KK   EMR13
 496          KM   EMERAL WASH CONCENTRATION POIT 13 - COMBINE SEMR12, 160AA
 497          HC       2
 498          ZZ
```

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

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

 30         160V
               V
               V
 39        R160V
               .
               .
 45            .        160W
               .           .
               .           .
 54       EMR13A............
               .
               .
 59            .-------> DO160W
 57        D160W
               V
               V
 62       REM13A
               .
               .
 68            .        160X
               .           .
               .           .
 77       EMR13B............
               V
               V
 80       REM13B
               .
               .
               .        160Y
               .           V
               .           V
 95            .       R160Y
               .           .
               .           .
101            .           .        160Z
               .           .           .
               .           .           .
110        EMR13........................
               .
               .
113            .        160G
               .           V
               .           V
122            .       R160G
               .           .
               .           .
128            .           .        160H
               .           .           .
               .           .           .
137            .       EMR1............
               .           V
               .           V
140            .       REMR1
               .           .
               .           .
146            .           .        160I
               .           .           .
               .           .           .
155            .           .           .        160J
               .           .           .           .
               .           .           .           .
164            .       EMR2........................
               .           V
               .           V
               .       REMR2
```

```
                    160K
                      .
                      .
182            EMR3............
                  V
                  V
185            REMR3
                      .
                      .
191                 160M
                      .
                      .
200            *EMR4............
                      .
                      .
203                 160L
                      V
                      V
212                R160L
                      .
                      .
218                      .        160N
                         .          .
                         .          .
227            EMR4........................
                  V
                  V
230            SEMR4
                      .
                      .
237                 160B
                      V
                      V
                   R160B
                      .
                      .
252                      .        160C
                         .          V
                         .          V
261                      .       R160C
                         .          .
                         .          .
267                EMR5A............
                      .
                      .
270                      .        160D
                         .          .
                         .          .
279                      .          .        160F
                         .          .          .
                         .          .          .
288            EMR5.................................
                  V
                  V
291            REMR5
                      .
                      .
297                 160O
                      .
                      .
306            *EMR6............
                      .
                      .
309                 151F
                      .
                      .
320                   .-------> DO151F
318                D151F
                      V
                      V
```

```
323          .          .       R151F
             .          .          .
             .          .          .
329          .          .          .        151G
             .          .          .          .
             .          .          .          .
338          .          .       EMR6A.............
             .          .          V
             .          .          V
341          .          .      REMR6A
             .          .          .
             .          .          .
347          .       EMR6............
             .          V
             .          V
350          .      REMR6
             .          .
             .          .
356          .          .        160P
             .          .          .
             .          .          .
365          .       EMR7............
             .          V
             .          V
368          .      SEMR7
             .          .
             .          .
375          .          .        160Q
             .          .          .
             .          .          .
386          .          .          .          .<-------  DO160W
384          .          .          .      D160W
             .          .          .          V
             .          .          .          V
387          .          .          .     RD160W
             .          .          .          .
             .          .          .          .
393          .       EMR8........................
             .          V
             .          V
396          .      REMR8
             .          .
             .          .
402          .          .        160R
             .          .          .
             .          .          .
411          .       EMR9............
             .          V
             .          V
414          .      REMR9
             .          .
             .          .
420          .          .        160S
             .          .          .
             .          .          .
429          .      EMR10............
             .          V
             .          V
432          .     SEMR10
             .          .
             .          .
439          .          .        160T
             .          .          .
             .          .          .
448          .      EMR11............
             .          V
             .          V
451          .     REMR11
             .          .
             .          .
             .          .        160U
             .          .          .
```

```
            .          .          .
            .      *EMR12.........
            .          .
            .          .
469      EMR12.........
            V
            V
472     SEMR12
            V
            V
479     REMR12
            .
            .
486         .       160AA
            .          .
            .          .
495      EMR13.........
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
****************************************
*                                      *
*  FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*              MAY   1991              *
*           VERSION 4.0.1E             *
*     Lahey F77L-EM/32 version 5.01    *
*       Dodson & Associates, Inc.      *
* RUN DATE  04/13/95  TIME  10:03:56   *
****************************************
```

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

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                    EMERALD WASH - FUTURE CONDITIONS, AGK ENGINEERS, 04-12-95
                    10-Year 6-Hour Storm
                    time steps at 2 minutes
                    FILE 160-6XF.DAT

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

   IT        HYDROGRAPH TIME DATA
                    NMIN          5  MINUTES IN COMPUTATION INTERVAL
                   IDATE      1   0  STARTING DATE
                   ITIME       0000  STARTING TIME
                      NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                  NDDATE      2   0  ENDING DATE
                  NDTIME       0055  ENDING TIME
                   ICENT         19  CENTURY MARK

             COMPUTATION INTERVAL    0.08 HOURS
                  TOTAL TIME BASE   24.92 HOURS

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

 9 JD        INDEX STORM NO. 1
                  STRM       2.00  PRECIPITATION DEPTH
                  TRDA       0.01  TRANSPOSITION DRAINAGE AREA

10 PI          PRECIPITATION PATTERN
                 0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00
                 0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00
                 0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00
                 0.00       0.00       0.00       0.01       0.01       0.01       0.01       0.01       0.01       0.03
                 0.03       0.03       0.05       0.05       0.05       0.15       0.15       0.15       0.03       0.03
                 0.03       0.01       0.01       0.01       0.01       0.01       0.01       0.00       0.00       0.00
                 0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00
                 0.00       0.00

13 JD        INDEX STORM NO. 2
                  STRM       1.99  PRECIPITATION DEPTH
                  TRDA       0.50  TRANSPOSITION DRAINAGE AREA

 0 PI          PRECIPITATION PATTERN
                 0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00
                 0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00
                 0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00
                 0.00       0.00       0.00       0.01       0.01       0.01       0.01       0.01       0.01       0.03
                 0.03       0.03       0.05       0.05       0.05       0.15       0.15       0.15       0.03       0.03
                 0.03       0.01       0.01       0.01       0.01       0.01       0.01       0.00       0.00       0.00
                 0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00
```

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            0.00      0.00

JD        INDEX STORM NO. 3
              STRM        1.96  PRECIPITATION DEPTH
              TRDA        2.80  TRANSPOSITION DRAINAGE AREA

15 PI       PRECIPITATION PATTERN
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01      0.01      0.03
            0.03      0.03      0.07      0.07      0.07      0.08      0.08      0.08      0.05      0.05
            0.05      0.02      0.02      0.02      0.01      0.01      0.01      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00

18 JD     INDEX STORM NO. 4
              STRM        1.84  PRECIPITATION DEPTH
              TRDA       16.00  TRANSPOSITION DRAINAGE AREA

19 PI       PRECIPITATION PATTERN
            0.01      0.01      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.01
            0.01      0.01      0.00      0.01      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.01      0.00      0.00      0.00      0.00      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.03
            0.03      0.03      0.06      0.06      0.06      0.07      0.07      0.07      0.04      0.04
            0.04      0.02      0.02      0.02      0.01      0.01      0.01      0.01      0.01      0.01
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00

22 JD     INDEX STORM NO. 5
              STRM        1.62  PRECIPITATION DEPTH
              TRDA       90.00  TRANSPOSITION DRAINAGE AREA

23 PI       PRECIPITATION PATTERN
            0.01      0.01      0.01      0.00      0.00      0.00      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.03
            0.03      0.03      0.05      0.05      0.05      0.05      0.05      0.05      0.04      0.04
            0.04      0.02      0.02      0.02      0.02      0.02      0.02      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01

26 JD     INDEX STORM NO. 6
              STRM        1.14  PRECIPITATION DEPTH
              TRDA      500.00  TRANSPOSITION DRAINAGE AREA

27 PI       PRECIPITATION PATTERN
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.03
            0.03      0.03      0.04      0.04      0.04      0.04      0.04      0.04      0.04      0.04
            0.04      0.03      0.03      0.03      0.02      0.02      0.02      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01
```

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	160V	7.	4.00	1.	0.	0.	0.00		
+	ROUTED TO	R160V	7.	4.08	1.	0.	0.	0.00		
+	HYDROGRAPH AT	160W	3.	4.00	0.	0.	0.	0.00		
+	2 COMBINED AT	EMR13A	10.	4.08	1.	0.	0.	0.01		
+	DIVERSION TO	DO160W	2.	4.08	0.	0.	0.	0.01		
+	HYDROGRAPH AT	D160W	8.	4.08	1.	0.	0.	0.01		
+	ROUTED TO	REM13A	8.	4.17	1.	0.	0.	0.01		
+	HYDROGRAPH AT	160X	40.	4.08	4.	1.	1.	0.03		
+	2 COMBINED AT	EMR13B	47.	4.08	4.	1.	1.	0.04		
+	ROUTED TO	REM13B	44.	4.17	4.	1.	1.	0.04		
+	HYDROGRAPH AT	160Y	6.	4.00	1.	0.	0.	0.00		
+	ROUTED TO	R160Y	6.	4.08	1.	0.	0.	0.00		
+	HYDROGRAPH AT	160Z	69.	4.08	9.	2.	2.	0.06		
+	3 COMBINED AT	EMR13	114.	4.17	14.	4.	3.	0.10		
+	HYDROGRAPH AT	160G	25.	4.08	3.	1.	1.	0.02		
+	ROUTED TO	R160G	25.	4.17	3.	1.	1.	0.02		
+	HYDROGRAPH AT	160H	24.	4.08	3.	1.	1.	0.02		
+	2 COMBINED AT	EMR1	47.	4.08	6.	2.	2.	0.04		
+	ROUTED TO	REMR1	47.	4.17	6.	2.	2.	0.04		
+	HYDROGRAPH AT	160I	7.	4.00	1.	0.	0.	0.00		
+	HYDROGRAPH AT	160J	17.	4.00	1.	0.	0.	0.01		

+	3 COMBINED AT	EMR2	63.	4.08	8.	2.	2.	0.06
+	ROUTED TO	REMR2	63.	4.08	8.	2.	2.	0.06
+	HYDROGRAPH AT	160K	46.	4.00	4.	1.	1.	0.03
+	2 COMBINED AT	EMR3	105.	4.08	12.	3.	3.	0.08
+	ROUTED TO	REMR3	105.	4.08	12.	3.	3.	0.08
+	HYDROGRAPH AT	160M	83.	4.08	8.	2.	2.	0.06
+	2 COMBINED AT	*EMR4	188.	4.08	20.	5.	5.	0.14
+	HYDROGRAPH AT	160L	11.	4.00	1.	0.	0.	0.01
+	ROUTED TO	R160L	11.	4.08	1.	0.	0.	0.01
+	HYDROGRAPH AT	160N	40.	4.00	3.	1.	1.	0.02
+	3 COMBINED AT	EMR4	231.	4.08	23.	6.	6.	0.17
+	ROUTED TO	SEMR4	166.	4.25	23.	6.	6.	0.17
+	HYDROGRAPH AT	160B	11.	4.00	1.	0.	0.	0.01
+	ROUTED TO	R160B	8.	4.42	1.	0.	0.	0.01
+	HYDROGRAPH AT	160C	26.	4.00	2.	1.	1.	0.02
+	ROUTED TO	R160C	24.	4.08	2.	1.	1.	0.02
+	2 COMBINED AT	EMR5A	25.	4.17	3.	1.	1.	0.02
+	HYDROGRAPH AT	160D	36.	4.17	6.	2.	2.	0.04
+	HYDROGRAPH AT	160F	15.	4.08	2.	1.	1.	0.02
+	4 COMBINED AT	EMR5	241.	4.17	35.	9.	9.	0.25
+	ROUTED TO	REMR5	238.	4.25	35.	9.	9.	0.25
+	HYDROGRAPH AT	160O	87.	4.08	8.	2.	2.	0.06
+	2 COMBINED AT	*EMR6	289.	4.25	43.	11.	10.	0.32
+	HYDROGRAPH AT	151F	3.	4.08	0.	0.	0.	0.00

+	DIVERSION TO	D0151F	2.	4.08	0.	0.	0.	0.00
+	HYDROGRAPH AT	D151F	2.	4.08	0.	0.	0.	0.00
+	ROUTED TO	R151F	1.	4.25	0.	0.	0.	0.00
+	HYDROGRAPH AT	151G	2.	4.08	0.	0.	0.	0.00
+	2 COMBINED AT	EMR6A	3.	4.17	1.	0.	0.	0.01
+	ROUTED TO	REMR6A	3.	4.25	1.	0.	0.	0.01
+	2 COMBINED AT	EMR6	292.	4.25	43.	11.	11.	0.33
+	ROUTED TO	REMR6	288.	4.25	43.	11.	11.	0.33
+	HYDROGRAPH AT	160P	34.	4.00	3.	1.	1.	0.02
+	2 COMBINED AT	EMR7	302.	4.25	46.	12.	11.	0.35
+	ROUTED TO	SEMR7	173.	4.67	46.	12.	11.	0.35
+	HYDROGRAPH AT	160Q	10.	4.00	1.	0.	0.	0.01
+	HYDROGRAPH AT	D160W	2.	4.08	0.	0.	0.	0.01
+	ROUTED TO	RD160W	2.	4.08	0.	0.	0.	0.01
+	3 COMBINED AT	EMR8	174.	4.67	47.	12.	11.	0.36
+	ROUTED TO	REMR8	174.	4.67	47.	12.	11.	0.36
+	HYDROGRAPH AT	160R	73.	4.08	6.	2.	2.	0.05
+	2 COMBINED AT	EMR9	212.	4.08	54.	14.	13.	0.41
+	ROUTED TO	REMR9	211.	4.17	54.	14.	13.	0.41
+	HYDROGRAPH AT	160S	21.	4.00	1.	0.	0.	0.01
+	2 COMBINED AT	EMR10	220.	4.08	55.	14.	13.	0.42
+	ROUTED TO	SEMR10	185.	4.50	55.	14.	13.	0.42
+	HYDROGRAPH AT	160T	16.	4.00	1.	0.	0.	0.01
+	2 COMBINED AT	EMR11	186.	4.42	56.	14.	14.	0.43

+	ROUTED TO	REMR11	186.	4.58	56.	14.	14.	0.43
+	HYDROGRAPH AT	160U	103.	4.08	12.	3.	3.	0.08
+	2 COMBINED AT	*EMR12	243.	4.17	68.	17.	16.	0.51
+	2 COMBINED AT	EMR12	347.	4.17	81.	20.	20.	0.61
+	ROUTED TO	SEMR12	327.	4.25	81.	20.	20.	0.61
+	ROUTED TO	REMR12	325.	4.25	81.	20.	20.	0.61
+	HYDROGRAPH AT	160AA	8.	4.00	1.	0.	0.	0.00
+	2 COMBINED AT	EMR13	329.	4.25	81.	21.	20.	0.61

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

M.6

MALTA DRAIN

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*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*              MAY   1991               *
*            VERSION 4.0.1E             *
*     Lahey F77L-EM/32 version 5.01     *
*       Dodson & Associates, Inc.       *
* RUN DATE  04/13/95  TIME  10:04:51    *
*****************************************
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*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    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

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

  1           ID   MALTA DRAIN - FUTURE CONDITIONS, AGK ENGINEERS, 04-12-95
  2           ID   10-Year 6-Hour Storm
  3           ID   time steps at 2 minutes
  4           ID   FILE: 170-6XF.DAT
  5           ID
  6           IT       5                    300
  7           IO       5
              *DIAGRAM
  8           IN      15
  9           JD    2.00    0.01
 10           PC    .000    .008    .016    .025    .033    .041    .050    .058    .066    .074
 11           PC    .087    .099    .118    .138    .216    .377    .834    .911    .931    .950
 12           PC    .962    .972    .983    .991   1.000
 13           JD    1.99    0.50
 14           JD    1.96    2.80
 15           PC    .000    .009    .016    .025    .034    .042    .051    .059    .067    .076
 16           PC    .087    .100    .120    .163    .252    .451    .694    .837    .900    .938
 17           PC    .950    .963    .975    .988   1.000
 18           JD    1.84    16.0
 19           PC    .000    .015    .020    .030    .048    .063    .076    .090    .105    .119
 20           PC    .135    .152    .175    .222    .304    .472    .670    .796    .868    .912
 21           PC    .946    .960    .973    .987   1.000
 22           JD    1.62    90.0
 23           PC    .000    .021    .035    .051    .071    .087    .105    .125    .143    .160
 24           PC    .179    .201    .232    .281    .364    .500    .658    .773    .841    .888
 25           PC    .927    .945    .964    .982   1.000
 26           JD    1.14   500.0
 27           PC    .000    .024    .043    .059    .078    .098    .119    .141    .162    .186
 28           PC    .212    .239    .271    .321    .408    .515    .627    .735    .814    .864
 29           PC    .907    .930    .954    .977   1.000

 30           KK    160V
 31           KM   SUB-BASIN 160V
 32           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 33           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 34           BA    .005
 35           LG    .050    .250   5.700    .170  25.000
 36           UC    .108    .192
 37           UA       0       5      16      30      65      77      84      90      94      97
 38           UA     100

 39           KK   R160V
 40           KM   ROUTE 160V THROUGH SUB-BASIN 160W TO POINT OF CON. EMR13A
 41           RS       1    FLOW       0
 42           RC    0.02    0.02    0.02     550   0.022
 43           RX    9975    9980    9985    9986   10014   10015   10020   10025
 44           RY  1730.5  1730.5  1730.5    1730    1730  1730.5  1730.5  1730.5

 45           KK    160W
 46           KM   SUB-BASIN 160W
 47           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 48           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 49           BA    .002
 50           LG    .050    .250   5.700    .170  25.000
 51           UC    .083    .139
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  52          UA       0       5      16      30      65      77      84      90      94      97
  53          UA     100

  54          KK  EMR13A
  55          KM   EMERAL WASH CONCENTRATION POIT 13A - COMBINE  R160V, 160W
  56          HC       2

  57          KK   D160W
  58          KM   DIVERSION AT INCA AV. AND BARON DR.
  59          DT  DO160W
  60          DI       1      10     100    1000
  61          DQ     0.8       8      80     800

  62          KK   R160W
  63          KM   ROUTE 160W THROUGH SUB-BASIN 170B TO CON. POINT MLT1
  64          RS       1    FLOW       0
  65          RC    0.02    0.02    0.02     460   0.091
  66          RX    9975    9980    9985    9986   10014   10015   10020   10025
  67          RY  1700.5  1700.5  1700.5    1700    1700  1700.5  1700.5  1700.5

  68          KK    170A
  69          KM   SUB-BASIN 170A
  70          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  71          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  72          BA    .024
  73          LG    .150    .250   5.700    .207  25.000
  74          UC    .133    .116
  75          UA       0       5      16      30      65      77      84      90      94      97
  76          UA     100

  77          KK   170B
  78          KM   SUB-BASIN 170B
  79          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  80          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  81          BA    .004
  82          LG    .050    .250   5.700    .170  25.000
  83          UC    .083    .087
  84          UA       0       5      16      30      65      77      84      90      94      97
  85          UA     100

  86          KK    MLT1
  87          KM   MALTA DRAIN CONCENTRATION POINT 1 - COBINE R160W, 170A, 170B
  88          HC       3

  89          KK   RMLT1
  90          KM   ROUTE MLT1 THROUGH SUB-BASIN 170C TO POINT OF CON. MLT2
  91          RS       4    FLOW       0
  92          RC    0.04    0.04    0.04    1844   0.029
  93          RX    9850    9950    9975    9990   10005   10020   10055   10100
  94          RY    1680    1660    1658    1656    1656    1660    1670    1680
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 95           KK    170C
 96           KM   SUB-BASIN 170C
 97           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 98           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 99           BA    .034
100           LG    .150    .250   5.700    .207  25.000
101           UC    .171    .179
102           UA      0       5      16      30      65      77      84      90      94      97
103           UA     100

104           KK    MLT2
105           KM   MALTA DRAIN CONCENTRATION POINT 2 - COBINE RMLT1, 170C
106           HC       2

107           KK    170D
108           KM   SUB-BASIN 170D
109           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
110           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
111           BA    .007
112           LG    .050    .250   5.700    .170  25.000
113           UC    .138    .250
114           UA      0       5      16      30      65      77      84      90      94      97
115           UA     100

116           KK    MLT3
117           KM   MALTA DRAIN CONCENTRATION POINT 3 - COBINE RMLT2, 170D
118           HC       2

119           KK   RMLT3
120           KM   ROUTE MLT3 THROUGH SUB-BASIN 170E TO POINT OF CON. MLT4
121           RS       7    FLOW       0
122           RC    0.04    0.04    0.04    3852   0.023
123           RX    9805    9890    9955    9990   10005   10010   10137   10180
124           RY    1574    1573    1572    1562    1562    1564    1566    1580

125           KK    170E
126           KM   SUB-BASIN 170E
127           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
128           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
129           BA    .095
130           LG    .142    .250   5.700    .187  46.080
131           UC    .242    .245
132           UA      0       5      16      30      65      77      84      90      94      97
133           UA     100

134           KK    MLT4
135           KM   MALTA DRAIN CONCENTRATION POINT 4 - COBINE RMLT3, 170E
136           HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 137          KK    170F
 138          KM   SUB-BASIN 170F
 139          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 140          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 141          BA    .018
 142          LG    .092    .250   5.700    .170  61.750
 143          UC    .158    .171
 144          UA       0       5      16      30      65      77      84      90      94      97
 145          UA     100

 146          KK   R170F
 147          KM   ROUTE 170F THROUGH SUB-BASIN 170G  TO POINT OF CON. MLT4A
 148          RS       1    FLOW       0
 149          RC    0.02    0.02    0.02     288   0.035
 150          RX    9975    9980    9985    9986   10014   10015   10020   10025
 151          RY  1540.5  1540.5  1540.5    1540    1540  1540.5  1540.5  1450.5

 152          KK    170G
 153          KM   SUB-BASIN 170G
 154          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 155          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 156          BA    .003
 157          LG    .050    .250   5.700    .170  50.110
 158          UC    .133    .334
 159          UA       0       5      16      30      65      77      84      90      94      97
 160          UA     100

 161          KK   MLT4A
 162          KM   MALTA DRAIN CONCENTRATION POINT 4A - COBINE RMLT4, 170G, 170F
 163          HC       3

 164          KK  RMLT4A
 165          KM   ROUTE MLT4A THROUGH SUB-BASIN 170H TO POINT OF CON. MLT5
 166          RS       1    FLOW       0
 167          RC    0.04    0.04    0.04     626   0.034
 168          RX    9825    9870    9955    9995   10005   10020   10140   10175
 169          RY    1556    1550  1547.5    1537    1537    1544  1545.5    1550

 170          KK    170H
 171          KM   SUB-BASIN 170H
 172          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 173          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 174          BA    .009
 175          LG    .114    .250   5.700    .178  59.820
 176          UC    .108    .090
 177          UA       0       5      16      30      65      77      84      90      94      97
 178          UA     100

 179          KK    MLT5
 180          KM   MALTA DRAIN CONCENTRATION POINT 5 - COBINE RMLT4A, 170H
 181          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 182          KK   SMLT5
 183          KM   ROUTE MLT5 THROUGH 2-48" CMP CULVERT AT SAGUARO BLV.
 184          RS       1    ELEV 1516.23
 185          SQ       0      44     132     240     560
 186          SE  1516.2  1518.2  1520.2  1523.8  1524.2
 187          SA    0.02     0.1
 188          SE    1516    1524

 189          KK   RMLT5
 190          KM   ROUTE MLT5 THROUGH SUB-BASIN 170I-3 TO POINT OF CON. MLT6
 191          RS       1    FLOW       0
 192          RC    0.04    0.04    0.04     296   0.017
 193          RX    9890    9930    9950    9995   10007   10035   10060   10110
 194          RY    1522    1522    1518    1514    1514    1516    1523    1524

 195          KK   170I1
 196          KM   SUB-BASIN 170I-1
 197          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 198          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 199          BA    .022
 200          LG    .075    .250   5.700    .170  61.690
 201          UC    .192    .260
 202          UA       0       5      16      30      65      77      84      90      94      97
 203          UA     100

 204          KK  D179I1
 205          KM   DIVERSION AT INTERSECTION OF SAGUARO AND PANORAME
 206          DT  D0180S
 207          DI       1      10     100    1000
 208          DQ     0.5       5      50     500

 209          KK  R170I1
 210          KM   ROUTE 170I1 (NON-DIVERTED) THROUGH SUB-BASIN 170I2 TO MLT6A
 211          RS       4    FLOW       0
 212          RC    0.02    0.02    0.02    1738   0.025
 213          RX    9945    9952    9960  9960.5 10039.5   10040   10048   10055
 214          RY  1570.5  1570.5  1570.5    1570    1570  1570.5  1570.5  1570.5

 215          KK   170I2
 216          KM   SUB-BASIN 170I-2
 217          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 218          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 219          BA    .012
 220          LG    .050    .250   5.700    .170  70.780
 221          UC    .125    .184
 222          UA       0       5      16      30      65      77      84      90      94      97
 223          UA     100

 224          KK   MLT6A
 225          KM   MALTA DRAIN CONCENTRATION POINT 6A - COBINE R170I1, 170I2
 226          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 227          KK  DMLT6A
 228          KM   DIVERSION AT INTERSECTION OF SAGUARO AND EL PUEBLO
 229          DT  DO180R
 230          DI       1      10     100    1000
 231          DQ     0.5       5      50     500

 232          KK  RMLT6A
 233          KM   ROUTE MLT6A (NON-DIVERDED) THROUGH SUB-BASIN 17013 TO MLT6
 234          RS       2    FLOW       0
 235          RC    0.02    0.02    0.02    1040   0.040
 236          RX    9945    9952    9960  9960.5 10039.5   10040   10048   10055
 237          RY  1576.5  1576.5  1576.5    1576    1576  1576.5  1576.5  1576.5

 238          KK   17013
 239          KM   SUB-BASIN 170I-3
 240          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 241          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 242          BA    .006
 243          LG    .066    .250   5.700    .170  61.830
 244          UC    .142    .241
 245          UA       0       5      16      30      65      77      84      90      94      97
 246          UA     100

 247          KK    MLT6
 248          KM   MALTA DRAIN CONCENTRATION POINT 6 - COBINE RMLT5, RMLT6A, 17013
 249          HC       3
 250          ZZ
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SCHEMATIC DIAGRAM OF STREAM NETWORK

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

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

 30        160V
              V
              V
 39       R160V
              .
              .
 45           .        160W
              .           .
              .           .
 54     EMR13A............
              .
              .
 59           .-------> DO160W
 57       D160W
              V
              V
 62       R160W
              .
              .
 68           .        170A
              .           .
              .           .
 77           .           .       170B
              .           .          .
              .           .          .
 86        MLT1........................
              V
              V
 92       RMLT1
              .
              .
 95           .        170C
              .           .
              .           .
104        MLT2............
              .
              .
107           .        170D
              .           .
              .           .
116        MLT3............
              V
              V
119       RMLT3
              .
              .
125           .        170E
              .           .
              .           .
134        MLT4............
              .
              .
137           .        170F
              .           V
              .           V
146           .       R170F
              .           .
              .           .
152           .           .       170G
              .           .          .
              .           .          .
161       MLT4A........................
              V
              V
          RMLT4A
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            .
            .
            .        170H
            .          .
            .          .
179       MLT5............
            V
            V
182      SMLT5
            V
            V
189      RMLT5
            .
            .
195         .       17011
            .          .
            .          .
206         .          .-------> D0180S
204         .     D17911
            .          V
            .          V
209         .     R17011
            .          .
            .          .
215         .          .       17012
            .          .          .
            .          .          .
224         .      MLT6A............
            .          .
            .          .
229         .          .-------> D0180R
227         .     DMLT6A
            .          V
            .          V
232         .     RMLT6A
            .          .
            .          .
            .          .       17013
            .          .          .
            .          .          .
247       MLT6........................
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(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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****************************************
*                                      *
*  FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*            MAY   1991                *
*          VERSION 4.0.1E              *
*    Lahey F77L-EM/32 version 5.01     *
*      Dodson & Associates, Inc.       *
* RUN DATE  04/13/95  TIME  10:04:51   *
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****************************************
*                                      *
*    U.S. ARMY CORPS OF ENGINEERS      *
*    HYDROLOGIC ENGINEERING CENTER     *
*          609 SECOND STREET           *
*       DAVIS, CALIFORNIA 95616        *
*           (916) 551-1748             *
*                                      *
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                    MALTA DRAIN - FUTURE CONDITIONS, AGK ENGINEERS, 04-12-95
                    10-Year 6-Hour Storm
                    time steps at 2 minutes
                    FILE: 170-6XF.DAT

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

    IT        HYDROGRAPH TIME DATA
                     NMIN          5  MINUTES IN COMPUTATION INTERVAL
                    IDATE      1   0  STARTING DATE
                    ITIME       0000  STARTING TIME
                       NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE      2   0  ENDING DATE
                   NDTIME       0055  ENDING TIME
                    ICENT         19  CENTURY MARK

              COMPUTATION INTERVAL    0.08 HOURS
                   TOTAL TIME BASE   24.92 HOURS

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

  9 JD        INDEX STORM NO. 1
                    STRM       2.00  PRECIPITATION DEPTH
                    TRDA       0.01  TRANSPOSITION DRAINAGE AREA

 10 PI          PRECIPITATION PATTERN
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01      0.01      0.03
                  0.03      0.03      0.05      0.05      0.05      0.15      0.15      0.15      0.03      0.03
                  0.03      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00

 13 JD        INDEX STORM NO. 2
                    STRM       1.99  PRECIPITATION DEPTH
                    TRDA       0.50  TRANSPOSITION DRAINAGE AREA

  0 PI          PRECIPITATION PATTERN
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01      0.01      0.03
                  0.03      0.03      0.05      0.05      0.05      0.15      0.15      0.15      0.03      0.03
                  0.03      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
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                0.00      0.00

D           INDEX STORM NO. 3
                STRM        1.96  PRECIPITATION DEPTH
                TRDA        2.80  TRANSPOSITION DRAINAGE AREA

15 PI         PRECIPITATION PATTERN
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01      0.01      0.03
                0.03      0.03      0.07      0.07      0.07      0.08      0.08      0.08      0.05      0.05
                0.05      0.02      0.02      0.02      0.01      0.01      0.01      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00

18 JD       INDEX STORM NO. 4
                STRM        1.84  PRECIPITATION DEPTH
                TRDA       16.00  TRANSPOSITION DRAINAGE AREA

19 PI         PRECIPITATION PATTERN
                0.01      0.01      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.01
                0.01      0.01      0.00      0.01      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.01      0.00      0.00      0.00      0.00      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.03
                0.03      0.03      0.06      0.06      0.06      0.07      0.07      0.07      0.04      0.04
                0.04      0.02      0.02      0.02      0.01      0.01      0.01      0.01      0.01      0.01
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00

22 JD       INDEX STORM NO. 5
                STRM        1.62  PRECIPITATION DEPTH
                TRDA       90.00  TRANSPOSITION DRAINAGE AREA

23 PI         PRECIPITATION PATTERN
                0.01      0.01      0.01      0.00      0.00      0.00      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.03
                0.03      0.03      0.05      0.05      0.05      0.05      0.05      0.05      0.04      0.04
                0.04      0.02      0.02      0.02      0.02      0.02      0.02      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01

26 JD       INDEX STORM NO. 6
                STRM        1.14  PRECIPITATION DEPTH
                TRDA      500.00  TRANSPOSITION DRAINAGE AREA

27 PI         PRECIPITATION PATTERN
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.03
                0.03      0.03      0.04      0.04      0.04      0.04      0.04      0.04      0.04      0.04
                0.04      0.03      0.03      0.03      0.02      0.02      0.02      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01
```

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	160V	7.	4.00	1.	0.	0.	0.00		
+	ROUTED TO	R160V	7.	4.08	1.	0.	0.	0.00		
+	HYDROGRAPH AT	160W	3.	4.00	0.	0.	0.	0.00		
+	2 COMBINED AT	EMR13A	10.	4.08	1.	0.	0.	0.01		
+	DIVERSION TO	DO160W	8.	4.08	1.	0.	0.	0.01		
+	HYDROGRAPH AT	D160W	2.	4.08	0.	0.	0.	0.01		
+	ROUTED TO	R160W	2.	4.08	0.	0.	0.	0.01		
+	HYDROGRAPH AT	170A	41.	4.00	3.	1.	1.	0.02		
+	HYDROGRAPH AT	170B	8.	4.00	1.	0.	0.	0.00		
+	3 COMBINED AT	MLT1	50.	4.00	4.	1.	1.	0.04		
+	ROUTED TO	RMLT1	47.	4.08	4.	1.	1.	0.04		
+	HYDROGRAPH AT	170C	48.	4.00	4.	1.	1.	0.03		
+	2 COMBINED AT	MLT2	94.	4.08	8.	2.	2.	0.07		
+	HYDROGRAPH AT	170D	9.	4.08	1.	0.	0.	0.01		
+	2 COMBINED AT	MLT3	103.	4.08	9.	2.	2.	0.08		
+	ROUTED TO	RMLT3	96.	4.25	9.	2.	2.	0.08		
+	HYDROGRAPH AT	170E	126.	4.08	14.	4.	3.	0.09		
+	2 COMBINED AT	MLT4	187.	4.17	23.	6.	5.	0.17		
+	HYDROGRAPH AT	170F	30.	4.00	3.	1.	1.	0.02		
+	ROUTED TO	R170F	29.	4.00	3.	1.	1.	0.02		
+	HYDROGRAPH AT	170G	4.	4.08	0.	0.	0.	0.00		

+	3 COMBINED AT	MLT4A	212.	4.17	26.	7.	6.	0.19
+	ROUTED TO	RMLT4A	212.	4.17	26.	7.	6.	0.19
+	HYDROGRAPH AT	170H	18.	4.00	2.	0.	0.	0.01
+	2 COMBINED AT	MLT5	219.	4.17	28.	7.	7.	0.20
+	ROUTED TO	SMLT5	219.	4.17	28.	7.	7.	0.20
+	ROUTED TO	RMLT5	216.	4.25	28.	7.	7.	0.20
+	HYDROGRAPH AT	170I1	30.	4.08	4.	1.	1.	0.02
+	DIVERSION TO	DO180S	15.	4.08	2.	0.	0.	0.02
+	HYDROGRAPH AT	D179I1	15.	4.08	2.	0.	0.	0.02
+	ROUTED TO	R170I1	14.	4.25	2.	0.	0.	0.02
+	HYDROGRAPH AT	170I2	20.	4.00	2.	1.	1.	0.01
+	2 COMBINED AT	MLT6A	30.	4.08	4.	1.	1.	0.03
+	DIVERSION TO	DO180R	15.	4.08	2.	1.	0.	0.03
+	HYDROGRAPH AT	DMLT6A	15.	4.08	2.	0.	0.	0.03
+	ROUTED TO	RMLT6A	14.	4.17	2.	0.	0.	0.03
+	HYDROGRAPH AT	170I3	9.	4.00	1.	0.	0.	0.01
+	3 COMBINED AT	MLT6	236.	4.17	30.	8.	7.	0.24

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

M.7

COLONY WASH

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*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*              MAY   1991               *
*            VERSION 4.0.1E             *
*     Lahey F77L-EM/32 version 5.01     *
*       Dodson & Associates, Inc.       *
* RUN DATE  04/13/95  TIME  10:06:01    *
*****************************************
```

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*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    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
```

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

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

  1           ID   COLONY WASH - FUTURE CONDITIONS, AGK ENGINEERS, 04-12-95
  2           ID   10-Year 6-Hour Storm
  3           ID   time steps at 2 minutes
  4           ID   FILE 180-6XF.DAT
  5           ID
  6           IT       5                    300
  7           IO       5
              *DIAGRAM
  8           IN      15
  9           JD    2.00    0.01
 10           PC    .000    .008    .016    .025    .033    .041    .050    .058    .066    .074
 11           PC    .087    .099    .118    .138    .216    .377    .834    .911    .931    .950
 12           PC    .962    .972    .983    .991   1.000
 13           JD    1.99    0.50
 14           JD    1.96    2.80
 15           PC    .000    .009    .016    .025    .034    .042    .051    .059    .067    .076
 16           PC    .087    .100    .120    .163    .252    .451    .694    .837    .900    .938
 17           PC    .950    .963    .975    .988   1.000
 18           JD    1.84    16.0
 19           PC    .000    .015    .020    .030    .048    .063    .076    .090    .105    .119
 20           PC    .135    .152    .175    .222    .304    .472    .670    .796    .868    .912
 21           PC    .946    .960    .973    .987   1.000
 22           JD    1.62    90.0
 23           PC    .000    .021    .035    .051    .071    .087    .105    .125    .143    .160
 24           PC    .179    .201    .232    .281    .364    .500    .658    .773    .841    .888
 25           PC    .927    .945    .964    .982   1.000
 26           JD    1.14   500.0
 27           PC    .000    .024    .043    .059    .078    .098    .119    .141    .162    .186
 28           PC    .212    .239    .271    .321    .408    .515    .627    .735    .814    .864
 29           PC    .907    .930    .954    .977   1.000

 30           KK    185A
 31           KM   SUB-BASIN 185A
 32           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 33           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 34           BA    .041
 35           LG    .100    .250   5.700    .189  45.000
 36           UC    .175    .193
 37           UA       0       5      16      30      65      77      84      90      94      97
 38           UA     100

 39           KK   R185A
 40           KM   ROUTE 185A THROUGH SUB-BASIN 185B TO CON. POINT IRW1
 41           RS       7    FLOW       0
 42           RC    0.04    0.04    0.04    4042    0.04
 43           RX    9885    9940    9980   10000   10015   10105   10120   10170
 44           RY    1710    1700    1696    1692    1692    1704    1710    1720

 45           KK    185B
 46           KM   SUB-BASIN 185B
 47           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 48           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 49           BA    .081
 50           LG    .150    .250   5.700    .207  29.780
 51           UC    .308    .330
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  52          UA       0       5      16      30      65      77      84      90      94      97
  53          UA     100

  54          KK    IRW1
  55          KM   IRONWOOD WASH CONCENTRATION POINT 1 - COMBINES R185A, 185B
  56          HC       2

  57          KK   SIRW1
  58          KM   ROUTE THROUGH A 48" CMP CULVERT UNDER CHOLA DRIVE BY FOUNTAIN HILLS BLVD
  59          RS       1    ELEV  1663.5
  60          SQ       0      25      76     150     180
  61          SE  1663.5  1665.5  1667.5  1671.5    1674
  62          SA       0    0.11    0.69    1.70
  63          SE  1663.5    1664    1668    1676

  64          KK    180A
  65          KM   SUB-BASIN 180A
  66          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  67          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  68          BA    .025
  69          LG    .150    .250   5.700    .207  25.000
  70          UC    .158    .184
  71          UA       0       5      16      30      65      77      84      90      94      97
  72          UA     100

  73          KK   R180A
  74          KM   ROUTE 180A THROUGH SUB-BASIN 180B TO CON. POINT IRW2
  75          RS       1    FLOW       0
  76          RC    0.02    0.02    0.02     366   0.045
  77          RX    9975    9980    9985    9986   10014   10015   10020   10025
  78          RY  1680.5  1680.5  1680.5    1680    1680  1680.5  1680.5  1680.5

  79          KK    180B
  80          KM   SUB-BASIN 180B
  81          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  82          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  83          BA    .029
  84          LG    .067    .250   5.700    .183  38.160
  85          UC    .300    .858
  86          UA       0       5      16      30      65      77      84      90      94      97
  87          UA     100

  88          KK    IRW2
  89          KM   IRONWOOD WASH CONCENTRATION POINT 2 - COMBINE SIRW1, R108A, 180B
  90          HC       3

  91          KK   RIRW2
  92          KM   ROUTE IRW2 THROUGH SUB-BASIN 180F TO CON. POIT CLN1
  93          KM   LENGTH 283 INCREASED FOR STABILITY
  94          RS       1    FLOW       0
  95          RC    0.04    0.04    0.04    1000   0.060
  96          RX    9870    9960    9980    9995   10010   10055   10085   10090
  97          RY    1668    1665    1664    1658    1658    1666    1670    1674
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  98          KK    186A
  99          KM   SUB-BASIN 186A
 100          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 101          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 102          BA    .099
 103          LG    .142    .250   5.700    .203  17.450
 104          UC    .267    .223
 105          UA       0       5      16      30      65      77      84      90      94      97
 106          UA     100

 107          KK    186B
 108          KM   SUB-BASIN 186B
 109          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 110          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 111          BA    .005
 112          LG    .149    .250   5.700    .207  19.150
 113          UC    .138    .164
 114          UA       0       5      16      30      65      77      84      90      94      97
 115          UA     100

 116          KK   R186B
 117          KM   ROUTE R186B THROUGH SUB-BASIN 186D (PALISADES BLV)
 118          RS       3    FLOW       0
 119          RC    0.02    0.02    0.02    1349    0.08
 120          RX    9975    9980    9985    9986   10014   10015   10020   10025
 121          RY  1900.6  1900.5  1900.5    1900    1900  1900.5  1900.5  1900.6

 122          KK   SNB1A
 123          KM   SUNBURST CONCENTRATION POINT 1A - COMBINE 186A, R186B
 124          HC       2

 125          KK  RSNB1A
 126          KM   ROUTE SNB1A THROUGH SUB-BASIN 186D (WASH) TO CON. POINT SNB1
 127          RS       7    FLOW       0
 128          RC    0.04    0.04    0.04    3780   0.055
 129          RX    9850    9910    9970    9995   10005   10030   10060   10090
 130          RY    1920    1904    1899    1892    1892    1900    1910    1920

 131          KK    186C
 132          KM   SUB-BASIN 186C
 133          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 134          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 135          BA    .017
 136          LG    .081    .250   5.700    .175  37.200
 137          UC    .158    .225
 138          UA       0       5      16      30      65      77      84      90      94      97
 139          UA     100

 140          KK   R186C
 141          KM   ROUTE 186C THROUGH SUB-BASIN 186D (MANCHESTER DR.) TO CON. POINT SNB1
 142          KM   LENGTH 407 INCREASED FOR STABILITY
 143          RS       1    FLOW       0
 144          RC    0.02    0.02    0.02    1000   0.125
 145          RX  9947.5  9952.5  9957.5    9960   10040 10042.5 10047.5 10052.5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 146          RY  2040.5  2040.5  2040.5    2040    2040  2040.5  2040.5  2040.5

 147          KK    186D
 148          KM   SUB-BASIN 186D
 149          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 150          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 151          BA    .081
 152          LG    .150    .250   5.800    .195  26.520
 153          UC    .304    .329
 154          UA       0       5      16      30      65      77      84      90      94      97
 155          UA     100

 156          KK    SNB1
 157          KM   SUNBURST WASH CONSENTRATION POINT 1 - COMBINE RSNB1A, R186C, 186D
 158          HC       3

 159          KK   RSNB1
 160          KM   ROUTE SNB1 THROUGH SUB-BASIN 186F  TO CON. POINT SNB2
 161          RS       4    FLOW       0
 162          RC    0.04    0.04    0.04    1961   0.042
 163          RX    9935    9963    9985    9997   10003   10050   10090   10125
 164          RY    1840    1830    1820    1814    1814    1820    1830    1840

 165          KK    186E
 166          KM   SUB-BASIN 186E
 167          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 168          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 169          BA    .036
 170          LG    .144    .250   5.700    .205  27.410
 171          UC    .200    .178
 172          UA       0       5      16      30      65      77      84      90      94      97
 173          UA     100

 174          KK    186F
 175          KM   SUB-BASIN 186F
 176          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 177          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 178          BA    .029
 179          LG    .150    .250   5.800    .195  30.300
 180          UC    .217    .235
 181          UA       0       5      16      30      65      77      84      90      94      97
 182          UA     100

 183          KK    SNB2
 184          KM   SUNBURST WASH CONSENTRATION POINT 2 - COMBINE RSNB1, 186E, 186F
 185          HC       3

 186          KK   RSNB2
 187          KM   ROUTE SNB2 THROUGH SUB-BASIN 186G  TO CON. POINT SNB3
 188          RS       5    FLOW       0
 189          RC    0.04    0.04    0.04    2408   0.026
 190          RX    9865    9930    9960    9995   10005   10040   10060   10140
 191          RY    1790    1772    1766    1762    1762    1764    1772    1790
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 192          KK    186G
 193          KM   SUB-BASIN 186G
 194          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 195          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 196          BA    .066
 197          LG    .150    .250   5.700    .207  25.000
 198          UC    .258    .254
 199          UA       0       5      16      30      65      77      84      90      94      97
 200          UA     100

 201          KK    SNB3
 202          KM   SUNBURST WASH CONSENTRATION POINT 3 - COMBINE RSNB2, 186G
 203          HC       2

 204          KK   SSNB3
 205          KM   ROUTE SNB3 THROUGH CULVERT AT SYCAMORE DRIVE
 206          RS       1    ELEV  1746.4
 207          SQ       0      21      66     127     185
 208          SE  1746.4  1748.4  1750.4  1754.4  1761.1
 209          SA       0    0.02    2.03
 210          SE  1746.4    1722    1740

 211          KK    186H
 212          KM   SUB-BASIN 186H
 213          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 214          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 215          BA    .025
 216          LG    .050    .250   5.700    .170  34.970
 217          UC    .258    .575
 218          UA       0       5      16      30      65      77      84      90      94      97
 219          UA     100

 220          KK    160E
 221          KM   SUB-BASIN 160E
 222          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 223          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 224          BA    .004
 225          LG    .092    .250   5.700    .170  41.880
 226          UC    .129    .255
 227          UA       0       5      16      30      65      77      84      90      94      97
 228          UA     100

 229          KK   R160E
 230          KM   ROUTE 160E THROUGH SUB-BASIN 186H TO CON. POINT SNB4
 231          RS       2    FLOW       0
 232          RC    0.02    0.02    0.02     700   0.174
 233          RX    9975    9980    9985    9986   10014   10015   10020   10025
 234          RY  1733.5  1733.5  1733.5    1733    1733  1733.5  1733.5  1733.5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 235          KK   SNB4
 236          KM   SUNBURST WASH CONSENTRATION POINT 4 - COMBINE SSNB3, 186H, R160E
 237          HC      3

 238          KK   RSNB4
 239          KM   ROUTE SNB4 THROUGH SUB-BASIN 186I  TO CON. POINT SNB5
 240          RS      2    FLOW      0
 241          RC   0.04    0.04    0.04    1004   0.023
 242          RX   9905    9945    9965    9990   10015   10070   10100   10140
 243          RY   1726    1716    1710    1702    1702    1704    1716    1724

 244          KK   186I
 245          KM   SUB-BASIN 186I
 246          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 247          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 248          BA   .029
 249          LG   .150    .250   5.700    .207  25.000
 250          UC   .200    .197
 251          UA     0       5      16      30      65      77      84      90      94      97
 252          UA   100

 253          KK   *SNB5
 254          KM   SUNBURST WASH CONCENTRATION POINT *5 - RSNB4, 186I
 255          HC      2

 256          KK   187A
 257          KM   SUB-BASIN 187A
 258          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 259          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 260          BA   .009
 261          LG   .150    .250   5.800    .195  26.770
 262          UC   .125    .092
 263          UA     0       5      16      30      65      77      84      90      94      97
 264          UA   100

 265          KK   R187A
 266          KM   ROUTE 187A THROUGHT SUB-BASIN 187B TO POINT OF CON. GRS1
 267          RS      1    FLOW      0
 268          RC   0.04    0.04    0.04     445   0.022
 269          RX   9785    9845    9940    9988   10010   10030   10125   10170
 270          RY   1870    1861    1858    1852    1852    1858    1872    1876

 271          KK   187B
 272          KM   SUB-BASIN 187B
 273          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 274          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 275          BA   .008
 276          LG   .150    .250   5.800    .195  48.740
 277          UC   .162    .204
 278          UA     0       5      16      30      65      77      84      90      94      97
 279          UA   100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 280          KK    GRS1
 281          KM    GREYSTONE WASH CONCENTRATION POINT 1 - COMBINE R187A, 187B
 282          HC       2

 283          KK   RGRS1
 284          KM   ROUTE GRS1 THROUGHT SUB-BASIN 187D TO POINT OF CON. GRS2
 285          RS       6    FLOW       0
 286          RC    0.04    0.04    0.04    3514    .044
 287          RX    9920    9955    9980    9995   10005   10040   40075   10110
 288          RY    1780    1770    1760    1754    1754    1760    1770    1780

 289          KK    187C
 290          KM   SUB-BASIN 187C
 291          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 292          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 293          BA    .012
 294          LG    .150    .250   5.700    .198  38.760
 295          UC    .125    .141
 296          UA       0       5      16      30      65      77      84      90      94      97
 297          UA     100

 298          KK   R187C
 299          KM   ROUTE 187C THROUGHT SUB-BASIN 187D TO POINT OF CON. GRS2
 300          RS       4    FLOW       0
 301          RC    0.04    0.04    0.04    2181    .061
 302          RX    9920    9955    9980    9995   10005   10040   40075   10110
 303          RY    1780    1770    1760    1754    1754    1760    1770    1780

 304          KK    187D
 305          KM   SUB-BASIN 187D
 306          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 307          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 308          BA    .070
 309          LG    .150    .250   5.700    .207  28.650
 310          UC    .308    .363
 311          UA       0       5      16      30      65      77      84      90      94      97
 312          UA     100

 313          KK   *GRS2
 314          KM   GREYSTONE WASH CONCENTRATION POINT *2 - RGRS1, R187C, 187D
 315          HC       3

 316          KK    188A
 317          KM   SUB-BASIN 188A
 318          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 319          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 320          BA    .009
 321          LG    .086    .250   5.700    .185  40.180
 322          UC    .129    .185
 323          UA       0       5      16      30      65      77      84      90      94      97
 324          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 325          KK   R188A
 326          KM   ROUTE 188A THROUGH SUB-BASIN 188B TO CON. POINT SYC1
 327          RS       2    FLOW       0
 328          RC    0.04    0.04    0.04     747   0.173
 329          RX    9770    9810    9940    9960   10020   10045   10120   10180
 330          RY    1716    1711    1708    1708    1709    1712    1720    1728

 331          KK    188B
 332          KM   SUB-BASIN 188B
 333          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 334          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 335          BA    .066
 336          LG    .149    .250   6.000    .183  44.690
 337          UC    .217    .171
 338          UA       0       5      16      30      65      77      84      90      94      97
 339          UA     100

 340          KK    188C
 341          KM   SUB-BASIN 188C
 342          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 343          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 344          BA    .022
 345          LG    .145    .250   5.800    .194  26.990
 346          UC    .196    .225
 347          UA       0       5      16      30      65      77      84      90      94      97
 348          UA     100

 349          KK    SYR1
 350          KM   SYCAMORE WASH CONCENTRATION POINT 1 - COMBINE SUB-BASINS R188A, 188B, 188C
 351          HC       3

 352          KK   RSYC1
 353          KM   ROUTE SYC1 THROUGH SUB-BASIN 188D TO CON. POINT SYC2
 354          RS       4    FLOW       0
 355          RC    0.04    0.04    0.04    2280   0.034
 356          RX    9915    9950    9985   10000   10008   10020   10055   10085
 357          RY    1850    1840    1830    1826    1826    1830    1840    1850

 358          KK    188D
 359          KM   SUB-BASIN 188D
 360          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 361          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 362          BA    .055
 363          LG    .150    .250   5.800    .195  22.890
 364          UC    .242    .248
 365          UA       0       5      16      30      65      77      84      90      94      97
 366          UA     100

 367          KK    188E
 368          KM   SUB-BASIN 188E
 369          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 370          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 371          BA    .052
 372          LG    .136    .250   5.700    .202  26.220
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 373          UC    .271    .328
 374          UA       0       5      16      30      65      77      84      90      94      97
 375          UA     100

 376          KK    SYR2
 377          KM   SYCAMORE WASH CONCENTRATION POINT 2 - COMBINE SUB-BASINS RSYC1, 188D, 188E
 378          HC       3

 379          KK   RSYC2
 380          KM   ROUTE SYC2 THROUGH SUB-BASIN 188F TO CON. POINT SYC3
 381          RS       5    FLOW       0
 382          RC    0.04    0.04    0.04    3003    0.02
 383          RX    9910    9935    9950    9980   10010   10060   10075   10110
 384          RY    1780    1770    1764    1760    1760    1766    1770    1780

 385          KK    188F
 386          KM   SUB-BASIN 188F
 387          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 388          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 389          BA    .072
 390          LG    .146    .250   5.700    .205  25.800
 391          UC    .271    .272
 392          UA       0       5      16      30      65      77      84      90      94      97
 393          UA     100

 394          KK    SYR3
 395          KM   SYCAMORE WASH CONCENTRATION POINT 3 - COMBINE SUB-BASINS RSYC2, 188F
 396          HC       2

 397          KK   SSYC3
 398          KM   ROUTE SYC3 THROUGH 60" CMP CULVERT AT GREYSTONE DRIVE
 399          RS       1    ELEV    1708
 400          SQ       0      37     115     222     280
 401          SE    1708  1710.5    1713    1718    1722
 402          SA    0.05    1.29
 403          SE    1708    1717

 404          KK   RSYC3
 405          KM   ROUTE SSYC3 THROUGH SUB-BASIN 188G TO CON. POINT SYC4
 406          RS       1    FLOW       0
 407          RC    0.04    0.04    0.04     249   0.024
 408          RX    9770    9810    9940    9960   10020   10045   10120   10180
 409          RY    1716    1711    1708    1702    1702    1712    1720    1728

 410          KK    188G
 411          KM   SUB-BASIN 188G
 412          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 413          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 414          BA    .001
 415          LG    .150    .250   5.700    .207  25.000
 416          UC    .100    .176
 417          UA       0       5      16      30      65      77      84      90      94      97
 418          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 419          KK    SYR4
 420          KM   SYCAMORE WASH CONCENTRATION POINT 4 - COMBINE SUB-BASINS RSYC3, 188G
 421          HC       2

 422          KK    GRS2
 423          KM   GREYSTONE WASH POINT OF CONCENTRATION 2 - COMBINE (RGRS1,R187C,187D0,SYR4
 424          HC       2

 425          KK   SGRS2
 426          KM   ROUTE GRS2 THROUGH 2-60" AND 48" CULVERT AT SYCAMORE DRIVE TO GRS3
 427          RS       1    ELEV  1595.5
 428          SQ       0     106     226     317     500     594
 429          SE  1595.5    1598  1599.5  1600.5  1603.5  1605.4
 430          SA       0    0.01    0.47    0.73
 431          SE  1595.5    1698    1700 1705.75

 432          KK    187E
 433          KM   SUB-BASIN 187E
 434          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 435          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 436          BA    .005
 437          LG    .050    .250   5.700    .170  39.100
 438          UC    .121    .292
 439          UA       0       5      16      30      65      77      84      90      94      97
 440          UA     100

 441          KK   R187E
 442          KM   ROUTE 187E THROUGHT SUB-BASIN 187F TO POINT OF CON. GRS3A
 443          RS       3    FLOW       0
 444          RC    0.02    0.02    0.02    1707   0.076
 445          RX    9975    9980    9985    9986   10014   10015   10020   10025
 446          RY  1780.5  1780.5  1780.5    1810    1810  1810.5  1780.5  1780.5

 447          KK    187F
 448          KM   SUB-BASIN 187F
 449          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 450          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 451          BA    .003
 452          LG    .050    .250   5.700    .170  25.000
 453          UC    .154    .524
 454          UA       0       5      16      30      65      77      84      90      94      97
 455          UA     100

 456          KK   GRS3A
 457          KM   GREYSTONE WASH POINT OF CONCENTRATION 3A - COMBINE R187E, 187F
 458          HC       2

 459          KK  RGRS3A
 460          KM   ROUTE GRS3A THROUGHT SUB-BASIN 187G TO POINT OF CON. GRS3
 461          RS       1    FLOW       0
 462          RC    0.02    0.02    0.02     337   0.033
 463          RX    9975    9980    9985    9986   10014   10015   10020   10025
 464          RY  1710.5  1710.5  1710.5    1710    1710  1710.5  1710.5  1710.5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

465           KK    187G
466           KM   SUB-BASIN 187G
467           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
468           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
469           BA    .043
470           LG    .100     .250   5.700    .189  39.180
471           UC    .350     .643
472           UA       0        5      16      30      65      77      84      90      94      97
473           UA     100

474           KK    GRS3
475           KM   GREYSTONE WASH POINT OF CONCENTRATION 3 - COMBINE SGRS2, RGRS3A, 187G
476           HC       3

477           KK   RGRS3
478           KM   ROUTE GRS3 THROUGHT SUB-BASIN 187H TO POINT OF CON. GRS4
479           RS       4    FLOW       0
480           RC    0.04     0.04    0.04     442   0.045
481           RX    9705     9755    9965    9990   10030   10065   10085   10130
482           RY    1708   1699.3  1699.3    1690    1690    1696    1700    1710

483           KK    187H
484           KM   SUB-BASIN 187H
485           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
486           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
487           BA    .004
488           LG    .150     .250   5.700    .207  25.000
489           UC    .138     .186
490           UA       0        5      16      30      65      77      84      90      94      97
491           UA     100

492           KK   *SNB5
493           KM   SUNBURST WASH CONCENTRATION POINT *5 - RGRS3, 187H
494           HC       2

495           KK    SNB5
496           KM   SUNBURST WASH CONSENTRATION POINT 5 - COMBINE (RSNB4,186I), (RGRS3, 187H)
497           HC       2

498           KK   RSNB5
499           KM   ROUTE SNB5 THROUGH SUB-BASIN 187I  TO CON. POINT SNB6
500           RS       1    FLOW       0
501           RC    0.04     0.04    0.04     295   0.02
502           RX    9685     9760    9870    9950   10005   10035   10225   10255
503           RY    1710   1691.5  1691.5    1682    1682    1692    1700    1710

504           KK    187I
505           KM   SUB-BASIN 187I
506           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
507           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
508           BA    .024
509           LG    .150     .250   5.700    .207  25.000
510           UC    .171     .144
511           UA       0        5      16      30      65      77      84      90      94      97
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 512          UA     100

 513          KK    SNB6
 514          KM   SUNBURST WASH CONSENTRATION POINT 6 - COMBINE RSNB5, 187I
 515          HC       2

 516          KK   SSNB6
 517          KM   ROUTE THROUGH 30" CMP UNDER DAM AT SUB-BASIN 187I
 518          RS       1    ELEV 1678.86
 519          SQ       0     7.2      22      45      85     100     379     886    1540
 520          SE  1678.9  1680.2  1681.4  1683.9  1693.9  1702.7  1703.7  1704.7  1705.7
 521          SA       0    0.01    0.93    3.47    8.55
 522          SE  1678.9    1680    1686    1694    1704

 523          KK   RSNB6
 524          KM   ROUTE SSNB6 THROUGH SUB-BASIN 180F TO CON. POINT CLN1
 525          RS       4    FLOW       0
 526          RC    0.04    0.04    0.04    1840   0.014
 527          RX    9870    9960    9980    9995   10010   10055   10085   10090
 528          RY    1668    1665    1664    1658    1658    1666    1670    1674

 529          KK    180F
 530          KM   SUB-BASIN 180F
 531          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 532          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 533          BA    .074
 534          LG    .150    .250   5.700    .207  25.190
 535          UC    .225    .165
 536          UA       0       5      16      30      65      77      84      90      94      97
 537          UA     100

 538          KK   *CLN1
 539          KM   COLONY WASH CONCENTRATION POINT *1 - RSNB6, 180F
 540          HC       2

 541          KK    CLN1
 542          KM   COLONY WASH CONCENTRATION POINT 1 - COMBINE RIRW2, (180F, RSNB6)
 543          HC       2

 544          KK   SCLN1
 545          KM   ROUTE CLN1 THROUGH 2-60" ONE WITH SEWER CULVERTS AT FOUNTAIN HILL BLV.
 546          RS       1    ELEV 1649.63
 547          SQ       0      16      68     215     345     415
 548          SE  1649.6  1650.6  1652.1  1654.6  1657.1  1659.1
 549          SA       0    0.13    1.06    8.03
 550          SE  1649.6    1652    1654    1664

 551          KK    180C
 552          KM   SUB-BASIN 180C
 553          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 554          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 555          BA    .010
 556          LG    .098    .250   5.700    .179  26.710
 557          UC    .112    .125
 558          UA       0       5      16      30      65      77      84      90      94      97
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 559          UA     100

 560          KK   R180C
 561          KM   ROUTE 180C THROUGH SUB-BASIN 180D TO CON. POIT CLN2
 562          RS       3    FLOW       0
 563          RC    0.02    0.02    0.02    1228    0.05
 564          RX    9975    9980    9985    9986   10014   10015   10020   10025
 565          RY  1670.5  1670.5  1670.5    1670    1670  1670.5  1670.5  1670.5

 566          KK    180D
 567          KM   SUB-BASIN 180D
 568          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 569          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 570          BA    .003
 571          LG    .064    .250   5.700    .170  35.910
 572          UC    .138    .370
 573          UA       0       5      16      30      65      77      84      90      94      97
 574          UA     100

 575          KK    180E
 576          KM   SUB-BASIN 180E
 577          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 578          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 579          BA    .019
 580          LG    .100    .250   5.700    .183  25.370
 581          UC    .146    .168
 582          UA       0       5      16      30      65      77      84      90      94      97
 583          UA     100

 584          KK    CLN2
 585          KM   COLONY WASH CONCENTRATION POINT 2 - COMBINE SCLN1, R180C, 180D, 180E
 586          HC       4

 587          KK   RCLN2
 588          KM   ROUTE CLN2 THROUGH SUB-BASIN 180G TO CON. POIT CLN3
 589          RS       1    FLOW       0
 590          RC    0.04    0.04    0.04    1364   0.022
 591          RX    9840    9940    9958    9990   10010   10030   10120   10140
 592          RY    1640    1638    1634    1624    1624    1628    1628    1640

 593          KK    180G
 594          KM   SUB-BASIN 180G
 595          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 596          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 597          BA    .029
 598          LG    .150    .250   5.700    .207  32.350
 599          UC    .204    .187
 600          UA       0       5      16      30      65      77      84      90      94      97
 601          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 602          KK    CLN3
 603          KM   COLONY WASH CONCENTRATION POINT 3 - COMBINE RCLN2, 180G
 604          HC       2

 605          KK   SCLN3
 606          KM   ROUTE CLN1 THROUGH 2-60" CMP CULVERT AT ARROLLO VISTA DRIVE.
 607          RS       1    ELEV 1616.64
 608          SQ       0      74     230     444     470
 609          SE  1616.6  1619.1  1621.6  1626.6  1628.8
 610          SA       0    0.01    1.09    3.99
 611          SE  1616.6    1618    1622    1630

 612          KK    180H
 613          KM   SUB-BASIN 180H
 614          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 615          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 616          BA    .021
 617          LG    .150    .250   5.700    .207  65.000
 618          UC    .242    .346
 619          UA       0       5      16      30      65      77      84      90      94      97
 620          UA     100

 621          KK   R180H
 622          KM   ROUTE 180H THROUGH SUB-BASIN 180J TO CON. POIT CLN6B
 623          RS       1    FLOW       0
 624          RC    0.02    0.02    0.02     394   0.010
 625          RX    9975    9980    9985    9986   10014   10015   10020   10025
 626          RY  1670.5  1670.5  1670.5    1670    1670  1670.5  1670.5  1670.5

 627          KK    180I
 628          KM   SUB-BASIN 180I
 629          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 630          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 631          BA    .004
 632          LG    .050    .250   5.700    .170  65.000
 633          UC    .121    .190
 634          UA       0       5      16      30      65      77      84      90      94      97
 635          UA     100

 636          KK   R180I
 637          KM   ROUTE 180I THROUGH SUB-BASIN 180J TO CON. POIT CLN6B
 638          RS       2    FLOW       0
 639          RC    0.02    0.02    0.02    1161   0.051
 640          RX    9975    9980    9985    9986   10014   10015   10020   10025
 641          RY  1670.5  1670.5  1670.5    1670    1670  1670.5  1670.5  1670.5

 642          KK    180J
 643          KM   SUB-BASIN 180J
 644          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 645          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 646          BA    .034
 647          LG    .100    .250   5.700    .189  65.000
 648          UC    .200    .241
 649          UA       0       5      16      30      65      77      84      90      94      97
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 650          UA     100

 651          KK   CLN4B
 652          KM   COLONY WASH CONCENTRATION POINT 4B - COMBINE R180I, 180H, 180J
 653          HC       3

 654          KK  RCLN4B
 655          KM   ROUTE CLN4B THROUGH SUB-BASIN 180M TO CON. POIT CLN4
 656          RS       1    FLOW       0
 657          RC    0.02    0.02    0.02     217   0.010
 658          RX    9977    9980    9985    9986   10014   10015   10020   10027
 659          RY  1630.8  1630.5  1630.5    1630    1630  1630.5  1630.5  1630.8

 660          KK    180M
 661          KM   SUB-BASIN 180M
 662          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 663          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 664          BA    .005
 665          LG    .050    .250   5.700    .170  26.780
 666          UC    .150    .362
 667          UA       0       5      16      30      65      77      84      90      94      97
 668          UA     100

 669          KK    CLN4
 670          KM   COLONY WASH CONCENTRATION POINT 4 - COMBINE SCLN3, RCLN4A, 180M
 671          HC       3

 672          KK   RCLN4
 673          KM   ROUTE CLN4 THROUGH SUB-BASIN 180N TO CON. POIT CLN5
 674          RS       3    FLOW       0
 675          RC    0.04    0.04    0.04    1882   0.014
 676          RX    9890    9915    9940    9990   10010   10050   10080   10115
 677          RY    1610    1598    1596    1590    1590    1596    1598    1612

 678          KK    180N
 679          KM   SUB-BASIN 180N
 680          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 681          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 682          BA    .041
 683          LG    .142    .250   5.700    .205  43.950
 684          UC    .200    .150
 685          UA       0       5      16      30      65      77      84      90      94      97
 686          UA     100

 687          KK    184C
 688          KM   SUB-BASIN 184C
 689          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 690          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 691          BA    .014
 692          LG    .097    .250   5.700    .170  46.030
 693          UC    .133    .163
 694          UA       0       5      16      30      65      77      84      90      94      97
 695          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 696          KK    184D
 697          KM   SUB-BASIN 184D
 698          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 699          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 700          BA    .007
 701          LG    .050    .250   5.700    .170  45.880
 702          UC    .171    .440
 703          UA       0       5      16      30      65      77      84      90      94      97
 704          UA     100

 705          KK    NCL1
 706          KM   NORTH COLONY WASH CONCENTRATION POINT 1 - COMBINES 184C, 184D
 707          HC       2

 708          KK   RNCL1
 709          KM   ROUTE NCL1 THROUGH SUB-BASIN 184E TO CON. POINT NCL2
 710          RS       1    FLOW       0
 711          RC    0.04    0.04    0.04     321    .097
 712          RX    9795    9850    9925    9970   10010   10055   10080   10115
 713          RY    1566    1562    1558    1544    1544    1552    1560    1570

 714          KK    184E
 715          KM   SUB-BASIN 184E
 716          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 717          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 718          BA    .109
 719          LG    .148    .250   5.700    .206  45.380
 720          UC    .383    .477
 721          UA       0       5      16      30      65      77      84      90      94      97
 722          UA     100

 723          KK    NCL2
 724          KM   NORTH COLONY WASH CONCENTRATION POINT 2 - COMBINES RNCL1, 184E
 725          HC       2

 726          KK   SNCL2
 727          KM   ROUTE THROUGH 60" CMP CULVER AT MIMOSA DRIVE
 728          RS       1    ELEV 1739.67
 729          SQ       0      37     115     222     350
 730          SE  1739.7  1742.2  1744.7  1749.7  1759.9
 731          SA   0.001    0.04     1.4
 732          SE    1742    1744    1758

 733          KK    184F
 734          KM   SUB-BASIN 184F
 735          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 736          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 737          BA    .007
 738          LG    .050    .250   5.700    .170  48.870
 739          UC    .162    .384
 740          UA       0       5      16      30      65      77      84      90      94      97
 741          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 742          KK   R184F
 743          KM   ROUTE 184F THROUGH SUB-BASIN 184G TO CON. POINT NCL3
 744          RS       1    FLOW       0
 745          RC    0.04    0.04    0.04     349   0.136
 746          RX    9975    9980    9985    9986   10014   10015   10020   10025
 747          RY  1725.5  1725.5  1725.5    1725    1725  1725.5  1725.5  1725.5

 748          KK    NCL3
 749          KM   NORTH COLONY WASH CONCENTRATION POINT 3 - COMBINES SNCL2, R184F
 750          HC       2

 751          KK   RNCL3
 752          KM   ROUTE NCL3 THROUGH SUB-BASIN 184G TO MOUNTAIN SITE CULVERT INLET
 753          RS       1    FLOW       0
 754          RC    0.04    0.04    0.04     365   0.016
 755          RX    9875    9950    9970    9995   10010   10020   10055   10130
 756          RY    1756    1752    1740    1736    1736    1738    1758    1762

 757          KK   SNCL3
 758          KM   ROUTE THROUGH 60" CMP CULVER AT MOUNTAIN SIDE DRIVE
 759          RS       1    ELEV 1732.65
 760          SQ       0      37     115     222     255
 761          SE  1732.7  1735.2  1737.7  1742.7  1744.7
 762          SA       0    0.03    0.32
 763          SE    1732    1734    1746

 764          KK    184A
 765          KM   SUB-BASIN 184A
 766          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 767          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 768          BA    .019
 769          LG    .051    .250   5.700    .170  46.020
 770          UC    .162    .213
 771          UA       0       5      16      30      65      77      84      90      94      97
 772          UA     100

 773          KK   R184A
 774          KM   ROUTE 184A THROUGH SUB-BASIN 184B TO CON. POINT NCL4A
 775          RS            FLOW       0
 776          RC    0.02    0.02    0.02    4359   0.037
 777          RX    9975    9980    9985    9986   10014   10015   10020   10025
 778          RY  1870.5  1870.5  1870.5    1870    1870  1870.5  1870.5  1870.5

 779          KK    184B
 780          KM   SUB-BASIN 184B
 781          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 782          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 783          BA    .023
 784          LG    .099    .250   5.700    .188  45.270
 785          UC    .204    .376
 786          UA       0       5      16      30      65      77      84      90      94      97
 787          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 788          KK   NCL4A
 789          KM   NORTH COLONY WASH CONCENTRATION POINT 4A - COMBINES R184A, 184B
 790          HC       2

 791          KK  RNCL4A
 792          KM   ROUTE NCL4A THROUGH SUB-BASIN 184G TO CON. POINT NCL4
 793          RS       2    FLOW       0
 794          RC    0.02    0.02    0.02     863   0.103
 795          RX    9975    9980    9985    9986   10014   10015   10020   10025
 796          RY  1810.5  1810.5  1810.5    1810    1810  1810.5  1810.5  1810.5

 797          KK    NCL4
 798          KM   NORTH COLONY WASH CONCENTRATION POINT 4 - COMBINES SNCL3, RNC4A
 799          HC       2

 800          KK   RNCL4
 801          KM   ROUTE NCL4 THROUGH SUB-BASIN 184G TO CON. POINT NCL5
 802          RS       3    FLOW       0
 803          RC    0.04    0.04    0.04    1350   0.027
 804          RX    9865    9930    9960    9995   10005   10020   10133   10200
 805          RY    1730    1720    1716    1708    1708    1710    1714    1730

 806          KK    184G
 807          KM   SUB-BASIN 184G
 808          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 809          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 810          BA    .053
 811          LG    .150    .250   5.700    .207  58.920
 812          UC    .213    .173
 813          UA       0       5      16      30      65      77      84      90      94      97
 814          UA     100

 815          KK    NCL5
 816          KM   NORTH COLONY WASH CONCENTRATION POINT 5 - COMBINES RNCL4, 184G
 817          HC       2

 818          KK   SNCL5
 819          KM   ROUTE THROUGH 60" CMP CULVER AT FOUNTAIN HILL BLV
 820          RS       1    ELEV 1691.39
 821          SQ       0      37     115     222     340
 822          SE  1691.4  1693.9  1696.4  1701.4    1706
 823          SA       0   0.005    2.15
 824          SE  1691.4    1694    1706

 825          KK    184H
 826          KM   SUB-BASIN 184H
 827          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 828          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 829          BA    .012
 830          LG    .100    .250   5.700    .179  65.000
 831          UC    .175    .287
 832          UA       0       5      16      30      65      77      84      90      94      97
 833          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 834          KK    183A
 835          KM   SUB-BASIN 183A
 836          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 837          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 838          BA    .043
 839          LG    .150    .250   5.700    .198  48.100
 840          UC    .146    .118
 841          UA       0       5      16      30      65      77      84      90      94      97
 842          UA     100

 843          KK   R183A
 844          KM   ROUTE 183A THROUGH SUB-BASIN 183B TO CON. POINT NCL6A
 845          RS       4    FLOW       0
 846          RC    0.04    0.04    0.04    1450    0.03
 847          RX    9870    9925    9960    9985   10040   10108   10155   10210
 848          RY    1750    1740    1734    1732    1732    1734    1742    1754

 849          KK    183B
 850          KM   SUB-BASIN 183B
 851          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 852          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 853          BA    .041
 854          LG    .150    .250   5.700    .207  65.000
 855          UC    .213    .177
 856          UA       0       5      16      30      65      77      84      90      94      97
 857          UA     100

 858          KK   NCL6A
 859          KM   NORTH COLONY CONCENTRATION POINT 6A - COMBINE R183A, 183B
 860          HC       2

 861          KK  SNCL6A
 862          KM   STORAGE PONDING BY FOUNTAIN HILLS BLVD
 863          RS       1    ELEV    1722
 864          SQ       0       1     120    1030
 865          SE    1722    1729    1730    1731
 866          SA    0.99    3.14    3.24
 867          SE    1722    1729    1730

 868          KK  RNCL6A
 869          KM   ROUTE SNCL6A THROUGH SUB-BASIN 184H TO CON. POINT NCL6
 870          RS       2    FLOW       0
 871          RC    0.02    0.02    0.02     910   0.027
 872          RX    9975    9980    9985    9986   10014   10015   10020   10025
 873          RY  1716.5  1716.5  1716.5    1716    1716  1716.5  1716.5  1716.5

 874          KK    NCL6
 875          KM   NORTH COLONY WASH CONCENTRATION POINT 6 - COMBINES SNCL5, RNCL6A
 876          HC       3
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 877          KK   RNCL6
 878          KM   ROUTE NCL6 THROUGH SUB-BASIN 184I TO CON. POINT NCL7
 879          RS       3    FLOW       0
 880          RC    0.04    0.04    0.04    1492   0.032
 881          RX    9800    9865    9940    9975   10005   10040   10110   10190
 882          RY    1690    1680    1670    1666    1666    1676    1676    1690

 883          KK    184I
 884          KM   SUB-BASIN 184I
 885          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 886          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 887          BA    .031
 888          LG    .150    .250   5.700    .198  65.000
 889          UC    .175    .182
 890          UA       0       5      16      30      65      77      84      90      94      97
 891          UA     100

 892          KK    NCL7
 893          KM   NORTH COLONY WASH CONCENTRATION POINT 7 - COMBINES RNCL6, 184I
 894          HC       2

 895          KK   SNCL7
 896          KM   ROUTE THROUGH A 66" AND 60" CMP CULVER AT LA MONTANA DRIVE
 897          RS       1    ELEV  1656.9
 898          SQ       0      90     240     278     525
 899          SE  1656.9  1659.7  1661.9  1662.4  1667.9
 900          SA       0    0.06    1.11
 901          SE  1656.9    1660    1668

 902          KK   RNCL7
 903          KM   ROUTE SRNCL7 THROUGH SUB-BASIN 184J TO CON. POINT NCL8
 904          RS       2    FLOW       0
 905          RC    0.04    0.04    0.04     885    0.02
 906          RX    9955    9963    9980    9995   10005   10040   10070   10240
 907          RY    1678    1674    1666    1660    1660    1674    1686    1688

 908          KK    184J
 909          KM   SUB-BASIN 184J
 910          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 911          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 912          BA    .008
 913          LG    .150    .250   5.700    .187  65.000
 914          UC    .158    .199
 915          UA       0       5      16      30      65      77      84      90      94      97
 916          UA     100

 917          KK    NCL8
 918          KM   NORTH COLONY WASH CONCENTRATION POINT 8 - COMBINES RNCL7, 184J
 919          HC       2
 920          KM   SNCL8
 921          KM   ROUTE THROUGH 60" CMP CULVER AT CHANA
 922          KM   DELETED FOR STABILITY
 923          KM       1    ELEV 1629.38
 924          KM       0      37     115     195     952
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 925          KM  1629.4  1631.9  1634.4  1637.8  1639.4
 926          KM      0    .002     .08
 927          KM  1639.4    1632    1638

 928          KK   RNCL8
 929          KM   ROUTE SNCL8 THROUGH SUB-BASIN 184K TO CON. POINT NCL9
 930          RS       1    FLOW       0
 931          RC    0.04    0.04    0.04     448   0.084
 932          RX    9930    9945    9970    9990   10000   10035   10065   10080
 933          RY    1646    1640    1628    1618    1618    1622    1630    1632

 934          KK    184K
 935          KM   SUB-BASIN 184K
 936          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 937          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 938          BA    .004
 939          LG    .150    .250   5.700    .198  65.000
 940          UC    .121    .141
 941          UA       0       5      16      30      65      77      84      90      94      97
 942          UA     100

 943          KK    NCL9
 944          KM   NORTH COLONY WASH CONCENTRATION POINT 9 - COMBINES RNCL9, 184K
 945          HC       2

 946          KK   RNCL9
 947          KM   ROUTE NCL  THROUGH SUB-BASIN 180N
 948          RS       2    FLOW       0
 949          RC    0.04    0.04    0.04    1065   0.011
 950          RX    9890    9915    9940    9990   10010   10050   10080   10115
 951          RY    1610    1598    1596    1590    1590    1596    1598    1612

 952          KK    CLN5
 953          KM   COLONY WASH CONCENTRATION POINT 5 - COMBINE  RCLN4, 180N, RNCL9
 954          HC       3

 955          KK   SCLN5
 956          KM   ROUTE CLN5 THROUGH 72" CMP CULVERT AT SAGUARO BLV.
 957          RS       1    ELEV  1584.8
 958          SQ       0      45     145     310     345     755
 959          SE  1584.8  1587.3  1589.8  1594.8  1595.9    1598
 960          SA       0    0.18    2.09
 961          SE  1584.8    1588    1596

 962          KK    180K
 963          KM   SUB-BASIN 180K
 964          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 965          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 966          BA    .029
 967          LG    .050    .250   5.700    .170  66.090
 968          UC    .179    .202
 969          UA       0       5      16      30      65      77      84      90      94      97
 970          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  971         KK   R180K
  972         KM   ROUTE 180K THROUGH SUB-BASIN 180L TO CON. POINT CLN6
  973         RS       1    FLOW       0
  974         RC    0.02    0.02    0.02     390  0.0018
  975         RX    9945    9952    9960  9960.5 10039.5   10040   10048   10055
  976         RY  1600.5  1600.5  1600.5    1600    1600  1600.5  1600.5  1600.5

  977         KK    180L
  978         KM   SUB-BASIN 180L
  979         KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  980         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  981         BA    .013
  982         LG    .061    .250   5.700    .170  71.340
  983         UC    .112    .103
  984         UA       0       5      16      30      65      77      84      90      94      97
  985         UA     100

  986         KK    CLN6
  987         KM   COLONY WASH CONCENTRATION POINT 6 - COMBINE RCLN6A, SCLN5, 180L
  988         HC       3

  989         KK   RCLN6
  990         KM   ROUTE CLN6 THROUGH SUB-BASIN 1800 TO CON. POINT CLN7
  991         RS       3    FLOW       0
  992         RC    0.04    0.04    0.04    1427   0.018
  993         RX    9790    9900    9920    9993   10000   10045   10085   10100
  994         RY    1586    1584    1580    1572    1572    1586    1588    1590

  995         KK    1800
  996         KM   SUB-BASIN 1800
  997         KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  998         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  999         BA    .019
 1000         LG    .080    .250   5.700    .176  90.000
 1001         UC    .158    .179
 1002         UA       0       5      16      30      65      77      84      90      94      97
 1003         UA     100

 1004         KK   *CLN7
 1005         KM   COLONY WASH CONCENTRATION POINT *7 - RCLN6, 1800
 1006         HC       2

 1007         KK    182G
 1008         KM   SUB-BASIN 182G
 1009         KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 1010         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 1011         BA    .048
 1012         LG    .061    .250   5.700    .170  82.370
 1013         UC    .275    .392
 1014         UA       0       5      16      30      65      77      84      90      94      97
 1015         UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1016          KK    182I
1017          KM   SUB-BASIN 182I
1018          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1019          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1020          BA    .040
1021          LG    .070    .250   5.700    .170  72.940
1022          UC    .267    .346
1023          UA       0       5      16      30      65      77      84      90      94      97
1024          UA     100

1025          KK     FC1
1026          KM   FOUNTAIN CHANNEL CONC. POINT 1 - COMBINE 182G, 182I
1027          HC       2

1028          KK    RFC1
1029          KM   ROUTE FC1 THROUGH SUB-BASIN 182E
1030          RS       1    FLOW       0
1031          RC     .02     .02     .02     570    .012
1032          RX    9958    9963    9968  9968.5 10031.5   10032   10037   10042
1033          RY  1610.6  1610.5  1610.5    1610    1610  1610.5  1610.5  1610.6

1034          KK    182D
1035          KM   SUB-BASIN 182D
1036          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1037          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1038          BA    .094
1039          LG    .100    .250   5.700    .188  89.780
1040          UC    .217    .173
1041          UA       0       5      16      30      65      77      84      90      94      97
1042          UA     100

1043          KK   R182D
1044          KM   ROUTE 182D THROUGH SUB-BASIN 182E
1045          RS       4    FLOW       0
1046          RC     .02     .02     .02    1994    .021
1047          RX    9958    9963    9968  9968.5 10031.5   10032   10037   10042
1048          RY  1610.6  1610.5  1610.5    1610    1610  1610.5  1610.5  1610.6

1049          KK    182E
1050          KM   SUB-BASIN 182E
1051          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1052          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1053          BA    .064
1054          LG    .091    .250   5.700    .170  74.290
1055          UC    .221    .187
1056          UA       0       5      16      30      65      77      84      90      94      97
1057          UA     100

1058          KK    182F
1059          KM   SUB-BASIN 182F
1060          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1061          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1062          BA    .015
1063          LG    .050    .250   5.700    .170  65.490
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1064          UC    .233    .448
1065          UA       0       5      16      30      65      77      84      90      94      97
1066          UA     100

1067          KK     FC2
1068          KM   FOUNTAIN CHANNEL CONC. POINT 2 - COMBINE RFC1, R182D, 182E, 182F
1069          HC       4

1070          KK    SFC2
1071          KM   CATCH BASIN(2X3 AND TRIANGULAR),CULVERT UNDER SAGUARO BLVD AND SPILLWAYS
1072          RS       1    ELEV    1596
1073          SQ       0    10.4      41     181     482     913
1074          SE    1596  1596.2  1596.5    1597  1597.5    1598
1075          SA   0.001    0.48    0.80
1076          SE    1596  1596.5    1597

1077          KK    RFC2
1078          KM   ROUTE SFC2 TO THROUGH SUB-BASIN 182J TO FC3 IN MIDDLE OF 182J
1079          RS       1    FLOW       0
1080          RC     .04     .04     .04    1050    .011
1081          RX    9960    9970    9975    9980   10040   10090   10150   10220
1082          RY  1584.5    1584    1583    1582    1582    1590    1592    1594

1083          KK    DFC2
1084          KM   FLOW SPILL INTO THE LAKE
1085          DT   DOFC2
1086          DI       0     250     350     400     500     650     750     800
1087          DQ       0       0       4      19      63     184     274     320

1088          KK    182A
1089          KM   SUB-BASIN 182A
1090          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1091          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1092          BA    .050
1093          LG    .150    .250   5.700    .189  90.000
1094          UC    .175    .136
1095          UA       0       5      16      30      65      77      84      90      94      97
1096          UA     100

1097          KK   R182A
1098          KM   ROUTE SUB-BASIN 182A THROUGH SUB-BASIN 182B
1099          RS       4    FLOW       0
1100          RC     .02     .02     .02    1950    .025
1101          RX    9975    9980    9985    9986   10014   10015   10020   10025
1102          RY  1620.6  1620.5  1620.5    1620    1620  1620.5  1620.5  1620.6

1103          KK    182B
1104          KM   SUB-BASIN 182B
1105          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1106          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1107          BA    .039
1108          LG    .095    .250   5.700    .170  80.670
1109          UC    .213    .222
1110          UA       0       5      16      30      65      77      84      90      94      97
1111          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1112          KK    FC3A
1113          KM   FOUNTAIN CHANNEL CONC. POINT 3A - COMBINE R182A, 182B
1114          HC       2

1115          KK   SFC3A
1116          KM   CATCH BASIN AND SPILL WAY AT SAGUARO BLVD
1117          RS       1    ELEV    1596
1118          SQ       0     6.4    18.1    45.6    68.2     820    1450
1119          SE    1596  1596.2  1596.4  1596.7    1597    1598  1598.5
1120          SA       0     0.6
1121          SE    1596    1597

1122          KK    182C
1123          KM   SUB-BASIN 182C
1124          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1125          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1126          BA    .022
1127          LG    .078    .250   5.700    .170  83.060
1128          UC    .200    .273
1129          UA       0       5      16      30      65      77      84      90      94      97
1130          UA     100

1131          KK    FC3B
1132          KM   FOUNTAIN CHANNEL CONC. POINT 3B - COMBINE 182C, SFC3A
1133          HC       2

1134          KK   RFC3B
1135          KM   ROUTE FC3B THROUGH 182J TO MAIN CHANNEL IN MIDDLE OF 182J
1136          KM   LENGTH 210 INCREASED FOR STABILITY
1137          RS       1    FLOW       0
1138          RC     .03     .02     .03    1500   0.067
1139          RX    9900    9950    9993    9996   10004   10007   10050   10100
1140          RY    1583    1582  1581.5    1580    1580  1581.5    1582    1583

1141          KK     FC3
1142          KM   FOUNTAIN CHANNEL CONC. POINT 3 - COMBINE RFC3B, DFC2
1143          HC       2

1144          KK    RFC3
1145          KM   ROUTE FC3 THROUGH REMAINDER OF 182J
1146          RS       1    FLOW       0
1147          RC     .04     .04     .04     572    .009
1148          RX    9960    9970    9975    9980   10040   10090   10150   10220
1149          RY  1584.5    1584    1583    1582    1582    1590    1592    1594

1150          KK    182J
1151          KM   SUB-BASIN 182J
1152          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1153          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1154          BA    .015
1155          LG    .134    .250   5.700    .193  28.330
1156          UC    .237    .330
1157          UA       0       5      16      30      65      77      84      90      94      97
1158          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1159          KK     FC4
1160          KM   FOUNTAIN CHANNEL CONC. POINT 4 - COMBINE RFC3, 182J
1161          HC       2

1162          KK    SFC4
1163          KM   ROUTE FC4 THROUGH 2-4'X10 BOX CULVERTS UNDER EL LAGO BLVD
1164          RS       1    ELEV  1577.4
1165          SQ       0     170     460     780    1110
1166          SE  1577.4  1579.4  1581.4  1583.8  1585.4
1167          SA       0     .34       2
1168          SE  1577.4    1580    1584

1169          KK    DFHN
1170          KM   DIVERTED FLOW FROM FOUNTAIN HILLS NORTH (INPUT SABOL HYDROGRAPH)
1171          BA       1
1172          QI       0

1173          KK    183F
1174          KM   SUB-BASIN 183F
1175          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1176          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1177          BA    .049
1178          LG    .150    .250   5.700    .207  65.000
1179          UC    .208    .231
1180          UA       0       5      16      30      65      77      84      90      94      97
1181          UA     100

1182          KK    183G
1183          KM   SUB-BASIN 183G
1184          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1185          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1186          BA    .093
1187          LG    .150    .250   5.700    .207  76.740
1188          UC    .250    .229
1189          UA       0       5      16      30      65      77      84      90      94      97
1190          UA     100

1191          KK    183H
1192          KM   SUB-BASIN 183H
1193          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1194          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1195          BA    .018
1196          LG    .150    .250   5.700    .204  65.000
1197          UC    .133    .125
1198          UA       0       5      16      30      65      77      84      90      94      97
1199          UA     100

1200          KK     LC1
1201          KM   LAGO CHANNEL CONC. POINT 2 - COMBINE 183F, 183G, 183H, DFHN
1202          HC       4
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1203          KK    RLC1
1204          KM   ROUTE LC1 THROUGH SUB-BASIN 183I
1205          RS       4    FLOW       0
1206          RC     .02     .02     .02    2002    .023
1207          RX    9958    9963    9968  9968.5 10031.5   10032   10037   10042
1208          RY  1620.7  1620.6  1620.5    1620    1620  1620.5  1620.6  1620.7

1209          KK    183I
1210          KM   SUB-BASIN 183I
1211          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1212          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1213          BA    .057
1214          LG    .100    .250   5.700    .170  77.810
1215          UC    .221    .197
1216          UA       0       5      16      30      65      77      84      90      94      97
1217          UA     100

1218          KK    183J
1219          KM   SUB-BASIN 183J
1220          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1221          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1222          BA    .005
1223          LG    .050    .250   5.700    .170  88.590
1224          UC    .100    .122
1225          UA       0       5      16      30      65      77      84      90      94      97
1226          UA     100

1227          KK     LC2
1228          KM   LAGO CHANNEL CONC. POINT 2 - COMBINE RLC1, 183I, 183J
1229          HC       3

1230          KK    SLC2
1231          KM   ROUTE LC3 THROUGH ACROSS ROAD CATCH BASIN AT SAGUARO BLVD & EL LAGO BLVD
1232          RS       1    ELEV    1598
1233          SQ       0      27     110     300     966
1234          SE    1598  1598.2  1598.5    1599    1600
1235          SA   0.002    0.37
1236          SE    1598    1599

1237          KK    RLC2
1238          KM   ROUTE SLC2 THROUGH SUB-BASIN 183K
1239          RS       1    FLOW       0
1240          RC     .02     .02     .02     521    .029
1241          RX    9958    9963    9968  9968.5 10031.5   10032   10037   10042
1242          RY  1592.7  1592.6  1592.5    1592    1592  1592.5  1592.6  1592.7

1243          KK    183K
1244          KM   SUB-BASIN 183K
1245          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1246          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1247          BA    .002
1248          LG    .050    .250   5.700    .170  90.000
1249          UC    .083    .128
1250          UA       0       5      16      30      65      77      84      90      94      97
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1251          UA     100

1252          KK     LC3
1253          KM   LAGO CHANNEL CONC. POINT 3 - COMBINE RLC2, 183K
1254          HC       2

1255          KK   D183K
1256          KM   DIVERSION OF 183K INTO 181B
1257          DT  D0183K
1258          DI       1      10     100    1000
1259          DQ       0       0       5     100

1260          KK     FC5
1261          KM   FOUNTAIN CHANNEL CONC. POINT 5 - COMBINE SFC4, RFC5
1262          HC       2

1263          KK    RFC5
1264          KM   ROUTE FC5 THROUGH SUB-BASIN 182K TO CONC. POINT
1265          RS       1    FLOW       0
1266          RC     .04     .04     .04     502    .005
1267          RX    9930    9940    9960    9980   10015   10035   10085   10180
1268          RY    1586    1584    1580    1576    1576    1578    1588    1590

1269          KK    182K
1270          KM   SUB-BASIN 182K
1271          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1272          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1273          BA    .024
1274          LG    .093    .250   5.700    .170  86.270
1275          UC    .138    .091
1276          UA       0       5      16      30      65      77      84      90      94      97
1277          UA     100

1278          KK     FC6
1279          KM   FOUNTAIN CHANNEL CONC. POINT 6 - COMBINE RFC5, 182K
1280          HC       2

1281          KK    RFC6
1282          KM   ROUTE FC6 THROUGH SUB-BASIN 182L TO CONC. POINT FC7
1283          RS       2    FLOW       0
1284          RC     .04     .04     .04     670    .021
1285          RX    9880    9920    9960    9975   10025   10035   10045   10250
1286          RY    1582    1581    1580    1574    1574    1576    1578    1580

1287          KK    182L
1288          KM   SUB-BASIN 182L
1289          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1290          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1291          BA    .005
1292          LG    .111    .250   5.700    .174  70.390
1293          UC    .108    .126
1294          UA       0       5      16      30      65      77      84      90      94      97
1295          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1296          KK     FC7
1297          KM   FOUNTAIN CHANNEL CONC. POINT 7 - COMBINE RFC6, 182L
1298          HC       2

1299          KK    CLN7
1300          KM   COLONY WASH CONCENTRATION POINT 7 - COMBINE (RCLN6, 180O), FC7
1301          HC       2

1302          KK   RCLN7
1303          KM   ROUTE CLN7 THROUGH SUB-BASIN 180P TO CON. POINT CLN8
1304          RS       1    FLOW       0
1305          RC    0.04    0.04    0.04     631   0.022
1306          RX    9847    9860    9985    9995   10005   10040   10075   10125
1307          RY    1562    1554    1552    1550    1550    1552    1558    1556

1308          KK    180P
1309          KM   SUB-BASIN 180P
1310          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1311          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1312          BA    .011
1313          LG    .092    .250   5.400    .202  76.730
1314          UC    .129    .127
1315          UA       0       5      16      30      65      77      84      90      94      97
1316          UA     100

1317          KK   *CLN8
1318          KM   COLONY WASH CONCENTRATION POINT *8 - RCLN7, 180P
1319          HC       2

1320          KK    181A
1321          KM   SUB-BASIN 181A
1322          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1323          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
1324          BA    .079
1325          QI       0

1326          KK   R181A
1327          KM   ROUTE R181A THROUGH SUB-BASIN 181B
1328          RS       3    FLOW       0
1329          RC     .04     .04     .04    1268    .022
1330          RX    9960    9960    9970    9985   10005   10035   10110   10220
1331          RY    1574    1568    1568    1566    1566    1572    1574    1578

1332          KK    181B
1333          KM   SUB-BASIN 181B
1334          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1335          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1336          BA    .022
1337          LG    .063    .250   5.300    .204  64.590
1338          UC    .225    .311
1339          UA       0       5      16      30      65      77      84      90      94      97
1340          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1341          KK   D183K
1342          KM   FLOW FROM DIVERSION AT 183K THROUGH SUB-BASIN 181B
1343          DR  DO183K

1344          KK   R183K
1345          KM   ROUTE DIVERTED FLOW FROM 183K THROUGH SUB-BASIN 181B THROUGH STREET
1346          RS       2    FLOW       0
1347          RC    0.02    0.02    0.02    1145   0.011
1348          RX    9955    9963    9968  9968.5 10031.5   10032   10034   10045
1349          RY  1580.7  1580.6  1580.5    1580    1580  1580.5  1580.6  1580.7

1350          KK   R183K
1351          KM   ROUTE DIVERTED FLOW FROM STREET THROUGH 181B
1352          RS       3    FLOW       0
1353          RC    0.04   0.004    0.04    1145   0.023
1354          RX    9960    9960    9970    9985   10005   10035   10110   10220
1355          RY    1574    1574    1568    1566    1566    1572    1574    1578

1356          KK    CLN8
1357          KM   COLONY WASH CONCENTRATION POINT 8 - COMBINE (RCLN7,180P),R181A,180B,RD183K
1358          HC       4

1359          KK   SCLN8
1360          KM   ROUTE CLN8 THROUGH 4-6'X8' BOX CULVERT AT PANORAMA BLV.
1361          RS       1    ELEV 1546.44
1362          SQ       0     416    1184    2368
1363          SE  1546.4  1549.4  1552.4    1558
1364          SA       0     0.1    1.71
1365          SE  1546.4    1548    1555

1366          KK    180S
1367          KM   SUB-BASIN 180S
1368          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1369          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1370          BA    .035
1371          LG    .052    .250   5.600    .180  87.410
1372          UC    .129    .124
1373          UA       0       5      16      30      65      77      84      90      94      97
1374          UA     100

1375          KK   170I1
1376          KM   SUB-BASIN 170I-1
1377          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1378          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1379          BA    .022
1380          LG    .075    .250   5.700    .170  61.690
1381          UC    .192    .260
1382          UA       0       5      16      30      65      77      84      90      94      97
1383          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1384          KK  D170I1
1385          KM   DIVERSION AT INTERSECTION OF SAGUARO AND PANORAME
1386          DT  D170I1
1387          DI       1      10     100    1000
1388          DQ     0.5       5      50     500

1389          KK  R170I1
1390          KM   ROUTE 170I1 (DIVERTED FLOW) THROUGH SUB-BASIN 180S TO CLN9
1391          RS       2    FLOW       0
1392          RC    0.02    0.02    0.02    1088   0.035
1393          RX    9975    9980    9985    9986   10014   10015   10020   10025
1394          RY  1575.5  1575.5  1575.5    1575    1575  1575.5  1575.5  1575.5

1395          KK    CLN9
1396          KM   COLONY WASH CONCENTRATION POINT 9 - COMBINE SCLN8, RD170I-1, 180S
1397          HC       3

1398          KK   RCLN9
1399          KM   ROUTE CLN9 THROUGH SUB-BASIN 180U TO CON. POINT CLN10
1400          RS       4    FLOW       0
1401          RC    0.04    0.04    0.04    1999   0.015
1402          RX    9790    9805    9945    9965   10035   10060   10100   10110
1403          RY    1534    1532    1532    1528    1528    1530    1538  1538.5

1404          KK    180U
1405          KM   SUB-BASIN 180U
1406          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1407          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1408          BA    .019
1409          LG    .145    .250   3.810    .540  67.340
1410          UC    .208    .286
1411          UA       0       5      16      30      65      77      84      90      94      97
1412          UA     100

1413          KK  *CLN10
1414          KM   COLONY WASH CONCENTRATION POINT *10 - CONBINE RCLN9, 180U
1415          HC       2

1416          KK    180Q
1417          KM   SUB-BASIN 180Q
1418          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1419          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1420          BA    .032
1421          LG    .107    .250   5.400    .190  87.960
1422          UC    .196    .227
1423          UA       0       5      16      30      65      77      84      90      94      97
1424          UA     100

1425          KK    180R
1426          KM   SUB-BASIN 180R
1427          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1428          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1429          BA    .027
1430          LG    .150    .250   4.800    .305  90.000
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1431          UC    .175    .168
1432          UA       0       5      16      30      65      77      84      90      94      97
1433          UA     100

1434          KK   170I2
1435          KM   SUB-BASIN 170I-2
1436          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1437          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1438          BA    .012
1439          LG    .050    .250   5.700    .170  70.780
1440          UC    .125    .184
1441          UA       0       5      16      30      65      77      84      90      94      97
1442          UA     100

1443          KK  D170I1
1444          KM   FLOW FROM SUB-BASIN 170I-1
1445          DR  D170I1

1446          KK  R170I1
1447          KM   ROUTED FLOW FROM 170I1 THROUGH 170I2 TO MLT6A
1448          RS       4    FLOW       0
1449          RC    0.02    0.02    0.02    1738   0.025
1450          RX    9945    9952    9960  9960.5 10039.5   10040   10048   10055
1451          RY  1570.5  1570.5  1570.5    1570    1570  1570.5  1570.5  1570.5

1452          KK   MLT6A
1453          KM   MALTA DRAIN CONCENTRATION POINT 6A - COBINE R170I1, 170I2
1454          HC       2

1455          KK  DMLT6A
1456          KM   DIVERSION AT INTERSECTION OF SAGUARO AND EL PUEBLO
1457          DT  D170I2
1458          DI       1      10     100    1000
1459          DQ     0.5       5      50     500

1460          KK  RMLT6A
1461          KM   ROUTE MLT6A (DIVERTED FLOW) THROUGH SUB-BASIN 180R TO CLN10A
1462          RS       2    FLOW       0
1463          RC    0.02    0.02    0.02    1050   0.020
1464          RX    9975    9980    9985    9986   10014   10015   10020   10025
1465          RY  1540.5  1540.5  1540.5    1540    1540  1540.5  1540.5  1540.5

1466          KK   CL10A
1467          KM   COLONY WASH CONCENTRATION POINT 10A - COMBINE 180Q, 180R, RMLT6A
1468          HC       3

1469          KK  RCL10A
1470          KM   ROUTE CLN10A THROUGH SUB-BASIN 180U TO CON. POINT CLN10
1471          RS       1    FLOW       0
1472          RC    0.04    0.04    0.04     572   0.026
1473          RX    9790    9805    9945    9965   10035   10060   10100   10110
1474          RY    1534    1532    1532    1528    1528    1530    1538  1538.5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1475          KK  *CLN10
1476          KM   COLONY WASH CONCENTRATION POINT *10 - COMBINE (RCLN9, 180U), RCL10A
1477          HC       2

1478          KK    180T
1479          KM   SUB-BASIN 180T
1480          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
1481          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
1482          BA    .023
1483          LG    .100    .250   5.000    .230  90.000
1484          UC    .154    .176
1485          UA       0       5      16      30      65      77      84      90      94      97
1486          UA     100

1487          KK   CLN10
1488          KM   COLONY WASH CONCENTRATION POINT 10 - COMBINE ((RCLN9, 180U), RCLN10A), 180T
1489          HC       2
1490          ZZ
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SCHEMATIC DIAGRAM OF STREAM NETWORK

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

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

 30        185A
              V
              V
 39       R185A
              .
              .
 45           .        185B
              .           .
              .           .
 54        IRW1............
              V
              V
 57       SIRW1
              .
              .
 64           .        180A
              .           V
              .           V
 73           .      R180A
              .           .
              .           .
 79           .           .        180B
              .           .           .
              .           .           .
 88        IRW2........................
              V
              V
 91       RIRW2
              .
              .
 98           .        186A
              .           .
              .           .
107           .           .        186B
              .           .           V
              .           .           V
116           .           .      R186B
              .           .           .
              .           .           .
122           .      SNB1A............
              .           V
              .           V
125           .     RSNB1A
              .           .
              .           .
131           .           .        186C
              .           .           V
              .           .           V
140           .           .      R186C
              .           .           .
              .           .           .
147           .           .           .        186D
              .           .           .           .
              .           .           .           .
156           .       SNB1........................
              .           V
              .           V
159           .      RSNB1
              .           .
              .           .
165           .           .        186E
              .           .           .
              .           .           .
[illegible]   .           .           .        186F
              .           .           .           .
```

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        .        .        .        .
        .      SNB2.......................
        .        V
        .        V
186     .     RSNB2
        .        .
        .        .
192     .        .      186G
        .        .        .
        .        .        .
201     .      SNB3............
        .        V
        .        V
204     .     SSNB3
        .        .
        .        .
211     .        .      186H
        .        .        .
        .        .        .
220     .        .        .      160E
        .        .        .        V
        .        .        .        V
229     .        .        .     R160E
        .        .        .        .
        .        .        .        .
235     .      SNB4.......................
        .        V
        .        V
238     .     RSNB4
        .        .
        .        .
244     .        .      186I
        .        .        .
        .        .        .
253     .     *SNB5............
        .        .
        .        .
[illegible]     .        .      187A
        .        .        V
        .        .        V
265     .        .     R187A
        .        .        .
        .        .        .
271     .        .        .      187B
        .        .        .        .
        .        .        .        .
280     .        .      GRS1............
        .        .        V
        .        .        V
283     .        .     RGRS1
        .        .        .
        .        .        .
289     .        .        .      187C
        .        .        .        V
        .        .        .        V
298     .        .        .     R187C
        .        .        .        .
        .        .        .        .
304     .        .        .        .        187D
        .        .        .        .          .
        .        .        .        .          .
313     .        .     *GRS2.......................
        .        .        .
        .        .        .
316     .        .        .      188A
        .        .        .        V
        .        .        .        V
325     .        .        .     R188A
        .        .        .        .
        .        .        .        .
[illegible]     .        .        .        .        188B
        .        .        .        .          .
```

```
                                                  188C
349                    SYR1.......................
                         V
                         V
352                   RSYC1
                         .
                         .
358                      .          188D
                         .            .
                         .            .
367                      .            .          188E
                         .            .            .
                         .            .            .
376                    SYR2.......................
                         V
                         V
379                   RSYC2
                         .
                         .
385                      .          188F
                         .            .
                         .            .
394                    SYR3............
                         V
                         V
397                   SSYC3
                         V
                         V
404                   RSYC3
                         .
                         .
410                      .          188G
                         .            .
                         .            .
419                    SYR4............
                         .
                         .
422              GRS2............
                    V
                    V
425              SGRS2
                    .
                    .
432                    187E
                         V
                         V
441                   R187E
                         .
                         .
447                      .          187F
                         .            .
                         .            .
456                   GRS3A...........
                         V
                         V
459                  RGRS3A
                         .
                         .
465                      .          187G
                         .            .
                         .            .
474              GRS3.......................
                    V
                    V
477              RGRS3
                    .
                    .
[illegible]3           187H
                         .
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     .          .          .          .
     .          .       *SNB5.........
     .          .          .
     .          .          .
495  .       SNB5.........
     .          V
     .          V
498  .      RSNB5
     .          .
     .          .
504  .          .       187I
     .          .          .
     .          .          .
513  .       SNB6.........
     .          V
     .          V
516  .      SSNB6
     .          V
     .          V
523  .      RSNB6
     .          .
     .          .
529  .          .       180F
     .          .          .
     .          .          .
538  .      *CLN1.........
     .          .
     .          .
541    CLN1.........
          V
          V
544   SCLN1
     .
     .
551  .       180C
     .          V
     .          V
560  .      R180C
     .          .
     .          .
566  .          .       180D
     .          .          .
     .          .          .
575  .          .          .       180E
     .          .          .          .
     .          .          .          .
584    CLN2.................................
          V
          V
587   RCLN2
     .
     .
593  .       180G
     .          .
     .          .
602    CLN3.........
          V
          V
605   SCLN3
     .
     .
612  .       180H
     .          V
     .          V
621  .      R180H
     .          .
     .          .
627  .          .       180I
     .          .          V
     .          .          V
     .          .       R180I
     .          .          .
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```
                                  180J
                                    .
                                    .
651            CLN4B.......................
                 V
                 V
654           RCLN4B
                 .
                 .
660                     180M
                           .
                           .
669       CLN4........................
             V
             V
672       RCLN4
             .
             .
678            180N
                 .
                 .
687                     184C
                           .
                           .
696                                 184D
                                      .
                                      .
705                     NCL1............
                           V
                           V
708                     RNCL1
                           .
                           .
714                                 184E
                                      .
                                      .
723                     NCL2............
                           V
                           V
726                     SNCL2
                           .
                           .
733                                 184F
                                      V
                                      V
742                               R184F
                                      .
                                      .
748                     NCL3............
                           V
                           V
751                     RNCL3
                           V
                           V
757                     SNCL3
                           .
                           .
764                                 184A
                                      V
                                      V
773                               R184A
                                      .
                                      .
779                                 .        184B
                                    .          .
                                    .          .
788                               NCL4A............
                                      V
                                      V
                                  RNCL4A
                                      .
```

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                 .         .         .         .
                 .         .      NCL4.........
                 .         .         V
                 .         .         V
800              .         .      RNCL4
                 .         .         .
                 .         .         .
806              .         .         .      184G
                 .         .         .         .
                 .         .         .         .
815              .         .      NCL5.........
                 .         .         V
                 .         .         V
818              .         .      SNCL5
                 .         .         .
                 .         .         .
825              .         .         .      184H
                 .         .         .         .
                 .         .         .         .
834              .         .         .         .      183A
                 .         .         .         .         V
                 .         .         .         .         V
843              .         .         .         .      R183A
                 .         .         .         .         .
                 .         .         .         .         .
849              .         .         .         .         .      183B
                 .         .         .         .         .         .
                 .         .         .         .         .         .
858              .         .         .         .      NCL6.........
                 .         .         .         .         V
                 .         .         .         .         V
861              .         .         .         .      SNCL6A
                 .         .         .         .         V
                 .         .         .         .         V
868              .         .         .         .      RNCL6A
                 .         .         .         .         .
                 .         .         .         .         .
874              .         .      NCL6.......................
                 .         .         V
                 .         .         V
877              .         .      RNCL6
                 .         .         .
                 .         .         .
883              .         .         .      184I
                 .         .         .         .
                 .         .         .         .
892              .         .      NCL7.........
                 .         .         V
                 .         .         V
895              .         .      SNCL7
                 .         .         V
                 .         .         V
902              .         .      RNCL7
                 .         .         .
                 .         .         .
908              .         .         .      184J
                 .         .         .         .
                 .         .         .         .
917              .         .      NCL8.........
                 .         .         V
                 .         .         V
928              .         .      RNCL8
                 .         .         .
                 .         .         .
934              .         .         .      184K
                 .         .         .         .
                 .         .         .         .
943              .         .      NCL9.........
                 .         .         V
                 .         .         V
946              .         .      RNCL9
                 .         .         .
```

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                .          .          .
          CLN5.......................
             V
             V
955       SCLN5
                .
                .
962             .       180K
                .          V
                .          V
971             .      R180K
                .          .
                .          .
977             .          .       180L
                .          .          .
                .          .          .
986       CLN6.......................
             V
             V
989       RCLN6
                .
                .
995             .       1800
                .          .
                .          .
1004      *CLN7............
                .
                .
1007            .       182G
                .          .
                .          .
1016            .          .       182I
                .          .          .
                .          .          .
1025            .        FC1............
                .          V
                .          V
1028            .      RFC1
                .          .
                .          .
1034            .          .       182D
                .          .          V
                .          .          V
1043            .          .      R182D
                .          .          .
                .          .          .
1049            .          .          .       182E
                .          .          .          .
                .          .          .          .
1058            .          .          .          .       182F
                .          .          .          .          .
                .          .          .          .          .
1067            .        FC2.................................
                .          V
                .          V
1070            .      SFC2
                .          V
                .          V
1077            .      RFC2
                .          .
                .          .
1085            .          .-------->   DOFC2
1083            .      DFC2
                .          .
                .          .
1088            .          .       182A
                .          .          V
                .          .          V
1097            .          .      R182A
                .          .          .
                .          .          .
[illegible]3    .          .          .       182B
```

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                 .         .         .         .
                 .         .         .         .
                 .         .      FC3A.........
                 .         .         V
                 .         .         V
1115             .         .      SFC3A
                 .         .         .
                 .         .         .
1122             .         .         .      182C
                 .         .         .         .
                 .         .         .         .
1131             .         .      FC3B.........
                 .         .         V
                 .         .         V
1134             .         .      RFC3B
                 .         .         .
                 .         .         .
1141             .      FC3.........
                 .         V
                 .         V
1144             .      RFC3
                 .         .
                 .         .
1150             .         .      182J
                 .         .         .
                 .         .         .
1159             .      FC4.........
                 .         V
                 .         V
1162             .      SFC4
                 .         .
                 .         .
1169             .         .      DFHN
                 .         .         .
                 .         .         .
1173             .         .         .      183F
                 .         .         .         .
                 .         .         .         .
1182             .         .         .         .      183G
                 .         .         .         .         .
                 .         .         .         .         .
1191             .         .         .         .         .      183H
                 .         .         .         .         .         .
                 .         .         .         .         .         .
1200             .         .      LC1.......................................
                 .         .         V
                 .         .         V
1203             .         .      RLC1
                 .         .         .
                 .         .         .
1209             .         .         .      183I
                 .         .         .         .
                 .         .         .         .
1218             .         .         .         .      183J
                 .         .         .         .         .
                 .         .         .         .         .
1227             .         .      LC2........................
                 .         .         V
                 .         .         V
1230             .         .      SLC2
                 .         .         V
                 .         .         V
1237             .         .      RLC2
                 .         .         .
                 .         .         .
1243             .         .         .      183K
                 .         .         .         .
                 .         .         .         .
1252             .         .      LC3.........
                 .         .         .
                 .         .         .
1257             .         .         .-------> DO183K
```

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1255          .           .       D183K
              .           .           .
              .           .           .
1260          .         FC5............
              .           V
              .           V
1263          .        RFC5
              .           .
              .           .
1269          .           .        182K
              .           .           .
              .           .           .
1278          .         FC6............
              .           V
              .           V
1281          .        RFC6
              .           .
              .           .
1287          .           .        182L
              .           .           .
              .           .           .
1296          .         FC7............
              .           .
              .           .
1299       CLN7............
              V
              V
1302      RCLN7
              .
              .
1308          .        180P
              .           .
              .           .
1317      *CLN8............
              .
              .
              .        181A
              .           V
              .           V
1326          .       R181A
              .           .
              .           .
1332          .           .        181B
              .           .           .
              .           .           .
1343          .           .           .          .<-------  DO183K
1341          .           .           .      D183K
              .           .           .          V
              .           .           .          V
1344          .           .           .      R183K
              .           .           .          V
              .           .           .          V
1350          .           .           .      R183K
              .           .           .          .
              .           .           .          .
1356       CLN8.................................
              V
              V
1359      SCLN8
              .
              .
1366          .        180S
              .           .
              .           .
1375          .           .       17OI1
              .           .           .
              .           .           .
1386          .           .           .-------> D17OI1
1384          .           .      D17OI1
              .           .           V
              .           .           V
89            .           .      R17OI1
```

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                .          .          .
                .          .          .
          CLN9.......................
             V
             V
1398       RCLN9
                .
                .
1404            .        180U
                .          .
                .          .
1413      *CLN10............
                .
                .
1416            .        180Q
                .          .
                .          .
1425            .          .        180R
                .          .          .
                .          .          .
1434            .          .          .      17OI2
                .          .          .        .
                .          .          .        .
1445            .          .          .        .          .<-------  D17OI1
1443            .          .          .        .     D17OI1
                .          .          .        .          V
                .          .          .        .          V
1446            .          .          .        .     R17OI1
                .          .          .        .          .
                .          .          .        .          .
1452            .          .          .      MLT6A............
                .          .          .        .
                .          .          .        .
1457            .          .          .        .-------> D17OI2
1455            .          .          .     DMLT6A
                .          .          .        V
                .          .          .        V
1480            .          .          .     RMLT6A
                .          .          .        .
                .          .          .        .
1466            .       CL10A........................
                .          V
                .          V
1469            .      RCL10A
                .          .
                .          .
1475      *CLN10............
                .
                .
1478            .        180T
                .          .
                .          .
1487       CLN10............
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*              MAY   1991               *
*           VERSION 4.0.1E              *
*     Lahey F77L-EM/32 version 5.01     *
*       Dodson & Associates, Inc.       *
*  RUN DATE  04/13/95  TIME  10:06:01   *
*****************************************
```

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

```
                    COLONY WASH - FUTURE CONDITIONS, AGK ENGINEERS, 04-12-95
                    10-Year 6-Hour Storm
                    time steps at 2 minutes
                    FILE 180-6XF.DAT

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

   IT         HYDROGRAPH TIME DATA
                     NMIN          5  MINUTES IN COMPUTATION INTERVAL
                    IDATE     1    0  STARTING DATE
                    ITIME       0000  STARTING TIME
                       NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE     2    0  ENDING DATE
                   NDTIME       0055  ENDING TIME
                    ICENT         19  CENTURY MARK

             COMPUTATION INTERVAL    0.08 HOURS
                  TOTAL TIME BASE   24.92 HOURS

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

  9 JD        INDEX STORM NO. 1
                    STRM       2.00  PRECIPITATION DEPTH
                    TRDA       0.01  TRANSPOSITION DRAINAGE AREA

 10 PI          PRECIPITATION PATTERN
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01      0.01      0.03
                   0.03      0.03      0.05      0.05      0.05      0.15      0.15      0.15      0.03      0.03
                   0.03      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00

 13 JD        INDEX STORM NO. 2
                    STRM       1.99  PRECIPITATION DEPTH
                    TRDA       0.50  TRANSPOSITION DRAINAGE AREA

  0 PI          PRECIPITATION PATTERN
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                   0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01      0.01      0.03
                   0.03      0.03      0.05      0.05      0.05      0.15      0.15      0.15      0.03      0.03
                   0.03      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00      0.00
                   0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
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                0.00      0.00

JD            INDEX STORM NO. 3
                  STRM        1.96  PRECIPITATION DEPTH
                  TRDA        2.80  TRANSPOSITION DRAINAGE AREA

15 PI           PRECIPITATION PATTERN
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01      0.01      0.03
                0.03      0.03      0.07      0.07      0.07      0.08      0.08      0.08      0.05      0.05
                0.05      0.02      0.02      0.02      0.01      0.01      0.01      0.00      0.00      0.00
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00

18 JD         INDEX STORM NO. 4
                  STRM        1.84  PRECIPITATION DEPTH
                  TRDA       16.00  TRANSPOSITION DRAINAGE AREA

19 PI           PRECIPITATION PATTERN
                0.01      0.01      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.01
                0.01      0.01      0.00      0.01      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00      0.01      0.00      0.00      0.00      0.00      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.03
                0.03      0.03      0.06      0.06      0.06      0.07      0.07      0.07      0.04      0.04
                0.04      0.02      0.02      0.02      0.01      0.01      0.01      0.01      0.01      0.01
                0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                0.00      0.00

22 JD         INDEX STORM NO. 5
                  STRM        1.62  PRECIPITATION DEPTH
                  TRDA       90.00  TRANSPOSITION DRAINAGE AREA

23 PI           PRECIPITATION PATTERN
                0.01      0.01      0.01      0.00      0.00      0.00      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.03
                0.03      0.03      0.05      0.05      0.05      0.05      0.05      0.05      0.04      0.04
                0.04      0.02      0.02      0.02      0.02      0.02      0.02      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01

26 JD         INDEX STORM NO. 6
                  STRM        1.14  PRECIPITATION DEPTH
                  TRDA      500.00  TRANSPOSITION DRAINAGE AREA

27 PI           PRECIPITATION PATTERN
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.03
                0.03      0.03      0.04      0.04      0.04      0.04      0.04      0.04      0.04      0.04
                0.04      0.03      0.03      0.03      0.02      0.02      0.02      0.01      0.01      0.01
                0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
                0.01      0.01
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RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	185A	60.	4.00	6.	2.	1.	0.04		
+	ROUTED TO	R185A	57.	4.17	6.	2.	1.	0.04		
+	HYDROGRAPH AT	185B	82.	4.17	10.	3.	2.	0.08		
+	2 COMBINED AT	IRW1	139.	4.17	16.	4.	4.	0.12		
+	ROUTED TO	SIRW1	94.	4.33	16.	4.	4.	0.12		
+	HYDROGRAPH AT	180A	35.	4.00	3.	1.	1.	0.03		
+	ROUTED TO	R180A	35.	4.08	3.	1.	1.	0.03		
+	HYDROGRAPH AT	180B	18.	4.17	4.	1.	1.	0.03		
+	3 COMBINED AT	IRW2	128.	4.17	23.	6.	6.	0.18		
+	ROUTED TO	RIRW2	128.	4.17	23.	6.	6.	0.18		
+	HYDROGRAPH AT	186A	121.	4.08	11.	3.	3.	0.10		
+	HYDROGRAPH AT	186B	7.	4.00	1.	0.	0.	0.00		
+	ROUTED TO	R186B	7.	4.08	1.	0.	0.	0.00		
+	2 COMBINED AT	SNB1A	128.	4.08	12.	3.	3.	0.10		
+	ROUTED TO	RSNB1A	121.	4.25	12.	3.	3.	0.10		
+	HYDROGRAPH AT	186C	23.	4.00	2.	1.	1.	0.02		
+	ROUTED TO	R186C	23.	4.08	2.	1.	1.	0.02		
+	HYDROGRAPH AT	186D	82.	4.17	10.	2.	2.	0.08		
+	3 COMBINED AT	SNB1	219.	4.17	24.	6.	6.	0.20		
+	ROUTED TO	RSNB1	215.	4.25	24.	6.	6.	0.20		
+	HYDROGRAPH AT	186E	50.	4.08	4.	1.	1.	0.04		

+	HYDROGRAPH AT	186F	37.	4.08	4.	1.	1.	0.03
+	3 COMBINED AT	SNB2	281.	4.17	32.	8.	8.	0.27
+	ROUTED TO	RSNB2	276.	4.25	32.	8.	8.	0.27
+	HYDROGRAPH AT	186G	78.	4.08	8.	2.	2.	0.07
+	2 COMBINED AT	SNB3	332.	4.25	40.	10.	10.	0.33
+	ROUTED TO	SSNB3	58.	4.92	30.	10.	10.	0.33
+	HYDROGRAPH AT	186H	20.	4.17	3.	1.	1.	0.03
+	HYDROGRAPH AT	160E	5.	4.00	1.	0.	0.	0.00
+	ROUTED TO	R160E	5.	4.08	1.	0.	0.	0.00
+	3 COMBINED AT	SNB4	66.	4.75	33.	11.	11.	0.36
+	ROUTED TO	RSNB4	66.	4.83	33.	11.	11.	0.36
+	HYDROGRAPH AT	186I	38.	4.08	3.	1.	1.	0.03
+	2 COMBINED AT	*SNB5	69.	4.08	36.	12.	11.	0.39
+	HYDROGRAPH AT	187A	17.	4.00	1.	0.	0.	0.01
+	ROUTED TO	R187A	16.	4.00	1.	0.	0.	0.01
+	HYDROGRAPH AT	187B	12.	4.00	1.	0.	0.	0.01
+	2 COMBINED AT	GRS1	28.	4.00	2.	1.	1.	0.02
+	ROUTED TO	RGRS1	26.	4.17	2.	1.	1.	0.02
+	HYDROGRAPH AT	187C	20.	4.00	2.	0.	0.	0.01
+	ROUTED TO	R187C	20.	4.08	2.	0.	0.	0.01
+	HYDROGRAPH AT	187D	67.	4.17	9.	2.	2.	0.07
+	3 COMBINED AT	*GRS2	110.	4.17	13.	3.	3.	0.10
+	HYDROGRAPH AT	188A	14.	4.00	1.	0.	0.	0.01
+	ROUTED TO	R188A	13.	4.08	1.	0.	0.	0.01

+	HYDROGRAPH AT	188B	98.	4.08	10.	2.	2.	0.07
+	HYDROGRAPH AT	188C	28.	4.08	3.	1.	1.	0.02
+	3 COMBINED AT	SYR1	140.	4.08	14.	3.	3.	0.10
+	ROUTED TO	RSYC1	140.	4.08	14.	3.	3.	0.10
+	HYDROGRAPH AT	188D	66.	4.08	7.	2.	2.	0.05
+	HYDROGRAPH AT	188E	54.	4.08	6.	2.	2.	0.05
+	3 COMBINED AT	SYR2	259.	4.08	26.	7.	6.	0.20
+	ROUTED TO	RSYC2	256.	4.25	26.	7.	6.	0.20
+	HYDROGRAPH AT	188F	82.	4.08	9.	2.	2.	0.07
+	2 COMBINED AT	SYR3	318.	4.25	35.	9.	8.	0.28
+	ROUTED TO	SSYC3	190.	4.50	35.	9.	8.	0.28
+	ROUTED TO	RSYC3	190.	4.50	35.	9.	8.	0.28
+	HYDROGRAPH AT	188G	1.	4.00	0.	0.	0.	0.00
+	2 COMBINED AT	SYR4	190.	4.50	35.	9.	9.	0.28
+	2 COMBINED AT	GRS2	249.	4.33	48.	12.	12.	0.38
+	ROUTED TO	SGRS2	249.	4.33	48.	12.	12.	0.38
+	HYDROGRAPH AT	187E	6.	4.08	1.	0.	0.	0.00
+	ROUTED TO	R187E	6.	4.08	1.	0.	0.	0.00
+	HYDROGRAPH AT	187F	3.	4.08	0.	0.	0.	0.00
+	2 COMBINED AT	GRS3A	9.	4.08	1.	0.	0.	0.01
+	ROUTED TO	RGRS3A	9.	4.08	1.	0.	0.	0.01
+	HYDROGRAPH AT	187G	32.	4.17	6.	2.	1.	0.04
+	3 COMBINED AT	GRS3	285.	4.17	55.	14.	13.	0.43
+	ROUTED TO	RGRS3	285.	4.25	55.	14.	13.	0.43

+	HYDROGRAPH AT	187H	6.	4.00	0.	0.	0.	0.00
+	2 COMBINED AT	*SNB5	289.	4.17	55.	14.	13.	0.43
+	2 COMBINED AT	SNB5	329.	4.17	85.	25.	24.	0.82
+	ROUTED TO	RSNB5	328.	4.25	85.	25.	24.	0.82
+	HYDROGRAPH AT	187I	37.	4.00	3.	1.	1.	0.02
+	2 COMBINED AT	SNB6	345.	4.17	87.	25.	24.	0.85
+	ROUTED TO	SSNB6	86.	5.42	76.	25.	24.	0.85
+	ROUTED TO	RSNB6	86.	5.50	76.	25.	24.	0.85
+	HYDROGRAPH AT	180F	104.	4.08	9.	2.	2.	0.07
+	2 COMBINED AT	*CLN1	138.	4.08	82.	27.	26.	0.92
+	2 COMBINED AT	CLN1	234.	4.17	101.	32.	31.	1.10
+	ROUTED TO	SCLN1	207.	4.42	101.	32.	31.	1.10
+	HYDROGRAPH AT	180C	17.	4.00	1.	0.	0.	0.01
+	ROUTED TO	R180C	17.	4.08	1.	0.	0.	0.01
+	HYDROGRAPH AT	180D	3.	4.08	0.	0.	0.	0.00
+	HYDROGRAPH AT	180E	29.	4.00	2.	1.	1.	0.02
+	4 COMBINED AT	CLN2	224.	4.25	104.	33.	32.	1.13
+	ROUTED TO	RCLN2	224.	4.25	104.	33.	32.	1.13
+	HYDROGRAPH AT	180G	40.	4.08	4.	1.	1.	0.03
+	2 COMBINED AT	CLN3	243.	4.25	107.	34.	33.	1.16
+	ROUTED TO	SCLN3	232.	4.42	107.	34.	33.	1.16
+	HYDROGRAPH AT	180H	25.	4.08	4.	1.	1.	0.02
+	ROUTED TO	R180H	24.	4.08	4.	1.	1.	0.02
	HYDROGRAPH AT	180I	7.	4.00	1.	0.	0.	0.00

+	ROUTED TO	R180I	6.	4.08	1.	0.	0.	0.00
+	HYDROGRAPH AT	180J	48.	4.08	6.	1.	1.	0.03
+	3 COMBINED AT	CLN4B	79.	4.08	10.	3.	2.	0.06
+	ROUTED TO	RCLN4B	78.	4.08	10.	3.	2.	0.06
+	HYDROGRAPH AT	180M	5.	4.08	1.	0.	0.	0.00
+	3 COMBINED AT	CLN4	278.	4.25	115.	37.	35.	1.22
+	ROUTED TO	RCLN4	278.	4.33	115.	37.	35.	1.22
+	HYDROGRAPH AT	180N	64.	4.00	6.	1.	1.	0.04
+	HYDROGRAPH AT	184C	23.	4.00	2.	1.	1.	0.01
+	HYDROGRAPH AT	184D	7.	4.08	1.	0.	0.	0.01
+	2 COMBINED AT	NCL1	30.	4.00	3.	1.	1.	0.02
+	ROUTED TO	RNCL1	29.	4.00	3.	1.	1.	0.02
+	HYDROGRAPH AT	184E	95.	4.17	16.	4.	4.	0.11
+	2 COMBINED AT	NCL2	117.	4.17	19.	5.	5.	0.13
+	ROUTED TO	SNCL2	117.	4.17	19.	5.	5.	0.13
+	HYDROGRAPH AT	184F	8.	4.08	1.	0.	0.	0.01
+	ROUTED TO	R184F	8.	4.08	1.	0.	0.	0.01
+	2 COMBINED AT	NCL3	124.	4.17	20.	5.	5.	0.14
+	ROUTED TO	RNCL3	123.	4.17	20.	5.	5.	0.14
+	ROUTED TO	SNCL3	121.	4.25	20.	5.	5.	0.14
+	HYDROGRAPH AT	184A	27.	4.00	3.	1.	1.	0.02
+	ROUTED TO	R184A	20.	4.17	3.	1.	1.	0.02
+	HYDROGRAPH AT	184B	25.	4.08	3.	1.	1.	0.02
	2 COMBINED AT	NCL4A	43.	4.17	6.	2.	2.	0.04

+	ROUTED TO	RNCL4A	43.	4.17	6.	2.	2.	0.04
+	2 COMBINED AT	NCL4	162.	4.17	26.	7.	6.	0.18
+	ROUTED TO	RNCL4	162.	4.17	26.	7.	6.	0.18
+	HYDROGRAPH AT	184G	81.	4.08	9.	2.	2.	0.05
+	2 COMBINED AT	NCL5	226.	4.17	35.	9.	9.	0.23
+	ROUTED TO	SNCL5	183.	4.33	35.	9.	9.	0.23
+	HYDROGRAPH AT	184H	16.	4.08	2.	1.	1.	0.01
+	HYDROGRAPH AT	183A	77.	4.00	6.	2.	2.	0.04
+	ROUTED TO	R183A	75.	4.08	6.	2.	2.	0.04
+	HYDROGRAPH AT	183B	64.	4.08	7.	2.	2.	0.04
+	2 COMBINED AT	NCL6A	138.	4.08	13.	3.	3.	0.08
+	ROUTED TO	SNCL6A	0.	6.17	0.	0.	0.	0.08
+	ROUTED TO	RNCL6A	0.	6.33	0.	0.	0.	0.08
+	3 COMBINED AT	NCL6	192.	4.33	37.	10.	9.	0.33
+	ROUTED TO	RNCL6	191.	4.42	37.	10.	9.	0.33
+	HYDROGRAPH AT	184I	49.	4.00	5.	1.	1.	0.03
+	2 COMBINED AT	NCL7	208.	4.33	42.	11.	11.	0.36
+	ROUTED TO	SNCL7	208.	4.33	42.	11.	11.	0.36
+	ROUTED TO	RNCL7	207.	4.42	42.	11.	11.	0.36
+	HYDROGRAPH AT	184J	12.	4.00	1.	0.	0.	0.01
+	2 COMBINED AT	NCL8	211.	4.33	44.	11.	11.	0.37
+	ROUTED TO	RNCL8	211.	4.42	44.	11.	11.	0.37
+	HYDROGRAPH AT	184K	7.	4.00	1.	0.	0.	0.00
	2 COMBINED AT	NCL9	212.	4.42	44.	12.	11.	0.37

+	ROUTED TO	RNCL9	212.	4.42	44.	12.	11.	0.37
+	3 COMBINED AT	CLN5	473.	4.33	156.	48.	46.	1.63
+	ROUTED TO	SCLN5	408.	4.67	156.	48.	46.	1.63
+	HYDROGRAPH AT	180K	44.	4.00	5.	1.	1.	0.03
+	ROUTED TO	R180K	44.	4.08	5.	1.	1.	0.03
+	HYDROGRAPH AT	180L	26.	4.00	2.	1.	1.	0.01
+	3 COMBINED AT	CLN6	418.	4.67	162.	50.	48.	1.67
+	ROUTED TO	RCLN6	416.	4.75	162.	50.	48.	1.67
+	HYDROGRAPH AT	180O	33.	4.00	4.	1.	1.	0.02
+	2 COMBINED AT	*CLN7	420.	4.75	165.	51.	49.	1.69
+	HYDROGRAPH AT	182G	56.	4.08	9.	2.	2.	0.05
+	HYDROGRAPH AT	182I	49.	4.08	7.	2.	2.	0.04
+	2 COMBINED AT	FC1	105.	4.08	16.	4.	4.	0.09
+	ROUTED TO	RFC1	105.	4.17	16.	4.	4.	0.09
+	HYDROGRAPH AT	182D	158.	4.08	19.	5.	5.	0.09
+	ROUTED TO	R182D	158.	4.08	19.	5.	5.	0.09
+	HYDROGRAPH AT	182E	102.	4.08	12.	3.	3.	0.06
+	HYDROGRAPH AT	182F	16.	4.08	3.	1.	1.	0.01
+	4 COMBINED AT	FC2	376.	4.08	49.	12.	12.	0.26
+	ROUTED TO	SFC2	365.	4.17	49.	12.	12.	0.26
+	ROUTED TO	RFC2	360.	4.17	49.	12.	12.	0.26
+	DIVERSION TO	DOFC2	7.	4.17	0.	0.	0.	0.26
+	HYDROGRAPH AT	DFC2	353.	4.17	49.	12.	12.	0.26
	HYDROGRAPH AT	182A	94.	4.00	10.	3.	2.	0.05

+	ROUTED TO	R182A	94.	4.08	10.	3.	2.	0.05
+	HYDROGRAPH AT	182B	60.	4.08	7.	2.	2.	0.04
+	2 COMBINED AT	FC3A	153.	4.08	17.	4.	4.	0.09
+	ROUTED TO	SFC3A	151.	4.08	17.	4.	4.	0.09
+	HYDROGRAPH AT	182C	32.	4.08	4.	1.	1.	0.02
+	2 COMBINED AT	FC3B	182.	4.08	22.	5.	5.	0.11
+	ROUTED TO	RFC3B	182.	4.08	22.	5.	5.	0.11
+	2 COMBINED AT	FC3	523.	4.17	71.	18.	17.	0.37
+	ROUTED TO	RFC3	522.	4.17	71.	18.	17.	0.37
+	HYDROGRAPH AT	182J	16.	4.08	2.	0.	0.	0.01
+	2 COMBINED AT	FC4	537.	4.17	73.	18.	18.	0.39
+	ROUTED TO	SFC4	504.	4.25	73.	18.	18.	0.39
+	HYDROGRAPH AT	DFHN	0.	0.08	0.	0.	0.	1.00
+	HYDROGRAPH AT	183F	70.	4.08	8.	2.	2.	0.05
+	HYDROGRAPH AT	183G	138.	4.08	17.	4.	4.	0.09
+	HYDROGRAPH AT	183H	33.	4.00	3.	1.	1.	0.02
+	4 COMBINED AT	LC1	192.	4.08	28.	7.	7.	1.16
+	ROUTED TO	RLC1	189.	4.08	28.	7.	7.	1.16
+	HYDROGRAPH AT	183I	90.	4.08	11.	3.	3.	0.06
+	HYDROGRAPH AT	183J	10.	4.00	1.	0.	0.	0.00
+	3 COMBINED AT	LC2	266.	4.08	39.	10.	9.	1.22
+	ROUTED TO	SLC2	263.	4.08	39.	10.	9.	1.22
+	ROUTED TO	RLC2	263.	4.08	39.	10.	9.	1.22
	HYDROGRAPH AT	183K	4.	4.00	0.	0.	0.	0.00

+	2 COMBINED AT	LC3	265.	4.08	39.	10.	10.	1.22
+	DIVERSION TO	DO183K	22.	4.08	2.	1.	1.	1.22
+	HYDROGRAPH AT	D183K	243.	4.08	37.	9.	9.	1.22
+	2 COMBINED AT	FC5	610.	4.17	108.	27.	26.	1.61
+	ROUTED TO	RFC5	602.	4.17	108.	27.	26.	1.61
+	HYDROGRAPH AT	182K	51.	4.00	5.	1.	1.	0.02
+	2 COMBINED AT	FC6	621.	4.17	112.	28.	27.	1.63
+	ROUTED TO	RFC6	618.	4.25	112.	28.	27.	1.63
+	HYDROGRAPH AT	182L	10.	4.00	1.	0.	0.	0.00
+	2 COMBINED AT	FC7	622.	4.17	113.	29.	28.	1.64
+	2 COMBINED AT	CLN7	852.	4.33	260.	76.	73.	3.33
+	ROUTED TO	RCLN7	852.	4.33	260.	76.	73.	3.33
+	HYDROGRAPH AT	180P	21.	4.00	2.	1.	0.	0.01
+	2 COMBINED AT	*CLN8	858.	4.33	262.	77.	74.	3.35
+	HYDROGRAPH AT	181A	0.	0.08	0.	0.	0.	0.08
+	ROUTED TO	R181A	0.	0.08	0.	0.	0.	0.08
+	HYDROGRAPH AT	181B	28.	4.08	4.	1.	1.	0.02
+	HYDROGRAPH AT	D183K	22.	4.08	2.	1.	1.	1.22
+	ROUTED TO	R183K	21.	4.17	2.	1.	1.	1.22
+	ROUTED TO	R183K	21.	4.25	2.	1.	1.	1.22
+	4 COMBINED AT	CLN8	884.	4.33	266.	78.	75.	3.45
+	ROUTED TO	SCLN8	882.	4.33	266.	78.	75.	3.45
+	HYDROGRAPH AT	180S	69.	4.00	7.	2.	2.	0.04
+	HYDROGRAPH AT	170I1	30.	4.08	4.	1.	1.	0.02

+	DIVERSION TO	D170I1	15.	4.08	2.	0.	0.	0.02
+	HYDROGRAPH AT	D170I1	15.	4.08	2.	0.	0.	0.02
+	ROUTED TO	R170I1	15.	4.08	2.	0.	0.	0.02
+	3 COMBINED AT	CLN9	910.	4.33	274.	80.	77.	3.50
+	ROUTED TO	RCLN9	906.	4.42	274.	80.	77.	3.50
+	HYDROGRAPH AT	180U	24.	4.08	3.	1.	1.	0.02
+	2 COMBINED AT	*CLN10	915.	4.42	276.	81.	78.	3.52
+	HYDROGRAPH AT	180Q	50.	4.08	6.	2.	2.	0.03
+	HYDROGRAPH AT	180R	47.	4.00	5.	1.	1.	0.03
+	HYDROGRAPH AT	170I2	20.	4.00	2.	1.	1.	0.01
+	HYDROGRAPH AT	D170I1	15.	4.08	2.	0.	0.	0.02
+	ROUTED TO	R170I1	14.	4.25	2.	0.	0.	0.02
+	2 COMBINED AT	MLT6A	30.	4.08	4.	1.	1.	0.01
+	DIVERSION TO	D170I2	15.	4.08	2.	1.	1.	0.01
+	HYDROGRAPH AT	DMLT6A	15.	4.08	2.	1.	0.	0.01
+	ROUTED TO	RMLT6A	15.	4.17	2.	1.	0.	0.01
+	3 COMBINED AT	CL10A	108.	4.08	14.	3.	3.	0.07
+	ROUTED TO	RCL10A	107.	4.08	14.	3.	3.	0.07
+	2 COMBINED AT	*CLN10	964.	4.33	287.	84.	81.	3.59
+	HYDROGRAPH AT	180T	40.	4.00	5.	1.	1.	0.02
+	2 COMBINED AT	CLN10	979.	4.33	291.	85.	82.	3.62

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

M.8

PANORAMA CHANNEL

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*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*              MAY   1991               *
*            VERSION 4.0.1E             *
*     Lahey F77L-EM/32 version 5.01     *
*       Dodson & Associates, Inc.       *
*  RUN DATE  04/13/95  TIME  10:07:10   *
*****************************************
```

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*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    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
```

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

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

  1           ID   PANORAMA CHANNEL - FUTURE CONDITIONS, AGK ENGINEERS, 04-13-95
  2           ID   First routing 06-29-93
  3           ID   10-Year 6-Hour Storm
  4           ID   time steps at 2 minutes
  5           ID   FILE: 190-6XF.DAT
  6           ID
  7           IT      5                    300
  8           IO      5
              *DIAGRAM
  9           IN     15
 10           JD   2.00    0.01
 11           PC    .000    .008    .016    .025    .033    .041    .050    .058    .066    .074
 12           PC    .087    .099    .118    .138    .216    .377    .834    .911    .931    .950
 13           PC    .962    .972    .983    .991   1.000
 14           JD   1.99    0.50
 15           JD   1.96    2.80
 16           PC    .000    .009    .016    .025    .034    .042    .051    .059    .067    .076
 17           PC    .087    .100    .120    .163    .252    .451    .694    .837    .900    .938
 18           PC    .950    .963    .975    .988   1.000
 19           JD   1.84    16.0
 20           PC    .000    .015    .020    .030    .048    .063    .076    .090    .105    .119
 21           PC    .135    .152    .175    .222    .304    .472    .670    .796    .868    .912
 22           PC    .946    .960    .973    .987   1.000
 23           JD   1.62    90.0
 24           PC    .000    .021    .035    .051    .071    .087    .105    .125    .143    .160
 25           PC    .179    .201    .232    .281    .364    .500    .658    .773    .841    .888
 26           PC    .927    .945    .964    .982   1.000
 27           JD   1.14   500.0
 28           PC    .000    .024    .043    .059    .078    .098    .119    .141    .162    .186
 29           PC    .212    .239    .271    .321    .408    .515    .627    .735    .814    .864
 30           PC    .907    .930    .954    .977   1.000

 31           KK    182H
 32           KM   SUB-BASIN 182H
 33           KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 34           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 35           BA    .027
 36           LG    .150    .250   5.700    .207  65.000
 37           UC    .188    .173
 38           UA      0       5      16      30      65      77      84      90      94      97
 39           UA     100

 40           KK   S182H
 41           KM   STORAGE PONDED AREA ON SUB-BASIN 182H
 42           RS      1    ELEV    1601
 43           SQ      0       0       0      82     405
 44           SE   1601    1604    1606    1607    1608
 45           SA      0    0.01    0.06    0.25
 46           SE   1601    1602    1604    1606
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  47          KK   R182H
  48          KM   ROUTE S182H THROUGH SUB-BASIN 190A TO CON. POINT PNR1A
  49          RS       1    FLOW       0
  50          RC    0.02    0.02    0.02     290   0.014
  51          RX    9958    9963    9968  9968.5 10031.5   10032   10037   10042
  52          RY  1598.5  1598.5  1598.5    1598    1598  1598.5  1598.5  1598.5

  53          KK    190A
  54          KM   SUB-BASIN 190A
  55          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  56          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  57          BA    .019
  58          LG    .150    .250   5.700    .207  65.000
  59          UC    .175    .174
  60          UA       0       5      16      30      65      77      84      90      94      97
  61          UA     100

  62          KK   PNR1A
  63          KM   PANORAMA CONSENTRATION POINT 1A - COMBINE R182H, 190A
  64          HC       2

  65          KK  SPNR1A
  66          KM   STORAGE PONDED AREA ON SUB-BASIN 190A
  67          RS       1    ELEV    1594
  68          SQ       0       0      90    1051
  69          SE    1594    1601    1602    1603
  70          SA       0   0.005    0.08    0.44
  71          SE    1594    1596    1598    1601

  72          KK  RPNR1A
  73          KM   ROUTE SPNR1A THROUGH SUB-BASIN 190B TO CON. POINT PNR1
  74          RS       2    FLOW       0
  75          RC    0.02    0.02    0.02     567    0.02
  76          RX    9958    9963    9968  9968.5 10031.5   10032   10037   10042
  77          RY  1590.5  1590.5  1590.5    1590    1590  1590.5  1590.5  1590.5

  78          KK    190B
  79          KM   SUB-BASIN 190B
  80          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
  81          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
  82          BA    .007
  83          LG    .150    .250   5.700    .189  65.000
  84          UC    .154    .208
  85          UA       0       5      16      30      65      77      84      90      94      97
  86          UA     100

  87          KK    PNR1
  88          KM   PANORAMA CONSENTRATION POINT 1 - COMBINE RPNR1A, 190B
  89          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  90          KK   RPNR1
  91          KM   ROUTE PNR1 THROUGH SUB-BASIN 190C TO CON. POINT PNR2
  92          KM   LENGTH 449 INCREASED FOR STABILITY
  93          RS       1    FLOW       0
  94          RC    0.02    0.02    0.02     800    0.01
  95          RX    9958    9963    9968  9968.5 10031.5   10032   10037   10042
  96          RY  1588.5  1588.5  1588.5    1588    1588  1588.5  1588.5  1588.5

  97          KK    190C
  98          KM   SUB-BASIN 190C
  99          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 100          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 101          BA    .022
 102          LG    .150    .250   5.700    .189  65.000
 103          UC    .175    .160
 104          UA       0       5      16      30      65      77      84      90      94      97
 105          UA     100

 106          KK    PNR2
 107          KM   PANORAMA CONSENTRATION POINT 2 - COMBINE RPNR1, 190C
 108          HC       2

 109          KK   RPNR2
 110          KM   ROUTE PNR2 THROUGH SUB-BASIN 190I TO CON. POINT PNR3
 111          RS       2    FLOW       0
 112          RC    0.02    0.02    0.02     779   0.012
 113          RX    9958    9963    9968  9968.5 10031.5   10032   10037   10042
 114          RY  1578.5  1578.5  1578.5    1578    1578  1578.5  1578.5  1578.5

 115          KK    190D
 116          KM   SUB-BASIN 190D
 117          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 118          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 119          BA    .005
 120          LG    .100    .250   5.700    .189  65.000
 121          UC    .087    .060
 122          UA       0       5      16      30      65      77      84      90      94      97
 123          UA     100

 124          KK   R190D
 125          KM   ROUTE 190D THROUGH SUB-BASIN 190F TO CON. POINT PNR3A
 126          RS       3    FLOW       0
 127          RC    0.04    0.04    0.04     722   0.059
 128          RX    9890    9910    9955    9995   10005   10045   10185   10210
 129          RY    1612    1608    1602    1588    1588    1602    1602    1606

 130          KK    190E
 131          KM   SUB-BASIN 190E
 132          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 133          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 134          BA    .003
 135          LG    .050    .250   5.700    .170  65.000
 136          UC    .112    .228
 137          UA       0       5      16      30      65      77      84      90      94      97
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 138          UA     100

 139          KK    190F
 140          KM   SUB-BASIN 190F
 141          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 142          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 143          BA    .006
 144          LG    .100    .250   5.700    .170  65.000
 145          UC    .150    .202
 146          UA       0       5      16      30      65      77      84      90      94      97
 147          UA     100

 148          KK    190G
 149          KM   SUB-BASIN 190G
 150          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 151          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 152          BA    .006
 153          LG    .100    .250   5.700    .170  65.000
 154          UC    .167    .279
 155          UA       0       5      16      30      65      77      84      90      94      97
 156          UA     100

 157          KK   PNR3A
 158          KM   PANORAMA CONSENTRATION POINT 3A - COMBINE R190D, 190E, 190F, 190G
 159          HC       4

 160          KK  RPNR3A
 161          KM   ROUTE PNR3A THROUGH SUB-BASIN 190J TO CON. POINT PNR3
 162          RS       1    FLOW       0
 163          RC    0.02    0.02    0.02     287   0.003
 164          RX    9980    9980    9985    9986   10014   10015   10020   10030
 165          RY  1576.7  1576.6  1576.5    1576    1576  1576.5  1576.6  1576.7

 166          KK    190H
 167          KM   SUB-BASIN 190H
 168          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 169          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .999
 170          BA    .075
 171          LG    .150    .250   5.700    .207  65.000
 172          UC    .217    .154
 173          UA       0       5      16      30      65      77      84      90      94      97
 174          UA     100

 175          KK   R190H
 176          KM   ROUTE 190H THROUGH SUB-BASIN 190J TO CON. POINT PNR3
 177          KM   LENGTH 660 INCREASED FOR STABILITY
 178          RS       1    FLOW       0
 179          RC    0.02    0.02    0.02    1000    0.01
 180          RX    9980    9980    9985    9986   10014   10015   10020   10030
 181          RY  1576.9  1576.6  1576.5    1576    1576  1576.5  1576.6  1576.9
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 182          KK    190I
 183          KM   SUB-BASIN 190I
 184          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 185          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 186          BA    .012
 187          LG    .105    .250   5.700    .174  59.850
 188          UC    .121    .136
 189          UA      0       5      16      30      65      77      84      90      94      97
 190          UA     100

 191          KK    190J
 192          KM   SUB-BASIN 190J
 193          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 194          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 195          BA    .009
 196          LG    .140    .250   5.700    .196  65.000
 197          UC    .167    .221
 198          UA      0       5      16      30      65      77      84      90      94      97
 199          UA     100

 200          KK    PNR3
 201          KM   PANORAMA CONSENTRATION POINT 3 - COMBINE RPNR2, RPNR3A, R190H, 190J, 190I
 202          HC      5

 203          KK   RPNR3
 204          KM   ROUTE PNR3 THROUGH SUB-BASIN 190L TO CON. POINT *PNR4
 205          RS      3    FLOW      0
 206          RC   0.02    0.02    0.02    1048   0.022
 207          RX   9948    9963    9968  9968.5 10031.5   10032   10037   10052
 208          RY 1570.8  1570.6  1570.5    1570    1570  1570.5  1570.6  1570.8

 209          KK    190K
 210          KM   SUB-BASIN 190K
 211          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 212          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 213          BA    .008
 214          LG    .150    .250   5.700    .207  65.000
 215          UC    .158    .215
 216          UA      0       5      16      30      65      77      84      90      94      97
 217          UA     100

 218          KK   R190K
 219          KM   ROUTE R910K THROUGH SUB-BASIN 190L TO CON. POINT *PNR4
 220          RS      2    FLOW      0
 221          RC   0.02    0.02    0.02     620   0.027
 222          RX   9958    9963    9968  9968.5 10031.5   10032   10037   10042
 223          RY 1570.5  1570.5  1570.5    1570    1570  1570.5  1570.5  1570.5

 224          KK    190L
 225          KM   SUB-BASIN 190L
 226          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 227          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 228          BA    .011
 229          LG    .102    .250   5.400    .218  62.760
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 230          UC    .142    .171
 231          UA       0       5      16      30      65      77      84      90      94      97
 232          UA     100

 233          KK   *PNR4
 234          KM   PANORAMA CHANNEL CONC. POINT *4 - RPNR3, R190K, 190L
 235          HC       3

 236          KK    190M
 237          KM   SUB-BASIN 190M
 238          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 239          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 240          BA    .009
 241          LG    .116    .250   4.600    .311  72.940
 242          UC    .167    .237
 243          UA       0       5      16      30      65      77      84      90      94      97
 244          UA     100

 245          KK    190N
 246          KM   SUB-BASIN 190N
 247          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 248          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 249          BA    .018
 250          LG    .150    .250   5.700    .207  65.000
 251          UC    .167    .160
 252          UA       0       5      16      30      65      77      84      90      94      97
 253          UA     100

 254          KK    PNR4
 255          KM   PANORAMA CONSENTRATION POINT 3 - COMBINE (RPNR3, R190K, 190L), 190M, 190N
 256          HC       3

 257          KK   RPNR4
 258          KM   ROUTE PNR4 THROUGH SUB-BASIN 190Q TO CON. POINT PNR5
 259          RS       1    FLOW       0
 260          RC    0.04    0.04    0.04    1232   0.015
 261          RX    9790    9855    9910    9990   10015   10045   10160   10220
 262          RY    1546    1544    1538    1536    1536    1540    1540    1558

 263          KK    190O
 264          KM   SUB-BASIN 190O
 265          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 266          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 267          BA    .006
 268          LG    .050    .250   4.400    .320    .650
 269          UC    .125    .180
 270          UA       0       5      16      30      65      77      84      90      94      97
 271          UA     100

 272          KK   R190O
 273          KM   ROUTE 190O THROUGH SUB-BASIN 190P TO CON. POINT PNR5A
 274          RS       2    FLOW       0
 275          RC    0.02    0.02    0.02     701   0.027
 276          RX    9958    9963    9968  9968.5 10031.5   10032   10037   10042
 277          RY  1570.5  1570.5  1570.5    1570  1570.5  1570.5  1570.5  1570.5
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 278          KK    190P
 279          KM   SUB-BASIN 190P
 280          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 281          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 282          BA    .021
 283          LG    .080    .250   4.100    .380  65.000
 284          UC    .100    .075
 285          UA       0       5      16      30      65      77      84      90      94      97
 286          UA     100

 287          KK   PNR5A
 288          KM   PANORAMA CONSENTRATION POINT 5A - COMBINE R190O, 190P
 289          HC       2

 290          KK  RPNR5A
 291          KM   ROUTE PNR5A THROUGH SUB-BASIN 190Q TO CON. POINT PNR5
 292          RS       2    FLOW       0
 293          RC    0.04    0.04    0.04     625   0.019
 294          RX    9790    9855    9910    9990   10015   10045   10160   10220
 295          RY    1576    1544    1538    1536    1536    1540    1540    1558

 296          KK    190Q
 297          KM   SUB-BASIN 190Q
 298          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 299          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 300          BA    .012
 301          LG    .150    .250   4.000    .605    .000
 302          UC    .179    .239
 303          UA       0       3       5       8      12      20      43      75      90      96
 304          UA     100

 305          KK   *PNR5
 306          KM   PANORAMA CHANNEL CONCENTRATION POINT *5 - RPNR4, RPNR5A, 190Q
 307          HC       3

 308          KK    190R
 309          KM   SUB-BASIN 190R
 310          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 311          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 312          BA    .015
 313          LG    .150    .250   5.400    .232  65.000
 314          UC    .175    .193
 315          UA       0       5      16      30      65      77      84      90      94      97
 316          UA     100

 317          KK    PNR5
 318          KM   PANORAMA CONSENTRATION POINT 5 - COMBINE (RPNR4, RPNR5A, 190Q), 190R
 319          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 320          KK   RPNR5
 321          KM   ROUTE PNR5 THROUGH SUB-BASIN 190S TO CON. POINT PNR6
 322          RS       2    FLOW       0
 323          RC    0.04    0.04    0.04     438   0.009
 324          RX    9785    9810    9845    9880   10060   10080   10100   10105
 325          RY    1550    1540    1528    1526    1526    1530    1536    1536

 326          KK    190S
 327          KM   SUB-BASIN 190S
 328          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 329          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 330          BA    .008
 331          LG    .150    .250   4.350    .512    .000
 332          UC    .167    .201
 333          UA       0       3       5       8      12      20      43      75      90      96
 334          UA     100

 335          KK   *PNR6
 336          KM   PANORAMA CHANNEL CONCENTRATION POINT *6 - RPNR5, 190S
 337          HC       2

 338          KK    190T
 339          KM   SUB-BASIN 190T
 340          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 341          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF .998
 342          BA    .129
 343          LG    .150    .330   5.700    .207  13.950
 344          UC    .304    .249
 345          UA       0       5      16      30      65      77      84      90      94      97
 346          UA     100

 347          KK    PNR6
 348          KM   PANORAMA CONSENTRATION POINT 5 - COMBINE (RPNR5, 190S), 190T
 349          HC       2

 350          KK   RPNR6
 351          KM   ROUTE PNR6 THROUGH SUB-BASIN 190V TO CON. POINT PNR7
 352          RS       2    FLOW       0
 353          RC    0.04    0.04    0.04     854   0.008
 354          RX    9775    9805    9840    9970   10040   10070   10115   10150
 355          RY    1540    1530    1520    1518    1518    1520    1526    1530

 356          KK    190V
 357          KM   SUB-BASIN 190V
 358          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 359          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 360          BA    .018
 361          LG    .049    .317   4.350    .385   7.080
 362          UC    .196    .222
 363          UA       0       5      16      30      65      77      84      90      94      97
 364          UA     100
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 365          KK   *PNR7
 366          KM   PANORAMA CHANNEL CONCENTRATION POINT *7 - RPNR6, 190V
 367          HC       2

 368          KK    190U
 369          KM   SUB-BASIN 190U
 370          KM   6-HOUR RAINFALL, PATTERN NO. 1.00 WAS USED TO FIND TC & R FOR THIS BASIN
 371          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF1.000
 372          BA    .021
 373          LG    .100    .250   4.150    .370  65.000
 374          UC    .158    .191
 375          UA       0       5      16      30      65      77      84      90      94      97
 376          UA     100

 377          KK   R190U
 378          KM   ROUTE 190U THROUGH SUB-BASIN 190V TO CON. POINT PNR7
 379          RS       1    FLOW       0
 380          RC    0.04    0.04    0.04     286   0.035
 381          RX    9775    9805    9840    9970   10040   10070   10115   10150
 382          RY    1540    1530    1520    1518    1518    1520    1526    1530

 383          KK    PNR7
 384          KM   PANORAMA CONSENTRATION POINT 7 - COMBINE (RPNR6, 190V), R190U
 385          HC       2
 386          ZZ
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SCHEMATIC DIAGRAM OF STREAM NETWORK

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LINE     (V) ROUTING          (--->) DIVERSION OR PUMP FLOW
NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

 31        182H
              V
              V
 40       S182H
              V
              V
 47       R182H
              .
              .
 53           .        190A
              .           .
              .           .
 62       PNR1A............
              V
              V
 65      SPNR1A
              V
              V
 72      RPNR1A
              .
              .
 78           .        190B
              .           .
              .           .
 87        PNR1............
              V
              V
 90       RPNR1
              .
              .
 97           .        190C
              .           .
              .           .
106        PNR2............
              V
              V
109       RPNR2
              .
              .
115           .        190D
              .           V
              .           V
124           .       R190D
              .           .
              .           .
130           .           .        190E
              .           .           .
              .           .           .
139           .           .           .        190F
              .           .           .           .
              .           .           .           .
148           .           .           .           .        190G
              .           .           .           .           .
              .           .           .           .           .
157           .       PNR3A..................................
              .           V
              .           V
160           .      RPNR3A
              .           .
              .           .
166           .           .        190H
              .           .           V
              .           .           V
              .           .       R190H
              .           .           .
```

```
                 .          .          .
                 .          .          .      190I
                 .          .          .        .
                 .          .          .        .
191              .          .          .        .        190J
                 .          .          .        .          .
                 .          .          .        .          .
200            PNR3.........................................
                 V
                 V
203           RPNR3
                 .
                 .
209              .       190K
                 .         V
                 .         V
218              .      R190K
                 .          .
                 .          .
224              .          .        190L
                 .          .          .
                 .          .          .
233           *PNR4........................
                 .
                 .
236              .       190M
                 .          .
                 .          .
245              .          .        190N
                 .          .          .
                 .          .          .
254            PNR4........................
                 V
                 V
257           RPNR4
                 .
                 .
263              .       1900
                 .         V
                 .         V
272              .      R1900
                 .          .
                 .          .
278              .          .        190P
                 .          .          .
                 .          .          .
287              .      PNR5A............
                 .         V
                 .         V
290              .     RPNR5A
                 .          .
                 .          .
296              .          .        190Q
                 .          .          .
                 .          .          .
305           *PNR5........................
                 .
                 .
308              .       190R
                 .          .
                 .          .
317            PNR5............
                 V
                 V
320           RPNR5
                 .
                 .
326              .       190S
                 .          .
                 .          .
      *PNR6............
                 .
```

```
            .
            .        190T
            .          .
            .          .
347       PNR6............
            V
            V
350      RPNR6
            .
            .
356         .        190V
            .          .
            .          .
365      *PNR7...........
            .
            .
368         .        190U
            .          V
            .          V
377         .       R190U
            .          .
            .          .
383       PNR7............
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
****************************************
*                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*             MAY   1991               *
*           VERSION 4.0.1E             *
*     Lahey F77L-EM/32 version 5.01    *
*       Dodson & Associates, Inc.      *
* RUN DATE  04/13/95  TIME  10:07:10   *
****************************************
```

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

```
                    PANORAMA CHANNEL - FUTURE CONDITIONS, AGK ENGINEERS, 04-13-95
                    First routing 06-29-93
                    10-Year 6-Hour Storm
                    time steps at 2 minutes
                    FILE: 190-6XF.DAT

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

   IT         HYDROGRAPH TIME DATA
                     NMIN          5  MINUTES IN COMPUTATION INTERVAL
                    IDATE      1   0  STARTING DATE
                    ITIME       0000  STARTING TIME
                       NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE      2   0  ENDING DATE
                   NDTIME       0055  ENDING TIME
                    ICENT         19  CENTURY MARK

             COMPUTATION INTERVAL    0.08 HOURS
                  TOTAL TIME BASE   24.92 HOURS

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

 10 JD        INDEX STORM NO. 1
                    STRM       2.00  PRECIPITATION DEPTH
                    TRDA       0.01  TRANSPOSITION DRAINAGE AREA

 11 PI          PRECIPITATION PATTERN
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01      0.01      0.03
                  0.03      0.03      0.05      0.05      0.05      0.15      0.15      0.15      0.03      0.03
                  0.03      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00

 14 JD        INDEX STORM NO. 2
                    STRM       1.99  PRECIPITATION DEPTH
                    TRDA       0.50  TRANSPOSITION DRAINAGE AREA

  0 PI          PRECIPITATION PATTERN
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
                  0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01      0.01      0.03
                  0.03      0.03      0.05      0.05      0.05      0.15      0.15      0.15      0.03      0.03
                  0.03      0.01      0.01      0.01      0.01      0.01      0.01      0.00      0.00      0.00
```

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            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00

15 JD     INDEX STORM NO. 3
              STRM        1.96  PRECIPITATION DEPTH
              TRDA        2.80  TRANSPOSITION DRAINAGE AREA

16 PI       PRECIPITATION PATTERN
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.00      0.01      0.01      0.01      0.01      0.01      0.01      0.03
            0.03      0.03      0.07      0.07      0.07      0.08      0.08      0.08      0.05      0.05
            0.05      0.02      0.02      0.02      0.01      0.01      0.01      0.00      0.00      0.00
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00

19 JD     INDEX STORM NO. 4
              STRM        1.84  PRECIPITATION DEPTH
              TRDA       16.00  TRANSPOSITION DRAINAGE AREA

20 PI       PRECIPITATION PATTERN
            0.01      0.01      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.01
            0.01      0.01      0.00      0.01      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00      0.01      0.00      0.00      0.00      0.00      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.03
            0.03      0.03      0.06      0.06      0.06      0.07      0.07      0.07      0.04      0.04
            0.04      0.02      0.02      0.02      0.01      0.01      0.01      0.01      0.01      0.01
            0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
            0.00      0.00

23 JD     INDEX STORM NO. 5
              STRM        1.62  PRECIPITATION DEPTH
              TRDA       90.00  TRANSPOSITION DRAINAGE AREA

 PI         PRECIPITATION PATTERN
            0.01      0.01      0.01      0.00      0.00      0.00      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.03
            0.03      0.03      0.05      0.05      0.05      0.05      0.05      0.05      0.04      0.04
            0.04      0.02      0.02      0.02      0.02      0.02      0.02      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01

27 JD     INDEX STORM NO. 6
              STRM        1.14  PRECIPITATION DEPTH
              TRDA      500.00  TRANSPOSITION DRAINAGE AREA

28 PI       PRECIPITATION PATTERN
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.02      0.02      0.02      0.03
            0.03      0.03      0.04      0.04      0.04      0.04      0.04      0.04      0.04      0.04
            0.04      0.03      0.03      0.03      0.02      0.02      0.02      0.01      0.01      0.01
            0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01
            0.01      0.01
```

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	182H	43.	4.00	5.	1.	1.	0.03		
+	ROUTED TO	S182H	42.	4.08	4.	1.	1.	0.03		
+	ROUTED TO	R182H	42.	4.08	4.	1.	1.	0.03		
+	HYDROGRAPH AT	190A	30.	4.00	3.	1.	1.	0.02		
+	2 COMBINED AT	PNR1A	71.	4.08	7.	2.	2.	0.05		
+	ROUTED TO	SPNR1A	65.	4.17	6.	1.	1.	0.05		
+	ROUTED TO	RPNR1A	65.	4.17	6.	1.	1.	0.05		
+	HYDROGRAPH AT	190B	11.	4.00	1.	0.	0.	0.01		
+	2 COMBINED AT	PNR1	73.	4.17	7.	2.	2.	0.05		
+	ROUTED TO	RPNR1	71.	4.17	7.	2.	2.	0.05		
+	HYDROGRAPH AT	190C	37.	4.00	4.	1.	1.	0.02		
+	2 COMBINED AT	PNR2	97.	4.17	10.	3.	3.	0.08		
+	ROUTED TO	RPNR2	93.	4.25	10.	3.	3.	0.08		
+	HYDROGRAPH AT	190D	11.	4.00	1.	0.	0.	0.00		
+	ROUTED TO	R190D	11.	4.00	1.	0.	0.	0.00		
+	HYDROGRAPH AT	190E	5.	4.00	1.	0.	0.	0.00		
+	HYDROGRAPH AT	190F	9.	4.00	1.	0.	0.	0.01		
+	HYDROGRAPH AT	190G	8.	4.08	1.	0.	0.	0.01		
+	4 COMBINED AT	PNR3A	33.	4.00	3.	1.	1.	0.02		
+	ROUTED TO	RPNR3A	32.	4.00	3.	1.	1.	0.02		
+	HYDROGRAPH AT	190H	121.	4.08	13.	3.	3.	0.08		

+	ROUTED TO	R190H	121.	4.08	13.	3.	3.	0.08
+	HYDROGRAPH AT	190I	22.	4.00	2.	1.	0.	0.01
+	HYDROGRAPH AT	190J	13.	4.08	2.	0.	0.	0.01
+	5 COMBINED AT	PNR3	247.	4.08	30.	8.	7.	0.19
+	ROUTED TO	RPNR3	246.	4.17	30.	8.	7.	0.19
+	HYDROGRAPH AT	190K	12.	4.00	1.	0.	0.	0.01
+	ROUTED TO	R190K	12.	4.08	1.	0.	0.	0.01
+	HYDROGRAPH AT	190L	18.	4.00	2.	0.	0.	0.01
+	3 COMBINED AT	*PNR4	269.	4.08	33.	8.	8.	0.21
+	HYDROGRAPH AT	190M	13.	4.08	2.	0.	0.	0.01
+	HYDROGRAPH AT	190N	30.	4.00	3.	1.	1.	0.02
+	3 COMBINED AT	PNR4	310.	4.08	38.	10.	9.	0.24
+	ROUTED TO	RPNR4	301.	4.17	38.	10.	9.	0.24
+	HYDROGRAPH AT	190O	8.	4.00	1.	0.	0.	0.01
+	ROUTED TO	R190O	7.	4.08	1.	0.	0.	0.01
+	HYDROGRAPH AT	190P	43.	4.00	3.	1.	1.	0.02
+	2 COMBINED AT	PNR5A	49.	4.00	4.	1.	1.	0.03
+	ROUTED TO	RPNR5A	48.	4.00	4.	1.	1.	0.03
+	HYDROGRAPH AT	190Q	10.	4.08	1.	0.	0.	0.01
+	3 COMBINED AT	*PNR5	337.	4.17	42.	11.	10.	0.28
+	HYDROGRAPH AT	190R	23.	4.00	3.	1.	1.	0.01
+	2 COMBINED AT	PNR5	354.	4.17	45.	11.	11.	0.29
+	ROUTED TO	RPNR5	350.	4.17	45.	11.	11.	0.29
	HYDROGRAPH AT	190S	8.	4.08	1.	0.	0.	0.01

+	2 COMBINED AT	*PNR6	357.	4.17	45.	11.	11.	0.30
+	HYDROGRAPH AT	190T	135.	4.08	13.	3.	3.	0.13
+	2 COMBINED AT	PNR6	487.	4.17	58.	15.	14.	0.43
+	ROUTED TO	RPNR6	478.	4.25	58.	15.	14.	0.43
+	HYDROGRAPH AT	190V	18.	4.08	1.	0.	0.	0.02
+	2 COMBINED AT	*PNR7	488.	4.25	59.	15.	14.	0.45
+	HYDROGRAPH AT	190U	32.	4.00	3.	1.	1.	0.02
+	ROUTED TO	R190U	32.	4.08	3.	1.	1.	0.02
+	2 COMBINED AT	PNR7	506.	4.25	63.	16.	15.	0.47

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